



RING.SAFE

DIN 24° BITE RING FITTINGS
AND ADAPTORS

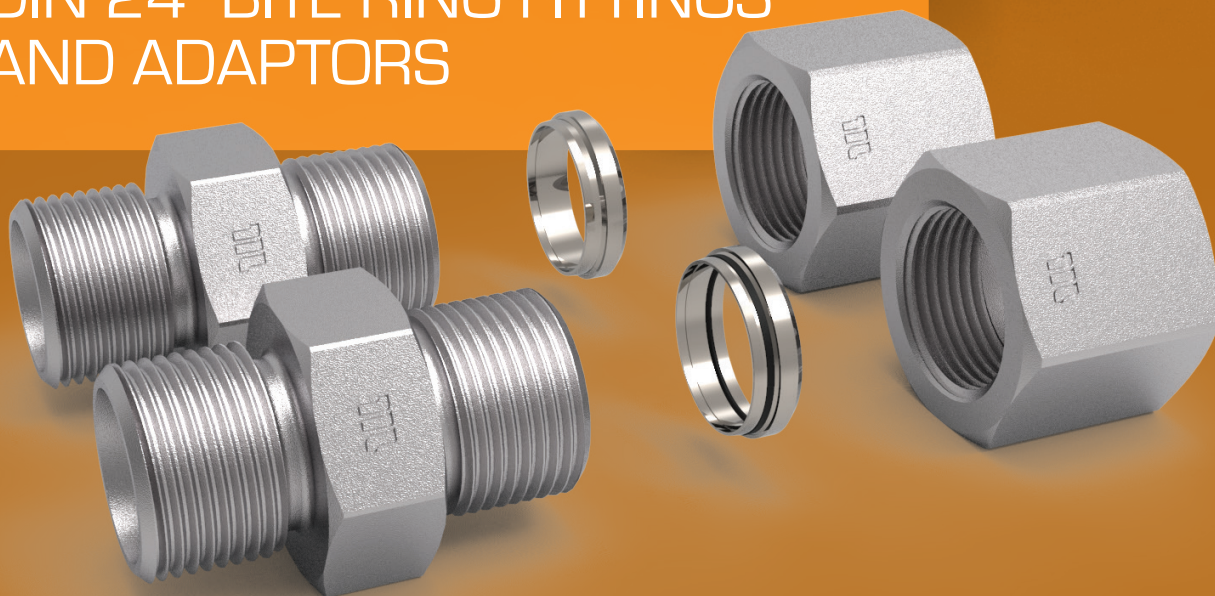


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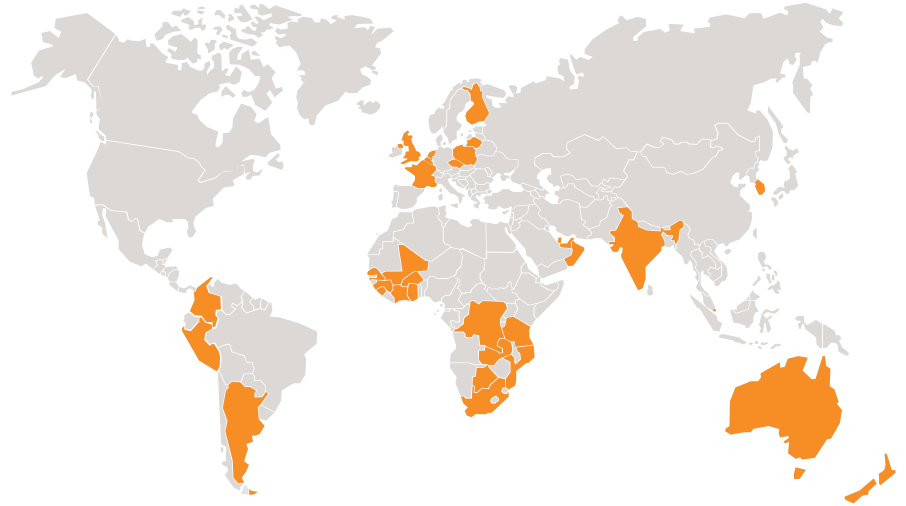
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WHO WE ARE

Fluiconnecto by Manuli is a leading international service organization, focused on high pressure fluid connectors, providing products and application knowledge, as well as maintenance services, from OEM to end-users in all market segments, through a global network tailored to local conditions.

Fluiconnecto's services are made **available at the customer's doorstep** in 5 continents, through a network of **OEM Assembly Plants, Hydrosshops, On-site Workshops and Service On-site Vans**.



MANULI RUBBER INDUSTRIES

Fluiconnecto is part of the Manuli Rubber Industries group of companies with over 80 years of experience, which includes Manuli-Hydraulics: a leading international manufacturer of hydraulic hoses, connectors and assembled hoses.

QUALITY ASSURANCE

We love high quality. Quality you can trust, so we all can build on that

Fluiconnecto has implemented a quality management system compliant to ISO 9001:2015. From in-house production and management systems to the final product, quality is never compromised.

Our in-house corporate quality system ensures that only fully approved and certified products enter the distribution line. This is driven by our business relationships with companies and manufacturers that exhibit an equally high commitment to quality. The awareness of this core value amongst all employees is fully and consistently promoted, making Fluiconnecto a true quality orientated organization.



We work with trusted suppliers



We provide products and services complying to international standards



We participate in industry associations and standardization committees



We have ISO 9001 certifications



We invest in our employees



WE KEEP IT RUNNING

We are your strategic partner for all applications and markets

Our solutions are designed to be suitable for each specific application, involving construction machines, mining, industrial processes, agriculture, road construction equipment, drilling, forestry machines, material handling and lifting, road transportation, marine and offshore, among others.



OIL & GAS SPECIALISTS

- Off-shore Drilling
- On-shore Drilling, incl. Hydraulic Fracturing



MINING SPECIALISTS

- Hard Rock Open Cast
- Soft Rock Open Cast
- Hard Rock Underground
- Soft Rock Underground
- Exploration Drilling



MARINE SPECIALISTS

- Ports
- Dredging & Drainage
- Cargo Ships
- Passenger Cruisers
- Luxury Yachts
- Ship Building & Repair



CIA SPECIALISTS

- Construction
- Agriculture
- Industrial Applications
- Manufacturing
- Logistics
- Forestry
- Waste Management

WHY FLUICONNECTO?

5 good reasons for choosing Fluiconnecto as your trusted partner:



SAVE TIME

- Find all you need in one place.
- We are always close to you through our well-established network of Hydrosops, On-Site Workshops and Service On-Site Vans.
- We offer 24/7 service availability to support you throughout the year, always.



SAVE MONEY

- We bring the manufacturer to your doorstep: Manuli Hydraulics. In this way, we can offer you the best products available in the market.
- We work directly with the manufacturer, ensuring continuity of stock availability, improving your productivity and avoiding additional costs.



REDUCE DOWNTIME

- We help you to evolve from reactive maintenance to preventive maintenance.
- With our **flui-ID Hoses Maintenance Program**, we go beyond inspection activities, optimizing the performance and service life of your hose assemblies.



INCREASE SAFETY

- We work with **MANULI'S INTEGRATED SYSTEM** to ensure increased performance and higher safety.
- We use original Manuli components and we don't mix and match, in this way we can guarantee safety and a longer service life.



GAIN PEACE OF MIND

- Work with our certified and highly qualified technicians, trained directly by Manuli Hydraulics, the manufacturer.
- You can trust our experience and knowledge.
- Our offer has been designed to meet the specific requirements of your market.



WHENEVER YOU NEED US



HYDROSHOP

ONE STOP-SHOP CLOSE TO YOU

Our Hydroshops are specialized Fluiconnecto service points, open to the public and strategically located to serve through convenience and proximity. At our Hydroshops you can easily place and collect your orders, as well as make use of our wide range of professional services: from hose assemblies to the maintenance of hydraulic lines.

Our experienced and professional personnel will guide you through the whole process to find the right solution for your assets and to keep your operations running.

Your benefits:

- Faster ordering via phone, email or fax.
- Products delivered at your doorstep.
- Reduce downtime by using our mobile 24/7 services.
- One stop-shop: all you need in one place.
- Hassle free hose ordering with FLC tagged hoses.
- Find replacement parts quicker: our engineers will advise and order the best solution for you.
- Extended service life of your hose assemblies with Manuli's Integrated System.
- Reduce your inventory: Fluiconnecto carries and manages you inventory for you.



ON-SITE WORKSHOP

A CONTAINER WORKSHOP WE PLACE AT YOUR PREMISES

For demanding conditions that require qualified technicians always on duty, we can rapidly set up a custom container or workshop at your premises, with services and inventory tailored to your needs.

Our face-to-face workshops are flexible solutions fully equipped with hose assembly equipment, a service area and a warehouse that stores all the components you need. With our On-Site workshops, you can have replacement hose assemblies manufactured at your mine site or other remote location.

Your benefits:

- Faster response to emergencies: qualified technicians 24/7 available on call.
- Decrease your stock: product range that suits your needs.
- Hassle free hose ordering: with FLC tagged hoses.
- Reduce your downtime: with our "preventive maintenance" service - flui-ID.
- Extended service life of your hose assemblies with Manuli's Integrated System.
- More effective asset management: closely monitoring hose failures, daily inspections and monthly KPI reporting.



SERVICE ON-SITE VAN

SUPPORT WHERE AND WHEN YOU NEED US

Fluiconnecto's Service On-site Vans are fully equipped mobile workshops that will solve your hydraulic problems wherever and whenever they occur.

An SOS Van can provide support for a variety of hydraulic problems: from replacing a single hose on an excavator working on a construction site, to planned scheduled maintenance of hydraulic circuits on industrial & mobile machines.

Your benefits:

- Faster response to emergencies: qualified technicians 24/7 available on call.
- Hassle free hose ordering: with FLC tagged hoses.
- Reduce your downtime: with our "preventive maintenance" service - flui-ID.
- Extended service life of your hose assemblies with Manuli's Integrated System.
- Save time: by having hydraulic hoses manufactured on-site.



INNOVATION

Fluiconnecto’s R&D activities are based at the Manuli Innovation Centre (MIC) in Bologna, Italy, which oversees the R&D centres in France, Poland, China and the UK. All of our research centres are equipped with advanced design, testing and validation facilities.

The main MIC laboratories feature special rooms and equipment that allow researchers to simulate the most extreme environmental and operational conditions including:

- Heat
- Cold
- Fog
- Fatigue (Impulse testing)
- Hydrostatic testing
- Saline environments
- Vibrations

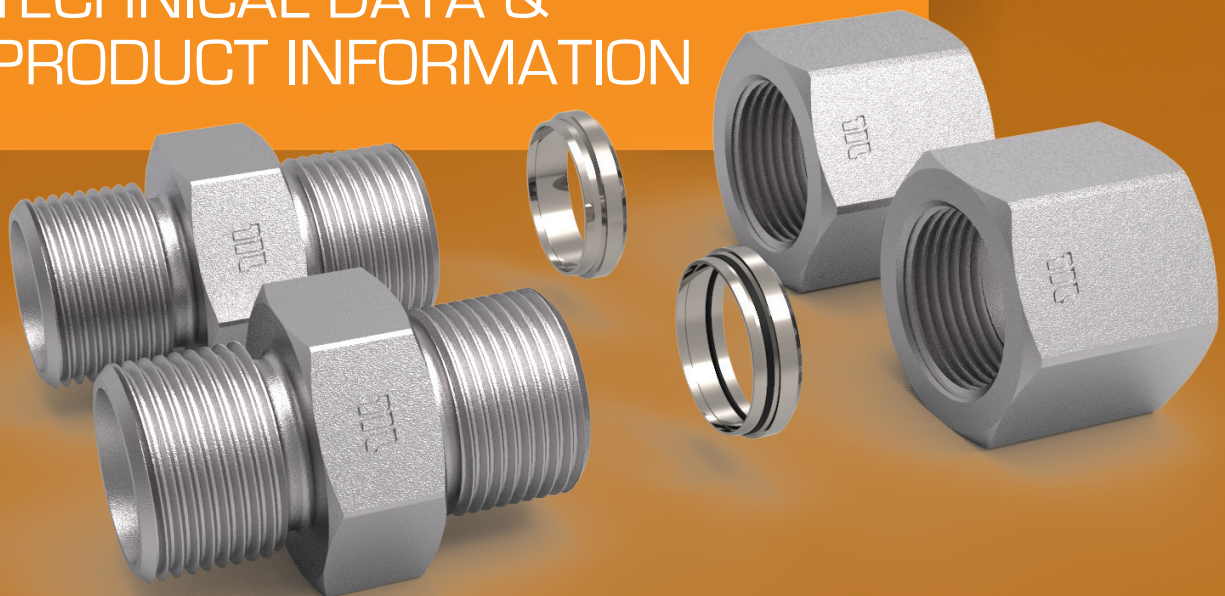
MIC are responsible for the design and development of the hydraulic connectors subset of our product range, from rubber compounds and hose structures, to fitting design and assembly machines. Our global R&D teams are made up of highly skilled international engineers who are dedicated to the development of integrated solutions for Fluiconnecto customers. The quality, wide selection of products and cost saving initiatives that our Innovation Centres provide allow us to better support our customers whatever their requirements.

Our Innovation Centres also focus on the development of co-design projects in confidential alliances with Original Equipment Customers. This is an additional benefit to our Partners, whilst the technological cooperation with OEMs helps our engineers to better understand the demanding and ever-evolving requirements of fluid conveying applications. Our focus on customer requirements enhances our capability and expertise in providing complete fluid connector solutions.



RING.SAFE

TECHNICAL DATA &
PRODUCT INFORMATION



Our premium range of 24° hydraulic fittings and adaptors is now available.

Designed to connect rigid hydraulic tubes in a simple, safe and robust way, 24° hydraulic tube connectors are one of the most popular types in the market today. Our decades of experience in the hydraulics field allows us to provide state-of-the-art, port-to-port solutions for hydraulic rigid-tube connectors, including our unique cutting rings.

RING.SAFE BITE (RSB) - CUTTING RINGS

Resistant to vibrations and pressure impulse surges, Fluiconnecto 24° tube connector RSB is the basic product line with metal cutting ring.

Through the combination of proven dual edge ring design, this product is the perfect solution wherever maximum leak-proofing is required.

- Available in superlight (LL) series, Light (L) series and Heavy (S) series.
- Rings for LL series are single-cut edge, rings for L and S series are double-cut edge.
- Adaptors equipped with RSB rings allows reliable and simple connection of rigid tubes in a wide variety of configurations, working pressures and sizes.
- Working pressures of L and S series exceeds the ones from ISO8434-1 and DIN 2353 standards in most of the sizes.
- Combined endurance and vibration test resistance on ALL SIZES complying with both ISO8434-1 and DNVGL-CP-0185.
- DNV type approval released vs CP-0185 specification.
- Corrosion resistance. Superior surface protection thanks to the ZnNi surface coating that provides extended corrosion resistance. Over 1000h resistance to red corrosion.

RING.SAFE SOFT (RSS) – CUTTING RINGS

Designed especially for the more demanding applications, the Ring.Safe soft seal cutting ring range offers all the benefits of a traditional metal cutting ring, but with the addition of soft sealing rings and a mechanical stop to prevent over-tightening. Resistant in cold environments and for cold-starts situations, Ring.Safe Soft is a premium product, designed for sealing and protecting against contamination.

Through the combination of proven dual edge ring design and additional soft-sealing elements, the product is the perfect solution wherever maximum leak-proofing is required.

The design includes two additional sealing elements:

- 1- NBR based o-ring on the tube side to prevent moisture and contamination ingress below the ring.
- 2- PU shaped gasket on the outside to improved sealing, in particular during cold start of the low pressure phases of the hydraulic system.

- Service temperature up to 121°C.
- Supports the prevention of leakages & the introduction of contaminants in the critical coupled area.
- Adds an additional sealing level: metal-to-metal & metal to elastomer.
- Designed to favour optimized positioning during pre-crimping phase.
- Material thermally treated to control the deformation of the ring and optimize its biting force.
- Option to get FKM/FPM seals (-25°C to +200°C) instead of the standard NBR seal.
- Operating temperature range from - 40°C to +120°C.



EASY CONNECTIVITY & EXTENSIVE RANGE

Modern hydraulics applications require robust fluid connector solutions with assured long-lasting performance. To that end, Fluiconnecto’s 24° tube connectors range offers a comprehensive range of fittings, components and accessories, all designed to work seamlessly together. Simply add a suitable high-quality tube to create a robust, long-lasting connection.

Fluiconnecto’s 24° tube connectors offer a wide and diverse range of union types, sizes and configurations, including a selection of 37° flared tube connectors for 24° DIN bodies. Whatever the requirement, Fluiconnecto has it covered.

SAFETY & RELIABILITY

Fluiconnecto’s 24° tube connectors are also designed to ensure both system and user safety, both during assembly and in operation. In collaboration with the Manuli Hydraulics Innovation Centre, Fluiconnecto has carried out exhaustive testing and validation to ensure that every fitting and component meets the high standards expected of a Fluiconnecto product.

PERFORMANCE

Outstanding performances integrated and aligned with Fluiconnecto hose fittings range.

Extensively field validated product.

WHAT ELSE DO FLUICONNECTO DIN 24° TUBE CONNECTORS OFFER?

Aside from the above key concepts, Fluiconnecto’s 24° tube connectors range offers:

- Exceeding performance against ISO 8434-1.
- High quality zinc-nickel (ZnNi) coating for extended corrosion resistance.
- NBR seals as standard, with optional Viton seals available for improved chemical and temperature resistance.
- 3D CAD files available.
- Special products available on request.

IMPORTANT NOTES

This section lists some important notes that will guide users through the correct navigation and use of this catalogue. Please read carefully.

1 - “Complete” and “body only” options

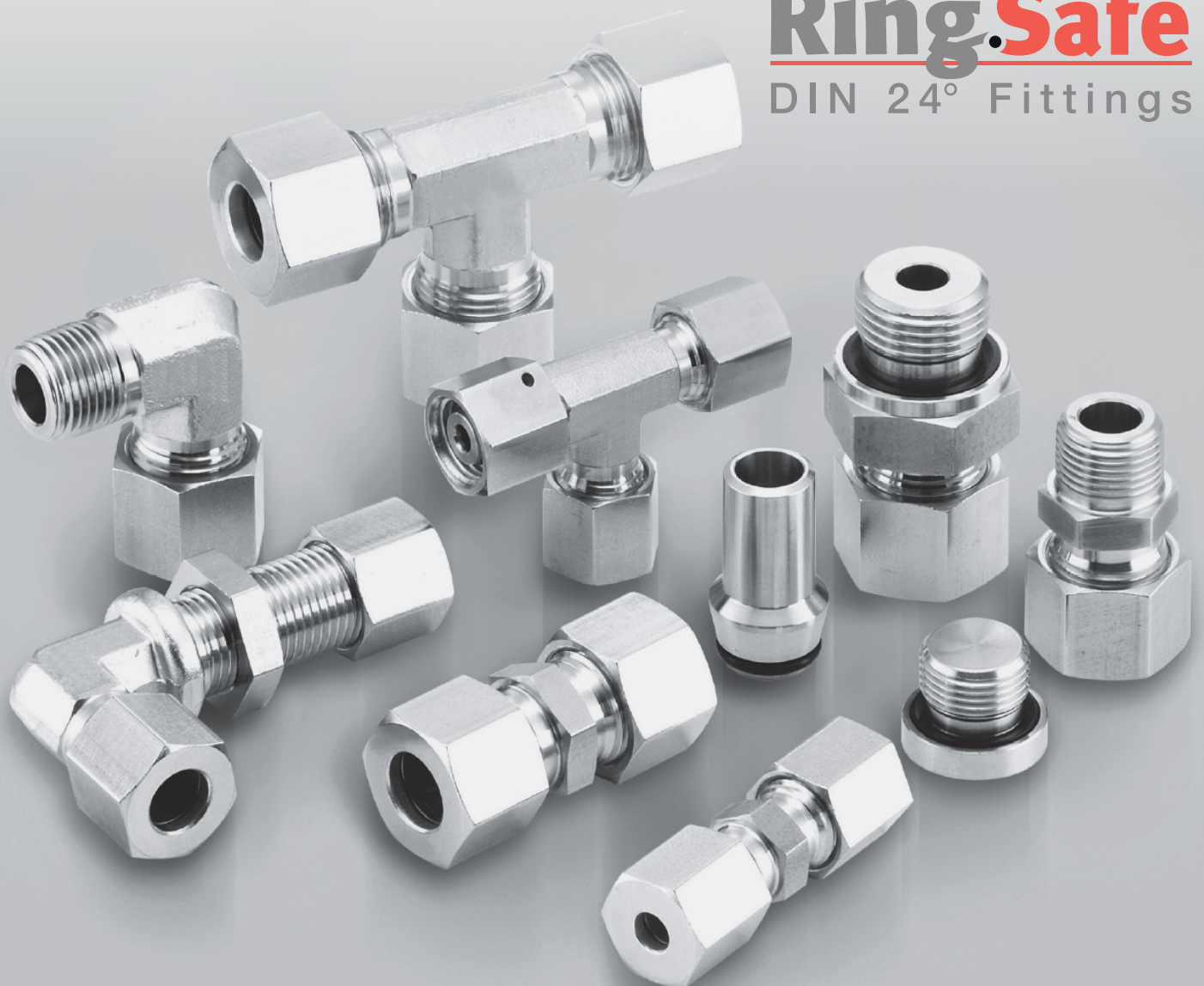
A wide variety of products listed in this catalogue can be ordered as a complete assembly (consisting of a body, a nut and the cutting ring) or as a body only version. Where the option is available both part numbers will be listed in the table, respectively under the columns “Complete” and “Body Only”.




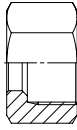
The “Complete” version is only available with the standard bite ring.

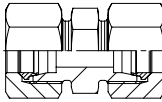
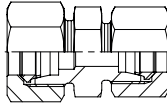
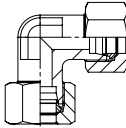
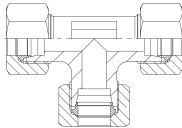
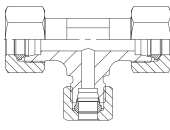
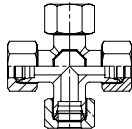
For soft seal ring, components need to be ordered individually.

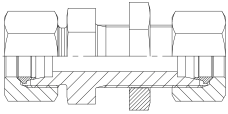
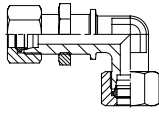
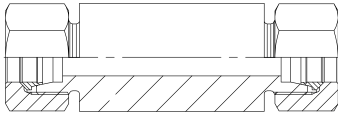
2 - Part number explanation – Fluiconnecto codes

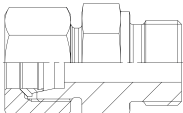
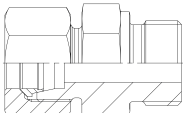
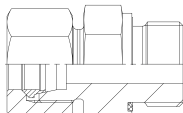
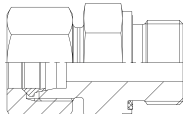
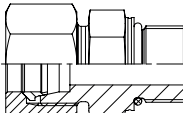
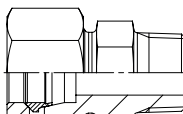
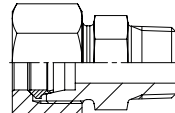
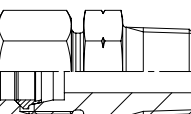
The corresponding Fluiconnecto codes are listed under the columns, “Complete” and “Body Only”. These Fluiconnecto codes are the ones to be used for ordering purposes.

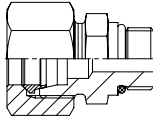
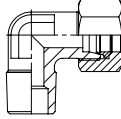
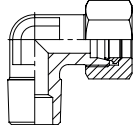
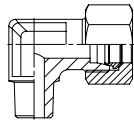
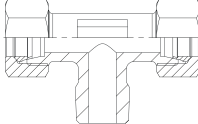
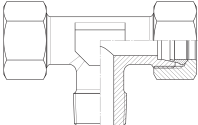
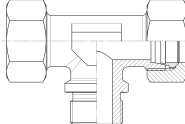
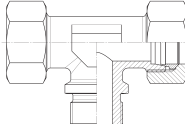
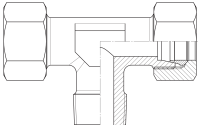
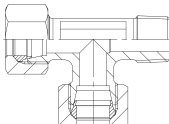
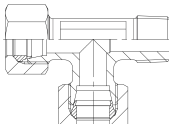
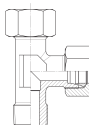
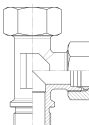


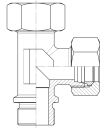
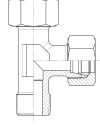
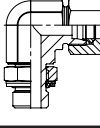
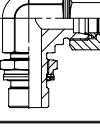
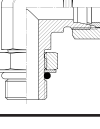
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TUBE CONNECTING PARTS	CUTTING RING LL-SERIES		LL	27
	PROGRESSIVE RING LAND S - SERIES		L/S	27
			L	27
			S	27
	RING.SAFE SOFT CUTTING RING		L/S	28
			L	28
			S	28
	NUT [DIN 3870] FOR CUTTING RING CONNECTION		LL	29
			L	29
			S	29

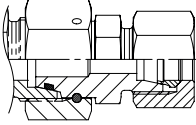
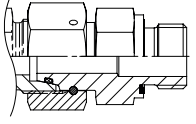
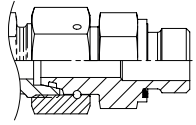
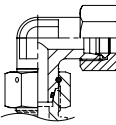
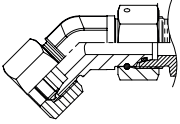
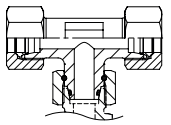
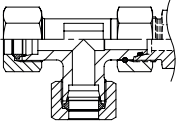
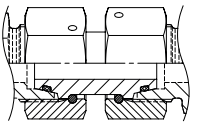
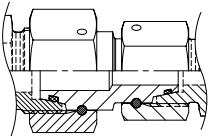
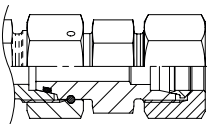
RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
UNIONS	STRAIGHT COUPLING		LL	30
			L	30
			S	30
	STRAIGHT REDUCER		LL	31
			L	31
			S	32
	EQUAL ELBOW		LL	33
			L	33
			S	33
	EQUAL TEE		LL	34
			L	34
			S	34
	TEE REDUCER		L	35
			S	36
	EQUAL CROSS		LL	37
			L	37
			S	37

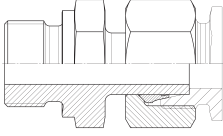
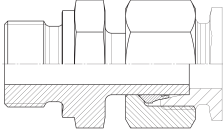
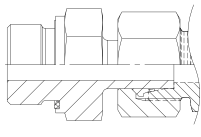
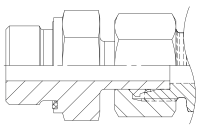
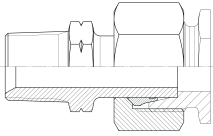
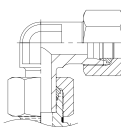
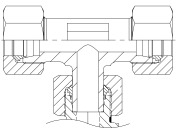
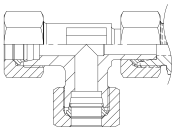
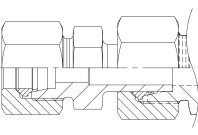
RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
BULKHEAD UNIONS	BULKHEAD UNION		L	38
			S	38
	BULKHEAD ELBOW COUPLING		L	39
			S	39
	STRAIGHT WELD BULKHEAD CONNECTOR		L	40
			S	40

RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
MALE STUD CONNECTORS	BSP MALE STUD CONNECTOR METALLIC SEALING EDGE FORM B		LL	41
			L	41
			S	42
	METRIC PARALLEL MALE STUD CONNECTOR METALLIC SEALING EDGE FORM B		LL	43
			L	43
			S	44
	BSP MALE STUD CONNECTOR SEALING BY NBR PROFILE RING DIN 3869		LL	45
			L	45
			S	46
	METRIC PARALLEL MALE STUD CONNECTOR SEALING BY NBR PROFILE RING DIN 3869		L	47
			S	48
	METRIC PARALLEL MALE STUD CONNECTOR SEALING BY NBR O-RING (ISO 6149-2+3)		L	49
			S	49
	BSP TAPERED MALE STUD CONNECTOR		LL	50
			L	50
			S	51
	METRIC TAPERED MALE STUD CONNECTOR		LL	52
			L	52
	NPT MALE STUD CONNECTOR		LL	53
			L	53
			S	54

RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
MALE STUD CONNECTORS	UNF/UN MALE STUD CONNECTOR SEALING BY NBR O-RING (ISO 11926)		L	55
			S	56
	BSP TAPERED MALE STUD ELBOW		LL	57
			L	57
			S	58
	METRIC TAPERED MALE STUD ELBOW		LL	59
			L	59
			S	59
	NPT MALE STUD ELBOW		LL	60
			L	60
			S	60
	BSP TAPERED MALE STUD BRANCH TEE		LL	61
			L	61
			S	61
	METRIC TAPERED MALE STUD BRANCH TEE		LL	62
			L	62
			S	62
	BSP MALE STUD BRANCH TEE METALLIC SEALING EDGE FORM B		L	63
			S	63
	METRIC PARALLEL MALE STUD BRANCH TEE METALLIC SEALING EDGE FORM B		L	64
			S	64
	NPT MALE STUD BRANCH TEE		LL	65
			L	65
			S	65
	BSP TAPERED MALE STUD BARREL TEE		LL	66
			L	66
	S		S	66
			S	66
METRIC TAPERED MALE STUD BARREL TEE		LL	67	
		L	67	
		S	67	
BSP MALE STUD BARREL TEE METALLIC SEALING EDGE FORM B		L	68	
		S	68	

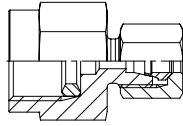
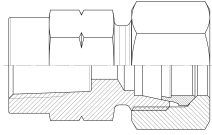
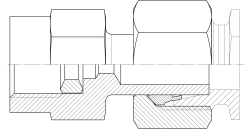
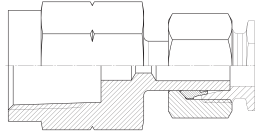
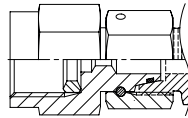
RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
MALE STUD CONNECTORS	METRIC PARALLEL MALE STUD BARREL TEE METALLIC SEALING EDGE FORM B		L	69
			S	69
	NPT MALE STUD BARREL TEE		LL	70
			L	70
			S	70
	BSP ADJUSTABLE ELBOW FITTING WITH LOCK-NUT FOR PORT WITH SMALL AND LARGE COUNTERSINK SEALING BY O-RING AND RETAINING RING (ISO 1179)		L	71
			S	71
	METRIC PARALLEL ADJUSTABLE ELBOW FITTING WITH LOCK-NUT FOR PORT WITH SMALL AND LARGE COUNTERSINK SEALING BY O-RING AND RETAINING RING (ISO 1179)		L	72
			S	72
	UNF/UN ADJUSTABLE ELBOW FITTING WITH LOCK-NUT FOR PORT WITH SMALL AND LARGE COUNTERSINK SEALING BY O-RING NBR (ISO 11926)		L	73
			S	73

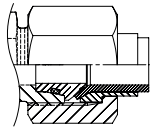
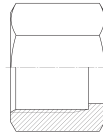
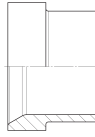

RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
24° SWIVEL CONNECTORS	TUBE END REDUCER 24° DKO SWIVEL AND NBR O-RING		L	74
			S	75
	BSP SWIVEL CONNECTOR 24° DKO SWIVEL AND NBR O-RING SEALING BY NBR PROFILE RING (DIN 3869)		L	76
			S	76
	METRIC PARALLEL SWIVEL CONNECTOR 24° DKO SWIVEL AND NBR O-RING SEALING BY NBR PROFILE RING (DIN 3869)		L	77
			S	77
	SWIVEL NUT ELBOW 24° DKO SWIVEL AND NBR O-RING		L	78
			S	78
	SWIVEL NUT 45° ELBOW 24° DKO SWIVEL AND NBR O-RING		L	79
			S	79
	SWIVEL NUT BRANCH TEE 24° DKO SWIVEL AND NBR O-RING		L	80
			S	80
	SWIVEL NUT RUN TEE 24° DKO SWIVEL AND NBR O-RING		L	81
			S	81
	SWIVEL UNION 24° DKO SWIVEL AND NBR O-RING		L	82
			S	82
	SWIVEL REDUCER 24° DKO SWIVEL AND NBR O-RING		L	83
			S	83
			L/S	84
			S/L	84
STRAIGHT CONNECTOR DKO SWIVEL SEALING BY NBR O-RING ISO 3601		L	85	
		S	85	

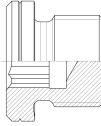
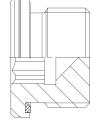
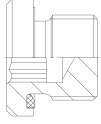
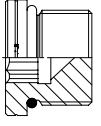
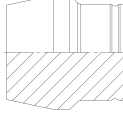
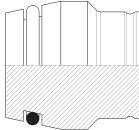
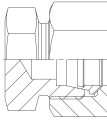
RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
STANDPIPE CONNECTORS	BSP STRAIGHT STANDPIPE CONNECTOR METALLIC SEALING EDGE FORM B		L	86
			S	86
	METRIC PARALLEL STRAIGHT STANDPIPE CONNECTOR METALLIC SEALING EDGE FORM B		L	87
			S	87
	BSP STRAIGHT STANDPIPE CONNECTOR SEALING BY NBR PROFILE RING (DIN 3869)		L	88
			S	88
	METRIC PARALLEL STRAIGHT STANDPIPE CONNECTOR SEALING BY NBR PROFILE RING (DIN 3869)		L	89
			S	89
	NPT STRAIGHT STANDPIPE CONNECTOR		L	90
			S	90
	STANDPIPE ELBOW		L	91
			S	91
	ASSEMBLED ADJUSTABLE STANDPIPE BRANCH TEE		L	92
			S	92
	ASSEMBLED ADJUSTABLE STANDPIPE RUN TEE		L	93
			S	93
	ASSEMBLED ADJUSTABLE STANDPIPE REDUCER		L	94
			S	95

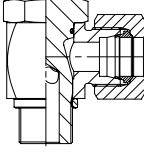
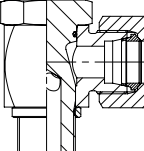
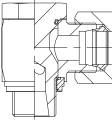
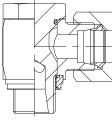
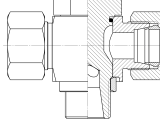
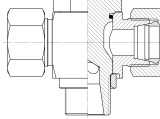
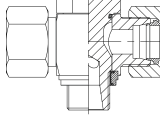
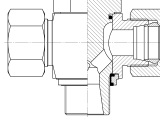
RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
STRAIGHT REDUCERS	MALE THREAD: BSP FEMALE THREAD: BSP STRAIGHT REDUCER METALLIC SEALING EDGE FORM B		-	96
	MALE THREAD: BSP FEMALE THREAD: BSP STRAIGHT REDUCER SEALING BY NBR PROFILE RING (DIN 3869)		-	97
	BSP STRAIGHT FEMALE CONNECTOR		L	98
			S	98
	METRIC PARALLEL STRAIGHT FEMALE CONNECTOR		L	99
			S	99
	NPT STRAIGHT FEMALE CONNECTOR		L	100
			S	100

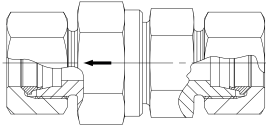
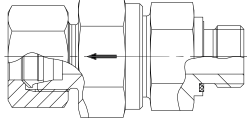
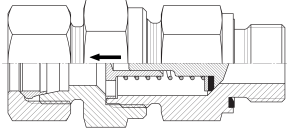
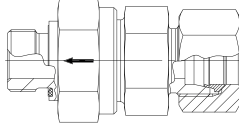
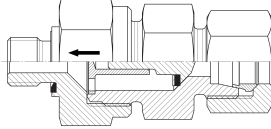
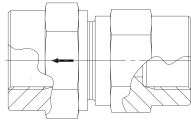
RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
WELD CONNECTORS	STRAIGHT WELD COUPLING 24° CUTTING RING CONNECTOR		L	101
			S	101
	ELBOW WELD COUPLING 24° CUTTING RING CONNECTOR		L	102
			S	102
	STRAIGHT WELD COUPLING FOR TUBES 24° CUTTING RING CONNECTOR NBR O-RING		S	103
	STRAIGHT WELD NIPPLE FOR TUBES 24° CUTTING RING CONNECTOR NBR O-RING		L/S	104
			L	104
			S	104

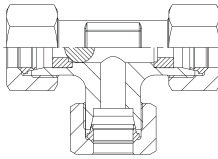
RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
DIAGNOSTIC ITEMS	BSP PRESSURE GAUGE CONNECTOR INTERNAL METALLIC SEALING RING		L	105
			S	105
	NPT PRESSURE GAUGE CONNECTOR		L	106
			S	106
	BSP PRESSURE GAUGE CONNECTOR STANDPIPE INTERNAL METALLIC SEALING RING		L	107
			S	107
	NPT PRESSURE GAUGE CONNECTOR STANDPIPE		L	108
			S	108
	BSP PRESSURE GAUGE CONNECTOR 24° DKO SWIVEL AND NBR O-RING INTERNAL METALLIC SEAL RING		L	109
			S	109




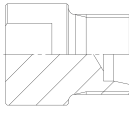


RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
37° FLARE TUBE ADAPTORS	METRIC PARALLEL 37° FLARED TUBE CONNECTORS FOR 24° DIN BODY AND 37° FLARED TUBE (NO JIC) SEALING BY O-RING NBR (ISO 11926)		L	110
			S	110
	METRIC PARALLEL NUT		L/S	111
			L	111
			S	111
	FLARE SLEEVE		L/S	112
			L	112
			S	112
	ADAPTOR RING SEALING BY NBR O-RING (ISO 11926)		L/S	113
			L	113
			S	113

RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
BLANKING PLUGS	BSP BLANKING PLUG FOR PORTS (DIN 3852-2 / ISO 1179-1) METALLIC SEALING EDGE FORM B		-	114
	BSP BLANKING PLUG FOR PORTS (DIN 3852-2 / ISO 1179-1) SEALING BY NBR PROFILE RING (DIN 3869)		-	114
	METRIC PARALLEL BLANKING PLUG FOR PORTS (DIN 3852-1 / ISO 9974-1) SEALING BY NBR PROFILE RING (DIN 3869)		-	115
	METRIC PARALLEL BLANKING PLUG FOR PORTS (DIN 3852-2 / ISO 1179-1) SEALING BY O-RING NBR (ISO 6149-1)		-	115
	BLANKING PLUG FOR CONE W/ 24° SWIVEL		L/S	116
			L	116
			S	116
	BLANKING PLUG FOR CONE WITH 24° DKO SWIVEL AND NBR O-RING		-	117
BLANKING PLUG FOR TUBE ENDS WITH 24° COUPLING		L	118	
		S	118	

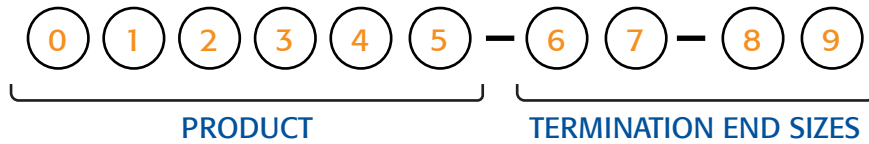
RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
BANJO AND SWIVEL COUPLINGS	BSP HIGH PRESSURE BANJO ELBOW SEALING BY EXTERNAL METALLIC SEALING RING AND NBR O-RING		LL	119
			L	119
			S	119
	METRIC PARALLEL HIGH PRESSURE BANJO ELBOW SEALING BY EXTERNAL METALLIC SEALING RING AND NBR O-RING		LL	120
			L	120
			S	120
	BSP HIGH PRESSURE BANJO ELBOW SEALING BY SUPPORT RING WITH NBR SOFTSEAL AND NBR O-RING		L	121
			S	121
	METRIC PARALLEL HIGH PRESSURE BANJO ELBOW SEALING BY SUPPORT RING WITH NBR SOFTSEAL AND NBR O-RING		L	122
			S	122
	BSP DOUBLE BANJO COUPLING METALLIC SEALING EDGE FORM B		L	123
			S	123
	METRIC PARALLEL DOUBLE BANJO COUPLING METALLIC SEALING EDGE FORM B		L	124
			S	124
BSP DOUBLE BANJO COUPLING SEALING BY SUPPORT RING WITH NBR SOFTSEAL AND NBR O-RING		L	125	
		S	125	
METRIC PARALLEL DOUBLE BANJO COUPLING SEALING BY SUPPORT RING WITH NBR SOFTSEAL AND NBR O-RING		L	126	
		S	126	

RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
CHECK VALVES	CHECK VALVE WITH TUBE CONNECTION SEALING BY NBR SOFT SEAL		L	127
			S	127
	BSP CHECK VALVE WITH MALE STUD FLOW FROM STUD THREAD SEALING BY NBR PROFILE RING (DIN 3869)		L	128
			S	128
	METRIC PARALLEL CHECK VALVE WITH MALE STUD FLOW FROM STUD THREAD SEALING BY NBR PROFILE RING (DIN 3869)		L	129
			S	129
	BSP CHECK VALVE WITH MALE STUD FLOW TO STUD THREAD SEALING BY NBR PROFILE RING (DIN 3869)		L	130
			S	130
	METRIC PARALLEL CHECK VALVE WITH MALE STUD FLOW TO STUD THREAD SEALING BY NBR PROFILE RING (DIN 3869)		L	131
			S	131
	BSP CHECK VALVE WITH FEMALE BSP THREAD		-	132

RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
ALTERNATING VALVES	ALTERNATING VALVE WITH 24° CONE THREAD: M		L	133
			S	133

RANGE	DESCRIPTION	APPEARANCE	SERIES	PAGE
COMPONENTS / ACCESSORIES	LOCK NUT [DIN 80705] FOR BULKHEAD COUPLING		L/S	134
			L	134
			S	134
	EXTERNAL METALLIC SEAL RING FOR BANJO COUPLINGS		-	134
	INTERNAL METALLIC SEAL RING FOR PRESSURE GAUGE CONNECTORS		-	135
	PRE-ASSEMBLY JIG (HARDENED) METRIC PARALLEL FOR CUTTING RING COUPLINGS MATERIAL: 1.2343		LL	135
			L	135
			S	135
	O-RING (NBR / VITON) FOR 24° DKO SWIVEL CONNECTORS		-	136
			-	136
	ELASTIC SOFT-SEAL RING NBR / VITON (DIN 3869)		-	137
			-	137

PART NUMBERING SYSTEM



PRODUCT



The first three digits of the root represent the product group to which the product belongs to.

B89	DIN 24° Fittings – Heavy type
B90	DIN 24° Fittings – Light type
B97	Adaptors BSP I JIS
B99	Adaptors Metric (without DIN 24° cone)
C85	Check Valves (without DIN 24° cone)
D12	(Hand) Tools
D79	Seals
E68	DIN 24° Fittings – Extra Light type
E69	DIN 24° Fittings – Rings I Nuts I Sleeves

3,4,5 are sequence numbers for internal management purposes.

TERMINATION END SIZES



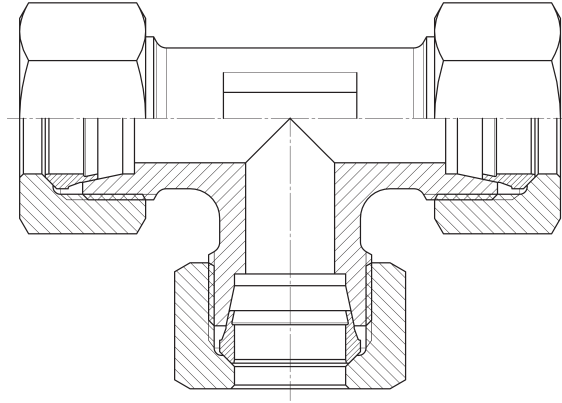
These values indicate the termination end sizes. Male type comes before female type.

When the ends are part of the same family, the smallest size is listed first.

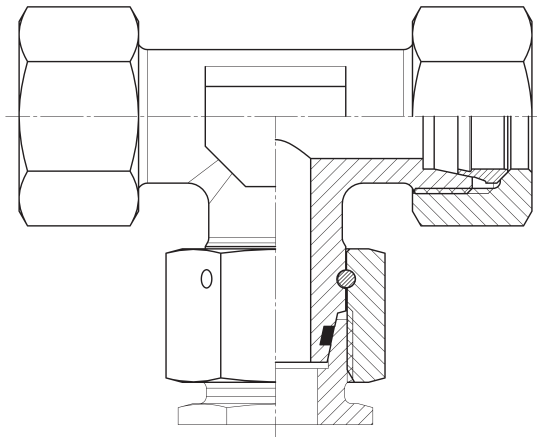
The size sequence is the same as for the termination end types (ie: the first size indicates the first end, the second size indicates the second end).

TYPICAL CONFIGURATIONS FOR 3-WAY ADAPTORS

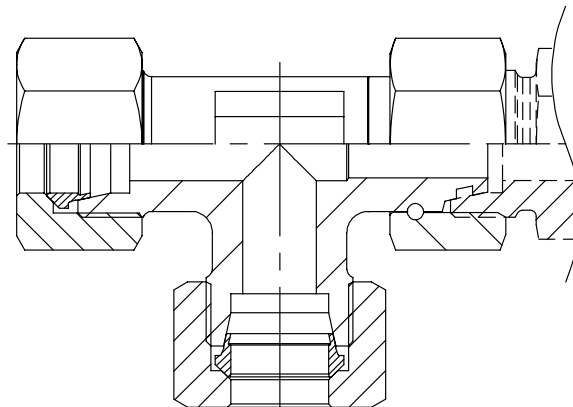
UNION TEE



BRANCH TEE

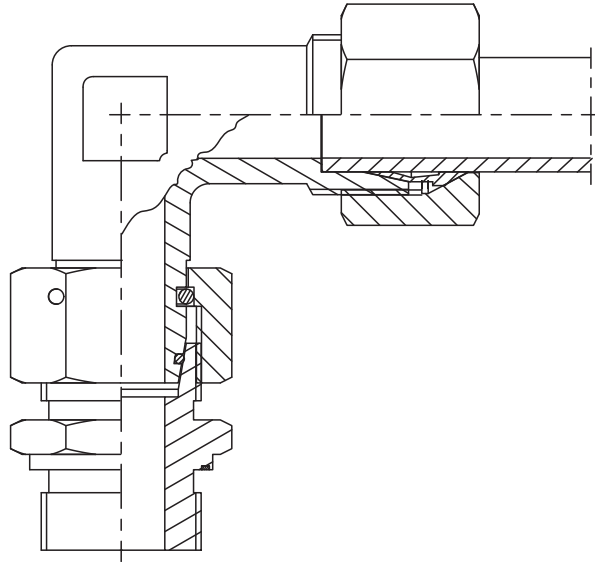


BARREL / RUN TEE

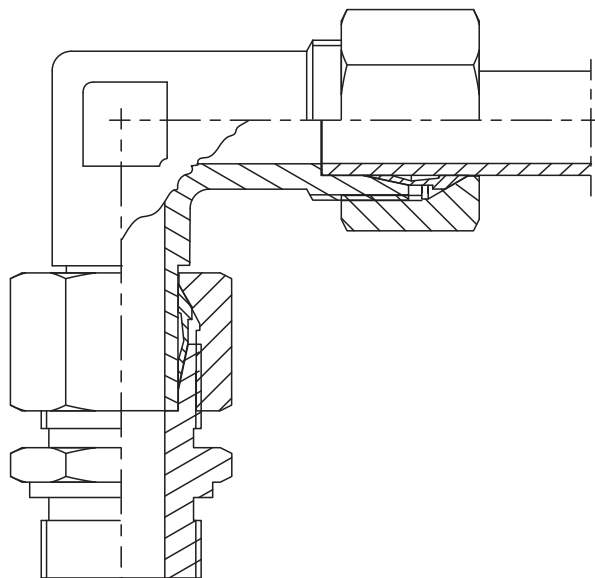


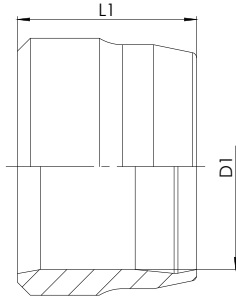
CONFIGURATIONS FOR DIN ADAPTORS

ASSEMBLED



COMPOSED





CUTTING RING

LL-SERIES

PART NUMBERS		DIMENSIONS (mm)			
--------------	--	-----------------	--	--	--

Complete	Series	D1	L1	PN	Weight (g)
					Total
E69019	LL	4	6	100	0,4
E69021	LL	6	7	100	0,8
E69022	LL	8	7	100	1,1
E69159	LL	10	7	100	1,3
E69024	LL	12	7,5	100	1,7

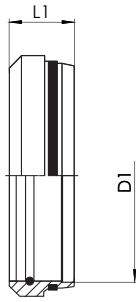


PROGRESSIVE RING

L AND S - SERIES

PART NUMBERS		DIMENSIONS (mm)			
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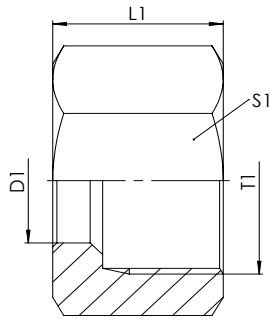
Complete	Series	D1	L1	PN	Weight (g)
					Total
E69025	L/S	6	9,5	500/800	2
E69026	L/S	8	9,5	500/800	3
E69027	L/S	10	10	500/800	4
E69028	L/S	12	10	400/630	5
E69030	L	15	10	400	6
E69032	L	18	10	400	8
E69034	L	22	11,5	250	11
E69036	L	28	11,5	250	13
E69038	L	35	13,5	250	24
E69040	L	42	13,5	250	28
E69029	S	14	10,5	630	7
E69031	S	16	10,5	630	7
E69033	S	20	12,5	420	13
E69035	S	25	12,5	420	16
E69037	S	30	13,5	420	22
E69039	S	38	13,5	420	26



RING.SAFE SOFT CUTTING RING

PART NUMBERS	DIMENSIONS (mm)
--------------	-----------------

Complete	Series	D1	L1	PN	Weight (g)
					Total
E69041	L/S	6	9,5	500/800	2
E69042	L/S	8	9,5	500/800	3
E69043	L/S	10	10	500/800	4
E69044	L/S	12	10	400/630	5
E69046	L	15	10	400	6
E69048	L	18	10	400	8
E69050	L	22	11,5	250	11
E69052	L	28	11,5	250	13
E69054	L	35	13,5	250	24
E69056	L	42	13,5	250	28
E69047	S	16	10,5	630	7
E69049	S	20	12,5	420	13
E69051	S	25	12,5	420	16
E69053	S	30	13,5	420	22
E69055	S	38	13,5	420	26
E69049	S	20	12,5	630	15
E69051	S	25	12,5	420	21
E69053	S	30	13,5	420	27
E69055	S	38	13,5	420	37

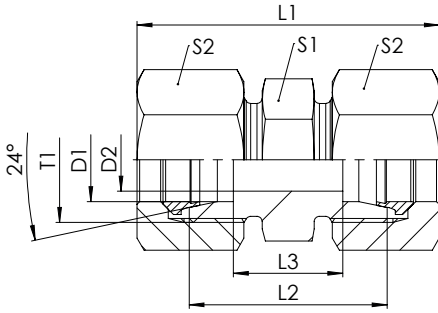


NUT [DIN 3870]

FOR CUTTING RING CONNECTIONS

PART NUMBERS	DIMENSIONS (mm)					
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Complete	Series	D1	T1	L1	S1	PN	Weight (g)
							Total
E69067	LL	4	M8X1	11	10	100	5
E69070	LL	6	M10X1	11,5	12	100	6
E69073	LL	8	M12X1	12	14	100	8
E69206	LL	10	M14X1	12,5	17	100	13
E69078	LL	12	M16X1	13	19	100	14
E69069	L	6	M12X1,5	14,5	14	500	11
E69072	L	8	M14X1,5	14,5	17	500	16
E69075	L	10	M16X1,5	15,5	19	500	20
E69077	L	12	M18X1,5	15,5	22	400	28
E69081	L	15	M22X1,5	17	27	400	45
E69083	L	18	M26X1,5	18	32	400	66
E69085	L	22	M30X2	20	36	250	88
E69087	L	28	M36X2	21	41	250	102
E69089	L	35	M45X2	24	50	250	155
E69091	L	42	M52X2	24	60	250	240
E69071	S	6	M14X1,5	16,5	17	800	19
E69074	S	8	M16X1,5	16,5	19	800	22
E69076	S	10	M18X1,5	17,5	22	800	33
E69079	S	12	M20X1,5	17,5	24	630	37
E69080	S	14	M22X1,5	20,5	27	630	56
E69082	S	16	M24X1,5	20,5	30	630	70
E69084	S	20	M30X2	24	36	420	110
E69086	S	25	M36X2	27	46	420	219
E69088	S	30	M42X2	29	50	420	240
E69090	S	38	M52X2	32,5	60	420	350



STRAIGHT COUPLING

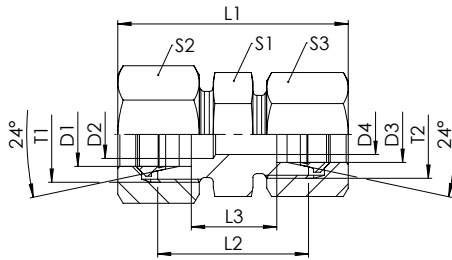
PART NUMBERS DIMENSIONS (mm)

LL Series												
Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
											Body	Total
E68012-08-08	E68001-08-08	4	M8X1	3	32	20	12	9	10	100	6	16
E68012-10-10	E68001-10-10	6	M10X1	4,5	32	20	9	11	12	100	8	22
E68012-12-12	E68001-12-12	8	M12X1	6	35	23	12	12	14	100	12	30
E68012-14-14	E68001-14-14	10	M14X1	8	35	23	12	14	17	100	15	42
E68012-16-16	E68001-16-16	12	M16X1	10	38	23	11	17	19	100	18	50

L Series												
Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
											Body	Total
B90093-12-12	B90011-12-12	6	M12X1,5	4	40	24	10	12	14	500	15	40
B90093-14-14	B90011-14-14	8	M14X1,5	6	41	25	11	14	17	500	19	57
B90093-16-16	B90011-16-16	10	M16X1,5	8	43	27	13	17	19	500	26	72
B90093-18-18	B90011-18-18	12	M18X1,5	10	44	28	14	19	22	400	33	94
B90093-22-22	B90011-22-22	15	M22X1,5	12	47	30	16	24	27	400	55	152
B90093-26-26	B90011-26-26	18	M26X1,5	15	50	31	16	27	32	400	75	218
B90093-30-30	B90011-30-30	22	M30X2	19	56	35	20	32	36	250	102	293
B90093-36-36	B90011-36-36	28	M36X2	24	58	36	21	41	41	250	152	376
B90093-45-45	B90011-45-45	35	M45X2	30	65	41	20	46	50	250	235	576
B90093-52-52	B90011-52-52	42	M52X2	36	67	43	21	55	60	250	323	840

S Series												
Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
											Body	Total
B89074-14-14	B89010-14-14	6	M14X1,5	4	46	30	16	14	17	800	29	71
B89074-16-16	B89010-16-16	8	M16X1,5	5	48	32	18	17	19	800	42	90
B89074-18-18	B89010-18-18	10	M18X1,5	7	50	32	17	19	22	800	48	120
B89074-20-20	B89010-20-20	12	M20X1,5	8	52	34	19	22	24	630	66	146
B89074-22-22	B89010-22-22	14	M22X1,5	10	58	38	22	24	27	630	84	204
B89074-24-24	B89010-24-24	16	M24X1,5	12	58	38	21	27	30	630	97	245
B89074-30-30	B89010-30-30	20	M30X2	16	68	44	23	32	36	420	159	396
B89074-36-36	B89010-36-36	25	M36X2	20	76	50	26	41	46	420	274	733
B89074-42-42	B89010-42-42	30	M42X2	25	82	54	27	46	50	420	361	870
B89074-52-52	B89010-52-52	38	M52X2	32	92	61	29	55	60	420	586	1322

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.



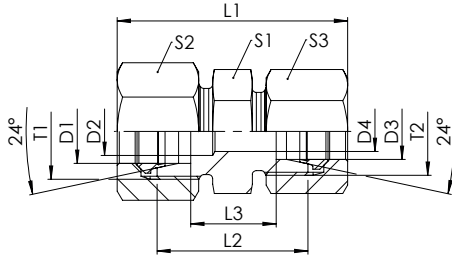
STRAIGHT REDUCER

PART NUMBERS		DIMENSIONS (mm)															
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LL Series																	
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	L3	S1	S2	S3	PN	Weight (g)		
															Body	Total	
E68041-08-10	E68003-08-10	6	M10X1	M8X1	3	4	3	32	20	10,5	11	12	10	100	8	20	
E68041-08-12	E68003-08-12	8	M12X1	M8X1	3	4	3	34	22	12,5	12	14	10	100	12	25	
E68041-10-12	E68003-10-12	8	M12X1	M10X1	4,5	6	4,5	34	22	11	12	14	12	100	14	27	

L Series																	
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	L3	S1	S2	S3	PN	Weight (g)		
															Body	Total	
B90094-12-14	B90012-12-14	8	M14X1,5	M12X1,5	4	6	4	41	25	11	14	17	14	500	19	50	
B90094-12-16	B90012-12-16	10	M16X1,5	M12X1,5	8	6	4	42	26	12	17	19	14	500	23	59	
B90094-14-16	B90012-14-16	10	M16X1,5	M14X1,5	6	8	6	42	26	12	17	19	17	500	25	67	
B90094-12-18	B90012-12-18	12	M18X1,5	M12X1,5	10	6	4	43	27	13	19	22	14	400	28	72	
B90094-14-18	B90012-14-18	12	M18X1,5	M14X1,5	10	8	6	43	27	13	19	22	17	400	30	79	
B90094-16-18	B90012-16-18	12	M18X1,5	M16X1,5	8	10	8	44	28	14	19	22	19	400	33	86	
UPON REQ.	B90012-12-22	15	M22X1,5	M12X1,5	12	6	4	45,5	29	15	24	27	14	400	50	111	
UPON REQ.	B90012-14-22	15	M22X1,5	M14X1,5	12	8	6	45,5	29	15	24	27	17	400	50	118	
B90094-16-22	B90012-16-22	15	M22X1,5	M16X1,5	12	10	8	45,5	29	15	24	27	19	400	48	120	
B90094-18-22	B90012-18-22	15	M22X1,5	M18X1,5	10	12	10	45,5	29	15	24	27	22	400	50	129	
UPON REQ.	UPON REQ.	18	M26X1,5	M14X1,5	15	8	6	47,5	30	15,5	27	32	17	400	68	158	
B90094-16-26	B90012-16-26	18	M26X1,5	M16X1,5	12	10	8	47,5	30	15,5	27	32	19	400	66	160	
B90094-18-26	B90012-18-26	18	M26X1,5	M18X1,5	15	12	10	47,5	30	15,5	27	32	22	400	64	164	
B90094-22-26	B90012-22-26	18	M26X1,5	M22X1,5	12	15	12	49	31	16,5	27	32	27	400	74	194	
UPON REQ.	UPON REQ.	22	M30X2	M16X1,5	19	10	8	50,5	32	17,5	32	36	19	250	87	205	
B90094-18-30	B90012-18-30	22	M30X2	M18X1,5	19	12	10	50,5	32	17,5	32	36	22	250	87	213	
B90094-22-30	B90012-22-30	22	M30X2	M22X1,5	19	15	12	52	33	18,5	32	36	27	250	92	237	
B90094-26-30	B90012-26-30	22	M30X2	M26X1,5	19	18	15	53	33	18	32	36	32	250	97	265	
UPON REQ.	UPON REQ.	28	M36X2	M18X1,5	24	12	10	52,5	33,5	19	41	41	22	250	141	283	
UPON REQ.	B90012-22-36	28	M36X2	M22X1,5	24	15	12	53,5	34	19,5	41	41	27	250	142	303	
B90094-26-36	B90012-26-36	28	M36X2	M26X1,5	24	18	15	54,5	34	19	41	41	32	250	144	327	
B90094-30-36	B90012-30-36	28	M36X2	M30X2	24	22	19	57,5	36	21	41	41	36	250	150	357	
B90094-30-45	B90012-30-45	35	M45X2	M30X2	30	22	19	61,5	39	21	46	50	36	250	218	484	
B90094-36-45	B90012-36-45	35	M45X2	M36X2	30	28	24	62	39	21	46	50	41	250	215	497	
UPON REQ.	UPON REQ.	42	M52X2	M30X2	36	22	19	62	39,5	21	55	60	36	250	286	640	
B90094-45-52	B90012-45-52	42	M52X2	M45X2	36	35,3	30	66,5	42,5	21	55	60	50	250	323	752	

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

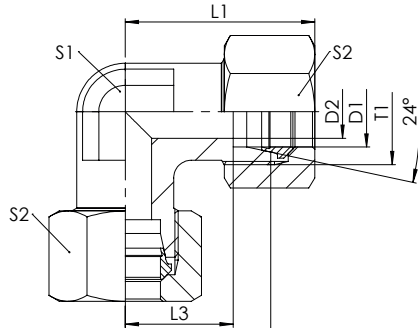


STRAIGHT REDUCER

PART NUMBERS DIMENSIONS (mm)

S Series																
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	L3	S1	S2	S3	PN	Weight (g)	
															Body	Total
B89077-14-16	B89011-14-16	8	M16X1,5	M14X1,5	4	6	4	48	32	18	17	19	17	800	39	85
B89077-14-18	B89011-14-18	10	M18X1,5	M14X1,5	4	6	4	49	32	17,5	19	22	17	800	46	102
B89077-16-18	B89011-16-18	10	M18X1,5	M16X1,5	5	8	5	49	32	17,5	19	22	19	800	48	108
B89077-14-20	B89011-14-20	12	M20X1,5	M14X1,5	8	6	4	51	34	19,5	22	24	17	630	61	121
B89077-16-20	B89011-16-20	12	M20X1,5	M16X1,5	5	8	5	51	34	19,5	22	24	19	630	64	128
B89077-18-20	B89011-18-20	12	M20X1,5	M18X1,5	7	10	7	52	34	19	22	24	22	630	64	140
B89077-18-22	B89011-18-22	14	M22X1,5	M18X1,5	7	10	7	55	36	20,5	24	27	22	630	79	174
B89077-20-22	B89011-20-22	14	M22X1,5	M20X1,5	8	12	8	55	36	20,5	24	27	24	630	80	180
B89077-16-24	B89011-16-24	16	M24X1,5	M16X1,5	12	8	5	53,5	35,5	20	27	30	19	630	86	185
B89077-18-24	B89011-18-24	16	M24X1,5	M18X1,5	12	10	7	55	36	20	27	30	22	630	86	196
B89077-20-24	B89011-20-24	16	M24X1,5	M20X1,5	12	12	8	55	36	20	27	30	24	630	91	205
B89077-22-24	B89011-22-24	16	M24X1,5	M22X1,5	10	14	10	58	38	21,5	27	30	27	630	98	232
B89077-18-30	B89011-18-30	20	M30X2	M18X1,5	16	10	7	61	40	22	32	36	22	420	140	295
B89077-20-30	B89011-20-30	20	M30X2	M20X1,5	16	12	8	61	40	22	32	36	24	420	142	301
B89077-22-30	UPON REQ.	20	M30X2	M22X1,5	16	14	10	62	40	21,5	32	36	27	420	134	313
B89077-24-30	B89011-24-30	20	M30X2	M24X1,5	16	16	12	64	42	23	32	36	30	420	146	339
UPON REQ.	UPON REQ.	25	M36X2	M20X1,5	20	12	8	67	45	25,5	41	46	24	420	253	523
UPON REQ.	UPON REQ.	25	M36X2	M22X1,5	20	14	10	68,5	45,5	25,5	41	46	27	420	241	531
B89077-24-36	B89011-24-36	25	M36X2	M24X1,5	20	16	12	69	46	25,5	41	46	30	420	245	549
B89077-30-36	B89011-30-36	25	M36X2	M30X2	20	20	16	73	48	25,5	41	46	36	420	256	604
UPON REQ.	UPON REQ.	30	M42X2	M18X1,5	25	10	7	66	43	22	46	50	22	420	261	551
UPON REQ.	UPON REQ.	30	M42X2	M24X1,5	25	16	12	72	48	26	46	50	30	420	317	645
B89077-30-42	B89011-30-42	30	M42X2	M30X2	25	20	16	76	50	26	46	50	36	420	326	699
B89077-36-42	B89011-36-42	30	M42X2	M36X2	25	25	20	79	52	27	46	50	46	420	343	827
UPON REQ.	UPON REQ.	38	M52X2	M24X1,5	32	16	12	78,5	53	29	55	60	30	420	495	938
UPON REQ.	UPON REQ.	38	M52X2	M30X2	32	20	16	82,5	55	29	55	60	36	420	523	1010
UPON REQ.	B89011-36-52	38	M52X2	M36X2	32	25	20	85,5	57	29	55	60	46	420	539	1138
B89077-42-52	B89011-42-52	38	M52X2	M42X2	32	30	25	88,5	59	30	55	60	50	420	542	1165

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.



EQUAL ELBOW

PART NUMBERS DIMENSIONS (mm)

LL Series

Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
											Body	Total
E68014-08-08	E68006-08-08	4	M8X1	3	21	15	11	9	10	100	9	20
E68014-10-10	E68006-10-10	6	M10X1	4,5	21	15	9,5	9	12	100	10	23
E68014-12-12	E68006-12-12	8	M12X1	6	23	17	11,5	12	14	100	16	34
E68014-14-14	E68006-14-14	10	M14X1	8	27	21	15,5	14	17	100	28	55
E68014-16-16	E68006-16-16	12	M16X1	10	28,5	21	15	14	19	100	23	55

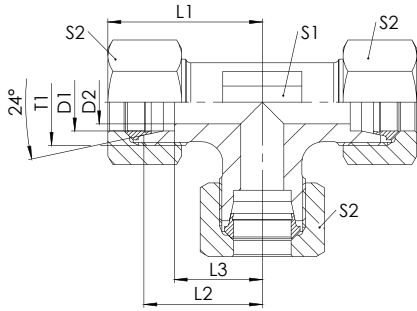
L Series

Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
											Body	Total
B90100-12-12	B90022-12-12	6	M12X1,5	4	27	19	12	12	14	500	22	47
B90100-14-14	B90022-14-14	8	M14X1,5	6	29	21	14	12	17	500	26	63
B90100-16-16	B90022-16-16	10	M16X1,5	8	30	22	15	14	19	500	33	79
B90100-18-18	B90022-18-18	12	M18X1,5	10	32	24	17	17	22	400	43	104
B90100-22-22	B90022-22-22	15	M22X1,5	12	36,5	28	21	19	27	400	80	177
B90100-26-26	B90022-26-26	18	M26X1,5	15	40,5	31	23,5	24	32	400	117	260
B90100-30-30	B90022-30-30	22	M30X2	19	45,5	35	27,5	27	36	250	158	349
B90100-36-36	B90022-36-36	28	M36X2	24	49	38	30,5	36	41	250	259	482
B90100-45-45	B90022-45-45	35	M45X2	30	57	45	34,5	41	50	250	407	748
B90100-52-52	B90022-52-52	42	M52X2	36	63	51	40	50	60	250	596	1113

S Series

Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
											Body	Total
B89083-14-14	B89026-14-14	6	M14X1,5	4	31	23	16	12	17	800	36	78
B89083-16-16	B89026-16-16	8	M16X1,5	5	32	24	17	14	19	800	49	98
B89083-18-18	B89026-18-18	10	M18X1,5	7	34	25	17,5	17	22	800	61	133
B89083-20-20	B89026-20-20	12	M20X1,5	8	38	29	21,5	17	24	630	84	164
B89083-22-22	B89026-22-22	14	M22X1,5	10	40	30	22	19	27	630	103	223
B89083-24-24	B89026-24-24	16	M24X1,5	12	43	33	24,5	24	30	630	143	291
B89083-30-30	B89026-30-30	20	M30X2	16	49	37	26,5	27	36	420	211	448
B89083-36-36	B89026-36-36	25	M36X2	20	55	42	30	36	46	420	374	833
B89083-42-42	B89026-42-42	30	M42X2	25	63	49	35,5	41	50	420	568	1076
B89083-52-52	B89026-52-52	38	M52X2	32	72,5	57	41	50	60	420	865	1602

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.
- 45° version available on request.



EQUAL TEE

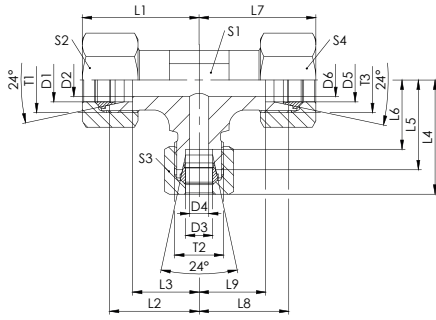
PART NUMBERS DIMENSIONS (mm)

LL Series												
Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
											Body	Total
E68013-08-08	E68005-08-08	4	M8X1	3	21	15	11	9	10	100	13	28
E68013-10-10	E68005-10-10	6	M10X1	4,5	21	15	9,5	9	12	100	13	34
E68013-12-12	E68005-12-12	8	M12X1	6	23	17	11,5	12	14	100	21	48
E68013-14-14	E68005-14-14	10	M14X1	8	27	21,5	16	14	17	100	38	78
E68013-16-16	E68005-16-16	12	M16X1	10	29	21,5	15,5	14	19	100	32	80

L Series												
Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
											Body	Total
B90098-12-12	B90020-12-12	6	M12X1,5	4	27	19	12	12	14	500	30	68
B90098-14-14	B90020-14-14	8	M14X1,5	6	29	21	14	12	17	500	35	91
B90098-16-16	B90020-16-16	10	M16X1,5	8	30	22	15	14	19	500	46	115
B90098-18-18	B90020-18-18	12	M18X1,5	10	32	24	17	17	22	400	59	150
B90098-22-22	B90020-22-22	15	M22X1,5	12	36,5	28	21	19	27	400	107	252
B90098-26-26	B90020-26-26	18	M26X1,5	15	40,5	31	23,5	24	32	400	157	372
B90098-30-30	B90020-30-30	22	M30X2	19	45,5	35	27,5	27	36	250	202	488
B90098-36-36	B90020-36-36	28	M36X2	24	49	38	30,5	36	41	250	314	649
B90098-45-45	B90020-45-45	35	M45X2	30	57	45	34,5	41	50	250	485	997
B90098-52-52	B90020-52-52	42	M52X2	36	63	51	40	50	60	250	716	1491

S Series												
Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
											Body	Total
B89081-14-14	B89024-14-14	6	M14X1,5	4	31	23	16	12	17	800	51	113
B89081-16-16	B89024-16-16	8	M16X1,5	5	32	24	17	14	19	800	70	143
B89081-18-18	B89024-18-18	10	M18X1,5	7	34	25	17,5	17	22	800	85	192
B89081-20-20	B89024-20-20	12	M20X1,5	8	38	29	21,5	17	24	630	116	236
B89081-22-22	B89024-22-22	14	M22X1,5	10	40	30	22	19	27	630	138	319
B89081-24-24	B89024-24-24	16	M24X1,5	12	43	33	24,5	24	30	630	193	415
B89081-30-30	B89024-30-30	20	M30X2	16	49	37	26,5	27	36	420	273	629
B89081-36-36	B89024-36-36	25	M36X2	20	55	42	30	36	46	420	465	1154
B89081-42-42	B89024-42-42	30	M42X2	25	63	49	35,5	41	50	420	713	1476
B89081-52-52	B89024-52-52	38	M52X2	32	72,5	57	41	50	60	420	1093	2198

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.



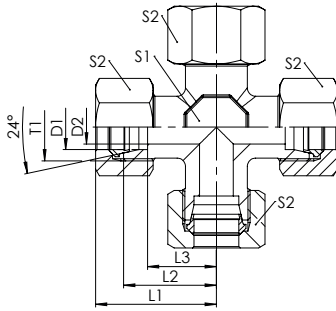
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PART NUMBERS DIMENSIONS (mm)

S Series																						Weight (g)				
Body Only	Complete	D1	T1	T2	T3	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	L7	L8	L9	S1	S2	S3	S4	PN	Body	Total
UPON REQ.	UPON REQ.	12	M20X1,5	M16X1,5	M20X1,5	8	8	5	12	8	38	29	21,5	37	29	22	38	29	21,5	17	24	19	24	630	115	219
UPON REQ.	UPON REQ.	12	M20X1,5	M24X1,5	M20X1,5	8	16	12	12	8	42	33	25,5	43	33	24,5	42	33	25,5	24	24	30	24	630	202	356
B89082-24-16	B89114-24-16	16	M24X1,5	M16X1,5	M24X1,5	12	8	5	16	12	43	33	24,5	41	33	26	43	33	24,5	24	30	19	30	630	196	368
B89082-24-18	B89114-24-18	16	M24X1,5	M18X1,5	M24X1,5	12	10	7	16	12	43	33	24,5	42	33	25,5	43	33	24,5	24	30	22	30	630	196	380
B89082-24-20	B89114-24-20	16	M24X1,5	M20X1,5	M24X1,5	12	12	8	16	12	43	33	24,5	42	33	25,5	43	33	24,5	24	30	24	30	630	197	386
B89082-30-18	B89114-30-18	20	M30X2	M18X1,5	M30X2	16	10	7	20	16	49	37	26,5	46	37	29,5	49	37	26,5	27	36	22	36	420	283	556
B89082-30-20	B89114-30-20	20	M30X2	M20X1,5	M30X2	16	12	8	20	16	49	37	26,5	46	37	29,5	49	37	26,5	27	36	24	36	420	284	562
B89082-30-24	B89114-30-24	20	M30X2	M24X1,5	M30X2	16	16	12	20	16	49	37	26,5	47	37	28,5	49	37	26,5	27	36	30	36	420	279	591
B89116-30-36	B89114-30-36	20	M30X2	M36X2	M30X2	16	25	20	20	16	54	42	31,5	55	42	30	54	42	31,5	36	36	46	36	420	494	961
B89082-36-24	B89114-36-24	25	M36X2	M24X1,5	M36X2	20	16	12	25	20	55	42	30	52	42	33,5	55	42	30	36	46	30	46	420	490	1023
B89082-36-30	B89114-36-30	25	M36X2	M30X2	M36X2	20	20	16	25	20	55	42	30	54	42	31,5	55	42	30	36	46	36	46	420	487	1065
B89082-36-42	B89114-36-42	25	M36X2	M42X2	M36X2	20	30	25	25	20	62	49	37	63	49	35,5	62	49	37	41	46	50	46	420	773	1487
B89082-42-30	B89114-42-30	30	M42X2	M30X2	M42X2	25	20	16	30	25	63	49	35,5	61	49	38,5	63	49	35,5	41	50	36	50	420	747	1374
UPON REQ.	UPON REQ.	30	M42X2	M36X2	M42X2	25	25	20	30	25	63	49	35,5	62	49	37	63	49	35,5	41	50	46	50	420	742	1474
UPON REQ.	UPON REQ.	38	M52X2	M30X2	M52X2	32	20	16	38	32	72,5	57	41	69	57	46,5	72,5	57	41	50	60	36	60	420	1189	2045
B89082-52-36	B89114-52-36	38	M52X2	M36X2	M52X2	32	25	20	38	32	72,5	57	41	70	57	45	72,5	57	41	50	60	46	60	420	1170	2137
B89082-52-42	B89114-52-42	38	M52X2	M42X2	M52X2	32	30	25	38	32	72,5	57	41	71	57	43,5	72,5	57	41	50	60	50	60	420	1149	2141

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

EQUAL CROSS



PART NUMBERS		DIMENSIONS (mm)										
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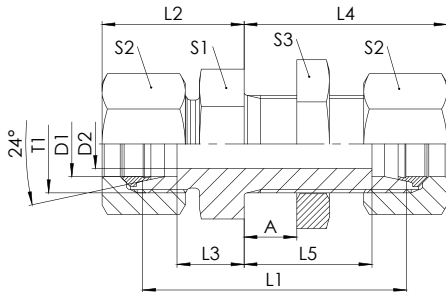
LL Series												
Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
											Body	Total
E68042-08-08	E68032-08-08	4	M8X1	3	21	15	11	9	10	100	16	37
E68042-10-10	E68032-10-10	6	M10X1	4,5	21	15	9,5	9	12	100	17	44
E68042-12-12	E68032-12-12	8	M12X1	6	23	17	11,5	12	14	100	27	62

L Series												
Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
											Body	Total
B90095-12-12	B90015-12-12	6	M12X1,5	4	27	19	12	12	14	500	39	89
B90095-14-14	B90015-14-14	8	M14X1,5	6	29	21	14	12	17	500	45	119
B90095-16-16	B90015-16-16	10	M16X1,5	8	30	22	15	14	19	500	58	150
B90095-18-18	B90015-18-18	12	M18X1,5	10	32	24	17	17	22	400	75	196
B90095-22-22	B90015-22-22	15	M22X1,5	12	36,5	28	21	19	27	400	134	328
B90095-26-26	B90015-26-26	18	M26X1,5	15	40,5	31	23,5	24	32	400	193	479
B90095-30-30	B90015-30-30	22	M30X2	19	45,5	35	27,5	27	36	250	254	637
B90095-36-36	B90015-36-36	28	M36X2	24	49	38	30,5	36	41	250	397	844
B90095-45-45	B90015-45-45	35	M45X2	30	57	45	34,5	41	50	250	601	1283
B90095-52-52	B90015-52-52	42	M52X2	36	63	51	40	50	60	250	870	1904

S Series												
Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
											Body	Total
B89078-14-14	B89014-14-14	6	M14X1,5	4	31	23	16	12	17	800	66	149
B89078-16-16	B89014-16-16	8	M16X1,5	5	32	24	17	14	19	800	87	185
B89078-18-18	B89014-18-18	10	M18X1,5	7	34	25	17,5	17	22	800	107	250
B89078-20-20	B89014-20-20	12	M20X1,5	8	38	29	21,5	17	24	630	146	305
B89078-22-22	B89014-22-22	14	M22X1,5	10	40	30	22	19	27	630	175	415
B89078-24-24	B89014-24-24	16	M24X1,5	12	43	33	24,5	24	30	630	238	535
B89078-30-30	B89014-30-30	20	M30X2	16	49	37	26,5	27	36	420	341	816
B89078-36-36	B89014-36-36	25	M36X2	20	55	42	30	36	46	420	588	1507
B89078-42-42	B89014-42-42	30	M42X2	25	63	49	35,5	41	50	420	877	1895
B89078-52-52	B89014-52-52	38	M52X2	32	72,5	57	41	50	60	420	1348	2822

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

BULKHEAD UNION



PART NUMBERS	DIMENSIONS (mm)
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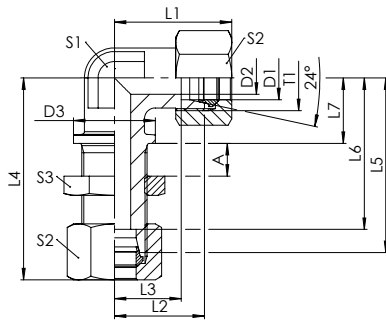
L Series															
Body Only	Complete	D1	T1	D2	L1	L2	L3	L4	L5	S1	S2	S3	PN	Weight (g)	
														Body	Total
B90082-12-12	B90019-12-12	6	M12X1,5	4	48	22	7	42	27	17	14	17	500	38	71
B90082-14-14	B90019-14-14	8	M14X1,5	6	49	23	8	42	27	19	17	19	500	50	95
B90082-16-16	B90019-16-16	10	M16X1,5	8	52	25	10	43	28	22	19	22	500	65	122
B90082-18-18	B90019-18-18	12	M18X1,5	10	53	25	10	44	29	24	22	24	400	77	150
B90082-22-22	B90019-22-22	15	M22X1,5	12	57	27,5	12	46,5	31	27	27	30	400	121	242
B90082-26-26	B90019-26-26	18	M26X1,5	15	61	30,5	13,5	49,5	32,5	32	32	36	400	179	361
B90082-30-30	B90019-30-30	22	M30X2	19	66	34,5	16,5	52,5	34,5	36	36	41	250	231	472
B90082-36-36	B90019-36-36	28	M36X2	24	69	37	18,5	54	35,5	41	41	46	250	316	601
B90082-45-45	B90019-45-45	35	M45X2	30	76	41	18,5	59	36,5	50	50	55	250	522	940
B90082-52-52	B90019-52-52	42	M52X2	36	77	42	19	59	36	60	60	65	250	688	1330

S Series															
Body Only	Complete	D1	T1	D2	L1	L2	L3	L4	L5	S1	S2	S3	PN	Weight (g)	
														Body	Total
B89064-14-14	B89023-14-14	6	M14X1,5	4	55	27	12	44	29	19	17	19	800	66	116
B89064-16-16	B89023-16-16	8	M16X1,5	5	56	28	13	44	29	22	19	22	800	87	147
B89064-18-18	B89023-18-18	10	M18X1,5	7	59	31	14,5	46	29,5	24	22	24	800	111	194
B89064-20-20	B89023-20-20	12	M20X1,5	8	60	31	14,5	47	30,5	27	24	27	630	137	233
B89064-22-22	B89023-22-22	14	M22X1,5	10	65	35	17	50	32	30	27	30	630	174	317
B89064-24-24	B89023-24-24	16	M24X1,5	12	65	35	16,5	50	31,5	32	30	32	630	193	367
B89064-30-30	B89023-30-30	20	M30X2	16	72	40	17,5	56	33,5	41	36	41	420	326	613
B89064-36-36	B89023-36-36	25	M36X2	20	79	45	20	60	35	46	46	46	420	477	997
B89064-42-42	B89023-42-42	30	M42X2	25	86	49	21,5	65	37,5	50	50	50	420	631	1198
B89064-52-52	B89023-52-52	38	M52X2	32	91	53,5	22	68,5	37	65	60	65	420	1024	1885

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

BULKHEAD UNIONS

BULKHEAD ELBOW COUPLING

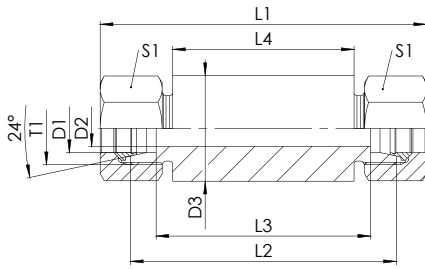


PART NUMBERS		DIMENSIONS (mm)																
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L Series																		
Body Only	Complete	D1	T1	D2	D3	L1	L2	L3	L4	L5	L6	L7	S1	S2	S3	PN	Weight (g)	
																	Body	Total
B90088-12-12	B90024-12-12	6	M12X1,5	4	17	27	19	12	56	48	41	14	12	14	17	315	55	80
B90088-14-14	B90024-14-14	8	M14X1,5	6	19	29	21	14	59	51	44	17	12	17	19	315	68	105
B90088-16-16	B90024-16-16	10	M16X1,5	8	22	30	22	15	61	53	46	18	14	19	22	315	87	132
B90088-18-18	B90024-18-18	12	M18X1,5	10	24	32	24	17	64	56	49	20	17	22	24	315	106	167
B90088-22-22	B90024-22-22	15	M22X1,5	12	27	36,5	28	21	70	61	54	23	19	27	30	315	178	275
B90088-26-26	B90024-26-26	18	M26X1,5	15	32	40,5	31	24	74	64	57	24	24	32	36	315	258	400
B90088-30-30	B90024-30-30	22	M30X2	19	36	45,5	35	28	82	72	65	30	27	36	41	160	338	529
B90088-36-36	B90024-36-36	28	M36X2	24	42	49	38	31	88	77	70	34	36	41	46	160	510	732
B90088-45-45	B90024-45-45	35	M45X2	30	50	57	45	35	98	86	76	39	41	50	55	160	799	1138
B90088-52-52	B90024-52-52	42	M52X2	36	60	63	51	40	102	90	79	43	50	60	65	160	1134	1648

S Series																		
Body Only	Complete	D1	T1	D2	D3	L1	L2	L3	L4	L5	L6	L7	S1	S2	S3	PN	Weight (g)	
																	Body	Total
B89069-14-14	B89027-14-14	6	M14X1,5	4	19	31	23	16	61	53	46	17	12	17	17	630	81	123
B89069-16-16	B89027-16-16	8	M16X1,5	5	22	32	24	17	62	54	47	18	14	19	22	630	108	157
B89069-18-18	B89027-18-18	10	M18X1,5	7	24	34	25	18	66	57	50	20	17	22	24	630	134	205
B89069-20-20	B89027-20-20	12	M20X1,5	8	27	38	29	22	68	59	52	21	17	24	27	630	171	250
B89069-22-22	B89027-22-22	14	M22X1,5	10	27	40	30	22	73	63	55	23	19	27	30	630	210	329
B89069-24-24	B89027-24-24	16	M24X1,5	12	30	43	33	25	74	64	56	24	24	30	32	400	261	408
B89069-30-30	B89027-30-30	20	M30X2	16	36	49	37	27	86	74	64	30	27	36	41	400	415	651
B89069-36-36	B89027-36-36	25	M36X2	20	42	55	42	30	94	81	69	34	36	46	46	400	661	1118
B89069-42-42	B89027-42-42	30	M42X2	25	50	63	49	36	104	90	77	39	41	50	50	400	956	1462
B89069-52-52	B89027-52-52	38	M52X2	32	60	72,5	57	41	111	96	80	43	50	60	65	315	1464	2196

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.



STRAIGHT WELD
BULKHEAD CONNECTOR

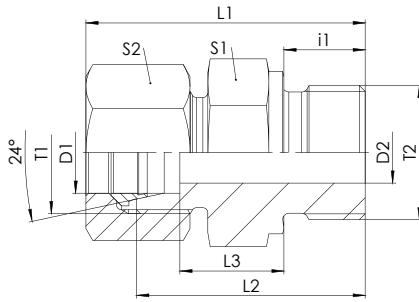
PART NUMBERS DIMENSIONS (mm)

L Series													
Body Only	Complete	D1	T1	D2	D3	L1	L2	L3	L4	S1	PN	Weight (g)	
												Body	Total
B90090-12-12	B90004-12-12	6	M12X1,5	4	18	86	70	56	50	14	500	106	131
B90090-14-14	B90004-14-14	8	M14X1,5	6	20	86	70	56	50	17	500	126	163
B90090-16-16	B90004-16-16	10	M16X1,5	8	22	88	72	58	50	19	500	148	194
B90090-18-18	B90004-18-18	12	M18X1,5	10	25	88	72	58	50	22	400	183	244
B90090-22-22	B90004-22-22	15	M22X1,5	12	28	101	84	70	60	27	400	274	370
B90090-26-26	B90004-26-26	18	M26X1,5	15	32	103	84	69	60	32	400	346	488
B90090-30-30	B90004-30-30	22	M30X2	19	36	109	88	73	60	36	250	415	605
B90090-36-36	B90004-36-36	28	M36X2	24	40	110	88	73	60	41	250	469	691
B90090-45-45	B90004-45-45	35	M45X2	30	50	116	92	71	60	50	250	748	1087
B90090-52-52	B90004-52-52	42	M52X2	36	60	116	92	70	60	60	250	1038	1552

S Series													
Body Only	Complete	D1	T1	D2	D3	L1	L2	L3	L4	S1	PN	Weight (g)	
												Body	Total
B89073-14-14	B89004-14-14	6	M14X1,5	4	20	90	74	60	50	17	800	140	182
B89073-16-16	B89004-16-16	8	M16X1,5	5	22	90	74	60	50	19	800	169	217
B89073-18-18	B89004-18-18	10	M18X1,5	7	25	92	74	59	50	22	800	209	280
B89073-20-20	B89004-20-20	12	M20X1,5	8	28	92	74	59	50	24	630	259	338
B89073-22-22	B89004-22-22	14	M22X1,5	10	30	108	88	72	60	27	630	347	466
B89073-24-24	B89004-24-24	16	M24X1,5	12	35	108	88	71	60	30	630	456	604
B89073-30-30	B89004-30-30	20	M30X2	16	38	116	92	71	60	36	420	534	770
B89073-36-36	B89004-36-36	25	M36X2	20	45	122	96	72	60	46	420	750	1206
B89073-42-42	B89004-42-42	30	M42X2	25	50	128	100	73	60	50	420	908	1414
B89073-52-52	B89004-52-52	38	M52X2	32	60	135	104	72	60	60	420	1297	2030

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

MALE STUD CONNECTORS



BSP

MALE STUD CONNECTOR

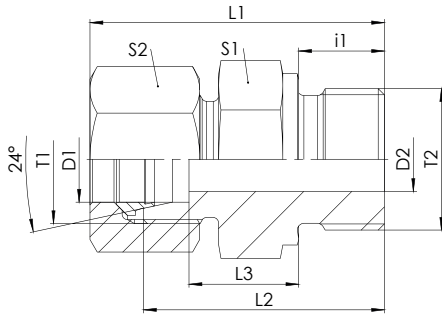
METALLIC SEALING EDGE FORM B

PART NUMBERS		DIMENSIONS (mm)													
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LL Series															
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)		
													Body	Total	
E68043-08-02	E68035-08-02	4	M8X1	G1/8	3	27,5	21,5	9,5	8	14	10	100	13	18	
E68043-10-02	E68035-10-02	6	M10X1	G1/8	4	27,5	21,5	8	8	14	12	100	13	20	
E68043-12-02	E68035-12-02	8	M12X1	G1/8	4	28,5	22,5	9	8	14	14	100	15	23	
UPON REQ.	UPON REQ.	10	M14X1	G1/4	6	34	28	10,5	12	19	17	100	29	43	

L Series															
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)		
													Body	Total	
B90108-12-02	B90055-12-02	6	M12X1,5	G1/8	4	31,5	23,5	8,5	8	14	14	315	16	28	
B90108-12-04	B90055-12-04	6	M12X1,5	G1/4	4	37	29	10	12	19	14	315	31	44	
B90108-12-06	B90055-12-06	6	M12X1,5	G3/8	4	38,5	30,5	11,5	12	22	14	315	44	57	
B90108-12-08	B90055-12-08	6	M12X1,5	G1/2	4	41	33	12	14	27	14	315	70	83	
B90108-14-02	B90055-14-02	8	M14X1,5	G1/8	4	32,5	24,5	9,5	8	14	17	315	18	37	
B90108-14-04	B90055-14-04	8	M14X1,5	G1/4	6	37	29	10	12	19	17	315	30	49	
B90108-14-06	B90055-14-06	8	M14X1,5	G3/8	6	38,5	30,5	11,5	12	22	17	315	48	67	
B90108-14-08	B90055-14-08	8	M14X1,5	G1/2	6	41	33	12	14	27	17	315	78	97	
B90108-14-12	B90055-14-12	8	M14X1,5	G3/4	6	44	36	13	16	32	17	315	102	120	
B90108-16-02	B90055-16-02	10	M16X1,5	G1/8	4	33,5	25,5	10,5	8	17	19	315	23	46	
B90108-16-04	B90055-16-04	10	M16X1,5	G1/4	6	38	30	11	12	19	19	315	33	56	
B90108-16-06	B90055-16-06	10	M16X1,5	G3/8	8	39,5	31,5	12,5	12	22	19	315	47	70	
B90108-16-08	B90055-16-08	10	M16X1,5	G1/2	8	42	34	13	14	27	19	315	77	99	
B90108-16-12	B90055-16-12	10	M16X1,5	G3/4	8	45,5	37,5	14,5	16	32	19	315	100	123	
B90108-18-02	B90055-18-02	12	M18X1,5	G1/8	4	34,5	26,5	11,5	8	19	22	315	28	58	
B90108-18-04	B90055-18-04	12	M18X1,5	G1/4	6	39	31	12	12	19	22	315	35	66	
B90108-18-06	B90055-18-06	12	M18X1,5	G3/8	9	39,5	31,5	12,5	12	22	22	315	47	77	
B90108-18-08	B90055-18-08	12	M18X1,5	G1/2	10	42	34	13	14	27	22	315	73	103	
B90108-18-12	B90055-18-12	12	M18X1,5	G3/4	10	45	37	14	16	32	22	315	126	157	
B90108-22-04	B90055-22-04	15	M22X1,5	G1/4	6	40,5	32	13	12	24	27	315	52	101	
B90108-22-06	B90055-22-06	15	M22X1,5	G3/8	9	41	32,5	13,5	12	24	27	315	60	108	
B90108-22-08	B90055-22-08	15	M22X1,5	G1/2	12	43,5	35	14	14	27	27	315	74	123	
B90108-22-12	B90055-22-12	15	M22X1,5	G3/4	12	46,5	38	15	16	32	27	250	107	156	
B90108-22-16	B90055-22-16	15	M22X1,5	G1	12	49,5	41	16	18	41	27	160	179	228	
B90108-26-06	B90055-26-06	18	M26X1,5	G3/8	9	43	33,5	14	12	27	32	250	70	142	
B90108-26-08	B90055-26-08	18	M26X1,5	G1/2	14	45,5	36	14,5	14	27	32	250	78	150	
B90108-26-12	B90055-26-12	18	M26X1,5	G3/4	15	47,5	38	14,5	16	32	32	250	121	192	
B90108-26-16	B90055-26-16	18	M26X1,5	G1	15	49,5	40	14,5	18	41	32	160	171	243	
B90108-30-08	B90055-30-08	22	M30X2	G1/2	14	48,5	38	16,5	14	32	36	160	96	192	
B90108-30-12	B90055-30-12	22	M30X2	G3/4	18	50,5	40	16,5	16	32	36	160	116	211	
B90108-30-16	B90055-30-16	22	M30X2	G1	19	53,5	43	17,5	18	41	36	160	202	298	
B90108-30-20	B90055-30-20	22	M30X2	G1.1/4	19	55,5	45	17,5	20	50	36	160	274	370	
B90108-36-08	B90055-36-08	28	M36X2	G1/2	14	50	39	17,5	14	41	41	160	149	260	
B90108-36-12	B90055-36-12	28	M36X2	G3/4	18	52	41	17,5	16	41	41	160	158	270	
B90108-36-16	B90055-36-16	28	M36X2	G1	23	54	43	17,5	18	41	41	160	185	296	
B90108-36-20	B90055-36-20	28	M36X2	G1.1/4	24	57	46	18,5	20	50	41	160	288	400	
B90108-36-24	B90055-36-24	28	M36X2	G1.1/2	24	61	50	20,5	22	55	41	160	384	495	
B90108-45-08	B90055-45-08	35	M45X2	G1/2	14	54	42	17,5	14	46	50	160	212	383	
B90108-45-12	B90055-45-12	35	M45X2	G3/4	18	56	44	17,5	16	46	50	160	227	398	
B90108-45-16	B90055-45-16	35	M45X2	G1	23	58	46	17,5	18	46	50	160	248	418	
B90108-45-20	B90055-45-20	35	M45X2	G1.1/4	30	60	48	17,5	20	50	50	160	301	471	
B90108-45-24	B90055-45-24	35	M45X2	G1.1/2	30	64	52	19,5	22	55	50	160	454	624	
UPON REQ.	UPON REQ.	35	M45X2	G2	30	71	59	24,5	24	70	50	160	957	1127	
B90108-52-16	B90055-52-16	42	M52X2	G1	23	60	48	19	18	55	60	160	346	604	
B90108-52-20	B90055-52-20	42	M52X2	G1.1/4	30	62	50	19	20	55	60	160	373	631	
B90108-52-24	B90055-52-24	42	M52X2	G1.1/2	36	64	52	19	22	55	60	160	381	640	
UPON REQ.	UPON REQ.	42	M52X2	G2	36	73,5	61,5	26,5	24	70	60	160	930	1189	

MALE STUD CONNECTORS



METRIC PARALLEL MALE STUD CONNECTOR

METALLIC SEALING EDGE FORM B

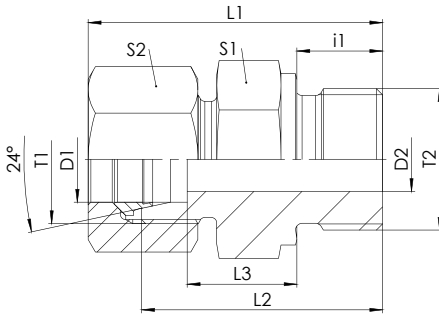
PART NUMBERS		DIMENSIONS (mm)										
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LL Series														Weight (g)	
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Body	Total	
UPON REQ.	UPON REQ.	4	M8X1	M6X1	2	27,5	21,5	9,5	8	11	10	100	8	13	
E68015-08-08	E68036-08-08	4	M8X1	M8X1	3	27,5	21,5	9,5	8	12	10	100	9	14	
UPON REQ.	UPON REQ.	6	M10X1	M6X1	2	27,5	21,5	8	8	11	12	100	8	15	
UPON REQ.	UPON REQ.	6	M10X1	M8X1	3	27,5	21,5	8	8	12	12	100	10	17	
E68015-10-10	E68036-10-10	6	M10X1	M10X1	4	27,5	21,5	8	8	14	12	100	13	20	
E68015-12-10	E68036-12-10	8	M12X1	M10X1	5	28,5	22,5	9	8	14	14	100	14	23	

L Series														Weight (g)	
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Body	Total	
B90105-12-10	B90047-12-10	6	M12X1,5	M10X1	4	31,5	23,5	8,5	8	14	14	315	16	29	
B90105-12-12	B90047-12-12	6	M12X1,5	M12X1,5	4	37	29	10	12	17	14	315	26	39	
B90105-12-14	B90047-12-14	6	M12X1,5	M14X1,5	4	38	30	11	12	19	14	315	36	48	
B90105-14-10	B90047-14-10	8	M14X1,5	M10X1	4	31,5	23,5	8,5	8	14	17	315	17	36	
B90105-14-12	B90047-14-12	8	M14X1,5	M12X1,5	6	37	29	10	12	17	17	315	25	44	
B90105-14-14	B90047-14-14	8	M14X1,5	M14X1,5	6	38	30	11	12	19	17	315	35	53	
B90105-14-16	B90047-14-16	8	M14X1,5	M16X1,5	6	38	30	11	12	22	17	315	45	63	
B90105-14-18	B90047-14-18	8	M14X1,5	M18X1,5	6	38,5	30,5	11,5	12	24	17	315	56	74	
B90105-16-10	B90047-16-10	10	M16X1,5	M10X1	4	33,5	25,5	10,5	8	17	19	315	25	48	
B90105-16-12	B90047-16-12	10	M16X1,5	M12X1,5	6	38	30	11	12	17	19	315	28	51	
B90105-16-14	B90047-16-14	10	M16X1,5	M14X1,5	7	38	30	11	12	19	19	315	34	56	
B90105-16-16	B90047-16-16	10	M16X1,5	M16X1,5	8	39,5	31,5	12,5	12	22	19	315	45	68	
B90105-16-18	B90047-16-18	10	M16X1,5	M18X1,5	8	39,5	31,5	12,5	12	24	19	315	55	78	
B90105-16-22	B90047-16-22	10	M16X1,5	M22X1,5	8	42	34	13	14	27	19	315	82	105	
B90105-18-12	B90047-18-12	12	M18X1,5	M12X1,5	6	38	30	11	12	19	22	315	31	62	
B90105-18-14	B90047-18-14	12	M18X1,5	M14X1,5	7	38	30	11	12	19	22	315	36	66	
B90105-18-16	B90047-18-16	12	M18X1,5	M16X1,5	9	39,5	31,5	12,5	12	22	22	315	45	75	
B90105-18-18	B90047-18-18	12	M18X1,5	M18X1,5	10	39,5	31,5	12,5	12	24	22	315	52	82	
UPON REQ.	UPON REQ.	12	M18X1,5	M20X1,5	10	43	35	14	14	27	22	315	75	105	
B90105-18-22	B90047-18-22	12	M18X1,5	M22X1,5	10	42	34	13	14	27	22	315	79	109	
B90105-22-16	B90047-22-16	15	M22X1,5	M16X1,5	9	40,5	32	13	12	24	27	250	56	105	
B90105-22-18	B90047-22-18	15	M22X1,5	M18X1,5	11	41	32,5	13,5	12	24	27	250	57	106	
B90105-22-22	B90047-22-22	15	M22X1,5	M22X1,5	12	43,5	35	14	14	27	27	250	80	129	
UPON REQ.	UPON REQ.	15	M22X1,5	M26X1,5	12	46,5	38	15	16	32	27	250	125	174	
B90105-26-18	B90047-26-18	18	M26X1,5	M18X1,5	11	43	33,5	14	12	27	32	250	71	142	
B90105-26-22	B90047-26-22	18	M26X1,5	M22X1,5	14	45,5	36	14,5	14	27	32	250	84	156	
B90105-26-26	B90047-26-26	18	M26X1,5	M26X1,5	15	47,5	38	14,5	16	32	32	250	119	190	
B90105-30-22	B90047-30-22	22	M30X2	M22X1,5	14	48,5	38	16,5	14	32	36	250	106	202	
B90105-30-26	B90047-30-26	22	M30X2	M26X1,5	18	50,5	40	16,5	16	32	36	250	114	210	
UPON REQ.	B90047-30-27	22	M30X2	M27X2	16	50,5	40	16,5	16	32	36	250	128	223	
B90105-36-33	B90047-36-33	28	M36X2	M33X2	23	54	43	17,5	18	41	41	160	186	297	
B90105-45-42	B90047-45-42	35	M45X2	M42X2	30	60	48	17,5	20	50	50	160	305	476	
B90105-52-48	B90047-52-48	42	M52X2	M48X2	36	64	52	19	22	55	60	160	388	646	

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

MALE STUD CONNECTORS



METRIC PARALLEL MALE STUD CONNECTOR

METALLIC SEALING EDGE FORM B

PART NUMBERS	DIMENSIONS (mm)
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S Series															Weight [g]	
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Body	Total		
B89076-14-12	B89030-14-12	6	M14X1,5	M12X1,5	4	40	32	13	12	17	17	400	34	54		
B89076-14-14	B89030-14-14	6	M14X1,5	M14X1,5	4	40	32	13	12	19	17	400	41	62		
B89076-16-14	B89030-16-14	8	M16X1,5	M14X1,5	5	42	34	15	12	19	19	400	47	71		
B89076-16-16	B89030-16-16	8	M16X1,5	M16X1,5	5	42	34	15	12	22	19	400	59	83		
B89076-18-14	B89030-18-14	10	M18X1,5	M14X1,5	5	43,5	34,5	15	12	19	22	400	51	87		
B89076-18-16	B89030-18-16	10	M18X1,5	M16X1,5	7	43,5	34,5	15	12	22	22	400	59	95		
B89076-18-18	B89030-18-18	10	M18X1,5	M18X1,5	7	45,5	36,5	17	12	24	22	400	77	113		
B89076-20-14	B89030-20-14	12	M20X1,5	M14X1,5	5	45	36	16,5	12	22	24	400	66	106		
B89076-20-16	B89030-20-16	12	M20X1,5	M16X1,5	7	45	36	16,5	12	22	24	400	66	106		
B89076-20-18	B89030-20-18	12	M20X1,5	M18X1,5	8	45,5	36,5	17	12	24	24	400	78	118		
B89076-20-22	B89030-20-22	12	M20X1,5	M22X1,5	8	48	39	17,5	14	27	24	400	110	150		
B89076-22-20	B89030-22-20	14	M22X1,5	M20X1,5	10	51	41	19	14	27	27	400	102	162		
B89076-24-18	B89030-24-18	16	M24X1,5	M18X1,5	8	48,5	38,5	18	12	27	30	400	97	172		
B89076-24-22	B89030-24-22	16	M24X1,5	M22X1,5	12	51	41	18,5	14	27	30	400	106	180		
UPON REQ.	UPON REQ.	16	M24X1,5	M27X2	12	55	45	20,5	16	32	30	400	169	243		
B89076-30-22	B89030-30-22	20	M30X2	M22X1,5	12	57	45	20,5	14	32	36	400	156	275		
B89076-30-27	B89030-30-27	20	M30X2	M27X2	16	59	47	20,5	16	32	36	250	167	286		
B89076-36-33	B89030-36-33	25	M36X2	M33X2	20	66	53	23	18	41	46	250	289	519		
B89076-42-33	B89030-42-33	30	M42X2	M33X2	20	69	55	23,5	18	46	50	160	361	615		
B89076-42-42	B89030-42-42	30	M42X2	M42X2	25	71	57	23,5	20	50	50	160	454	708		
UPON REQ.	UPON REQ.	38	M52X2	M33X2	20	79	64	30	18	55	60	160	633	1001		
B89076-52-48	B89030-52-48	38	M52X2	M48X2	32	79,5	64	26	22	55	60	160	612	980		

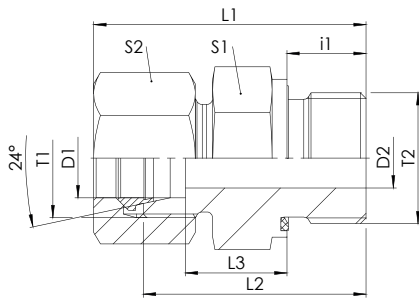
- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.

- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

MALE STUD CONNECTORS

BSP

MALE STUD CONNECTOR SEALING BY NBR PROFILE RING DIN 3869



PART NUMBERS		DIMENSIONS (mm)												
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LL Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)	
													Body	Total
E68028-08-02	E68040-08-02	4	M8X1	G1/8	3	26	20	9,5	6,5	14	10	100	12	17

L Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)	
													Body	Total
B90128-12-02	B90124-12-02	6	M12X1,5	G1/8	4	31,5	23,5	8,5	8	14	14	500	15	28
B90128-12-04	B90124-12-04	6	M12X1,5	G1/4	4	37	29	10	12	19	14	500	31	44
B90128-12-06	B90124-12-06	6	M12X1,5	G3/8	4	38,5	30,5	11,5	12	22	14	500	44	57
B90128-12-08	B90124-12-08	6	M12X1,5	G1/2	4	41	33	12	14	27	14	500	69	82
B90128-14-02	B90124-14-02	8	M14X1,5	G1/8	4	32,5	24,5	9,5	8	14	17	500	18	37
B90128-14-04	B90124-14-04	8	M14X1,5	G1/4	6	37	29	10	12	19	17	500	30	49
B90128-14-06	B90124-14-06	8	M14X1,5	G3/8	6	38,5	30,5	11,5	12	22	17	500	48	66
B90128-14-08	B90124-14-08	8	M14X1,5	G1/2	6	41	33	12	14	27	17	500	72	90
B90128-16-02	B90124-16-02	10	M16X1,5	G1/8	4	33,5	25,5	10,5	8	17	19	500	23	46
B90128-16-04	B90124-16-04	10	M16X1,5	G1/4	6	38	30	11	12	19	19	500	33	56
B90128-16-06	B90124-16-06	10	M16X1,5	G3/8	8	39,5	31,5	12,5	12	22	19	500	47	69
B90128-16-08	B90124-16-08	10	M16X1,5	G1/2	8	42	34	13	14	27	19	500	77	99
B90128-16-12	B90124-16-12	10	M16X1,5	G3/4	8	45	37	14	16	32	19	400	100	123
B90128-18-02	B90124-18-02	12	M18X1,5	G1/8	4	34,5	26,5	11,5	8	19	22	400	29	59
B90128-18-04	B90124-18-04	12	M18X1,5	G1/4	6	39	31	12	12	19	22	400	35	65
B90128-18-06	B90124-18-06	12	M18X1,5	G3/8	9	39,5	31,5	12,5	12	22	22	400	46	77
B90128-18-08	B90124-18-08	12	M18X1,5	G1/2	10	42	34	13	14	27	22	400	73	103
B90128-18-12	B90124-18-12	12	M18X1,5	G3/4	10	45	37	14	16	32	22	400	100	131
B90128-22-04	B90124-22-04	15	M22X1,5	G1/4	6	40,5	32	13	12	24	27	400	52	101
B90128-22-06	B90124-22-06	15	M22X1,5	G3/8	9	41	32,5	13,5	12	24	27	400	59	108
B90128-22-08	B90124-22-08	15	M22X1,5	G1/2	12	43,5	35	14	14	27	27	400	75	123
B90128-22-12	B90124-22-12	15	M22X1,5	G3/4	12	46,5	38	15	16	32	27	400	126	175
UPON REQ.	UPON REQ.	15	M22X1,5	G1	12	51	42,5	17,5	18	41	27	315	240	288
UPON REQ.	UPON REQ.	18	M26X1,5	G1/4	6	43	33,5	14	12	27	32	400	69	140
B90128-26-06	B90124-26-06	18	M26X1,5	G3/8	8	43	33,5	14	12	27	32	400	75	146
B90128-26-08	B90124-26-08	18	M26X1,5	G1/2	14	45,5	36	14,5	14	27	32	400	78	150
B90128-26-12	B90124-26-12	18	M26X1,5	G3/4	15	47,5	38	14,5	16	32	32	400	120	191
B90128-26-16	B90124-26-16	18	M26X1,5	G1	15	50,5	41	15,5	18	41	32	315	173	244
B90128-30-08	B90124-30-08	22	M30X2	G1/2	14	48,5	38	16,5	14	32	36	250	98	194
B90128-30-12	B90124-30-12	22	M30X2	G3/4	18	50,5	40	16,5	16	32	36	250	115	210
B90128-30-16	B90124-30-16	22	M30X2	G1	19	53,5	43	17,5	18	41	36	250	201	297
B90128-30-20	UPON REQ.	22	M30X2	G1.1/4	19	55,5	45	17,5	20	50	36	250	348	444
B90128-36-08	B90124-36-08	28	M36X2	G1/2	14	50	39	17,5	14	41	41	250	149	261
B90128-36-12	B90124-36-12	28	M36X2	G3/4	18	52	41	17,5	16	41	41	250	163	274
B90128-36-16	B90124-36-16	28	M36X2	G1	23	54	43	17,5	18	41	41	250	183	295
B90128-36-20	B90124-36-20	28	M36X2	G1.1/4	24	56	45	17,5	20	50	41	250	276	387
UPON REQ.	UPON REQ.	35	M45X2	G1/2	14	54	42	17,5	14	46	50	250	213	383
B90128-45-12	B90124-45-12	35	M45X2	G3/4	18	56	44	17,5	16	46	50	250	227	397
B90128-45-16	B90124-45-16	35	M45X2	G1	23	58	46	17,5	18	46	50	250	247	417
B90128-45-20	B90124-45-20	35	M45X2	G1.1/4	30	60	48	17,5	20	50	50	250	300	470
B90128-45-24	B90124-45-24	35	M45X2	G1.1/2	30	64	52	19,5	22	55	50	250	452	623
UPON REQ.	UPON REQ.	42	M52X2	G1/2	12	56	44	19	14	55	60	250	326	585
B90128-52-16	B90124-52-16	42	M52X2	G1	23	60	48	19	18	55	60	250	341	599
B90128-52-20	B90124-52-20	42	M52X2	G1.1/4	30	62	50	19	20	55	60	250	372	631
B90128-52-24	B90124-52-24	42	M52X2	G1.1/2	36	64	52	19	22	55	60	250	379	638
B90128-52-32	UPON REQ.	42	M52X2	G2	36	73,5	61,5	26,5	24	75	60	160	1024	1283

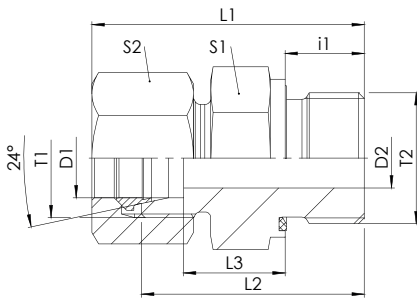
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MALE STUD CONNECTORS

BSP

MALE STUD CONNECTOR

SEALING BY NBR PROFILE RING DIN 3869

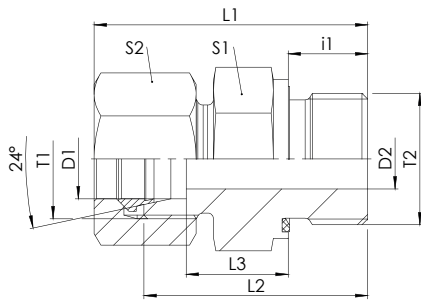


PART NUMBERS	DIMENSIONS (mm)
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S Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight [g]	
													Body	Total
B89106-14-02	B89099-14-02	6	M14X2	G1/8	4	36	28	13	8	17	17	630	28	49
B89106-14-04	B89099-14-04	6	M14X2	G1/4	4	40	32	13	12	19	17	630	39	59
B89106-14-06	B89099-14-06	6	M14X1,5	G3/8	4	42,5	34,5	15,5	12	22	17	630	61	81
B89106-14-08	B89099-14-08	6	M14X2	G1/2	4	47	39	18	14	27	17	630	88	109
B89106-16-02	B89099-16-02	8	M16X1,5	G1/8	4	37,5	29,5	14,5	8	19	19	630	37	62
B89106-16-04	B89099-16-04	8	M16X1,5	G1/4	5	42	34	15	12	19	19	630	45	69
B89106-16-06	B89099-16-06	8	M16X1,5	G3/8	5	42,5	34,5	15,5	12	22	19	630	62	86
B89106-16-08	B89099-16-08	8	M16X1,5	G1/2	5	47	39	18	14	27	19	630	106	130
UPON REQ.	UPON REQ.	8	M16X1,5	G3/4	5	49	41	18	16	32	19	630	127	152
B89106-18-02	B89099-18-02	10	M18X1,5	G1/8	4	39	30	15	8	19	22	630	42	77
B89106-18-04	B89099-18-04	10	M18X1,5	G1/4	5	43	34	14,5	12	19	22	630	48	83
B89106-18-06	B89099-18-06	10	M18X1,5	G3/8	7	43,5	34,5	15	12	22	22	630	61	96
B89106-18-08	B89099-18-08	10	M18X1,5	G1/2	7	48	39	17,5	14	27	22	630	104	140
B89106-20-04	B89099-20-04	12	M20X1,5	G1/4	5	45	36	16,5	12	22	24	630	61	101
B89106-20-06	B89099-20-06	12	M20X1,5	G3/8	8	46	36,5	17	12	22	24	630	67	107
B89106-20-08	B89099-20-08	12	M20X1,5	G1/2	8	48	39	17,5	14	27	24	630	104	144
B89106-20-12	B89099-20-12	12	M20X1,5	G3/4	8	50	41	17,5	16	32	24	400	138	178
B89106-22-06	B89099-22-06	14	M22X1,5	G3/8	8	48,5	38,5	18,5	12	24	27	630	82	142
B89106-22-08	B89099-22-08	14	M22X1,5	G1/2	10	51	41	19	14	27	27	630	105	165
B89106-22-12	B89099-22-12	14	M22X1,5	G3/4	10	55	45	21	16	32	27	400	159	219
B89106-24-04	B89099-24-04	16	M24X1,5	G1/4	5	48	38	17,5	12	27	30	400	88	163
B89106-24-06	B89099-24-06	16	M24X1,5	G3/8	8	48,5	38,5	18	12	27	30	400	93	167
B89106-24-08	B89099-24-08	16	M24X1,5	G1/2	12	51	41	18,5	14	27	30	400	100	175
B89106-24-12	B89099-24-12	16	M24X1,5	G3/4	12	55	45	20,5	16	32	30	400	166	240
B89106-24-16	B89099-24-16	16	M24X1,5	G1	12	59	49	22,5	18	41	30	400	268	342
B89106-30-06	B89099-30-06	20	M30X2	G3/8	8	54,5	42,5	20	12	32	36	400	139	258
B89106-30-08	B89099-30-08	20	M30X2	G1/2	12	57	45	20,5	14	32	36	400	150	268
B89106-30-12	B89099-30-12	20	M30X2	G3/4	16	59	47	20,5	16	32	36	400	164	282
B89106-30-16	B89099-30-16	20	M30X2	G1	16	63	51	22,5	18	41	36	400	292	410
B89106-30-20	B89099-30-20	20	M30X2	G1.1/4	16	65	53	22,5	20	50	36	400	473	592
B89106-36-08	B89099-36-08	25	M36X2	G1/2	12	62	49	23	14	41	46	400	251	481
B89106-36-12	B89099-36-12	25	M36X2	G3/4	16	64	51	23	16	41	46	400	263	493
B89106-36-16	B89099-36-16	25	M36X2	G1	20	66	53	23	18	41	46	400	288	517
B89106-36-20	B89099-36-20	25	M36X2	G1.1/4	20	68	55	23	20	50	46	400	428	658
B89106-36-24	UPON REQ.	25	M36X2	G1.1/2	20	73	60	26	22	55	46	400	577	807
B89106-42-12	B89099-42-12	30	M42X2	G3/4	16	67	53	23,5	16	46	50	400	335	589
B89106-42-16	B89099-42-16	30	M42X2	G1	20	69	55	23,5	18	46	50	400	361	615
B89106-42-20	B89099-42-20	30	M42X2	G1.1/4	25	71	57	23,5	20	50	50	400	449	703
B89106-42-24	B89099-42-24	30	M42X2	G1.1/2	25	76	62	26,5	22	55	50	400	584	838
UPON REQ.	UPON REQ.	38	M52X2	G1/2	12	71,5	56	26	14	55	60	400	513	881
B89106-52-16	B89099-52-16	38	M52X2	G1	20	75,5	60	26	18	55	60	400	557	925
B89106-52-20	B89099-52-20	38	M52X2	G1.1/4	25	77,5	62	26	20	55	60	400	609	977
B89106-52-24	B89099-52-24	38	M52X2	G1.1/2	32	79,5	64	26	22	55	60	400	604	973
UPON REQ.	UPON REQ.	38	M52X2	G2	32	82	66,5	26,5	24	75	60	250	1030	1398

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MALE STUD CONNECTORS



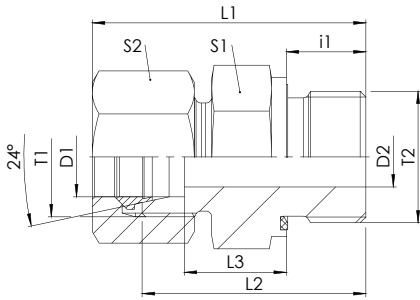
METRIC PARALLEL MALE STUD CONNECTOR

SEALING BY NBR PROFILE RING DIN 3869

PART NUMBERS		DIMENSIONS (mm)												
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L Series															Weight (g)	
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Body	Total		
B90131-12-10	B90118-12-10	6	M12X1,5	M10X1	4	31,5	23,5	8,5	8	14	14	500	16	28		
B90131-12-12	B90118-12-12	6	M12X1,5	M12X1,5	4	37	29	10	12	17	14	500	26	38		
B90131-12-14	B90118-12-14	6	M12X1,5	M14X1,5	4	37	29	10	12	19	14	500	33	45		
UPON REQ.	UPON REQ.	6	M12X1,5	M18X1,5	4	38,5	30,5	11,5	12	24	14	500	47	60		
B90131-14-10	B90118-14-10	8	M14X1,5	M10X1	4	31,5	23,5	8,5	8	14	17	500	17	36		
UPON REQ.	B90118-14-12	8	M14X1,5	M12X1,5	6	37	29	10	12	17	17	500	25	43		
B90131-14-14	B90118-14-14	8	M14X1,5	M14X1,5	6	37	29	10	12	19	17	500	32	50		
B90131-14-16	B90118-14-16	8	M14X1,5	M16X1,5	6	38	30	11	12	22	17	500	44	63		
B90131-14-18	B90118-14-18	8	M14X1,5	M18X1,5	6	38,5	30,5	11,5	12	24	17	500	48	66		
UPON REQ.	B90118-14-22	8	M14X1,5	M22X1,5	6	41	33	12	14	27	17	500	83	101		
B90131-16-10	UPON REQ.	10	M16X1,5	M10X1	4	34	26	11	8	17	19	500	24	47		
UPON REQ.	B90118-16-12	10	M16X1,5	M12X1,5	6	38	30	11	12	17	19	500	28	51		
UPON REQ.	B90118-16-14	10	M16X1,5	M14X1,5	7	38	30	11	12	19	19	500	33	56		
UPON REQ.	B90118-16-16	10	M16X1,5	M16X1,5	8	39,5	31,5	12,5	12	22	19	500	45	67		
B90131-16-18	B90118-16-18	10	M16X1,5	M18X1,5	8	39,5	31,5	12,5	12	24	19	400	54	77		
B90131-16-22	B90118-16-22	10	M16X1,5	M22X1,5	8	42	34	13	14	27	19	400	68	90		
B90131-18-12	B90118-18-12	12	M18X1,5	M12X1,5	6	38	30	11	12	19	22	400	30	61		
UPON REQ.	B90118-18-14	12	M18X1,5	M14X1,5	7	38	30	11	12	19	22	400	35	65		
UPON REQ.	B90118-18-16	12	M18X1,5	M16X1,5	9	39,5	31,5	12,5	12	22	22	400	44	75		
UPON REQ.	B90118-18-18	12	M18X1,5	M18X1,5	10	39,5	31,5	12,5	12	24	22	400	51	82		
UPON REQ.	B90118-18-22	12	M18X1,5	M22X1,5	10	42	34	13	14	27	22	400	68	98		
B90131-22-14	UPON REQ.	15	M22X1,5	M14X1,5	7	41	32,5	13,5	12	24	27	400	53	102		
UPON REQ.	B90118-22-16	15	M22X1,5	M16X1,5	9	41	32,5	13,5	12	24	27	400	58	106		
UPON REQ.	B90118-22-18	15	M22X1,5	M18X1,5	11	41	32,5	13,5	12	24	27	400	57	105		
UPON REQ.	B90118-22-22	15	M22X1,5	M22X1,5	12	43,5	35	14	14	27	27	400	79	127		
B90131-26-18	B90118-26-18	18	M26X1,5	M18X1,5	11	43	33,5	14	12	27	32	400	70	141		
UPON REQ.	B90118-26-22	18	M26X1,5	M22X1,5	14	45,5	36	14,5	14	27	32	400	83	154		
B90131-26-26	UPON REQ.	18	M26X1,5	M26X1,5	15	47,5	38	14,5	16	32	32	400	118	189		
B90131-30-22	B90118-30-22	22	M30X2	M22X1,5	14	48,5	38	16,5	14	32	36	250	101	196		
UPON REQ.	B90118-30-26	22	M30X2	M26X1,5	18	50,5	40	16,5	16	32	36	250	113	208		
B90131-30-27	UPON REQ.	22	M30X2	M27X2	18	50,5	40	16,5	16	32	36	250	116	212		
UPON REQ.	UPON REQ.	22	M30X2	M33X2	19	53,5	43	17,5	18	41	36	250	201	296		
B90131-36-26	UPON REQ.	28	M36X2	M26X1,5	18	52	41	17,5	16	41	41	250	158	269		
UPON REQ.	UPON REQ.	28	M36X2	M27X2	18	52	41	17,5	16	41	41	250	161	272		
B90131-36-33	B90118-36-33	28	M36X2	M33X2	23	54	43	17,5	18	41	41	250	183	294		
UPON REQ.	UPON REQ.	35	M45X2	M33X2	23	58	46	17,5	18	46	50	250	235	404		
B90131-45-42	B90118-45-42	35	M45X2	M42X2	30	60	48	17,5	20	50	50	250	302	471		
B90131-52-48	B90118-52-48	42	M52X2	M48X2	36	64	52	19	22	55	60	250	383	640		

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
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METRIC PARALLEL MALE STUD CONNECTOR

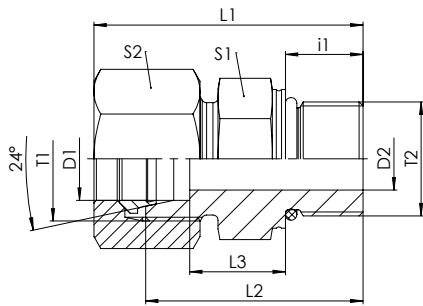
SEALING BY NBR PROFILE RING DIN 3869

PART NUMBERS		DIMENSIONS (mm)												
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S Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight [g]	
													Body	Total
B89108-14-12	B89093-14-12	6	M14X1,5	M12X1,5	4	40	32	13	12	17	17	630	33	54
B89108-16-12	B89093-16-12	8	M16X1,5	M12X1,5	4	40	32	13	12	17	19	630	36	60
B89108-16-14	B89093-16-14	8	M16X1,5	M14X1,5	5	42	34	15	12	19	19	630	46	71
B89108-18-14	B89093-18-14	10	M18X1,5	M14X1,5	5	43,5	34,5	15	12	19	22	630	49	85
B89108-18-16	B89093-18-16	10	M18X1,5	M16X1,5	7	43,5	34,5	15	12	22	22	630	59	94
B89108-20-12	B89093-20-12	12	M20X1,5	M12X1,5	4	45,5	36,5	17	12	22	24	630	62	102
B89108-20-14	B89093-20-14	12	M20X1,5	M14X1,5	5	45	36	16,5	12	22	24	630	65	105
B89108-20-16	B89093-20-16	12	M20X1,5	M16X1,5	8	45	36	16,5	12	22	24	630	64	104
UPON REQ.	B89093-20-18	12	M20X1,5	M18X1,5	8	45,5	36,5	17	12	24	24	630	77	117
B89108-20-22	B89093-20-22	12	M20X1,5	M22X1,5	8	48	39	17,5	14	27	24	630	100	140
B89108-22-20	B89093-22-20	14	M22X1,5	M20X1,5	10	51	41	19	14	27	27	630	102	162
B89108-24-16	B89093-24-16	16	M24X1,5	M16X1,5	8	48,5	38,5	18	12	24	30	400	80	154
B89108-24-18	B89093-24-18	16	M24X1,5	M18X1,5	8	48,5	38,5	18	12	24	30	400	86	159
UPON REQ.	B89093-24-22	16	M24X1,5	M22X1,5	12	51	41	18,5	14	27	30	400	105	179
B89108-24-27	UPON REQ.	16	M24X1,5	M27X2	12	53	43	18,5	16	32	30	400	155	229
B89108-30-22	UPON REQ.	20	M30X2	M22X1,5	12	57	45	20,5	14	32	36	400	152	270
UPON REQ.	B89093-30-27	20	M30X2	M27X2	16	59	47	20,5	16	32	36	400	165	283
B89108-30-33	UPON REQ.	20	M30X2	M33X2	16	61	49	20,5	18	41	36	400	271	389
B89108-36-27	UPON REQ.	25	M36X2	M26X1,5	15	64	51	23	16	41	46	400	259	488
B89108-36-33	B89093-36-33	25	M36X2	M33X2	20	66	53	23	18	41	46	400	287	515
B89108-42-42	B89093-42-42	30	M42X2	M42X2	25	71	57	23,5	20	50	50	400	450	703
UPON REQ.	UPON REQ.	38	M52X2	M33X2	20	75,5	60	26	18	55	60	400	551	917
B89108-52-48	B89093-52-48	38	M52X2	M48X2	32	79,5	64	26	22	55	60	400	606	972

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- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

MALE STUD CONNECTORS



METRIC PARALLEL MALE STUD CONNECTOR

SEALING BY NBR O-RING (ISO 6149-2+3)

PART NUMBERS	DIMENSIONS (mm)
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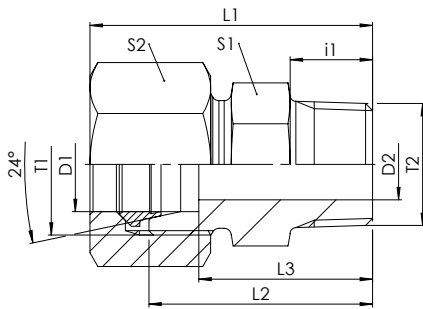
L Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)	
													Body	Total
B90078-12-10	B90048-12-10	6	M12X1,5	M10X1	4	33	25	9,5	8,5	14	14	400	17	30
B90078-14-12	B90048-14-12	8	M14X1,5	M12X1,5	6	36	28	10	11	17	17	400	24	43
B90078-16-14	B90048-16-14	10	M16X1,5	M14X1,5	7,5	37	29	11	11	19	19	400	31	54
B90078-18-16	B90048-18-16	12	M18X1,5	M16X1,5	9	39	31	12,5	11,5	22	22	400	44	75
B90078-18-18	UPON REQ.	12	M18X1,5	M18X1,5	10	41	33	13,5	12,5	24	22	400	56	86
B90078-22-18	B90048-22-26	15	M22X1,5	M18X1,5	11	41,5	33	13,5	12,5	24	27	400	58	107
B90078-22-22	UPON REQ.	15	M22X1,5	M22X1,5	12	43,5	35	15	13	27	27	400	82	131
B90078-26-22	B90048-26-22	18	M26X1,5	M22X1,5	14	44,5	35	14,5	13	27	32	400	82	154
B90078-30-27	B90048-30-26	22	M30X2	M27X2	18	50,5	40	16,5	16	32	36	250	118	214
B90078-36-33	B90048-36-33	28	M36X2	M33X2	23	52	41	17,5	16	41	41	250	181	292
B90078-45-42	B90048-45-42	35	M45X2	M42X2	30	56	44	17,5	16	50	50	250	285	456
B90078-52-48	B90048-52-48	42	M52X2	M48X2	36	59,5	47,5	19	17,5	55	60	250	360	618

S Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)	
													Body	Total
B89060-14-12	B89253-14-12	6	M14X1,5	M12X1,5	4	39	31	13	11	17	17	630	32	53
B89060-16-12	UPON REQ.	8	M16X1,5	M12X1,5	4	40	32	14	11	17	19	630	37	62
B89060-16-14	B89253-16-14	8	M16X1,5	M14X1,5	5	41	33	15	11	19	19	630	46	70
UPON REQ.	UPON REQ.	10	M18X1,5	M14X1,5	6	42,5	33,5	15	11	19	22	630	48	83
B89060-18-16	B89253-18-16	10	M18X1,5	M16X1,5	7	44	35	15	12,5	22	22	630	60	96
B89060-20-18	B89253-20-18	12	M20X1,5	M18X1,5	8	47,5	38,5	17	14	24	24	630	81	121
B89060-24-22	B89253-24-22	16	M24X1,5	M22X1,5	12	52	42	18,5	15	27	30	630	108	182
B89060-30-27	B89253-30-27	20	M30X2	M27X2	15	61,5	49,5	20,5	18,5	32	36	400	181	300
B89060-36-33	B89253-36-33	25	M36X2	M33X2	20	66,5	53,5	23	18,5	41	46	400	293	523
B89060-42-42	B89253-42-42	30	M42X2	M42X2	25	70	56	23,5	19	50	50	400	448	702
B89060-52-48	B89253-52-48	38	M52X2	M48X2	32	78,5	63	25,5	21,5	55	60	400	600	968

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
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MALE STUD CONNECTORS

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BSP TAPERED MALE STUD CONNECTOR

MALE STUD CONNECTORS

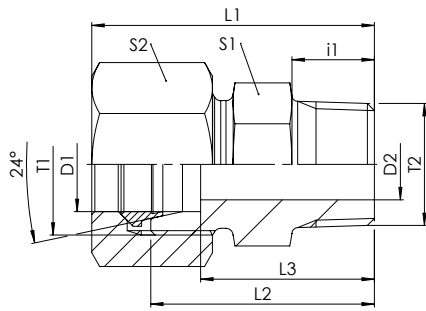
PART NUMBERS		DIMENSIONS (mm)												
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LL Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight [g]	
													Body	Total
E68017-08-02	E68008-08-02	4	M8X1	R1/8 KEG.	3	26	20	16	8	10	10	100	9	14
E68017-10-02	E68008-10-02	6	M10X1	R1/8 KEG.	4,5	26	20	14,5	8	11	12	100	9	16
E68043-10-04	UPON REQ.	6	M10X1	R1/4 KEG.	4,5	32	26	20,5	12	14	12	100	21	28
E68017-12-02	E68008-12-02	8	M12X1	R1/8 KEG.	4,5	28	22	16,5	8	12	14	100	13	21
E68017-12-04	E68008-12-04	8	M12X1	R1/4 KEG.	6	32	26	20,5	12	14	14	100	20	29
E68017-14-04	E68008-14-04	10	M14X1	R1/4 KEG.	7	32	26	20,5	12	14	17	100	20	33
UPON REQ.	UPON REQ.	12	M16X1	R1/4 KEG.	7	33	26	20	12	17	19	100	24	40
UPON REQ.	UPON REQ.	12	M16X1	R3/8 KEG.	10	33	26	20	12	19	19	100	28	44

L Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight [g]	
													Body	Total
B90113-12-02	B90068-12-02	6	M12X1,5	R1/8 KEG.	4	30	22	15	8	12	14	315	13	26
B90113-12-04	B90068-12-04	6	M12X1,5	R1/4 KEG.	4	35	27	20	12	14	14	315	23	36
B90113-12-06	B90068-12-06	6	M12X1,5	R3/8 KEG.	4	36	28	21	12	19	14	315	33	46
UPON REQ.	UPON REQ.	6	M12X1,5	R1/2 KEG.	4	38	30	23	14	22	14	315	52	65
B90113-14-02	B90068-14-02	8	M14X1,5	R1/8 KEG.	4	33	25	18	8	14	17	315	20	38
B90113-14-04	B90068-14-04	8	M14X1,5	R1/4 KEG.	6	35	27	20	12	14	17	315	22	41
B90113-14-06	B90068-14-06	8	M14X1,5	R3/8 KEG.	6	36	28	21	12	19	17	315	38	57
B90113-14-08	B90068-14-08	8	M14X1,5	R1/2 KEG.	6	38	30	23	14	24	17	315	55	74
B90113-16-02	B90068-16-02	10	M16X1,5	R1/8 KEG.	4	32	24	17	8	17	19	315	23	45
B90113-16-04	B90068-16-04	10	M16X1,5	R1/4 KEG.	7	36	28	21	12	17	19	315	27	50
B90113-16-06	B90068-16-06	10	M16X1,5	R3/8 KEG.	8	36	28	21	12	19	19	315	35	58
B90113-16-08	B90068-16-08	10	M16X1,5	R1/2 KEG.	8	38	30	23	14	24	19	315	59	82
B90113-18-04	B90068-18-04	12	M18X1,5	R1/4 KEG.	6	37	29	22	12	19	22	315	34	64
B90113-18-06	B90068-18-06	12	M18X1,5	R3/8 KEG.	9	37	29	22	12	19	22	315	37	68
B90113-18-08	B90068-18-08	12	M18X1,5	R1/2 KEG.	10	39	31	24	14	22	22	315	56	86
B90113-22-06	B90068-22-06	15	M22X1,5	R3/8 KEG.	9	39	30	23	12	24	27	315	55	104
B90113-22-08	B90068-22-08	15	M22X1,5	R1/2 KEG.	12	41	32	25	14	24	27	315	62	110
B90113-22-12	B90068-22-12	15	M22X1,5	R3/4 KEG.	12	45	36	29	17	27	27	160	83	131
B90113-26-06	B90068-26-06	18	M26X1,5	R3/8 KEG.	9	41	31	23,5	12	27	32	315	70	141
B90113-26-08	B90068-26-08	18	M26X1,5	R1/2 KEG.	14	43	33	25,5	14	27	32	160	73	144
B90113-26-12	B90068-26-12	18	M26X1,5	R3/4 KEG.	15	46	36	28,5	17	32	32	160	113	185
B90113-30-08	B90068-30-08	22	M30X2	R1/2 KEG.	12	48	38	30,5	14	32	36	160	112	208
B90113-30-12	B90068-30-12	22	M30X2	R3/4 KEG.	17	47	37	29,5	17	32	36	160	111	207
UPON REQ.	UPON REQ.	22	M30X2	R1 KEG.	19	51	41	33,5	18	36	36	160	175	271
B90113-36-12	B90068-36-12	28	M36X2	R3/4 KEG.	17	49	38	30,5	16	41	41	160	158	269
B90113-36-16	B90068-36-16	28	M36X2	R1 KEG.	23	51	40	32,5	18	41	41	160	174	286
UPON REQ.	UPON REQ.	28	M36X2	R1.1/4 KEG.	24	54	43	35,5	20	46	41	160	286	398
UPON REQ.	UPON REQ.	35	M45X2	R1 KEG.	23	57	45	34,5	18	46	50	160	260	430
B90113-45-20	B90068-45-20	35	M45X2	R1.1/4 KEG.	30	57	45	34,5	20	46	50	160	261	432
B90113-45-24	B90068-45-24	35	M45X2	R1.1/2 KEG.	30	61	49	38,5	22	50	50	160	389	559
B90113-52-20	B90068-52-20	42	M52X2	R1.1/4 KEG.	30	59	47	36	20	55	60	160	355	614
B90113-52-24	B90068-52-24	42	M52X2	R1.1/2 KEG.	36	61	49	38	22	55	60	160	363	622

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
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MALE STUD CONNECTORS



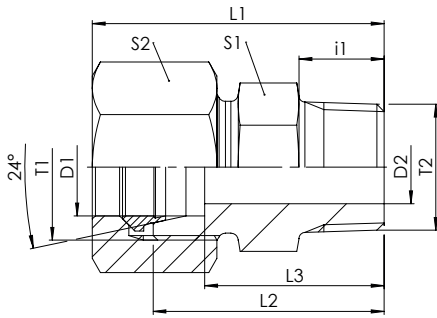
BSP TAPERED MALE STUD CONNECTOR

PART NUMBERS	DIMENSIONS (mm)
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S Series														Weight (g)	
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Body	Total	
B89091-14-04	B89049-14-04	6	M14X1,5	R1/4 KEG.	4	38	30	23	12	17	17	630	33	54	
B89091-16-04	B89049-16-04	8	M16X1,5	R1/4 KEG.	5	37	29	22	12	17	19	630	33	58	
B89091-18-06	B89049-18-06	10	M18X1,5	R3/8 KEG.	7	41	32	24,5	12	19	22	630	49	85	
B89091-20-06	UPON REQ.	12	M20X1,5	R3/8 KEG.	8	43	34	26,5	12	22	24	630	63	103	
B89091-20-08	UPON REQ.	12	M20X1,5	R1/2 KEG.	8	43	34	26,5	15	22	24	630	73	113	
B89091-22-06	UPON REQ.	14	M22X1,5	R3/8 KEG.	8	45	34,5	26,5	12	24	27	630	70	130	
B89091-22-08	UPON REQ.	14	M22X1,5	R1/2 KEG.	10	45	35	27	14	24	27	630	77	137	
B89091-24-06	UPON REQ.	16	M24X1,5	R3/8 KEG.	9	42	32	23,5	12	27	30	400	71	145	
B89091-24-08	UPON REQ.	16	M24X1,5	R1/2 KEG.	12	48	38	29,5	14	27	30	400	94	168	
B89091-30-08	UPON REQ.	20	M30X2	R1/2 KEG.	14	55	43	32,5	15	32	36	400	140	259	
B89091-30-12	UPON REQ.	20	M30X2	R3/4 KEG.	16	56	44	33,5	16	32	36	250	154	272	
B89091-36-16	UPON REQ.	25	M36X2	R1 KEG.	20	64	51	39	19	41	46	250	253	481	
B89091-42-20	UPON REQ.	30	M42X2	R1.1/4 KEG.	25	71	57	43,5	20	50	50	250	467	720	

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METRIC TAPERED MALE STUD CONNECTOR



PART NUMBERS

DIMENSIONS (mm)

LL Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)	
													Body	Total
E68021-08-06	E68002-08-06	4	M8X1	M6X1 KEG.	2,5	26	20	16	8	9	10	100	6	11
E68021-08-08	E68002-08-08	4	M8X1	M8X1 KEG.	3	26	20	16	8	10	10	100	7	12
E68021-08-10	E68002-08-10	4	M8X1	M10X1 KEG.	3	26	20	16	8	11	10	100	10	15
E68021-10-06	E68002-10-06	6	M10X1	M6X1 KEG.	2	26	20	14,5	8	11	12	100	8	15
E68021-10-08	E68002-10-08	6	M10X1	M8X1 KEG.	4,5	26	20	14,5	8	11	12	100	8	15
E68021-10-10	E68002-10-10	6	M10X1	M10X1 KEG.	4,5	26	20	14,5	8	11	12	100	10	16
E68021-12-08	E68002-12-08	8	M12X1	M8X1 KEG.	3,5	28	22	16,5	8	12	14	100	11	20
E68021-12-10	E68002-12-10	8	M12X1	M10X1 KEG.	6	28	22	16,5	8	12	14	100	11	20

L Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)	
													Body	Total
B90076-12-10	B90192-12-10	6	M12X1,5	M10X1 KEG.	4	31	23	16	8	14	14	315	16	29
B90076-12-12	B90192-12-12	6	M12X1,5	M12X1,5 KEG.	4	35	27	20	12	14	14	315	21	34
B90076-14-12	B90192-14-12	8	M14X1,5	M12X1,5 KEG.	6	35	27	20	12	14	17	315	21	39
B90076-14-14	B90192-14-14	8	M14X1,5	M14X1,5 KEG.	6	35	27	20	12	17	17	315	28	46
B90076-16-14	B90192-16-14	10	M16X1,5	M14X1,5 KEG.	7	36	28	21	12	17	19	315	29	52
B90076-16-16	B90192-16-16	10	M16X1,5	M16X1,5 KEG.	8	36	28	21	12	17	19	315	31	54
B90076-18-16	B90192-18-16	12	M18X1,5	M16X1,5 KEG.	9	37	29	22	12	19	22	315	36	66
B90076-18-18	B90192-18-18	12	M18X1,5	M18X1,5 KEG.	10	37	29	22	12	19	22	315	38	69
B90076-26-22	B90192-26-22	18	M26X1,5	M22X1,5 KEG.	14	42,5	33	25,5	14	27	32	315	77	149

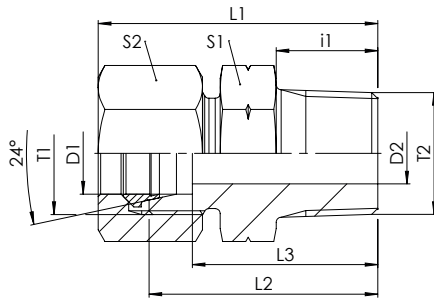
- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.

- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

MALE STUD CONNECTORS

NPT

MALE STUD CONNECTOR



PART NUMBERS		DIMENSIONS (mm)												
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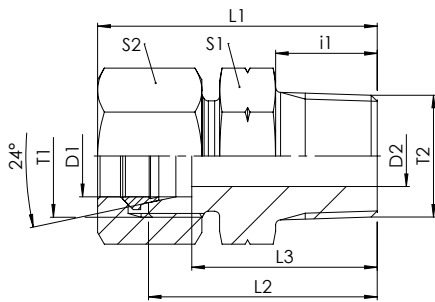
LL Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)	
													Body	Total
E68020-08-02	E68011-08-02	4	M8X1	1/8 NPT	3	28	22	18	10	11	10	100	10	15
E68020-10-02	E68011-10-02	6	M10X1	1/8 NPT	4,5	28	22	16,5	10	11	12	100	10	17
E68020-12-02	E68011-12-02	8	M12X1	1/8 NPT	5	30	24	18,5	10	12	14	100	13	22

L Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)	
													Body	Total
B90111-12-02	B90065-12-02	6	M12X1,5	1/8 NPT	4	32	24	17	10	12	14	315	14	27
B90111-12-04	B90065-12-04	6	M12X1,5	1/4 NPT	4	38	30	23	15,5	17	14	315	29	42
B90111-12-06	B90065-12-06	6	M12X1,5	3/8 NPT	4	39	31	24	15	19	14	315	44	56
B90111-12-08	B90065-12-08	6	M12X1,5	1/2 NPT	4	44	36	29	20	24	14	315	80	93
B90111-14-02	B90065-14-02	8	M14X1,5	1/8 NPT	4	33	25	18	10	14	17	315	18	37
B90111-14-04	B90065-14-04	8	M14X1,5	1/4 NPT	6	38	30	23	15	17	17	315	28	47
B90111-14-06	B90065-14-06	8	M14X1,5	3/8 NPT	6	38	30	23	15	19	17	315	40	59
B90111-14-08	B90065-14-08	8	M14X1,5	1/2 NPT	6	44	36	29	20	22	17	315	75	93
B90111-16-02	B90065-16-02	10	M16X1,5	1/8 NPT	4	33	25	18	10	17	19	315	21	44
B90111-16-04	B90065-16-04	10	M16X1,5	1/4 NPT	7	39	31	24	15	17	19	315	29	52
B90111-16-06	B90065-16-06	10	M16X1,5	3/8 NPT	7	40	32	25	15	19	19	315	43	66
B90111-16-08	B90065-16-08	10	M16X1,5	1/2 NPT	7	45	37	30	20	22	19	315	75	98
B90111-16-12	B90065-16-12	10	M16X1,5	3/4 NPT	8	46	38	31	20	27	19	315	112	135
B90111-18-02	B90065-18-02	12	M18X1,5	1/8 NPT	4	34	26	19	10	19	22	315	27	57
B90111-18-04	B90065-18-04	12	M18X1,5	1/4 NPT	7	40	32	25	15	19	22	315	35	65
B90111-18-06	B90065-18-06	12	M18X1,5	3/8 NPT	8	40	32	25	15	19	22	315	43	74
B90111-18-08	B90065-18-08	12	M18X1,5	1/2 NPT	10	45	37	30	20	24	22	315	72	103
B90111-18-12	B90065-18-12	12	M18X1,5	3/4 NPT	10	46	38	31	20	27	22	315	108	138
B90111-22-04	B90065-22-04	15	M22X1,5	1/4 NPT	7	41,5	33	26	15	24	27	315	51	100
B90111-22-06	B90065-22-06	15	M22X1,5	3/8 NPT	9	41,5	33	26	15,5	24	27	315	56	104
B90111-22-08	B90065-22-08	15	M22X1,5	1/2 NPT	12	46,5	38	31	20	24	27	315	73	121
B90111-22-12	B90065-22-12	15	M22X1,5	3/4 NPT	12	48,5	40	33	20	27	27	315	106	155
B90111-26-06	B90065-26-06	18	M26X1,5	3/8 NPT	8	43,5	34	26,5	15,5	27	32	315	73	144
B90111-26-08	B90065-26-08	18	M26X1,5	1/2 NPT	12	48,5	39	31,5	20	27	32	315	92	163
B90111-26-12	B90065-26-12	18	M26X1,5	3/4 NPT	15	48,5	39	31,5	20	30	32	315	116	187
B90111-26-16	B90065-26-16	18	M26X1,5	1 NPT	15	54,5	45	37,5	25	36	32	315	200	271
B90111-30-06	B90065-30-06	22	M30X2	3/8 NPT	8	47	36,5	29	15,5	32	36	160	98	193
B90111-30-08	B90065-30-08	22	M30X2	1/2 NPT	14	51,5	41	33,5	20	32	36	160	103	199
B90111-30-12	B90065-30-12	22	M30X2	3/4 NPT	16	51,5	41	33,5	20	32	36	160	125	221
B90111-30-16	B90065-30-16	22	M30X2	1 NPT	19	57,5	47	39,5	25	36	36	160	201	297
B90111-36-12	B90065-36-12	28	M36X2	3/4 NPT	18	53	42	34,5	20	41	41	160	162	274
B90111-36-16	B90065-36-16	28	M36X2	1 NPT	21	58	47	39,5	25	41	41	160	221	333
B90111-36-20	B90065-36-20	28	M36X2	1.1/4 NPT	24	60	49	41,5	26	46	41	160	330	442
B90111-45-16	B90065-45-16	35	M45X2	1 NPT	23	62	50	39,5	25	46	50	160	263	433
B90111-45-20	B90065-45-20	35	M45X2	1.1/4 NPT	28	63	51	40,5	26	46	50	160	321	492
B90111-52-20	B90065-52-20	42	M52X2	1.1/4 NPT	28	65	53	42	26	55	60	160	415	674
B90111-52-24	B90065-52-24	42	M52X2	1.1/2 NPT	36	65	53	42	26	55	60	160	387	645

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MALE STUD CONNECTORS

NPT MALE STUD CONNECTOR

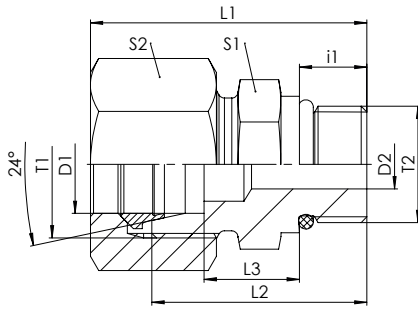


PART NUMBERS	DIMENSIONS (mm)
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S Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight [g]	
													Body	Total
B89088-14-02	B89046-14-02	6	M14X1,5	1/8 NPT	4	36	28	21	10	14	17	630	23	44
B89088-14-04	B89046-14-04	6	M14X1,5	1/4 NPT	4	43	35	28	15	17	17	630	40	61
B89088-14-06	B89046-14-06	6	M14X1,5	3/8 NPT	4	41	33	26	15	19	17	630	49	70
B89088-14-08	B89046-14-08	6	M14X1,5	1/2 NPT	4	50	42	35	20	22	17	630	95	115
B89088-16-02	B89046-16-02	8	M16X1,5	1/8 NPT	4	37,5	29,5	22,5	10	17	19	630	32	57
B89088-16-04	B89046-16-04	8	M16X1,5	1/4 NPT	5	43	35	28	15	17	19	630	41	66
B89088-16-06	B89046-16-06	8	M16X1,5	3/8 NPT	5	44	36	29	15,5	19	19	630	57	81
B89088-16-08	B89046-16-08	8	M16X1,5	1/2 NPT	5	48	40	33	20	22	19	630	89	114
B89088-18-02	B89046-18-02	10	M18X1,5	1/8 NPT	4	39	30	22,5	10	19	22	630	39	75
B89088-18-04	B89046-18-04	10	M18X1,5	1/4 NPT	5	44	35	27,5	15	19	22	630	48	84
B89088-18-06	B89046-18-06	10	M18X1,5	3/8 NPT	7	44	35	27,5	15	19	22	630	54	89
B89088-18-08	B89046-18-08	10	M18X1,5	1/2 NPT	7	47	38	30,5	20	22	22	630	81	117
B89088-20-04	B89046-20-04	12	M20X1,5	1/4 NPT	5	46	37	29,5	15	22	24	630	63	103
B89088-20-06	B89046-20-06	12	M20X1,5	3/8 NPT	8	46	37	29,5	15	22	24	630	67	107
B89088-20-08	B89046-20-08	12	M20X1,5	1/2 NPT	8	51	42	34,5	20	22	24	630	93	133
B89088-20-12	B89046-20-12	12	M20X1,5	3/4 NPT	8	53	44	36,5	20	30	24	630	123	162
B89088-22-06	B89046-22-06	14	M22X1,5	3/8 NPT	8	49	39	31	15,5	24	27	630	79	139
B89088-22-08	B89046-22-08	14	M22X1,5	1/2 NPT	10	54	44	36	20	24	27	630	100	160
B89088-22-12	B89046-22-12	14	M22X1,5	3/4 NPT	10	56	46	38	20	30	27	630	158	218
B89088-24-06	B89046-24-06	16	M24X1,5	3/8 NPT	8	49	39	30,5	15	27	30	630	93	167
B89088-24-08	B89046-24-08	16	M24X1,5	1/2 NPT	12	54	44	35,5	20	27	30	630	105	179
B89088-24-12	B89046-24-12	16	M24X1,5	3/4 NPT	12	55	45	36,5	20	30	30	630	141	215
B89088-30-08	B89046-30-08	20	M30X2	1/2 NPT	12	60	48	37,5	20	32	36	400	155	274
B89088-30-12	B89046-30-12	20	M30X2	3/4 NPT	16	60	48	37,5	20	32	36	400	165	284
B89088-30-16	B89046-30-16	20	M30X2	1 NPT	16	67	55	44,5	25	36	36	400	278	396
B89088-36-12	B89046-36-12	25	M36X2	3/4 NPT	16	65	52	40	20	41	46	400	258	488
B89088-36-16	B89046-36-16	25	M36X2	1 NPT	20	70	57	45	25	41	46	400	306	536
B89088-36-20	B89046-36-20	25	M36X2	1.1/4 NPT	20	71	58	46	26	46	46	400	456	686
B89088-42-12	B89046-42-12	30	M42X2	3/4 NPT	16	68	54	40,5	20	46	50	400	333	588
B89088-42-16	B89046-42-16	30	M42X2	1 NPT	20	73	59	45,5	25	46	50	400	378	632
B89088-42-20	B89046-42-20	30	M42X2	1.1/4 NPT	25	74	60	46,5	26	46	50	400	433	687
B89088-42-24	B89046-42-24	30	M42X2	1.1/2 NPT	25	74	60	46,5	26	50	50	400	554	808
B89088-52-16	B89046-52-16	38	M52X2	1 NPT	20	79,5	64	48	25	55	60	315	574	943
B89088-52-20	B89046-52-20	38	M52X2	1.1/4 NPT	25	80,5	65	49	26	55	60	315	628	996
B89088-52-24	B89046-52-24	38	M52X2	1.1/2 NPT	32	80,5	65	49	26	55	60	315	612	981

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MALE STUD CONNECTORS



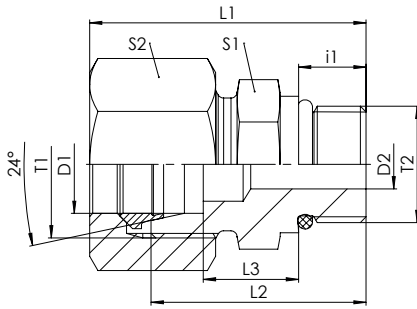
UNF/UN MALE STUD CONNECTOR

SEALING BY NBR O-RING (ISO 1 1926)

PART NUMBERS		DIMENSIONS (mm)											
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L Series															Weight (g)	
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)			
													Body	Total		
B90077-12-04	B90067-12-04	6	M12X1,5	7/16-20 UNF	4	34	26	9,9	9,1	17	14	400	23	35		
B90077-12-06	B90067-12-06	6	M12X1,5	9/16-18 UNF	4	35	27	10	10	19	14	400	28	41		
B90077-14-04	B90067-14-04	8	M14X1,5	7/16-20 UNF	4,5	34	26	9,9	9,1	17	17	400	24	42		
B90077-14-05	UPON REQ.	8	M14X1,5	1/2-20 UNF	6	36	28	11,9	9,1	17	17	400	28	47		
B90077-14-06	B90067-14-06	8	M14X1,5	9/16-18 UNF	6	35	27	10	10	19	17	400	31	49		
B90077-16-04	B90067-16-04	10	M16X1,5	7/16-20 UNF	4,5	35	27	10,9	9,1	17	19	400	26	48		
UPON REQ.	UPON REQ.	10	M16X1,5	1/2-20 UNF	5	35	27,2	11	9,2	17	19	400	28	51		
B90077-16-06	B90067-16-06	10	M16X1,5	9/16-18 UNF	7,5	36	28	11	10	19	19	400	31	54		
B90077-16-08	B90067-16-08	10	M16X1,5	3/4-16 UNF	8	39	31	12,9	11,1	24	19	400	57	80		
UPON REQ.	B90067-16-10	10	M16X1,5	7/8-14 UNF	8	40,5	32,5	12,7	12,8	27	19	400	69	91		
B90077-18-04	UPON REQ.	12	M18X1,5	7/16-20 UNF	4,5	36	28	11,9	9,1	19	22	400	32	62		
B90077-18-06	B90067-18-06	12	M18X1,5	9/16-18 UNF	7,5	36	28	11	10	19	22	400	33	64		
B90077-18-08	B90067-18-08	12	M18X1,5	3/4-16 UNF	10	39	31	12,9	11,1	24	22	400	54	84		
B90077-18-10	B90067-18-10	12	M18X1,5	7/8-14 UNF	10	42	34	14,3	12,7	27	22	400	81	111		
B90077-22-06	B90067-22-06	15	M22X1,5	9/16-18 UNF	7,5	39,5	31	14	10	24	27	400	53	101		
B90077-22-08	B90067-22-08	15	M22X1,5	3/4-16 UNF	10	40,5	32	13,9	11,1	24	27	400	63	111		
B90077-22-10	B90067-22-10	15	M22X1,5	7/8-14 UNF	12	43	34,7	15	12,7	27	27	400	81	129		
UPON REQ.	B90067-22-12	15	M22X1,5	1.1/16-12 UN	12	48,5	40	17,9	15,1	32	27	400	145	193		
B90077-26-08	B90067-26-08	18	M26X1,5	3/4-16 UNF	10	42,5	33	14,4	11,1	27	32	400	75	146		
B90077-26-10	B90067-26-10	18	M26X1,5	7/8-14 UNF	14	44	34,7	14,5	12,7	27	32	400	81	152		
B90077-26-12	B90067-26-12	18	M26X1,5	1.1/16-12 UN	15	46,5	37	14,4	15,1	32	32	250	121	192		
UPON REQ.	UPON REQ.	22	M30X2	3/4-16 UNF	10	50,5	40	21,4	11,1	32	36	250	126	222		
B90077-30-10	B90067-30-10	22	M30X2	7/8-14 UNF	14	47,5	37	16,8	12,7	32	36	250	104	199		
B90077-30-12	B90067-30-12	22	M30X2	1.1/16-12 UN	15,5	49,5	39	16,4	15,1	32	36	250	127	222		
B90077-30-16	B90067-30-16	22	M30X2	1.5/16-12 UN	19	50,5	40	17,4	15,1	41	36	250	192	287		
B90077-36-10	B90067-36-10	28	M36X2	7/8-14 UNF	12,5	48,5	37,7	17,5	12,7	41	41	250	152	263		
B90077-36-12	B90067-36-12	28	M36X2	1.1/16-12 UN	15,5	51	40	17,4	15,1	41	41	250	174	285		
B90077-36-16	B90067-36-16	28	M36X2	1.5/16-12 UN	21,5	51	40	17,4	15,1	41	41	250	200	296		
B90077-36-20	B90067-36-20	28	M36X2	1.5/8-12 UN	24	51	40	17,4	15,1	50	41	250	280	391		
B90077-45-16	B90067-45-16	35	M45X2	1.5/16-12 UN	21,5	55	43	17,4	15,1	46	50	250	247	417		
B90077-45-20	B90067-45-20	35	M45X2	1.5/8-12 UN	27,5	55	43	17,4	15,1	50	50	250	301	470		
UPON REQ.	UPON REQ.	42	M52X2	1.5/16-12 UN	21,5	57	45	18,9	15,1	55	60	250	342	599		
B90077-52-20	B90067-52-20	42	M52X2	1.5/8-12 UN	27,5	57	45	18,9	15,1	55	60	250	367	624		
B90077-52-24	UPON REQ.	42	M52X2	1.7/8-12 UN	33,5	57	45	18,9	15,1	55	60	250	380	637		

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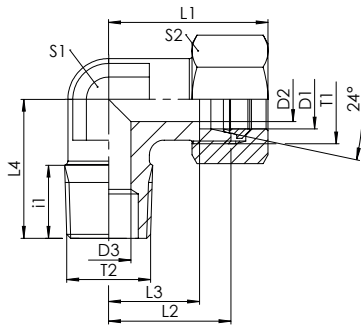


UNF/UN
MALE STUD CONNECTOR
SEALING BY NBR O-RING (ISO 11926)

PART NUMBERS DIMENSIONS (mm)

S Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)	
													Body	Total
UPON REQ.	B89048-14-04	6	M14X1,5	7/16-20 UNF	4	36	28	10	11	17	17	630	26	47
B89059-16-04	B89048-16-04	8	M16X1,5	7/16-20 UNF	4,5	37	29	11	11	17	19	630	30	54
UPON REQ.	B89048-16-05	8	M16X1,5	1/2-20 UNF	5	41	33	15	11	17	19	630	40	64
B89059-18-06	B89048-18-06	10	M18X1,5	9/16-18 UNF	7	41	32	12,5	12	19	22	630	42	77
UPON REQ.	B89048-18-08	10	M18X1,5	3/4-16 UNF	7	45,5	36,5	15	14	22	22	630	71	107
B89059-20-06	B89048-20-06	12	M20X1,5	9/16-18 UNF	7,5	45	36	16,5	12	24	24	630	66	106
B89059-20-08	B89048-20-08	12	M20X1,5	3/4-16 UNF	8	45	36	14,5	14	24	24	630	75	115
UPON REQ.	B89048-20-10	12	M20X1,5	7/8-14 UNF	8	50	41	17,5	16	27	24	630	104	144
B89059-24-08	B89048-24-08	16	M24X1,5	3/4-16 UNF	10	46	36	13,5	14	24	30	630	74	148
B89059-24-10	B89048-24-10	16	M24X1,5	7/8-14 UNF	12	49,5	39,7	15,2	16	27	30	630	96	170
B89059-24-12	B89048-24-12	16	M24X1,5	1.1/16-12 UN	12	57,5	47,5	20,5	18,5	32	30	400	167	241
B89059-30-08	B89048-30-08	20	M30X2	3/4-16 UNF	10	54	42	17,5	14	32	36	400	130	248
B89059-30-10	B89048-30-10	20	M30X2	7/8-14 UNF	12,5	56	44	17,5	16	32	36	400	139	258
B89059-30-12	B89048-30-12	20	M30X2	1.1/16-12 UN	15,5	58	46	17	18,5	32	36	400	160	278
UPON REQ.	UPON REQ.	20	M30X2	1.5/16-12 UN	16	58	46	17	18,5	41	36	400	244	362
B89059-36-12	B89048-36-12	25	M36X2	1.1/16-12 UN	15,5	63	50	19,5	18,5	36	46	400	215	443
B89059-36-16	B89048-36-16	25	M36X2	1.5/16-12 UN	20	63	50	19,5	18,5	41	46	400	263	491
UPON REQ.	UPON REQ.	30	M42X2	1.1/16-12 UN	15,5	66	52	20	18,5	50	50	400	328	581
B89059-42-16	B89048-42-16	30	M42X2	1.5/16-12 UN	21,5	66	52	20	18,5	46	50	400	312	565
B89059-42-20	B89048-42-20	30	M42X2	1.5/8-12 UN	25	66	52	20	18,5	50	50	400	390	643
UPON REQ.	UPON REQ.	30	M42X2	1.7/8-12 UN	25	69,5	55,5	23,5	18,5	55	50	315	562	815
B89059-52-20	B89048-52-20	38	M52X2	1.5/8-12 UN	27,5	72,5	57	22,5	18,5	55	60	315	507	873
UPON REQ.	B89048-52-24	38	M52X2	1.7/8-12 UN	32	72,5	57	25,9	15,1	55	60	315	555	921

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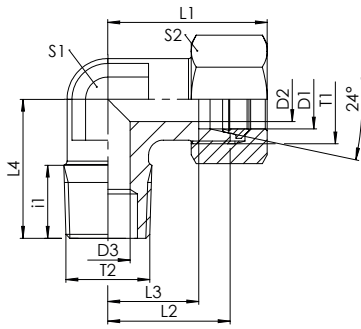
BSP TAPERED MALE STUD ELBOW

PART NUMBERS	DIMENSIONS (mm)
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LL Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
E68019-08-02	E68010-08-02	4	M8X1	R1/8 KEG.	3	3	21	15	11	17	8,4	9	10	100	12	17
E68019-10-02	E68010-10-02	6	M10X1	R1/8 KEG.	4,5	4,5	21	15	9,5	17	8,4	9	12	100	11	18
E68019-12-02	E68010-12-02	8	M12X1	R1/8 KEG.	6	6	23	17	11,5	20	10,6	12	14	100	16	25
E68019-14-04	E68010-14-04	10	M14X1	R1/4 KEG.	8	7	27	21,5	16	26	13,7	14	17	100	35	49
E68019-16-04	E68010-16-04	12	M16X1	R1/4 KEG.	10	7	29	22	16	23	11	14	19	100	30	46

L Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
B90110-12-02	B90061-12-02	6	M12X1,5	R1/8 KEG.	4	4	27	19	12	20	10,9	12	14	315	21	34
UPON REQ.	B90061-12-04	6	M12X1,5	R1/4 KEG.	4	6	29	21	14	26	13,2	12	14	315	32	44
B90110-14-02	B90061-14-02	8	M14X1,5	R1/8 KEG.	6	4	29	21	14	26	15,8	12	17	315	28	46
B90110-14-04	B90061-14-04	8	M14X1,5	R1/4 KEG.	6	6	29	21	14	26	14,2	12	17	315	32	50
B90110-14-06	B90061-14-06	8	M14X1,5	R3/8 KEG.	6	9	32	24	17	28	14,7	14	17	315	46	65
UPON REQ.	UPON REQ.	8	M14X1,5	R1/2 KEG.	6	11	36	28	21	34	18,2	19	17	315	102	121
B90110-16-02	UPON REQ.	10	M16X1,5	R1/8 KEG.	8	6	31	22,5	15,5	20	10	14	19	315	30	53
B90110-16-04	B90061-16-04	10	M16X1,5	R1/4 KEG.	8	7	30	22	15	27	14,7	14	19	315	38	61
B90110-16-06	B90061-16-06	10	M16X1,5	R3/8 KEG.	8	8	30	22	15	28	14,6	14	19	315	46	69
B90110-16-08	B90061-16-08	10	M16X1,5	R1/2 KEG.	8	11	36	28	21	34	18,15	19	19	315	101	124
B90110-18-04	B90061-18-04	12	M18X1,5	R1/4 KEG.	10	7	32	24	17	27	16,3	17	22	315	47	78
B90110-18-06	B90061-18-06	12	M18X1,5	R3/8 KEG.	10	9	32	24	17	28,5	15,1	17	22	315	53	84
B90110-18-08	B90061-18-08	12	M18X1,5	R1/2 KEG.	10	10	36	28	21	34	18,1	19	22	315	104	134
B90110-22-06	B90061-22-06	15	M22X1,5	R3/8 KEG.	12	9	37	28	21	34	19,5	19	27	315	90	138
B90110-22-08	B90061-22-08	15	M22X1,5	R1/2 KEG.	12	12	37	28	21	34	18,1	19	27	315	96	145
UPON REQ.	UPON REQ.	15	M22X1,5	R3/4 KEG.	12	12	42	33	26	36	19,2	24	27	315	149	198
B90110-26-08	B90061-26-08	18	M26X1,5	R1/2 KEG.	15	14	41	31	23,5	36	19,5	24	32	315	121	192
B90110-26-12	B90061-26-12	18	M26X1,5	R3/4 KEG.	15	17	42	32	24,5	37,5	20,2	24	32	315	115	186
B90110-30-12	B90061-30-12	22	M30X2	R3/4 KEG.	19	18	45	35	27,5	42	21,6	27	36	160	176	271
B90110-36-16	UPON REQ.	28	M36X2	R1 KEG.	24	23	49	38	30,5	48	24,6	36	41	160	321	432
B90110-45-20	UPON REQ.	35	M45X2	R1.1/4 KEG.	30	30	60	48	37,5	51	22,9	41	50	160	467	638
B90110-52-24	UPON REQ.	42	M52X2	R1.1/2 KEG.	36	36	66	54	43	61	28,6	50	60	160	692	951

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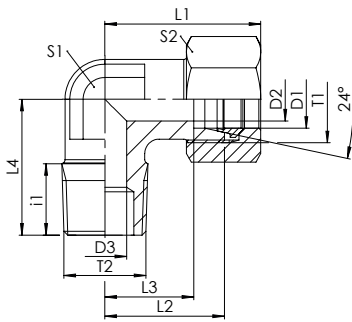


BSP TAPERED
MALE STUD ELBOW

PART NUMBERS	DIMENSIONS (mm)														
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S Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
B89111-14-04	B89041-14-04	6	M14X1,5	R1/4 KEG.	4	4	31	23	16	26	14,1	12	17	400	40	60
B89111-14-06	B89041-14-06	6	M14X1,5	R3/8 KEG.	4	7	31	23	16	28	12,3	14	17	400	54	75
B89111-16-04	B89041-16-04	8	M16X1,5	R1/4 KEG.	5	5	32	24	17	27	14,7	14	19	400	50	74
B89111-18-04	B89041-18-04	10	M18X1,5	R1/4 KEG.	7	5	34	25	17,5	28	17,2	17	22	400	61	97
B89111-18-06	B89041-18-06	10	M18X1,5	R3/8 KEG.	7	7	34	25	17,5	28	14,5	17	22	400	67	103
B89111-18-08	B89041-18-08	10	M18X1,5	R1/2 KEG.	7	7	39	30	22,5	32	16,2	19	22	400	120	156
UPON REQ.	UPON REQ.	12	M20X1,5	R1/4 KEG.	8	7	38	29	21,5	28	16,5	17	24	400	72	112
B89111-20-06	B89041-20-06	12	M20X1,5	R3/8 KEG.	8	8	38	29	21,5	28	12,9	17	24	400	80	120
B89111-20-08	B89041-20-08	12	M20X1,5	R1/2 KEG.	8	10	39	30	22,5	32	16,2	19	24	400	112	152
B89111-22-06	UPON REQ.	14	M22X1,5	R3/8 KEG.	10	8	40	30	22	32	17,5	19	27	400	101	161
B89111-22-08	B89041-22-08	14	M22X1,5	R1/2 KEG.	10	10	40	30	22	32	16,2	19	27	400	111	171
UPON REQ.	UPON REQ.	16	M24X1,5	R3/8 KEG.	12	7	43	33	24,5	32	16,1	24	30	400	139	213
B89111-24-08	B89041-24-08	16	M24X1,5	R1/2 KEG.	12	12	43	33	24,5	32	16	24	30	400	136	211
B89111-24-12	UPON REQ.	16	M24X1,5	R3/4 KEG.	12	16	47	37	28,5	42	23	27	30	400	197	271
B89111-30-08	UPON REQ.	20	M30X2	R1/2 KEG.	16	10	49	37	26,5	42	23	27	36	400	221	339
B89111-30-12	B89041-30-12	20	M30X2	R3/4 KEG.	16	16	49	37	26,5	42	23	27	36	250	194	313
B89111-36-12	UPON REQ.	25	M36X2	R3/4 KEG.	20	16	55	42	30	48	25,5	36	46	250	360	589
UPON REQ.	B89041-36-16	25	M36X2	R1 KEG.	20	20	55	42	30	48	24,6	36	46	250	403	632
UPON REQ.	UPON REQ.	38	M52X2	R1.1/2 KEG.	32	32	72	57	41	61	28,6	50	60	250	902	1271

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METRIC TAPERED MALE STUD ELBOW

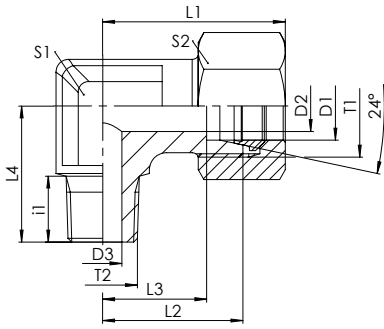
PART NUMBERS		DIMENSIONS (mm)														Weight (g)	
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LL Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
E68016-08-06	E68007-08-06	4	M8X1	M6X1 KEG.	3	2	21	15	11	17	8,5	11	10	100	17	22
E68016-08-08	E68007-08-08	4	M8X1	M8X1 KEG.	3	3,5	21	15	11	17	9	9	10	100	10	15
E68016-10-06	UPON REQ.	6	M10X1	M6X1 KEG.	4,5	2	21	15	11	15	8	11	12	100	19	23
E68016-10-08	E68007-10-08	6	M10X1	M8X1 KEG.	4,5	3,5	21	15	11	17	8,5	11	12	100	18	25
E68016-10-10	E68007-10-10	6	M10X1	M10X1 KEG.	4,5	4,5	21	15	9,5	17	8,5	9	12	100	12	18
E68016-12-10	E68007-12-10	8	M12X1	M10X1 KEG.	6	6	23	17	11,5	20	12	12	14	100	17	25

L Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
UPON REQ.	B90050-12-10	6	M12X1,5	M10X1 KEG.	4	4	27	19	12	20	12	12	14	315	22	35
B90106-14-12	B90050-14-12	8	M14X1,5	M12X1,5 KEG.	6	6	29	21	14	26	13,5	12	17	315	29	48
B90106-16-14	B90050-16-14	10	M16X1,5	M14X1,5 KEG.	8	7	30	22	15	27	14	14	19	315	40	63
B90106-18-16	B90050-18-16	12	M18X1,5	M16X1,5 KEG.	10	9	32	24	17	28	13	17	22	315	52	82
UPON REQ.	UPON REQ.	12	M18X1,5	M18X1,5 KEG.	10	9	32	24	17	28	12	17	22	315	57	87
B90106-22-18	B90050-22-18	15	M22X1,5	M18X1,5 KEG.	12	11	36,5	28	21	32	19,5	19	27	315	85	133
B90106-26-22	B90050-26-22	18	M26X1,5	M22X1,5 KEG.	15	14	40,5	31	23,5	36	18,5	24	32	315	128	199

S Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
B89125-14-12	B89032-14-12	6	M14X1,5	M12X1,5 KEG.	4	4	31	23	16	26	14	12	17	400	38	59
B89125-16-14	B89032-16-14	8	M16X1,5	M14X1,5 KEG.	5	5	32	24	17	27	14	14	19	400	51	76
B89125-18-16	B89032-18-16	10	M18X1,5	M16X1,5 KEG.	7	7	34	25	17,5	28	13	17	22	400	66	101
B89125-20-18	B89032-20-18	12	M20X1,5	M18X1,5 KEG.	8	8	38	29	21,5	28	13	17	24	400	83	123
B89125-22-20	B89032-22-20	14	M22X1,5	M20X1,5 KEG.	10	10	40	30	22	32	18	19	27	400	109	169
B89125-24-22	B89032-24-22	16	M24X1,5	M22X1,5 KEG.	12	12	43	33	24,5	32	15	24	30	400	143	217

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NPT
MALE STUD ELBOW

PART NUMBERS DIMENSIONS (mm)

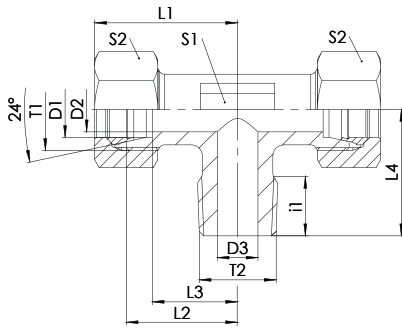
LL Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
E68023-08-02	E68022-08-02	4	M8X1	1/8 NPT	3	5	20	15	11	17	10	11	10	100	17	22
E68023-10-02	E68022-10-02	6	M10X1	1/8 NPT	4,5	4,5	21	15	11	17	10	11	12	100	18	25
E68023-12-02	E68022-12-02	8	M12X1	1/8 NPT	6	5	23	17	11,5	20	10,8	12	14	100	17	26

L Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
B90112-12-02	B90066-12-02	6	M12X1,5	1/8 NPT	4	4	27	19	12	20	12	12	14	315	21	34
B90112-12-04	B90066-12-04	6	M12X1,5	1/4 NPT	4	7	29	21	14	26	13,3	12	14	315	29	42
B90112-12-06	B90066-12-06	6	M12X1,5	3/8 NPT	4	8	33	25	18	28	14	17	14	315	60	73
B90112-14-02	B90066-14-02	8	M14X1,5	1/8 NPT	6	4	29	21	14	20	10	12	17	315	24	43
B90112-14-04	B90066-14-04	8	M14X1,5	1/4 NPT	6	6	29	21	14	26	14,2	12	17	315	32	50
B90112-16-04	B90066-16-04	10	M16X1,5	1/4 NPT	8	7	30	22	15	27	14,8	14	19	315	38	61
B90112-16-06	B90066-16-06	10	M16X1,5	3/8 NPT	8	8	32	24	17	28	14,4	17	19	315	57	80
UPON REQ.	UPON REQ.	10	M16X1,5	1/2 NPT	8	11	36	28	21	34	18,3	19	19	315	100	123
B90112-18-04	B90066-18-04	12	M18X1,5	1/4 NPT	10	7	32	24	17	28	16	17	22	315	48	79
B90112-18-06	B90066-18-06	12	M18X1,5	3/8 NPT	10	8	32	24	17	28	14	17	22	315	56	87
B90112-18-08	B90066-18-08	12	M18X1,5	1/2 NPT	10	11	36	28	21	34	18,3	19	22	315	98	129
B90112-22-08	B90066-22-08	15	M22X1,5	1/2 NPT	12	14	36,5	28	21	34	18,3	19	27	315	84	133
B90112-26-08	B90066-26-08	18	M26X1,5	1/2 NPT	15	12	40,5	31	23,5	36	20	24	32	315	131	203
B90112-30-12	B90066-30-12	22	M30X2	3/4 NPT	19	16	45,5	35	27,5	42	21,7	27	36	160	193	288
B90112-36-16	B90066-36-16	28	M36X2	1 NPT	24	21	49	38	30,5	48	24,6	36	41	160	338	450
B90112-45-20	B90066-45-20	35	M45X2	1.1/4 NPT	30	28	60	48	37,5	54	26,4	41	50	160	522	692
B90112-52-24	B90066-52-24	42	M52X2	1.1/2 NPT	36	34	66	54	43	61	28,6	50	60	160	750	1008

S Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
B89089-14-04	B89047-14-04	6	M14X1,5	1/4 NPT	4	4	31	23	16	26	13,3	12	17	630	39	60
B89089-16-04	B89047-16-04	8	M16X1,5	1/4 NPT	5	5	32	24	17	27	14,8	14	19	630	50	74
B89089-16-08	B89047-16-08	8	M16X1,5	1/2 NPT	5	10	38	30	23	34	18,3	19	19	630	114	139
B89089-18-04	B89047-18-04	10	M18X1,5	1/4 NPT	7	5	34	25	17,5	28	15,5	17	22	630	62	97
B89089-18-06	B89047-18-06	10	M18X1,5	3/8 NPT	7	7	34	25	17,5	28	14,4	17	22	630	67	103
B89089-20-06	B89047-20-06	12	M20X1,5	3/8 NPT	8	8	38	29	21,5	28	13	17	24	630	79	119
UPON REQ.	UPON REQ.	14	M22X1,5	3/8 NPT	10	8	41	31	23	30	16	19	27	630	100	160
B89089-22-08	B89047-22-08	14	M22X1,5	1/2 NPT	10	10	40	30	22	34	16,9	19	27	630	114	174
B89089-24-08	B89047-24-08	16	M24X1,5	1/2 NPT	12	12	43	33	24,5	36	20	24	30	400	145	219
UPON REQ.	UPON REQ.	16	M24X1,5	3/4 NPT	12	12	43	33	24,5	36	17,5	24	30	400	174	248
B89089-30-12	B89047-30-12	20	M30X2	3/4 NPT	16	16	49	37	26,5	42	21,6	27	36	400	218	337
UPON REQ.	UPON REQ.	25	M36X2	3/4 NPT	20	16	55	42	30	48	23	36	46	400	384	614
B89089-36-16	B89047-36-16	25	M36X2	1 NPT	20	20	55	42	30	48	24,6	36	46	400	399	629
B89089-42-20	B89047-42-20	30	M42X2	1.1/4 NPT	25	25	63	49	35,5	54	26,4	41	50	400	635	889
B89089-52-24	B89047-52-24	38	M52X2	1.1/2 NPT	32	32	73,5	58	42	61	29,2	50	60	315	909	1278

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- 45° version available on request.

MALE STUD CONNECTORS



BSP TAPERED MALE STUD BRANCH TEE

PART NUMBERS		DIMENSIONS (mm)														
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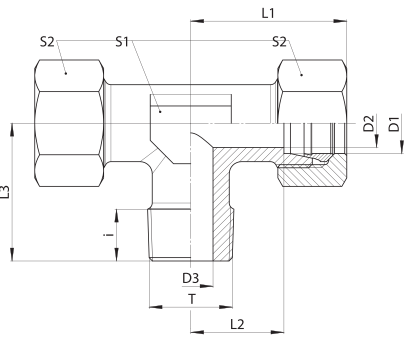
LL Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
E68044-08-02	E68034-08-02	4	M8X1	R1/8 KEG.	3	3	21	15	11	17	8,6	9	10	100	16	26
E68044-10-02	E68034-10-02	6	M10X1	R1/8 KEG.	4,5	4,5	21	15	9,5	17	8,5	9	12	100	15	29
E68044-12-02	E68034-12-02	8	M12X1	R1/8 KEG.	6	6	23	17	11,5	20	10,7	12	14	100	22	39

L Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
B90109-12-02	B90059-12-02	6	M12X1,5	R1/8 KEG.	4	4	27	19	12	20	10,7	12	14	315	30	55
UPON REQ.	UPON REQ.	6	M12X1,5	R1/4 KEG.	4	4	29	21	14	26	11	12	14	315	41	66
B90109-14-04	B90059-14-04	8	M14X1,5	R1/4 KEG.	6	6	29	21	14	26	13,2	12	17	315	41	78
B90109-16-04	B90059-16-04	10	M16X1,5	R1/4 KEG.	8	6	30	22	15	27	14,8	14	19	315	53	98
B90109-18-06	B90059-18-06	12	M18X1,5	R3/8 KEG.	10	9	32	24	17	28	14,4	17	22	315	67	128
B90109-22-08	B90059-22-08	15	M22X1,5	R1/2 KEG.	12	11	36,5	28	21	34	19,2	19	27	315	125	223
B90109-26-08	B90059-26-08	18	M26X1,5	R1/2 KEG.	15	14	40,5	31	23,5	36	20,9	24	32	315	152	296

S Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
B89086-14-04	B89040-14-04	6	M14X1,5	R1/4 KEG.	4	4	31	23	16	26	13,2	12	17	400	54	95
B89086-16-04	B89040-16-04	8	M16X1,5	R1/4 KEG.	5	5	32	24	17	27	14,8	14	19	400	67	116
B89086-18-06	B89040-18-06	10	M18X1,5	R3/8 KEG.	7	7	34	25	17,5	28	14,3	17	22	400	89	160
B89086-20-06	B89040-20-06	12	M20X1,5	R3/8 KEG.	8	8	38	29	21,5	28	13,3	17	24	400	109	189
B89086-22-08	B89040-22-08	14	M22X1,5	R1/2 KEG.	10	10	40	30	22	32	16,2	19	27	400	142	263
B89086-24-08	B89040-24-08	16	M24X1,5	R1/2 KEG.	12	12	43	33	24,5	32	15,8	24	30	400	180	328

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

MALE STUD CONNECTORS



METRIC TAPERED MALE STUD BRANCH TEE

PART NUMBERS

DIMENSIONS (mm)

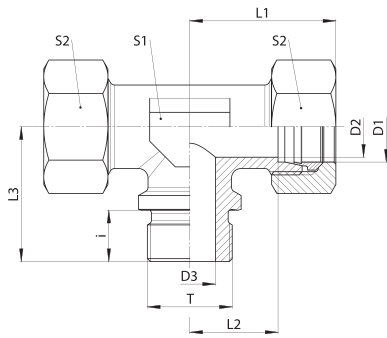
LL Series													
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)
													Total
E68045-08-08	E68033-08-08	4	M 8 X 1 KEG.	3	4	21	11	17	9	9	10	100	26
E68045-10-10	E68033-10-10	6	M 10 X 1 KEG.	5	5	21	10	17	7	9	12	100	34
E68045-12-10	E68033-12-10	8	M 10 X 1 KEG.	6	6	23	12	20	10	12	14	100	45

L Series													
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)
													Total
B90233-12-10	B90219-12-10	6	M 10 X 1 KEG.	4	4	27	12	20	10	12	14	250	61
B90233-14-12	B90219-14-12	8	M 12 X 1.5 KEG.	6	6	29	14	26	14	12	17	250	88
B90233-16-14	B90219-16-14	10	M 14 X 1.5 KEG.	8	7	30	15	27	15	14	19	250	87
B90233-18-16	B90219-18-16	12	M 16 X 1.5 KEG.	10	9	32	17	28	12	17	22	250	117
B90233-22-18	B90219-22-18	15	M 18 X 1.5 KEG.	12	11	37	21	32	18	19	27	250	193
B90233-26-22	B90219-26-22	18	M 22 X 1.5 KEG.	15	14	41	24	36	19	24	32	160	284

S Series													
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)
													Total
B89135-14-12	B89249-14-12	6	M 12 X 1.5 KEG.	4	4	31	16	26	14	12	17	630	106
B89135-16-14	B89249-16-14	8	M 14 X 1.5 KEG.	5	5	32	17	27	15	14	19	630	144
B89135-18-16	B89249-18-16	10	M 16 X 1.5 KEG.	7	7	34	18	28	15	17	22	630	150
B89135-20-18	B89249-20-18	12	M 18 X 1.5 KEG.	8	8	38	22	28	13	17	24	630	181
B89135-22-20	B89249-22-20	14	M 20 X 1.5 KEG.	10	10	40	22	32	17	19	27	630	240
B89135-24-22	B89249-24-22	16	M 22 X 1.5 KEG.	12	12	43	25	32	15	24	30	400	320

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

MALE STUD CONNECTORS



BSP MALE STUD BRANCH TEE METALLIC SEALING EDGE FORM B

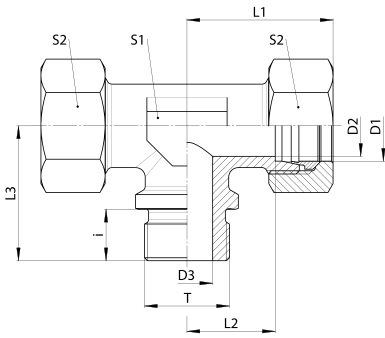
PART NUMBERS		DIMENSIONS (mm)												
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L Series														
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight [g]	
													Total	
B90234-30-12	B90220-30-12	22	G 3/4"	19	16	46	28	42	16	27	36	250	387	
B90234-36-16	B90220-36-16	28	G 1"	24	23	49	31	48	18	36	41	250	238	
B90234-45-20	B90220-45-20	35	G 1.1/4"	30	30	57	35	54	20	41	50	250	868	
B90234-52-24	B90220-52-24	42	G 1.1/2"	36	36	63	40	61	22	50	60	250	1325	

S Series														
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight [g]	
													Total	
B89136-30-12	B89252-30-12	20	G 3/4"	16	16	49	27	42	16	27	36	420	494	
B89136-36-16	B89252-36-16	25	G 1"	20	20	55	30	48	18	36	46	420	916	
B89136-42-20	B89252-42-20	30	G 1.1/4"	25	25	63	36	54	20	41	50	420	1239	
B89136-52-24	B89252-52-24	38	G 1.1/2"	32	32	73	41	61	22	50	60	420	1844	

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

MALE STUD CONNECTORS



METRIC PARALLEL MALE STUD BRANCH TEE

METALLIC SEALING EDGE FORM B

PART NUMBERS

DIMENSIONS (mm)

L Series													
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)
													Total
B90235-30-26	B90221-30-26	22	M 26 X 1.5	19	16	46	28	42	16	27	36	250	387
B90235-36-33	B90221-36-33	28	M 33 X 2	24	23	49	31	48	18	36	41	250	549
B90235-45-42	B90221-45-42	35	M 42 X 2	30	30	57	35	54	20	41	50	250	868
B90235-52-48	B90221-52-48	42	M 48 X 2	36	36	63	40	61	22	50	60	250	1325

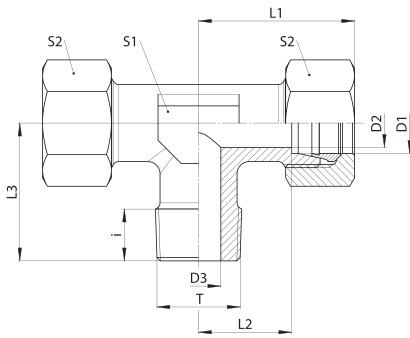
S Series													
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)
													Total
B89137-30-27	B89251-30-27	20	M 27 X 2	16	16	49	27	42	16	27	36	420	492
B89137-36-33	B89251-36-33	25	M 33 X 2	20	20	55	30	48	18	36	46	420	913
B89137-42-24	B89251-42-42	30	M 42 X 2	25	25	63	36	54	20	41	50	420	1249
B89137-52-48	B89251-52-48	38	M 48 X 2	32	32	73	41	61	22	50	60	420	1844

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
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MALE STUD CONNECTORS

NPT

MALE STUD BRANCH TEE



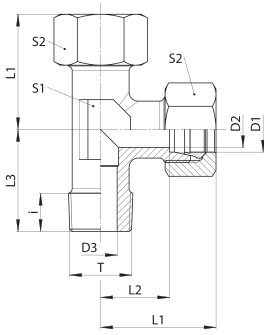
PART NUMBERS		DIMENSIONS (mm)												
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LL Series														
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)	
													Total	
E68046-08-02	E68031-08-02	4	1/8 NPT	3	3	21	11	17	8	9	10	100	30	
E68046-10-02	E68031-10-02	6	1/8 NPT	5	5	21	10	17	8	9	12	100	36	
E68046-12-02	E68031-12-02	8	1/8 NPT	6	6	23	12	20	11	12	14	100	45	

L Series														
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)	
													Total	
B90236-12-02	B90209-12-02	6	1/8 NPT	4	4	27	12	20	12	12	14	250	61	
B90236-12-04	B90209-12-04	6	1/4 NPT	4	4	29	14	26	13	12	14	250	68	
B90236-14-04	B90209-14-04	8	1/4 NPT	6	6	29	14	26	13	12	17	250	92	
B90236-16-04	B90209-16-04	10	1/4 NPT	7	7	30	15	27	13	14	19	250	85	
B90236-16-06	B90209-16-06	10	3/8 NPT	8	8	32	17	28	15	14	19	250	92	
B90236-16-08	B90209-16-08	10	1/2 NPT	8	8	36	21	36	16	19	19	250	102	
B90236-18-04	B90209-18-04	12	1/4 NPT	10	7	32	17	28	16	17	22	250	107	
B90236-18-06	B90209-18-06	12	3/8 NPT	10	10	32	17	28	14	17	22	250	118	
B90236-18-08	B90209-18-08	12	1/2 NPT	10	10	36	21	36	16	19	22	250	127	
B90236-22-06	B90209-22-06	15	3/8 NPT	10	10	39	23	34	17	19	27	250	193	
B90236-22-08	B90209-22-08	15	1/2 NPT	12	12	37	21	34	18	19	27	250	206	
B90236-26-08	B90209-26-08	18	1/2 NPT	15	12	41	24	36	20	24	32	160	285	
B90236-30-12	B90209-30-12	22	3/4 NPT	19	18	46	28	42	22	27	36	160	399	
B90236-36-16	B90209-36-16	28	1 NPT	24	21	49	31	48	25	36	41	100	537	
B90236-45-20	B90209-45-20	35	1.1/4 NPT	30	28	58	36	54	26	41	50	100	884	

S Series														
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)	
													Total	
B89138-14-04	B89240-14-04	6	1/4 NPT	4	4	31	16	26	13	12	17	630	110	
B89138-16-04	B89240-16-04	8	1/4 NPT	5	5	32	17	27	15	14	19	630	107	
B89138-18-04	B89240-18-04	10	1/4 NPT	7	5	34	18	28	16	17	22	630	138	
B89138-18-06	B89240-18-06	10	3/8 NPT	7	7	34	18	28	12	17	22	630	150	
B89138-18-08	B89240-18-08	10	1/2 NPT	7	7	34	18	36	16	19	22	630	158	
B89138-20-04	B89240-20-04	12	1/4 NPT	8	5	38	22	29	15	17	24	630	165	
B89138-20-06	B89240-20-06	12	3/8 NPT	8	8	38	22	28	13	17	24	630	180	
B89138-20-08	B89240-20-08	12	1/2 NPT	8	8	38	22	33	15	17	24	630	195	
B89138-22-08	B89240-22-08	14	1/2 NPT	10	10	40	22	34	18	19	27	630	248	
B89138-24-08	B89240-24-08	16	1/2 NPT	12	12	43	25	36	20	24	30	400	318	
B89138-30-12	B89240-30-12	20	3/4 NPT	16	16	49	27	42	22	27	36	400	467	
B89138-36-16	B89240-36-16	25	1 NPT	20	20	55	30	48	25	36	46	400	911	
B89138-42-20	B89240-42-20	30	1.1/4 NPT	25	25	63	36	54	26	41	50	400	1187	
B89138-52-24	B89240-52-24	38	1.1/2 NPT	32	32	73	41	61	28	50	60	315	1793	

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
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BSP TAPERED
MALE STUD BARREL TEE

PART NUMBERS		DIMENSIONS (mm)													
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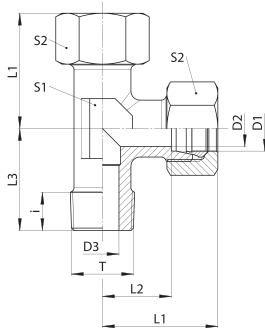
LL Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
E68047-10-02	E68039-10-02	6	M10X1	R1/8 KEG.	4,5	4,5	22	16	10,5	17	8,5	9	12	100	15	29
E68047-12-02	E68039-12-02	8	M12X1	R1/8 KEG.	6	6	23	17	11,5	20	10,7	12	14	100	22	39

L Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
B90193-12-02	B90156-12-02	6	M12X1,5	R1/4 KEG.	4	4	27	19	12	20	10,9	12	14	315	30	55
B90193-14-04	B90156-14-04	8	M14X1,5	R1/4 KEG.	6	6	29	21	14	26	13,2	12	17	315	41	78
B90193-16-04	B90156-16-04	10	M16X1,5	R1/4 KEG.	8	7	30	22	15	27	14,8	14	19	315	50	95
B90193-18-06	B90156-18-06	12	M18X1,5	R3/8 KEG.	10	9	32	24	17	30	16,3	17	22	315	70	131
B90193-22-08	B90156-22-08	15	M22X1,5	R1/2 KEG.	12	11	36,5	28	21	34	18,2	19	27	315	126	222
B90193-26-08	B90156-26-08	18	M26X1,5	R1/2 KEG.	15	14	40,5	31	23,5	36	21,7	24	32	315	154	296

S Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S2	PN	Weight (g)	
															Body	Total
B89139-14-04	B89260-14-04	6	M14X1,5	R1/4 KEG.	4	4	31	23	16	26	13,2	12	17	400	55	97
B89139-16-04	B89260-16-04	8	M16X1,5	R1/4 KEG.	5	5	32	24	17	27	14,8	14	19	400	68	118
B89139-18-06	B89260-18-06	10	M18X1,5	R3/8 KEG.	7	7	34	25	17,5	28	14,3	17	22	400	90	160
B89139-20-06	B89260-20-06	12	M20X1,5	R3/8 KEG.	8	8	38	29	21,5	28	13,1	17	24	400	111	191
B89139-22-08	B89260-22-08	14	M22X1,5	R1/2 KEG.	10	10	40	30	22	32	16,2	19	27	400	147	267
B89139-24-08	B89260-24-08	16	M24X1,5	R1/2 KEG.	12	12	43	33	24,5	34	20	24	30	400	187	334

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

MALE STUD CONNECTORS



METRIC TAPERED MALE STUD BARREL TEE

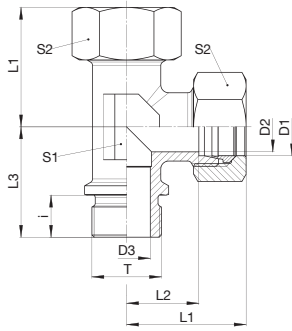
PART NUMBERS	DIMENSIONS (mm)
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LL Series													
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)
													Total
E68048-08-08	E68038-08-08	4	M 8 X 1 KEG.	3	3	21	11	17	8	9	10	100	26
E68048-10-10	E68038-10-10	6	M 10 X 1 KEG.	5	5	21	10	17	8	9	12	100	35
E68048-12-10	E68038-12-10	8	M 10 X 1 KEG.	6	6	23	12	20	11	12	14	100	45

L Series													
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)
													Total
B90237-12-10	B90228-12-10	6	M 10 X 1 KEG.	4	4	27	12	20	12	12	14	250	61
B90237-14-12	B90228-14-12	6	M 12 X 1.5 KEG.	4	4	29	14	26	13	12	14	250	90
B90237-16-14	B90228-16-14	8	M 14 X 1.5 KEG.	6	6	29	14	26	13	12	17	250	89
B90237-18-16	B90228-18-16	10	M 16 X 1.5 KEG.	7	7	30	15	27	13	14	19	250	115
B90237-22-18	B90228-22-18	10	M 18 X 1.5 KEG.	8	8	32	17	28	15	14	19	250	191
B90237-26-22	B90228-26-22	10	M 22 X 1.5 KEG.	8	8	36	21	36	16	19	19	160	291

S Series													
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)
													Total
B89140-14-12	B89259-14-12	12	M 12 X 1.5 KEG.	10	7	32	17	28	16	17	22	630	107
B89140-16-14	B89259-16-14	12	M 14 X 1.5 KEG.	10	10	32	17	28	14	17	22	630	112
B89140-18-16	B89259-18-16	12	M 16 X 1.5 KEG.	10	10	36	21	36	16	19	22	630	191
B89140-20-18	B89259-20-18	15	M 18 X 1.5 KEG.	10	10	39	23	34	17	19	27	630	244
B89140-22-20	B89259-22-20	15	M 20 X 1.5 KEG.	12	12	37	21	34	18	19	27	630	288
B89140-24-22	B89259-24-22	18	M 22 X 1.5 KEG.	15	12	41	24	36	20	24	32	400	321

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.



BSP MALE STUD BARREL TEE

METALLIC SEALING EDGE FORM B

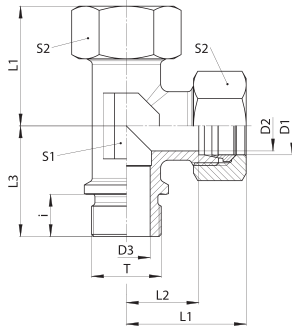
PART NUMBERS		DIMENSIONS (mm)											
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L Series													
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)
													Total
B90238-30-12	B90229-30-12	22	G 3/4"	19	18	46	28	42	16	27	36	250	404
B90238-36-16	B90229-36-16	28	G 1"	24	20	49	31	48	18	36	41	250	555
B90238-45-20	B90229-45-20	35	G 1.1/4"	30	30	57	35	54	20	41	50	250	897
B90238-52-24	B90229-52-24	42	G 1.1/2"	36	36	63	40	61	22	50	60	250	1299

S Series													
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)
													Total
B89141-30-12	B89262-30-12	20	G 3/4"	16	16	49	27	42	16	27	36	420	486
B89141-36-16	B89262-36-16	25	G 1"	20	20	55	30	48	18	36	46	420	926
B89141-42-20	B89262-42-20	30	G 1.1/4"	25	25	63	36	54	20	41	50	420	1221
B89141-52-24	B89262-52-24	38	G 1.1/2"	32	32	73	41	61	22	50	60	420	1834

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

MALE STUD CONNECTORS



METRIC PARALLEL MALE STUD BARREL TEE METALLIC SEALING EDGE FORM B

PART NUMBERS		DIMENSIONS (mm)												
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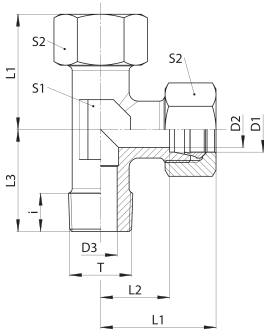
L Series														
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)	
													Total	
B90239-30-26	B90126-30-26	22	M 26 X 1.5	18	18	46	28	42	16	27	36	250	404	
B90239-36-33	B90126-36-33	28	M 33 X 2	23	23	49	31	48	18	36	41	250	555	
B90239-45-42	B90126-45-42	35	M 42 X 2	30	30	57	35	54	20	41	50	250	897	
B90239-52-48	B90126-52-48	42	M 48 X 2	36	36	63	40	61	22	50	60	250	1299	

S Series														
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)	
													Total	
B89142-30-27	B89090-30-27	20	M 27 X 2	16	16	49	27	42	16	27	36	420	486	
B89142-36-33	B89090-36-33	25	M 33 X 2	20	20	55	30	48	18	36	46	420	926	
B89142-42-42	B89090-42-42	30	M 42 X 2	25	25	63	36	54	20	41	50	420	1221	
B89142-52-48	B89090-52-48	38	M 48 X 2	32	32	73	41	61	22	50	60	420	1834	

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

MALE STUD CONNECTORS

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NPT MALE STUD BARREL TEE

MALE STUD
CONNECTORS

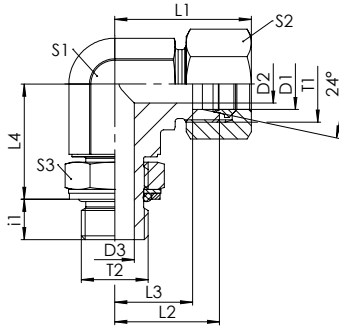
PART NUMBERS		DIMENSIONS (mm)												
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LL Series														
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)	
													Total	
E68049-08-02	E68037-08-02	4	1/8 NPT	3	3	21	11	17	8	9	10	100	31	
E68049-10-02	E68037-10-02	6	1/8 NPT	5	5	21	10	17	8	9	12	100	35	
E68049-12-02	E68037-12-02	8	1/8 NPT	5	5	23	12	20	11	12	14	100	44	

L Series														
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)	
													Total	
B90240-12-02	B90227-12-02	6	1/8 NPT	4	4	27	12	20	12	12	14	250	63	
B90240-14-04	B90227-14-04	8	1/4 NPT	6	6	29	14	26	13	12	17	250	91	
B90240-16-04	B90227-16-04	10	1/4 NPT	7	7	30	15	27	15	14	19	250	92	
B90240-18-06	B90227-18-06	12	3/8 NPT	10	10	32	17	28	14	17	22	250	117	
B90240-22-08	B90227-22-08	15	1/2 NPT	12	12	37	21	34	18	19	27	250	208	
B90240-26-08	B90227-26-08	18	1/2 NPT	14	14	41	24	36	20	24	32	160	280	
B90240-30-12	B90227-30-12	22	3/4 NPT	18	18	46	28	42	22	27	36	160	347	
B90240-36-16	B90227-36-16	28	1 NPT	24	24	49	31	48	25	36	41	100	445	
B90240-45-20	B90227-45-20	35	1.1/4 NPT	30	30	58	36	54	26	41	50	100	620	
B90240-52-24	B90227-52-24	42	1.1/2 NPT	36	36	63	40	61	29	50	60	100	916	

S Series														
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	i	S1	S2	PN	Weight (g)	
													Total	
B89143-14-04	B89258-14-04	6	1/4 NPT	4	4	31	16	26	13	12	17	630	108	
B89143-16-04	B89258-16-04	10	1/4 NPT	5	5	27	17	27	15	14	19	630	108	
B89143-18-06	B89258-18-06	10	3/8 NPT	7	7	34	18	28	14	17	22	630	157	
B89143-20-06	B89258-20-06	12	3/8 NPT	8	8	38	22	28	13	17	24	630	177	
B89143-22-08	B89258-22-08	14	1/2 NPT	10	10	40	22	34	18	19	27	630	244	
B89143-24-08	B89258-24-08	16	1/2 NPT	12	12	43	25	36	19	24	30	400	336	
B89143-30-12	B89258-30-12	20	3/4 NPT	16	16	49	27	42	22	27	36	400	447	
B89143-36-16	B89258-36-16	25	1 NPT	20	20	55	30	48	25	36	46	400	671	
B89143-42-20	B89258-42-20	30	1.1/4 NPT	25	32	63	36	54	26	41	50	400	893	
B89143-52-24	B89258-52-24	38	1.1/2 NPT	32	32	73	41	61	29	50	60	315	1320	

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.



BSP ADJUSTABLE ELBOW FITTING WITH LOCK-NUT

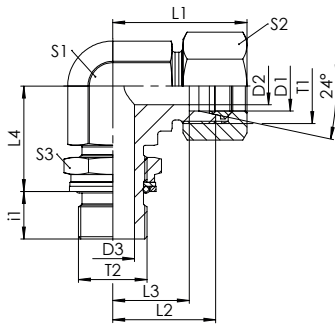
FOR PORT WITH SMALL AND LARGE COUNTERSINK
SEALING BY O-RING AND RETAINING RING (ISO 1179)

PART NUMBERS		DIMENSIONS (mm)														
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L Series																	
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S1	S3	PN	Weight [g]	
																Body	Total
B90085-16-06	UPON REQ.	10	M16X1,5	G3/8	8	5	32	24	17	25,3	10,7	19	19	19	315	107	130
B90085-45-20	UPON REQ.	35	M45X2	G1.1/4	30	25	60	48	37,5	52,2	17,8	50	50	50	160	1213	1383
B90085-52-24	UPON REQ.	42	M52X2	G1.1/2	36	32	61	49	38	54,2	19,8	50	60	55	160	1180	1439

S Series																	
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S1	S3	PN	Weight [g]	
																Body	Total
B89066-16-04	UPON REQ.	8	M16X1,5	G1/4	5	5	32	24	17	25,3	10,7	19	19	19	315	104	129
B90085-18-04	UPON REQ.	12	M20X1,5	G1/4	8	5	38	29	21,5	29,3	10,7	22	24	19	250	151	191
B89066-22-08	UPON REQ.	14	M22X1,5	G1/2	10	12	40	30	22	29,8	12,2	22	27	27	250	182	242
B89066-52-24	UPON REQ.	38	M52X2	G1.1/2	32	32	65,5	50	34	54,2	19,8	50	60	55	160	1266	1635

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.
- 45° and Tee version available on request.



METRIC PARALLEL ADJUSTABLE ELBOW FITTING WITH LOCK-NUT

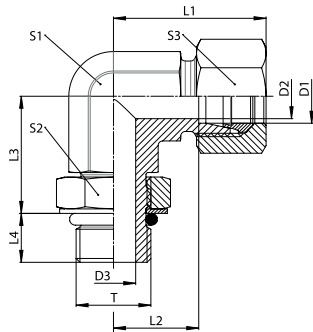
FOR PORT WITH SMALL AND LARGE COUNTERSINK
SEALING BY O-RING AND RETAINING RING (ISO 1179)

PART NUMBERS		DIMENSIONS (mm)													
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L Series																	
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S1	S3	PN	Weight (g)	
																Body	Total
B90174-12-10	B90051-12-10	6	M12X1,5	M10X1	4	4	29	21	14	19,8	7,2	14	14	14	315	45	58
B90174-14-12	B90051-14-12	8	M14X1,5	M12X1,5	6	4	31	23	16	22,7	10,8	14	17	17	315	63	82
B90174-16-14	B90051-16-14	10	M16X1,5	M14X1,5	8	5	32	24	17	26,2	10,8	19	19	19	315	102	125
B90174-18-16	B90051-18-16	12	M18X1,5	M16X1,5	10	7	34	26	19	26,2	10,8	19	22	22	315	113	144
B90174-22-18	B90051-22-18	15	M22X1,5	M18X1,5	12	8	36,5	28	21	29,2	10,8	22	27	24	315	160	208
B90174-26-22	B90051-26-22	18	M26X1,5	M22X1,5	15	12	40,5	31	23,5	35,15	12,85	27	32	27	250	253	324
B90174-30-27	B90051-30-27	22	M30X2	M27X2	19	16	45,5	35	27,5	37,55	14,45	30	36	32	160	331	427
B90174-36-33	B90051-36-33	28	M36X2	M33X2	24	20	49	38	30,5	44,55	16,45	36	41	41	160	553	665
B90174-45-42	B90051-45-42	35	M45X2	M42X2	30	25	60	48	37,5	53,55	18,45	50	50	50	160	1224	1394
B90174-52-48	B90051-52-48	42	M52X2	M48X2	36	32	61	49	38	54,05	20,45	50	60	55	160	1176	1434

S Series																	
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	i1	S1	S1	S3	PN	Weight (g)	
																Body	Total
B89210-14-12	B89129-14-12	6	M14X1,5	M12X1,5	4	4	30	22	15	22,7	10,8	14	17	17	315	65	86
B89210-16-14	B89129-16-14	8	M16X1,5	M14X1,5	5	5	32	24	17	26,2	10,8	19	19	19	315	107	132
B89210-18-16	B89129-18-16	10	M18X1,5	M16X1,5	7	7	34	25	17,5	26,2	10,8	19	22	22	315	119	154
B89210-20-18	B89129-20-18	12	M20X1,5	M18X1,5	8	8	38	29	21,5	29,2	10,8	22	24	24	315	169	209
UPON REQ.	UPON REQ.	14	M22X1,5	M22X1,5	10	12	40	30	22	31,15	12,85	22	27	27	315	189	249
B89210-24-22	B89129-24-22	16	M24X1,5	M22X1,5	12	12	43	33	24,5	35,15	12,85	27	30	27	250	264	339
B89210-30-27	B89129-30-27	20	M30X2	M27X2	16	16	50	38	27,5	37,55	14,45	30	36	32	250	359	478
B89210-36-33	B89129-36-33	25	M36X2	M33X2	20	20	55	42	30	44,55	16,45	36	46	41	160	606	836
B89210-42-42	B89129-42-42	30	M42X2	M42X2	25	25	63	49	35,5	53,55	18,45	50	50	50	160	1269	1524
B89210-52-48	B89129-52-48	38	M52X2	M48X2	32	32	65	50	34	54,05	20,45	50	60	55	160	1258	1627

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.
- 45° and Tee version available on request.



UNF/UN ADJUSTABLE ELBOW FITTING WITH LOCK-NUT

FOR PORT WITH SMALL AND LARGE COUNTERSINK
SEALING BY O-RING NBR (ISO 11926)

PART NUMBERS				DIMENSIONS (mm)										
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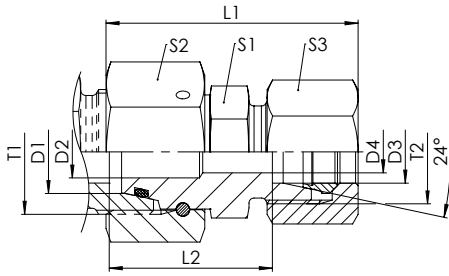
L Series														
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	L4	S1	S2	S3	Weight (g)	
													Total	
B90194-12-04	B90127-12-04	6	7/16-20 UNF	4	5	37	14	19	10	14	14	14	42	
B90194-14-04	B90127-14-04	8	7/16-20 UNF	6	5	39	16	19	10	14	14	17	45	
B90194-16-06	B90127-16-06	10	9/16-18 UNF	8	8	40	17	24	10	19	17	19	79	
B90194-18-06	B90127-18-06	12	9/16-18 UNF	10	8	42	19	25	11	19	17	22	84	
B90194-18-08	B90127-18-08	12	3/4-16 UNF	10	10	42	19	25	13	19	22	22	102	
B90194-22-08	B90127-22-08	15	3/4-16 UNF	12	10	44	21	28	13	22	22	27	131	
B90194-22-10	B90127-22-10	15	7/8-14 UNF	12	13	44	21	28	15	22	27	27	151	
B90194-26-10	B90127-26-10	18	7/8-14 UNF	15	13	49	24	32	15	27	27	32	223	
B90194-26-12	B90127-26-12	18	1.1/6-12 UN	15	16	49	24	32	17	30	32	32	287	
B90194-30-12	B90127-30-12	22	1.1/6-12 UN	19	16	53	28	35	17	30	32	36	307	
B90194-36-16	B90127-36-16	28	1.5/16-12 UN	24	22	56	31	42	17	36	41	41	446	
B90194-45-20	B90127-45-20	35	1.5/8-12 UN	30	28	70	38	46	17	50	50	50	1043	
B90194-52-24	B90127-52-24	42	1.7/8-12 UN	36	34	73	38	47	17	50	55	60	937	

S Series														
Body Only	Complete	D1	T	D2	D3	L1	L2	L3	L4	S1	S2	S3	Weight (g)	
													Total	
B89170-14-04	B89130-14-04	6	7/16-20 UNF	4	5	38	15	20	12	14	14	17	52	
B89170-16-06	B89130-16-06	8	9/16-18 UNF	5	8	40	17	25	12	19	17	19	92	
B89170-18-06	B89130-18-06	10	9/16-18 UNF	7	8	43	18	26	12	19	17	22	95	
B89170-20-08	B89130-20-08	12	3/4-16 UNF	8	10	47	22	30	14	22	22	24	152	
B89170-24-10	B89130-24-10	16	7/8-14 UNF	12	13	53	25	34	16	27	27	30	243	
B89170-30-12	B89130-30-12	20	1.1/6-12 UN	16	16	60	28	37	19	30	32	36	370	
B89170-36-12	B89130-36-12	25	1.1/6-12 UN	20	16	66	30	50	19	36	32	46	505	
B89170-42-20	B89130-42-20	30	1.5/8-12 UN	25	28	75	36	50	19	50	50	50	1105	
B89170-52-24	B89130-52-24	38	1.7/8-12 UN	32	34	80	34	51	19	50	55	60	1106	

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.
- 45° and Tee version available on request.

24° SWIVEL CONNECTORS

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TUBE END REDUCER 24° DKO SWIVEL AND NBR O-RING

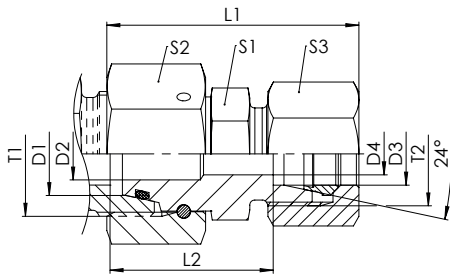
24° SWIVEL
CONNECTORS

PART NUMBERS		DIMENSIONS (mm)													
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L Series																Weight [g]	
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	S1	S2	S3	PN	Weight [g]			
														Body	Total		
B90129-12-14	B90115-12-14	8	M14X1,5	M12X1,5	4	6	4	38,5	23,4	12	17	14	500	32	65		
B90129-12-16	B90115-12-16	10	M16X1,5	M12X1,5	4	6	4	41	24,9	14	19	14	500	44	84		
B90129-14-16	B90115-14-16	10	M16X1,5	M14X1,5	6	8	6	41	24,9	14	19	17	500	43	89		
B90129-12-18	B90115-12-18	12	M18X1,5	M12X1,5	4	6	4	40,5	24,9	17	22	14	400	59	105		
UPON REQ.	B90115-14-18	12	M18X1,5	M14X1,5	6	8	6	40,5	24,9	17	22	17	400	58	110		
UPON REQ.	B90115-16-18	12	M18X1,5	M16X1,5	8	10	8	41,5	25,9	17	22	19	400	57	113		
B90129-12-22	B90115-12-22	15	M22X1,5	M12X1,5	11	6	4	45,5	28,4	22	27	14	400	91	161		
B90129-14-22	B90115-14-22	15	M22X1,5	M14X1,5	11	8	6	45,5	28,4	22	27	17	400	94	170		
B90129-16-22	B90115-16-22	15	M22X1,5	M16X1,5	8	10	8	46,5	29,4	22	27	19	400	101	181		
UPON REQ.	B90115-18-22	15	M22X1,5	M18X1,5	10	12	10	46,5	29,4	22	27	22	400	97	184		
B90129-12-26	B90115-12-26	18	M26X1,5	M12X1,5	13	6	4	42,5	27,9	24	32	14	400	113	203		
B90129-14-26	B90115-14-26	18	M26X1,5	M14X1,5	13	8	6	42,5	27,9	24	32	17	400	114	210		
B90129-16-26	B90115-16-26	18	M26X1,5	M16X1,5	8	10	8	43,5	28,9	24	32	19	400	129	229		
B90129-18-26	B90115-18-26	18	M26X1,5	M18X1,5	10	12	10	43,5	28,9	24	32	22	400	125	233		
UPON REQ.	B90115-22-26	18	M26X1,5	M22X1,5	12	15	12	45	29,9	24	32	27	400	126	252		
B90129-12-30	B90115-12-30	22	M30X2	M12X1,5	17	6	4	49	31,9	27	36	14	250	169	286		
B90129-14-30	B90115-14-30	22	M30X2	M14X1,5	17	8	6	49	31,9	27	36	17	250	166	290		
B90129-16-30	B90115-16-30	22	M30X2	M16X1,5	17	10	8	50	32,9	27	36	19	250	168	296		
B90129-18-30	B90115-18-30	22	M30X2	M18X1,5	17	12	10	50	32,9	27	36	22	250	168	304		
UPON REQ.	B90115-22-30	22	M30X2	M22X1,5	17	15	12	51,5	33,9	27	36	27	250	176	329		
B90129-26-30	B90115-26-30	22	M30X2	M26X1,5	15	18	15	52,5	33,4	27	36	32	250	187	363		
B90129-12-36	B90115-12-36	28	M36X2	M12X1,5	23	6	4	52	33,9	36	41	14	250	239	407		
B90129-14-36	B90115-14-36	28	M36X2	M14X1,5	23	8	6	52	33,9	36	41	17	250	240	413		
B90129-16-36	B90115-16-36	28	M36X2	M16X1,5	23	10	8	53	34,9	36	41	19	250	229	407		
B90129-18-36	B90115-18-36	28	M36X2	M18X1,5	23	12	10	53	34,9	36	41	22	250	230	415		
B90129-22-36	B90115-22-36	28	M36X2	M22X1,5	23	15	12	54,5	35,9	36	41	27	250	236	440		
B90129-26-36	B90115-26-36	28	M36X2	M26X1,5	23	18	15	55,5	35,4	36	41	32	250	240	466		
B90129-30-36	B90115-30-36	28	M36X2	M30X2	23	22	19	58,5	37,4	36	41	36	250	245	495		
B90129-12-45	B90115-12-45	35	M45X2	M12X1,5	28	6	4	53	37	46	50	14	250	365	620		
B90129-14-45	B90115-14-45	35	M45X2	M14X1,5	28	8	6	53	37	46	50	17	250	366	626		
B90129-16-45	B90115-16-45	35	M45X2	M16X1,5	28	10	8	54	38	46	50	19	250	368	632		
B90129-18-45	B90115-18-45	35	M45X2	M18X1,5	28	12	10	54	38	46	50	22	250	351	623		
B90129-22-45	B90115-22-45	35	M45X2	M22X1,5	28	15	12	55,5	39	46	50	27	250	358	648		
B90129-26-45	B90115-26-45	35	M45X2	M26X1,5	28	18	15	56,5	38,5	46	50	32	250	363	676		
B90129-30-45	B90115-30-45	35	M45X2	M30X2	28	22	19	59,5	40,5	46	50	36	250	367	706		
B90129-36-45	B90115-36-45	35	M45X2	M36X2	24	28	24	60	40,5	46	50	41	250	403	756		
B90129-12-52	B90115-12-52	42	M52X2	M12X1,5	35	6	4	56	40,5	50	60	14	250	540	884		
B90129-14-52	B90115-14-52	42	M52X2	M14X1,5	35	8	6	56	40,5	50	60	17	250	540	891		
B90129-16-52	B90115-16-52	42	M52X2	M16X1,5	35	10	8	57	41,5	50	60	19	250	542	896		
B90129-18-52	B90115-18-52	42	M52X2	M18X1,5	35	12	10	57	41,5	50	60	22	250	542	904		
B90129-22-52	B90115-22-52	42	M52X2	M22X1,5	35	15	12	58,5	42,5	50	60	27	250	548	928		
B90129-26-52	B90115-26-52	42	M52X2	M26X1,5	35	18	15	59,5	42	50	60	32	250	547	950		
B90129-30-52	B90115-30-52	42	M52X2	M30X2	35	22	19	62,5	44	50	60	36	250	528	956		
B90129-36-52	B90115-36-52	42	M52X2	M36X2	35	28	24	63	44	50	60	41	250	530	974		
B90129-45-52	B90115-45-52	42	M52X2	M45X2	30	35	30	66	43	50	60	50	250	598	1100		

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

24° SWIVEL CONNECTORS

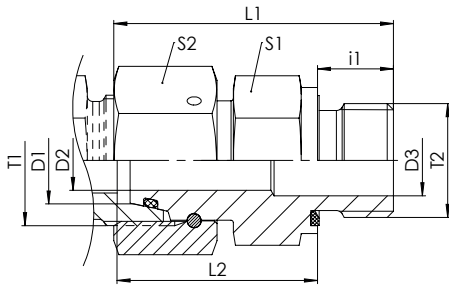


TUBE END REDUCER 24° DKO SWIVEL AND NBR O-RING

PART NUMBERS		DIMENSIONS (mm)														
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S Series																
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	S1	S2	S3	PN	Weight (g)		
														Body	Total	
B89105-14-16	B89016-14-16	8	M16X1,5	M14X1,5	4	6	4	42,5	26,9	14	19	17	800	47	111	
UPON REQ.	UPON REQ.	8	M16X1,5	M20X1,5	5	12	5	49	31,9	22	19	24	630	81	163	
B89105-14-18	B89016-14-18	10	M18X1,5	M14X1,5	4	6	4	42,5	27,4	17	22	17	800	62	133	
B89105-16-18	B89016-16-18	10	M18X1,5	M16X1,5	5	8	5	42,5	27,4	17	22	19	800	64	138	
UPON REQ.	UPON REQ.	10	M18X1,5	M20X1,5	6,5	12	8	45,5	28,9	22	22	24	630	79	168	
B89105-14-20	B89016-14-20	12	M20X1,5	M14X1,5	4	6	4	46,5	29,9	19	24	17	630	83	171	
B89105-16-20	B89016-16-20	12	M20X1,5	M16X1,5	5	8	5	46,5	29,9	19	24	19	630	84	176	
B89105-18-20	B89016-18-20	12	M20X1,5	M18X1,5	7	10	7	47,5	29,4	19	24	22	630	83	186	
B89105-14-22	B89016-14-22	14	M22X1,5	M14X1,5	4	6	4	47,5	31,4	22	27	17	630	108	215	
B89105-16-22	B89016-16-22	14	M22X1,5	M16X1,5	5	8	5	47,5	31,4	22	27	19	630	109	220	
B89105-18-22	B89016-18-22	14	M22X1,5	M18X1,5	7	10	7	47,5	29,9	22	27	22	630	105	226	
B89105-20-22	B89016-20-22	14	M22X1,5	M20X1,5	8	12	8	48,5	30,9	22	27	24	630	109	234	
B89105-14-24	B89016-14-24	16	M24X1,5	M14X1,5	11	6	4	47,5	31,9	22	30	17	630	113	234	
B89105-16-24	B89016-16-24	16	M24X1,5	M16X1,5	11	8	5	47,5	31,9	22	30	19	630	116	240	
B89105-18-24	B89016-18-24	16	M24X1,5	M18X1,5	7	10	7	48,5	31,4	22	30	22	630	127	262	
UPON REQ.	UPON REQ.	16	M24X1,5	M20X1,5	8	12	8	48,5	31,4	22	30	24	630	128	267	
B89105-22-24	B89016-22-24	16	M24X1,5	M22X1,5	10	14	10	51,5	32,9	24	30	27	630	134	293	
B89105-14-30	B89016-14-30	20	M30X2	M14X1,5	14	6	4	50,5	36	27	36	17	420	176	360	
B89105-16-30	B89016-16-30	20	M30X2	M16X1,5	14	8	5	50,5	36	27	36	19	420	180	368	
B89105-18-30	B89016-18-30	20	M30X2	M18X1,5	14	10	7	51,5	35,5	27	36	22	420	180	379	
B89105-20-30	B89016-20-30	20	M30X2	M20X1,5	14	12	8	51,5	35,5	27	36	24	420	183	386	
B89105-22-30	B89016-22-30	20	M30X2	M22X1,5	10	14	10	54,5	37	27	36	27	420	204	427	
UPON REQ.	UPON REQ.	20	M30X2	M24X1,5	12	16	12	54,5	36,5	27	36	30	420	200	436	
B89105-14-36	B89016-14-36	25	M36X2	M14X1,5	18	6	4	52,5	38,5	36	46	17	420	313	613	
B89105-16-36	B89016-16-36	25	M36X2	M16X1,5	18	8	5	52,5	38,5	36	46	19	420	315	619	
B89105-18-36	B89016-18-36	25	M36X2	M18X1,5	18	10	7	53,5	38	36	46	22	420	317	632	
B89105-20-36	B89016-20-36	25	M36X2	M20X1,5	18	12	8	53,5	38	36	46	24	420	320	639	
B89105-22-36	B89016-22-36	25	M36X2	M22X1,5	18	14	10	56,5	39,5	36	46	27	420	325	665	
B89105-24-36	B89016-24-36	25	M36X2	M24X1,5	18	16	12	56,5	39	36	46	30	420	326	680	
B89105-30-36	B89016-30-36	25	M36X2	M30X2	16	20	16	60,5	39	36	46	36	420	351	749	
B89105-14-42	B89016-14-42	30	M42X2	M14X1,5	22	6	4	56,5	44	41	50	17	420	395	786	
B89105-16-42	B89016-16-42	30	M42X2	M16X1,5	22	8	5	56,5	44	41	50	19	420	392	786	
B89105-18-42	B89016-18-42	30	M42X2	M18X1,5	22	10	7	57,5	43,5	41	50	22	420	399	804	
B89105-20-42	B89016-20-42	30	M42X2	M20X1,5	22	12	8	57,5	43,5	41	50	24	420	401	811	
B89105-22-42	B89016-22-42	30	M42X2	M22X1,5	22	14	10	60,5	45	41	50	27	420	407	837	
B89105-24-42	B89016-24-42	30	M42X2	M24X1,5	22	16	12	60,5	44,5	41	50	30	420	408	852	
B89105-30-42	B89016-30-42	30	M42X2	M30X2	22	20	16	64,5	44,5	41	50	36	420	422	910	
UPON REQ.	B89016-36-42	30	M42X2	M36X2	20	25	20	67,5	45	41	50	46	420	453	1052	
B89105-14-52	B89016-14-52	38	M52X2	M14X1,5	30	6	4	58,5	47,5	50	60	17	420	574	1193	
B89105-16-52	B89016-16-52	38	M52X2	M16X1,5	30	8	5	58,5	47,5	50	60	19	420	576	1199	
UPON REQ.	B89016-18-52	38	M52X2	M18X1,5	30	10	7	59,5	47	50	60	22	420	578	1211	
B89105-20-52	B89016-20-52	38	M52X2	M20X1,5	30	12	8	59,5	47	50	60	24	420	578	1218	
B89105-22-52	B89016-22-52	38	M52X2	M22X1,5	30	14	10	62,5	48,5	50	60	27	420	586	1244	
B89105-24-52	B89016-24-52	38	M52X2	M24X1,5	30	16	12	62,5	48	50	60	30	420	587	1259	
B89105-30-52	B89016-30-52	38	M52X2	M30X2	30	20	16	66,5	48	50	60	36	420	600	1318	
B89105-36-52	B89016-36-52	38	M52X2	M36X2	30	25	20	69,5	48,5	50	60	46	420	620	1448	
B89105-42-52	B89016-42-52	38	M52X2	M42X2	25	30	25	72,5	49	50	60	50	420	678	1530	

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
 - For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.



BSP SWIVEL CONNECTOR

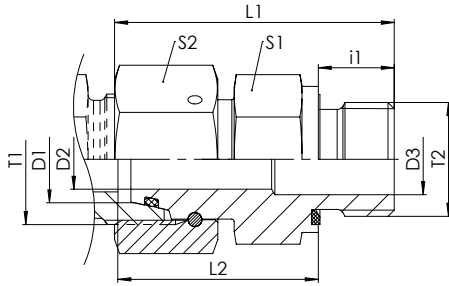
24° DKO SWIVEL AND NBR O-RING
SEALING BY NBR PROFILE RING (DIN 3869)

PART NUMBERS

DIMENSIONS (mm)

L Series													
Complete	D1	T1	T2	D2	D3	L1	L2	i1	S1	S2	PN	Weight [g]	
												Total	
B90121-02-12	6	M12X1,5	G1/8	2,5	2,5	32,5	24,4	8	14	17	500	54	
B90121-04-12	6	M12X1,5	G1/4	2,5	7	39,5	27,4	12	19	17	500	72	
UPON REQ.	8	M14X1,5	G1/8	4	4	33,5	25,4	8	14	17	500	57	
B90121-04-14	8	M14X1,5	G1/4	5	5	41,5	29,4	12	19	17	500	80	
B90121-04-16	10	M16X1,5	G1/4	6	6	40,5	27,4	12	19	19	500	88	
B90121-06-16	10	M16X1,5	G3/8	6,5	6,5	42	28,9	12	22	19	500	107	
B90121-08-16	10	M16X1,5	G1/2	6,5	14	43,5	28,4	14	27	19	500	120	
B90121-04-18	12	M18X1,5	G1/4	6	6	40	27,4	12	19	22	400	106	
B90121-06-18	12	M18X1,5	G3/8	8	8	46,5	33,9	12	22	22	400	134	
B90121-08-18	12	M18X1,5	G1/2	8	8	44	29,4	14	27	22	400	154	
B90121-06-22	15	M22X1,5	G3/8	9	9	43,5	29,4	12	22	27	400	167	
B90121-08-22	15	M22X1,5	G1/2	11	11	48	31,9	14	27	27	400	200	
B90121-12-22	15	M22X1,5	G3/4	11	18	48,5	30,4	16	32	27	400	219	
UPON REQ.	18	M26X1,5	G1/4	13	6	43	31,4	12	27	32	400	220	
B90121-08-26	18	M26X1,5	G1/2	13	13	45	31,4	14	27	32	400	228	
B90121-12-26	18	M26X1,5	G3/4	13	18	47	31,4	16	32	32	400	261	
B90121-08-30	22	M30X2	G1/2	17	14	48	31,9	14	27	36	250	283	
B90121-12-30	22	M30X2	G3/4	17	17	50,5	32,4	16	32	36	250	320	
UPON REQ.	22	M30X2	G1	17	17	52,5	32,4	18	41	36	250	410	
B90121-12-36	28	M36X2	G3/4	23	17	51	31,9	16	36	41	250	400	
B90121-16-36	28	M36X2	G1	23	23	56	34,9	18	41	41	250	460	
B90121-20-45	35	M45X2	G1.1/4	28	28	63,5	42,5	20	50	50	250	783	
B90121-20-52	42	M52X2	G1.1/4	35	30	67	46,5	20	50	60	250	985	
B90121-24-52	42	M52X2	G1.1/2	35	35	69	46,5	22	55	60	250	1059	

S Series													
Complete	D1	T1	T2	D2	D3	L1	L2	i1	S1	S2	PN	Weight [g]	
												Total	
B89096-04-14	6	M14X1,5	G1/4	3	3	39,5	26,9	12	19	17	630	88	
B89096-04-16	8	M16X1,5	G1/4	4	4	42	29,4	12	19	19	630	110	
B89096-04-18	10	M18X1,5	G1/4	5	5	41,5	29,4	12	19	22	630	126	
A520116-06-18	10	M18X1,5	G3/8	6	9	44	31,9	12	22	22	630	148	
B89096-04-20	12	M20X1,5	G1/4	5	5	45	31,4	12	19	24	630	161	
B89096-06-20	12	M20X1,5	G3/8	8	8	48	34,4	12	22	24	630	177	
B89096-08-20	12	M20X1,5	G1/2	8	8	50	34,4	14	27	24	630	217	
B89096-08-22	14	M22X1,5	G1/2	9	9	51,5	36,4	14	27	27	630	254	
B89096-06-24	16	M24X1,5	G3/8	8	8	49,5	36,9	12	27	30	400	274	
B89096-08-24	16	M24X1,5	G1/2	11	11	51,5	36,9	14	27	30	400	275	
B89096-12-24	16	M24X1,5	G3/4	11	11	55,5	38,9	16	32	30	400	349	
B89096-08-30	20	M30X2	G1/2	12	12	54,5	41	14	27	36	400	391	
B89096-12-30	20	M30X2	G3/4	14	14	56,5	41	16	32	36	400	436	
B89096-16-30	20	M30X2	G1	14	20	60,5	43	18	41	36	400	537	
B89096-12-36	25	M36X2	G3/4	16	16	65	50	16	36	46	400	730	
B89096-16-36	25	M36X2	G1	18	18	65	48	18	41	46	400	795	
B89096-16-42	30	M42X2	G1	20	20	68,5	53	18	41	50	400	931	
B89096-20-42	30	M42X2	G1.1/4	22	22	68,5	51	20	50	50	400	1095	
B89096-20-52	38	M52X2	G1.1/4	30	25	78	62	20	50	60	400	1484	
B89096-24-52	38	M52X2	G1.1/2	30	30	78	60	22	55	60	400	1572	



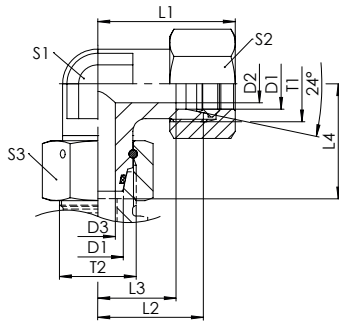
METRIC PARALLEL SWIVEL CONNECTOR

24° DKO SWIVEL AND NBR O-RING SEALING BY NBR PROFILE RING (DIN 3869)

PART NUMBERS		DIMENSIONS (mm)										
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L Series													
Complete	D1	T1	T2	D2	D3	L1	L2	i1	S1	S2	PN	Weight (g)	
												Total	
B90116-10-12	6	M12X1,5	M10X1	2,5	2,5	32,5	24,4	8	14	17	500	54	
B90116-12-14	8	M14X1,5	M12X1,5	4	4	38,5	26,4	12	17	17	500	69	
UPON REQ.	8	M14X1,5	M14X1,5	5	5	38,5	26,4	12	19	17	500	75	
B90116-14-16	10	M16X1,5	M14X1,5	6	6	40,5	27,4	12	19	19	500	90	
B90116-16-18	12	M18X1,5	M16X1,5	8	8	43	30,4	12	22	22	400	122	
B90116-18-18	12	M18X1,5	M18X1,5	8	8	43	30,4	12	24	22	400	134	
UPON REQ.	12	M18X1,5	M22X1,5	8	8	41,5	26,9	14	27	22	400	148	
B90116-18-22	15	M22X1,5	M18X1,5	10	10	45,5	31,4	12	24	27	400	179	
B90116-22-22	15	M22X1,5	M22X1,5	11	11	48	31,9	14	27	27	400	205	
B90116-22-26	18	M26X1,5	M22X1,5	13	13	45	31,4	14	27	32	400	233	
B90116-26-30	22	M30X2	M26X1,5	17	17	50,5	32,4	16	32	36	250	320	
B90116-33-36	28	M36X2	M33X2	23	23	56	34,9	18	41	41	250	461	
B90116-42-45	35	M45X2	M42X2	28	28	63,5	42,5	20	50	50	250	787	
B90116-48-52	42	M52X2	M48X2	34	34	69	46,5	22	55	60	250	1092	

S Series													
Complete	D1	T1	T2	D2	D3	L1	L2	i1	S1	S2	PN	Weight (g)	
												Total	
B89092-12-14	6	M14X1,5	M12X1,5	2,5	2,5	39,5	26,9	12	17	17	630	81	
B89092-14-16	8	M16X1,5	M14X1,5	4	4	42	29,4	12	19	19	630	112	
B89092-16-18	10	M18X1,5	M16X1,5	6	6	44	31,9	12	22	22	630	146	
B89092-16-20	12	M20X1,5	M16X1,5	7	7	46,5	32,9	12	22	24	630	176	
B89092-18-20	12	M20X1,5	M18X1,5	8	8	47,5	33,9	12	24	24	630	188	
UPON REQ.	12	M20X1,5	M20X1,5	8	8	51,5	35,9	14	27	24	630	222	
B89092-20-22	14	M22X1,5	M20X1,5	9	9	51,5	36,4	14	27	27	630	252	
B89092-22-24	16	M24X1,5	M22X1,5	11	11	51,5	36,9	14	27	30	400	280	
B89092-27-30	20	M30X2	M27X2	14	14	58,5	43	16	32	36	400	450	
B89092-33-36	25	M36X2	M33X2	18	18	65	48	18	41	46	400	796	
B89092-42-42	30	M42X2	M42X2	22	22	68,5	51	20	50	50	400	1099	
B89092-48-52	38	M52X2	M48X2	30	30	78	60	22	55	60	400	1578	



SWIVEL NUT ELBOW 24° DKO SWIVEL AND NBR O-RING

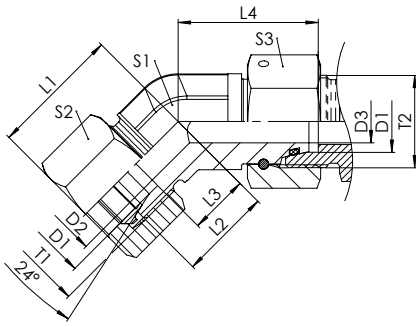
PART NUMBERS		DIMENSIONS (mm)													
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L Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	S3	PN	Weight (g)	
															Body	Total
B90075-12-12	B90010-12-12	6	M12X1,5	M12X1,5	4	3	27	19	12	26,4	12	14	17	500	43	70
B90075-14-14	B90010-14-14	8	M14X1,5	M14X1,5	6	5	29	21	14	27,4	12	17	17	500	43	81
B90075-16-16	B90010-16-16	10	M16X1,5	M16X1,5	8	6,5	30	22	15	28,4	14	19	19	500	57	106
B90075-18-18	B90010-18-18	12	M18X1,5	M18X1,5	10	8	32	24	17	29,4	17	22	22	400	77	139
B90075-22-22	B90010-22-22	15	M22X1,5	M22X1,5	12	11	36,5	28	21	32,4	19	27	27	400	128	231
B90075-26-26	B90010-26-26	18	M26X1,5	M26X1,5	15	13	40,5	31	23,5	35,4	24	32	32	400	185	331
B90075-30-30	B90010-30-30	22	M30X2	M30X2	19	17	45,5	35	27,5	38,4	27	36	36	250	253	450
B90075-36-36	B90010-36-36	28	M36X2	M36X2	24	23	49	38	30,5	41,9	36	41	41	250	375	638
B90075-45-45	B90010-45-45	35	M45X2	M45X2	30	28	57	45	34,5	51,5	41	50	50	250	587	991
B90075-52-52	B90010-52-52	42	M52X2	M52X2	36	35	63	51	40	56,5	50	60	60	250	881	1460

S Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	S3	PN	Weight (g)	
															Body	Total
B89058-14-14	B89009-14-14	6	M14X1,5	M14X1,5	4	3	31	23	16	27,4	12	17	17	800	49	99
B89058-16-16	B89009-16-16	8	M16X1,5	M16X1,5	5	4	32	24	17	27,9	14	19	19	800	67	133
B89058-18-18	B89009-18-18	10	M18X1,5	M18X1,5	7	6,5	34	25	17,5	30,4	17	22	22	800	89	173
B89058-20-20	B89009-20-20	12	M20X1,5	M20X1,5	8	8	38	29	21,5	30,9	17	24	24	630	113	218
B89058-22-22	B89009-22-22	14	M22X1,5	M22X1,5	10	9	40	30	22	34,9	19	27	27	630	147	290
B89058-24-24	B89009-24-24	16	M24X1,5	M24X1,5	12	11	43	33	24,5	36,4	24	30	30	630	200	370
B89058-30-30	B89009-30-30	20	M30X2	M30X2	16	14	49	37	26,5	44,5	27	36	36	420	307	584
B89058-36-36	B89009-36-36	25	M36X2	M36X2	20	18	55	42	30	50	36	46	46	420	562	1063
B89058-42-42	B89009-42-42	30	M42X2	M42X2	25	22	63	49	35,5	55,5	41	50	50	420	759	1372
B89058-52-52	B89009-52-52	38	M52X2	M52X2	32	30	72,5	57	41	63,5	50	60	60	420	1139	2089

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

24° SWIVEL CONNECTORS



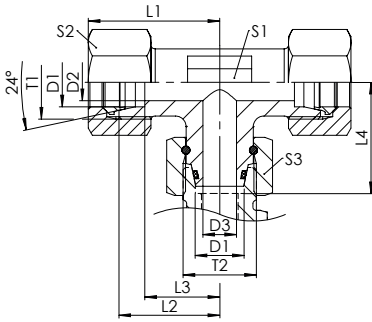
SWIVEL NUT 45° ELBOW 24° DKO SWIVEL AND NBR O-RING

PART NUMBERS		DIMENSIONS (mm)														
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L Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	S3	PN	Weight (g)	
															Body	Total
B90072-12-12	B90006-12-12	6	M12X1,5	M12X1,5	4	3	24	16	9	25,9	14	14	17	500	50	77
B90072-14-14	B90006-14-14	8	M14X1,5	M14X1,5	6	5	27	19	12	27,4	14	17	17	500	51	89
B90072-16-16	B90006-16-16	10	M16X1,5	M16X1,5	8	6,5	27	19	12	28,9	19	19	19	500	80	129
B90072-18-18	B90006-18-18	12	M18X1,5	M18X1,5	10	8	29	21	14	29,4	19	22	22	400	92	155
B90072-22-22	B90006-22-22	15	M22X1,5	M22X1,5	12	11	32,5	24	17	29,4	22	27	27	400	137	241
B90072-26-26	B90006-26-26	18	M26X1,5	M26X1,5	15	13	33,5	24	16,5	35,4	27	32	32	400	214	360
B90072-30-30	B90006-30-30	22	M30X2	M30X2	19	17	36,5	26	18,5	38,4	30	36	36	250	279	475
B90072-36-36	B90006-36-36	28	M36X2	M36X2	24	23	41,5	30,5	23	41,4	36	41	41	250	383	646
B90072-45-45	B90006-45-45	35	M45X2	M45X2	30	28	49	37	26,5	51	50	50	50	250	844	1247
B90072-52-52	B90006-52-52	42	M52X2	M52X2	36	35	49	37	26	56	50	60	60	250	870	1449

S Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	S3	PN	Weight (g)	
															Body	Total
B89053-14-14	B89006-14-14	6	M14X1,5	M14X1,5	4	3	25,5	17,5	10,5	26,9	14	17	17	800	53	103
B89053-16-16	B89006-16-16	8	M16X1,5	M16X1,5	5	4	28	20	13	27,4	19	19	19	800	86	152
B89053-18-18	B89006-18-18	10	M18X1,5	M18X1,5	7	6,5	30	21	13,5	29,9	19	22	22	800	100	184
B89053-20-20	B89006-20-20	12	M20X1,5	M20X1,5	8	8	33	24	16,5	30,9	22	24	24	630	140	245
UPON REQ.	UPON REQ.	14	M22X1,5	M22X1,5	10	9	34	24	16	32,4	22	27	27	630	155	298
B89053-24-24	B89006-24-24	16	M24X1,5	M24X1,5	12	11	34	24	15,5	36,4	27	30	30	630	216	386
B89053-30-30	B89006-30-30	20	M30X2	M30X2	16	14	38,5	26,5	16	44,5	30	36	36	420	327	603
B89053-36-36	B89006-36-36	25	M36X2	M36X2	20	18	43,5	30,5	18,5	50	36	46	46	420	548	1049
B89053-42-42	B89006-42-42	30	M42X2	M42X2	25	22	51	37	23,5	55	50	50	50	420	959	1572
B89053-52-52	B89006-52-52	38	M52X2	M52X2	32	30	52,5	37	21	63	50	60	60	420	1044	1995

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.



SWIVEL NUT BRANCH TEE

24° DKO SWIVEL AND NBR O-RING

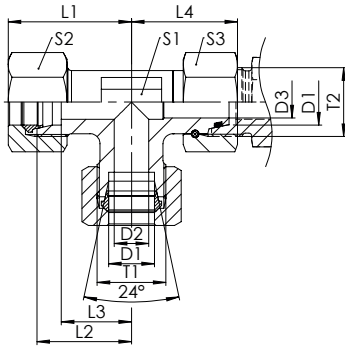
PART NUMBERS		DIMENSIONS (mm)													
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L Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	S3	PN	Weight (g)	
															Body	Total
B90071-12-12	B90005-12-12	6	M12X1,5	M12X1,5	4	3	27	19	12	26,4	12	14	17	500	51	91
B90071-14-14	B90005-14-14	8	M14X1,5	M14X1,5	6	5	29	21	14	27,4	12	17	17	500	52	109
B90071-16-16	B90005-16-16	10	M16X1,5	M16X1,5	8	6,5	30	22	15	28,4	14	19	19	500	69	142
B90071-18-18	B90005-18-18	12	M18X1,5	M18X1,5	10	8	32	24	17	29,4	17	22	22	400	89	183
B90071-22-22	B90005-22-22	15	M22X1,5	M22X1,5	12	11	36,5	28	21	32,4	19	27	27	400	151	304
B90071-26-26	B90005-26-26	18	M26X1,5	M26X1,5	15	13	40,5	31	23,5	35,4	24	32	32	400	213	432
B90071-30-30	B90005-30-30	22	M30X2	M30X2	19	17	45,5	35	27,5	38,4	27	36	36	250	289	583
B90071-36-36	B90005-36-36	28	M36X2	M36X2	24	23	49	38	30,5	41,9	36	41	41	250	415	792
B90071-45-45	B90005-45-45	35	M45X2	M45X2	30	28	57	45	34,5	51,5	41	50	50	250	655	1233
B90071-52-52	B90005-52-52	42	M52X2	M52X2	36	35	63	51	40	56,5	50	60	60	250	963	1807

S Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	S3	PN	Weight (g)	
															Body	Total
B89052-14-14	B89005-14-14	6	M14X1,5	M14X1,5	4	3	31	23	16	27,4	12	17	17	800	63	134
B89052-16-16	B89005-16-16	8	M16X1,5	M16X1,5	5	5	32	24	17	27,9	14	19	19	800	84	175
B89052-18-18	B89005-18-18	10	M18X1,5	M18X1,5	7	6,5	34	25	17,5	30,4	17	22	22	800	109	229
B89052-20-20	B89005-20-20	12	M20X1,5	M20X1,5	8	8	38	29	21,5	30,9	17	24	24	630	142	288
B89052-22-22	B89005-22-22	14	M22X1,5	M22X1,5	10	9	40	30	22	34,9	19	27	27	630	181	386
B89052-24-24	B89005-24-24	16	M24X1,5	M24X1,5	12	11	43	33	24,5	36,4	24	30	30	630	239	485
B89052-30-30	B89005-30-30	20	M30X2	M30X2	16	14	49	37	26,5	44,5	27	36	36	420	365	763
B89052-36-36	B89005-36-36	25	M36X2	M36X2	20	18	55	42	30	50	36	46	46	420	643	1378
B89052-42-42	B89005-42-42	30	M42X2	M42X2	25	22	63	49	35,5	55,5	41	50	50	420	888	1762
B89052-52-52	B89005-52-52	38	M52X2	M52X2	32	30	72,5	57	41	63	50	60	60	420	1314	2643

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

24° SWIVEL CONNECTORS



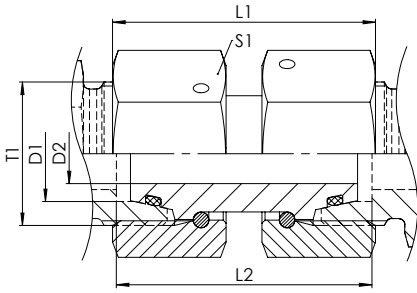
SWIVEL NUT RUN TEE 24° DKO SWIVEL AND NBR O-RING

PART NUMBERS		DIMENSIONS (mm)															Weight (g)	
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L Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	S3	PN	Weight (g)	
															Body	Total
B90070-12-12	B90003-12-12	6	M12X1,5	M12X1,5	3	4	27	19	12	26,4	12	14	17	500	51	91
B90070-14-14	B90003-14-14	8	M14X1,5	M14X1,5	5	6	29	21	14	27,4	12	17	17	500	52	108
B90070-16-16	B90003-16-16	10	M16X1,5	M16X1,5	6,5	8	30	22	15	28,9	14	19	19	500	70	142
B90070-18-18	B90003-18-18	12	M18X1,5	M18X1,5	8	10	32	24	17	29,4	17	22	22	400	88	181
B90070-22-22	B90003-22-22	15	M22X1,5	M22X1,5	11	12	36,5	28	21	32,4	19	27	27	400	152	304
B90070-26-26	B90003-26-26	18	M26X1,5	M26X1,5	13	15	40,5	31	23,5	35,4	24	32	32	400	212	431
B90070-30-30	B90003-30-30	22	M30X2	M30X2	17	19	45,5	35	27,5	38,4	27	36	36	250	287	581
B90070-36-36	B90003-36-36	28	M36X2	M36X2	23	24	49	38	30,5	41,9	36	41	41	250	422	799
B90070-45-45	B90003-45-45	35	M45X2	M45X2	28	30	57	45	34,5	51,5	41	50	50	250	655	1233
B90070-52-52	B90003-52-52	42	M52X2	M52X2	35	36	63	51	40	56,5	50	60	60	250	954	1797

S Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	S3	PN	Weight (g)	
															Body	Total
B89051-14-14	B89003-14-14	6	M14X1,5	M14X1,5	3	4	31	23	16	27,4	12	17	17	800	63	135
B89051-16-16	B89003-16-16	8	M16X1,5	M16X1,5	4	5	32	24	17	27,9	14	19	19	800	85	176
B89051-18-18	B89003-18-18	10	M18X1,5	M18X1,5	6,5	7	34	25	17,5	30,4	17	22	22	800	110	231
B89051-20-20	B89003-20-20	12	M20X1,5	M20X1,5	8	8	38	29	21,5	30,9	17	24	24	630	142	288
B89051-22-22	B89003-22-22	14	M22X1,5	M22X1,5	9	10	40	30	22	34,9	19	27	27	630	181	386
B89051-24-24	B89003-24-24	16	M24X1,5	M24X1,5	11	12	43	33	24,5	36,4	24	30	30	630	238	484
B89051-30-30	B89003-30-30	20	M30X2	M30X2	14	16	49	37	26,5	44,5	27	36	36	420	363	760
B89051-36-36	B89003-36-36	25	M36X2	M36X2	18	20	55	42	30	50	36	46	46	420	639	1374
B89051-42-42	B89003-42-42	30	M42X2	M42X2	22	25	63	49	35,5	55,5	41	50	50	420	882	1755
B89051-52-52	B89003-52-52	38	M52X2	M52X2	30	32	72,5	57	41	63,5	50	60	60	420	1313	2642

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.



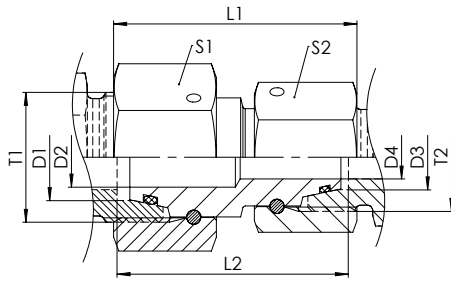
SWIVEL UNION
24° DKO SWIVEL AND NBR O-RING

PART NUMBERS	DIMENSIONS (mm)							
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L Series									
Complete	D1	T1	D2	L1	L2	S1	PN	Weight [g]	
								Total	
B90013-12-12	6	M12X1,5	3	37	36,7	17	500	81	
B90013-14-14	8	M14X1,5	5	37	36,7	17	500	85	
B90013-16-16	10	M16X1,5	6	40	37,8	19	500	115	
B90013-18-18	12	M18X1,5	8	39	37,8	22	400	147	
B90013-22-22	15	M22X1,5	11	45	40,8	27	400	243	
B90013-26-26	18	M26X1,5	13	42,5	43,3	32	400	332	
B90013-30-30	22	M30X2	17	52	47,8	36	250	461	
B90013-36-36	28	M36X2	23	55	48,8	41	250	609	
B90013-45-45	35	M45X2	28	61	59	50	250	969	
B90013-52-52	42	M52X2	34	61	60	60	250	1398	

S Series									
Complete	D1	T1	D2	L1	L2	S1	PN	Weight [g]	
								Total	
B89012-14-14	6	M14X1,5	3	41	39,7	17	800	107	
B89012-16-16	8	M16X1,5	4	41	39,7	19	800	148	
B89012-18-18	10	M18X1,5	6	44	43,8	22	800	185	
B89012-20-20	12	M20X1,5	8	48	44,8	24	630	243	
B89012-22-22	14	M22X1,5	9	51	48,8	27	630	316	
B89012-24-24	16	M24X1,5	10	52	50,8	30	630	383	
B89012-30-30	20	M30X2	14	60	61	36	420	617	
B89012-36-36	25	M36X2	18	65	67	46	420	1078	
B89012-42-42	30	M42X2	20	69	74	50	420	1381	
B89012-52-52	38	M52X2	30	76	84	60	420	2106	

24° SWIVEL CONNECTORS

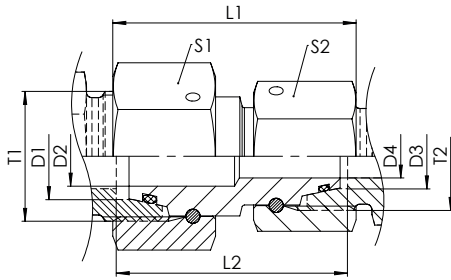


SWIVEL REDUCER 24° DKO SWIVEL AND NBR O-RING

PART NUMBERS		DIMENSIONS (mm)											Weight (g)	
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L Series													
Complete	D1	T1	T2	D2	D3	D4	L1	L2	S1	S2	PN	Weight (g)	
												Total	
B90014-12-14	8	M14X1,5	M12X1,5	5	6	3	37	36,7	17	17	500	84	
B90014-12-16	10	M16X1,5	M12X1,5	6,5	6	3	38,5	37,2	19	17	500	99	
B90014-14-16	10	M16X1,5	M14X1,5	6,5	8	5	38,5	37,2	19	17	500	101	
B90014-12-18	12	M18X1,5	M12X1,5	3	6	3	37	37,2	22	17	400	118	
B90014-14-18	12	M18X1,5	M14X1,5	5	8	5	38	38,2	22	17	400	119	
B90014-16-18	12	M18X1,5	M16X1,5	8	10	6,5	40	38,3	22	19	400	132	
B90014-14-22	15	M22X1,5	M14X1,5	5	8	5	39	38,7	27	17	400	169	
B90014-16-22	15	M22X1,5	M16X1,5	6,5	10	6,5	40,5	39,3	27	19	400	182	
B90014-18-22	15	M22X1,5	M18X1,5	11	12	8	48,5	45,8	27	22	400	210	
B90014-16-26	18	M26X1,5	M16X1,5	6,5	10	6,5	41,5	40,3	32	19	400	235	
B90014-18-26	18	M26X1,5	M18X1,5	8	12	8	41	40,3	32	22	400	250	
B90014-22-26	18	M26X1,5	M22X1,5	13	15	11	49	47,3	32	27	400	302	
B90014-18-30	22	M30X2	M18X1,5	8	12	8	45	42,8	36	22	250	319	
B90014-22-30	22	M30X2	M22X1,5	11	15	11	48	44,3	36	27	250	363	
B90014-26-30	22	M30X2	M26X1,5	17	18	13	49,5	47,8	36	32	250	418	
B90014-22-36	28	M36X2	M22X1,5	11	15	11	49,5	45,3	41	27	250	460	
B90014-26-36	28	M36X2	M26X1,5	13	18	13	49,5	47,8	41	32	250	510	
B90014-30-36	28	M36X2	M30X2	17	22	17	53	48,8	41	36	250	559	
B90014-26-45	35	M45X2	M26X1,5	13	18	13	51,5	52,4	50	32	250	725	
B90014-30-45	35	M45X2	M30X2	17	22	17	55,5	53,9	50	36	250	774	
B90014-36-45	35	M45X2	M36X2	23	28	23	57	54,4	50	46	250	893	
B90014-30-52	42	M52X2	M30X2	17	22	17	55,5	54,4	60	36	250	1012	
B90014-36-52	42	M52X2	M36X2	23	28	23	57	54,9	60	46	250	1130	
B90014-45-52	42	M52X2	M45X2	28	35,3	28	59,5	59,5	60	50	250	1228	

S Series													
Complete	D1	T1	T2	D2	D3	D4	L1	L2	S1	S2	PN	Weight (g)	
												Total	
B89013-14-20	12	M20X1,5	M14X1,5	3	6	3	42,5	41,7	24	17	630	178	
B89013-16-20	12	M20X1,5	M16X1,5	8	8	4	49	46,7	24	19	630	207	
B89013-18-20	12	M20X1,5	M18X1,5	8	10	6,5	46	44,3	24	22	630	217	
B89013-18-24	16	M24X1,5	M18X1,5	6,5	10	6,5	48,5	47,3	30	22	630	294	
B89013-20-24	16	M24X1,5	M20X1,5	11	12	8	53,5	51,3	30	24	630	325	
B89013-20-30	20	M30X2	M20X1,5	8	12	8	54,5	52,9	36	24	420	456	
B89013-24-30	20	M30X2	M24X1,5	14	16	11	58	57,9	36	30	420	517	
B89013-24-36	25	M36X2	M24X1,5	18	16	11	58,5	58,9	46	30	420	762	
B89013-30-36	25	M36X2	M30X2	18	20	14	64	65,5	46	36	420	878	
B89013-24-42	30	M42X2	M24X1,5	11	16	11	59	58,4	50	30	420	932	
B89013-30-42	30	M42X2	M30X2	14	20	14	67	67,5	50	36	420	1064	
B89013-36-42	30	M42X2	M36X2	22	25	18	67	70,5	50	46	420	1247	
B89013-30-52	38	M52X2	M30X2	14	20	14	71,5	72,5	60	36	420	1516	
B89013-36-52	38	M52X2	M36X2	18	25	18	74	75,5	60	46	420	1727	
B89013-42-52	38	M52X2	M42X2	30	30	22	72,5	79	60	50	420	1828	

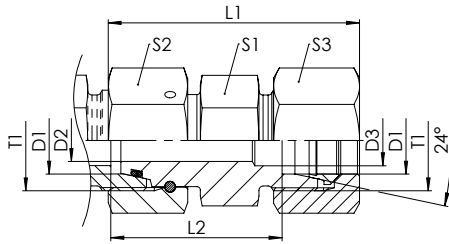


SWIVEL REDUCER 24° DKO SWIVEL AND NBR O-RING

PART NUMBERS	DIMENSIONS (mm)											
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L/S Series												
Complete	D1	T1	T2	D2	D3	D4	L1	L2	S1	S2	PN	Weight (g)
												Total
B90152-12-14	6	M12X1,5	M14X1,5	3	6	3	39	38,2	17	17	500	94
B90152-14-16	8	M14X1,5	M16X1,5	4	8	5	39	38,2	19	17	500	117
B90152-16-18	10	M16X1,5	M18X1,5	6,5	10	6,5	42	40,8	22	19	500	149
UPON REQ.	12	M18X1,5	M20X1,5	8	10	6,5	36	35,3	22	22	400	162
B90152-18-20	12	M18X1,5	M20X1,5	8	12	8	43,5	41,3	24	22	400	195
B90152-26-24	18	M26X1,5	M24X1,5	13	16	11	47,5	47,3	32	30	400	361
B90152-30-30	22	M30X2	M18X1,5	17	20	14	56	54,4	36	36	250	549
B90152-36-36	28	M36X2	M36X2	23	25	18	60,5	58,4	41	46	250	869
B90152-45-42	35	M45X2	M42X2	28	30	22	69	70	50	50	250	1235
UPON REQ.	42	M52X2	M42X2	22	30	22	58,5	62	60	50	250	1424
B90152-52-52	42	M52X2	M52X2	35	38	30	63,5	67	60	60	250	1754

S/L Series												
Complete	D1	T1	T2	D2	D3	D4	L1	L2	S1	S2	PN	Weight (g)
												Total
UPON REQ.	12	M20X1,5	M14X1,5	5	8	5	39	38,7	24	17	500	165
B90152-22-24	16	M24X1,5	M22X1,5	11	15	11	48,5	45,8	30	27	400	309
B90152-26-30	20	M30X2	M26X1,5	14	18	13	51	51,9	36	32	400	479
B90152-30-36	25	M36X2	M30X2	18	22	17	64	62,9	46	36	250	790
B90152-36-42	30	M42X2	M36X2	22	28	22	67	66,4	50	41	250	998
B90152-45-52	38	M52X2	M45X2	30	35,3	28	70,5	73,5	60	50	250	1569



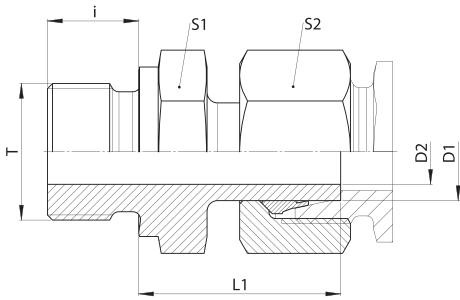
STRAIGHT CONNECTOR DKO SWIVEL

SEALING BY NBR O-RING ISO 3601

PART NUMBERS	DIMENSIONS (mm)										
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L Series											
Body Only	D1	T1	D2	D3	L1	L2	S1	S2	S3	PB	Weight (g)
											Body
B90069-12-12	6	M12X1,5	3	3	51	36	12	17	14	500	46
B90069-14-14	8	M14X1,5	5	5	51	36	14	17	17	500	49
B90069-22-22	15	M22X1,5	11	11	53,5	38	24	27	27	400	124
B90069-26-26	18	M26X1,5	13	13	53	36	27	32	32	400	163
B90069-36-36	28	M36X2	23	23	61,5	43	41	41	41	250	293

S Series											
Body Only	D1	T1	D2	D3	L1	L2	S1	S2	S3	PB	Weight (g)
											Body
B89050-14-14	6	M14X1,5	3	3	51,5	36,5	14	17	17	800	52
B89050-18-18	10	M18X1,5	6,5	6,5	53	36,5	19	22	22	800	87
B89050-30-30	20	M30X2	14	14	68	45,5	32	36	36	420	278
B89050-36-36	25	M36X2	18	18	74	49	41	46	46	420	486
B89050-52-52	38	M52X2	30	30	87,5	56	55	60	60	420	899



BSP STRAIGHT STANDPIPE CONNECTOR

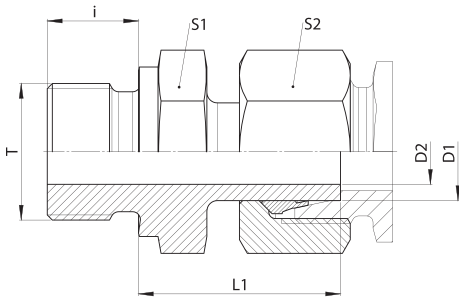
METALLIC SEALING EDGE FORM B

PART NUMBERS	DIMENSIONS (mm)
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L Series										
Complete	D1	T	D2	L1	i	S1	S2	PN	Weight (g)	
									Total	
B90224-02-12	6	G 1/8"	3	25	8	14	14	500	24	
B90224-04-14	8	G 1/4"	4	30	12	19	17	500	52	
B90224-04-16	10	G 1/4"	6	28	12	19	19	500	47	
B90224-06-18	12	G 3/8"	7	34	12	22	22	400	87	
B90224-04-18	12	G 1/4"	7	29	12	19	22	400	61	
B90224-08-18	12	G 1/2"	8	35	14	27	22	400	121	
B90224-08-22	15	G 1/2"	10	32	14	27	27	400	125	
B90224-08-26	18	G 1/2"	13	32	14	27	32	400	132	
B90224-12-30	22	G 3/4"	17	33	16	32	36	250	183	
B90224-20-45	35	G 1.1/4"	28	43	20	50	50	250	436	
B90224-24-52	42	G 1.1/2"	28	47	22	55	60	250	615	

S Series										
Complete	D1	T	D2	L1	i	S1	S2	PN	Weight (g)	
									Total	
B89256-04-14	6	G 1/4"	3	27	12	19	17	800	48	
B89256-04-16	8	G 1/4"	4	30	12	19	19	800	57	
B89256-06-18	10	G 3/8"	6	32	12	22	22	800	84	
B89256-06-20	12	G 3/8"	7	34	12	22	24	630	95	
B89256-08-22	14	G 1/2"	9	32	14	27	27	630	149	
B89256-08-24	16	G 1/2"	11	37	14	27	30	630	158	
B89256-12-24	16	G 3/4"	11	39	16	32	30	630	222	
B89256-12-30	20	G 3/4"	14	43	16	32	36	420	254	
B89256-20-42	30	G 1.1/4"	22	57	20	50	50	420	661	
B89256-24-52	38	G 1.1/2"	29	60	22	55	60	420	962	

- For sizes larger than 28L and 25S we recommend using swivel fittings.



METRIC PARALLEL STRAIGHT STANDPIPE CONNECTOR

METALLIC SEALING EDGE FORM B

PART NUMBERS		DIMENSIONS (mm)								
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L Series										
Complete	D1	T	D2	L1	i	S1	S2	PN	Weight (g)	
									Total	
B90225-10-12	6	M 10 X 1	3	25	8	14	14	500	24	
B90225-12-14	8	M 12 X 1.5	5	27	12	17	17	500	38	
B90225-14-16	10	M 14 X 1.5	7	28	12	19	19	500	49	
B90225-16-18	12	M 16 X 1.5	8	30	12	22	22	400	67	
B90225-18-22	15	M 18 X 1.5	10	31	12	24	27	400	95	
B90225-22-26	18	M 22 X 1.5	13	32	14	27	32	400	137	
B90225-26-30	22	M 26 X 1.5	17	33	16	32	36	250	183	
B90225-33-36	28	M 33 X 2	22	35	18	41	41	250	264	
B90225-42-45	35	M 42 X 2	28	43	20	50	50	250	444	
B90225-48-52	42	M 48 X 2	34	47	22	55	60	250	614	

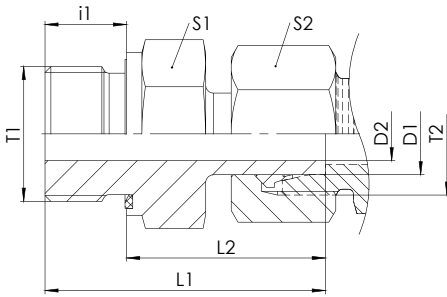
S Series										
Complete	D1	T	D2	L1	i	S1	S2	PN	Weight (g)	
									Total	
B89257-12-14	6	M 12 X 1.5	3	27	12	17	17	800	43	
B89257-14-16	8	M 14 X 1.5	4	30	12	19	19	800	59	
B89257-16-18	10	M 16 X 1.5	6	32	12	22	22	800	82	
B89257-18-20	12	M 18 X 1.5	7	34	12	24	24	630	104	
B89257-20-22	14	M 20 X 1.5	9	37	14	27	27	630	144	
B89257-22-24	16	M 22 X 1.5	11	37	14	27	30	630	162	
B89257-27-30	20	M 27 X 2	14	43	16	32	36	420	254	
B89257-33-36	25	M 33 X 2	18	48	18	41	46	420	493	
B89257-42-42	30	M 42 X 2	22	51	20	50	50	420	654	
B89257-48-52	38	M 48 X 2	29	60	22	55	60	420	962	

- For sizes larger than 28L and 25S we recommend using swivel fittings.

BSP

STRAIGHT STANDPIPE CONNECTOR

SEALING BY NBR PROFILE RING (DIN 3869)

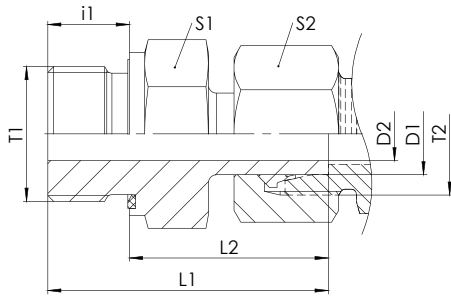


PART NUMBERS	DIMENSIONS (mm)										
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L Series												
Complete	D1	T1	T2	D2	L1	L2	i1	S1	S2	PN	Weight (g)	
											Total	
B90122-02-12	6	G1/8	M12X1,5	4	32,5	24,5	8	14	14	315	38	
UPON REQ.	8	G1/8	M14X1,5	4	33	25	8	14	17	315	52	
B90122-04-14	8	G1/4	M14X1,5	4	41,5	29,5	12	19	17	315	77	
UPON REQ.	10	G1/8	M16X1,5	5	37	29	8	17	19	315	76	
B90122-04-16	10	G1/4	M16X1,5	6	39,5	27,5	12	19	19	315	79	
B90122-06-16	10	G3/8	M16X1,5	6	39,5	27,5	12	22	19	315	89	
UPON REQ.	10	G1/2	M16X1,5	6,5	48,5	34,5	14	27	19	315	151	
B90122-04-18	12	G1/4	M18X1,5	7	39,5	27,5	12	19	22	315	96	
B90122-06-18	12	G3/8	M18X1,5	7	46	34	12	22	22	315	124	
B90122-08-18	12	G1/2	M18X1,5	7	48,5	34,5	14	27	22	315	167	
UPON REQ.	15	G3/8	M22X1,5	10	43	31	12	22	27	315	157	
B90122-08-22	15	G1/2	M22X1,5	10	46	32	14	27	27	315	192	
B90122-08-26	18	G1/2	M26X1,5	13	45,5	31,5	14	27	32	315	220	
UPON REQ.	18	G3/4	M26X1,5	13	48	32	16	32	32	160	268	
UPON REQ.	18	G1	M26X1,5	13	55	37	18	41	32	160	403	
B90122-12-30	22	G3/4	M30X2	16,5	48,5	32,5	16	32	36	160	309	
B90122-16-36	28	G1	M36X2	22	53	35	18	41	41	160	455	
B90122-20-45	35	G1.1/4	M45X2	29,5	62,5	42,5	20	50	50	160	716	
UPON REQ.	35	G1.1/2	M45X2	28,5	69	47	22	55	50	160	930	
UPON REQ.	42	G1.1/4	M52X2	30	67	47	20	50	60	160	1017	
B90122-24-52	42	G1.1/2	M52X2	34	68,5	46,5	22	55	60	160	1041	

S Series												
Complete	D1	T1	T2	D2	L1	L2	i1	S1	S2	PN	Weight (g)	
											Total	
B89097-04-14	6	G1/4	M14X1,5	3,3	39	27	12	19	17	630	81	
B89097-04-16	8	G1/4	M16X1,5	4,3	41,5	29,5	12	19	19	630	105	
B89097-06-18	10	G3/8	M18X1,5	6	44	32	12	22	22	630	140	
B89097-06-20	12	G3/8	M20X1,5	7	46	34	12	22	24	630	170	
B89097-08-20	12	G1/2	M20X1,5	7,3	48,5	34,5	14	27	24	630	206	
B89097-08-22	14	G1/2	M22X1,5	9	50,5	36,5	14	27	27	630	248	
B89097-06-24	16	G3/8	M24X1,5	10,5	49	37	12	22	30	400	236	
B89097-08-24	16	G1/2	M24X1,5	10,5	51	37	14	27	30	400	271	
B89097-12-24	16	G3/4	M24X1,5	10,5	55	39	16	32	30	400	338	
B89097-12-30	20	G3/4	M30X2	13,5	59	43	16	32	36	400	424	
B89097-16-36	25	G1	M36X2	17,5	66	48	18	41	46	400	787	
UPON REQ.	25	G1.1/4	M36X2	17,5	68	48	20	50	46	400	962	
UPON REQ.	30	G1	M42X2	22	69	51	18	41	50	400	869	
B89097-20-42	30	G1.1/4	M42X2	22	71	51	20	50	50	400	1082	
B89097-24-52	38	G1.1/2	M52X2	28,5	82	60	22	55	60	315	1626	

- For sizes larger than 28L and 25S we recommend using swivel fittings.



METRIC PARALLEL STRAIGHT STANDPIPE CONNECTOR

SEALING BY NBR PROFILE RING (DIN 3869)

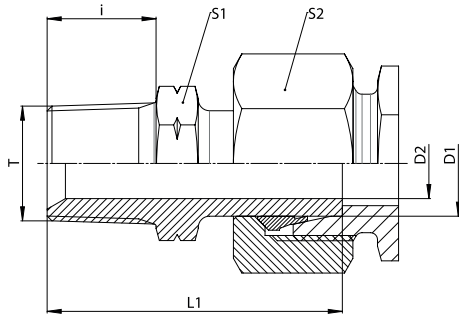
PART NUMBERS		DIMENSIONS (mm)										
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L Series												
Complete	D1	T1	T2	D2	L1	L2	i1	S1	S2	PN	Weight (g)	
											Total	
B90117-10-12	6	M10X1	M12X1,5	3,3	32,5	24,5	8	14	14	315	42	
B90117-12-14	8	M12X1,5	M14X1,5	5	38,5	26,5	12	17	17	315	64	
UPON REQ.	8	M14X1,5	M14X1,5	5	38	26	12	19	17	315	70	
B90117-14-16	10	M14X1,5	M16X1,5	6,5	39,5	27,5	12	19	19	315	81	
B90117-16-18	12	M16X1,5	M18X1,5	9	42,5	30,5	12	22	22	315	108	
B90117-18-22	15	M18X1,5	M22X1,5	11	43,5	31,5	12	24	27	315	163	
UPON REQ.	15	M22X1,5	M22X1,5	10	45,5	31,5	14	27	27	315	195	
B90117-22-26	18	M22X1,5	M26X1,5	14	45,5	31,5	14	27	32	315	217	
B90117-26-30	22	M26X1,5	M30X2	16,5	48,5	32,5	16	32	36	160	309	
B90117-33-36	28	M33X2	M36X2	22	53	35	18	41	41	160	456	

S Series												
Complete	D1	T1	T2	D2	L1	L2	i1	S1	S2	PN	Weight (g)	
											Total	
B89255-12-14	6	M12X1,5	M14X1,5	3,3	39	27	12	17	17	630	77	
B89255-14-16	8	M14X1,5	M16X1,5	4,5	41,5	29,5	12	19	19	630	106	
B89255-16-18	10	M16X1,5	M18X1,5	6	44	32	12	22	22	630	139	
B89255-18-20	12	M18X1,5	M20X1,5	7	46	34	12	24	24	630	181	
B89255-20-22	14	M20X1,5	M22X1,5	9	50,5	36,5	14	27	27	630	245	
B89255-22-24	16	M22X1,5	M24X1,5	10,5	51	37	14	27	30	630	276	
B89255-27-30	20	M27X2	M30X2	13,5	59	43	16	32	36	400	440	
B89255-33-36	25	M33X2	M36X2	17,5	66	48	18	41	46	400	788	
B89255-42-42	30	M42X2	M42X2	22	71	51	20	50	50	400	1082	

- For sizes larger than 28L and 25S we recommend using swivel fittings.

STRAIGHT STANDPIPE CONNECTOR

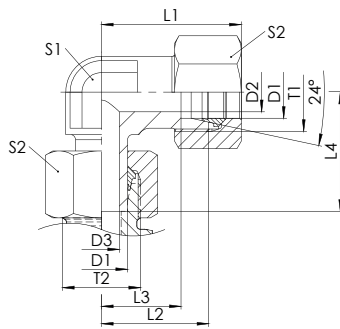


PART NUMBERS	DIMENSIONS (mm)
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L Series										
Complete	D1	T	D2	L1	i	S1	S2	PN	Weight (g)	
									Total	
B90223-02-12	6	1/8 NPT	3	33	10	11	14	500	24	
B90223-04-14	8	1/4 NPT	4	40	16	14	17	500	52	
B90223-04-16	10	1/4 NPT	7	41	16	14	19	500	47	
B90223-06-18	12	3/8 NPT	7	42	16	19	22	400	87	
B90223-08-22	15	1/2 NPT	10	47	20	22	27	400	114	
B90223-08-26	18	1/2 NPT	13	50	20	22	32	400	132	
B90223-12-30	22	3/4 NPT	17	49	20	27	36	250	183	
B90223-16-36	28	1 NPT	22	56	25	36	41	250	262	
B90223-20-45	35	1.1/4 NPT	28	66	26	46	50	250	436	

S Series										
Complete	D1	T	D2	L1	i	S1	S2	PN	Weight (g)	
									Total	
B89045-04-16	8	1/4 NPT	4	40	16	14	19	800	57	
B89045-06-18	10	3/8 NPT	6	45	16	19	22	800	84	
B89045-06-20	12	3/8 NPT	7	47	16	19	24	630	95	
B89045-08-22	14	1/2 NPT	9	52	20	22	27	630	149	
B89045-08-24	16	1/2 NPT	11	54	20	22	30	630	158	
B89045-12-30	20	3/4 NPT	14	58	20	27	36	420	254	
B89045-16-36	25	1 NPT	18	68	25	36	46	420	485	
B89045-20-42	30	1.1/4 NPT	22	71	26	46	50	420	661	

- For sizes larger than 28L and 25S we recommend using swivel fittings.



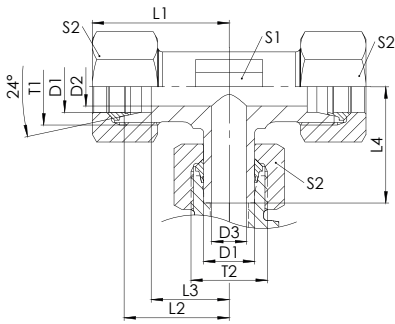
STANDPIPE ELBOW

PART NUMBERS		DIMENSIONS (mm)													
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L Series															
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	PN	Weight (g)	
														Body	Total
B90074-12-12	B90009-12-12	6	M12X1,5	M12X1,5	4	3,4	27	19	12	26,5	12	14	315	18	58
B90074-14-14	B90009-14-14	8	M14X1,5	M14X1,5	6	5	29	21	14	27,5	12	17	315	22	79
B90074-16-16	B90009-16-16	10	M16X1,5	M16X1,5	8	6,5	30	22	15	29	14	19	315	31	103
B90074-18-18	B90009-18-18	12	M18X1,5	M18X1,5	10	8	32	24	17	29,5	17	22	315	41	134
B90074-22-22	B90009-22-22	15	M22X1,5	M22X1,5	12	10	36,5	28	21	33	19	27	315	76	227
B90074-26-26	B90009-26-26	18	M26X1,5	M26X1,5	15	13	40,5	31	23,5	36	24	32	315	106	323
B90074-30-30	B90009-30-30	22	M30X2	M30X2	19	16,5	45,5	35	27,5	39	27	36	160	149	442
B90074-36-36	B90009-36-36	28	M36X2	M36X2	24	22	49	38	30,5	41,5	36	41	160	240	614
B90074-45-45	B90009-45-45	35	M45X2	M45X2	30	28	57	45	34,5	51	41	50	160	403	976
B90074-52-52	B90009-52-52	42	M52X2	M52X2	36	34	63	51	40	56	50	60	160	583	1420

S Series															
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	PN	Weight (g)	
														Body	Total
B89057-14-14	B89008-14-14	6	M14X1,5	M14X1,5	3,3	3,3	31	23	16	27,5	12	17	630	28	98
B89057-16-16	B89008-16-16	8	M16X1,5	M16X1,5	4	4	32	24	17	27,5	14	19	630	39	129
B89057-18-18	B89008-18-18	10	M18X1,5	M18X1,5	6	6	34	25	17,5	30	17	22	630	51	170
B89057-20-20	B89008-20-20	12	M20X1,5	M20X1,5	8	7	38	29	21,5	31,5	17	24	630	70	215
B89057-22-22	B89008-22-22	14	M22X1,5	M22X1,5	9	9	40	30	22	35,5	19	27	400	91	294
B89057-24-24	B89008-24-24	16	M24X1,5	M24X1,5	11	11	43	33	24,5	37	24	30	400	125	369
B89057-30-30	B89008-30-30	20	M30X2	M30X2	16	13,5	49	37	26,5	45	27	36	400	196	590
B89057-36-36	B89008-36-36	25	M36X2	M36X2	20	17,5	55	42	30	50	36	46	400	332	1062
B89057-42-42	B89008-42-42	30	M42X2	M42X2	23	23	63	49	35,5	55	41	50	400	522	1389
B89057-52-52	B89008-52-52	38	M52X2	M52X2	32	28,5	72,5	57	41	63	50	60	315	800	2117

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.
- For sizes larger than 28L and 25S we recommend using swivel fittings.
- 45° available on request.



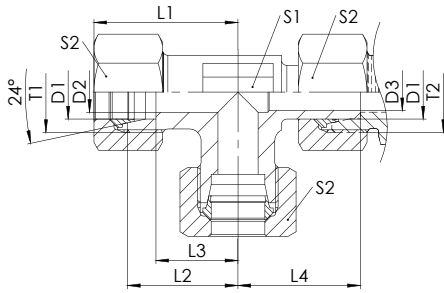
ASSEMBLED ADJUSTABLE STANDPIPE BRANCH TEE

PART NUMBERS		DIMENSIONS (mm)													
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L Series															
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	PN	Weight (g)	
														Body	Total
B90073-12-12	B90008-12-12	6	M12X1,5	M12X1,5	4	3,3	27	19	12	26	12	14	315	27	79
B90073-14-14	B90008-14-14	8	M14X1,5	M14X1,5	6	5	29	21	14	28	12	17	315	33	108
B90073-16-16	B90008-16-16	10	M16X1,5	M16X1,5	8	6,5	30	22	15	29	14	19	315	43	138
B90073-18-18	B90008-18-18	12	M18X1,5	M18X1,5	10	8	32	24	17	29,5	17	22	315	56	179
B90073-22-22	B90008-22-22	15	M22X1,5	M22X1,5	12	10	36,5	28	21	32,5	19	27	315	101	301
B90073-26-26	B90008-26-26	18	M26X1,5	M26X1,5	15	13	40,5	31	23,5	35,5	24	32	315	139	427
B90073-30-30	B90008-30-30	22	M30X2	M30X2	19	16,5	45,5	35	27,5	39	27	36	160	191	579
B90073-36-36	B90008-36-36	28	M36X2	M36X2	24	22,5	49	38	30,5	42	36	41	160	288	773
B90073-45-45	B90008-45-45	35	M45X2	M45X2	30	28	57	45	34,5	51	41	50	160	497	1240
B90073-52-52	B90008-52-52	42	M52X2	M52X2	36	34	63	51	40	56	50	60	160	716	1553

S Series															
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	PN	Weight (g)	
														Body	Total
B89056-14-14	B89101-14-14	6	M14X1,5	M14X1,5	4	3,3	31	23	16	27	12	17	630	42	133
B89056-16-16	B89101-16-16	8	M16X1,5	M16X1,5	5	4,3	32	24	17	27,5	14	19	630	57	172
B89056-18-18	B89101-18-18	10	M18X1,5	M18X1,5	7	6	34	25	17,5	30	17	22	630	74	229
B89056-20-20	B89101-20-20	12	M20X1,5	M20X1,5	8	7,3	38	29	21,5	31	17	24	630	100	285
B89056-22-22	B89101-22-22	14	M22X1,5	M22X1,5	10	9	40	30	22	35	19	27	400	123	386
B89056-24-24	B89101-24-24	16	M24X1,5	M24X1,5	12	10,5	43	33	24,5	37	24	30	400	171	489
B89056-30-30	B89101-30-30	20	M30X2	M30X2	16	13,5	49	37	26,5	45	27	36	400	273	786
B89056-36-36	B89101-36-36	25	M36X2	M36X2	20	17,5	55	42	30	50,5	36	46	400	471	1429
B89056-42-42	B89101-42-42	30	M42X2	M42X2	25	22	63	49	35,5	55	41	50	400	739	1859
B89056-52-52	B89101-52-52	38	M52X2	M52X2	32	28,5	72,5	57	41	63	50	60	315	1118	2801

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
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- For sizes larger than 28L and 25S we recommend using swivel fittings.



ASSEMBLED ADJUSTABLE STANDPIPE RUN TEE

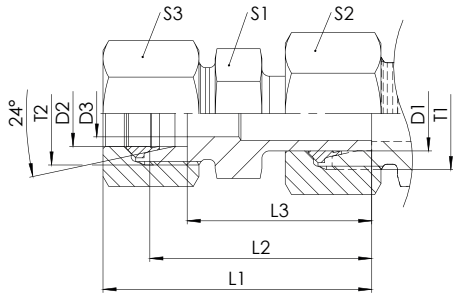
PART NUMBERS		DIMENSIONS (mm)													
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L Series															
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	PN	Weight (g)	
														Body	Total
B90133-12-12	B90007-12-12	6	M12X1,5	M12X1,5	4	3,3	27	19	12	26	12	14	315	27	80
B90133-14-14	B90007-14-14	8	M14X1,5	M14X1,5	6	5	29	21	14	27,5	12	17	315	32	107
B90133-16-16	B90007-16-16	10	M16X1,5	M16X1,5	8	6,5	30	22	15	29	14	19	315	43	138
B90133-18-18	B90007-18-18	12	M18X1,5	M18X1,5	10	8	32	24	17	29,5	17	22	315	55	180
B90133-22-22	B90007-22-22	15	M22X1,5	M22X1,5	12	10	36,5	28	21	32,5	19	27	315	100	301
B90133-26-26	B90007-26-26	18	M26X1,5	M26X1,5	15	13	40,5	31	23,5	35,5	24	32	315	137	427
B90133-30-30	B90007-30-30	22	M30X2	M30X2	19	16,5	45,5	35	27,5	38,5	27	36	160	187	576
B90133-36-36	B90007-36-36	28	M36X2	M36X2	24	22	49	38	30,5	41,5	36	41	160	290	779
B90133-45-45	B90007-45-45	35	M45X2	M45X2	30	28	57	45	34,5	51	41	50	160	499	1246
B90133-52-52	B90007-52-52	42	M52X2	M52X2	36	34	63	51	40	56	50	60	160	740	1840

S Series															
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	L4	S1	S2	PN	Weight (g)	
														Body	Total
B89055-14-14	B89007-14-14	6	M14X1,5	M14X1,5	4	3,3	31	23	16	27	12	17	630	41	133
B89055-16-16	B89007-16-16	8	M16X1,5	M16X1,5	5	4	32	24	17	27,5	14	19	630	57	172
B89055-18-18	B89007-18-18	10	M18X1,5	M18X1,5	7	6	34	25	17,5	30	17	22	630	74	230
B89055-20-20	B89007-20-20	12	M20X1,5	M20X1,5	8	7,3	38	29	21,5	31	17	24	630	99	285
B89055-22-22	B89007-22-22	14	M22X1,5	M22X1,5	10	9	40	30	22	35	19	27	400	123	387
B89055-24-24	B89007-24-24	16	M24X1,5	M24X1,5	12	10,5	43	33	24,5	36,5	24	30	400	170	490
B89055-30-30	B89007-30-30	20	M30X2	M30X2	16	13,5	49	37	26,5	44,5	27	36	400	249	765
B89055-36-36	B89007-36-36	25	M36X2	M36X2	20	17,5	55	42	30	50	36	46	400	429	1393
B89055-42-42	B89007-42-42	30	M42X2	M42X2	25	22	63	49	35,5	55	41	50	400	656	1782
B89055-52-52	B89007-52-52	38	M52X2	M52X2	32	28,5	72,5	57	41	63	50	60	315	1058	2750

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STANDPIPE CONNECTORS



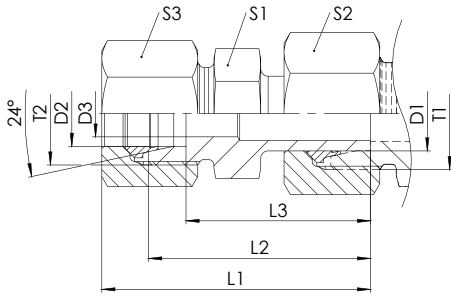
ASSEMBLED ADJUSTABLE STANDPIPE REDUCER

PART NUMBERS		DIMENSIONS (mm)													
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L Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	S1	S2	S3	PN	Weight [g]		
														Body	Total	
B90079-12-14	B90016-12-14	8	M14X1,5	M12X1,5	6	4	42,5	34,5	27,5	12	17	14	315	54	66	
B90079-12-16	B90016-12-16	10	M16X1,5	M12X1,5	6	4	43,5	35,5	28,5	12	19	14	315	70	82	
B90079-14-16	B90016-14-16	10	M16X1,5	M14X1,5	8	6	43,5	35,5	28,5	14	19	17	315	70	88	
B90079-12-18	B90016-12-18	12	M18X1,5	M12X1,5	6	4	43	35	28	14	22	14	315	82	95	
B90079-14-18	UPON REQ.	12	M18X1,5	M14X1,5	8	6	44	36	29	14	22	17	315	89	108	
B90079-16-18	B90016-16-18	12	M18X1,5	M16X1,5	10	8	45	37	30	17	22	19	315	91	114	
B90079-12-22	B90016-12-22	15	M22X1,5	M12X1,5	6	4	43	35	28	17	27	14	315	134	147	
B90079-14-22	B90016-14-22	15	M22X1,5	M14X1,5	8	6	44	36	29	17	27	17	315	136	155	
B90079-16-22	B90016-16-22	15	M22X1,5	M16X1,5	10	8	45	37	30	17	27	19	315	142	164	
B90079-18-22	B90016-18-22	15	M22X1,5	M18X1,5	12	10	46	38	31	19	27	22	315	142	172	
B90079-12-26	B90016-12-26	18	M26X1,5	M12X1,5	6	4	45	37	30	19	32	14	315	184	197	
B90079-14-26	UPON REQ.	18	M26X1,5	M14X1,5	8	6	46	38	31	19	32	17	315	188	206	
B90079-16-26	B90016-16-26	18	M26X1,5	M16X1,5	10	8	47	39	32	19	32	19	315	189	212	
B90079-18-26	B90016-18-26	18	M26X1,5	M18X1,5	12	10	48,5	40,5	33,5	19	32	22	315	201	231	
B90079-22-26	B90016-22-26	18	M26X1,5	M22X1,5	15	12	49,5	41	34	24	32	27	315	209	257	
B90079-12-30	B90016-12-30	22	M30X2	M12X1,5	6	4	47	39	32	24	36	14	160	255	268	
B90079-14-30	B90016-14-30	22	M30X2	M14X1,5	8	6	49	41	34	24	36	17	160	263	282	
B90079-16-30	B90016-16-30	22	M30X2	M16X1,5	10	8	49	41	34	24	36	19	160	261	284	
B90079-18-30	B90016-18-30	22	M30X2	M18X1,5	12	10	49,5	41,5	34,5	24	36	22	160	263	293	
B90079-22-30	B90016-22-30	22	M30X2	M22X1,5	15	12	51,5	43	36	24	36	27	160	270	318	
B90079-26-30	B90016-26-30	22	M30X2	M26X1,5	18	15	53,5	44	36,5	27	36	32	160	290	361	
B90079-12-36	B90016-12-36	28	M36X2	M12X1,5	6	4	49,5	41,5	34,5	30	41	14	160	357	369	
B90079-14-36	B90016-14-36	28	M36X2	M14X1,5	8	6	49,5	41,5	34,5	30	41	17	160	357	376	
B90079-16-36	B90016-16-36	28	M36X2	M16X1,5	10	8	50,5	42,5	35,5	30	41	19	160	359	381	
B90079-18-36	B90016-18-36	28	M36X2	M18X1,5	12	10	50,5	42,5	35,5	30	41	22	160	359	389	
B90079-22-36	B90016-22-36	28	M36X2	M22X1,5	15	12	52	43,5	36,5	30	41	27	160	365	413	
B90079-26-36	B90016-26-36	28	M36X2	M26X1,5	18	15	53	43,5	36	30	41	32	160	368	439	
B90079-30-36	B90016-30-36	28	M36X2	M30X2	22	19	56	45,5	38	32	41	36	160	397	492	
B90079-12-45	B90016-12-45	35	M45X2	M12X1,5	6	4	55,5	47,5	40,5	36	50	14	160	556	568	
B90079-14-45	B90016-14-45	35	M45X2	M14X1,5	8	6	55,5	47,5	40,5	36	50	17	160	557	575	
B90079-16-45	B90016-16-45	35	M45X2	M16X1,5	10	8	56,5	48,5	41,5	36	50	19	160	558	581	
B90079-18-45	B90016-18-45	35	M45X2	M18X1,5	12	10	56,5	48,5	41,5	36	50	22	160	558	589	
B90079-22-45	B90016-22-45	35	M45X2	M22X1,5	15	12	58	49,5	42,5	36	50	27	160	565	613	
B90079-26-45	B90016-26-45	35	M45X2	M26X1,5	18	15	59	49,5	42	36	50	32	160	568	639	
B90079-30-45	B90016-30-45	35	M45X2	M30X2	22	19	62	51,5	44	36	50	36	160	571	666	
B90079-36-45	B90016-36-45	35	M45X2	M36X2	28	24	62,5	51,5	44	41	50	41	160	593	705	
UPON REQ.	UPON REQ.	42	M52X2	M12X1,5	6	4	59	51	44	46	60	14	160	844	857	
UPON REQ.	UPON REQ.	42	M52X2	M14X1,5	8	6	59	51	44	46	60	17	160	845	864	
B90079-16-52	B90016-16-52	42	M52X2	M16X1,5	10	8	60	52	45	46	60	19	160	846	869	
B90079-18-52	B90016-18-52	42	M52X2	M18X1,5	12	10	60	52	45	46	60	22	160	846	877	
B90079-22-52	B90016-22-52	42	M52X2	M22X1,5	15	12	61,5	53	46	46	60	27	160	853	901	
B90079-26-52	B90016-26-52	42	M52X2	M26X1,5	18	15	62,5	53	45,5	46	60	32	160	856	927	
B90079-30-52	B90016-30-52	42	M52X2	M30X2	22	19	65,5	55	47,5	46	60	36	160	858	954	
B90079-36-52	B90016-36-52	42	M52X2	M36X2	28	24	66	55	47,5	46	60	41	160	856	968	
B90079-45-52	B90016-45-52	42	M52X2	M45X2	35	30	69	57	46,5	46	60	50	160	868	1037	

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STANDPIPE CONNECTORS



ASSEMBLED ADJUSTABLE STANDPIPE REDUCER

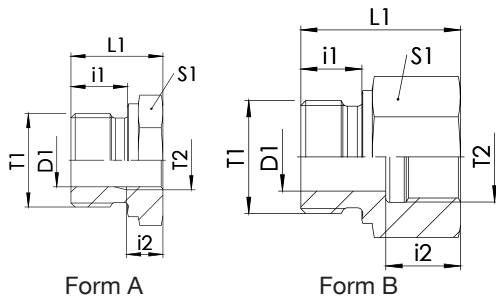
PART NUMBERS		DIMENSIONS (mm)													
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S Series																Weight (g)	
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	S1	S2	S3	PN	Body	Total		
B89061-14-16	B89015-14-16	8	M16X1,5	M14X1,5	6	4	44	37	30	14	19	17	630	90	111		
B89061-14-18	B89015-14-18	10	M18X1,5	M14X1,5	6	4	49	41	34	14	22	17	630	115	136		
B89061-16-18	B89015-16-18	10	M18X1,5	M16X1,5	8	5	49	41	34	17	22	19	630	121	146		
B89061-14-20	B89015-14-20	12	M20X1,5	M14X1,5	6	4	51	43	36	14	24	17	630	141	161		
B89061-16-20	B89015-16-20	12	M20X1,5	M16X1,5	8	5	46,5	38,5	31,5	17	24	19	630	144	169		
B89061-18-20	B89015-18-20	12	M20X1,5	M18X1,5	10	7	52	43	35,5	19	24	22	630	155	190		
B89061-14-22	B89015-14-22	14	M22X1,5	M14X1,5	6	4	52	44	37	17	27	17	630	189	210		
B89061-16-22	B89015-16-22	14	M22X1,5	M16X1,5	8	5	52	44	37	17	27	19	630	191	215		
B89061-18-22	B89015-18-22	14	M22X1,5	M18X1,5	10	7	53	44	36,5	19	27	22	630	200	236		
B89061-20-22	B89015-20-22	14	M22X1,5	M20X1,5	12	8	53	44	36,5	22	27	24	630	209	248		
B89061-14-24	B89015-14-24	16	M24X1,5	M14X1,5	6	4	53,5	45,5	38,5	17	30	17	400	221	242		
B89061-16-24	B89015-16-24	16	M24X1,5	M16X1,5	8	5	53,5	45,5	38,5	17	30	19	400	224	248		
B89061-18-24	B89015-18-24	16	M24X1,5	M18X1,5	10	7	54,5	45,5	38	19	30	22	400	229	264		
B89061-20-24	B89015-20-24	16	M24X1,5	M20X1,5	12	8	54,5	45,5	38	22	30	24	400	245	285		
B89061-22-24	B89015-22-24	16	M24X1,5	M22X1,5	14	10	57,5	47,5	39,5	24	30	27	400	251	311		
B89061-14-30	B89015-14-30	20	M30X2	M14X1,5	6	4	61,5	53,5	46,5	22	36	17	400	366	387		
B89061-16-30	B89015-16-30	20	M30X2	M16X1,5	8	5	54	46	39	22	36	19	400	345	369		
B89061-18-30	B89015-18-30	20	M30X2	M18X1,5	10	7	62,5	53,5	46	22	36	22	400	369	404		
B89061-20-30	B89015-20-30	20	M30X2	M20X1,5	12	8	62,5	53,5	46	22	36	24	400	370	410		
B89061-24-30	B89015-22-30	20	M30X2	M22X1,5	14	10	65,5	55,5	47,5	24	36	27	400	382	441		
B89061-22-30	B89015-24-30	20	M30X2	M24X1,5	16	12	65,5	55,5	47	27	36	30	400	400	473		
B89061-14-36	B89015-14-36	25	M36X2	M14X1,5	6	4	66	58	51	27	46	17	400	643	664		
B89061-16-36	B89015-16-36	25	M36X2	M16X1,5	8	5	66	58	51	27	46	19	400	645	670		
B89061-18-36	B89015-18-36	25	M36X2	M18X1,5	10	7	67	58	50,5	27	46	22	400	646	681		
B89061-20-36	B89015-20-36	25	M36X2	M20X1,5	12	8	67	58	50,5	27	46	24	400	647	687		
B89061-22-36	B89015-22-36	25	M36X2	M22X1,5	14	10	70	60	52	27	46	27	400	651	711		
B89061-24-36	B89015-24-36	25	M36X2	M24X1,5	16	12	70	60	51,5	27	46	30	400	650	724		
B89061-30-36	B89015-30-36	25	M36X2	M30X2	20	16	74	62	51,5	32	46	36	400	696	814		
B89061-14-42	B89015-14-42	30	M42X2	M14X1,5	6	4	67,5	59,5	52,5	32	50	17	400	805	826		
B89061-16-42	B89015-16-42	30	M42X2	M16X1,5	8	5	67,5	59,5	52,5	32	50	19	400	807	832		
B89061-18-42	B89015-18-42	30	M42X2	M18X1,5	10	7	68,5	59,5	52	32	50	22	400	808	843		
B89061-20-42	B89015-20-42	30	M42X2	M20X1,5	12	8	68,5	59,5	52	32	50	24	400	810	849		
B89061-22-42	B89015-22-42	30	M42X2	M22X1,5	14	10	71,5	61,5	53,5	32	50	27	400	814	874		
B89061-24-42	B89015-24-42	30	M42X2	M24X1,5	16	12	71,5	61,5	53	32	50	30	400	813	887		
B89061-30-42	B89015-30-42	30	M42X2	M30X2	20	16	75,5	63,5	53	32	50	36	400	823	941		
B89061-36-42	B89015-36-42	30	M42X2	M36X2	25	20	78,5	65,5	53,5	41	50	46	400	915	1144		
B89061-14-52	B89015-14-52	38	M52X2	M14X1,5	6	4	71	63	56	41	60	17	315	1252	1273		
B89061-16-52	B89015-16-52	38	M52X2	M16X1,5	8	5	71	63	56	41	60	19	315	1254	1279		
B89061-18-52	B89015-18-52	38	M52X2	M18X1,5	10	7	72	63	55,5	41	60	22	315	1256	1291		
B89061-20-52	B89015-20-52	38	M52X2	M20X1,5	12	8	72	63	55,5	41	60	24	315	1257	1297		
B89061-22-52	B89015-22-52	38	M52X2	M22X1,5	14	10	75	65	57	41	60	27	315	1262	1322		
B89061-24-52	B89015-24-52	38	M52X2	M24X1,5	16	12	75	65	56,5	41	60	30	315	1262	1336		
B89061-30-52	B89015-30-52	38	M52X2	M30X2	20	16	79	67	56,5	41	60	36	315	1273	1391		
B89061-36-52	B89015-36-52	38	M52X2	M36X2	25	20	82	69	57	41	60	46	315	1295	1524		
B89061-42-52	B89015-42-52	38	M52X2	M42X2	30	25	85	71	57,5	46	60	50	315	1343	1596		

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.
- For sizes larger than 28L and 25S we recommend using swivel fittings.

STRAIGHT REDUCERS

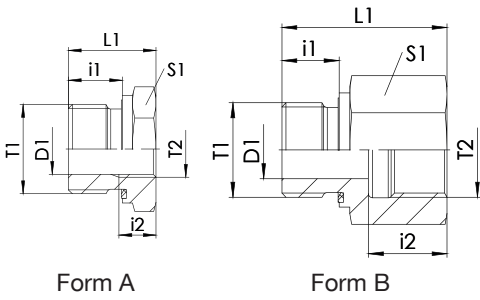
MALE THREAD: BSP
FEMALE THREAD: BSP
STRAIGHT REDUCER
METALLIC SEALING EDGE FORM B



PART NUMBERS		DIMENSIONS (mm)								
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Complete	Image	T1	T2	D1	L1	i1	i2	S1	PN	Weight (g)	
										Total	
B97022-02-04	B	G1/8	G1/4	4	31	8	13,5	19	400	43	
B97022-02-06	B	G1/8	G3/8	4	32	8	13,5	24	400	69	
B97022-04-02	B	G1/4	G1/8	5	28	12	9,5	19	400	42	
B97022-04-04	B	G1/4	G1/4	5	36	12	13,5	19	400	53	
B97022-04-06	B	G1/4	G3/8	5	36	12	13,5	24	400	75	
B97022-04-08	B	G1/4	G1/2	5	40	12	20	30	400	128	
B97022-04-12	B	G1/4	G3/4	5	43	12	22	36	315	187	
B97022-06-02	A	G3/8	G1/8	8,6	22,5	12	9,5	22	400	42	
B97022-06-04	B	G3/8	G1/4	8	36	12	17	22	400	75	
UPON REQ.	B	G3/8	G3/8	8	38	12	17	24	400	86	
B97022-06-08	B	G3/8	G1/2	8	41	12	20	30	400	136	
B97022-06-12	B	G3/8	G3/4	8	44	12	22	36	315	197	
B97022-08-02	A	G1/2	G1/8	8,6	24	14	9,5	27	400	70	
B97022-08-04	A	G1/2	G1/4	11,4	24	14	13,5	27	315	62	
B97022-08-06	B	G1/2	G3/8	12	36	14	17	27	315	100	
UPON REQ.	A	G1/2	G1/2	12	39	14	17	27	315	99	
B97022-08-12	B	G1/2	G3/4	12	46	14	22	36	315	201	
B97022-08-16	B	G1/2	G1	12	49	14	24,5	41	315	250	
B97022-08-20	B	G1/2	G1.1/4	12	53	14	26,5	55	160	511	
B97022-12-04	A	G3/4	G1/4	11,4	26	16	13,5	32	315	110	
B97022-12-06	A	G3/4	G3/8	15	26	16	13,5	32	315	96	
B97022-12-08	B	G3/4	G1/2	16	41	16	20	32	315	159	
UPON REQ.	A	G3/4	G3/4	16	43	16	22	32	315	137	
B97022-12-16	B	G3/4	G1	16	51	16	24,5	41	315	266	
B97022-12-20	B	G3/4	G1.1/4	16	55	16	26,5	55	160	526	
B97022-12-24	B	G3/4	G1.1/2	16	57	16	28,5	60	160	609	
B97022-16-04	A	G1	G 1/4	11,4	29	18	13,5	41	315	209	
B97022-16-06	A	G1	G 3/8	15	29	18	13,5	41	315	192	
B97022-16-08	A	G1	G 1/2	18,6	29	18	15,5	41	315	170	
B97022-16-12	B	G1	G 3/4	20	47	18	22	41	315	296	
UPON REQ.	B	G1	G 1	20	57	18	24,5	55	315	568	
B97022-16-20	B	G1	G1.1/4	20	57	18	26,5	55	160	554	
B97022-16-24	B	G1	G1.1/2	20	59	18	28,5	60	160	638	
UPON REQ.	A	G1.1/4	G3/8	15	32	20	13,5	50	160	356	
B97022-20-08	A	G1.1/4	G1/2	18,6	32	20	15,5	50	160	331	
B97022-20-12	A	G1.1/4	G3/4	24	32	20	17,5	50	160	285	
B97022-20-16	B	G1.1/4	G1	25	53	20	24,5	50	160	507	
B97022-20-24	B	G1.1/4	G1.1/2	25	60	20	28,5	60	160	674	
B97022-24-08	A	G1.1/2	G1/2	18,6	36	22	15,5	55	160	498	
B97022-24-12	A	G1.1/2	G3/4	24	36	22	17,5	55	160	446	
B97022-24-16	A	G1.1/2	G1	30,3	36	22	19,5	55	160	372	
B97022-24-20	B	G1.1/2	G1.1/4	32	58	22	26,5	55	160	580	
UPON REQ.	B	G1.1/2	G2	32	63,5	22	32	70	160	795	
UPON REQ.	A	G2	G1/2	18,6	42	24	15,5	70	160	994	
B97022-32-20	A	G2	G1.1/4	39	62	24	22,5	70	160	1168	
B97022-32-24	B	G2	G1.1/2	40	62	24	28,5	70	160	1065	

STRAIGHT REDUCERS

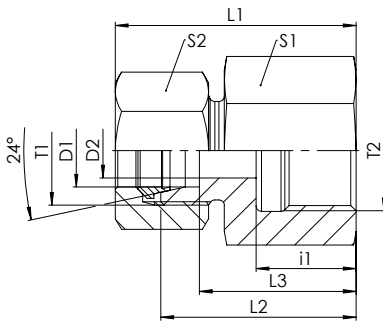


MALE THREAD: BSP
FEMALE THREAD: BSP
STRAIGHT REDUCER

SEALING BY NBR PROFILE RING (DIN 3869)

PART NUMBERS	DIMENSIONS (mm)									
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Complete	Image	T1	T2	D1	L1	i1	i2	S1	PN	Weight (g)
										Total
UPON REQ.	B	G1/8	G1/8	4	24,5	8	12	19	400	35
B97026-02-04	B	G1/8	G1/4	4	31	8	17	19	400	42
B97026-02-06	B	G1/8	G3/8	4	32	8	17	24	400	67
B97026-04-02	B	G1/4	G1/8	5	29	12	12	19	400	43
UPON REQ.	B	G1/4	G1/4	5	34	12	17	19	400	47
B97026-04-06	B	G1/4	G3/8	5	36	12	17	24	400	73
B97026-04-08	B	G1/4	G1/2	5	40	12	20	30	400	127
B97026-04-12	B	G1/4	G3/4	5	43	12	22	36	315	187
B97026-06-02	A	G3/8	G1/8	8,6	22,5	12	9,5	22	400	41
B97026-06-04	B	G3/8	G1/4	8	36	12	17	22	400	73
UPON REQ.	B	G3/8	G3/8	8	38	12	17	24	400	84
B97026-06-08	B	G3/8	G1/2	8	41	12	20	30	400	135
B97026-06-12	B	G3/8	G3/4	8	44	12	22	36	315	196
B97026-08-02	A	G1/2	G1/8	8,6	24	14	9,5	27	400	70
B97026-08-04	A	G1/2	G1/4	11,4	24	14	13,5	27	400	61
B97026-08-06	B	G1/2	G3/8	12	37	14	17	27	400	104
UPON REQ.	B	G1/2	G1/2	12	43,5	14	20	30	400	144
B97026-08-12	B	G1/2	G3/4	12	46	14	22	36	315	200
B97026-08-16	B	G1/2	G1	12	49	14	24,5	41	315	249
B97026-08-20	B	G1/2	G1.1/4	10	53	14	26,5	55	315	518
B97026-12-04	A	G3/4	G1/4	11,4	26	16	13,5	32	315	109
B97026-12-06	A	G3/4	G3/8	15	26	16	13,5	32	315	94
B97026-12-08	B	G3/4	G1/2	16	43	16	20	32	315	168
UPON REQ.	B	G3/4	G3/4	16	46,5	16	22	36	315	205
B97026-12-16	B	G3/4	G1	16	51	16	24,5	41	315	264
B97026-12-20	B	G3/4	G1.1/4	16	55	16	26,5	55	315	524
B97026-12-24	B	G3/4	G1.1/2	16	57	16	28,5	60	250	607
B97026-16-04	A	G1	G1/4	11,4	29	18	13,5	41	315	206
B97026-16-06	A	G1	G3/8	15	29	18	13,5	41	315	190
B97026-16-08	A	G1	G1/2	18,6	29	18	15,5	41	315	168
B97026-16-12	B	G1	G3/4	20	49	18	22	41	315	312
UPON REQ.	B	G1	G1	20	52	18	24,5	41	315	285
B97026-16-20	B	G1	G1.1/4	15	57	18	26,5	55	315	585
B97026-16-24	B	G1	G1.1/2	20	59	18	28,5	60	250	635
UPON REQ.	A	G1.1/4	G3/8	15	32	20	13,5	50	315	353
B97026-20-08	A	G1.1/4	G1/2	18,6	32	20	15,5	50	315	329
B97026-20-12	A	G1.1/4	G3/4	24	32	20	17,5	50	315	282
B97026-20-16	B	G1.1/4	G1	25	53	20	24,5	50	315	504
UPON REQ.	B	G1.1/4	G1.1/4	25	58	20	26,5	55	250	592
B97026-20-24	B	G1.1/4	G1.1/2	25	60	20	28,5	60	250	669
B97026-24-08	A	G1.1/2	G1/2	18,6	36	22	15,5	55	250	494
B97026-24-12	A	G1.1/2	G3/4	24	36	22	17,5	55	250	442
B97026-24-16	A	G1.1/2	G1	30,3	36	22	19,5	55	250	367
B97026-24-20	B	G1.1/2	G1.1/4	32	58	22	26,5	55	250	575
UPON REQ.	A	G2	G1/2	18,6	46	24	15,5	75	250	1206
UPON REQ.	A	G2	G3/4	24	46	24	17,5	75	250	1141
B97026-32-16	A	G2	G1	30,3	46	24	19,5	75	250	1046
B97026-32-20	A	G2	G1.1/4	39	48	24	22,5	75	250	934
B97026-32-24	B	G2	G1.1/2	40	65	24	28,5	75	160	1317



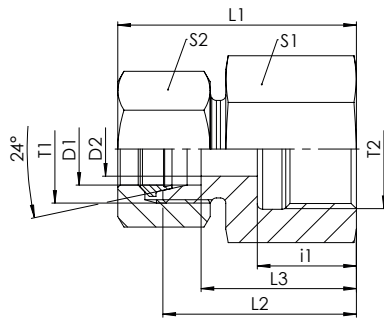
PART NUMBERS DIMENSIONS (mm)

L Series														Weight [g]	
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight [g]		
													Body	Total	
B90107-12-02	B90054-12-02	6	M12X1,5	G1/8	4	34	26	19	12	14	14	315	21	34	
B90107-12-04	B90054-12-04	6	M12X1,5	G1/4	4	39	31	24	17	19	14	315	43	55	
UPON REQ.	UPON REQ.	6	M12X1,5	G1/2	4	44	36	29	20	27	14	315	90	103	
UPON REQ.	UPON REQ.	8	M14X1,5	G1/8	6	34	26	19	12	14	17	315	22	40	
B90107-14-04	B90054-14-04	8	M14X1,5	G1/4	6	39	31	24	17	19	17	315	43	62	
B90107-14-06	B90054-14-06	8	M14X1,5	G3/8	6	39	31	24	17	24	17	315	64	83	
B90107-14-08	B90054-14-08	8	M14X1,5	G1/2	6	44	36	29	20	27	17	315	91	109	
B90107-16-04	B90054-16-04	10	M16X1,5	G1/4	8	40	32	25	17	19	19	315	45	68	
B90107-16-06	B90054-16-06	10	M16X1,5	G3/8	8	40	32	25	17	24	19	315	66	89	
B90107-16-08	B90054-16-08	10	M16X1,5	G1/2	8	45	37	30	20	27	19	315	92	115	
B90107-18-04	B90054-18-04	12	M18X1,5	G1/4	8	41	33	26	17	19	22	315	50	80	
B90107-18-06	B90054-18-06	12	M18X1,5	G3/8	10	41	33	26	17	24	22	315	70	100	
B90107-18-08	B90054-18-08	12	M18X1,5	G1/2	10	45	37	30	20	27	22	315	92	122	
UPON REQ.	UPON REQ.	15	M22X1,5	G3/8	12	42,5	34	27	17	24	27	315	76	124	
B90107-22-08	B90054-22-08	15	M22X1,5	G1/2	12	46,5	38	31	20	27	27	315	98	147	
B90107-26-08	B90054-26-08	18	M26X1,5	G1/2	15	47,5	38	30,5	20	27	32	315	102	173	
B90107-30-12	B90054-30-12	22	M30X2	G3/4	19	53,5	43	35,5	22	36	36	160	194	289	
B90107-30-16	UPON REQ.	22	M30X2	G1	19	56	45,5	38	24,5	41	36	160	238	333	
B90107-36-16	B90054-36-16	28	M36X2	G1	24	56,5	45,5	38	24,5	41	41	160	239	350	
UPON REQ.	UPON REQ.	28	M36X2	G1.1/4	24	56,5	45,5	38	26,5	55	41	160	423	534	
B90107-45-20	B90054-45-20	35	M45X2	G1.1/4	30	63,5	51,5	41	26,5	55	50	160	505	675	
B90107-52-24	B90054-52-24	42	M52X2	G1.1/2	36	65,5	53,5	42,5	28,5	60	60	160	579	837	

S Series														Weight [g]	
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight [g]		
													Body	Total	
B89084-14-04	B89035-14-04	6	M14X1,5	G1/4	4	41	33	26	17	19	17	400	48	69	
B89084-16-04	B89035-16-04	8	M16X1,5	G1/4	5	41	33	26	17	19	19	400	50	75	
B89084-18-06	B89035-18-06	10	M18X1,5	G3/8	7	43	34	26,5	17	24	22	400	76	112	
B89084-20-04	UPON REQ.	12	M20X1,5	G1/4	8	42	33	25,5	17	22	24	400	72	111	
B89084-20-06	B89035-20-06	12	M20X1,5	G3/8	8	43	34	26,5	17	24	24	400	79	118	
B89084-20-08	B89035-20-08	12	M20X1,5	G1/2	8	47	38	30,5	20	27	24	400	101	141	
B89084-22-08	B89035-22-08	14	M22X1,5	G1/2	10	50	40	32	20	27	27	400	107	166	
B89084-24-08	B89035-24-08	16	M24X1,5	G1/2	12	50	40	31,5	20	27	30	400	108	182	
UPON REQ.	UPON REQ.	20	M30X2	G1/2	16	57	45	34,5	20	36	36	315	244	362	
B89084-30-12	B89035-30-12	20	M30X2	G3/4	16	57	45	34,5	22	36	36	315	211	329	
UPON REQ.	UPON REQ.	25	M36X2	G3/4	20	60	47	35	22	41	46	315	307	535	
B89084-36-16	B89035-36-16	25	M36X2	G1	20	62,5	49,5	37,5	24,5	41	46	315	275	504	
UPON REQ.	UPON REQ.	25	M36X2	G1.1/4	20	62,5	49,5	37,5	26,5	55	46	315	457	685	
UPON REQ.	UPON REQ.	30	M42X2	G1	25	64	50	36,5	24,5	50	50	315	453	706	
B89084-42-20	B89035-42-20	30	M42X2	G1.1/4	25	69,5	55,5	42	26,5	55	50	315	549	802	
B89084-52-24	B89035-52-24	38	M52X2	G1.1/2	32	75	59,5	43,5	28,5	60	60	250	673	1039	

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

STRAIGHT REDUCERS



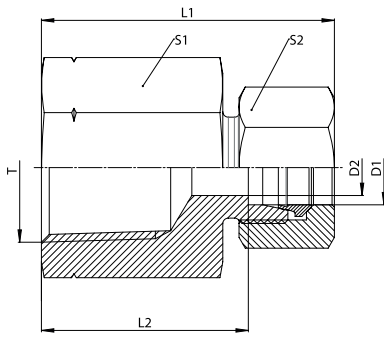
METRIC PARALLEL STRAIGHT FEMALE CONNECTOR

PART NUMBERS		DIMENSIONS (mm)												
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L Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)	
													Body	Total
B90104-12-10	B90046-12-10	6	M12X1,5	M10X1	4	34,5	26,5	19,5	12,5	14	14	315	21	33
B90104-14-12	B90046-14-12	8	M14X1,5	M12X1,5	6	39	31	24	17	17	17	315	35	54
UPON REQ.	UPON REQ.	10	M16X1,5	M12X1,5	8	40	32	25	17	17	19	315	37	60
B90104-16-14	B90046-16-14	10	M16X1,5	M14X1,5	8	40	32	25	17	19	19	315	43	65
B90104-18-16	B90046-18-16	12	M18X1,5	M16X1,5	10	41	33	26	17	22	22	315	58	88
UPON REQ.	UPON REQ.	12	M18X1,5	M18X1,5	10	41	33	26	17	24	22	315	65	95
B90104-22-18	B90046-22-18	15	M22X1,5	M18X1,5	12	43,5	35	28	17	24	27	315	74	122
B90104-26-22	B90046-26-22	18	M26X1,5	M22X1,5	15	46,5	37	29,5	19	30	32	315	120	191
UPON REQ.	UPON REQ.	22	M30X2	M22X1,5	19	50,5	40	32,5	19	32	36	160	150	245
B90104-30-26	B90046-30-26	22	M30X2	M26X1,5	19	52,5	42	34,5	21	32	36	160	135	230
B90104-36-33	B90046-36-33	28	M36X2	M33X2	24	56	45	37,5	24	41	41	160	230	341
B90104-45-42	B90046-45-42	35	M45X2	M42X2	30	63	51	40,5	26	55	50	160	487	656
UPON REQ.	UPON REQ.	42	M52X2	M45X2	36	65	53	42	28,5	60	60	160	600	857
B90104-52-48	B90046-52-48	42	M52X2	M48X2	36	65	53	42	28	60	60	160	556	813

S Series														
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	i1	S1	S2	PN	Weight (g)	
													Body	Total
B89075-14-12	B89029-14-12	6	M14X1,5	M12X1,5	4	41	33	26	17	17	17	400	40	61
B89075-16-14	B89029-16-14	8	M16X1,5	M14X1,5	5	41	33	26	17	19	19	400	48	72
B89075-18-16	B89029-18-16	10	M18X1,5	M16X1,5	7	43	34	26,5	17	22	22	400	64	99
UPON REQ.	UPON REQ.	12	M20X1,5	M16X1,5	8	44	35	27,5	17	24	24	400	83	123
B89075-20-18	B89029-20-18	12	M20X1,5	M18X1,5	8	44	35	27,5	17	24	24	400	77	117
B89075-22-20	B89029-22-20	14	M22X1,5	M20X1,5	10	49	39	31	19	27	27	400	105	164
UPON REQ.	UPON REQ.	16	M24X1,5	M18X1,5	12	47	37	28,5	17	30	30	400	134	208
B89075-24-22	B89029-24-22	16	M24X1,5	M22X1,5	12	49	39	30,5	19	30	30	400	125	199
UPON REQ.	UPON REQ.	20	M30X2	M22X1,5	16	52	40	29,5	20	36	36	315	199	317
B89075-30-27	B89029-30-27	20	M30X2	M27X2	16	57	45	34,5	22	36	36	315	205	323
UPON REQ.	UPON REQ.	25	M36X2	M30X2	20	62	49	37	24,5	41	46	315	292	520
B89075-36-33	B89029-36-33	25	M36X2	M33X2	20	62	49	37	24	41	46	315	367	495
B89075-42-42	B89029-42-42	30	M42X2	M42X2	25	69	55	41,5	26	55	50	315	531	784
UPON REQ.	UPON REQ.	38	M52X2	M45X2	32	74,5	59	43	28,5	60	60	315	693	1059
B89075-52-48	B89029-52-48	38	M52X2	M48X2	32	74,5	59	43	28,5	60	60	250	648	1014

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.



NPT STRAIGHT FEMALE CONNECTOR

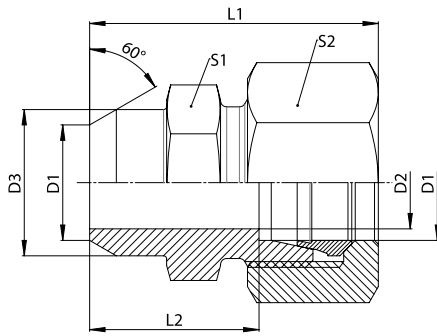
PART NUMBERS		DIMENSIONS (mm)									
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L Series											
Body Only	Complete	D1	T	D2	L1	L2	S1	S2	PN	Weight (g)	
										Total	
B90218-16-04	B90222-16-04	10	1/4 NPT	8	39	24	19	19	500	61	

S Series											
Body Only	Complete	D1	T	D2	L1	L2	S1	S2	PN	Weight (g)	
										Total	
B89169-18-06	B89254-18-06	12	3/8 NPT	8	44	28	24	24	630	114	
B89169-30-08	B89254-30-08	20	1/2 NPT	16	58	36	32	36	420	242	
B89169-30-12	B89254-30-12	20	3/4 NPT	16	58	36	36	36	420	327	
B89169-24-08	B89254-24-08	16	1/2 NPT	12	53	35	27	30	630	183	

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.

- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.



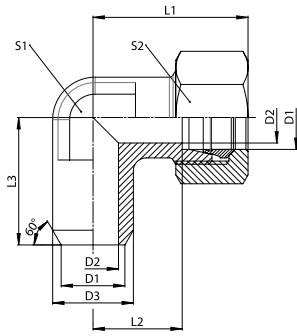
STRAIGHT WELD COUPLING
24° CUTTING RING CONNECTOR

PART NUMBERS **DIMENSIONS (mm)**

L Series													
Body Only	Complete	D1	T1	D2	D3	L1	L2	L3	S1	S2	PN	Weight (g)	
												Body	Total
B90089-12	B90001-12	6	M12X1,5	4	10	29	21	14	12	14	500	12	25
B90089-14	B90001-14	8	M14X1,5	6	12	31	23	16	14	17	500	17	35
B90089-16	B90001-16	10	M16X1,5	8	14	33	25	18	17	19	500	24	47
B90089-18	B90001-18	12	M18X1,5	10	16	33	25	18	19	22	400	28	59
B90089-22	B90001-22	15	M22X1,5	12	19	37,5	29	22	22	27	400	47	96
B90089-26	B90001-26	18	M26X1,5	15	22	40,5	31	23,5	27	32	400	71	142
B90089-30	B90001-30	22	M30X2	19	27	46,5	36	28,5	32	36	250	106	201
B90089-36	B90001-36	28	M36X2	24	32	49	38	30,5	41	41	250	170	281
B90089-45	B90001-45	35	M45X2	30	40	55	43	32,5	46	50	250	248	417
B90089-52	B90001-52	42	M52X2	36	46	58	46	35	55	60	250	345	602

S Series													
Body Only	Complete	D1	T1	D2	D3	L1	L2	L3	S1	S2	PN	Weight (g)	
												Body	Total
B89072-14	B89001-14	6	M14X1,5	4	11	34	26	19	14	17	800	23	44
B89072-16	B89001-16	8	M16X1,5	5	13	36	28	21	17	19	800	34	58
B89072-18	B89001-18	10	M18X1,5	7	15	39	30	22,5	19	22	800	44	80
B89072-20	B89001-20	12	M20X1,5	8	17	41	32	24,5	22	24	630	59	99
B89072-22	B89001-22	14	M22X1,5	10	19	45	35	27	24	27	630	75	135
B89072-24	B89001-24	16	M24X1,5	12	21	45	35	26,5	27	30	630	89	162
B89072-30	B89001-30	20	M30X2	16	26	52	40	29,5	32	36	420	138	256
B89072-36	B89001-36	25	M36X2	20	31	57	44	32	41	46	420	233	462
B89072-42	B89001-42	30	M42X2	25	36	63	49	35,5	46	50	420	314	567
B89072-52	B89001-52	38	M52X2	32	44	69,5	54	38	55	60	420	475	841

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.



ELBOW WELDING COUPLING

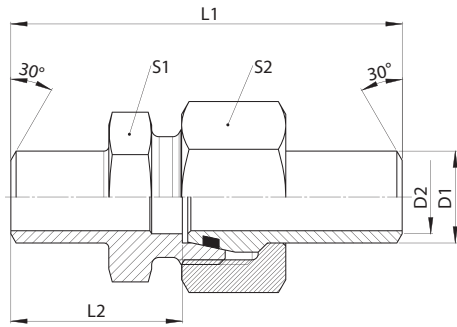
24° CUTTING RING CONNECTOR

PART NUMBERS		DIMENSIONS (mm)									
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L Series											
Body Only	Complete	D1	D2	D3	L1	L2	L3	S1	S2	PN	Weight (g)
											Total
B90101-18	B90023-18	12	10	16	32	17	25	17	22	315	74
B90101-22	B90023-22	15	12	19	37	21	30	19	27	315	128
B90101-26	B90023-26	18	15	22	41	24	33	24	32	315	181
B90101-30	B90023-30	22	19	27	46	28	37	27	36	160	240
B90101-36	B90023-36	28	24	32	49	31	42	36	41	160	369
B90101-45	B90023-45	35	30	40	57	35	49	41	50	160	550
B90101-52	B90023-52	42	36	46	63	40	57	50	60	160	869

S Series											
Body Only	Complete	D1	D2	D3	L1	L2	L3	S1	S2	PN	Weight (g)
											Total
B89126-24	B89115-24	16	12	21	43	25	33	24	30	400	205
B89126-30	B89115-30	20	16	26	49	27	37	27	36	400	305
B89126-36	B89115-36	25	20	31	55	30	42	36	46	400	566
B89126-42	B89115-42	30	25	36	63	36	49	41	50	400	763
B89126-52	B89115-52	38	32	44	73	41	57	50	60	315	1147

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
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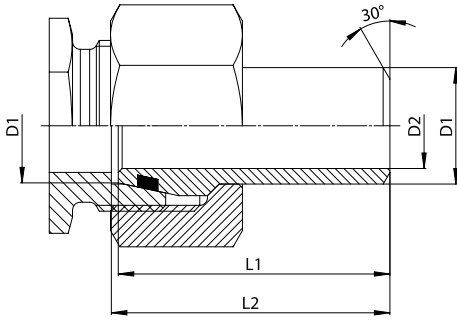
STRAIGHT WELD COUPLING FOR TUBES

24° CUTTING RING CONNECTOR
NBR O-RING

PART NUMBERS

DIMENSIONS (mm)

S Series								
Complete	D1	D2	L1	L2	S1	S2	PN	Weight (g)
								Total
B89214	8	5	54	21	17	19	800	68
B89215	8	5	54	21	17	19	800	70
B89217	10	7	59	25	19	22	800	81
B89218	10	6	59	25	19	22	800	86
B89219	12	9	64	30	22	24	630	106
B89220	12	8	64	30	22	24	630	107
B89221	12	7	64	30	22	24	630	109
B89223	16	11	75	33	27	30	630	184
B89224	16	10	74	33	27	30	630	193
B89225	20	16	84	37	32	36	420	301
B89226	20	15	84	37	32	36	420	311
B89227	20	14	84	37	32	36	420	316
B89228	20	12	84	37	32	36	420	322
B89229	25	19	94	40	41	46	420	551
B89230	25	17	94	40	41	46	420	559
B89231	25	15	94	40	41	46	420	589
B89232	30	24	103	45	46	50	420	671
B89233	30	22	103	45	46	50	420	323
B89234	30	20	103	45	46	50	420	726
B89236	38	30	109	44	55	60	420	988
B89237	38	28	109	44	55	60	420	1044
B89238	38	26	109	44	55	60	420	1108



STRAIGHT WELD NIPPLE FOR TUBES

24° CUTTING RING CONNECTOR
NBR O-RING

PART NUMBERS

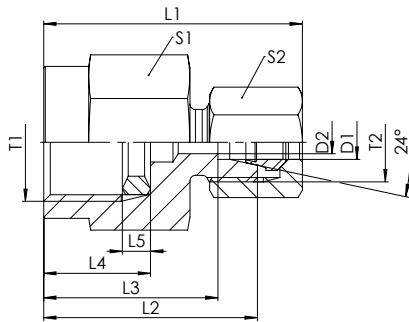
DIMENSIONS (mm)

L/S Series						
Body Only	D1	D2	L1	L2	PN	Weight (g)
						Total
E69092	8	5	31	32,4	400	45
E69093	8	4	31	32,4	500	47
E69094	10	7	32,5	33,4	315	60
E69095	10	6	32,5	33,4	400	62
UPON REQ.	10	5	32,5	33,4	400	64
E69097	12	9	32,5	33,4	315	76
E69186	12	8	32,5	33,4	400	79
E69098	12	7	32,5	33,4	400	82

L Series						
Body Only	D1	D2	L1	L2	PN	Weight (g)
						Total
E69184	15	11	35	35,9	315	126
E69100	15	10	35	35,9	315	130
UPON REQ.	18	14	35,5	36,9	315	173
E69105	18	13	36	37,4	315	179
UPON REQ.	22	18	38,5	39,9	160	233
E69110	22	17	38,5	39,9	160	241
UPON REQ.	28	24	41,5	42,9	160	314
E69115	28	23	41,5	42,9	160	325
E69117	28	22	41,5	42,9	160	337
UPON REQ.	35	30	47	50	160	498
E69123	35	29	47	50	160	515
E69124	35	28	47	50	160	531
UPON REQ.	35	27	47	50	160	547
E69128	42	36	47	50,5	160	716
E69130	42	34	47	50,5	160	755

S Series						
Body Only	D1	D2	L1	L2	PN	Weight (g)
						Total
E69099	14	8	38,5	40,4	400	173
E69187	16	12	39	41,4	315	197
E69101	16	11	39	41,4	400	202
E69102	16	10	38,5	40,9	400	207
E69188	20	16	44,5	47,5	250	314
E69106	20	15	44,5	47,5	315	323
E69107	20	14	44,5	47,5	400	330
E69108	20	12	44,5	47,5	400	344
E69112	25	19	49,5	54	315	579
E69283	25	18	49,5	54	315	591
E69113	25	17	49,5	54	400	601
E69282	25	15	49,5	54	400	620
E69118	30	24	52	58	250	716
E69119	30	22	52	58	315	745
E69121	30	20	52	58	400	771
E69125	38	30	56,5	65	315	1139
E69126	38	28	56,5	65	315	1178
E69189	38	26	56,5	65	315	1213

PRESSURE GAUGE CONNECTOR
INTERNAL METALLIC SEALING RING

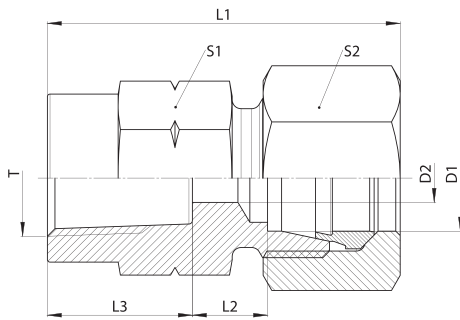


PART NUMBERS DIMENSIONS (mm)

L Series															
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	L4	L5	S1	S2	PN	Weight (g)	
														Body	Total
B90080-12-04	B90056-12-04	6	G1/4	M12X1,5	4	37	29	22	14,5	4,5	19	14	315	38	52
B90080-14-04	B90056-14-04	8	G1/4	M14X1,5	5,5	37	29	22	14,5	4,5	19	17	315	39	59
B90080-16-04	B90056-16-04	10	G1/4	M16X1,5	5,5	38	30	23	14,5	4,5	19	19	315	42	67
B90080-18-04	B90056-18-04	12	G1/4	M18X1,5	5,5	38	30	23	14,5	4,5	19	22	315	44	77
B90080-18-08	B90056-18-08	12	G1/2	M18X1,5	3,5	45	37	30	20	5	27	22	315	93	128

S Series															
Body Only	Complete	D1	T1	T2	D2	L1	L2	L3	L4	L5	S1	S2	PN	Weight (g)	
														Body	Total
A521253-14-08	B89037-14-08	6	G1/2	M14X1,5	4	46	38	31	20	5	27	17	630	91	117
A521253-16-04	B89037-16-04	8	G1/4	M16X1,5	3,5	39	31	24	14,5	4,5	19	19	630	46	72
A521253-16-08	B89037-16-08	8	G1/2	M16X1,5	5	46	38	31	20	5	27	19	630	93	123
A521253-18-04	B89037-18-04	10	G1/4	M18X1,5	5,5	39	30	22,5	14,5	4,5	19	22	630	42	83
A521253-18-08	B89037-18-08	10	G1/2	M18X1,5	3,5	47	38	30,5	20	5	27	22	630	46	137
A521253-20-04	B89037-20-04	12	G1/4	M20X1,5	5,5	43	34	26,5	14,5	4,5	22	24	630	70	111
A521253-20-08	B89037-20-08	12	G1/2	M20X1,5	3,5	47	38	30,5	20	5	27	24	630	100	145

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.



NPT
PRESSURE GAUGE CONNECTOR

PART NUMBERS **DIMENSIONS (mm)**

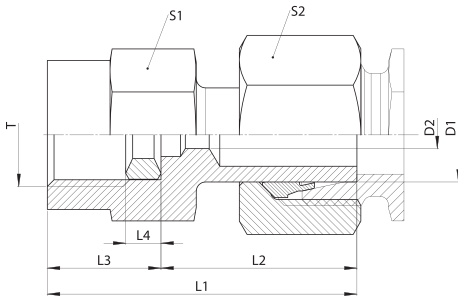
L Series											
Body Only	Complete	D1	T	D2	L1	L2	L3	S1	S2	PN	Weight (g)
											Total
B90244-12-04	B90217-12-04	6	1/4 NPT	4	55	24	16	19	14	500	48
B90244-14-04	B90217-14-04	8	1/4 NPT	4	55	24	16	19	17	500	55
B90244-16-04	B90217-16-04	10	1/4 NPT	4	57	25	16	19	19	500	62
B90244-18-04	B90217-18-04	12	1/4 NPT	4	58	26	16	19	22	400	72

S Series											
Body Only	Complete	D1	T	D2	L1	L2	L3	S1	S2	PN	Weight (g)
											Total
B89148-14-08	B89246-14-08	6	1/2 NPT	4	63	25	23	27	17	800	69
B89148-16-08	B89246-16-08	8	1/2 NPT	4	63	25	23	27	19	800	105
B89148-18-08	B89246-18-08	10	1/2 NPT	4	66	27	23	27	22	800	118
B89148-20-08	B89246-20-08	12	1/2 NPT	4	66	27	23	27	24	630	127

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

BSP

PRESSURE GAUGE CONNECTOR STANDPIPE
INTERNAL METALLIC SEALING RING



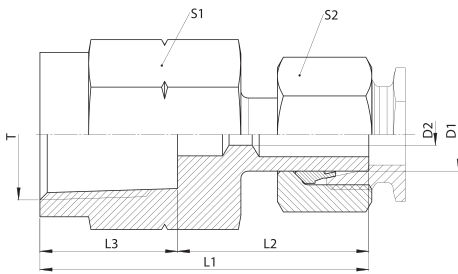
PART NUMBERS	DIMENSIONS (mm)
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L Series												
Complete	D1	T	D2	L1	L2	L3	L4	S1	S2	PN	Weight (g)	
											Total	
B90215-12-04	6	G 1/4"	4	38	24	15	5	19	14	500	49	
B90215-12-08	6	G 1/2"	4	45	25	20	5	27	14	500	42	
B90215-14-04	8	G 1/4"	4	38	24	15	5	19	17	500	55	
B90215-14-08	8	G 1/2"	4	45	25	20	5	27	17	500	48	
B90215-16-04	10	G 1/4"	4	40	25	15	5	19	19	500	62	
B90215-16-08	10	G 1/2"	4	47	27	20	5	27	19	500	56	
B90215-18-04	12	G 1/4"	4	41	26	15	5	19	22	400	72	
B90215-18-08	12	G 1/2"	4	48	28	20	5	27	22	400	69	

S Series												
Complete	D1	T	D2	L1	L2	L3	L4	S1	S2	PN	Weight (g)	
											Total	
B89244-14-04	6	G 1/4"	4	38	24	15	5	19	17	800	105	
B89244-14-08	6	G 1/2"	4	45	25	20	5	27	17	800	99	
B89244-16-04	8	G 1/4"	4	38	24	15	5	19	19	800	111	
B89244-16-08	8	G 1/2"	4	45	25	20	5	27	19	800	105	
B89244-18-04	10	G 1/4"	4	40	25	15	5	19	22	800	124	
B89244-18-08	10	G 1/2"	4	47	27	20	5	27	22	800	118	
B89244-20-04	12	G 1/4"	4	41	26	15	5	19	24	630	133	
B89244-20-08	12	G 1/2"	4	48	28	20	5	27	24	630	127	

NPT

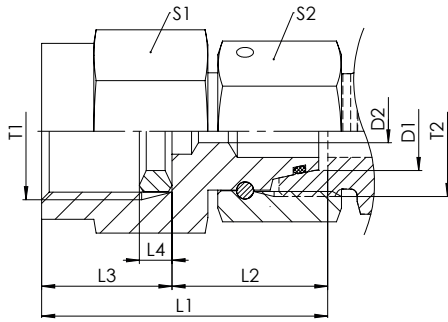
PRESSURE GAUGE CONNECTOR STANDPIPE



PART NUMBERS		DIMENSIONS (mm)									
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L Series											
Complete	D1	T	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
										Total	
B90216-12-04	6	1/4 NPT	4	40	24	16	19	14	500	42	
B90216-14-04	8	1/4 NPT	4	40	24	16	19	17	500	49	
B90216-16-04	10	1/4 NPT	4	41	25	16	19	19	500	54	
B90216-18-04	12	1/4 NPT	4	42	26	16	19	22	400	69	

S Series											
Complete	D1	T	D2	L1	L2	L3	S1	S2	PN	Weight (g)	
										Total	
B89245-14-08	6	1/2 NPT	4	48	25	23	27	17	800	59	
B89245-16-08	8	1/2 NPT	4	48	25	23	27	19	800	67	
B89245-18-08	10	1/2 NPT	4	50	27	23	27	22	800	84	
B89245-20-08	12	1/2 NPT	4	50	28	23	27	24	630	93	



BSP

PRESSURE GAUGE CONNECTOR
24° DKO SWIVEL AND NBR O-RING
INTERNAL METALLIC SEAL RING

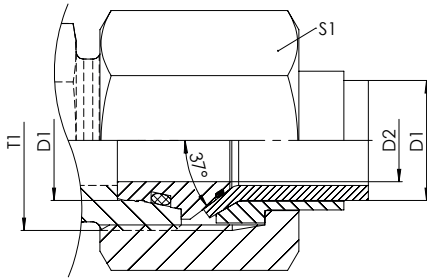
PART NUMBERS	DIMENSIONS (mm)											
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L Series													
Complete	D1	T1	T2	D2	L1	L2	L3	L4	S1	S2	PN	Weight (g)	
												Total	
B90057-12-04	6	G1/4	M12X1,5	3	38	24	14,5	4,5	19	17	315	67	
B90057-14-04	8	G1/4	M14X1,5	3,5	38	24	14,5	4,5	19	17	315	84	
B90057-16-04	10	G1/4	M16X1,5	3,5	39	25	14,5	4,5	19	19	315	102	
B90057-18-04	12	G1/4	M18X1,5	5,5	41	26	14,5	4,5	19	22	315	121	

S Series													
Complete	D1	T1	T2	D2	L1	L2	L3	L4	S1	S2	PN	Weight (g)	
												Total	
B89038-14-04	6	G1/4	M14X1,5	3	38	23	14,5	4,5	19	17	630	93	
B89038-14-08	6	G1/2	M14X1,5	3	45	25	20	5	27	17	630	151	
B89038-16-04	8	G1/4	M16X1,5	3,5	38	23	14,5	4,5	19	19	630	111	
B89038-16-04	8	G1/2	M16X1,5	4	43	23	20	5	27	19	630	158	
B89038-18-04	10	G1/4	M18X1,5	3,5	38	24	14,5	4,5	19	22	630	130	
B89038-18-08	10	G1/2	M18X1,5	3,5	44	24	20	5	27	22	630	177	
B89038-20-04	12	G1/4	M20X1,5	3,5	40	25	14,5	4,5	19	24	630	163	
B89038-20-08	12	G1/2	M20X1,5	3,5	45	25	20	5	27	24	630	213	

37° FLARE TUBE ADAPTORS

110



METRIC PARALLEL

37° FLARED TUBE CONNECTORS
FOR 24° DIN BODY AND 37° FLARED TUBE (NO JIC)
SEALING BY O-RING NBR (ISO 11926)

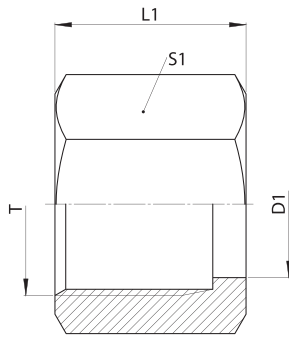
PART NUMBERS	DIMENSIONS (mm)
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L Series						
Complete	D1	T1	D2	S1	PN	Weight (g)
						Total
B90147-12	6	M12X1,5	3	14	500	19
B90147-14	8	M14X1,5	5	17	500	29
B90147-16	10	M16X1,5	6	19	500	38
B90147-18	12	M18X1,5	8	22	400	54
B90147-22	15	M22X1,5	11	27	400	86
B90147-26	18	M26X1,5	14	32	400	118
B90147-30	22	M30X2	17	36	250	168
B90147-36	28	M36X2	23	41	250	202
B90147-45	35	M45X2	28	50	250	317
B90147-52	42	M52X2	35	60	250	506

S Series						
Complete	D1	T1	D2	S1	PN	Weight (g)
						Total
B89109-14	6	M14X1,5	3	17	630	29
B89109-16	8	M16X1,5	5	19	630	36
B89109-18	10	M18X1,5	6	22	630	53
B89109-20	12	M20X1,5	8	24	630	62
B89109-22	14	M22X1,5	9	27	630	90
B89109-24	16	M24X1,5	11	30	630	124
B89109-30	20	M30X2	14	36	420	187
B89109-36	25	M36X2	19	46	420	332
B89109-42	30	M42X2	23	50	420	386
B89109-52	38	M52X2	30	60	420	623

37° FLARE TUBE
ADAPTORS

37° FLARE TUBE ADAPTORS



METRIC PARALLEL NUT

111

PART NUMBERS	DIMENSIONS (mm)				
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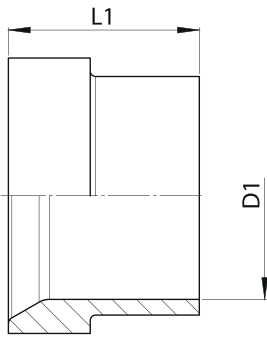
L/S Series					
Complete	D1	T	L1	S1	PN
E69246	18	M 22 X 1.5	23	27	630
E69249	24	M 30 X 2	28	36	420

L Series					
Complete	D1	T	L1	S1	PN
E69238	8	M 12 X 1.5	17	14	500
E69240	10	M 14 X 1.5	18	17	500
E69242	12	M 16 X 1.5	20	19	400
E69244	14	M 18 X 1.5	21	22	400
E69248	21	M 26 X 1.5	23	32	400
E69251	30	M 36 X 2	28	41	250
E69253	38	M 45 X 2	30	50	250
E69255	45	M 52 X 2	34	60	250

S Series					
Complete	D1	T	L1	S1	PN
E69239	8	M 14 X 1.5	18	17	800
E69241	10	M 16 X 1.5	19	19	800
E69243	12	M 18 X 1.5	21	22	630
E69245	14	M 20 X 1.5	21	24	630
E69247	19	M 24 X 1.5	27	30	630
E69250	29	M 36 X 2	31	46	420
E69252	34	M 42 X 2	32	50	420
E69254	42	M 52 X 2	38	60	420

37° FLARE TUBE ADAPTORS

FLARE SLEEVE



PART NUMBERS

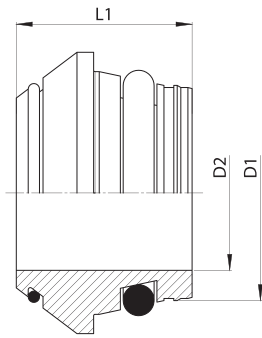
DIMENSIONS (mm)

L/S Series			
Complete	D1	L1	PN
E69256	6	11	800
E69257	8	11	800
E69208	10	13	800
E69209	12	13	630

L Series			
Complete	D1	L1	PN
E69211	15	14	400
E69213	18	15	400
E69215	22	18	250
E69217	28	17	250
E69219	35	19	250
E69221	42	21	250

S Series			
Complete	D1	L1	PN
E69210	14	15	630
E69212	16	17	630
E69214	20	18	420
E69216	25	20	420
E69218	30	22	420
E69220	38	27	420

37° FLARE TUBE ADAPTORS



ADAPTOR RING SEALING BY NBR O-RING (ISO 11926)

PART NUMBERS	DIMENSIONS (mm)			
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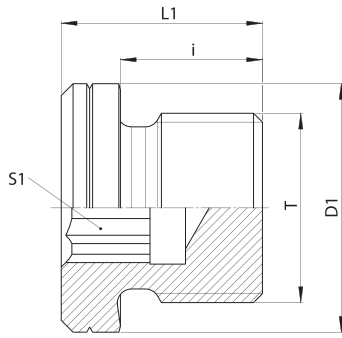
L/S Series				
Complete	D1	D2	L1	PN
E69222	6	3	12	800
E69223	8	5	12	800
E69224	10	6	13	800
E69225	12	8	13	630

L Series				
Complete	D1	D2	L1	PN
E69227	15	11	13	400
E69229	18	14	13	400
E69231	22	17	14	250
E69233	28	23	15	250
E69235	35	28	19	250
E69237	42	35	21	250

S Series				
Complete	D1	D2	L1	PN
E69226	14	9	14	630
E69228	16	11	15	630
E69230	20	14	19	420
E69232	25	19	20	420
E69234	30	23	22	420
E69236	38	30	26	420

BLANKING PLUGS

114



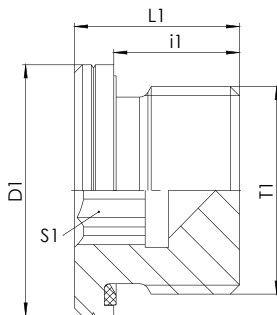
BSP

BLANKING PLUG FOR PORTS
(DIN 3852-2 / ISO 1179-1)
METALLIC SEALING EDGE FORM B

PART NUMBERS	DIMENSIONS (mm)						
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Complete	T	D1	L1	i1	S1	PN	Weight (g)
							Total
B97052-02	G 1/8"	14	12	8	5	400	8
B97052-04	G 1/4"	18	17	12	6	400	20
B97052-06	G 3/8"	22	17	12	8	400	25
B97052-08	G 1/2"	26	19	14	10	400	42
B97052-12	G 3/4"	32	21	16	12	400	79
B97052-16	G 1"	39	23	16	17	400	130
B97052-20	G 1.1/4"	50	23	16	22	250	198
B97052-24	G 1.1/2"	55	23	16	24	250	263

BLANKING PLUGS



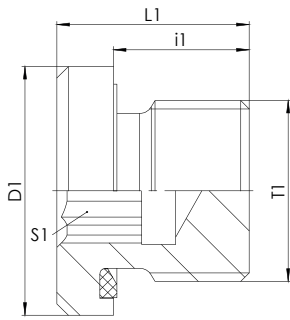
BSP

BLANKING PLUG FOR PORTS
(DIN 3852-2 / ISO 1179-1)
SEALING BY NBR PROFILE RING (DIN 3869)

PART NUMBERS	DIMENSIONS (mm)						
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Complete	T1	D1	L1	i1	S1	PN	Weight (g)
							Total
B97058-02	G1/8	14	12	8	5	400	7
B97058-04	G1/4	19	17	12	6	400	19
B97058-06	G3/8	22	17	12	8	400	27
B97058-08	G1/2	27	19	14	10	400	47
B97058-12	G3/4	32	21	16	12	400	79
B97058-16	G1	40	22.5	16	17	400	127
B97058-20	G1.1/4	50	22.5	16	22	315	200
B97058-24	G1.1/2	55	22.5	16	24	315	259
B97058-32	G2	75	34	24	24	250	756

BLANKING PLUGS

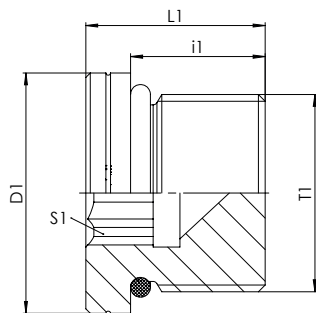


METRIC PARALLEL

BLANKING PLUG FOR PORTS
(DIN 3852-1 / ISO 9974-1)
SEALING BY NBR PROFILE RING (DIN 3869)

PART NUMBERS		DIMENSIONS (mm)					
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Complete	T1	D1	L1	i1	S1	PN	Weight (g)
							Total
B99001-08	M8X1	12	12	8	4	400	5
B99001-10	M10X1	14	12	8	5	400	8
B99001-12	M12X1,5	17	17	12	6	400	15
B99001-14	M14X1,5	19	17	12	6	400	21
B99001-16	M16X1,5	22	17	12	8	400	26
B99001-18	M18X1,5	24	17	12	8	400	33
B99001-20	M20X1,5	26	19	14	10	400	43
B99001-22	M22X1,5	27	19	14	10	400	52
B99001-26	M26X1,5	32	21	16	12	400	80
B99001-27	M27X2	32	21	16	12	400	83
B99001-33	M33X2	40	22,5	16	17	400	132
B99001-42	M42X2	50	22,5	16	22	250	206
B99001-48	M48X2	55	22,5	16	24	250	268

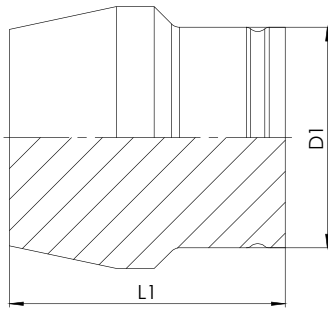


METRIC PARALLEL

BLANKING PLUG FOR PORTS
(DIN 3852-2 / ISO 1179-1)
SEALING BY O-RING NBR (ISO 6149-1)

PART NUMBERS		DIMENSIONS (mm)					
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Complete	T1	D1	L1	i1	S1	PN	Weight (g)
							Total
UPON REQ.	M8X1	11,8	13	9,5	4	630	5
B99002-10	M10X1	13,8	13,5	9,5	5	630	9
B99002-12	M12X1,5	16,8	15,5	11	6	630	14
B99002-14	M14X1,5	18,8	16	11	6	630	20
B99002-16	M16X1,5	21,8	17,5	12,5	8	630	27
B99002-18	M18X1,5	23,8	19	14	8	630	38
B99002-22	M22X1,5	26,8	20	15	10	630	56
B99002-27	M27X2	31,8	23,5	18,5	12	400	95
B99002-33	M33X2	40,8	24,5	18,5	14	400	159
B99002-42	M42X2	49,8	25	19	22	400	233



BLANKING PLUG FOR CONE
WITH 24° SWIVEL

PART NUMBERS **DIMENSIONS (mm)**

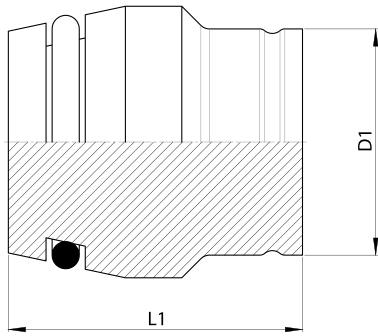
L/S Series				
Complete	D1	L1	PN	Weight (g)
				Total
E69270	6	17,5	630	6
E69271	8	18,5	630	10
E69272	10	19	630	15
E69273	12	19	630	20

L Series				
Complete	D1	L1	PN	Weight (g)
				Total
E69263	15	19,5	400	32
E69264	18	20	400	45
E69265	22	20,5	400	68
E69266	28	21,5	400	112
E69267	35	23,5	400	195
E69268	42	23,5	400	276

S Series				
Complete	D1	L1	PN	Weight (g)
				Total
E69274	14	20	630	28
E69275	16	20	630	36
E69276	20	24	630	69
E69277	25	25	630	108
E69278	30	26,5	630	163
E69279	38	28,5	630	278

- Special feature: O-ring groove to keep nut in place. To be assembled in the field if required.

BLANKING PLUGS

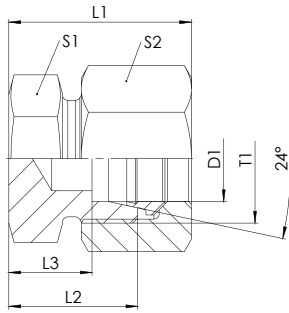


BLANKING PLUG FOR CONE WITH 24° DKO SWIVEL AND NBR O-RING

PART NUMBERS	DIMENSIONS (mm)
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Complete	Series	D1	L1
E69142	L/S	6	17
E69143	L/S	8	17
E69144	L/S	10	20
E69145	L/S	12	21
E69146	S	14	23
E69147	L	15	20
E69148	S	16	24
E69149	L	18	21
E69150	S	20	28
E69151	L	22	23
E69152	S	25	31
E69153	L	28	23
E69154	S	30	34
E69155	L	35	29
E69156	S	38	38
E69157	L	42	30

- Special feature: O-ring groove to keep nut in place. To be assembled in the field if required.



BLANKING PLUG FOR TUBE ENDS
WITH 24° COUPLING

PART NUMBERS **DIMENSIONS (mm)**

L Series											
Body Only	Complete	D1	T1	L1	L2	L3	S1	S2	PN	Weight [g]	
										Body	Total
B90096-12	B90018-12	6	M12X1,5	25	17	10	14	14	500	15	28
B90096-14	B90018-14	8	M14X1,5	25	17	10	17	17	500	21	39
B90096-16	B90018-16	10	M16X1,5	28	20	13	17	19	500	28	50
B90096-18	B90018-18	12	M18X1,5	29	21	14	19	22	400	36	67
B90096-22	B90018-22	15	M22X1,5	28,5	20	13	24	27	400	52	100
B90096-26	B90018-26	18	M26X1,5	30,5	21	13,5	27	32	400	71	142
B90096-30	B90018-30	22	M30X2	33,5	23	15,5	32	36	250	102	197
B90096-36	B90018-36	28	M36X2	34	23	15,5	41	41	250	154	265
B90096-45	B90018-45	35	M45X2	41	29	18,5	46	50	250	265	435
B90096-52	B90018-52	42	M52X2	42	30	19	55	60	250	373	630

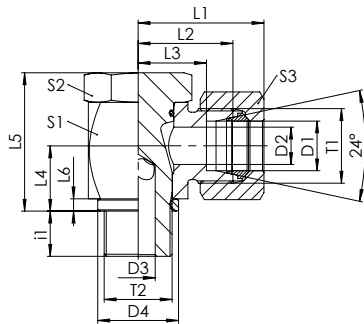
S Series											
Body Only	Complete	D1	T1	L1	L2	L3	S1	S2	PN	Weight [g]	
										Body	Total
B89079-14	B89022-14	6	M14X1,5	25	17	10	17	17	800	21	42
B89079-16	B89022-16	8	M16X1,5	25	17	10	17	19	800	24	48
B89079-18	B89022-18	10	M18X1,5	29	20	12,5	19	22	800	36	71
B89079-20	B89022-20	12	M20X1,5	30	21	13,5	22	24	630	49	89
B89079-22	B89022-22	14	M22X1,5	33	23	15	24	27	630	63	122
B89079-24	B89022-24	16	M24X1,5	34	24	15,5	27	30	630	79	153
B89079-30	B89022-30	20	M30X2	40	28	17,5	32	36	420	133	251
B89079-36	B89022-36	25	M36X2	44	31	19	41	46	420	226	454
B89079-42	B89022-42	30	M42X2	48	34	20,5	46	50	420	314	567
B89079-52	B89022-52	38	M52X2	53,5	38	22	55	60	420	502	868

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

BANJO & SWIVEL COUPLINGS

BSP

HIGH PRESSURE BANJO ELBOW
SEALING BY EXTERNAL METALLIC SEALING RING
AND NBR O-RING



PART NUMBERS		DIMENSIONS (mm)																	
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LL Series																				
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	L3	L4	L5	L6	i1	S1	S2	S3	PB	Weight (g)	
																			Body	Total
UPON REQ.	E68009-08-02	4	M8X1	G1/8	3	4	12,95	24	20	16	9,8	21	4	8	14	14	10	100	33	38
UPON REQ.	E68009-10-02	6	M10X1	G1/8	4,5	4	12,95	21	20	14,5	9,8	21	4	8	14	14	12	100	34	41
UPON REQ.	E68009-12-02	8	M12X1	G1/8	6	4	12,95	22,5	20	14,5	9,8	21	4	8	14	14	14	100	36	44

L Series																				
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	L3	L4	L5	L6	i1	S1	S2	S3	PB	Weight (g)	
																			Body	Total
B90086-12-02	B90063-12-02	6	M12X1,5	G1/8	4	4	12,95	28	20	13	9,8	21	4	8	14	14	14	500	39	52
UPON REQ.	UPON REQ.	6	M12X1,5	G1/4	4	5,2	17,7	30	22	15	13,3	27,5	4	10	19	19	14	500	83	96
B90086-14-04	B90063-14-04	8	M14X1,5	G1/4	6	5,2	17,7	29	21	14	13,3	27,5	4	10	19	19	17	500	83	102
B90086-16-04	B90063-16-04	10	M16X1,5	G1/4	8	5,2	17,7	30	22	15	13,3	27,5	4	10	19	19	19	500	85	108
B90086-18-04	B90063-18-04	12	M18X1,5	G1/4	10	5,2	17,7	30	22	15	15,3	30,5	4	10	22	19	22	400	104	135
B90086-18-06	B90063-18-06	12	M18X1,5	G3/8	10	8	22	32,5	24,5	17,5	15,7	33	4,4	10	24	22	22	400	145	176
B90086-18-08	B90063-18-08	12	M18X1,5	G1/2	10	11	26	36	28	21	19,3	41	5	14	30	27	22	400	265	296
B90086-22-08	B90063-22-08	15	M22X1,5	G1/2	12	11	26	36,5	28	21	19,3	41	5	14	30	27	27	400	268	317
B90086-26-08	B90063-26-08	18	M26X1,5	G1/2	15	11	26	37,5	28	20,5	21,3	43	7	12	30	27	32	400	275	346
B90086-30-12	B90063-30-12	22	M30X2	G3/4	19	15	32	45	34,5	27	23,8	48	5,5	16	36	32	36	250	448	544
B90086-36-16	B90063-36-16	28	M36X2	G1	24	19	39	50	39	31,5	30,3	59	5,5	18	46	41	41	250	860	972
B90086-45-20	B90063-45-20	35	M45X2	G1.1/4	30	24	49	58	46	35,5	35,3	70	5,5	20	55	50	50	250	1441	1611
B90086-52-24	B90063-52-24	42	M52X2	G1.1/2	36	31	55	63	51	40	40,8	80,5	6	21,5	65	55	60	250	2177	2436

S Series																				
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	L3	L4	L5	L6	i1	S1	S2	S3	PB	Weight (g)	
																			Body	Total
B89068-14-04	B89043-14-04	6	M14X1,5	G1/4	4	5,2	17,7	31	23	16	13,3	27,5	4	10	19	19	17	500	88	109
B89068-16-04	B89043-16-04	8	M16X1,5	G1/4	5	5,2	17,7	31	23	16	13,3	27,5	4	10	19	19	19	500	90	115
B89068-18-06	B89043-18-06	10	M18X1,5	G3/8	7	8	22	34,5	25,5	18	15,7	33	4,4	10	24	22	22	500	152	187
B89068-20-06	B89043-20-06	12	M20X1,5	G3/8	8	8	22	34,5	25,5	18	15,7	33	4,4	10	24	22	24	400	154	194
B89068-22-08	B89043-22-08	14	M22X1,5	G1/2	10	11	26	40	30	22	19,3	41	5	14	30	27	27	400	276	336
B89068-24-08	B89043-24-08	16	M24X1,5	G1/2	12	11	26	40	30,2	21,7	21,3	43	7	12	30	27	30	400	281	355
B89068-30-12	B89043-30-12	20	M30X2	G3/4	16	15	32	48,5	36,5	26	23,8	48	5,5	16	36	32	36	315	465	584
B89068-36-16	B89043-36-16	25	M36X2	G1	20	19	39	56	43	31	30,3	59	5,5	18	46	41	46	250	900	1129
B89068-42-20	B89043-42-20	30	M42X2	G1.1/4	25	24	49	64	50	36,5	35,3	70	5,5	20	55	50	50	250	1483	1738
B89068-52-24	B89043-52-24	38	M52X2	G1.1/2	32	31	55	72,5	57	41	40,8	80,5	6	21,5	65	55	60	250	2277	2646

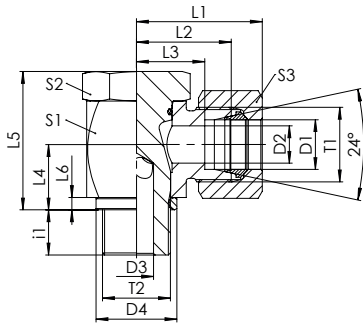
- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.s.

IMPORTANT:

- PN is the nominal pressure, thus the max operating pressure of the coupling when operating under stationary conditions and with a SF 4:1
- PB is the permissible operating over-pressure of the coupling as per DIN 2401, when operating with static loads at max temp. of 120 °C with a SF 2,5:1

BANJO & SWIVEL COUPLINGS

120



METRIC PARALLEL HIGH PRESSURE BANJO ELBOW SEALING BY EXTERNAL METALLIC SEALING RING AND NBR O-RING

PART NUMBERS DIMENSIONS (mm)

LL Series																			Weight (g)	
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	L3	L4	L5	L6	i1	S1	S2	S3	PB	Body	Total
E68050-08-08	E68004-08-08	4	M8X1	M8X1	3	3	11	22	17	13	7,8	17	3	6	12	12	10	100	22	27
E68050-10-10	E68004-10-10	6	M10X1	M10X1	4,5	4	13	26	20	14,5	9,8	21	4	8	14	14	12	100	35	42
E68050-12-10	E68004-12-10	8	M12X1	M10X1	6	4	13	26	20	14,5	9,8	21	4	8	14	14	14	100	36	45

L Series																			Weight (g)	
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	L3	L4	L5	L6	i1	S1	S2	S3	PB	Body	Total
B90134-12-10	B90052-12-10	6	M12X1,5	M10X1	4	4	13	28	20	13	9,8	21	4	8	14	14	14	500	39	52
B90134-14-12	B90052-14-12	8	M14X1,5	M12X1,5	6	5	18	29	21	14	13,3	27,5	4	10	19	19	17	500	82	100
B90134-14-14	UPON REQ.	8	M14X1,5	M14X1,5	6	5	18	29	21	14	13,3	27,6	4	10	19	19	17	500	85	104
B90134-16-14	B90052-16-14	10	M16X1,5	M14X1,5	8	5	18	30	22	15	13,3	27,6	4	10	19	19	19	500	87	110
B90134-22-18	UPON REQ.	12	M18X1,5	M14X1,5	10	5	18	30	22	15	15,3	30,5	4	10	22	19	22	400	106	137
B90134-18-16	B90052-18-16	12	M18X1,5	M16X1,5	10	8	21,5	32,5	24,5	17,5	15,7	32,9	4,4	10,6	24	22	22	400	144	174
B90134-18-18	B90052-18-18	12	M18X1,5	M18X1,5	10	9	23	34	26	19	18,3	37,5	5	10	27	24	22	315	194	225
B90134-22-18	B90052-22-18	15	M22X1,5	M18X1,5	12	9	23	35,5	27	20	18,3	37,5	5	10	27	24	27	400	201	250
B90134-26-22	B90052-26-22	18	M26X1,5	M22X1,5	15	11	27	37,5	28	20,5	21,3	43	7	12	30	27	32	400	281	353
B90134-30-26	B90052-30-26	22	M30X2	M26X1,5	19	15	31,5	45	34,5	27	23,8	48	5,5	16	36	32	36	250	444	540
B90134-36-33	B90052-36-33	28	M36X2	M33X2	24	19	39	50	39	31,5	30,3	59	5,5	18	46	41	41	250	857	969
B90134-45-42	B90052-45-42	35	M45X2	M42X2	30	24	49	58	46	35,5	35,3	70	5,5	20	55	50	50	250	1449	1619
B90134-52-48	B90052-52-48	42	M52X2	M48X2	36	31	55	63	51	40	40,3	80	5,5	22	65	55	60	250	2190	2449

S Series																			Weight (g)	
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	L3	L4	L5	L6	i1	S1	S2	S3	PB	Body	Total
B89176-14-12	B89033-14-12	6	M14X1,5	M12X1,5	4	5	18	31	23	16	13,3	27,5	4	10	19	19	17	500	86	107
B89176-16-14	B89033-16-14	8	M16X1,5	M14X1,5	5	5	18	31	23	16	13,3	27,6	4	10	19	19	19	500	92	117
B89176-18-16	B89033-18-16	10	M18X1,5	M16X1,5	7	8	21,5	34,5	25,5	18	15,7	32,9	4,4	10,6	24	22	22	500	150	186
B89176-20-18	B89033-20-18	12	M20X1,5	M18X1,5	8	9	23	36	27	19,5	18,3	37,5	5	10	27	24	24	400	203	243
B89176-22-20	B89033-22-20	14	M22X1,5	M20X1,5	10	11	26	40	30	22	19,3	41	5	12	30	27	27	400	271	331
B89176-24-22	B89033-24-22	16	M24X1,5	M22X1,5	12	11	27	40	30,2	21,7	21,3	43	7	12	30	27	30	400	287	361
B89176-30-27	B89033-30-27	20	M30X2	M27X2	16	15	32	48,5	36,5	26	23,8	48	5,5	16	36	32	36	315	471	589
B89176-36-33	B89033-36-33	25	M36X2	M33X2	20	19	39	56	43	31	30,3	59	5,5	18	46	41	46	250	896	1126
B89176-42-42	B89033-42-42	30	M42X2	M42X2	25	24	49	64	50	36,5	35,3	70	5,5	20	55	50	50	250	1492	1746
B89176-52-48	B89033-52-48	38	M52X2	M48X2	32	31	55	72,5	57	41	40,3	80	5,5	22	65	55	60	250	2291	2660

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
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IMPORTANT:

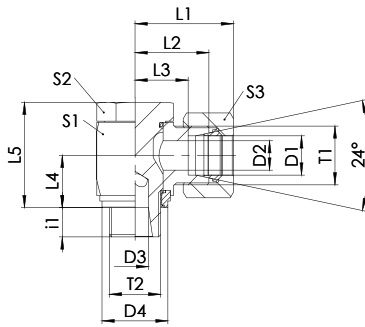
- PN is the nominal pressure, thus the max operating pressure of the coupling when operating under stationary conditions and with a SF 4:1
- PB is the permissible operating over-pressure of the coupling as per DIN 2401, when operating with static loads at max temp. of 120 °C with a SF 2,5:1

BANJO & SWIVEL
COUPLINGS

BANJO & SWIVEL COUPLINGS

BSP

HIGH PRESSURE BANJO ELBOW
SEALING BY SUPPORT RING WITH NBR SOFTSEAL
AND NBR O-RING



PART NUMBERS	DIMENSIONS (mm)
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L Series																			Weight [g]	
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	L3	L4	L5	i1	S1	S2	S3	PB	Body	Total	
B90087-12-02	B90214-12-02	6	M12X1,5	G1/8	4	4	14,9	28	20	13	10	21	8	14	14	14	500	39	52	
UPON REQ.	B90214-12-04	6	M12X1,5	G1/4	4	5,2	18,8	30	22	15	13	27	10	19	19	14	500	83	96	
B90087-14-04	B90214-14-04	8	M14X1,5	G1/4	6	5,2	18,8	29	21	14	13	27	10	19	19	17	500	83	102	
B90087-16-04	B90214-16-04	10	M16X1,5	G1/4	8	5,2	18,8	30	22	15	13	27	10	19	19	19	500	85	108	
UPON REQ.	B90214-18-04	12	M18X1,5	G1/4	10	5,2	18,8	30	22	15	15	30	10	22	19	22	400	104	135	
B90087-18-06	B90214-18-06	12	M18X1,5	G3/8	10	8	22,8	32,5	24,5	17,5	11	29	14	24	22	22	400	145	175	
UPON REQ.	UPON REQ.	12	M18X1,5	G1/2	10	11	28,8	36	28	21	14	36	19	30	27	22	400	267	297	
B90087-22-08	B90214-22-08	15	M22X1,5	G1/2	12	11	28,8	36,5	28	21	14	36	19	30	27	27	400	270	318	
B90087-26-08	B90214-26-08	18	M26X1,5	G1/2	15	11	28,8	37,5	28	20,5	14	36	19	30	27	32	400	278	349	
B90087-30-12	B90214-30-12	22	M30X2	G3/4	19	15	34,8	45	34,5	27	18	42,5	21,5	36	32	36	250	450	545	
B90087-36-16	B90214-36-16	28	M36X2	G1	24	19	41,8	50	39	31,5	25	53,5	23,5	46	41	41	250	863	974	
B90087-45-20	B90214-45-20	35	M45X2	G1.1/4	30	24	51,8	58	46	35,5	30	64,5	25,5	55	50	50	250	1445	1614	
B90087-52-24	B90214-52-24	42	M52X2	G1.1/2	36	31	57,9	63	51	40	35	74,5	27,5	65	55	60	250	2180	2437	

S Series																			Weight [g]	
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	L3	L4	L5	i1	S1	S2	S3	PB	Body	Total	
B89070-14-04	B89212-14-04	6	M14X1,5	G1/4	4	5,2	18,8	31	23	16	13	27	10	19	19	17	500	88	109	
B89070-16-04	B89212-16-04	8	M16X1,5	G1/4	5	5,2	18,8	31	23	16	13	27	10	19	19	19	500	91	115	
B89070-18-06	B89212-18-06	10	M18X1,5	G3/8	7	8	22,8	34,5	25,5	18	11	29	14	24	22	22	500	151	187	
B89070-20-06	B89212-20-06	12	M20X1,5	G3/8	8	8	22,8	34,5	25,5	18	11	29	14	24	22	24	400	154	194	
B89070-22-08	B89212-22-08	14	M22X1,5	G1/2	10	11	28,8	40	30	22	14	36	19	30	27	27	400	278	338	
B89070-24-08	B89212-24-08	16	M24X1,5	G1/2	12	11	28,8	40	30,2	21,7	14	36	19	30	27	30	400	284	357	
B89070-30-12	B89212-30-12	20	M30X2	G3/4	16	15	34,8	48,5	36,5	26	18	42,5	21,5	36	32	36	315	468	586	
B89070-36-16	B89212-36-16	25	M36X2	G1	20	19	41,8	56	43	31	25	53,5	23,5	46	41	46	250	902	1130	
B89070-42-20	B89212-42-20	30	M42X2	G1.1/4	25	24	51,8	64	50	36,5	30	64,5	25,5	55	50	50	250	1488	1740	
B89070-52-24	B89212-52-24	38	M52X2	G1.1/2	32	31	57,9	72,5	57	41	35	74,5	27,5	65	55	60	250	2280	2646	

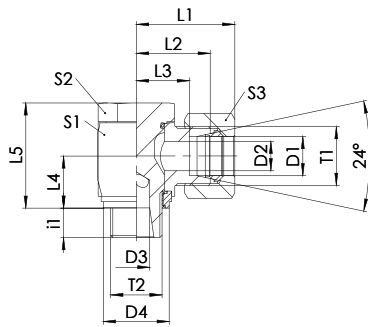
- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

IMPORTANT:

- PN is the nominal pressure, thus the max operating pressure of the coupling when operating under stationary conditions and with a SF 4:1
- PB is the permissible operating over-pressure of the coupling as per DIN 2401, when operating with static loads at max temp. of 120 °C with a SF 2,5:1

BANJO & SWIVEL COUPLINGS

122



METRIC PARALLEL
HIGH PRESSURE BANJO ELBOW
SEALING BY SUPPORT RING WITH
NBR SOFTSEAL AND NBR O-RING

PART NUMBERS		DIMENSIONS (mm)																	
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L Series																			
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	L3	L4	L5	i1	S1	S2	S3	PB	Weight [g]	
																		Body	Total
B90135-12-10	B90226-12-10	6	M12X1,5	M10X1	4	4	14,9	28	20	13	9,8	21	8	14	14	14	500	40	52
B90135-14-12	B90226-14-12	8	M14X1,5	M12X1,5	6	5,2	17,8	29	21	14	13,3	27,6	10	19	19	17	500	81	100
UPON REQ.	UPON REQ.	8	M14X1,5	M14X1,5	6	5,2	19,9	29	21	14	13,3	27,6	10	19	19	17	500	86	105
UPON REQ.	UPON REQ.	10	M16X1,5	M12X1,5	8	5,2	17,8	30	22	15	13,3	27,5	10	19	19	19	500	83	106
B90135-16-14	B90226-16-14	10	M16X1,5	M14X1,5	8	5,2	19,9	30	22	15	13,3	27,6	10	19	19	19	500	88	111
B90135-18-16	B90226-18-16	12	M18X1,5	M16X1,5	10	8	22,8	32,5	24,5	17,5	11,3	28,5	15	24	22	22	400	143	174
UPON REQ.	UPON REQ.	12	M18X1,5	M18X1,5	10	8	23,8	34	26	19	13,3	31,5	14	27	22	22	315	181	212
B90135-22-18	B90226-22-18	15	M22X1,5	M18X1,5	12	9,2	25,8	35,5	27	20	13,3	32,5	15	27	24	27	400	203	251
B90135-26-22	B90226-26-22	18	M26X1,5	M22X1,5	15	11	28,8	37,5	28	20,5	14,3	36	19	30	27	32	400	282	354
B90135-30-26	B90226-30-26	22	M30X2	M26X1,5	19	15	34,8	45	34,5	27	18,3	42,5	21,5	36	32	36	250	446	542
B90135-36-33	B90226-36-33	28	M36X2	M33X2	24	19	41,8	50	39	31,5	24,8	53,5	23,5	46	41	41	250	860	971
B90135-45-42	B90226-45-42	35	M45X2	M42X2	30	24	51,8	58	46	35,5	29,8	64,5	25,5	55	50	50	250	1453	1623
B90135-52-48	B90226-52-48	42	M52X2	M48X2	36	31	57,9	63	51	40	34,8	74,5	27,5	65	55	60	250	2195	2454

S Series																			
Body Only	Complete	D1	T1	T2	D2	D3	D4	L1	L2	L3	L4	L5	i1	S1	S2	S3	PB	Weight [g]	
																		Body	Total
B89071-14-12	B89034-14-12	6	M14X1,5	M12X1,5	4	5,2	17,8	31	23	16	9,3	23,5	14	19	19	17	500	86	107
B89071-16-14	B89034-16-14	8	M16X1,5	M14X1,5	5	5,2	19,9	31	23	16	13,3	27,6	10	19	19	19	500	93	118
B89071-18-16	B89034-18-16	10	M18X1,5	M16X1,5	7	8	22,8	34,5	25,5	18	11,3	28,5	15	24	22	22	500	150	185
B89071-20-18	B89034-20-18	12	M20X1,5	M18X1,5	8	9,2	25,8	36	27	19,5	13,3	32,5	15	27	24	24	400	205	245
B89071-24-22	B89034-24-22	16	M24X1,5	M22X1,5	12	11	28,8	40	30,2	21,7	14,3	36	19	30	27	30	400	288	362
B89071-30-27	B89034-30-27	20	M30X2	M27X2	16	15	34,8	48,5	36,5	26	18,3	42,5	21,5	36	32	36	315	473	592
B89071-36-33	B89034-36-33	25	M36X2	M33X2	20	19	41,8	56	43	31	24,8	53,5	23,5	46	41	46	250	899	1129
B89071-42-42	B89034-42-42	30	M42X2	M42X2	25	24	51,8	64	50	36,5	29,8	64,5	25,5	55	50	50	250	1496	1750
B89071-52-48	B89034-52-48	38	M52X2	M48X2	32	31	57,9	72,5	57	41	34,8	74,5	27,5	65	55	60	250	2296	2664

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IMPORTANT:

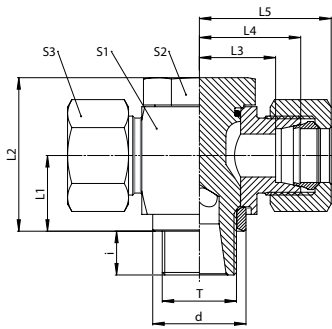
- PN is the nominal pressure, thus the max operating pressure of the coupling when operating under stationary conditions and with a SF 4:1
- PB is the permissible operating over-pressure of the coupling as per DIN 2401, when operating with static loads at max temp. of 120 °C with a SF 2,5:1

BANJO & SWIVEL
COUPLINGS

BANJO & SWIVEL COUPLINGS

BSP

DOUBLE BANJO COUPLING METALLIC SEALING EDGE FORM B



PART NUMBERS	DIMENSIONS (mm)
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L Series															
Body Only	Complete	Tube-ø	T1	d	L1	L2	L3	L4	L5	i	S1	S2	S3	PB	Weight (g)
															Total
B90241-12-02	B90212-12-02	6	G 1/8"	13	10	21	13	20	27,5	8	14	14	14	500	6,5
B90241-14-04	B90212-14-04	8	G 1/4"	17,8	13,5	27	14	21	28,5	10	19	19	17	500	10
B90241-16-04	B90212-16-04	10	G 1/4"	17,8	13,5	27	15	22	29,5	10	19	19	19	500	11
B90241-18-06	B90212-18-06	12	G 3/8"	22	16	32,5	17,5	24,5	32	10	24	22	22	400	16,8
B90241-22-08	B90212-22-08	15	G 1/2"	26	19,5	43	21	28	36	14	30	27	27	400	28,8
B90241-26-08	B90212-26-08	18	G 1/2"	26	21,5	43	20,5	28	36,5	12	30	27	32	400	33,7
B90241-30-12	B90212-30-12	22	G 3/4"	32	24	48	27	34,5	43	16	36	32	36	250	50
B90241-36-16	B90212-36-16	28	G 1"	39	30,5	59	31,5	39	48	18	46	41	41	250	89,5
B90241-45-20	B90212-45-20	35	G 1 1/4"	49	35,5	70	35,5	46	57	20	55	50	50	250	155,8
B90241-52-24	B90212-52-24	42	G 1 1/2"	55	40,5	80	40	51	62,5	22	65	55	60	250	248,3

S Series															
Body Only	Complete	Tube-ø	T1	d	L1	L2	L3	L4	L5	i	S1	S2	S3	PB	Weight (g)
															Total
B89145-14-04	B89243-14-04	6	G 1/4"	17,8	13,5	27	16	23	30,5	10	19	19	17	500	10
B89145-16-04	B89243-16-04	8	G 1/4"	17,8	13,5	27	16	23	30,5	10	19	19	19	500	11,6
B89145-18-06	B89243-18-06	10	G 3/8"	22	16	32,5	18	25,5	34	10	24	22	22	500	18,7
B89145-20-06	B89243-20-06	12	G 3/8"	22	16	32,5	18	25,5	34	10	24	22	24	400	19,3
B89145-22-08	B89243-22-08	14	G 1/2"	26	19,5	41	22	30	39,5	12	30	27	27	400	32,1
B89145-24-08	B89243-24-08	16	G 1/2"	26	21,5	43	21,5	30	39,5	12	30	27	30	400	34
B89145-30-12	B89243-30-12	20	G 3/4"	32	24	48	26	36,5	47,5	16	36	32	36	315	56
B89145-36-16	B89243-36-16	25	G 1"	39	30,5	59	31	43	55	18	46	41	46	250	107,6
B89145-42-20	B89243-42-20	30	G 1 1/4"	49	35,5	70	36,5	50	63	20	55	50	50	250	175,3
B89145-52-24	B89243-52-24	38	G 1 1/2"	55	40,5	80	41	57	71,5	22	65	55	60	250	274,5

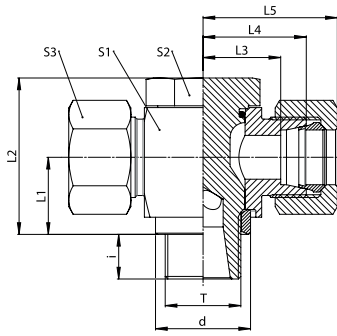
- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

IMPORTANT:

- PN is the nominal pressure, thus the max operating pressure of the coupling when operating under stationary conditions and with a SF 4:1
- PB is the permissible operating over-pressure of the coupling as per DIN 2401, when operating with static loads at max temp. of 120 °C with a SF 2,5:1

BANJO & SWIVEL COUPLINGS

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METRIC PARALLEL DOUBLE BANJO COUPLING METALLIC SEALING EDGE FORM B

PART NUMBERS	DIMENSIONS (mm)
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L Series															
Body Only	Complete	Tube-ø	T1	d	L1	L2	L3	L4	L5	i	S1	S2	S3	PB	Weight (g)
															Total
B90242-12-10	B90211-12-10	6	M 10 X 2	13	10	21	13	20	27,5	8	14	14	14	500	6,5
B90242-14-12	B90211-14-12	8	M 12 X 1,5	17,8	13,5	27	14	21	28,5	10	19	19	17	500	9,6
B90242-16-14	B90211-16-14	10	M 14 X 1,5	17,8	13,5	27	15	22	29,5	10	19	19	19	500	11,1
B90242-18-16	B90211-18-16	12	M 16 X 1,5	21	16	32,5	17,5	24,5	32	10	24	22	22	400	16,7
B90242-22-18	B90211-22-18	15	M 18 X 1,5	26,3	18,5	37	20	27	35	10	27	24	27	400	21,3
B90242-26-22	B90211-26-22	18	M 22 X 1,5	27	21,5	43	20,5	28	35,5	12	30	27	32	400	33,6
B90242-30-26	B90211-30-26	22	M 26 X 1,5	31	24	48	27	34,5	43	16	36	32	36	250	50,2
B90242-36-33	B90211-36-33	28	M 33 X 2	39	30,5	59	31,5	39	48	18	46	41	41	250	89,9
B90242-45-42	B90211-45-42	35	M 42 X 2	49	35,5	70	35,5	46	57	20	55	50	50	250	156
B90242-52-48	B90211-52-48	42	M 48 X 2	55	40,5	80	40	51	62,5	22	65	55	60	250	248,4

S Series															
Body Only	Complete	Tube-ø	T1	d	L1	L2	L3	L4	L5	i	S1	S2	S3	PB	Weight (g)
															Total
B89146-14-12	B89242-14-12	6	M 12 X 1,5	17,8	13,5	27	16	23	30,5	10	19	19	17	500	9,8
B89146-16-14	B89242-16-14	8	M 14 X 1,5	17,8	13,5	27	16	23	30,5	10	19	19	19	500	11,7
B89146-18-16	B89242-18-16	10	M 16 X 1,5	21	16	32,5	18	25,5	34	10	24	22	22	500	18,7
B89146-20-18	B89242-20-18	12	M 18 X 1,5	23	18,5	37	19,5	27	35,5	10	27	24	27	400	22,7
B89146-22-20	B89242-22-20	14	M 20 X 1,5	24	19,5	41	22	30	39,5	12	30	27	27	400	29,8
B89146-24-22	B89242-24-22	16	M 22 X 2,5	27	21,5	43	21,5	30	39,5	12	30	27	30	400	34,7
B89146-30-27	B89242-30-27	20	M 27 X 2	32	24	48	26	36,5	47,5	16	36	32	36	315	54,3
B89146-36-33	B89242-36-33	25	M 33 X 2	39	30,5	59	31	43	55	18	46	41	46	250	108
B89146-42-42	B89242-42-42	30	M 42 X 2	49	35,5	70	36,5	50	63	20	55	50	50	250	175,5
B89146-52-48	B89242-52-48	38	M 48 X 2	55	40,5	80	41	57	71,5	22	65	55	60	250	264,5

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

IMPORTANT:

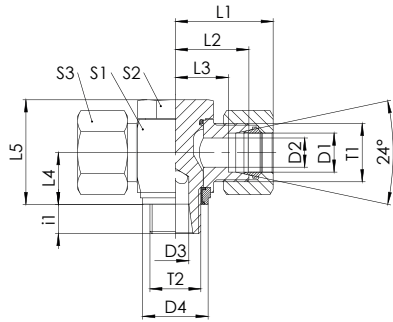
- PN is the nominal pressure, thus the max operating pressure of the coupling when operating under stationary conditions and with a SF 4:1
- PB is the permissible operating over-pressure of the coupling as per DIN 2401, when operating with static loads at max temp. of 120 °C with a SF 2,5:1

BANJO & SWIVEL
COUPLINGS

BANJO & SWIVEL COUPLINGS

BSP

DOUBLE BANJO COUPLING SEALING BY SUPPORT RING WITH NBR SOFTSEAL AND NBR O-RING



PART NUMBERS	DIMENSIONS (mm)
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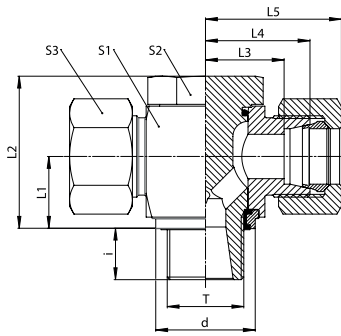
L Series		D1	T1	T2	D2	D3	D4	L1	L2	L3	L4	L5	i1	S1	S2	S3	PB	Weight (g)	
Body Only	Complete																	Body	Total
B90197-12-02	B90210-12-02	6	M12X1,5	G1/8	4	4	14,9	28	20	13	9,8	21	8	14	14	14	500	48	73
B90197-14-04	B90210-14-04	8	M14X1,5	G1/4	6	5,2	18,8	29	21	14	13,3	27,5	10	19	19	17	500	92	130
B90197-16-04	B90210-16-04	10	M16X1,5	G1/4	8	5,2	18,8	30	22	15	13,3	27,5	10	19	19	19	500	96	142
B90197-18-06	B90210-18-06	12	M18X1,5	G3/8	10	8	22,8	32,5	24,5	17,5	15,7	33	10	24	22	22	400	157	218
B90197-22-08	B90210-22-08	15	M22X1,5	G1/2	12	11	28,8	36,5	28	21	19,3	41	14	30	27	27	400	289	386
B90197-26-08	B90210-26-08	18	M26X1,5	G1/2	15	11	28,8	37,5	28	20,5	21,3	43	12	30	27	32	400	301	444
B90197-30-12	B90210-30-12	22	M30X2	G3/4	19	15	34,8	45	34,5	27	23,8	48	16	36	32	36	250	486	678
B90197-36-16	B90210-36-16	28	M36X2	G1	24	19	41,8	50	39	31,5	30,3	59	18	46	41	41	250	896	1122
B90197-45-20	B90210-45-20	35	M45X2	G1.1/4	30	24	51,8	58	46	35,5	35,3	70	20	55	50	50	250	1505	1849
B90197-52-24	B90210-52-24	42	M52X2	G1.1/2	36	31	57,9	63	51	40	40,3	80	22	65	55	60	250	2224	2747

S Series		D1	T1	T2	D2	D3	D4	L1	L2	L3	L4	L5	i1	S1	S2	S3	PB	Weight (g)	
Body Only	Complete																	Body	Total
B89178-14-04	B89177-14-04	6	M14X1,5	G1/4	4	5,2	18,8	31	23	16	13,3	27,5	10	19	19	17	500	101	143
B89178-16-04	B89177-16-04	8	M16X1,5	G1/4	5	5,2	18,8	31	23	16	13,3	27,5	10	19	19	19	500	107	156
B89178-18-06	B89177-18-06	10	M18X1,5	G3/8	7	8	22,8	34,5	25,5	18	15,7	33	10	24	22	22	500	170	241
B89178-20-06	B89177-20-06	12	M20X1,5	G3/8	8	8	22,8	34,5	25,5	18	15,7	33	10	24	22	24	400	175	256
B89178-22-08	B89177-22-08	14	M22X1,5	G1/2	10	11	28,8	40	30	22	19,3	41	14	30	27	27	400	305	426
B89178-24-08	B89177-24-08	16	M24X1,5	G1/2	12	11	28,8	40	30,2	21,7	21,3	43	12	30	27	30	400	311	460
B89178-30-12	B89177-30-12	20	M30X2	G3/4	16	15	34,8	48,5	36,5	26	23,8	48	16	36	32	36	315	521	759
B89178-36-16	B89177-36-16	25	M36X2	G1	20	19	41,8	56	43	31	30,3	59	18	46	41	46	250	975	1435
B89178-42-20	B89177-42-20	30	M42X2	G1.1/4	25	24	51,8	64	50	36,5	35,3	70	20	55	50	50	250	1591	2102
B89178-52-24	B89177-52-24	38	M52X2	G1.1/2	32	31	57,9	72,5	57	41	40,3	80	22	65	55	60	250	2426	3168

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

IMPORTANT:

- PN is the nominal pressure, thus the max operating pressure of the coupling when operating under stationary conditions and with a SF 4:1
- PB is the permissible operating over-pressure of the coupling as per DIN 2401, when operating with static loads at max temp. of 120 °C with a SF 2,5:1



METRIC PARALLEL DOUBLE BANJO COUPLING SEALING BY SUPPORT RING WITH NBR SOFTSEAL AND NBR O-RING

PART NUMBERS	DIMENSIONS (mm)
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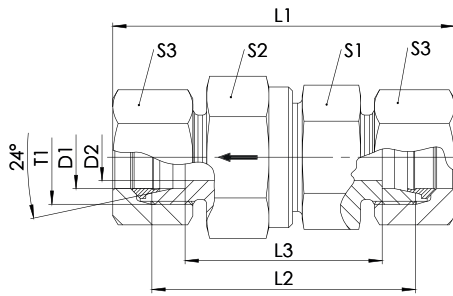
L Series															
Body Only	Complete	Tube-ø	T1	d	L1	L2	L3	L4	L5	i	S1	S2	S3	PB	Weight (g)
															Total
B90243-12-10	B90213-12-10	6	M 10 X 2	14,9	10	21	13	20	27,5	8	14	14	14	500	6,5
B90243-14-12	B90213-14-12	8	M 12 X 1,5	17,9	13,5	27	14	21	28,5	10	19	19	17	500	9,6
B90243-16-14	B90213-16-14	10	M 14 X 1,5	19,9	13,5	27	15	22	29,5	10	19	19	19	500	11,1
B90243-18-16	B90213-18-16	12	M 16 X 1,5	21,9	16	32,5	17,5	24,5	32	10	24	22	22	400	16,7
B90243-22-18	B90213-22-18	15	M 18 X 1,5	23,9	18,5	37	20	27	35	10	27	24	27	400	21,3
B90243-26-22	B90213-26-22	18	M 22 X 1,5	27,9	21,5	43	20,5	28	35,5	12	30	27	32	400	33,6
B90243-30-26	B90213-30-26	22	M 26 X 1,5	31,9	24	48	27	34,5	43	16	36	32	36	250	50,2
B90243-36-33	B90213-36-33	28	M 33 X 2	39,9	30,5	59	31,5	39	48	18	46	41	41	250	89,9
B90243-45-42	B90213-45-42	35	M 42 X 2	49,9	35,5	70	35,5	46	57	20	55	50	50	250	156
B90243-52-48	B90213-52-48	42	M 48 X 2	55,9	40,5	80	40	51	62,5	22	65	55	60	250	248,4

S Series															
Body Only	Complete	Tube-ø	T1	d	L1	L2	L3	L4	L5	i	S1	S2	S3	PB	Weight (g)
															Total
B89147-14-12	B89241-14-12	6	M 12 X 1,5	17,9	13,5	27	16	23	30,5	10	19	19	17	500	9,8
B89147-16-14	B89241-16-14	8	M 14 X 1,5	19,9	13,5	27	16	23	30,5	10	19	19	19	500	11,7
B89147-18-16	B89241-18-16	10	M 16 X 1,5	21,9	16	32,5	18	25,5	34	10	24	22	22	500	18,7
B89147-20-18	B89241-20-18	12	M 18 X 1,5	23,9	18,5	37	19,5	27	35,5	10	27	24	27	400	22,7
B89147-24-22	B89241-24-22	16	M 22 X 2,5	27,9	21,5	43	21,5	30	39,5	12	30	27	30	400	34,7
B89147-30-27	B89241-30-27	20	M 27 X 2	32,9	24	48	26	36,5	47,5	16	36	32	36	315	54,3
B89147-36-33	B89241-36-33	25	M 33 X 2	39,9	30,5	59	31	43	55	18	46	41	46	250	108
B89147-42-42	B89241-42-42	30	M 42 X 2	49,9	35,5	70	36,5	50	63	20	55	50	50	250	175,5
B89147-52-48	B89241-52-48	38	M 48 X 2	55,9	40,5	80	41	57	71,5	22	65	55	60	250	264,5

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.

IMPORTANT:

- PN is the nominal pressure, thus the max operating pressure of the coupling when operating under stationary conditions and with a SF 4:1
- PB is the permissible operating over-pressure of the coupling as per DIN 2401, when operating with static loads at max temp. of 120 °C with a SF 2,5:1



CHECK VALVE

WITH TUBE CONNECTION
SEALING BY NBR SOFT SEAL

PART NUMBERS	DIMENSIONS (mm)
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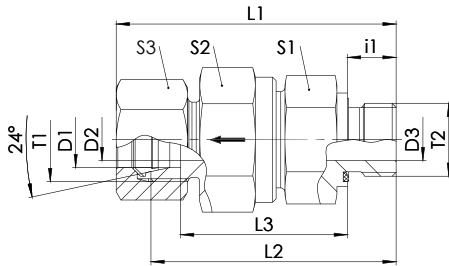
L Series													
Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	S3	PN	Weight (g)	
												Body	Total
B90081-12-12	B90017-12-12	6	M12X1,5	4	68	52	38	22	27	14	400	132	157
B90081-14-14	B90017-14-14	8	M14X1,5	6	68	52	38	22	27	17	400	134	171
B90081-16-16	B90017-16-16	10	M16X1,5	7,5	68	52	38	22	27	19	400	127	173
B90081-18-18	B90017-18-18	12	M18X1,5	7,5	69	53	39	22	27	22	400	138	199
B90081-22-22	B90017-22-22	15	M22X1,5	11,5	75	58	44	27	32	27	400	204	300
B90081-26-26	B90017-26-26	18	M26X1,5	11,5	82	63	48	27	32	32	400	252	394
B90081-30-30	B90017-30-30	22	M30X2	19	96	75	60	41	46	36	250	517	707
B90081-36-36	B90017-36-36	28	M36X2	20	103	81	66	41	46	41	250	618	840
B90081-45-45	B90017-45-45	35	M45X2	29	116	92	71	60	70	50	250	1372	1711
B90081-52-52	B90017-52-52	42	M52X2	29	111	87	65	60	70	60	250	1304	1818

S Series													
Body Only	Complete	D1	T1	D2	L1	L2	L3	S1	S2	S3	PN	Weight (g)	
												Body	Total
B89063-14-14	B89017-14-14	6	M14X1,5	4	72	56	42	22	27	17	400	142	184
B89063-16-16	B89017-16-16	8	M16X1,5	5	68	52	38	22	27	19	400	131	180
B89063-18-18	B89017-18-18	10	M18X1,5	7	72	54	39	22	27	22	400	140	211
B89063-20-20	B89017-20-20	12	M20X1,5	7,5	73	55	40	22	27	24	400	152	231
B89063-22-22	B89017-22-22	14	M22X1,5	10	82	62	46	27	32	27	400	217	337
B89063-24-24	B89017-24-24	16	M24X1,5	11,5	85	65	48	27	32	30	400	241	388
B89063-30-30	B89017-30-30	20	M30X2	16	102	78	57	41	46	36	400	537	773
B89063-36-36	B89017-36-36	25	M36X2	20	107	81	57	41	46	46	250	570	1027
B89063-42-42	B89017-42-42	30	M42X2	24	119	91	64	50	55	50	250	847	1353
B89063-52-52	B89017-52-52	38	M52X2	29	130	99	67	60	70	60	250	1447	2179

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.
- Opening pressure 1,0 bar - Other opening pressures on request.
- Metallic sealing on request.

BSP

CHECK VALVE WITH MALE STUD
FLOW FROM STUD THREAD
SEALING BY NBR PROFILE RING (DIN 3869)

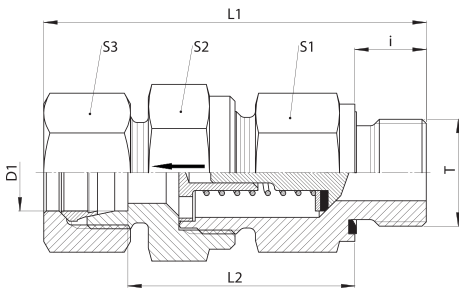


PART NUMBERS		DIMENSIONS (mm)													
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L Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	i1	S1	S2	S3	PN	Weight (g)	
															Body	Total
B90145-12-02	B90125-12-02	6	M12X1,5	G1/8	4	4	59	51	36	8	22	27	14	400	129	142
B90145-14-04	B90125-14-04	8	M14X1,5	G1/4	6	6	63	55	36	12	22	27	17	400	136	154
B90145-16-04	B90125-16-04	10	M16X1,5	G1/4	7,5	6	61	53	34	12	22	27	19	400	124	147
B90145-18-06	B90125-18-06	12	M18X1,5	G3/8	7,5	7,5	66	58	39	12	22	27	22	400	152	182
B90145-22-08	B90125-22-12	15	M22X1,5	G1/2	11,5	11,5	70,5	62	41	14	27	32	27	400	214	262
B90145-26-08	B90125-26-08	18	M26X1,5	G1/2	11,5	11,5	76,5	67	45,5	14	27	32	32	400	253	324
B90145-30-12	B90125-30-12	22	M30X2	G3/4	19	18	87,5	77	53,5	16	41	46	36	250	494	589
B90145-36-16	B90125-36-16	28	M36X2	G1	20	20	97	86	60,5	18	41	46	41	250	631	742
B90145-45-20	B90125-45-20	35	M45X2	G1.1/4	29	29	109,5	97,5	67	20	60	70	50	250	1392	1562
B90145-52-24	B90125-52-24	42	M52X2	G1.1/2	29	29	109,5	97,5	64,5	22	60	70	60	250	1445	1702

S Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	i1	S1	S2	S3	PN	Weight (g)	
															Body	Total
B89167-14-04	B89102-14-04	6	M14X1,5	G1/4	4	6	65	57	38	12	22	27	17	400	140	161
B89167-16-04	B89102-16-04	8	M16X1,5	G1/4	5	6	63	55	36	12	22	27	19	400	133	157
B89167-18-06	B89102-18-06	10	M18X1,5	G3/8	7	7,5	66	57	37,5	12	22	27	22	400	146	182
B89167-20-06	B89102-20-06	12	M20X1,5	G3/8	7,5	7,5	68	59	39,5	12	22	27	24	400	158	198
B89167-22-08	B89102-22-08	14	M22X1,5	G1/2	10	11,5	74	64	42	14	27	32	27	400	220	280
B89167-24-08	B89102-24-08	16	M24X1,5	G1/2	11,5	11,5	77	67	44,5	14	27	32	30	400	242	315
B89167-30-12	B89102-30-12	20	M30X2	G3/4	16	18	91	79	52,5	16	41	46	36	400	508	626
B89167-36-16	B89102-36-16	25	M36X2	G1	20	20	96	83	53	18	41	46	46	250	570	798
B89167-42-20	B89102-42-20	30	M42X2	G1.1/4	24	24	108	94	60,5	20	50	55	50	250	904	1157
B89167-52-24	B89102-52-24	38	M52X2	G1.1/2	29	29	119	103,5	65,5	22	60	70	60	250	1517	1883

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.
- Opening pressure 1,0 bar - Other opening pressures on request.
- Metallic sealing on request.



METRIC PARALLEL

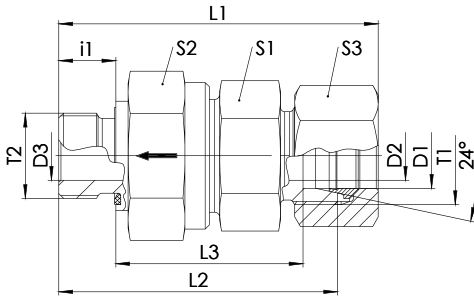
CHECK VALVE WITH MALE STUD
FLOW FROM STUD THREAD
SEALING BY NBR PROFILE RING (DIN 3869)

PART NUMBERS		DIMENSIONS (mm)									
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L Series											
Body Only	Complete	D1	T	L1	L2	i	S1	S2	S3	PN	Weight (g)
											Total
B90171-12-10	B90120-12-10	6	M 10 X 1	59	36	8	22	27	14	400	120
B90171-14-12	B90120-14-12	8	M 12 X 1,5	63	36	12	22	27	17	400	130
B90171-16-14	B90120-16-14	10	M 14 X 1,5	61	34	12	22	27	19	400	130
B90171-18-16	B90120-18-16	12	M 16 X 1,5	66	39	12	22	27	22	400	170
B90171-22-18	B90120-22-18	15	M 18 X 1,5	69	41	12	27	32	27	400	210
B90171-26-22	B90120-26-22	18	M 22 X 1,5	77	46	14	27	32	32	400	300
B90171-30-26	B90120-30-26	22	M 26 X 1,5	88	54	16	41	46	36	250	520
B90171-36-33	B90120-36-33	28	M 33 X 2	97	61	18	41	46	41	250	680
B90171-45-42	B90120-45-42	35	M 42 X 2	110	67	20	60	70	50	250	156
B90171-52-48	B90120-52-48	42	M 48 X 2	110	65	22	60	70	60	250	161

S Series											
Body Only	Complete	D1	T	L1	L2	i	S1	S2	S3	PN	Weight (g)
											Total
B89131-14-12	B89094-14-12	6	M 12 X 1,5	65	38	12	22	27	17	400	130
B89131-16-14	B89094-16-14	8	M 14 X 1,5	63	36	12	22	27	19	400	140
B89131-18-16	B89094-18-16	10	M 16 X 1,5	66	38	12	22	27	22	400	150
B89131-20-18	B89094-20-18	12	M 18 X 1,5	68	40	12	24	27	24	400	190
B89131-22-20	B89094-22-20	14	M 20 X 1,5	74	42	14	27	32	27	400	250
B89131-24-22	B89094-24-22	16	M 22 X 1,5	77	45	14	27	32	30	400	290
B89131-30-27	B89094-30-27	20	M 27 X 2	91	53	16	41	46	36	400	550
B89131-36-33	B89094-36-33	25	M 33 X 2	96	53	18	41	46	46	250	740
B89131-42-42	B89094-42-42	30	M 42 X 2	108	61	20	50	55	50	250	1050
B89131-52-48	B89094-52-48	38	M 48 X 2	119	66	22	60	70	60	250	2000

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.
- Opening pressure 1,0 bar - Other opening pressures on request.
- Metallic sealing on request.



BSP

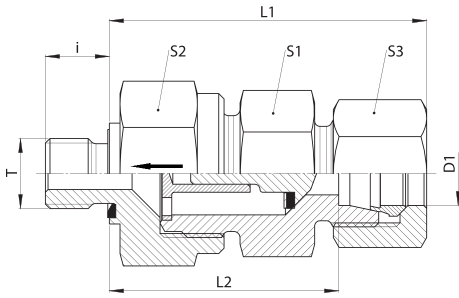
CHECK VALVE WITH MALE STUD
FLOW TO STUD THREAD
SEALING BY NBR PROFILE RING (DIN 3869)

PART NUMBERS		DIMENSIONS (mm)														
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L Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	i1	S1	S2	S3	PN	Weight (g)	
															Body	Total
B90146-12-02	B90136-12-02	6	M12X1,5	G1/8	4	4	59	51	36	8	27	22	14	400	129	142
B90146-14-04	B90136-14-04	8	M14X1,5	G1/4	6	6	63	55	36	12	27	22	17	400	136	154
B90146-16-04	B90136-16-04	10	M16X1,5	G1/4	7,5	6	61	53	34	12	27	22	19	400	124	147
B90146-18-06	B90136-18-06	12	M18X1,5	G3/8	7,5	7,5	66	58	39	12	27	22	22	400	152	182
B90146-22-08	B90136-22-08	15	M22X1,5	G1/2	11,5	11,5	70,5	62	41	14	32	27	27	400	214	262
B90146-26-08	B90136-26-08	18	M26X1,5	G1/2	11,5	11,5	76,5	67	45,5	14	32	27	32	400	253	324
B90146-30-12	B90136-30-12	22	M30X2	G3/4	19	18	87,5	77	53,5	16	41	46	36	250	491	586
B90146-36-16	B90136-36-16	28	M36X2	G1	20	20	91	80	54,5	18	41	46	41	250	560	671
B90146-45-20	B90136-45-20	35	M45X2	G1.1/4	29	29	109,5	97,5	67	20	70	60	50	250	1392	1562
B90146-52-24	B90136-52-24	42	M52X2	G1.1/2	29	29	109,5	97,5	64,5	22	70	60	60	250	1445	1702

S Series																
Body Only	Complete	D1	T1	T2	D2	D3	L1	L2	L3	i1	S1	S2	S3	PN	Weight (g)	
															Body	Total
B89107-14-04	B89103-14-04	6	M14X1,5	G1/4	4	6	65	57	38	12	27	22	17	400	140	161
B89107-16-04	B89103-16-04	8	M16X1,5	G1/4	5	6	63	55	36	12	27	22	19	400	133	157
B89107-18-06	B89103-18-06	10	M18X1,5	G3/8	7	7,5	66	57	37,5	12	27	22	22	400	146	182
B89107-20-06	B89103-20-06	12	M20X1,5	G3/8	7,5	7,5	68	59	39,5	12	27	22	24	400	158	198
B89107-22-08	B89103-22-08	14	M22X1,5	G1/2	10	11,5	74	64	42	14	32	27	27	400	220	280
B89107-24-08	B89103-24-08	16	M24X1,5	G1/2	11,5	11,5	77	67	44,5	14	32	27	30	400	242	315
B89107-30-12	B89103-30-12	20	M30X2	G3/4	16	18	90	78	51,5	16	41	46	36	400	496	614
B89107-36-16	B89103-36-16	25	M36X2	G1	20	20	96	83	53	18	41	46	46	250	573	801
B89107-42-20	B89103-42-20	30	M42X2	G1.1/4	24	24	108	94	60,5	20	55	50	50	250	904	1157
B89107-52-24	B89103-52-24	38	M52X2	G1.1/2	29	29	119	103,5	65,5	22	70	60	60	250	1517	1883

- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.
- Opening pressure 1,0 bar - Other opening pressures on request.
- Metallic sealing on request.



METRIC PARALLEL

CHECK VALVE WITH MALE STUD
FLOW TO STUD THREAD
SEALING BY NBR PROFILE RING (DIN 3869)

PART NUMBERS		DIMENSIONS (mm)									
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L Series											
Body Only	Complete	D1	T	L1	L2	i	S1	S2	S3	PN	Weight (g)
											Total
B90230-12-10	B90168-12-10	6	M 10 X 1	59	36	8	27	22	14	400	120
B90230-14-12	B90168-14-12	8	M 12 X 1,5	63	36	12	27	22	17	400	130
B90230-16-14	B90168-16-14	10	M 14 X 1,5	61	34	12	27	22	19	400	130
B90230-18-16	B90168-18-16	12	M 16 X 1,5	66	39	12	27	22	22	400	170
B90230-22-18	B90168-22-18	15	M 18 X 1,5	69	41	12	32	27	27	400	210
B90230-26-22	B90168-26-22	18	M 22 X 1,5	77	46	14	32	27	32	400	300
B90230-30-26	B90168-30-26	22	M 26 X 1,5	89	55	16	41	46	36	250	520
B90230-36-33	B90168-36-33	28	M 33 X 2	91	55	18	41	46	41	250	680
B90230-45-42	B90168-45-42	35	M 42 X 2	110	67	20	70	60	50	250	1560
B90230-52-48	B90168-52-48	42	M 48 X 2	110	65	22	70	60	60	250	1610

S Series											
Body Only	Complete	D1	T	L1	L2	i	S1	S2	S3	PN	Weight (g)
											Total
B89132-14-12	B89118-14-12	6	M 12 X 1,5	65	38	12	27	22	17	400	130
B89132-16-14	B89118-16-14	8	M 14 X 1,5	63	36	12	27	22	19	400	140
B89132-18-16	B89118-18-16	10	M 16 X 1,5	66	38	12	27	22	22	400	150
B89132-20-18	B89118-20-18	12	M 18 X 1,5	68	40	12	27	24	24	400	190
B89132-22-20	B89118-22-20	14	M 20 X 1,5	74	42	14	32	27	27	400	250
B89132-24-22	B89118-24-22	16	M 22 X 1,5	77	45	14	32	27	30	400	290
B89132-30-27	B89118-30-27	20	M 27 X 2	90	52	16	41	46	36	400	550
B89132-36-33	B89118-36-33	25	M 33 X 2	96	53	18	41	46	46	250	740
B89132-42-42	B89118-42-42	30	M 42 X 2	108	61	20	55	50	50	250	1050
B89132-52-48	B89118-52-48	38	M 48 X 2	119	66	22	70	60	60	250	2000

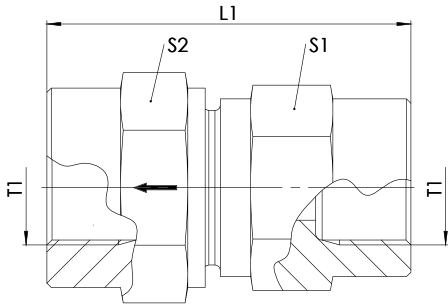
- Part Numbers from column "Complete" include: body, nut and ring. Only applicable to standard bite ring.
- For soft seal ring order components individually using column "Body Only" and page 28 for the rings and page 29 for the nuts.
- Opening pressure 1,0 bar - Other opening pressures on request.
- Metallic sealing on request.

CHECK VALVES

132

BSP

CHECK VALVE WITH FEMALE BSP THREAD

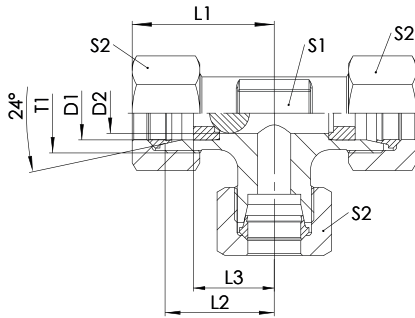


PART NUMBERS		DIMENSIONS (mm)				
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Complete	T1	L1	S1	S2	PN	Weight (g)
						Total
C85064-02-02	G1/8	53	22	27	400	179
C85064-04-04	G1/4	63	22	27	400	198
C85064-06-06	G3/8	62	24	27	400	190
C85064-08-08	G1/2	74	32	32	400	362
C85064-12-12	G3/4	92	41	46	400	795
C85064-16-16	G1	97	46	46	250	897
C85064-20-20	G1.1/4	113	60	60	250	1755
C85064-24-24	G1.1/2	118	65	70	250	2198

- Opening pressure 1,0 bar - Other opening pressures on request.
- Metallic sealing on request.

CHECK VALVES



ALTERNATING VALVE WITH 24° CONE

THREAD: M

PART NUMBERS	DIMENSIONS (mm)										
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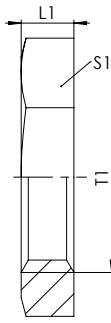
L Series											
Complete	D1	T1	D2	L1	L2	L3	S1	S2	PB	Weight (g)	
										Total	
B90025-14-14	8	M14X1,5	4	29	21	14	14	17	250	116	
B90025-16-16	10	M16X1,5	6	30	22	15	17	19	250	149	
B90025-18-18	12	M18X1,5	8	32	24	17	19	22	250	200	
B90025-22-22	15	M22X1,5	4	36,5	28	21	19	27	250	266	

S Series											
Complete	D1	T1	D2	L1	L2	L3	S1	S2	PB	Weight (g)	
										Total	
B89028-14-14	6	M14X1,5	3	31	23	16	14	17	630	138	
B89028-16-16	8	M16X1,5	4	32	24	17	17	19	630	177	
B89028-18-18	10	M18X1,5	6	34	25	17,5	19	22	630	237	
B89028-20-20	12	M20X1,5	8	38	29	21,5	22	24	630	298	
B89028-24-24	16	M24X1,5	8	43	33	24,5	24	30	400	435	

- Not recommended for compressed air or Gas! Not to be used in connection with weld nipples, swivel nuts etc. where there is no contact with a shoulder stop in the inner cone!

IMPORTANT:

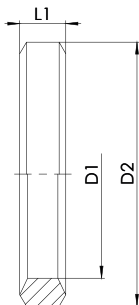
- PN is the nominal pressure, thus the max operating pressure of the coupling when operating under stationary conditions and with a SF 4:1
- PB is the permissible operating over-pressure of the coupling as per DIN 2401, when operating with static loads at max temp. of 120 °C with a SF 2,5:1



LOCK NUT [DIN 80705]

FOR BULKHEAD COUPLING

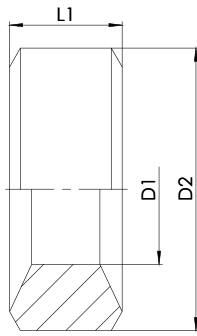
Complete	Series	T1	L1	S1	Weight (g)
					Total
E69057	L	M12X1,5	6	17	8
E69058	L/S	M14X1,5	6	19	9
E69059	L/S	M16X1,5	6	22	12
E69060	L/S	M18X1,5	6	24	13
E69062	L/S	M22X1,5	7	30	24
E69064	L	M26X1,5	8	36	40
E69065	L/S	M30X2	8	41	51
E69066	L/S	M36X2	9	46	63
E69191	L	M45X2	9	55	78
E69192	L/S	M52X2	10	65	127
E69061	S	M20X1,5	6	27	16
E69063	S	M24X1,5	7	32	26
E69190	S	M42X2	9	50	61



EXTERNAL METALLIC SEAL RING

FOR BANJO COUPLINGS

Complete	for Thread	D1	D2	L1	Weight (g)
					Total
D79015	1/8	10,1	13	4	1
D79117	1/4	13,3	18	3	2
D79020	3/8	16,7	22	5	5
D79014	1/2	21,1	26	4	5
D79019	3/4	26,6	32	4	6
D79013	1	33,4	39	6	13
D79016	1.1/4	42,1	49	6	20
D79118	1.1/2	48,1	55	6	22
D79015	M10X1	10,1	13	4	1
D79017	M12X1,5	12,1	18	3	2
D79018	M14X1,5	14,1	17,7	4	2
D79110	M16X1,5	16,1	21	3	3
D79111	M18X1,5	18,1	23	4	4
D79014	M20X1,5	21	26	5	6
D79009	M22X1,5	22,1	27	7	9
D79113	M26X1,5	26,1	31,5	5,5	9
D79019	M27X2	27,1	32	5,5	9
D79013	M33X2	33,3	39	5,5	12
D79016	M42X2	42,05	49	5,5	18
D79118	M48X2	48,1	55	6	22

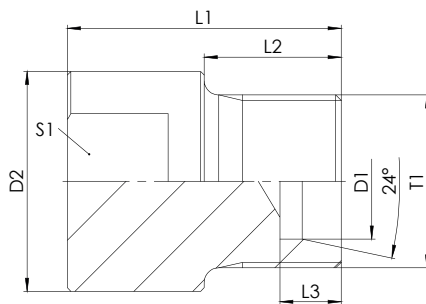


INTERNAL METALLIC SEAL RING

FOR PRESSURE GAUGE CONNECTORS

PART NUMBERS		DIMENSIONS (mm)			
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Complete	for Thread	D1	D2	L1	Weight (g)
					Total
D79108	1/4	6	11,3	4,5	2
D79424	3/8	9,5	14,8	4,5	3
D79021	1/2	12	18,5	5	5



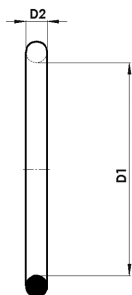
PRE-ASSEMBLY JIG (HARDENED) METRIC PARALLEL

FOR CUTTING RING COUPLINGS

MATERIAL: 1.2343

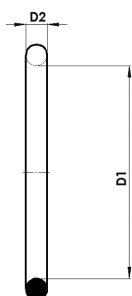
PART NUMBERS		DIMENSIONS (mm)							
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Complete	Series	D1	T1	D2	L1	L2	L3	S1	Weight (g)
									Total
D12026	LL	4	M8X1	21,5	33	15	4	14	6
D12002	LL	6	M10X1	21,5	33	15	5,5	14	6
D12027	LL	8	M12X1	21,5	33	15	5,5	14	7
D12028	LL	10	M14X1	21,5	33	16	5,5	14	7
D12029	LL	12	M16X1	25,5	33	16	6	19	10
D12001	L	6	M12X1,5	21,5	33	15	7	14	7
D12003	L	8	M14X1,5	21,5	33	15	7	14	7
D12005	L	10	M16X1,5	21,5	33	16	7	14	8
D12006	L	12	M18X1,5	25,5	33	16	7	19	11
D12009	L	15	M22X1,5	25,5	38	17	7	19	14
D12011	L	18	M26X1,5	30,5	41	17	7,5	24	23
D12013	L	22	M30X2	34,5	43	20	7,5	27	30
D12015	L	28	M36X2	44,5	46	20	7,5	32	50
D12017	L	35	M45X2	54,5	48	22	10,5	41	76
D12022	L	42	M52X2	64,5	48	22	11	50	104
D12019	S	6	M14X1,5	21,5	33	17	7	14	7
D12004	S	8	M16X1,5	21,5	33	17	7	14	8
D12020	S	10	M18X1,5	21,5	33	17	7,5	14	8
D12007	S	12	M20X1,5	25,5	33	17	7,5	19	12
D12008	S	14	M22X1,5	25,5	38	19	8	19	14
D12010	S	16	M24X1,5	30,5	38	19	8,5	24	19
D12012	S	20	M30X2	34,5	43	22	10,5	27	30
D12014	S	25	M36X2	44,5	45	24	12	32	46
D12016	S	30	M42X2	54,5	48	26	13,5	41	71
D12018	S	38	M52X2	64,5	48	28	16	50	98



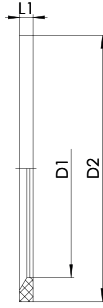
O-RING (NBR)
FOR 24° DKO SWIVEL

PART NUMBERS		DIMENSIONS (mm)		
Part Number	To Suit DN	D1	D2	
D79471	6 L/S	4,5	1,5	
D79472	8 L/S	6,5	1,5	
D79473	10 L/S	8,5	1,5	
D79474	12 L/S	10	1,5	
D79192	14 S	12	2	
D79475	15 L	12,5	2	
D79476	16 S	14	2	
D79477	18 L	16	2	
D79478	20 S	17,3	2,4	
D79215	22 L	20	2	
D79479	25 S	22,3	2,4	
D79229	28 L	26	2	
D79480	30 S	27,3	2,4	
D79241	35 L	32	2,5	
D79481	38 S	35	2,5	
D79254	42 L	38	2,5	



O-RING (VITON)
FOR 24° DKO SWIVEL

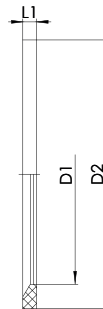
PART NUMBERS		DIMENSIONS (mm)		
Part Number	To Suit DN	D1	D2	
D79482	6 L/S	4	1,5	
D79483	8 L/S	6	1,5	
D79484	10 L/S	7,5	1,5	
D79485	12 L/S	9	1,5	
D79486	14 S	10	2	
D79487	15 L	12	2	
D79488	16 S	13,5	2	
D79489	18 L	15	2	
D79490	20 S	16,3	2,4	
D79491	22 L	20	2	
D79492	25 S	20,3	2,4	
D79493	28 L	26	2	
D79494	30 S	25,3	2,4	
D79495	35 L	32	2,5	
D79496	38 S	33,3	2,4	
D79497	42 L	38	2,5	



ELASTIC SOFT-SEAL RING
NBR (DIN 3869)

PART NUMBERS **DIMENSIONS (mm)**

Complete	Metric Thread	BSPP Thread	D1	D2	L1
D79129	M8	-	8,4	11,9	1
D79024	M10	1/8	8,4	11,9	1
D79120	M12	-	10	14,4	1,5
D79122	M14	1/4	11,6	16,5	1,5
D79123	M16	-	14	18,9	1,5
D79032	-	3/8	14,7	18,9	1,5
D79125	M18	-	15,7	20,9	1,5
D79022	-	-	18,5	23,9	1,5
D79126	-	-	18	22,9	1,5
D79029	M22	-	19,7	24,3	1,5
D79030	M26 - M27	3/4	24	29,2	1,5
D79034	M33	1	29,7	35,7	2
D79036	M42	1.1/4	39	45,8	2
D79038	M48	1.1/2	44,7	50,7	2
D79028	M60	2	57	66	4



ELASTIC SOFT-SEAL RING
VITON (DIN 3869)

PART NUMBERS **DIMENSIONS (mm)**


Complete	Metric Thread	BSPP Thread	D1	D2	L1
D79409	M8	-	6,4	9,9	1
D79025	M10	R1/8	8,4	11,9	1
D79423	M12	-	10	14,4	1,5
D79026	M14	R1/4	11,6	16,5	1,5
D79027	M16	-	14	18,9	1,5
D79033	-	R3/8	14,7	18,9	1,5
D79124	M18	-	15,7	20,9	1,5
D79028	M20	-	18	22,9	1,5
D79023	-	R1/2	18,5	23,9	1,5
D79127	M22	-	19,6	24,3	1,5
D79031	M26	R3/4	24	29,2	1,5
D79031	M27	R3/4	24	29,2	1,5
D79035	M33	R1	29,7	35,7	2
D79037	M42	R1.1/4	39	45,8	2
D79039	M48	R1.1/2	44,7	50,7	2

ASSEMBLY INSTRUCTIONS

ASSEMBLY OF METRIC PORT CONNECTIONS


138

1




Metric thread
DIN ISO 6149-2/3
ISO 9974-2/3
DIN 3859-T2
ISO 1179-1

2



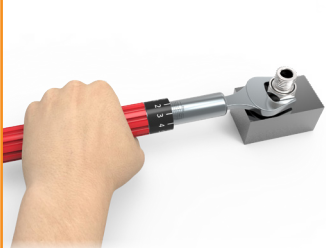
- Lubricate all rubber seals and threads with a high performance lubricant

3



- Screw connector into port until hand-tight

4

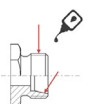


- Tighten with a torque wrench according to *Table 1* below

Table 1 - Tightening torques for carbon steel zinc-plated fittings into carbon steel ports

Product	Tube O.D.	Thread size (T)	STRAIGHT MALE STUD FITTINGS WITH PORT TAPPING					NON-RETURN VALVE	BANJO FITTINGS		ADJUSTABLE ENDS		BLANKING PLUGS	
			Form A for sealing washer	Form B with cutting face	Form E with WD soft-seal	Form F with O-ring sealing	With O-ring sealing & retaining ring	Form E with WD soft-seal	With O-ring	Without O-ring	O-ring & retaining ring	O-ring	Form E with WD soft-seal	Form F with O-ring sealing
Series			Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm
L	6	M10x1,0	9	18	18	15	18	18	18	18	18	15	12	20
	8	M12x1,5	20	30	25	25	35	25	45	35	35	25	25	35
	10	M14x1,5	35	45	45	35	45	35	55	50	45	35	35	45
	12	M16x1,5	45	65	55	40	55	50	80	60	55	40	50	55
	15	M18x1,5	55	80	70	45	70	70	100	80	70	45	65	70
	18	M22x1,5	65	140	125	60	160	125	140	120	180	60	90	100
	22	M26x1,5	90	190	180	100*	250	145	320	130	180	100	135	
	28	M33x2,0	150	340	310	160	310	210	360		310	160	225	310
	35	M42x2,0	240	500	450	210	450	360	540		450	210	360	330
S	42	M48x2,0	290	630	540	260	540	540	700		600	260	360	420
	6	M12x1,5	20	35		40	35	35	45	35	35	35	25	35
	8	M14x1,5	35	55		40	45	45	55	50	60	45	35	45
	10	M16x1,5	45	70		70	55	55	80	60	95	55	50	55
	12	M18x1,5	55	110		90	70	70	100	80	120	90	65	70
	14	M20x1,5	55	150		125	80	100	125	110			80	80
	16	M22x1,5	65	170		135	100	125	135	120	190	100	90	100
	20	M27x2,0	90	270		180	170	135	320	135	190	170	120	170
	25	M33x2,0	150	410		310	310	210	360		500	310	225	310
30	M42x2,0	240	540		450	330	360	540		600	330	360	330	
38	M48x2,0	290	700		540	420	540	700		600	420	360	420	

- Tolerance of tightening torques listed is +10%
- Tightening torques listed relate to counterparts made of steel. If using aluminium or other softer metals we recommend using special calibrated fittings to avoid damage.




Note: we recommend to lubricate the thread and sealing cone of the adaptor.

ASSEMBLY INSTRUCTIONS

ASSEMBLY INSTRUCTIONS


ASSEMBLY OF BSPP PORT CONNECTIONS

1



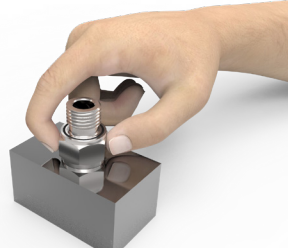
BSPP Thread
DIN ISO 6149-2/3
ISO 9974-2/3
DIN 3859-T2
ISO 1179-1

2



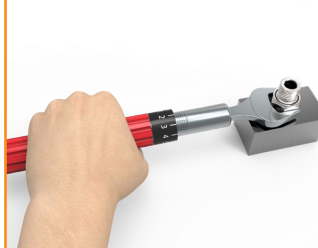
- Lubricate all rubber seals and threads with a high performance lubricant

3



- Screw connector into port until hand-tight

4

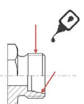


- Tighten with a torque wrench according to *Table 2* below

Table 2 - Tightening torques for fittings into carbon steel ports

Product	Tube O.D.	Thread size (T)	STRAIGHT MALE STUD FITTINGS WITH PORT TAPPING				NON-RETURN VALVE	BANJO FITTINGS		ADJUSTABLE ENDS	BLANKING PLUGS
			Form A for sealing washer	Form B with cutting face	Form E with WD soft-seal	With O-ring sealing & retaining ring	RSVW / RSVZ / Form E with WD softseal	EWHV / ETHV	EWHB	O-ring & retaining ring	VSCH-WD Form E with WD softseal
Series			Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm
L	6	G 1/8 A	9	18	18	18	18	18	18	18	13
	8	G 1/4 A	35	35	35	35	35	45	40	35	30
	10	G 1/4 A	35	35	35	35	35	45	40	35	
	12	G 3/8 A	45	70	70	70	50	70	65	70	60
	15	G 1/2 A	65	140	90	90	85	120	90	110	80
	18	G 1/2 A	65	100	90	90	65	120	90	110	
	22	G 3/4 A	90	180	180	180	140	230	125	180	140
	28	G 1 A	150	330	310	310	190	320		310	200
	35	G 1 1/4 A	240	540	450	450	360	540		450	400
	42	G 1 1/2 A	290	630	540	540	540	700		540	450
S	6	G 1/8 A	25	13							
	6	G 1/4 A	35	55	40		45	45	40	55	30
	8	G 1/4 A	35	55	40		45	45	40	55	(30)
	10	G 3/8 A	45	90	80		60	70	65	90	60
	12	G 3/8 A	45	90	80		60	70	65	90	(60)
	14	G 1/2 A	65	150	115		145	120	90	110	80
	16	G 1/2 A	65	130	115		100	120	90	110	(80)
	20	G 3/4 A	90	270	180		145	230	125	115	140
	25	G 1 A	150	340	310		260	320		420	200
	30	G 1 1/4 A	240	540	450		360	540		550	400
	38	G 1 1/2 A	290	700	540		540	700		600	450

- Tolerance of tightening torques listed is +10%
- Tightening torques listed relate to counterparts made of steel. If using aluminium or other softer metals we recommend using special calibrated fittings to avoid damage.




Note: we recommend to lubricate the thread and sealing cone of the adaptor.

ASSEMBLY INSTRUCTIONS

ASSEMBLY OF NPT PORT CONNECTIONS


140

1



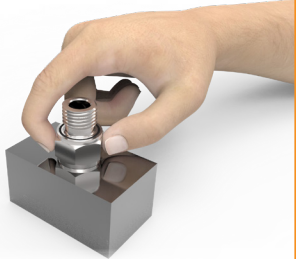
NPT thread
DIN ISO 6149-2/3
ISO 9974-2/3
DIN 3859-T2
ISO 1179-1

2



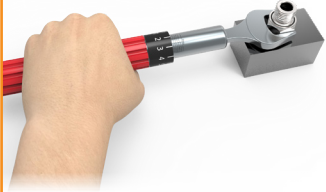
- Lubricate all rubber seals and threads with a high performance lubricant

3



- Screw connector into port until hand-tight

4



- Tighten with a torque wrench according to *Table 3* below

Table 3 - Tightening torques for carbon steel zinc-plated fittings into carbon steel ports

NPT Thread

ASME/ANSI B1.20.1

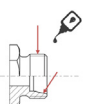
This thread can only be sealed with sealant.

We recommend covering the male thread with suitable sealing tape or applying a fluid sealant

Attention: Male thread covered with two layers of PTFE sealing tape.

Male Thread size NPT	Male stud connector to ASME B 1.20.1 with conical thread
1/8	12
1/4	25
3/8	40
1/2	75
3/4	120

- Tolerance of tightening torques listed is +10%
- Tightening torques listed relate to counterparts made of steel. If using aluminium or other softer metals we recommend using special calibrated fittings to avoid damage.
- Available on request at Fluiconnecto. Tightening torques might need to be adjusted for the material combination used.




Note: we recommend to lubricate the thread and sealing cone of the adaptor.

ASSEMBLY INSTRUCTIONS

ASSEMBLY INSTRUCTIONS


ASSEMBLY OF UNF PORT CONNECTIONS

1



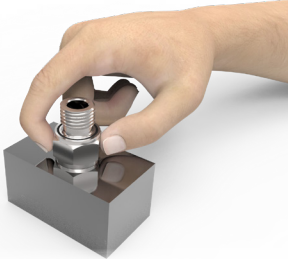
UNF thread
DIN ISO 6149-2/3
ISO 9974-2/3
DIN 3859-T2
ISO 1179-1

2



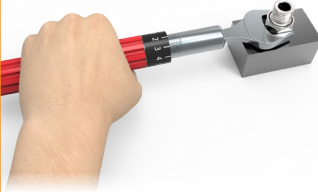
- Lubricate all rubber seals and threads with a high performance lubricant

3



- Screw connector into port until hand-tight

4



- Tighten with a torque wrench according to *Table 4* below

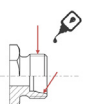
Table 4 - Tightening torques for carbon steel zinc-plated fittings into carbon steel ports

UN/UNF Thread

Sealing by Viton O-ring (ISO 11926)

Product	Thread	Tightening torques for UN/UNF thread and O-ring seal +/- 5%
Series	inch	Nm
L	7/16 - 20 UNF	18
	1/2 - 20 UNF	28
	9/16 - 18 UNF	30
	3/4 - 16 UNF	50
	7/8 - 14 UNF	60
	1 1/16 - 12 UN	95
	1 5/16 - 12 UN	150
	1 5/8 - 12 UN	200
S	1 7/8 - 12 UN	325
	7/16 - 20 UNF	20
	9/16 - 18 UNF	35
	3/4 - 16 UNF	70
	7/8 - 14 UNF	100
	1 1/16 - 12 UN	170
	1 5/16 - 12 UN	270
	1 5/8 - 12 UN	285
1 7/8 - 12 UN	415	

- Tolerance of tightening torques listed is +10%
- Tightening torques listed relate to counterparts made of steel. If using aluminium or other softer metals we recommend using special calibrated fittings to avoid damage.
- Available on request at Fluiconnecto. Tightening torques might need to be adjusted for the material combination used.




Note: we recommend to lubricate the thread and sealing cone of the adaptor.

ASSEMBLY INSTRUCTIONS

ASSEMBLY OF DKO TERMINATION ENDS


142

1



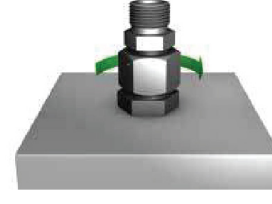
Final assembly of swivel nut fittings must be made in appropriate fitting

2




- Lubricate all rubber seals and threads with a high performance lubricant

3



- Screw on nut by hand into port until hand-tight

4

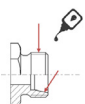


- Then tighten fitting firmly by 1/3 turn (2 flats)

Table 5 - Tightening torques for carbon steel zinc-plated fittings into carbon steel ports

Product	Tube OD	Thread	Number of turns, first assembly	Number of turns, re assembly	Tightening torques for (Nm) +/- 5%
Series	mm				
L	6	M12x1,5	approx. 2/3	approx. 1/3	20
	8	M14x1,5	approx. 2/3	approx. 1/3	30
	10	M16x1,6	approx. 2/3	approx. 1/3	40
	12	M18x1,5	approx. 2/3	approx. 1/3	50
	15	M22x1,5	approx. 2/3	approx. 1/3	70
	18	M26x1,5	approx. 1/2	approx. 1/3	90
	22	M30x2	approx. 1/2	approx. 1/3	120
	28	M36x2	approx. 1/3	approx. 1/3	140
	35	M45x2	approx. 1/3	approx. 1/3	225
	42	M45x2	approx. 1/3	approx. 1/4	350
S	6	M14x1,5	approx. 2/3	approx. 1/3	25
	8	M16x1,5	approx. 2/3	approx. 1/3	40
	10	M18x1,5	approx. 2/3	approx. 1/3	50
	12	M20x1,5	approx. 2/3	approx. 1/3	60
	16	M24x1,5	approx. 1/2	approx. 1/3	85
	20	M30x2	approx. 1/2	approx. 1/3	130
	25	M36x2	approx. 1/3	approx. 1/4	180
	30	M42x2	approx. 1/3	approx. 1/4	260
	36	M52x2	approx. 1/3	approx. 1/4	360

- Tolerance of tightening torques listed is +10%
- Tightening torques listed relate to counterparts made of steel. If using aluminium or other softer metals we recommend using special calibrated fittings to avoid damage.
- Available on request at Fluiconnecto. Tightening torques might need to be adjusted for the material combination used.




Note: we recommend to lubricate the thread and sealing cone of the adaptor.

ASSEMBLY INSTRUCTIONS

ASSEMBLY INSTRUCTIONS


ASSEMBLY OF BSPP TERMINATION ENDS

1




BSPP Thread
DIN ISO 6149-2/3
ISO 9974-2/3
DIN 3859-T2
ISO 1179-1

2



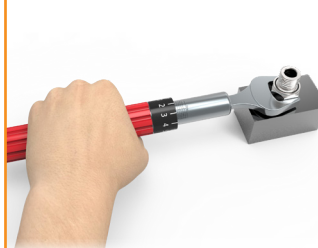
- Lubricate all rubber seals and threads with a high performance lubricant

3



- Screw connector into port until hand-tight

4



- Tighten with a torque wrench according to *Table 6* and *7* below

Table 6 & 7- Tightening torques for carbon steel zink plated fittings

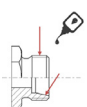
BSPP Termination Ends

Thread Size	Assembly torque (Nm) +/- 5%	
	Form A	Form B
	Nm	Nm
G 1/4	35	35
G 3/8	45	70
G 1/2	65	140
G 3/4	90	180
G 1	150	310
G 1 1/4	240	450
G 1 1/2	290	540

BSPP Female Termination Ends

Thread Size	Assembly torque (Nm) +/- 5%
	Nm
G 1/4	20
G 3/8	35
G 1/2	60
G 5/8	70
G 3/4	115
G 1	140
G 1 1/4	210
G 1 1/2	290

- Tolerance of tightening torques listed is +10%
- Tightening torques listed relate to counterparts made of steel. If using aluminium or other softer metals we recommend using special calibrated fittings to avoid damage.



Note: we recommend to lubricate the thread and sealing cone of the adaptor.

ASSEMBLY INSTRUCTIONS

TUBE PREPARATION


144

1



- Select a suitable cutting ring fitting depending on the tube material to be used - see *Table 3*


2



- Cut tube squarely (max. deviation $\pm 0.5^\circ$)
- Take note of minimum straight end lengths - see *Table 8*

Do not use pipe cutters

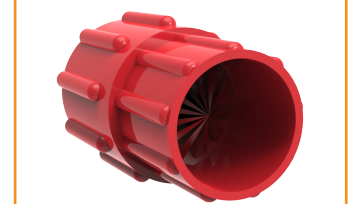
3



- Ensure tube end is round and does not have marks or scratches which could cause leakage

Thin walled / softer alloy tubes are particularly prone to this issue

4



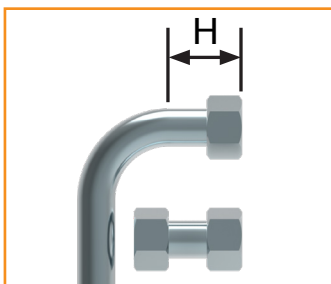
- Remove internal and external burrs
- Max. chamfer $0.2 \times 45^\circ$

Chamfers can damage seals or cause severe damage within the hydraulic system

Table 8 - Minimum Lengths of Tube Straight Ends

SERIES L										
TUBE O.D.	06	08	10	12	15	18	22	28	35	42
H _{min} (mm)	39	39	42	42	45	49	53	53	60	60

SERIES S										
TUBE O.D.	06	08	10	12	14	16	20	25	30	38
H _{min} (mm)	44	44	47	47	54	54	59	68	73	82



Minimum length of straight tube ends:

$H = 2 \times \text{Nut Length}$

ASSEMBLY INSTRUCTIONS

ASSEMBLY INSTRUCTIONS

PRE-ASSEMBLY OF CARBON STEEL CUTTING RING

Note: This procedure requires the use of an appropriately sized **Hardened Pre-Assembly Tool**



1

- Assemble nut and cutting ring onto tube as shown

Ensure cutting ring orientation is correct

2

- Push tube fully into pre-assembly tool
- Tighten nut until the cutting ring makes contact with the tube surface - the torque required will increase noticeably

3

- After the cutting ring has contacted the tube surface, turn the nut another 1/2 turn

4

- Check the penetration of the cutting edge
- An accumulation of material should be visible in front of the cutting edge

5

- Cutting ring may be able to turn on the tube, but should not be able to be moved axially

6

- Insert the pre-assembled tube end into the fitting
- Screw on the nut until a definite increase in the tightening torque is felt

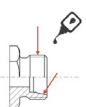
7

- Hold the fitting body firmly and turn the nut another 1/2 turn

Over- or under-tightening of the nut may result in reduced working pressure and / or service life of the connection

8

- Any time the connection has been loosened, re-assembly must be carried out with the same tightening recommendations.
- Use of a spanner to hold the fitting body is recommended



Note: we recommend to lubricate the thread and sealing cone of the adaptor.

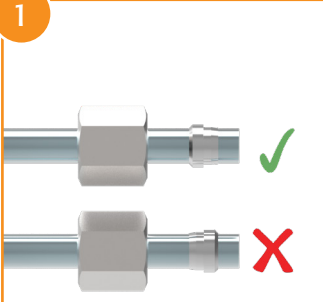
ASSEMBLY INSTRUCTIONS

DIRECT ASSEMBLY OF CARBON STEEL CUTTING RING

Note: We strongly recommend pre-assembling with an appropriately sized **Hardened Pre-Assembly Tool**

146

1



- Assemble nut and cutting ring onto tube as shown

Ensure cutting ring orientation is correct

2



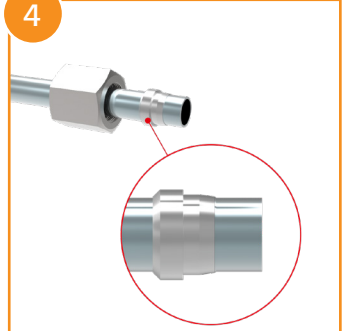
- Push tube fully into fitting
- Tighten nut until the cutting ring makes contact with the tube surface - the torque required will increase noticeably

3



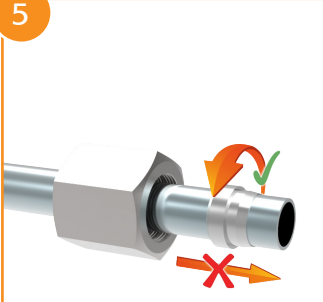
- After the cutting ring has contacted the tube surface, mark the position of the nut
- Turn the nut another 1 turn

4



- Check the penetration of the cutting edge
- An accumulation of material should be visible in front of the cutting edge


5



- Cutting ring may be able to turn on the tube, but should not be able to be moved axially

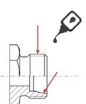
Each fitting should only be used once, to pre-set the cutting ring which it will be assembled to

6



- Any time the connection has been loosened, re-assembly must be carried out with the same torque as used during initial assembly
- Use of a spanner to hold the fitting body is recommended

ASSEMBLY INSTRUCTIONS



Note: we recommend to lubricate the thread and sealing cone of the adaptor.

ASSEMBLY INSTRUCTIONS

DIRECT ASSEMBLY OF CUTTING RING WITH SEALING GASKETS

Note: This procedure requires the use of an appropriately sized **Hardened Pre-Assembly Tool**

1

- Assemble nut and cutting ring onto tube as shown

Ensure cutting ring orientation is correct

2

- Push tube fully into pre-assembly tool
- Tighten nut until the cutting ring makes contact with the tube surface - the torque required will increase noticeably

3

- After the cutting ring has contacted the tube surface, turn the nut another 1 - 1/4 turn

4

- Check the penetration of the cutting edge
- An accumulation of material should be visible in front of the cutting edge

5

- Cutting ring may be able to turn on the tube, but should not be able to be moved axially

6

- Insert the pre-assembled tube end into the fitting
- Screw on the nut until a definite increase in the tightening torque is felt

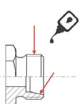
7

- Hold the fitting body firmly and turn the nut another 1/4 turn

Over- or under-tightening of the nut may result in reduced working pressure and / or service life of the connection

8

- Any time the connection has been loosened, re-assembly must be carried out with the same tightening recommendations.
- Use of a spanner to hold the fitting body is recommended



Note: we recommend to lubricate the thread and sealing cone of the adaptor.

TECHNICAL NOTES

TERMINATION END IDENTIFICATION

MEASURING TOOLS

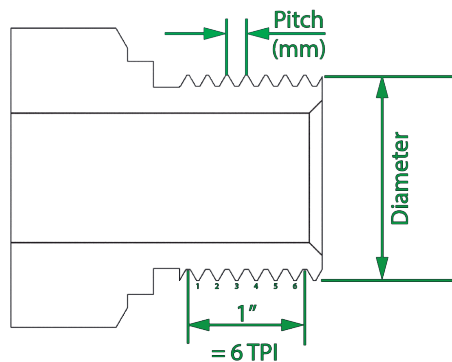


Thread measurement tool kits are generally available from hose or fittings manufacturers to identify the fluid connectors termination ends. They usually include a seat angle gauge, thread pitch gauge and an I.D./O.D. calliper which, when used correctly allow you to make accurate measurements of commonly used connectors.

In some cases multiple tools are combined to make a single, multi-purpose tool.

HOW ARE THREADS DEFINED?

Threads are designated by a diameter (external on the male and internal on the female) and by either the number of teeth per inch (TPI) for Imperial threads, or by the distance between each thread (pitch) in millimetres for metric threads.



The Imperial system is identified by a diameter in inches, followed by the TPI value.

The metric system is identified by prefixing the thread diameter with an “M” followed by the pitch of the thread.

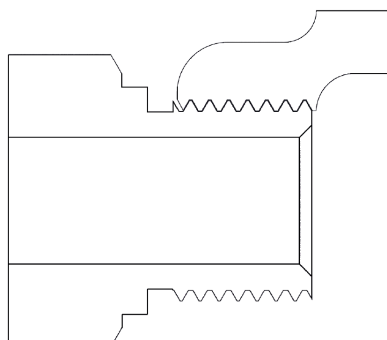
Examples:

3/8”-19 means thread diameter 3/8” and 19 teeth per inch

M22x1.5 means thread diameter 22mm with a thread pitch of 1.5mm

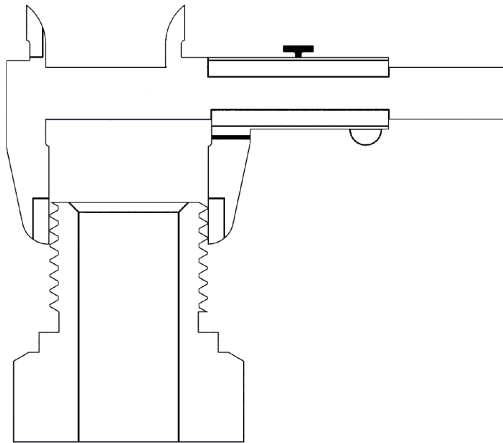
HOW TO MEASURE THREADS

1. Use a thread pitch gauge to determine the number of teeth per inch or the distance between threads in metric connections. Place the gauge on the threads until the fit is accurate - holding the thread pitch gauge and thread against a well lit background can help to ensure a precise reading.

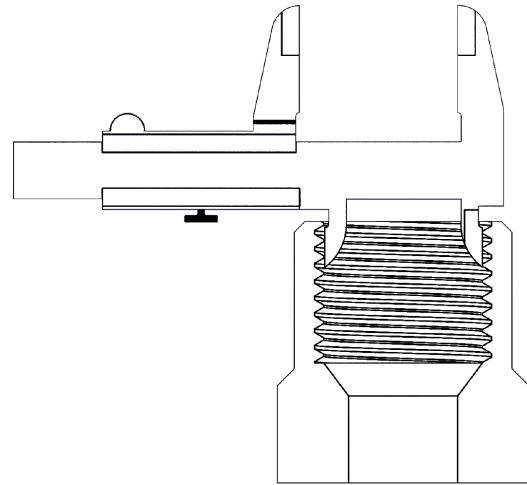


TECHNICAL NOTES

2. Measure the thread diameter with an I.D./O.D. caliper.



How to Measure O.D.
(Male Threads)



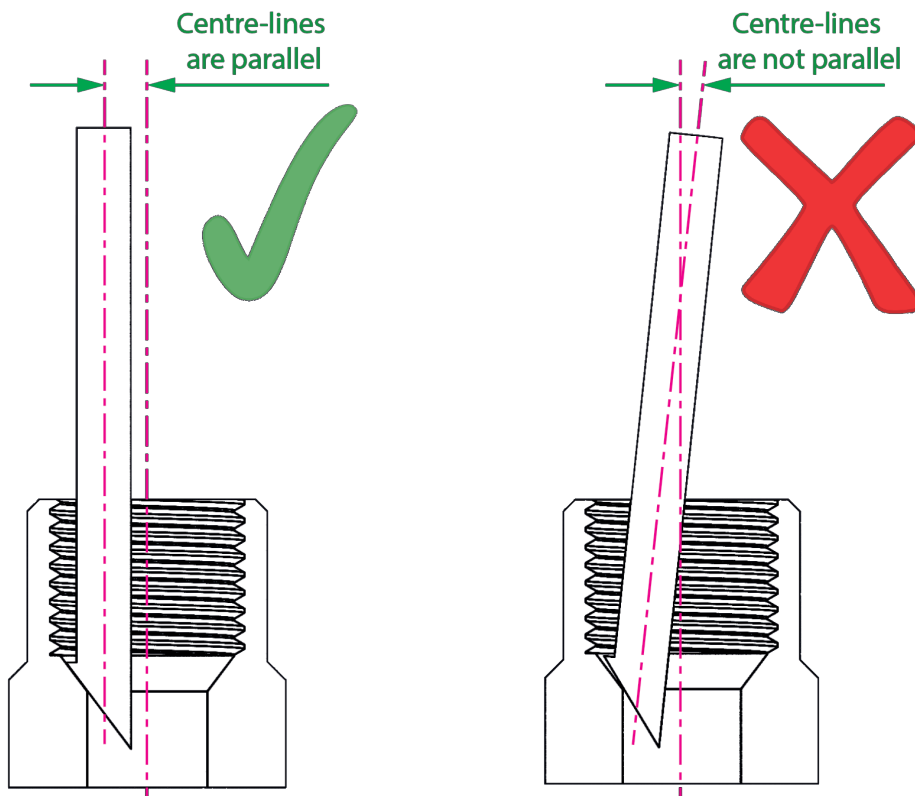
How to Measure I.D.
(Female Threads)

3. Match the measurements to the “End Thread Measurement Chart” at the end of this section.

HOW TO MEASURE SEALING SURFACE ANGLES

Female connections are usually measured by inserting the gauge into the connection and placing it on the sealing surface. If the centrelines of the connection and gauge are parallel, the correct angle has been determined.

Male flare type connectors are usually measured by placing the gauge on the sealing surface. If the centrelines of the connection and gauge are parallel, the correct angle has been determined.



TECHNICAL NOTES

END-THREAD MEASUREMENT CHART

After taking the measurements as described above, compare the diameter value obtained (in millimetres) with the middle column value. The relevant thread size can be read off depending on whether it is a male thread (left column) or a female thread (right column).

MALE O.D.	MM	FEMALE I.D.
-	8.5	3/8"-24 UNF
-	8.7	1/8"-28 GAS
-	9.2	1/8"-27 NPSM
3/8"-24 UNF	9.4	-
1/8"-28 GAS	9.6	-
M10x1	10.0	7/16"-20 UNF
1/8"-27 NPTF	10.4	-
-	10.5	M12x1.5
7/16"-20 UNF	11.0	-
-	11.4	1/2"-20 UNF
-	11.6	1/4"-19 GAS
M12x1.5	12.0	-
-	12.2	1/4"-18 NPSM
1/2"-20 UNF	12.5	M14x1.5
1/4"-19 GAS	13.0	9/16"-18 UNF
1/4"-18 NPTF	13.9	-
M14x1.5	14.0	-
9/16"-18 UNF	14.2	-
-	14.5	M16x1.5
-	14.6	5/8"-18 UNF
-	15.1	3/8"-19 GAS
-	15.5	3/8"-18 NPSM
5/8"-18 UNF	15.7	-
M16x1.5	16.0	11/16"-16 UN
-	16.5	M18x1.5
3/8"-19 GAS	16.6	-
3/8"-18 NPTF	17.3	-
11/16"-16 UN	17.4	3/4"-16 UNF
M18x1.5	18.0	-
-	18.5	M20x1.5
-	18.8	1/2"-14 GAS
3/4"-16 UNF	19.0	13/16"-16 UN
-	19.2	1/2"-14 NPSM
M20x1.5	20.0	-
-	20.3	7/8"-14 UNF
13/16"-16 UN	20.5	M22x1.5
1/2"-14 GAS	20.8	-
-	21.1	5/8"-14 GAS
1/2"-14 NPTF	21.6	-
M22x1.5	22.0	-
7/8"-14 UNF	22.2	-
-	22.5	M24x1.5
5/8"-14 GAS	22.8	-
-	23.8	1"-14 UNS
M24x1.5	24.0	-
-	24.5	M26x1.5
-	24.6	3/4"-14 GAS-NPSM
-	24.9	1.1/16"-12 UN

MALE O.D.	MM	FEMALE I.D.
-	25.0	M27x2
1"-14 UNS	25.3	-
M26x1.5	26.0	-
3/4"-14 GAS	26.3	-
1.1/16"-12 UN	26.7	-
3/4"-14 NPTF	26.9	-
M27x2	27.0	-
-	27.9	1.3/16"-12 UN
-	28.0	M30x2
M30x2	30.0	-
1.3/16"-12 UN	30.1	-
-	30.7	1"-11.5 NPSM
-	30.9	1"-11 GAS
-	31.0	M33x2
-	31.2	1.5/16"-12 UN
M33x2	33.0	-
1"-11 GAS	33.2	-
1.5/16"-12 UN	33.3	-
1"-11.5 NPTF	33.8	-
-	34.0	M36x2
M36x2	36.0	-
-	39.1	1.5/8"-12 UN
-	39.4	1.1/4"-11.5 NPSM
-	39.5	1.1/4"-11 GAS
-	40.0	M42x2
1.5/8"-12 UN	41.1	-
1.1/4"-11 GAS	41.7	-
M42x2	42.0	-
1.1/4"-11.5 NPTF	42.4	-
-	43.0	M45x2
M45x2	45.0	-
-	45.2	1.1/2"-11 GAS
-	45.5	1.1/2"-11.5 NPSM
-	45.7	1.7/8"-12 UN
-	46.0	M48x2
1.7/8"-12 UN	47.5	-
1.1/2"-11 GAS	47.7	-
M48x2	48.0	-
1.1/2"-11.5 NPTF	48.5	-
-	48.8	2"-12 UN
-	50.0	M52x2
2"-12 UN	50.7	-
M52x2	52.0	-
-	57.0	2"-11 GAS
2"-11 GAS	59.4	-
2"-11.5 NPTF	60.6	-
-	61.2	2.1/2"-12 UN
2.1/2"-12 UN	63.3	-

GENERAL SAFETY NOTES

- The products listed in this catalogue are intended for fluid engineering applications only, and cover a range of operating conditions from normal to extreme.
- The assembly instructions, operating conditions and tube recommendations provided are intended to ensure maximum levels of performance and functional reliability. Failure to follow these recommendations may impair the functionality of the product and lead to loss of claims under warranty.
- The hydraulic system must be fully depressurised before tightening or loosening any coupling elements. Failure to do so can cause serious injury or death.
- Piping and tubing lines should be designed so that they are not under tension in an unassembled state and all connectors can be easily assembled.
- Dirt and component damage can impair the function of components and the hydraulic system as a whole. Ensure all components are clean and handled in a clean environment.
- When using lubricants, ensure the instructions and information provided by the manufacturer is observed.

PRESSURE RATINGS

- The nominal Working Pressures (P.N) specified in this catalogue indicate the maximum operating pressure of the coupling under static conditions. This specified value allows for a safety factor (burst pressure vs. working pressure) of 4:1.
- If couplings are subjected to increased loads during operation - for example, due to temperatures over +120°C or high pressure peaks - the baseline operating pressure should be reduced to maintain the 4:1 safety factor.
- The quoted P.N. value assumes that all assembly instructions provided have been correctly followed, including using the recommended torque values when tightening connections.
- The specified P.N. always refers to the Fluiconnecto coupling. In the case of the tubing, always observe the manufacturer's recommendations.

OPERATING TEMPERATURES

COUPLING MATERIALS

- For all steel couplings listed in this catalogue, an operating temperature range of -40°C to +120°C is permissible (cf. DIN 3859-1).
- If these temperature limits are exceeded, the pressure must be decreased accordingly.

SEAL MATERIALS

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Seal Material	Operating Temperature Range	Dry Storage Temperature
NBR (70 - 90 Shore A)	-35°C to +120°C	Up to +25°C
FKM/FPM (75 - 85 Shore A)	-25°C to +200°C	Up to +25°C

SURFACE PROTECTION

- Ring.Safe couplings have a zinc-nickel (ZnNi) surface coating in order to provide extended corrosion resistance.

TIGHTENING TORQUES FOR THREADS

- Recommended tightening torques apply to steel threads with a ZnNi surface coating, and a steel mating material with a breaking stress of 350 N/mm².
- Steel threads with an increased pressure level require a mating material with a breaking stress of ≥ 600 N/mm².
- If other values for strength, modulus of elasticity and friction-surface combinations are used, the user must adapt the tightening torque empirically.
- All provided operating and assembly instructions must be followed in order for the components to fulfil their proper functions.
- Recommended tightening torques must be used in order for assemblies to provide the stated pressure rating and the appropriate safety level maintained.

RECOMMENDED STEEL TUBES

- The following table contains details of recommended tubes for use with the connectors listed in this catalogue.
- The values in the table refer to Class III dynamic loads at 120°C, calculated using the method described in DIN 2413. The tube material is 1.0255+N without corrosion factor supplement.
- There are several different international standards related to the calculation of the required dimensions for tubes under internal pressure. Recommended is DIN EN 13480-3, which explains the various load cases in great detail.

SPECIFICATIONS CONCERNING PERMISSIBLE STEEL TUBES

- Tubes must be seamless, cold-drawn and normalised precision steel tubing as specified in DIN EN 10305-4, material E235+N, mat. no. 1.0308+N or E355, mat. no. 1.0580.
- Tubes must be ordered by specifying the outside and inside diameters to respect the required application working pressure.

TECHNICAL NOTES

TECHNICAL NOTES

TUBE DIMENSIONS			DESIGN CALCULATION PRESSURES AS PER DIN 2413 (bar)				BURST PRESSURE (bar)	
			LOAD CASE I (STATIC, UP TO +120°C)		LOAD CASE III (DYNAMIC, UP TO +120°C)		AS PER ISO 10763	
O.D. (mm)	I.D. (mm)	T (mm)	E235	E355	E2352	E3553	E2355	E3556
6	4.5	0.75	338	491	303	310	1116	1525
6	4	1	450	655	391	400	1573	2149
6	3	1.5	675	983	551	563	2689	3674
6	2	2	900	1310	692	708	4263	5823
6	1.5	2.25	1013	1474	757	774	5379	7347
8	6	1	338	491	303	310	1116	1525
8	5	1.5	506	737	433	443	1824	2491
8	4	2	675	983	551	563	2689	3674
8	3	2.5	844	1228	659	673	3806	5198
10	8	1	270	393	248	253	866	1183
10	7	1.5	405	590	357	365	1384	1890
10	6	2	540	786	458	468	1982	2707
10	5	2.5	675	983	551	563	2689	3674
10	4	3	810	1179	638	652	3555	4856
12	10	1	225	328	209	214	707	966
12	9	1.5	338	491	303	310	1116	1525
12	8	2	450	655	391	400	1573	2149
12	7	2.5	563	819	474	484	2091	2857
12	6	3	675	983	551	563	2689	3674
12	5	3.5	823	1180	624	638	3397	4640
12	4	4	940	1348	692	708	4263	5823
14	12	1	193	281	181	185	598	817
14	11	1.5	289	421	264	270	936	1278
14	10	2	386	561	342	349	1306	1783
14	9	2.5	482	702	415	425	1714	2342
14	8	3	579	842	485	496	2171	2966
14	7	3.5	705	1011	551	563	2689	3674
15	13	1	180	262	170	174	555	758
15	12	1.5	270	393	248	253	866	1183
15	11	2	360	524	321	329	1203	1644
15	10	2.5	450	655	391	400	1573	2149
15	9	3	540	786	458	468	1982	2707
16	14	1	169	246	160	163	518	708
16	13	1.5	253	368	233	239	806	1100
16	12	2	338	491	303	310	1116	1525
16	11	2.5	422	614	370	378	1454	1986
16	10	3	506	737	433	443	1824	2491
16	8	4	705	1011	551	563	2689	3674
18	16	1	150	218	143	146	457	624
18	15	1.5	225	328	209	214	707	966
18	14	2	300	437	273	279	975	1332
18	13	2.5	375	546	333	341	1263	1725
18	12	3	450	655	391	400	1573	2149
18	10	4	627	899	500	511	2281	3115
20	17	1.5	203	295	190	194	631	861
20	16	2	270	393	248	253	866	1183
20	15	2.5	338	491	303	310	1116	1525
20	14	3	405	590	357	365	1384	1890
20	13	3.5	494	708	408	417	1671	2283
20	12	4	564	809	458	468	1982	2707
20	10	5	705	1011	551	563	2689	3674

TECHNICAL NOTES

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TUBE DIMENSIONS			DESIGN CALCULATION PRESSURES AS PER DIN 2413 (bar)				BURST PRESSURE (bar)	
			LOAD CASE I (STATIC, UP TO +120°C)		LOAD CASE III (DYNAMIC, UP TO +120°C)		AS PER ISO 10763	
O.D. (mm)	I.D. (mm)	T (mm)	E235	E355	E2352	E3553	E2355	E3556
22	20	1	123	179	118	121	370	505
22	19	1.5	184	268	173	177	569	777
22	18	2	245	357	227	232	779	1064
22	17	2.5	307	447	278	285	1000	1366
22	16	3	368	536	328	335	1236	1688
22	15	3.5	449	643	376	384	1486	2030
22	14	4	513	735	422	431	1754	2396
25	22	1.5	162	236	154	157	496	678
25	21	2	216	314	201	206	676	924
25	20	2.5	270	393	248	253	866	1183
25	19	3	324	472	292	299	1065	1455
25	18	3.5	395	566	336	343	1275	1741
25	17	4	451	647	378	386	1496	2044
25	16	4.5	508	728	418	428	1732	2365
25	15	5	564	809	458	468	1982	2707
28	25	1.5	145	211	138	141	440	601
28	24	2	193	281	181	185	598	817
28	23	2.5	241	351	223	228	763	1043
28	22	3	289	421	264	270	936	1278
28	21	3.5	353	506	303	310	1116	1525
28	20	4	403	578	342	349	1306	1783
30	26	2	180	262	170	174	555	758
30	25	2.5	225	328	209	214	707	966
30	24	3	270	393	248	253	866	1183
30	23	3.5	329	472	285	291	1031	1408
30	22	4	376	539	321	329	1203	1644
30	20	5	470	674	391	400	1573	2149
30	18	6	564	809	458	468	1982	2707
35	32	1.5	121	173	111	114	348	475
35	31	2	161	231	147	150	471	643
35	30	2.5	201	289	181	185	598	817
35	29	3	242	347	215	220	730	997
35	27	4	322	462	280	286	1007	1375
35	25	5	403	578	342	349	1306	1783
38	34	2	148	213	136	139	432	589
38	33	2.5	186	266	168	171	547	748
38	32	3	223	319	199	203	667	911
38	30	4	297	426	260	265	917	1253
38	28	5	371	532	318	325	1185	1619
38	26	6	445	639	373	382	1472	2011
38	24	7	519	745	427	436	1783	2436
38	22	8	594	851	478	488	2121	2897
42	39	1.5	101	144	93	96	288	393
42	38	2	134	193	123	126	388	530
42	37	2.5	168	241	153	156	492	672
42	36	3	201	289	181	185	598	817
42	34	4	269	385	237	242	820	1120
42	32	5	336	481	290	297	1055	1441

TECHNICAL NOTES

TECHNICAL NOTES

MEDIA COMPATIBILITY

- Ring.Safe 24° couplings are designed for use with normal commercially available hydraulic fluids at temperatures up to +120°C.
- If intended to be used with non-standard media - eg: low-flammability pressure fluids - please consult our technical helpdesk.



WE KEEP
IT RUNNING

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