

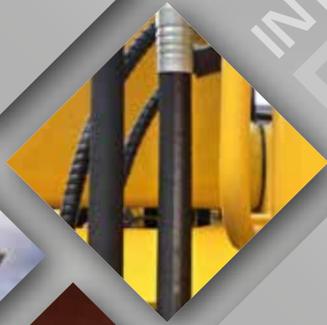
QUALITY

INTELLIGENT DESIGN

EXCELLENCE

PARTNERSHIP

INTEGRATED SOLUTIONS



ROCKMASTER

HOSE RANGE

 **manuli**[®]
HYDRAULICS

Why Manuli?

Manuli Hydraulics is focused on achieving excellence in the design, manufacture and supply of fluid conveyance solutions, components and associated equipment for high pressure hydraulics, refrigeration and oil and marine applications.

Quality and sustainable development are the driving forces of all Manuli Hydraulics' activities, with an aim to guarantee worldwide availability of technical and commercial support for its products and services.



An integrated approach

Modern hydraulics applications require robust fluid connector solutions with guaranteed long lasting performance. To that end, Manuli Hydraulics offers a complete range of hoses, fittings and assembly equipment which are designed to work seamlessly together. This harmonised approach allows us to guarantee the quality and performance of hose assemblies in a way that our competitors simply cannot match.

From design to manufacture and assembly, our commitment to this unified philosophy makes us the global leader in providing integrated solutions for hydraulic connector applications.





Setting new standards - raising the bar

The ever increasing demands placed on components in modern hydraulic systems mean it is now more critical than ever that manufacturers can rely on their hoses to perform to the expected standard.

To ensure this high level of safety and reliability is met, Manuli Hydraulics have standardised the traditional wire braid hose range on the Rockmaster family.

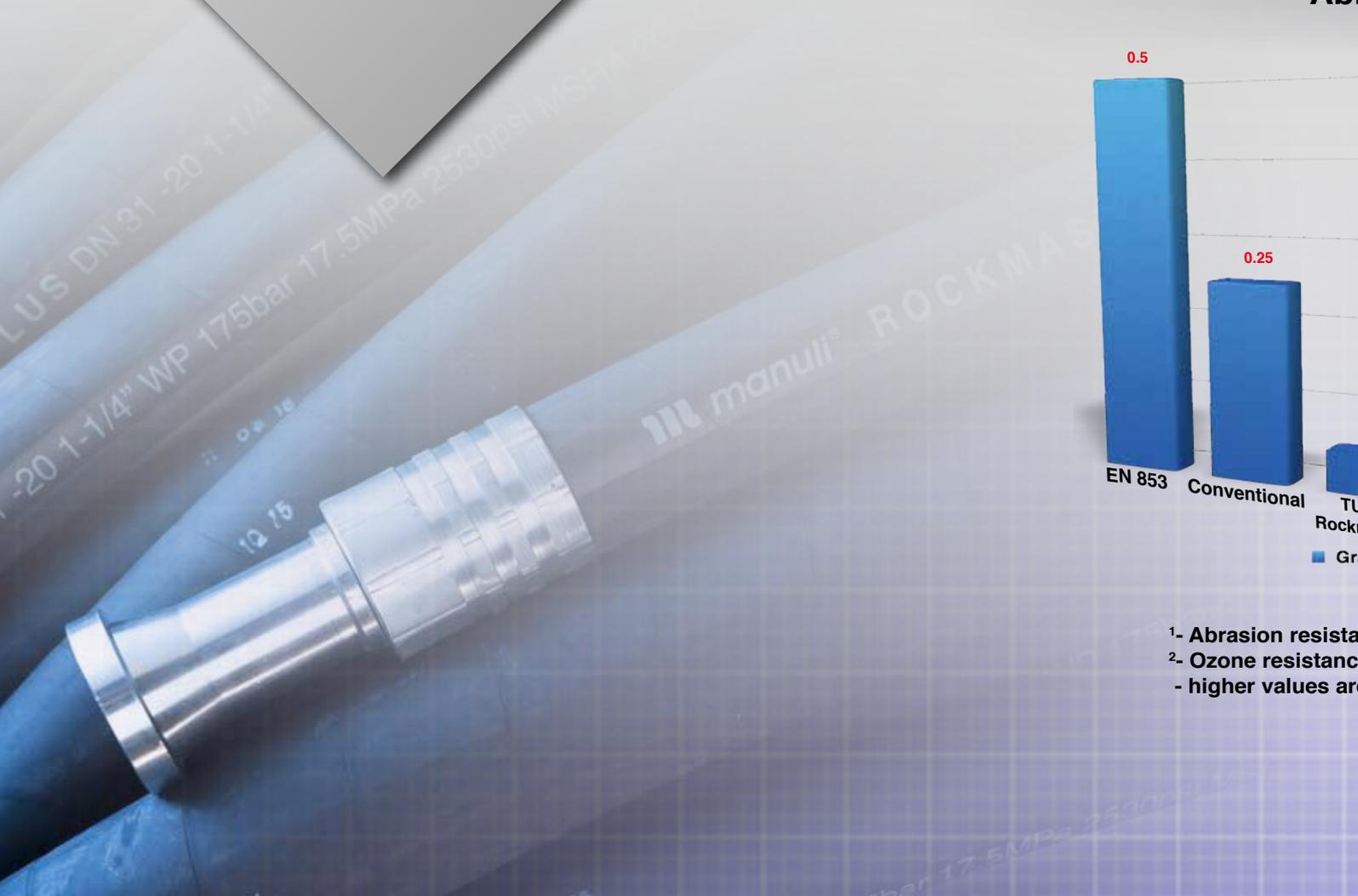
The Core Manuli Hose Range

The Rockmaster range provides increased performance and durability, whilst still retaining a competitive pricing policy.

With a large number of mining, marine and third party approvals, Rockmaster hoses are intended to reinforce the Manuli brand through their many advantages to customers.

Rockmaster Benefits

- Suitable for a range of scenarios including open pit and underground mining, marine equipment and tough hydraulics
- Fully integrated with Manuli's extensive range of fittings
- Flame resistance to a wide range of international standards
- Anti-static and anti-toxic cover compounds
- Exceptionally robust hose structure
- High ozone and weather resistance
- Superior abrasion resistance
- High temperature resistance
- Safe and reliable



Abr



1- Abrasion resistance
2- Ozone resistance
- higher values are

Evolution of Tractor to Rockmaster

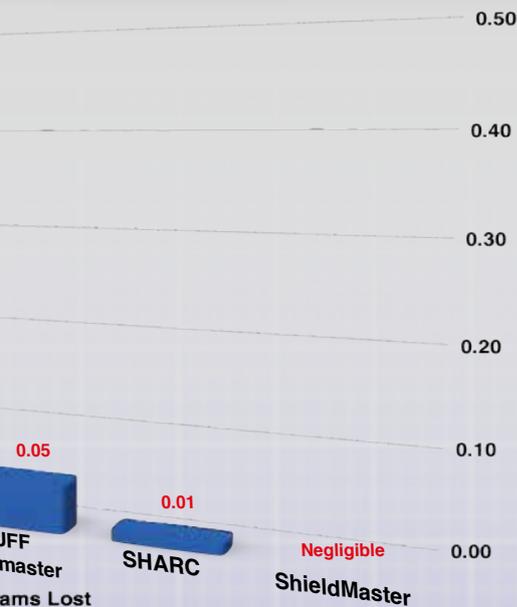
Going forwards, the Tractor hose family will be replaced by the improved Rockmaster range as the core hose range offered.

We recommend the substitution of each line of Tractor hose with the Rockmaster equivalent:

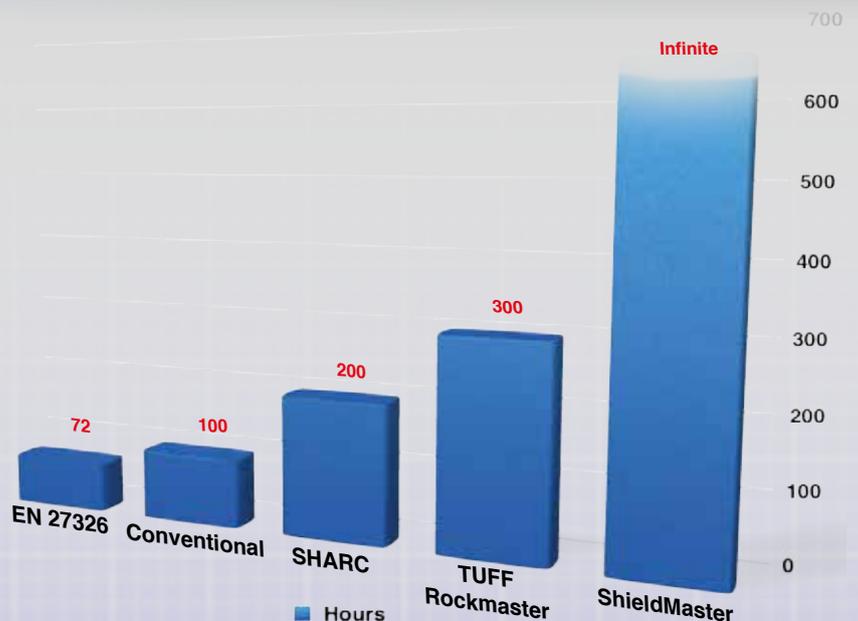
- **Tractor/1SN → Rockmaster/1SN**
- **Tractor/2SN → Rockmaster/2SN**
- **Tractor/1SC → Rockmaster/1SC**
- **Tractor/2SC → Rockmaster/2SC**



Wear Resistance¹



Ozone Resistance²



¹Wear test performed to test conditions required by ISO 6945 - 2,000 cycles with a mass of 2.5kg - lower values are better
²Ozone test performed to test conditions required by ISO 27326 - 50 ppm Ozone concentration, at 40°C, 20% cover elongation - lower values are better

ROCKMASTER HOSE RANGE

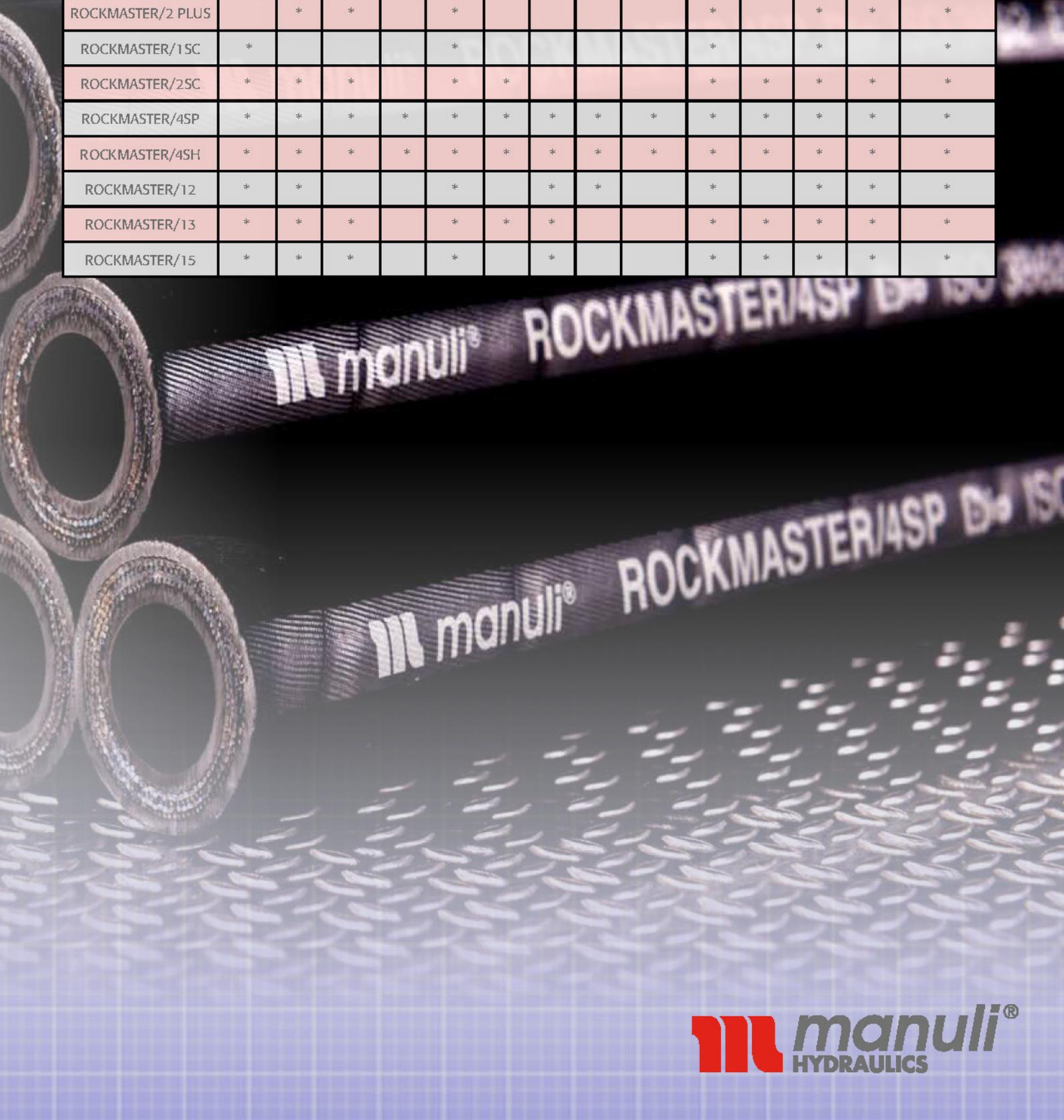
HOSE	HOSE STRUCTURE	NORM	KEY PERFORMANCE
ROCKMASTER/1SN	Wire braided	EN 853, ISO 1436-1SN, SAE J517-100R1AT	Abrasion, weather & heat resistance
ROCKMASTER/2SN	Wire braided	EN 853, ISO 1436-2SN, SAE J517-100R2AT	Abrasion, weather & heat resistance
ROCKMASTER/2ST	Wire braided	EN 853, ISO 1436-2ST	Abrasion, weather & heat resistance
ROCKMASTER/2 PLUS	Wire braided	EN 853, ISO 1436-2SN, SAE J517-100R2AT, perf. BCS174, ISO 6805-4	Abrasion, weather & heat resistance
ROCKMASTER/1SC	Wire braided	EN 857, ISO 11237-1SC	Abrasion, weather & heat resistance
ROCKMASTER/2SC	Wire braided	EN 857, ISO 11237-2SC, SAE J517-100R16	Abrasion, weather & heat resistance
ROCKMASTER/4SP	Wire spiralled	EN 856, ISO 3862-4SP	Abrasion, weather & heat resistance
ROCKMASTER/4SH	Wire spiralled	EN 856, ISO 3862-4SH	Abrasion, weather & heat resistance
ROCKMASTER/12	Wire spiralled	EN 856, ISO 3862-R12, SAE J517-100R12	Abrasion, weather & heat resistance
ROCKMASTER/13	Wire spiralled	EN 856, ISO 3862-R13, SAE J517-100R13	Abrasion, weather & heat resistance
ROCKMASTER/15	Wire spiralled	ISO 3862-R15, SAE J517-100R15	Abrasion, weather & heat resistance

HOSES BY WORKING PRESSURE

HOSE SIZE	WORKING PRESSURE (bar)													
	5	6	8	10	12	16	19	25	31	38	51	60	63	76
DN	5	6	8	10	12	16	19	25	31	38	51	60	63	76
dash	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32	-38	-40	-48
ROCKMASTER/1SN		225	215	180	160	130	105	90	65	50	40	50		
ROCKMASTER/2SN		400	350	350	350	250	215	175	140	100	90	90		
ROCKMASTER/2ST	415	400	350	350	350	250	215	175	140	100	90			
ROCKMASTER/2 PLUS		450		400	362	340	310	240	175	146	130			70
ROCKMASTER/1SC		260	250	225	190	150	150	110	75	50	50			
ROCKMASTER/2SC	420	400	350	330	275	250	245	210	140	100	90		70	45
ROCKMASTER/4SP		485		450	420	380	380	320	210	185	175			
ROCKMASTER/4SH						450	420	385	350	300	250			
ROCKMASTER/12				280	280	280	280	280	210	175	175			
ROCKMASTER/13		690		690	620		350	350	350	350	350			
ROCKMASTER/15							420	420	420	420				

HOSES BY APPROVALS

	HYDRAULICS, MARINE EQUIPMENT TYPE APPROVALS									MINING SAFETY TYPE APPROVALS				GOVERNMENT, SAFETY AND SPECIAL TYPE APPROVALS
	ABS	BV	DNV-GL	KRS	LOYD'S REGISTER	RINA	MED	NK	RUSSIAN MARITIME	MSHA	POLISH "B"	FRAS	MA	CU-TR
ROCKMASTER/1SN	*	*	*		*		*	*	*	*		*	*	*
ROCKMASTER/2SN	*	*	*		*	*	*	*	*	*	*	*	*	*
ROCKMASTER/2ST	*	*			*					*	*	*		*
ROCKMASTER/2 PLUS		*	*		*					*	*	*	*	*
ROCKMASTER/1 SC	*				*					*		*		*
ROCKMASTER/2SC	*	*	*		*	*				*	*	*	*	*
ROCKMASTER/4SP	*	*	*	*	*	*	*	*	*	*	*	*	*	*
ROCKMASTER/4SH	*	*	*	*	*	*	*	*	*	*	*	*	*	*
ROCKMASTER/12	*	*			*		*	*		*		*	*	*
ROCKMASTER/13	*	*	*		*	*	*			*	*	*	*	*
ROCKMASTER/15	*	*	*		*		*			*	*	*	*	*





www.manuli-hydraulics.com

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