

DO YOU REALLY KNOW MANULI EXTREME PRODUCTS?



Manuli Hydraulics design and develop **EXTREME PRODUCTS** for very high performance solutions.

Many technological **advantages** are offered by the Manuli Extreme products lines compared to standard ("Universal") products:

- Compactness and flexibility
- High pressure
- High temperature
- High abrasion resistance
- High ozone resistance and mining approved properties

Manuli Hydraulics offers also Universal products to meet cost effective demand.

How to recognize MANULI Extreme products?

Have a look at the parameters explained in the next pages.

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Fluid connectors, solid solutions



DO YOU REALLY KNOW MANULI EXTREME PRODUCTS?

ROCKMASTER/1SC has better performance than the best 1SN hose in the market. It exceeds the norm 1SN and it is positioned also better in the comparison with best in class 1SN product lines, for example **GH663 by AEROQUIP** (Triple Crown hose)

FEATURE	MANULI ROCKMASTER/1SC
Compactness and flexibility (reduced bend radius)	Excellent Exceed the norm
Pressure rating (robust design)	Excellent Exceed the norm
Max service temperature, category 120°C rather than the standard 100°C	Excellent Exceed the norm
High abrasion resistance + high ozone resistance (>300 hours dynamic ozone test ISO 10960) cover, thanks to "rockmaster" special rubber	Excellent Exceed the norm

Technical data in details

DN	WP (bar) (*)		Diff. % Manuli vs Aeroquip	Min. Bend Radius (mm) (**)		Diff. % Manuli vs Aeroquip
	Manuli ROCKMASTER/1SC	Aeroquip GH663		Manuli ROCKMASTER/1SC	Aeroquip GH663	
6	260	255	2%	50	100	-50%
8	250	225	11%	55	115	-52%
10	225	235	-4%	60	130	-54%
12	190	200	-5%	70	180	-61%
16	150	140	7%	90	200	-55%
19	150	138	9%	100	240	-58%
25	110	103	7%	160	300	-47%
31	75	69	9%	210	420	-50%
38	50	52	-4%	300	500	-40%
51	50	41	22%	400	630	-37%

(*) Higher WP is better

(**) Lower Min Bend Radius is better



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DO YOU REALLY KNOW MANULI EXTREME PRODUCTS?

ROCKMASTER/2PLUS is the Manuli hose line designed to offer very high pressure resistance compared to 2SN spec., also better than the best in class products, for example the **GH793 by AEROQUIP** (Triple Crown hose).

Max. service temperatures is **100°C** (for higher temperatures Manuli proposes upgraded compact hose structures such as Eternity/2, with peak temperature 135°C, used in particular by the OEM high demanding market).

ROCKMASTER/2PLUS remains the most competitive and high performance wire braided hose, integrated with fitting solution, for tough environments such as mining and marine applications.

FEATURE	MANULI ROCKMASTER/2PLUS
Compactness and flexibility (reduced bend radius)	Very good Exceed the norm
Pressure rating (robust design)	Excellent Exceed the norm
Max service temperature, category 120°C rather than the standard 100°C	Good Exceed the norm
High abrasion resistance + high ozone resistance (>300 hours dynamic ozone test ISO 10960) cover, thanks to "rockmaster" special rubber	Excellent Exceed the norm

Technical data in details

DN	WP (bar) (*)		Diff. % Manuli vs Aeroquip	Min. Bend Radius (mm) (**)		Diff. % Manuli vs Aeroquip
	Manuli ROCKMASTER/2PLUS	Aeroquip GH793		Manuli ROCKMASTER/2PLUS	Aeroquip GH793	
6	450	448	0,4%	45	100	-55%
8	400	350	14%	85	115	-26%
10	400	400	-	127	130	-2%
12	362	345	5%	150	180	-17%
16	340	276	23%	200	200	-
19	310	241	29%	230	240	-4%
25	240	207	16%	300	300	-
31	175	172	2%	380	420	-10%
38	146	138	6%	450	500	-10%
51	130	110	18%	600	630	-5%

(*) Higher WP is better

(**) Lower Min Bend Radius is better



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ETERNITY/2 is the two wire braid compact hose solution, exceeding the 2SC performance requirements, with peak service temperature **135°C**. Its performance, including Max service temperature are higher than the best in class products, for example **GH781 by Aeroquip** (Triple Crown hose).

ETERNITY/2 is a well-known hose solution of Manuli, used since years by relevant OEMs worldwide and appreciated by the market.

FEATURE	MANULI ETERNITY/2
Compactness and flexibility (reduced bend radius)	Excellent Exceed the norm
Pressure rating (robust design)	Excellent Exceed the norm
Max service temperature, category 135°C rather than the standard 100°C	Excellent Exceed the norm
High abrasion resistance + high ozone resistance (>300 hours dynamic ozone test ISO 10960) cover, thanks to "rockmaster" special rubber	Excellent Exceed the norm

Technical data in details

DN	WP (bar) (*)		Diff. % Manuli vs Aeroquip	Min. Bend Radius (mm) (**)		Diff. % Manuli vs Aeroquip
	Manuli ETERNITY/2	Aeroquip GH781		Manuli ETERNITY/2	Aeroquip GH781	
6	450	448	0,4%	45	50	-10%
8	400	350	14%	55	55	-
10	365	366	-0,3%	65	65	-
12	350	310	13%	80	90	-11%
16	300	276	9%	90	100	-10%
19	300	241	24%	120	120	-
25	225	207	9%	160	150	7%
31	-	172	-	-	210	-
38	-	138	-	-	250	-
51	-	110	-	-	315	-

(*) Higher WP is better

(**) Lower Min Bend Radius is better



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DO YOU REALLY KNOW MANULI EXTREME PRODUCTS?

SHIELDMASTER hose line is the product line able to reach very low temperatures, **-55°C** without cracks, present compact structures and is optimum counter reference for the best in class product like **GH120 by Aeroquip** (Triple Crown hose).

FEATURE	MANULI SHIELDMASTER
Compactness and flexibility (reduced bend radius)	Very good Exceed the norm
Pressure rating (robust design)	Excellent Exceed the norm
Min. service temperature, category -55°C rather than the standard -40°C	Excellent Exceed the norm
High abrasion resistance + high ozone resistance (>300 hours dynamic ozone test ISO 10960) cover	Excellent Exceed the norm

Technical data in details

DN	WP (bar) (*)		Diff. % Manuli vs Aeroquip	Min. Bend Radius (mm) (**)		Diff. % Manuli vs Aeroquip
	Manuli SHIELDMASTER	Aeroquip GH120		Manuli SHIELDMASTER	Aeroquip GH120	
6	420	414	1%	45	51	-12%
8	345	-	-	55	-	-
10	345	345	0%	65	63	3%
12	345	310	11%	120	89	35%
16	276	276	0%	90	102	-12%
19	276	241	15%	120	121	-1%

(*) Higher WP is better

(**) Lower Min Bend Radius is better

