

森佩理特液压工程

版本: 2006 中文/英文 (CHIN/E)



森佩理特 - 成就辉煌全世界 SEMPERIT - SUCCESSFUL ALL OVER THE WORLD

奥地利企业森佩理特股份公司在研发、生产和销售优质橡胶和塑料产品方面是全球领先的企业。公司创建于1824年，属于欧洲大陆历史最悠久的橡胶产品制造商之一。公司在优质生产和产品应用上富有传统和专长，在各个领域致力于最高质量，在服务上坚持面向客户，所有这些都是公司持续立足于全球领先地位的保证。

The Austrian-based Semperit AG is one of the world's leading companies active in developing, manufacturing and marketing high quality rubber and plastic products. Founded in 1824, the company is one of the Europe's oldest rubber manufacturers. Based on our company's long tradition, our expertise in the production and use of rubber and plastic products, together with our commitment to maintain the highest quality standards in every area, as well as our dedication to customer service all guarantee a continued strengthening of our position as a global leader.



我公司的四个业务部门：**Sempermed**、**Semperflex**、**Sempertrans** 和 **Semperform**，为我们的客户提供一整套创新的优质产品和解决方案，从医疗和工业用手套到液压和工业用软管以及橡胶片材，直至工业用成型件和传输带。Semperflex业务范围中的液压软管部门研发和生产液压软管，并且销售到全世界。Semperflex在奥地利、捷克、泰国和中国的工厂，在多年技术积累的基础上生产优质产品。对产品研发的重视和持续投入保证了产品质量和品种不断地适应当今市场变化的需要。我们的产品除了多种标准化的软管型号外，主要还有独特的，用于现代化高效液压装置的，带有超强效率的紧凑型软管以及耐极端高压和温度的螺旋型软管。当然，我们也提供优质的液压连接元件和软管装配件。所有这些使我们相对于竞争对手一直处于领先地位。

*Our **Sempermed**, **Semperflex**, **Sempertrans** and **Semperform** divisions offer our customers a comprehensive and innovative assortment of high quality products and solutions, from medical and industrial gloves to hydraulic, industrial hoses and rubber sheet, industrial mouldings, as well as conveyor belts. The Semperflex hydraulic hose division develops, manufactures and markets hydraulic hoses throughout the world. These high quality products are produced in our Semperflex plants in Austria, China, the Czech Republic and Thailand based on know-how gained over many years. Significant ongoing investments in R&D provide us with continually improving quality and products highly adapted for today's markets. Our products also include in addition to a multitude of standardised hose types particularly compact hoses with extraordinary performance values designed for state-of-the-art high performance hydraulic applications or spiral hoses designed to resist extreme pressure and temperature conditions. Naturally, in addition to hoses we also provide hydraulic fittings and hose assemblies with outstanding quality. These will secure a leading position against our competitors.*

液压软管

HYDRAULIC HOSES

适用于矿物油和合成油基的液压液体(HL,HLP,HLPD,HVLP),水基乳剂(HFAE, HFAS, HFB)和水乙二醇溶剂(HFC), 以及植物油基和矿物油基的润滑剂。可适用于最大压力为50bar [725psi]和最高温度为80°C[175 °F]的压缩空气。

不适用于氯化碳氢化合物基以及磷酸酯基的液压液体(HFD-R/S/T)。

通常生物可降解液压液体也适用, 但是可能因为生产厂家特殊的添加材料而受到限制。在具体情况下, 出于安全的考虑, 我们请求垂询。请注意: 同时使用最大工作压力、最高温度和最小弯曲半径, 会缩短产品寿命!

Suitable for hydraulic fluids on mineral oil and synthetic oil basis (HL, HLP, HLPD, HVLP), for oil-water-emulsions (HFAE, HFAS, HFB) and water-glycol liquids (HFC), for vegetable and mineral oil based lubricants.

Suitable for compressed air up to a maximum of 50 bar (725 psi) and 80°C (175°F) by limited service life.

Not suitable for hydraulic fluids based on chlorinated hydrocarbons or phosphate ester (HFD-R/S/T).

Generally also suitable for biologically degradable hydraulic liquids (HETG, HEPG, HEES) however limited by fluid additives.

Please check suitability with us.

Please note: simultaneous operating conditions of maximum working pressure at maximum temperature and minimum bend radius reduce service life!

动态工作压力数值
DYNAMIC WORKING PRESSURE VALUES

标准直径 DN			SEMPER PILOT	SAE 100 R 1 AT	EN 853 1 SN 1 SN EHT SAE 100 R 1 S	EN 857 1 SC	SEMPER PAC 1 SN-K	AGRO FLEX	SAE 100 R 17	SAE 100 R 2 AT	SAE 100 R 16	EN 853 2 SN 2 SN EHT SAE 100 R 2 S	EN 857 2 SC	SEMPER SHIELD SSC	SEMPER PAC 2 SN-K	SUPERPAC		SAE 100 R 4	
mm	inch	dash														SPC 2	SPC 3		
5	3/16	-3			250							415							
6	1/4	-4	125	192	225	225	290	210	210	350	350	400	400	400	450				
8	5/16	-5	125	175	215	215	250	210	210	297	297	350	350	375	420				
10	3/8	-6	125	157	180	180	230	210	210	280	280	330	330	350	385	425	500		
12	1/2	-8	125	140	160	160	200	210	210	245	245	275	275	300	345	380	470		
16	5/8	-10		105	130	130	150		210	192	192	250	250	275	290	350	410		
19	3/4	-12		87	105	105	125		210	157	157	215	215	235	280	280	375	21	
25	1	-16		70	88	88	110		210	140	140	165	165	185	200	230	310	17	
31	1 1/4	-20		43	63		100			113		125						14	
38	1 1/2	-24		35	50					87		90						10	
51	2	-32		26	40					78		80						7	

标准直径 DN			EN 856 4 SP	SEMPER SHIELD SSP	EN 856 4 SH SEMPER SHIELD SSH	EN 856 SAE 100 R 12	EN 856 SAE 100 R 13	SAE 100 R 15	FLEXLINE 4000	SEMPERJET									
mm	inch	dash								1 SN	150	210	250	280	315	2 SN	2 SC	Longlife	
6	1/4	-4								250	150	210	250			400	400	500	
8	5/16	-5								220			250		315	400	400	500	
10	3/8	-6	445	445		280			280	220			250	280		400	400	500	
12	1/2	-8	425	425		280			280	220			250			400	400	500	
16	5/8	-10	350	350		280			280										
19	3/4	-12	350	350	420	280	350	420	280										
25	1	-16	280	280	380	280	350	420	280										
31	1 1/4	-20	210		345	210	350	420											
38	1 1/2	-24	185		290	175	350	420											
51	2	-32	165		250	175	350												

重要提示:

为了向客户提供广泛的咨询, 我们精心制作了这本样册。这里的所有信息都是目前最新的技术, 是我们多年以来测试和检验的结果。对于媒体的定义我们以ISO7620-1986(E)标准中的耐久性能为基础。工作环境会影响到每一种产品的使用。产品的安全性仅局限于我们提供的书面产品信息为基础的条件。任何不当的操作, 如挤压、撕裂、拉扯、使用不允许的媒体等等, 都不能达到这个安全性。危险警告! 在将软管使用于新的或未经测试的媒体, 或者用于未在产品信息之内的装置前, 必须向专业经销商或者森佩理特应用技术员获取书面信息。所有软管装置必须有规律地经过安全操作检查。软管如有瑕疵, 特别是外壳, 出于安全原因必须将软管装置替换。目录的出版以及数据统计时间: 2006年11月, 第一版。我们为客户不断开发新产品。欲想获取最新的产品信息请随时垂询 www.semperflex.com, 或我们的专业销售商, 或森佩理特应用技术员。保留随时更改权。

IMPORTANT NOTES:

This catalogue has been carefully prepared to provide our customers with comprehensive advice. The information contained herein is the result of many years of tests and trials or based on the endurance specifications defined by ISO 7620-1986(E) for the specified media. The individual operating conditions affect the use of every product. Products can therefore only offer the safety that is expected on the basis of the information provided by us in the written product information. In the event of improper treatment such as crushing, tearing, stretching and loading with impermissible media this safety cannot be expected. Danger! Before using with new or untested media or for applications that are not included in the product information, written information must be obtained from a specialist dealer or a Semperit applications engineer. All hoses must be regularly checked for operating safety. In the event of damage, in particular to the hose cover, hoses must be replaced for safety reasons. Publication date/State of catalogue information: 11/2006, 1st edition. We continuously work at advancing our products for our customers. Please keep yourself informed regularly about the most recent product specifications either at www.semperflex.com or get in touch with our specialist dealers or Semperit applications engineers. We reserve the right to make amendments at any time.

SAE J 517 标准的液压软管
HYDRAULIC HOSES ACCORDING TO SAE J 517



SAE 100 R 1 AT

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
inch	dash	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
1/4	-04	6,4	11,1	13,4	192	2785	384	770	100	0,20
5/16	-05	7,9	12,7	15,0	175	2540	350	700	115	0,23
3/8	-06	9,5	15,1	17,4	157	2280	314	628	125	0,31
1/2	-08	12,7	18,3	20,6	140	2030	280	560	180	0,38
5/8	-10	15,9	21,4	23,7	105	1525	210	420	205	0,42
3/4	-12	19,0	25,4	27,7	87	1260	174	348	240	0,57
1	-16	25,4	33,3	35,6	70	1015	140	280	300	0,81
1-1/4	-20	31,8	40,5	43,5	43	625	86	172	420	1,17
1-1/2	-24	38,1	46,8	50,6	35	510	70	140	500	1,38
2	-32	50,8	60,2	64,0	26	375	52	104	630	1,85

软管结构:

内壁: 耐油合成橡胶
芯材: 单层高强度钢丝编织层
外壳: 耐磨、抗臭氧和气候腐蚀合成橡胶,
如需MSHA外壳质量请垂询
温度范围(媒体): -40°C 至 +100°C

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: one high tensile steel wire braid
Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA cover on request
Temperature range (medium): -40°C to +100°C



SAE 100 R 2 AT

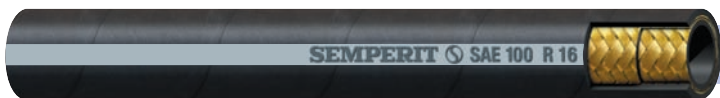
标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
inch	dash	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
1/4	-04	6,4	12,7	15,0	350	5075	700	1400	100	0,30
5/16	-05	7,9	14,3	16,6	297	4310	594	1188	115	0,36
3/8	-06	9,5	16,7	19,0	280	4060	560	1120	125	0,49
1/2	-08	12,7	19,8	22,2	245	3555	490	980	180	0,56
5/8	-10	15,9	23,0	25,4	192	2785	384	768	205	0,60
3/4	-12	19,0	27,0	29,3	157	2280	314	628	240	0,83
1	-16	25,4	34,9	38,1	140	2030	280	560	300	1,22
1-1/4	-20	31,8	44,5	48,3	113	1640	226	452	420	1,91
1-1/2	-24	38,1	50,8	54,6	87	1260	174	348	500	2,17
2	-32	50,8	63,5	67,3	78	1130	156	312	630	2,74

软管结构:

内壁: 耐油合成橡胶
芯材: 两层高强度钢丝编织层
外壳: 耐磨、抗臭氧和气候腐蚀合成橡胶,
如需MSHA外壳质量请垂询
温度范围(媒体): -40°C 至 +100°C

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: two high tensile steel wire braids
Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA cover on request
Temperature range (medium): -40°C to +100°C



SAE 100 R 16

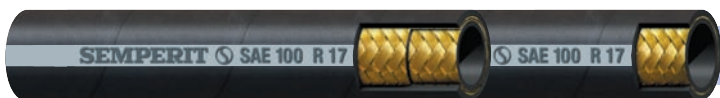
标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	最大外径 max. Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
inch	dash	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
1/4	-04	6,4	12,3	14,4	350	5075	700	1400	50	0,26
5/16	-05	7,9	13,3	15,7	297	4310	594	1188	55	0,31
3/8	-06	9,5	15,8	18,8	280	4060	560	1120	65	0,40
1/2	-08	12,7	19,0	21,9	245	3555	490	980	90	0,48
5/8	-10	15,9	22,4	25,4	192	2785	384	768	100	0,55
3/4	-12	19,0	26,2	28,9	157	2280	314	628	120	0,71
1	-16	25,4	34,0	36,5	140	2030	280	560	150	1,00

软管结构:

内壁: 耐油合成橡胶
芯材: 两层高强度钢丝编织层
外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶,
如需MSHA和SEMPERROCK的外壳质量请垂询
温度范围(媒体): -40°C 至 +100°C

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: two high tensile steel wire braids
Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA and SEMPERROCK cover on request
Temperature range (medium): -40°C to +100°C



SAE 100 R 17

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
inch	dash	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
1/4	-04	6,4	10,5	12,5	210	3045	420	840	50	0,19
5/16	-05	7,9	12,0	14,3	210	3045	420	840	55	0,22
3/8	-06	9,5	13,9	16,5	210	3045	420	840	65	0,27
1/2	-08	12,7	17,6	19,7	210	3045	420	840	90	0,46
5/8	-10	15,9	21,9	24,0	210	3045	420	840	100	0,57
3/4	-12	19,0	25,7	28,0	210	3045	420	840	120	0,78
1	-16	25,4	33,8	36,2	210	3045	420	840	150	1,40

软管结构:

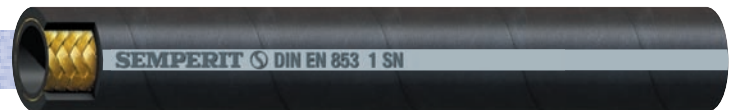
内壁: 耐油合成橡胶
芯材: 至DN12为一层, 从DN16为两层高强度钢丝编织层
外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶,
如需MSHA和SEMPERROCK的外壳质量请垂询
温度范围(媒体): -40°C 至 +100°C

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: up to 1/2" one, from 5/8" two high tensile steel wire braids
Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA and SEMPERROCK cover on request
Temperature range (medium): -40°C to +100°C

SAE J 517 标准的液压软管
HYDRAULIC HOSES ACCORDING TO DIN EN 853 | 857

DIN EN 853 1 SN SAE 100 R 1 S

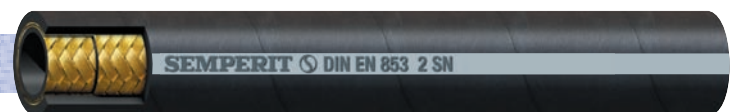


软管结构:
 内壁: 耐油合成橡胶
 芯材: 单层高强度钢丝编织层
 外壳: 外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶,
 如需MSHA和SEMPERROCK的外壳质量请垂询
 温度范围(媒体): -40°C 至 +100°C (最高可达+120°C)

HOSE CONSTRUCTION:
 Tube: oil resistant synthetic rubber
 Reinforcement: one high tensile steel wire braid
 Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA and SEMPERROCK cover on request
 Temperature range (medium): -40°C to +100°C (+120°C max.)

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
5	3/16	4,8	9,5	11,8	250	3625	600	1000	90	0,19
6	1/4	6,4	11,1	13,4	225	3265	540	900	100	0,21
8	5/16	7,9	12,7	15,0	215	3120	510	850	115	0,24
10	3/8	9,5	15,1	17,4	180	2610	430	720	125	0,33
12	1/2	12,7	18,3	20,6	160	2320	385	640	180	0,41
16	5/8	15,9	21,4	23,7	130	1885	310	520	200	0,45
19	3/4	19,0	25,4	27,7	105	1525	250	420	240	0,58
25	1	25,4	33,3	35,6	88	1275	210	350	300	0,88
31	1-1/4	31,8	40,5	43,5	63	915	150	250	420	1,23
38	1-1/2	38,1	46,8	50,6	50	725	120	200	500	1,51
51	2	50,8	60,2	64,0	40	580	96	160	630	1,97

DIN EN 853 2 SN SAE 100 R 2 S

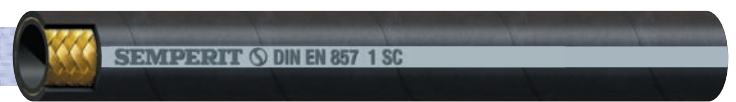


软管结构:
 内壁: 耐油合成橡胶
 芯材: 两层高强度钢丝编织层
 外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶,
 如需MSHA和SEMPERROCK的外壳质量请垂询
 温度范围(媒体): -40°C 至 +100°C (最高可达+120°C)

HOSE CONSTRUCTION:
 Tube: oil resistant synthetic rubber
 Reinforcement: two high tensile steel wire braids
 Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA and SEMPERROCK cover on request
 Temperature range (medium): -40°C to +100°C (+120°C max.)

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
5	3/16	4,8	11,1	13,4	415	6020	990	1650	90	0,31
6	1/4	6,4	12,7	15,0	400	5800	960	1600	100	0,33
8	5/16	7,9	14,3	16,6	350	5075	840	1400	115	0,39
10	3/8	9,5	16,7	19,0	330	4785	790	1320	125	0,50
12	1/2	12,7	19,8	22,2	275	3990	660	1100	180	0,59
16	5/8	15,9	23,0	25,4	250	3625	600	1000	200	0,71
19	3/4	19,0	27,0	29,3	215	3120	515	850	240	0,86
25	1	25,4	34,9	38,1	165	2395	395	650	300	1,28
31	1-1/4	31,8	44,5	48,3	125	1815	300	500	420	2,02
38	1-1/2	38,1	50,8	54,6	90	1305	215	360	500	2,20
51	2	50,8	63,5	67,3	80	1160	190	320	630	2,85

DIN EN 857 1 SC

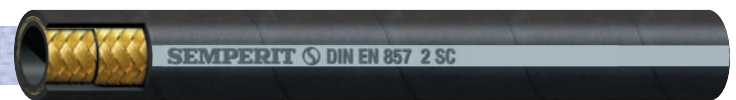


软管结构:
 内壁: 耐油合成橡胶
 芯材: 单层高强度钢丝编织层
 外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶,
 如需MSHA和SEMPERROCK的外壳质量请垂询
 温度范围(媒体): -40°C 至 +100°C (最高可达+120°C)

HOSE CONSTRUCTION:
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 Temperature range (medium): -40°C to +100°C (+120°C max.)

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	最大外径 max. Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	10,2	13,5	225	3265	540	900	75	0,18
8	5/16	7,9	11,5	14,5	215	3120	520	860	85	0,21
10	3/8	9,5	13,6	16,9	180	2610	430	720	90	0,28
12	1/2	12,7	17,0	20,4	160	2320	385	640	130	0,33
16	5/8	15,9	20,4	23,0	130	1885	310	520	150	0,41
19	3/4	19,0	23,8	26,7	105	1525	250	420	180	0,52
25	1	25,4	31,3	34,9	88	1275	210	352	230	0,78

DIN EN 857 2 SC



软管结构:
 内壁: 耐油合成橡胶
 芯材: 两层高强度钢丝编织层
 外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶,
 如需MSHA和SEMPERROCK的外壳质量请垂询
 温度范围(媒体): -40°C 至 +100°C (最高可达+120°C)

HOSE CONSTRUCTION:
 Tube: oil resistant synthetic rubber
 Reinforcement: two high tensile steel wire braids
 Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA and SEMPERROCK cover on request
 Temperature range (medium): -40°C to +100°C (+120°C max.)

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	最大外径 max. Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	11,2	14,2	400	5800	960	1600	75	0,28
8	5/16	7,9	12,7	16,0	350	5075	840	1400	85	0,33
10	3/8	9,5	15,0	18,3	330	4785	790	1320	90	0,42
12	1/2	12,7	18,3	21,5	275	3990	660	1100	130	0,52
16	5/8	15,9	21,4	24,7	250	3625	600	1000	170	0,61
19	3/4	19,0	25,5	28,6	215	3120	515	860	200	0,79
25	1	25,4	33,4	36,6	165	2395	395	660	250	1,10

森佩理特紧凑型液压软管
SEMPERIT - COMPACT HYDRAULIC HOSES



SEMPERPAC 1 SNK

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	10,0	11,8	290	4205	700	1160	40	0,18
8	5/16	7,9	11,6	13,6	250	3625	600	1000	55	0,22
10	3/8	9,5	13,7	16,5	230	3335	550	920	65	0,29
12	1/2	12,7	16,9	19,0	200	2900	480	800	80	0,35
16	5/8	15,9	20,5	22,3	150	2175	360	600	105	0,43
19	3/4	19,0	24,0	26,2	125	1815	300	500	120	0,57
25	1	25,4	31,3	34,0	110	1595	265	440	160	0,82
31	1-1/4	31,8	40,5	44,0	100	1450	240	400	300	1,28

经过700.000次脉冲检测!

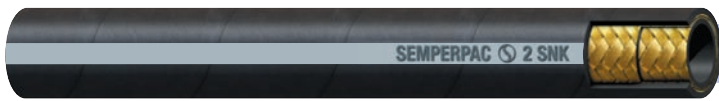
Impulse tested up to 700.000 cycles!

软管结构:

内壁: 耐油合成橡胶
芯材: 单层高强度钢丝编织层
外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶
如需MSHA和SEMPERROCK的外壳质量请垂询
温度范围(媒体): -40°C 至 +100°C (最高可达+120°C)

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: one high tensile steel wire braid
Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA and SEMPERROCK cover on request
Temperature range (medium): -40°C to +100°C (+120°C max.)



SEMPERPAC 2 SNK

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	11,1	13,4	450	6525	1080	1800	45	0,29
8	5/16	7,9	12,7	15,0	420	6090	1000	1680	60	0,34
10	3/8	9,5	15,1	17,4	385	5585	925	1540	70	0,44
12	1/2	12,7	18,3	20,6	345	5000	830	1380	90	0,54
16	5/8	15,9	21,4	23,7	290	4205	695	1160	130	0,63
19	3/4	19,0	25,4	27,7	280	4060	670	1120	160	0,84
25	1	25,4	33,3	35,6	200	2900	480	800	210	1,14
31	1-1/4	31,8	40,5	43,5	175	2540	420	700	300	1,52

经过100万次脉冲检测!
(DN 31 型经 200.000 次脉冲检测)

Impulse tested up to one million cycles!
(1-1/4" up to 200.000 cycles)

“100万次”检测软管

软管结构:

内壁: 耐油合成橡胶
芯材: 两层高强度钢丝编织层
外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶
如需MSHA和SEMPERROCK的外壳质量请垂询
温度范围(媒体): -40°C 至 +100°C (最高可达+120°C)

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: two high tensile steel wire braids
Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA and SEMPERROCK cover on request
Temperature range (medium): -40°C to +100°C (+120°C max.)



SUPERPAC SPC 2

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
10	3/8	9,5	15,5	18,8	425	6165	1020	1700	110	0,50
12	1/2	12,7	19,2	22,0	380	5510	910	1520	130	0,63
16	5/8	15,9	21,6	24,7	350	5075	840	1400	180	0,78
19	3/4	19,0	26,6	29,3	280	4060	670	1120	210	1,00
25	1	25,4	33,8	36,2	230	3335	550	920	240	1,35

经过400.000次脉冲检测!

Impulse tested up to 400.000 cycles!

软管结构:

内壁: 耐油合成橡胶
芯材: 两层高强度钢丝编织层
外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶
如需MSHA和SEMPERROCK的外壳质量请垂询
温度范围(媒体): -40°C 至 +100°C (最高可达+120°C)

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: two high tensile steel wire braids
Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA and SEMPERROCK cover on request
Temperature range (medium): -40°C to +100°C (+120°C max.)



SUPERPAC SPC 3

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
10	3/8	9,5	17,0	21,4	500	7250	1200	2000	120	0,72
12	1/2	12,7	20,2	24,2	470	6815	1130	1880	160	0,89
16	5/8	15,9	23,8	28,1	410	5945	985	1640	210	1,07
19	3/4	19,0	27,8	31,8	375	5440	900	1500	260	1,32
25	1	25,4	34,9	39,0	310	4500	745	1240	310	1,82

经过400.000次脉冲检测!

Impulse tested up to 400.000 cycles!

软管结构:

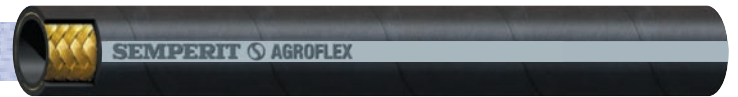
内壁: 耐油合成橡胶
芯材: 三层高强度钢丝编织层
外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶
如需MSHA和SEMPERROCK的外壳质量请垂询
温度范围(媒体): -40°C 至 +100°C (最高可达+120°C)

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: three high tensile steel wire braids
Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA and SEMPERROCK cover on request
Temperature range (medium): -40°C to +100°C (+120°C max.)

森佩理特紧凑型液压软管
SEMPERIT - COMPACT HYDRAULIC HOSES

AGROFLEX



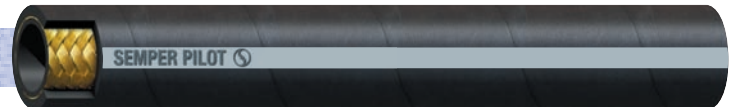
软管结构：
内壁：耐油合成橡胶
芯材：单层高强度钢丝编织层
外壳：耐磨、抗臭氧和气候腐蚀的耐油合成橡胶
温度范围(媒体)：-40°C 至 +100°C

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: one high tensile steel wire braid
Cover: abrasion, ozone and weather resistant synthetic rubber
Temperature range (medium): -40°C to +100°C

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	10,5	12,5	210	3045	420	840	45	0,19
8	5/16	7,9	12,0	14,3	210	3045	420	840	50	0,22
10	3/8	9,5	13,9	16,5	210	3045	420	840	60	0,27
12	1/2	12,7	17,6	19,7	210	3045	420	840	85	0,46

SEMPER PILOT



软管结构：
内壁：耐油合成橡胶
芯材：单层高强度钢丝编织层
外壳：耐磨、抗臭氧和气候腐蚀合成橡胶，
如需MSHA外壳质量请垂询
温度范围(媒体)：-40° C 至 +100° C

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: one high tensile steel wire braid
Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA cover on request
Temperature range (medium): -40°C to +100°C

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	9,9	11,7	125	1815	250	500	30	0,17
8	5/16	7,9	11,7	13,5	125	1815	250	500	40	0,19
10	3/8	9,5	13,0	14,6	125	1815	250	500	50	0,25
12	1/2	12,7	16,2	18,0	125	1815	250	500	60	0,31

用于热油的液压软管
HYDRAULIC HOSES FOR HOT OIL APPLICATIONS

DIN EN 853 1 SN EHT



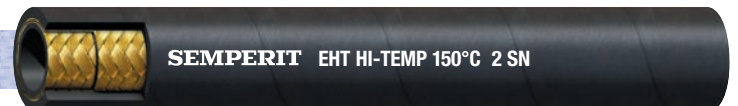
软管结构： 内壁：耐油合成橡胶
芯材：单层高强度钢丝编织层
外壳：耐热、耐磨、防臭氧和气候的合成橡胶，黑色，得到MSHA许可。
推荐采用的媒体为： 矿物质油和合成油、乙二醇和聚乙二醇、水-油-乳剂(至100°C)
温度范围(媒体)： -40°C至 +135°C持续温度，波峰温度至150°C

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: one high tensile steel wire braid
Cover: heat, abrasion, ozone and weather resistant synthetic rubber, black, MSHA approved
Recommended fluids: mineral and synthetic oils, glycols and polyglycols, aqueous oil emulsions (up to 100°C)
Temperature range (medium): -40°C to +135°C constant temperature, up to 150°C peak temperatures

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	11,1	13,4	225	3265	540	900	100	0,21
8	5/16	7,9	12,7	15,0	215	3120	510	850	115	0,24
10	3/8	9,5	15,1	17,4	180	2610	430	720	125	0,33
12	1/2	12,7	18,3	20,6	160	2320	385	640	180	0,41
16	5/8	15,9	21,4	23,7	130	1885	310	520	200	0,45
19	3/4	19,0	25,4	27,7	105	1525	250	420	240	0,58
25	1	25,4	33,3	35,6	88	1275	210	350	300	0,88
31	1-1/4	31,8	40,5	43,5	63	915	150	250	420	1,23
38	1-1/2	38,1	46,8	50,6	50	725	120	200	500	1,51
51	2	50,8	60,2	64,0	40	580	96	160	630	1,97

DIN EN 853 2 SN EHT



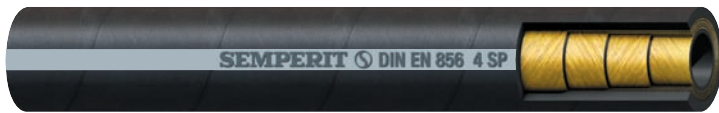
软管结构： 内壁：耐油合成橡胶
芯材：两层高强度钢丝编织层
外壳：耐热、耐磨、防臭氧和气候的合成橡胶，黑色，得到MSHA许可。
推荐采用的媒体为： 矿物质油和合成油、乙二醇和聚乙二醇、水-油-乳剂(至100°C)
温度范围(媒体)： -40°C至 +135°C持续温度，波峰温度至150°C

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: two high tensile steel wire braid
Cover: heat, abrasion, ozone and weather resistant synthetic rubber, black, MSHA approved
Recommended fluids: mineral and synthetic oils, glycols and polyglycols, aqueous oil emulsions (up to 100°C)
Temperature range (medium): -40°C to +135°C constant temperature, up to 150°C peak temperatures

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	12,7	15,0	400	5800	960	1600	100	0,33
8	5/16	7,9	14,3	16,6	350	5075	840	1400	115	0,39
10	3/8	9,5	16,7	19,0	330	4785	790	1320	125	0,50
12	1/2	12,7	19,8	22,2	275	3990	660	1100	180	0,59
16	5/8	15,9	23,0	25,4	250	3625	600	1000	200	0,71
19	3/4	19,0	27,0	29,3	215	3120	515	850	240	0,86
25	1	25,4	34,9	38,1	165	2395	395	650	300	1,28
31	1-1/4	31,8	44,5	48,3	125	1815	300	500	420	2,02
38	1-1/2	38,1	50,8	54,6	90	1305	215	360	500	2,23
51	2	50,8	63,5	67,3	80	1160	190	320	630	2,85

复式螺旋缠绕型液压软管 MULTISPIRAL HYDRAULIC HOSES



DIN EN 856 4 SP

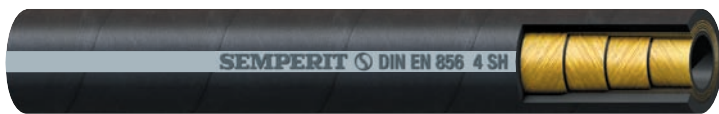
标准直径 Nominal Ø		内径 Inside Ø	螺旋缠绕层直径 Wire Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
10	3/8	9,5	17,5	21,4	445	6455	1070	1780	180	0,78
12	1/2	12,7	20,2	24,6	425	6165	1020	1700	230	0,93
16	5/8	15,9	23,8	28,2	350	5075	840	1400	250	1,17
19	3/4	19,0	28,2	32,2	350	5075	840	1400	300	1,48
25	1	25,4	35,3	39,7	280	4060	670	1120	340	2,02
31	1-1/4	31,8	46,0	50,8	210	3045	500	840	460	3,05
38	1-1/2	38,1	52,4	57,2	185	2685	445	740	560	3,52
51	2	50,8	65,3	69,8	165	2395	395	660	660	5,20

软管结构:

内壁: 耐油合成橡胶
芯材: 四层高强度钢丝螺旋缠绕层
外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶, 如需MSHA和SEMPERROCK的外壳质量请垂询
温度范围(媒体): -40°C 至 +100°C (最高可达+120°C)

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: four high tensile steel wire spiral layers
Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA approved, SEMPERROCK cover on request
Temperature range (medium): -40°C to +100°C (+120°C max.)



DIN EN 856 4 SH

标准直径 Nominal Ø		内径 Inside Ø	螺旋缠绕层直径 Wire Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
19	3/4	19,0	28,4	32,2	420	6090	1000	1680	280	1,53
25	1	25,4	35,2	38,7	380	5510	910	1520	340	2,06
31	1-1/4	31,8	41,9	45,5	345	5000	830	1380	460	2,46
38	1-1/2	38,1	48,8	53,5	290	4205	695	1160	560	3,35
51	2	50,8	63,2	68,1	250	3625	600	1000	700	4,55

软管结构:

内壁: 耐油合成橡胶
芯材: 四层高强度钢丝螺旋缠绕层
外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶, 如需MSHA和SEMPERROCK的外壳质量请垂询
温度范围(媒体): -40°C 至 +100°C (最高可达+120°C)

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: four high tensile steel wire spiral layers
Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA approved, SEMPERROCK cover on request
Temperature range (medium): -40°C to +100°C (+120°C max.)



DIN EN 856 / SAE 100 R 12

标准直径 Nominal Ø		内径 Inside Ø	螺旋缠绕层直径 Wire Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
10	3/8	9,5	17,2	20,3	280	4060	560	1120	125	0,70
12	1/2	12,7	20,7	23,8	280	4060	560	1120	180	0,84
16	5/8	15,9	24,6	27,4	280	4060	560	1120	200	1,10
19	3/4	19,0	27,7	30,7	280	4060	560	1120	240	1,33
25	1	25,4	34,9	38,0	280	4060	560	1120	300	1,85
31	1-1/4	31,8	43,9	47,0	210	3045	420	840	420	2,65
38	1-1/2	38,1	50,4	53,5	175	2540	350	700	500	3,20
51	2	50,8	63,7	66,7	175	2540	350	700	630	4,50

软管结构:

内壁: 耐油合成橡胶
芯材: 四层高强度钢丝螺旋缠绕层
外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶, 如需MSHA和SEMPERROCK的外壳质量请垂询
温度范围(媒体): -40°C 至 +121°C

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: four high tensile steel wire spiral layers
Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA approved, SEMPERROCK cover on request
Temperature range (medium): -40°C to +121°C

可提供黑色和灰色外壳

Available in black and grey cover



FLEXLINE 4000

可减少弯曲半径的高灵活度四层螺旋缠绕型软管

软管结构:

内壁: 耐油合成橡胶
芯材: 四层高强度钢丝螺旋缠绕层
外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶, 如需MSHA和SEMPERROCK的外壳质量请垂询
温度范围(媒体): -40°C 至 +121°C

High flexible multispiral hose with reduced bend radii.

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber
Reinforcement: four high tensile steel wire spiral layers
Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA approved, SEMPERROCK cover on request
Temperature range (medium): -40°C to +121°C

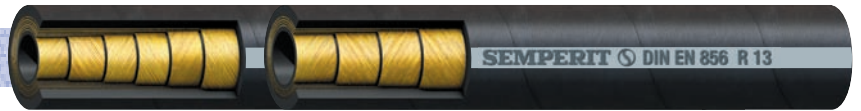
标准直径 Nominal Ø		内径 Inside Ø	螺旋缠绕层直径 Wire Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
10	3/8	9,5	17,2	20,3	280	4060	560	1120	65	0,70
12	1/2	12,7	20,7	23,8	280	4060	560	1120	90	0,84
16	5/8	15,9	24,6	27,4	280	4060	560	1120	100	1,10
19	3/4	19,0	27,7	30,7	280	4060	560	1120	120	1,33
25	1	25,4	34,9	38,0	280	4060	560	1120	155	1,85

经过100万次脉冲检测!

Impulse tested up to one million cycles!

复式螺旋缠绕型液压软管 MULTISPIRAL HYDRAULIC HOSES

DIN EN 856 / SAE 100 R 13



软管结构:
内壁: 耐油合成橡胶
芯材: 四层/六层高强度钢丝螺旋缠绕层
外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶,
如需MSHA和SEMPERROCK的外壳质量请垂询
温度范围(媒体): -40°C 至 +121°C

HOSE CONSTRUCTION:

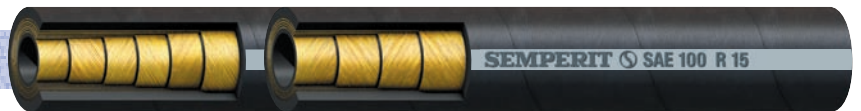
Tube: oil resistant synthetic rubber

Reinforcement: four/six high tensile steel wire spiral layers

Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA approved, SEMPERROCK cover on request
Temperature range (medium): -40°C to +121°C

标准直径 Nominal Ø		内径 Inside Ø	螺旋缠绕层直径 Wire Ø	螺旋缠绕层数 Spiral layers	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm		mm	bar	psi	bar	bar	mm	kg / m
19	3/4	19,0	29,2	4	32,0	350	5075	700	1400	240	1,65
25	1	25,4	35,9	4	39,2	350	5075	700	1400	300	2,25
31	1-1/4	31,8	46,8	6	49,8	350	5075	700	1400	420	3,60
38	1-1/2	38,1	54,0	6	57,3	350	5075	700	1400	500	4,75
51	2	50,8	68,4	6	71,9	350	5075	700	1400	630	6,90

SAE 100 R 15



软管结构:
内壁: 耐油合成橡胶
芯材: 四层/六层高强度钢丝螺旋缠绕层
外壳: 耐磨、抗臭氧和气候腐蚀的合成橡胶,
如需MSHA和SEMPERROCK的外壳质量请垂询
温度范围(媒体): -40°C 至 +121°C

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber

Reinforcement: four/six high tensile steel wire spiral layers

Cover: abrasion, ozone and weather resistant synthetic rubber, MSHA approved, SEMPERROCK cover on request
Temperature range (medium): -40°C to +121°C

标准直径 Nominal Ø		内径 Inside Ø	螺旋缠绕层直径 Wire Ø	螺旋缠绕层数 Spiral layers	最大外径 max. Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm		mm	bar	psi	bar	bar	mm	kg / m
19	3/4	19,0	32,9	4	36,1	420	6090	840	1680	265	1,50
25	1	25,4	38,9	4	42,9	420	6090	840	1680	330	2,10
31	1-1/4	31,8	48,4	6	51,5	420	6090	840	1680	445	3,60
38	1-1/2	38,1	56,3	6	59,6	420	6090	840	1680	530	5,10

吸管 SUCTION HOSE

SAE 100 R 4



软管结构:
内壁: 耐油合成橡胶
芯材: 纺织丝层直径衬垫, 镀锌钢丝螺旋层
外壳: 耐磨、抗臭氧腐蚀、有条件耐油合成橡胶
温度范围(媒体): -40°C 至 +100°C

HOSE CONSTRUCTION:

Tube: oil resistant synthetic rubber

Reinforcement: Textile layers, zinc plated steel wire helix

Cover: abrasion, ozone and limited oil resistant synthetic rubber
Temperature range (medium): -40°C to +100°C

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
19	3/4	19,0	-	29,0	21	300	41	84	95	0,70
25	1	25,4	-	35,4	17	250	34	68	125	0,80
31	1 1/4	31,8	-	41,8	14	200	28	56	160	1,00
38	1 1/2	38,1	-	49,0	10	140	21	40	200	1,20
51	2	51,0	-	62,0	7	100	14	28	255	1,50
63	2 1/2	63,5	-	76,5	4	62	9	17	315	2,20
76	3	76,2	-	89,2	4	56	8	15	380	2,60
89	3 1/2	89,0	-	102,0	3	45	6	12	400	3,10
102	4	102,0	-	116,0	2	35	5	10	510	3,50

强力耐磨损液压软管 HIGH ABRASION RESISTANT HYDRAULIC HOSES

SEMPERROCK

SEMPERROCK 产品系列是对原有的FLH产品的进一步开发，适用于高度耐磨领域。除了众所周知的优点，即杰出的抗臭氧、紫外辐射、高温和盐水侵蚀性能之外，还能够满足地下矿井和煤矿业的特殊需求。

软管结构：

- 内壁：耐油合成橡胶
- 芯材：一层、两层或四层高强度钢丝螺旋缠绕层
- 外壳：带有特殊性能的合成橡胶：
 - 极为耐磨，请见图表
 - 杰出的抗臭氧和紫外辐射性
 - 防气候和盐水腐蚀
 - 根据MSHA和DSK (LOBA)具备阻燃性能
 - 抗静电

温度范围：-40°C 至 +100°C，至120°C (最多30%的使用寿命)
许可 DSK (LOBA) *
US-MSHA

SEMPERROCK product line is a further improvement on our well known FLH products used in high abrasion environments. In addition to its recognised benefits of excellent resistance to ozone, UV radiation, high temperatures and salt water, it meets the special requirements of the underground coal mining industry.

HOSE CONSTRUCTION:

- Tube: oil resistant synthetic rubber
 - Reinforcement: one, two or four high tensile steel wire layers
 - Cover: synthetic rubber with the key characteristics:
 - superior abrasion resistance - graphic
 - excellent ozone and UV resistance
 - weather and salt water resistant
 - flame resistant acc. to MSHA and DSK (LOBA) specs
 - antistatic
 - temperature range -40 °C to +100°C up to 120°C (for max. 30% of the application)
- Approved by DSK (LOBA) *
US-MSHA

SEMPERROCK产品 / THE SEMPERROCK-PRODUCTS

SEMPERROCK	1 SN *	SEMPERROCK	R 16	SEMPERROCK	SPC 2
SEMPERROCK	2 SN *	SEMPERROCK	R 17	SEMPERROCK	SPC 3
SEMPERROCK	2 ST *	SEMPERROCK	1 SN-K	SEMPERROCK	4 SP *
SEMPERROCK	1 SC	SEMPERROCK	2 SN-K *	SEMPERROCK	4 SH *
SEMPERROCK	2 SC *			SEMPERROCK	R 12 black

一般特性（压力，弯曲半径等）依照各种型号的规格。

The general characteristics (pressure, bend rad, etc.) are in accordance with the respective type specifications.

SEMPERSHIELD

SEMPERSHIELD产品的优点突出地表现在其耐磨和抗臭氧性能方面。软管的外壳由两层组合而成，而且还附加了UHMPE膜。根据EN ISO6945标准，对这种产品进行了100万次检测之后仍然没有可测量到的磨损。下列产品是我们的标准产品系列。我们可以根据客户需求提供其它型号。本产品得到了US-MSHA认可。

SEMPERSHIELD products are characterised by excellent wear and ozone resistance which is achieved by the double-layer construction with rubber cover and an additional UHMW foil.

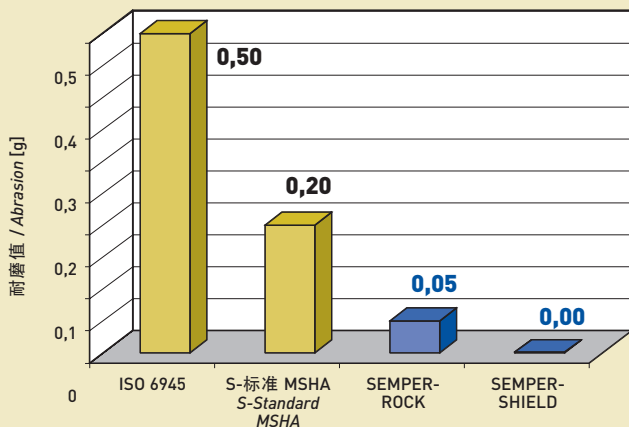
Even after one million cycles no measurable abrasion can be detected when tested acc. to EN ISO 6945.

The following products represent our standard range.

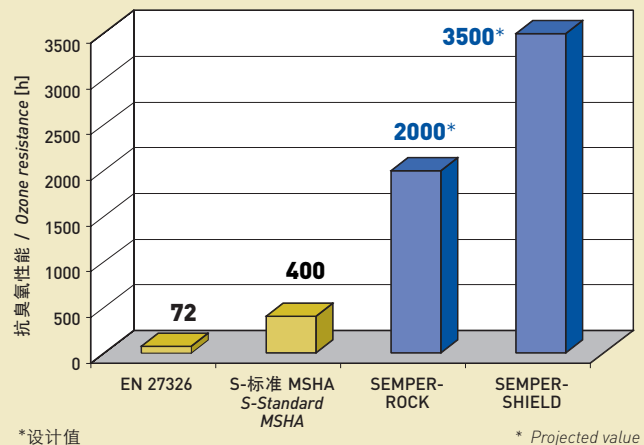
Further products are available on request.

Approved by US-MSHA

根据EN ISO 6945标准的耐磨值
ABRASION VALUES ACC. TO EN ISO 6945



EN 27326标准抗臭氧性能
OZONE RESISTANCE ACC. TO EN 27326



强力耐磨损液压软管 HIGH ABRASION RESISTANT HYDRAULIC HOSES

SEMPERSHIELD 1 SSK

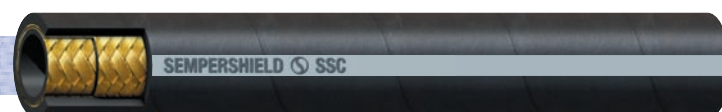


软管结构:
 内径: 耐油合成橡胶
 芯材: 单层高强度钢丝编织层
 外壳: 双层结构橡胶, 带有UHMPE膜, 获得MSHA许可
 温度范围: -40°C 至+100°C, 波峰值可达+120°C (媒体温度)

HOSE CONSTRUCTION:
 Tube: oil resistant synthetic rubber
 Reinforcement: one high tensile steel wire braid
 Cover: double layer construction - rubber cover with UHMW foil, MSHA approved
 Temperature range: -40°C to +100°C, peak temp. 120°C (temp. of the medium)

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	10,0	11,8	290	4205	700	1160	40	0,18
8	5/16	7,9	11,6	13,6	250	3625	600	1000	55	0,22
10	3/8	9,5	13,7	16,5	230	3335	550	920	65	0,29
12	1/2	12,7	16,9	19,0	200	2900	480	800	80	0,35
16	5/8	15,9	20,5	22,3	150	2175	360	600	105	0,43
19	3/4	19,0	24,0	26,2	125	1815	300	500	120	0,57
25	1	25,4	31,3	34,0	110	1595	265	440	160	0,82

SEMPERSHIELD SSC



软管结构:
 内径: 耐油合成橡胶
 芯材: 两层高强度钢丝编织层
 外壳: 双层结构橡胶, 带有UHMPE膜, 获得MSHA许可
 温度范围: -40°C 至+100°C, 波峰值可达+120°C (媒体温度)

HOSE CONSTRUCTION:
 Tube: oil resistant synthetic rubber
 Reinforcement: two high tensile steel wire braids
 Cover: double layer construction - rubber cover with UHMW foil, MSHA approved
 Temperature range: -40°C to +100°C, peak temp. 120°C (temp. of the medium)

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	11,2	14,2	400	5800	960	1600	75	0,28
8	5/16	7,9	12,7	16,0	375	5440	900	1500	85	0,33
10	3/8	9,5	15,0	18,3	350	5075	840	1400	90	0,42
12	1/2	12,7	18,3	21,5	300	4350	720	1200	130	0,52
16	5/8	15,9	21,4	24,7	275	3990	660	1100	170	0,61
19	3/4	19,0	25,5	28,6	235	3410	565	940	200	0,79
25	1	25,4	33,4	36,6	185	2685	445	740	250	1,10

SEMPERSHIELD SSP



软管结构:
 内径: 耐油合成橡胶
 芯材: 四层高强度钢丝螺旋缠绕层
 外壳: 双层结构橡胶, 带有UHMPE膜, 获得MSHA许可
 温度范围: -40°C 至+100°C, 波峰值可达+120°C (媒体温度)

HOSE CONSTRUCTION:
 Tube: oil resistant synthetic rubber
 Reinforcement: four plies of high tensile steel wire
 Cover: double layer construction - rubber cover with UHMW foil, MSHA approved
 Temperature range: -40°C to +100°C, peak temp. 120°C (temp. of the medium)

标准直径 Nominal Ø		内径 Inside Ø	螺旋缠绕层直径 Wire Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
10	3/8	9,5	17,5	21,4	445	6455	1070	1780	180	0,78
12	1/2	12,7	20,2	24,6	425	6165	1020	1700	230	0,93
16	5/8	15,9	23,8	28,2	350	5075	840	1400	250	1,17
19	3/4	19,0	28,2	32,2	350	5075	840	1400	300	1,48
25	1	25,4	35,3	39,7	280	4060	670	1120	340	2,02

SEMPERSHIELD SSH



软管结构:
 内径: 耐油合成橡胶
 芯材: 四层高强度钢丝螺旋缠绕层
 外壳: 双层结构橡胶, 带有UHMPE膜, 获得MSHA许可
 温度范围: -40°C 至+100°C, 波峰值可达+120°C (媒体温度)

HOSE CONSTRUCTION:
 Tube: oil resistant synthetic rubber
 Reinforcement: four plies of high tensile steel wire
 Cover: double layer construction - rubber cover with UHMW foil, MSHA approved
 Temperature range: -40°C to +100°C, peak temp. 120°C (temp. of the medium)

标准直径 Nominal Ø		内径 Inside Ø	螺旋缠绕层直径 Wire Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
19	3/4	19,0	28,4	32,2	420	6090	1000	1680	280	1,53
25	1	25,4	35,2	38,7	380	5510	910	1520	340	2,06
31	1-1/4	31,8	41,9	45,5	345	5000	830	1380	460	2,46
38	1-1/2	38,1	48,8	53,5	290	4205	695	1160	560	3,35
51	2	50,8	63,2	68,1	250	3625	600	1000	700	4,55

证书
TYPE APPROVAL CERTIFICATES



- ① 德国煤矿股份公司 (DSK, 前身为LOBA)
- ① 德国联邦军工技术与采购局 (BWB)
- ① 德国日耳曼航运 (GL)
- ① 挪威船级社 (DNV)
- ① 意大利海事局 (RINA)
- ① 美国联邦劳工部矿山安全与健康局 (US-MSHA)
- ① 波兰中央矿业学院 (GIG)
- ① 乌克兰Makejevscij Nauchno-Issledovatel'scij Institut (MakNII)



供货中的长度配比
如果在订货中没有确定软管的长度，供货将按照以下百分比提供长度：

根据EN 853 – 857标准：

- 至少有 80 % 的长度在 20 m 以上
- 最多有 20 % 的长度在 10 m 至 20 m 之间
- 最多有 3 % 的长度在 1 m 至 10 m 之间
- 没有短于 1 m 的软管
- 每卷软管所允许的长度公差为 $\pm 2\%$

森佩里特标准：

- 至少有 90 % 的长度为 25 m 以上
- 最多有 10 % 的长度在 5 m 至 25 m 之间
- 没有短于 5 m 的软管
- 每卷软管所允许的长度公差为 $\pm 2\%$

SPECIFICATION OF LENGTHS IN ONE SHIPMENT

If no specific hose lengths have been ordered, the percentages of different lengths in any given delivery shall be as follows:

According to EN 853 – 857:

- min. 80 % in lengths over 20 m
- max. 20 % in lengths over 10 m to 20 m
- max. 3 % in lengths over 1 m to 10 m
- no length of hose may be less than 1 m
- The acceptable tolerance on the specified coil length is $\pm 2\%$

SEMPERIT standard:

- min. 90 % in lengths over 25 m
- max. 10 % in lengths over 5 m to 25 m
- no length of hose is less than 5 m
- The acceptable tolerance on the specified coil length is $\pm 2\%$

客户服务

- FEM 分析
- 根据EN ISO 6802/6803/8032 标准进行压力脉冲检测
- 配件和装配技术
- 培训 - 信息

CUSTOMER SUPPORT

- FEA – Finite element analysis
- Pressure impulse tests according to EN ISO 6802/6803/8032
- Fitting and crimping know-how
- Training – Information

用于高压清洁机的森佩理特软管 SEMPERIT HOSES FOR PRESSURE WASHER APPLICATIONS

SEMPERJET

基本信息

森佩理特是全世界最大的洗涤设备软管生产商之一，是生产和销售洗涤设备软管方面的专家。这就是为什么这一领域的著名品牌厂商在他们设备的首次配备中就采用森佩理特软管的原因。

软管分为两种基本形式，它们是：

1. 传统的结构1SN / 2SN, SAE100的尺寸符合EN 853标准
2. 特殊/紧凑型结构，与1+2SC/1+2SNK 以及 EN857相仿，这些都是特殊结构。

应用

1. 1SN + 2SN软管是适用于各种领域的传统配件软管
优点：
 - 结构坚固
 - 使用寿命长
 - 容易压合
2. 紧凑型或特殊结构软管
优点：
 - 工作压力高
 - 外径小，重量轻
 - 非常灵便轻巧



温度

Semperjet软管的设计一般情况下适用于温度范围达150°C/302°F。

抗媒体腐蚀

一般情况下，Semperjet软管适用于冷水和热水加入市场上普通的附加清洁剂，适用于生产商推荐的最大浓度和最高温度。特殊的细节和信息欢迎垂询。此软管不适用于蒸汽和液压油。

外壳类型

标准形式的外壳为卷绕式(黑色和蓝色)。我们也提供高耐磨的外壳，为Semperjet软管提供带UHMPE膜的外壳(最小订货量为3000 m)。我们还可以提供其它形式的外壳，需要具备一定的订货量(最小订货量为5000 m)。一般情况下，标准的软管外壳是未经针刺处理的，如有需求我们也可以提供外壳经针刺处理的软管(最小订货量为3000 m)。

颜色

标准为黑色和蓝色，如果需要灰色或其它颜色欢迎垂询。

提供长度

- 10 m 的倍数或根据技术要求，欢迎询价
- 固定长度，切割好，绕成卷，可以直接压合(根据客户技术要求，欢迎询价)

软管 + 管线

如果批量大，森佩理特也可以为您提供Semperjet的软管管线。我们和欧洲市场领先的软管连接元件供应商紧密合作，可以在很短的时间内为您提供市场上通常的清洁机管线，以及专门的产品。我们在选择原材料制作软管和元件时，当然遵守欧盟的ROHS方针。

标记

标准是 - “Semperjet” / 软管 - 结构 - 名字 / 直径尺寸 / 压力数据 / 日期 - 检测。其它标记，例如聚酯薄膜转印带，或喷墨等欢迎垂询(最小订货量 3000 m)。

标准

我们的软管符合EN ISO 7751标准。EN 18292-2: 这个标准在印刷本样册时还在起草阶段。这个标准一旦出台，我们的产品也将符合这个标准。

BASIC INFORMATION

Semperit is one of the largest producers of pressure washer hoses world-wide, and has specialised in producing and marketing this product. This is also one of the reasons why leading brands in this segment rely on Semperit hose on their equipment.

Hoses are available in 2 basic versions:

1. "classic constructions" 1SN/2SN, dimensions according to SAE100 / EN 853
2. special design for pressure washer/similar to SC-hoses EN857, but special constructions



APPLICATIONS

1. The 1SN + 2SN are typical after-market hoses for every application.
Advantages:
 - solid construction
 - long service life
 - easy to crimp
2. Special or compact constructions.
Advantages:
 - high working pressures possible
 - small diameters, low weight
 - very flexible and light

TEMPERATURE

Semperjets are generally designed for applications up to 150°C / 302°F.

RESISTANCE AGAINST MEDIA

Semperjet hoses are generally resistant against cold and hot water, with usual cleaning agents, at the recommended concentration and application temperature.

NOT RESISTANT AGAINST STEAM AND OIL.

COVER

Wrapped cover as standard (black and blue). We can also offer high abrasion resistant covers (UHMPE foil) for Semperjet (minimum order 3000-m). Other specifications on request (minimum order 5000-m). Our standard cover is without pin pricking. Pricked cover is possible on request (minimum order 3000-m).

COLOURS

Black and blue as standard, grey and others on request.

LENGTHS

- Multiples of 10-m or according to specification - price on request
- Fixed lengths, cut and coiled, ready for crimp (customer specification possible - price on request)



HOSES and HOSE ASSEMBLIES

For large orders, Semperit is also able to supply complete hose assemblies! We work closely with leading European fittings suppliers, so we can supply regular pressure washer hose assemblies, as well as special products. Naturally, we comply with the European Union's ROHS directive.

BRANDING

Standard: Semperjet/name of hose - construction/ diameter/working pressure/date - embossed. All other finishes such as mylar tape or inkjet, on request (minimum order 3000-m).

STANDARDS

Our pressure washer hoses comply to the EN ISO 7751. EN1829-2: This standard was only available in a draft version at the date of release of this catalogue. As soon as the final version is published, our products will comply to it too.

用于高压清洁机的单层钢丝织丝层软管 1-WIRE PRESSURE WASHER HOSES

外壳类型

标准形式的外壳为卷绕式(黑色和蓝色)。我们也提供高耐磨的外壳, 为Semperjet软管提供带UHMPE膜的外壳(最小订货量为3000 m)。我们还可以提供其它形式的外壳, 需要具备一定的订货量(最小订货量为5000 m)。一般情况下, 标准的软管外壳是未经针刺处理的, 如有需求我们也可以提供外壳经针刺处理的软管(最小订货量为3000 m)。

颜色

标准为黑色和蓝色, 如果需要灰色或其它颜色欢迎垂询。

提供长度

- 10 m 的倍数或根据技术要求, 欢迎询价
- 固定长度, 切割好, 绕成卷, 可以直接压合(可根据客户技术要求定制, 欢迎询价)

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Wrapped cover as standard (black and blue). We can also supply high abrasion resistant covers (UHMPE foil) for Semperjet (minimum order 3000-m).

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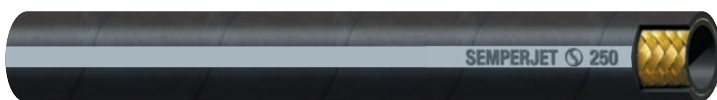
单层SN结构 1-WIRE SN CONSTRUCTIONS



SEMPERJET 1 SN

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	11,1	13,4	250	3120	540	900	100	0,21
8	5/16	7,9	12,7	15,0	220	3120	510	850	115	0,24
10	3/8	9,5	15,1	17,4	220	3120	430	720	125	0,33
12	1/2	12,7	18,3	20,6	220	3120	385	640	180	0,41

单层紧凑型结构 1-WIRE COMPACT CONSTRUCTIONS



SEMPERJET COMPACT

标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	9,8	11,2	150	2100	300	600	40	0,15
6	1/4	6,4	9,8	11,5	210	3000	420	840	35	0,16
6	1/4	6,4	10,0	11,7	250	3625	500	1000	35	0,18
8	5/16	7,9	11,8	13,5	250	3625	500	1000	65	0,21
8	5/16	7,9	12,0	13,5	315	4570	630	1260	65	0,30
10	3/8	9,5	13,6	16,0	250	3625	500	950	75	0,28
10	3/8	9,5	13,8	16,4	280	4000	560	1100	90	0,31
12	1/2	12,7	17	19,0	250	3625	500	840	100	0,33

用于高压清洁机的两层钢丝织丝层软管 2-WIRE PRESSURE WASHER HOSES

外壳类型

标准形式的外壳为卷绕式(黑色和蓝色)。我们也提供高耐磨的外壳, 为Semperjet软管提供带UHMPE膜的外壳(最小订货量为3000 m)。我们还可以提供其它形式的外壳, 需要具备一定的订货量(最小订货量为5000 m)。一般情况下, 标准的软管外壳是未经针刺处理的, 如有需求我们也可以提供外壳经针刺处理的软管(最小订货量为3000 m)。

颜色

标准为黑色和蓝色, 如果需要灰色或其它颜色欢迎垂询。

提供长度

- 10 m 的倍数或根据技术要求, 欢迎询价
- 固定长度, 切割好, 绕成卷, 可以直接压合(可根据客户技术要求定制, 欢迎询价)

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Our standard cover is without pin pricking. Pricked cover is possible on request (minimum order 3000-m).

COLOURS

Black and blue as standard, grey and others on request.

LENGTHS

- Multiples of 10 m or according to specification – price on request
- Fixed lengths, cut and coiled, ready for crimp (customer specification possible – price on request)

两层SN结构 2-WIRE SN CONSTRUCTIONS



标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	12,7	15,0	400	5800	960	1600	100	0,33
8	5/16	7,9	14,3	16,6	400	5800	840	1400	115	0,39
10	3/8	9,5	16,7	19,0	400	5800	790	1320	125	0,50
12	1/2	12,7	19,8	22,2	400	5800	660	1100	180	0,59

两层紧凑型结构 2-WIRE COMPACT CONSTRUCTIONS



标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	11,2	13,2	400	5800	960	1600	75	0,28
8	5/16	7,9	12,5	14,5	400	5800	840	1400	85	0,33
10	3/8	9,5	14,8	16,8	400	5800	790	1320	90	0,42
12	1/2	12,7	18,0	20,0	400	5800	660	1100	130	0,52



标准直径 Nominal Ø		内径 Inside Ø	织丝层直径 Braid Ø	外径 Outside Ø	工作压力 Working pressure		检测压力 Test pressure	爆裂压力 Burst pressure	弯曲半径 Bend radius	重量 Weight
mm	inch	mm	mm	mm	bar	psi	bar	bar	mm	kg / m
6	1/4	6,4	11,2	13,2	500	7250	960	1600	75	0,28
8	5/16	7,9	12,5	14,5	500	7250	960	1600	60	0,34
10	3/8	9,5	15,0	17,0	500	7250	925	1540	70	0,44
12	1/2	12,7	18,3	20,3	500	7250	830	1380	90	0,54



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