



中金液压胶管股份有限公司
CHINA GOLDEN HYDRAULIC HOSE CO., LTD
地址: 山东省枣庄市薛城区邹坞镇东邹坞村东
ADD: ECONOMIC ZONE OF ZOUWU TOWN, XUECHENG
DISTRICT, ZAOZHUANG SHANDONG
电话 /TEL: 0086-632-4979266 3131277
传真 /FAX: 0086-632-4979166
网址 /WEBSITE: www.cmflex.cc
EMAIL: admin@cmflex.cc



CM Flex
液压胶管产品
Hydraulic Hose & Assemblies

公司简介 CORPORATE PROFILE

中金液压股份有限公司坐落于山东省南部素有“鲁南明珠”之称的墨翟故里枣庄。公司主要生产经营钢丝编织胶管、钢丝缠绕胶管、棉线编织胶管及其他橡胶工业软管。产品具有承受压力高、弯曲半径小、抗疲劳性强、使用寿命长等特点，广泛应用于冶金连铸、石油钻探、工程机械、矿山采掘及各类液压机械等。

公司现配备进口高速编织机、爆破试验台、脉冲试验台及其他各种先进装备仪器。公司技术实力雄厚，拥有一大批技术水平高、经验丰富、精通橡胶生产、机械维修专家和技术人才，公司年生产编织胶管能力在 1000 万米以上，生产缠绕胶管能力在 300 万米以上。公司生产组织得力，后勤保障可靠，集胶管生产与综合服务于一体，为客户提供高品质的产品。

公司现有三大生产基地，拥有一支技术过硬的产品研发与胶管制造队伍，既可以根据客户的需要设计制造出不同型号、不同性能的系列胶管，也可以根据客户的实际要求进行个性化设计制造，确保了产品的高效、快捷、实用、性能优越，深受广大用户的青睐。我们的产品已走出国门，远销美国、俄罗斯、埃及、巴西、法国、意大利、南非等世界五大洲的十几个国家，其优良的品质已经享誉国内外市场。我们与用户建立了长期的友好合作关系，技术服务人员可以根据对方的需要跟踪产品使用情况，收集信息、进行配方改良升级，增强了我公司的科技创新实力和市场竞争力。

中金液压坚持“以人为本，开拓创新、执行高效”的经营理念，奉行“创新、求实、诚信、卓越”的企业精神，积极推行规范化运作、国际化经营战略，致力于发展国际业务，取得了丰硕的成果。凭借技术优势、创新优势和品牌优势，公司的整体创新能力和综合实力迅速提升，已经成为国内一流、国际知名的胶管制造商。



CMFLEX is located in Xuecheng District, Zaozhuang City, Shangdong Province. We are specialized in design, development, production and sale of steel wire braid/spiral hydraulic rubber hose, textile braid air rubber hose, high pressure rubber hose, hose assemblies, and other kinds of industrial hoses. Covering an area of 52800 square meters, we now have over 200 skilled workers and our general engineer has more than 30-year experience of hose manufacturing. Our annual production capacity exceeds 10,000,000 meters.

Our main products as following: SAE 100R1AT, SAE 100R2AT, SAE 100R3, SAE 100R5, SAE 100R6, SAE 100R7, SAE 100R8, SAE 100R9, SAE 100R12, SAE 100R13, SAE 100R14(Teflon/PTFE hose), SAE100R15, SAE100R16, SAE 100R17, DIN 1SN, DIN 2SN, DIN 1SC, DIN 2SC, DIN 4SP, DIN 4SH, air rubber hose, oil rubber hose, suction hose, concrete hose etc. We can produce both the black and colorful, smooth and wrapped surface, embossed and print marking, general and special working temperature hose. The hoses are extensively used in mining, engineering machinery, petrol, various hydraulic machinery, chemistry, ship, agriculture, and other industries.

The well-equipped facilities and strictly quality control system throughout all stages of production enable us to guarantee the high & stable quality of our products. CMFLEX equipped with high speed double-deck automatic braid hose production lines, spiral hose production lines, Impulse Test stand, Mooney viscosity, a moving die rheometer, high and low temperature test box, an ozone test machine, a UV test machine and super high pressure burst test stand. With good quality, reasonable price and outstanding customer service, CMFLEX has gained a global sales network reaching many countries such as USA, Canada, Germany, Russia, Ukraine, South Africa, Brazil, Spain, France, Egypt, Iran, Southeast Asia and other countries and regions..

Customers satisfaction is our top priority! We are looking forward to forming successful business relationships with clients around the world in the near future! If you are interested in any of our products, welcome you to contact with us!



技术装备
EQUIPMENT





钢丝编织和缠绕胶管结构 BRAID AND SPIRAL HOSE STRUCTURE

钢丝编织胶管 Braid Hose

产品结构 Product Structure

钢丝编织胶管结构是由耐液体的合成橡胶内胶层、中胶层、I 或 II 层钢丝编织增强层及耐天候性能优良的合成橡胶外胶层组成。

Braid hose consists of an inner tube of liquid resistant synthetic rubber, middle rubber layer, one or two braid wire reinforcements, and superior weather resistant synthetic rubber cover.

产品用途 Application

钢丝增强液压橡胶软管主要用于矿井液压支架、油田开采，适宜于工程建设、起重运输、冶金锻压、矿山设备、船舶、注塑机械、农业机械、各种机床以及各工业部门机械化、自动化液压系统中输送具有一定压力和温度的石油基（如矿物油、可溶性油、液压油、燃油、润滑油）液体、水基液体（如乳化液、油水乳浊液、水）、气体等和液体传动用。

Wire reinforcement hydraulic hose mainly used in mine hydraulic support, oil exploration, suitable to engineer construction, crane transport, forging metallurgy, mining equipment, ships, injection molding machinery, agricultural machinery various machine tools, and carry hydraulic fluids for industry department mechanization and automatic hydraulic systems, including petroleum base fluids which under specific pressure and temperature (e.g. mineral oil, soluble oil, mineral oils, fuels, lubrication), water based fluids (e.g. emulsion, oil-water emulsion, water), air and fluids.

工作温度 Working Temperature

油类 -55℃至 +150℃，空气 -30℃至 +50℃，水乳液 +80℃以下。

Oils -55℃ to +150℃ Air -30℃ to +50℃ Water Emulsion Under +80℃

产品特点 Product Features

1. 胶管选用特种合成橡胶配合制成，具有优良的耐油、耐热、耐老化性能
2. 胶管承压高，脉冲性能优越
3. 管体结合紧密，使用柔软，在压力下变形小
4. 胶管具有优良的耐曲折性和耐疲劳性
5. 使用寿命长

1. Provides superior oil resistance, heat resistance and aging resistance by using special synthetic rubber
2. Provides high pressure resistance and superior impulse resistance
3. Provides superior bonding in hose internal, soft use and small deformation under pressure
4. Provides superior kink resistance and fatigue resistance
5. Provides longer service life

钢丝缠绕胶管 Spiral Hose

产品结构 Product Structure

主要由内胶层、中胶层、2、4、6 层钢丝缠绕层、外胶层组成。内胶层具有使输送介质承受压力，保护钢丝不受侵蚀的作用，外胶层保护钢丝不受损伤，钢丝（ $\phi 0.3-2.0$ 增强层）层是骨架材料起增强作用。

Product Structure: consists of an inner tube, middle rubber layer, two, four or six spiral wire reinforcements and cover. Inner tube is to transmit liquid under pressure and protect steel wire against corrosion while cover is to protect wire against damage.

Wire layer ($\phi 0.3-2.0$ reinforcement) is the structure materials that providing reinforcement.

产品用途 Application

高压钢丝增强液压胶管主要用于矿井液压支架、油田开发，适宜于工程建设、起重运输、冶金锻压、矿山设备、船舶、注塑机械、农业机械、各种机床以及各工业部门机械化、自动化液压系统中输送具有一定压力（较高压力）和温度的石油基（如矿物油、可溶性油、液压油、燃油、润滑油）及水基液体（如乳化液、油水乳浊液、水）等和液体传动，最高耐工作压力可达 70-120Mpa。

Application: high pressure wire reinforcement Hydraulic hose mainly used in mine hydraulic support, oil exploration, suitable to engineer construction, crane transport, forging metallurgy, mining equipment, ships, injection molding machinery, agricultural machinery, various machine tools and carry hydraulic fluids, including petroleum base fluids which under specific pressure and temperature (e.g. mineral oil, soluble oil, mineral oils, fuels, lubrication), water based fluids (e.g. emulsion, oil-water emulsion, water), air and fluids, in industry department mechanization and automatic hydraulic systems. Its highest operating pressure could attain 70-120 Mpa.

工作温度：-40℃至 121℃

Working Temperature: -40℃ to 121℃

第一部分 国标液压软管技术

GB STANDARD

MT98 (602 系列) 矿用钢丝编织橡胶软管

WIRE BRAID HYDRAULIC RUBBER HOSE FOR COAL MINING

一层钢丝编织矿用液压软管

ONE WIRE BRAID HYDRAULIC HOSE FOR COAL MINING

产品结构

内胶层：丁腈橡胶

增强层：一层高强度钢丝编织层

外胶层：合成橡胶

用途：适用于煤矿液压支架，综合采煤机组等液压系统输送矿物油，水基液压油和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹或黑色光面。软管执行 MT98-2006 标准。



Construction

Inner tube: NBR

Reinforcement: one high tensile steel wire braid

Cover: Synthetic rubber

Application: for delivery of water, mineral oil or water-based hydraulic oil in the hydraulic system of coal mining machinery and working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is braided with brass plated wire. Black wrapped cover, the sizes from DN6 to DN25 can do smooth cover.

产品型号 Type	公制规格	英制规格	软管内径 I.D		增强层外径 W.D		软管外径 O.D		最大工作压力 W.P		最小爆破压力 Min. B.P		最小弯曲半径 Min. B.R	参考重量 Weight
	size	size	最小	最大	最小	最大	最小	最大	Mpa	Psi	Mpa	Psi	mm	Kg/m
	mm	inch	min	max	min	max	min	max						
1-6	6	1/4	5.8	6.5	11.1	12.1	14.2	15.4	23.0	3335.0	92.0	13340.0	90	0.27
1-8	8	5/16	7.8	8.5	13.1	14.1	16.2	17.4	22.0	3190.0	88.0	12760.0	100	0.35
1-10	10	3/8	9.8	10.5	15.1	16.1	18.1	19.3	18.0	2610.0	72.0	10440.0	115	0.42
1-13	13	1/2	12.8	13.5	18.9	19.9	21.9	23.1	16.0	2320.0	64.0	9280.0	130	0.53
1-16	16	5/8	15.8	16.6	22	23	24.7	26.3	13.0	1885.0	52.0	7540.0	180	0.70
1-19	19	3/4	18.8	19.8	25	26	27.6	29.2	11.0	1595.0	44.0	6380.0	200	0.84
1-22	22	7/8	21.8	22.8	28	29	30.6	32.2	10.0	1450.0	40.0	5800.0	240	0.95
1-25	25	1	24.8	25.8	31.5	32.5	34.2	35.8	9.0	1305.0	36.0	5220.0	300	0.96
1-32	32	1 1/4	31.6	33.6	38.5	39.5	41.8	44.2	7.0	1015.0	28.0	4060.0	420	1.4
1-38	38	1 1/2	37.7	39.8	45.5	46	48.8	51.2	6.0	870.0	24.0	3480.0	500	1.58
1-51	51	2	50.7	52	57.7	58.8	62.3	64.7	4.0	580.0	16.0	2320.0	630	1.99
1-63	63	2 1/2	63.5	65.3	71	73	76	80	3.5	508.0	14.0	2030.0	760	2.42
1-76	76	3	75.5	77.5	83	85	88	92	3	435.0	12.0	1740.0	820	2.86

二层钢丝编织矿用液压软管

TWO WIRE BRAID HYDRAULIC HOSE FOR COAL MINING

产品结构

内胶层：丁腈橡胶

增强层：二层高强度钢丝编织层

外胶层：合成橡胶

用途：适用于煤矿液压支架，综合采煤机组等液压系统输送矿物油，水基液压油和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹或黑色光面。软管执行 MT98-2006 标准。



Construction

Inner tube: NBR

Reinforcement: two high tensile steel wire braid

Cover: Synthetic rubber

Application: for delivery of water, mineral oil or water-based hydraulic oil in the hydraulic system of coal mining machinery and working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is braided with brass plated wire. Black wrapped cover, the sizes from DN6 to DN25 can do smooth cover.

产品型号 Type	公制规格	英制规格	软管内径 I.D		增强层外径 W.D		软管外径 O.D		最大工作压力 W.P		最小爆破压力 Min. B.P		最小弯曲半径 Min. B.R	参考重量 Weight
	size	size	最小	最大	最小	最大	最小	最大	Mpa	Psi	Mpa	Psi	mm	Kg/m
	mm	inch	min	max	min	max	min	max						
2-6	6	1/4	5.8	6.5	12.9	13.9	16.0	17.2	40.0	5800.0	160.0	23200.0	90	0.48
2-8	8	5/16	7.8	8.5	14.9	15.9	18.0	19.2	40.0	5800.0	160.0	23200.0	100	0.5
2-10	10	3/8	9.8	10.5	16.9	17.9	19.9	21.1	40.0	5800.0	160.0	23200.0	115	0.63
2-13	13	1/2	12.8	13.5	20.7	21.7	23.7	24.9	35.0	5075.0	140.0	20300.0	130	0.74
2-16	16	5/8	15.8	16.6	23.7	24.7	26.5	28.1	25.0	3625.0	100.0	14500.0	180	0.97
2-19	19	3/4	18.8	19.8	26.7	27.7	29.4	31.0	22.0	3190.0	88.0	12760.0	200	1.09
2-22	22	7/8	21.8	22.8	30.7	31.0	32.6	34.0	16.0	2320.0	64.0	9280.0	240	1.28
2-25	25	1	24.8	25.8	33.5	34.5	36.0	37.6	17.0	2645.0	68.0	9860.0	300	1.32
2-32	32	1 1/4	31.6	33.6	40.2	41.2	43.8	46.2	13.0	1885.0	52.0	7540.0	420	1.91
2-38	38	1 1/2	37.7	39.8	46.5	47.5	49.8	52.2	10.0	1450.0	40.0	5800.0	500	2.1
2-51	51	2	50.7	52	59.5	60.5	62.8	65.2	8.0	1160.0	32.0	4640.0	630	2.51
2-63	63	2 1/2	63.5	65.3	73.0	75.0	78.0	80.0	7.0	1015.0	28.0	4060.0	760	3.3
2-76	76	3	75.5	77.5	85.0	87.0	90.0	94.0	6.0	870.0	24.0	3480.0	820	3.9

三层钢丝编织矿用液压软管

THREE WIRE BRAID HYDRAULIC HOSE FOR COAL MINING

产品结构

内胶层：丁腈橡胶

增强层：三层高强度钢丝编织层

外胶层：合成橡胶

用途：适用于煤矿液压支架，综合采煤机组等液压系统输送矿物油，水基液压油和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹或黑色光面。软管执行 MT98-2006 标准。



Construction

Inner tube: NBR

Reinforcement: three high tensile steel wire braid

Cover: Synthetic rubber

Application: for delivery of water, mineral oil or water-based hydraulic oil in the hydraulic system of coal mining machinery and working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is braided with brass plated wire. Black wrapped cover, the sizes from DN6 to DN25 can do smooth cover.

产品型号 Type	公制规格	英制规格	软管内径 I.D		增强层外径 W.D		软管外径 O.D		最大工作压力 W.P		最小爆破压力 Min. B.P		最小弯曲半径 Min. B.R	参考重量 Weight
	size	size	最小	最大	最小	最大	最小	最大	Mpa	Psi	Mpa	Psi	mm	Kg/m
	mm	inch	min	max	min	max	min	max						
3-8	8	5/16	7.8	8.5	16.5	17.5	19.6	20.8	44.0	6380.0	176.0	25520.0	114	0.79
3-10	10	3/8	9.8	10.5	18.5	19.5	21.5	22.7	44.0	6380.0	176.0	25520.0	127	0.90
3-13	13	1/2	12.8	13.5	22.5	23.5	25.5	26.7	37.0	5365.0	148.0	21460.0	178	1.20
3-16	16	5/8	15.8	16.6	25.5	26.5	28.3	29.9	28.0	4060.0	112.0	16240.0	203	1.39
3-19	19	3/4	18.8	19.8	28.5	29.5	31.2	32.8	23.0	3335.0	92.0	13340.0	241	1.54
3-22	22	7/8	21.8	22.8	31.5	32.5	34.2	35.8	18.0	2610.0	72.0	10440.0	268	1.66
3-25	25	1	24.8	25.8	34.6	35.6	37.2	38.8	18.0	2610.0	72.0	10440.0	305	1.97
3-32	32	1 1/4	31.6	33.6	42.0	43.0	45.8	48.2	14.0	2030.0	56.0	8120.0	419	2.48
3-38	38	1 1/2	37.7	39.8	48.0	49.0	51.8	54.2	11.0	1595.0	44.0	6380.0	508	2.90

4SP 型四层钢丝缠绕中压软管

4SP FOUR WIRE SPIRAL HYDRAULIC HOSE

产品结构

内胶层：丁腈橡胶

增强层：四层高强度钢丝缠绕层

外胶层：合成橡胶

用途：适用于煤矿液压支架，综合采煤机组等液压系统输送矿物油，水基液压油和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹。软管执行 MT98-2006 标准。



Construction

Inner tube: NBR

Reinforcement: four high tensile steel wire spirals

Cover: Synthetic rubber

Application: for delivery of water, mineral oil or water-based hydraulic oil in the hydraulic system of coal mining machinery and working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is spiraled with brass plated wire. Black wrapped cover.

型号	软管内径 I.D			增强层内径 W.R	软管外径 O.D	最大工作压力 W.P		最小爆破压力 Min. B.P		最小弯曲半径 Min. B.R	参考重量 Weight
Type	DN	inch	mm	mm	mm	Mpa	Psi	Mpa	Psi	mm	Kg/m
4SP-10	10	3/8	10.0	19.2	22.8	70	10150.0	280.0	40600.0	180	0.86
4SP-13	13	1/2	13.0	22.4	26.0	60	8700.0	240.0	34800.0	230	1.17
4SP-16	16	5/8	16.0	25.8	29.4	50	7250.0	200.0	29000.0	250	1.38
4SP-19	19	3/4	19.0	30.2	33.8	46	6670.0	184.0	26680.0	300	1.71
4SP-25	25	1	25.4	36.5	40.5	35	5075.0	140.0	20300.0	340	2.15
4SP-32	32	1 1/4	31.8	43.9	47.8	32	4640.0	128.0	18560.0	460	2.66
4SP-38	38	1 1/2	38.1	50.4	54.5	25	3625.0	100.0	14500.0	560	3.13
4SP-51	51	2	51.1	63.0	67.5	20	2900.0	80.0	11600.0	660	4.26
4SP-63	63	2 1/2	63.4	76.8	81.5	16.5	2392.5	66.0	9570.0	760	6.03
4SP-76	76	3	76.3	91.6	97.0	16.5	2392.5	66.0	9570.0	860	8.09

4SH 型四层钢丝缠绕软管

4SH FOUR WIRE SPIRAL HYDRAULIC HOSE

产品结构

内胶层：丁腈橡胶

增强层：四层高强度钢丝缠绕层

外胶层：合成橡胶

用途：适用于煤矿液压支架，综合采煤机组等液压系统输送矿物油，水基液压油和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹。软管执行 MT98-2006 标准。



Construction

Inner tube: NBR

Reinforcement: four high tensile steel wire spirals

Cover: Synthetic rubber

Application: for delivery of water, mineral oil or water-based hydraulic oil in the hydraulic system of coal mining machinery and working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is spiraled with brass plated wire. Black wrapped cover.

型号	软管内径 I.D			增强层内径 W.R	软管外径 O.D	最大工作压力 W.P		最小爆破压力 Min. B.P		弯曲半径 B.R	重量 Weight
	DN	Inch	mm			Mpa	Psi	Mpa	Psi		
4SH-19	19	3/4	19.0	28.7	32.2	42.0	6090.0	168.0	24360.0	280	1.54
4SH-25	25	1	25.4	35.5	39.0	38.0	5510.0	152.0	21750.0	340	2.14
4SH-32	32	1 1/4	31.8	42.5	46.0	35.0	5075.0	140.0	20300.0	460	2.66
4SH-38	38	1 1/2	38.1	49.3	54.0	30.0	4350.0	120.0	17400.0	560	3.33
4SH-51	51	2	51.1	63.7	68.5	25.0	3625.0	100.0	14500.0	700	4.84

R12 型四层钢丝缠绕中压软管

R12 FOUR WIRE SPIRAL HYDRAULIC HOSE

产品结构

内胶层：丁腈橡胶

增强层：四层高强度钢丝缠绕层

外胶层：合成橡胶

用途：适用于煤矿液压支架，综合采煤机组等液压系统输送矿物油，水基液压油和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹。软管执行 MT98-2006 标准。



Construction

Inner tube: NBR

Reinforcement: four high tensile steel wire spirals

Cover: Synthetic rubber

Application: for delivery of water, mineral oil or water-based hydraulic oil in the hydraulic system of coal mining machinery and working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is spiraled with brass plated wire. Black wrapped cover.

型号	软管内径 I.D			增强层内径 W.R	软管外径 O.D	最大工作压力 W.P		最小爆破压力 Min. B.P		弯曲半径 B.R	重量 Weight
	DN	Inch	mm			Mpa	Psi	Mpa	Psi		
R12-10	10	3/8	10.0	19.2	22.8	70	10150.0	280.0	40600.0	180	0.86
R12-13	13	1/2	13.0	22.4	26.0	60	8700.0	240.0	34800.0	230	1.17
R12-16	16	5/8	16.0	25.8	29.4	50	7250.0	200.0	29000.0	250	1.38
R12-19	19	3/4	19.0	30.2	33.8	46	6670.0	184.0	26680.0	300	1.71
R12-25	25	1	25.4	36.5	40.5	35	5075.0	140.0	20300.0	340	2.15
R12-32	32	1 1/4	31.8	43.9	47.8	32	4640.0	128.0	18560.0	460	2.66
R12-38	38	1 1/2	38.1	50.4	54.5	25	3625.0	100.0	14500.0	560	3.13
R12-51	51	2	51.1	63.0	67.5	20	2900.0	80.0	11600.0	660	4.26

R13 型多层钢丝缠绕高温高压重型软管

R13 WIRE SPIRAL HYDRAULIC HOSE

产品结构

- 内胶层：丁腈橡胶
- 增强层：四层或六层高强度钢丝缠绕层
- 外胶层：合成橡胶

用途：适用于煤矿液压支架，综合采煤机组等液压系统输送矿物油，水基液压油和水，可在 -40℃ ~ +120℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹。软管执行 MT98-2006 标准。



Construction

- Inner tube: NBR
- Reinforcement: four or six high tensile steel wire spirals
- Cover: Synthetic rubber

Application: for delivery of water, mineral oil or water-based hydraulic oil in the hydraulic system of coal mining machinery and working temperature range is -40℃ ~ +120℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is spiraled with brass plated wire. Black wrapped cover

型号	软管内径 I.D			增强层内径 W.R	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		弯曲半径 B.R	重量 Weight
type	DN	Inch	mm	mm	mm	Mpa	Psi	Mpa	Psi	mm	Kg/m
R13-19	19	3/4	19.0	28.7	32.0	35.0	5000.0	140.0	20300.0	240	1.54
R13-25	25	1	25.4	35.8	39.0	35.0	5000.0	140.0	20300.0	300	2.14
R13-32	32	1 1/4	31.8	47.8	50.8	35.0	5000.0	140.0	20300.0	420	3.97
R13-38	38	1 1/2	38.1	54.8	58.0	35.0	5000.0	140.0	20300.0	500	4.77
R13-51	51	2	51.1	67.8	72.0	35.0	5000.0	140.0	20300.0	630	6.65
R13-63	63	2 1/2	63.5	80.6	86.0	35.0	5000.0	140.0	20300.0	760	8.63

R15 型多层钢丝缠绕高温高压重型软管

R15 WIRE SPIRAL HYDRAULIC HOSE

产品结构

- 内胶层：丁腈橡胶
- 增强层：四层或六层高强度钢丝缠绕层
- 外胶层：合成橡胶

用途：适用于煤矿液压支架，综合采煤机组等液压系统输送矿物油，水基液压油和水，可在 -40℃ ~ +120℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹。软管执行 MT98-2006 标准。



Construction

- Inner tube: NBR
- Reinforcement: four or six high tensile steel wire spirals
- Cover: Synthetic rubber

Application: for delivery of water, mineral oil or water-based hydraulic oil in the hydraulic system of coal mining machinery and working temperature range is -40℃ ~ +120℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is spiraled with brass plated wire. Black wrapped cover

型号	软管内径 I.D			增强层内径 W.R	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		弯曲半径 B.R	重量 Weight
type	DN	Inch	mm	mm	mm	Mpa	Psi	Mpa	Psi	mm	Kg/m
R15-25	25	1	25.4	35.7	39.5	42.0	6090.0	168.0	24360.0	330	2.04
R15-32	32	1 1/4	31.8	47.8	50.8	42.0	6090.0	168.0	24360.0	445	3.97
R15-38	38	1 1/2	38.1	54.8	58.0	42.0	6090.0	168.0	24360.0	530	4.77
R15-51	51	2	51.1	66.6	71.0	42.0	6090.0	168.0	24360.0	660	6.77
R15-63	63	2 1/2	63.5	82.0	86.0	42.0	6090.0	168.0	24360.0	760	9.29

第二部分 美标液压软管技术参数表

SAE J517 STANDARD

一层钢丝编织液压软管

ONE WIRE BRAID HYDRAULIC HOSE SAE 100 R1AT

产品结构

内胶层：丁腈橡胶

增强层：一层高强度钢丝缠绕层

外胶层：合成橡胶

适用介质：石油基和水乙二醇液压油、润滑油、乳化液、空气和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹或黑色光面。软管执行 SAE 100 R1AT 标准。



Construction

Inner tube: NBR

Reinforcement: one high tensile steel wire braid

Cover: Synthetic rubber

Application: for delivery of petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water. The working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is braided with brass plated wire. Black wrapped cover, the sizes from DN6 to DN25 can do smooth cover.

软管内径 I.D			增强层外径 W.D	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		最小弯曲半径 Min. B.R	重量 Weight
DN	Inch	mm	mm	mm	Bar	Psi	Bar	Psi	mm	Kg/m
05	3/16	5.0	9.4	11.4	250	3625.0	1000	14500	90	0.18
06	1/4	6.3	11.0	13.0	225	3263.0	900	13050	100	0.21
08	5/16	7.9	12.8	15.0	215	3118.0	850	12325	115	0.25
10	3/8	9.5	14.8	17.0	180	2610.0	720	10440	130	0.35
13	1/2	12.7	18.0	20.2	160	2320.0	640	9280	180	0.43
16	5/8	15.9	21.3	23.8	130	1885.0	520	7540	200	0.54
19	3/4	19.1	25.0	27.8	105	1523.0	420	6090	240	0.68
25	1	25.4	32.5	35.5	88	1276.0	350	5075	300	0.93
32	1 1/4	31.8	41.3	44.0	63	914.0	250	3625	420	1.3
38	1 1/2	38.1	47.7	50.5	50	725.0	200	2900	500	1.5
51	2	50.8	60.4	63.5	40	580.0	160	2320	630	2

二层钢丝编织液压软管

TWO WIRE BRAID HYDRAULIC HOSE SAE 100 R2AT

产品结构

内胶层：丁腈橡胶

增强层：二层高强度钢丝编织层

外胶层：合成橡胶

适用介质：石油基和水乙二醇液压油、润滑油、乳化液、空气和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹或黑色光面。软管执行 SAE 100 R2AT 标准。



Construction

Inner tube: NBR

Reinforcement: two high tensile steel wire braid

Cover: Synthetic rubber

Application: for delivery of petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water. The working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is braided with brass plated wire. Black wrapped cover, the sizes from DN6 to DN25 can do smooth cover.

软管内径 I.D			增强层外径 W.D	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		最小弯曲半径 Min. B.R	重量 Weight
DN	Inch	mm	mm	mm	Bar	Psi	Bar	Psi	mm	Kg/m
05	3/16	5.0	10.9	13.0	415	6018	1650	23925	90	0.30
06	1/4	6.3	12.7	14.8	400	5800	1600	23200	100	0.35
08	5/16	7.9	14.5	16.7	350	5075	1400	20300	115	0.45
10	3/8	9.5	16.5	18.7	330	4785	1320	19140	130	0.53
13	1/2	12.7	19.7	22.0	275	3988	1100	15950	180	0.66
16	5/8	15.9	23.0	25.4	250	3625	1000	14500	200	0.79
19	3/4	19.1	26.8	29.4	215	3118	850	12325	240	0.98
25	1	25.4	34.3	37.5	165	2393	650	9425	300	1.28
32	1 1/4	31.8	43.2	46.0	125	1813	500	7250	420	1.85
38	1 1/2	38.1	49.6	52.5	90	1305	360	5220	500	2.30
51	2	50.8	62.3	65.5	80	1160	320	4640	630	2.60

二层棉线编织软管

TWO FIBER BRAID RUBBER HOSE SAE 100 R3

产品结构

- 内胶层：丁腈橡胶
- 增强层：二层高强度棉线编织层
- 外胶层：合成橡胶

适用介质：石油基和水乙二醇液压油、润滑油、乳化液、空气和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用高强度纤维线增强，外观为黑色布纹或黑色光面。软管执行 SAE 100 R3 标准。



Construction

Inner tube: NBR

Reinforcement: two braids of suitable fiber

Cover: Synthetic rubber

Application: for delivery of petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water. The working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is braided with high tensile fiber. Black wrapped cover, the sizes from DN6 to DN25 can do smooth cover.

软管内径 I.D			增强层外径 W.D	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		最小弯曲半径 Min. B.R	重量 Weight
DN	Inch	mm	mm	mm	Bar	Psi	Bar	Psi	mm	Kg/m
06	1/4	6.3	12.0	14.0	87	1262	348	5046	75	0.18
08	5/16	7.9	15.0	17.2	84	1218	336	4872	100	0.27
10	3/8	9.5	16.6	18.8	78	1131	312	4524	100	0.31
13	1/2	12.7	21.3	23.5	70	1020	280	4060	125	0.45
16	5/8	15.9	24.5	26.8	61	885	244	3538	140	0.53
19	3/4	19.1	29.3	31.6	52	754	208	3016	150	0.72
25	1	25.4	35.2	37.6	39	566	156	2262	205	0.90
32	1 1/4	31.8	42.0	44.5	26	377	104	1508	250	1.07

一层棉线编织软管

ONE FIBER BRAID RUBBER HOSE SAE 100 R6

产品结构

- 内胶层：丁腈橡胶
- 增强层：一层高强度棉线编织层
- 外胶层：合成橡胶

适用介质：石油基和水乙二醇液压油、润滑油、乳化液、空气和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用高强度纤维线增强，外观为黑色布纹或黑色光面。软管执行 SAE100 R6 标准。



Construction

Inner tube: NBR

Reinforcement: one fiber braids of suitable fiber

Cover: Synthetic rubber

Application: for delivery of petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water. The working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is braided with high tensile fiber. Black wrapped cover, the sizes from DN6 to DN25 can do smooth cover.

软管内径 I.D			增强层外径 W.D	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		最小弯曲半径 Min. B.R	重量 Weight
DN	Inch	mm	mm	mm	Bar	Psi	Bar	Psi	mm	Kg/m
06	1/4	6.3	10.0	12.2	28	406	112	1624	65	0.13
08	5/16	7.9	12.2	14.3	28	406	112	1624	75	0.15
10	3/8	9.5	13.8	16.0	28	406	112	1624	75	0.18
13	1/2	12.7	17.3	19.5	28	406	112	1624	100	0.26
16	5/8	15.9	20.4	22.7	24	348	96	1392	125	0.31
19	3/4	19.1	24.4	26.7	21	305	84	1218	150	0.40

四层钢丝缠绕液压软管

WIRE SPIRAL HYDRAULIC HOSE SAE 100 R12

产品结构

内胶层：丁腈橡胶

增强层：四层高强度钢丝缠绕层

外胶层：合成橡胶

适用介质：石油基和水乙二醇液液压油、润滑油、乳化液、空气和水，可在-40℃~+121℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹。软管执行 SAE 100 R12 标准。

Construction

Inner tube: NBR

Reinforcement: four high tensile steel spiral

Cover: Synthetic rubber

Application: for delivery of petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water. The working temperature range is -40℃~+121℃.

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is spiraled with brass plated wire. Black wrapped cover.



软管内径 I.D			增强层内径 W.R	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		弯曲半径 B.R	重量 Weight
DN	Inch	mm	mm	mm	Bar	Psi	Mpa	Psi	mm	Kg/m
10	3/8	9.5	17.5	20.4	280	4060	1120	16240	130	0.70
13	1/2	12.7	21.1	23.9	280	4060	1120	16240	180	0.83
16	5/8	15.9	24.8	27.6	280	4060	1120	16240	200	1.12
19	3/4	19.1	28.1	31.0	280	4060	1120	16240	240	1.33
25	1	25.4	35.4	38.6	280	4060	1120	16240	300	2.00
32	1 1/4	31.8	43.9	47.8	210	3045	840	12180	420	2.80
38	1 1/2	38.1	50.4	54.0	175	2540	700	12180	500	3.40
51	2	50.8	63.0	67.4	175	2540	700	12180	630	4.25

多层钢丝缠绕液压软管

WIRE SPIRAL HYDRAULIC HOSE SAE 100 R13

产品结构

内胶层：丁腈橡胶

增强层：四层或六层高强度钢丝缠绕层

外胶层：合成橡胶

适用介质：石油基和水乙二醇液液压油、润滑油、乳化液、空气和水，可在-40℃~+121℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹。软管执行 SAE 100 R13 标准。

Construction

Inner tube: NBR

Reinforcement: four or six high tensile steel spiral

Cover: Synthetic rubber

Application: for delivery of petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water. The working temperature range is -40℃~+121℃.

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is spiraled with brass plated wire. Black wrapped cover.



软管内径 I.D			增强层内径 W.R	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		弯曲半径 B.R	重量 Weight
DN	Inch	mm	mm	mm	Bar	Psi	Bap	Psi	mm	Kg/m
19	3/4	19.1	28.7	32.0	350	5000	1400	20300	240	2.10
25	1	25.4	35.8	39.0	350	5000	1400	20300	300	2.88
32	1 1/4	31.8	47.8	50.8	350	5000	1400	20300	420	4.20
38	1 1/2	38.1	54.8	58.0	350	5000	1400	20300	500	5.00
51	2	51.1	67.8	72.0	350	5000	1400	20300	630	7.00

多层钢丝缠绕液压软管

WIRE SPIRAL HYDRAULIC HOSE SAE 100 R15

产品结构

内胶层：丁腈橡胶

增强层：四层或六层高强度钢丝缠绕层

外胶层：合成橡胶

适用介质：石油基和水乙二醇液压油、润滑油、乳化液、空气和水，可在 -40℃ ~ +121℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹。软管执行 SAE 100 R15 标准。

Construction

Inner tube: NBR

Reinforcement: four or six high tensile steel spiral

Cover: Synthetic rubber

Application: for delivery of petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water. The working temperature range is -40℃ ~ +121℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is spiraled with brass plated wire. Black wrapped cover.



软管内径 I.D			增强层内径 W.R	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		弯曲半径 Min. B.R	重量 Weight
DN	inch	mm	mm	mm	Bar	Psi	Mpa	Psi	mm	Kg/m
19	3/4	19.1	28.7	32.0	420	6090	1680	24360	267	1.85
25	1	25.4	35.8	39.0	420	6090	1680	24360	300	2.90
32	1 1/4	31.8	47.8	50.8	420	6090	1680	24360	420	4.20
38	1 1/2	38.1	54.8	58.0	420	6090	1680	24360	500	5.60
51	2	51.1	66.6	71.0	420	6090	1680	24360	630	6.77



小型高压 1 和 2 层钢丝编织液压软管

WIRE BRAID HYDRAULIC HOSE SAE 100 R17

产品结构

内胶层：丁腈橡胶

增强层：一层或二层高强度钢丝编织层

外胶层：合成橡胶

适用介质：石油基和水乙二醇液压油、润滑油、乳化液、空气和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹或黑色光面。软管执行 SAE100 R17 标准。

Construction

Inner tube: NBR

Reinforcement: one or two high tensile steel wire braid

Cover: Synthetic rubber

Application: for delivery of petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water. The working temperature range is -40℃ ~ +121℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is braided with brass plated wire.

Black wrapped cover, the sizes from DN6 to DN25 can do smooth cover.



软管内径 I.D			最增强层外径 W.D	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		最小弯曲半径 Min. B.R	重量 Weight
DN	inch	mm	mm	mm	Bar	Psi	Bar	Psi	mm	Kg/m
06	1/4	6.3	10.0	12.2	210	3045	840	12180	75	0.30
08	5/16	7.9	11.7	13.8	210	3045	840	12180	85	0.34
10	3/8	9.5	13.6	15.8	210	3045	840	12180	90	0.42
13	1/2	12.7	17.0	19.3	210	3045	840	12180	130	0.54
16	5/8	15.9	20.4	22.7	210	3045	840	12180	170	0.68
19	3/4	19.1	23.9	26.3	210	3045	840	12180	200	0.80
25	1	25.4	31.2	33.6	210	3045	840	12180	250	1.15

第三部分 德标液压软技术参数表

DIN STANDARD

一层钢丝编织液压软管

ONE WIRE BRAID HYDRAULIC HOSE DIN EN853 1SN

产品结构

内胶层：丁腈橡胶

增强层：一层高强度钢丝编织层

外胶层：合成橡胶

适用介质：石油基和水乙二醇液压油、润滑油、乳化液、空气和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹或黑色光面。软管执行 DIN EN853 标准。



Construction

Inner tube: NBR

Reinforcement: one high tensile steel wire braid

Cover: Synthetic rubber

Application: for delivery of petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water. The working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is braided with brass plated wire.

Black wrapped cover, the sizes from DN6 to DN25 can do smooth cover.

软管内径 I.D			增强层外径 W.D	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		最小弯曲半径 Min. B.R	重量 Weight
DN	inch	mm	mm	mm	Bar	Psi	Bar	Psi	mm	Kg/m
05	3/16"	5.0	9.4	11.4	250	3625	1000	14500	90	0.18
06	1/4"	6.3	11.0	13.0	225	3263	900	13050	100	0.21
08	5/16"	7.9	12.8	15.0	215	3118	850	12325	115	0.25
10	3/8"	9.5	14.8	17.0	180	2610	720	10440	130	0.35
13	1/2"	12.7	18.0	20.2	160	2320	640	9280	180	0.43
16	5/8"	15.9	21.3	23.8	130	1885	520	7540	200	0.54
19	3/4"	19.1	25.0	27.8	105	1523	420	6090	240	0.68
25	1"	25.4	32.5	35.5	88	1276	350	5075	300	0.93
32	1.1/4"	31.8	41.3	44.0	63	914	250	3625	420	1.3
38	1.1/2"	38.1	47.7	50.5	50	725	200	2900	500	1.5
51	2"	50.8	60.4	63.5	40	580	160	2320	630	2

二层钢丝编织液压软管

TWO WIRE BRAID HYDRAULIC HOSE DIN EN853 2SN

产品结构

内胶层：丁腈橡胶

增强层：二层高强度钢丝编织层

外胶层：合成橡胶

适用介质：石油基和水乙二醇液压油、润滑油、乳化液、空气和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹或黑色光面。软管执行 DIN EN853 标准。



Construction

Inner tube: NBR

Reinforcement: two high tensile steel wire braid

Cover: Synthetic rubber

Application: for delivery of petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water. The working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is braided with brass plated wire.

Black wrapped cover, the sizes from DN6 to DN25 can do smooth cover.

软管内径 I.D			增强层外径 W.D	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		最小弯曲半径 Min. B.R	重量 Weight
DN	inch	mm	mm	mm	Bar	Psi	Bar	Psi	mm	Kg/m
05	3/16	5.0	10.9	13.0	415	6018	1650	23925	90	0.30
06	1/4	6.3	12.7	14.8	400	5800	1600	23200	100	0.35
08	5/16	7.9	14.5	16.7	350	5075	1400	20300	115	0.45
10	3/8	9.5	16.5	18.7	330	4785	1320	19140	130	0.53
13	1/2	12.7	19.7	22.0	275	3988	1100	15950	180	0.66
16	5/8	15.9	23.0	25.4	250	3625	1000	14500	200	0.79
19	3/4	19.1	26.8	29.4	215	3118	850	12325	240	0.98
25	1	25.4	34.3	37.5	165	2393	650	9425	300	1.28
32	1.1/4	31.8	43.2	46.0	125	1813	500	7250	420	1.85
38	1.1/2	38.1	49.6	52.5	90	1305	360	5220	500	2.30
51	2	50.8	62.3	65.5	80	1160	320	4640	630	2.60

四层钢丝缠绕液压胶管

FOUR WIRE SPIRAL HYDRAULIC HOSE DIN EN 856 4SP

产品结构

内胶层：丁腈橡胶

增强层：四层高强度钢丝缠绕层

外胶层：合成橡胶

用途：适用于煤矿液压支架，综合采煤机组等液压系统输送矿物油，水基液压油和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹。软管执行 DIN EN856 标准。



Construction

Inner tube: NBR

Reinforcement: four high tensile steel wire spirals

Cover: Synthetic rubber

Application: for delivery of water, mineral oil or water-based hydraulic oil in the hydraulic system of coal mining machinery and working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is spiraled with brass plated wire. Black wrapped cover.

软管内径 I.D			增强层内径 W.R	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		弯曲半径 Min. B.R	重量 Weight
DN	Inch	mm	mm	mm	Bar	Psi	Bar	Psi	mm	Kg/m
10	3/8	9.5	17.8	21.5	445	6453	1780	25810	180	0.70
13	1/2	12.7	20.7	24.5	415	6018	1660	24070	230	0.94
16	5/8	15.9	24.2	28.0	350	5075	1400	20300	250	1.13
19	3/4	19.1	28.7	32.2	350	5075	1400	20300	300	1.60
25	1	25.4	35.8	39.5	280	4060	1120	16240	340	2.04
32	1 1/4	31.8	45.5	50.5	210	3045	840	12180	460	3.15
38	1 1/2	38.1	52.0	57.0	185	2683	740	10730	560	3.60
51	2	50.8	65.0	71.0	165	2393	660	9570	660	4.95

四层钢丝缠绕液压软管

FOUR WIRE SPIRAL HYDRAULIC HOSE DIN EN856 4SH

产品结构

内胶层：丁腈橡胶

增强层：四层高强度钢丝缠绕层

外胶层：合成橡胶

用途：适用于煤矿液压支架，综合采煤机组等液压系统输送矿物油，水基液压油和水，可在 -40℃ ~ +100℃使用。

特性：用耐油和耐气候良好的特种橡胶制造，采用镀铜钢丝增强，外观为黑色布纹。软管执行 DIN EN856 标准。



Construction

Inner tube: NBR

Reinforcement: four high tensile steel wire spirals

Cover: Synthetic rubber

Application: for delivery of water, mineral oil or water-based hydraulic oil in the hydraulic system of coal mining machinery and working temperature range is -40℃ ~ +100℃ .

Feature: made of excellent oil resistant and anti-aging rubber. The reinforcement is spiraled with brass plated wire. Black wrapped cover.

软管内径 I.D			增强层内径 W.R	软管外径 O.D	最大工作压力 W.P		最小爆破压力 B.P		弯曲半径 Min. B.R	重量 Weight
DN	Inch	mm	mm	mm	Bar	Psi	Bar	Psi	mm	Kg/m
19	3/4	19.1	28.7	32.2	420	6090	1680	24360	280	1.60
25	1	25.4	35.8	39.2	380	5510	1520	22040	340	2.10
32	1 1/4	31.8	42.6	46.6	325	4713	1300	18850	460	2.60
38	1 1/2	38.1	49.4	54.5	290	4205	1160	16820	560	3.43
51	2	50.8	63.9	68.8	250	3625	1000	14500	700	4.50

钢丝编织液压软管

WIRE BRAID HYDRAULIC HOSE EN857 1SC

产品结构

内胶层：丁腈橡胶（NBR）
增强层：一层高强度钢丝编织层
外胶层：合成橡胶
外观为黑色布纹、DN25 及以下规格可提供光面
适用介质：石油基和水乙二醇液压油、润滑油、乳化液、空气和水
温度范围：-40℃至 100℃



Construction

Tube: NBR

Reinforcement : one high tensile steel wire braid

Cover: synthetic rubber Black wrapped cover ,The size from DN 6 to DN 25 can do smooth cover

Applicable medium: Petroleum based and water glycol hydraulic oil、lubricating oil、emulsion、air and water

Temperature range: -40℃ to +100℃

软管内径 Inside Diameter			增强层直径 Reinforcement Diameter	软管外径 Outside Diameter	最大工作压力 Max Working Pressure		最小爆破压力 Min Burst Pressure		弯曲半径 Bend Radius	重量 Weight
DN	Inch	mm	mm	mm	Mpa	psi	Mpa	Psi	mm	Kg/m
06	1/4	6.3	10.0	12.2	225	3263	900	13050	75	0.20
08	5/16	7.9	11.7	13.8	215	3118	860	12470	85	0.23
10	3/8	9.5	13.6	15.8	180	2610	720	10440	90	0.27
13	1/2	12.7	17.0	19.3	160	2320	640	9280	130	0.37
16	5/8	15.9	20.4	22.7	130	1885	520	7540	150	0.44
19	3/4	19.1	23.9	26.3	105	1523	420	6090	180	0.59
25	1	25.4	31.2	33.6	88	1276	352	5104	230	0.82
32	1 1/4	31.8	38.5	41.5	75	1090	300	4360	315	0.93

钢丝编织液压软管

WIRE BRAID HYDRAULIC HOSE EN857 2SC

产品结构

内胶层：丁腈橡胶（NBR）
增强层：二层高强度钢丝编织层
外胶层：合成橡胶，外观为黑色布纹、DN25 及以下规格可提供光面
适用介质：石油基和水乙二醇液压油、润滑油、乳化液、空气和水
温度范围：-40℃至 100℃



Construction

Tube: NBR

Reinforcement : two high tensile steel wire braid

Cover: synthetic rubber Black wrapped cover ,The size from DN 6 to DN 25 can do smooth cover

Applicable medium: Petroleum based and water glycol hydraulic oil、lubricating oil、emulsion、air and water

Temperature range: -40℃ to +100℃

软管内径 Inside Diameter			增强层直径 Reinforcement Diameter	软管外径 Outside Diameter	最大工作压力 Max Working Pressure		最小爆破压力 Min Burst Pressure		弯曲半径 Bend Radius	重量 Weight
DN	Inch	mm	mm	mm	Bar	Psi	Bar	Psi	mm	Kg/m
06	1/4	6.3	11.5	13.5	400	5800	1600	23200	75	0.28
08	5/16	7.9	13.0	14.7	350	5075	1400	20300	85	0.33
10	3/8	9.5	15.2	17.2	330	4785	1320	19140	90	0.42
13	1/2	12.7	18.5	20.5	275	3990	1100	15950	130	0.52
16	5/8	15.9	21.8	23.8	250	3625	1000	14500	170	0.61
19	3/4	19.1	25.4	27.6	215	3120	860	12470	200	0.79
25	1	25.4	33.0	35.4	165	2390	660	9570	250	1.10
32	1 1/4	31.8	40.0	43.5	150	2175	600	8700	335	1.50



钢丝编织液压软管

WIRE BRAID HYDRAULIC HOSE EN853 1ST

产品结构

内胶层：丁腈橡胶（NBR）
增强层：一层高强度钢丝编织层
外胶层：合成橡胶
外观为黑色布纹、DN25 及以下规格可提供光面

Application: Medium pressure hydraulic application including mobile, machine tool and agricultural application, using petroleum—or water—based hydraulic fluids.
Inner Tube: Oil resistant synthetic rubber
Reinforcement: one braid of high tensile steel wire
Cover: Black Neoprene Blend (i.d.less than 25.4mm wrap or smooth cover)
Temperature Range: –40 °C to 100°C

尺寸 Nominal Diameter		软管内径 Inside Diameter	增强层直径 Reinforcement Diameter	软管外径 Outside Diameter	最大工作压力 Working Pressure		爆破压力 Burst Pressure	弯曲半径 Bend Radius	重量 Weight
Inch	mm	mm	mm	mm	Bar	Psi	Bar	mm	Kg/m
3/16	5	4.8–5.4	8.9–10.1	**	250	3625	900	89	0.2
1/4	6	6.2–7.0	10.8–11.4	15.0–15.8	225	3263	900	102	0.25
5/16	8	7.7–8.5	12.5–13.1	16.8–17.6	215	3118	850	114	0.31
3/8	10	9.3–10.1	14.5–15.1	19.0–19.8	180	2610	720	127	0.36
1/2	12	12.3–13.5	17.7–18.3	22.2–23.0	160	2320	640	178	0.45
5/8	16	15.5–16.7	21.1–21.7	25.4–26.2	130	1885	520	203	0.52
3/4	19	18.6–19.8	24.6–25.4	29.4–30.2	105	1523	420	241	0.65
1	25	25.0–26.4	32.1–32.9	37.6–38.4	88	1276	350	305	0.91
1–1/4	31	31.4–33	40.8–41.6	45.3–46.1	63	914	250	419	1.3
1–1/2	38	37.7–39.3	47.2–48.0	51.7–52.5	50	725	200	508	1.7
2	51	50.4–52.0	59.9–60.7	65.2–66.0	40	580	160	635	2.0

钢丝编织液压软管

WIRE BRAID HYDRAULIC HOSE EN853 2ST

产品结构

内胶层：丁腈橡胶（NBR）
增强层：二层高强度钢丝编织层
外胶层：合成橡胶
外观为黑色布纹、DN25 及以下规格可提供光面

Application: Medium pressure hydraulic application including mobile, machine tool and agricultural application, using petroleum—or water—based hydraulic fluids.
Inner Tube: Oil resistant synthetic rubber
Reinforcement: Two braid of high tensile steel wire
Cover: Black Neoprene Blend (i.d.less than 25.4mm wrap or smooth cover)
Temperature Range: –40°C to 100°C

尺寸 Nominal Diameter		软管内径 Inside Diameter	增强层直径 Reinforcement Diameter	软管外径 OutsideDiameter	最大工作压力 Working Pressure		爆破压力 Burst Pressure	弯曲半径 Bend Radius	重量 Weight
Inch	mm	mm	mm	mm	Bar	Psi	Bar	mm	Kg/m
3/16	5	4.6–54	10.6–11.7	15.1–15.9	415	6018	1660	90	0.3
1/4	6	6.2–7.0	12.5–13.1	16.7–17.5	400	5800	1600	100	0.3
5/16	8	7.7–8.5	14.2–14.8	18.4–19.2	350	5075	1400	115	0.36
3/8	10	9.3–10.1	16.2–16.8	20.6–21.4	330	4785	1320	130	0.49
1/2	12	12.3–13.5	19.4–20.0	23.8–24.6	275	3988	1100	180	0.56
5/8	16	15.5–16.7	22.8–23.4	27.0–27.8	250	3625	1000	200	0.6
3/4	19	18.6–19.8	26.4–27.2	31.0–31.8	215	3118	860	240	0.83
1	25	25.2–26.4	33.9–34.7	38.3–39.1	165	2393	660	300	1.22
1–1/4	31	31.4–33.0	42.8–43.6	49.2–50.0	125	1813	500	420	1.91
1–1/2	38	37.7–39.9	49.2–50.0	55.7–56.5	90	1305	360	500	2.17
2	51	50.4–52.0	61.9–62.7	68.7–69.5	80	1160	320	630	2.74

一层钢丝编织高压水管

HIGH PRESSURE WIRE BRAID WASH HOSE

产品结构

内胶层：合成橡胶
增强层：一层高强度钢丝编织层
外胶层：耐磨耐候橡胶
外观为黑色布纹、DN25 及以下规格可提供光面

One wire braided wash hose
Inner tube: Synthetic rubber
Reinforcement: One high tensile steel wire braid
Cover: Abrasion and weather resistant synthetic rubber
Cover color: Blue or Black

软管内径 Inside Diameter		增强层直径 Reinforcement Diameter	软管外径 Outside Diameter	最大工作压力 Working Pressure	爆破压力 Burst Pressure	弯曲半径 Bend Radius	重量 Weight
Inch	mm	mm	mm	Bar	Bar	mm	Kg/m
1/4"	6.4	11.1	13.1	250	1000	100	0.21
5/16"	7.9	12.7	14.7	250	1000	110	0.26
3/8"	9.5	15.1	17.1	250	1000	120	0.36
1/2"	12.7	18.3	20.4	210	840	160	0.45

二层钢丝编织高压水管

HIGH PRESSURE WIRE BRAID WASH HOSE

产品结构

内胶层：合成橡胶
增强层：二层高强度钢丝编织层
外胶层：耐磨耐候橡胶
外观为黑色布纹、DN25 及以下规格可提供光面

Two wire braided wash hose
Inner tube: Synthetic rubber
Reinforcement: Two high tensile steel wire braid
Cover: Abrasion and weather resistant synthetic rubber
Cover color: Blue or Black

软管内径 Inside Diameter		增强层直径 Reinforcement Diameter	软管外径 Outside Diameter	最大工作压力 Working Pressure	爆破压力 Burst Pressure	弯曲半径 Bend Radius	重量 Weight
Inch	mm	mm	mm	Bar	Bar	mm	Kg/m
1/4"	6.4	12.7	14.7	400	1600	100	0.37
5/16"	7.9	14.3	16.3	400	1600	110	0.435
3/8"	9.5	16.7	18.7	400	1600	120	0.556
1/2"	12.7	19.8	21.9	300	1200	160	0.645

一层纤维编织空气 / 水管

FIBER BRAID AIR/WATER HOSE

产品结构

内胶层：合成橡胶
增强层：一层高强度纤维编织层
外胶层：耐磨耐气候橡胶

Hose Construction

Inner tube: Synthetic rubber
Reinforcement: One high tensile fiber braid
Cover: Weather and abrasion resistant synthetic rubber
Working Temp: -40℃ to +100℃
Application: Suitable for water, air, and inert gas delivery



软管内径 Inside Diameter		软管外径 Outside Diameter	最大工作压力 Working Pressure	爆破压力 Burst Pressure	弯曲半径 Bend Radius	重量 Weight
Inch	mm	mm	Bar	Bar	mm	Kg/m
1/4	6	13	20	60	102	0.160
5/16	8	15	20	60	114	0.195
3/8	10	18	20	60	127	0.270
1/2	13	22	20	60	178	0.395
5/8	16	25	20	60	203	0.450
3/4	19	29	20	60	241	0.585
1	25	36	20	60	305	0.890
1-1/4	32	44	20	60	419	0.955
1-1/2	38	51	20	60	500	1.177
2	51	65	20	60	630	1.655

一层纤维编织油管

FIBER BRAID OIL HOSE

产品结构

内胶层：耐油橡胶
增强层：一层高强度纤维编织层
外胶层：耐磨耐气候橡胶

Hose Construction

Inner tube: Synthetic rubber
Reinforcement: One high tensile fiber braid
Cover: Weather and abrasion resistant synthetic rubber
Working Temp: -40℃ to +100℃
Application: Suitable for air,water,oil based fluid delivery.



软管内径 Inside Diameter		软管外径 Outside Diameter	最大工作压力 Working Pressure	爆破压力 Burst Pressure	弯曲半径 Bend Radius	重量 Weight
Inch	mm	mm	Bar	Bar	mm	Kg/m
1/4	6	13	20	60	102	0.160
5/16	8	15	20	60	114	0.195
3/8	10	18	20	60	127	0.270
1/2	13	22	20	60	178	0.395
5/8	16	25	20	60	203	0.450
3/4	19	29	20	60	241	0.585
1	25	36	20	60	305	0.890
1-1/4	32	44	20	60	419	0.955
1-1/2	38	51	20	60	500	1.177
2	51	65	20	60	630	1.655

燃油管

FUEL HOSE

产品结构

内胶层：丁腈橡胶（NBR）
增强层：一层高强度钢丝编织层
外胶层：耐油外胶
适用介质：适用于输送燃料油或助剂



Construction

Tube: NBR
Reinforcement : one high tensile steel wire braid
Cover: synthetic rubber
Applicable : Hose range suitable to carry hydraulic fluids such as gas,oil,diesel,etc

软管内径 Inside Diameter			增强层直径 Reinforcement Diameter	软管外径 Outside Diameter	最大工作压力 Max Working Pressure		最小爆破压力 Min Burst Pressure		弯曲半径 Bend Radius	重量 Weight
DN	Inch	mm	mm	mm	Mpa	Psi	Mpa	Psi	mm	Kg/m
16	5/8"	15.9	21.4	24.5	18	2610	72	10440	80	0.49
19	3/4"	19.1	25.0	29.0	18	2610	72	10440	100	0.65
25	1"	25.4	25.4	32.5	18	2610	72	10440	150	0.88

铁氟龙管

TEFLON HOSE

产品结构

内胶层：PTFE
增强层：不锈钢钢丝
工作温度：-60℃ ~ +260℃



Hose Construction

Inner tube: PTFE smooth-bore or convoluted tube
Reinforcement: stainless steel wire braid
Working Temp: -60℃ up to +260℃
Applications: Aerospace & transportation technology Electrics components & insulators Chemical &pharmaceutical manufacturing Food processing, environmental sciences, air sampling Fluid transfer devices and water processing system

软管内径 Inside Diameter		内径 x 外径 I.DXO.D	最大工作压力 Working Pressure		爆破压力 Burst Pressure		最小爆破压力 Min Burst Pressure	重量 Weight
Inch	DN	mm	Bar	Psi	Bar	Psi	mm	Kg/m
1/8	3	3.5X6.6	105	1522	840	12000	38	0.065
3/16	5	4.8X7.9	105	1522	700	10150	50	0.095
1/4	6	6.4X9.5	105	1522	630	9135	76	0.12
5/16	8	8X11.1	105	1522	560	8120	101	0.16
3/8	10	9.5X12.6	70	1015	490	7105	115	0.17
1/2	12	12.9X16.1	56	812	420	6090	165	0.24
5/8	16	16.2X19.7	56	812	350	5075	197	0.28
3/4	19	19.0X23.6	56	812	280	4060	209	0.33
7/8	22	22.3X26.4	56	812	245	3550	229	0.39
1	25	25.5X29.6	56	812	245	3550	401	0.46

通用信息

GENERAL INFORMATION

安全使用指南

SAFETY CONSIDERATIONS



警告

制造者，最终使用者和安装人员在搬运或靠近液压胶管组件时都应该留意安全系数。下面是一些可能导致人身伤害和财产损失的潜在情况。

- 由于某种液体可能渗透胶管外胶层，胶管应该用于通风良好的地方。
- 液压系统通常在高压下使用。任何加压流体的泄漏都能渗入皮肤，造成严重的组织损伤和烧伤。在胶管组件周围考虑使用防护装置或防护罩能降低受伤害的风险。
- 摆动胶管 – 在高操作压力下，胶管和 / 或接头变松或断开，引起胶管端部大力的摆动。再次强调，胶管组件必须隔离或保护，甚至可能需要固定，以降低由于胶管摆动引起的受伤或损坏风险。
- 液压流体易燃并遇到火源爆炸。为了避免不必要的人身伤害和财产损失，应该小心地消除点火源并按合适的路径安装将燃烧的可能降到最低。
- 绝大多数的胶管是导电的。在某些情况下，非导电胶管是必需的。为了避免电击或其他严重的事故，必须使用正确的胶管规格，要么导电要么不导电。
- 如果液压胶管组件工作不正常，损失的液压将会影响设备的运行。采取相应措施以降低由设备突然的功率损耗可能引起的人身伤害风险。
- 当输送空气或气体材料时，必须使用正确的胶管。可能需要使用在外胶表面有针孔的胶管。外胶上的针孔可以防止气体在外胶上聚集和鼓泡。
- 当操作员使用手持液压工具接近液压胶管组件时要格外小心。采取下面的步骤降低受伤风险。

在胶管的每端使用张力减压装置以防止弯折，过度弯曲或胶管的接头部分的应力。

勿用胶管组件拉或搬运工具。

暴露在操作人员附近的胶管必须防护，避免在胶管组件故障时由高压或高温流体造成的伤害。

考虑到工作和流体性质，工具操作工必须穿规定的安全工作服。

胶管必须避免任何表面的损伤。

- 胶管组件必须适当的安装避免应变及可能出现的胶管爆裂。适当的安装将能保护组件免受绕曲疲劳、过热或磨损。



WARNING

Fabricators, end users, and installers should be aware of the safety factors when handling or when in proximity of hydraulic hose assemblies. The following are some potential conditions that can lead to personal injury and property damage.

- As certain fluids may permeate the hose cover, the hose should always be used in well-ventilated areas.
- Hydraulic systems generally operate at very high pressures. Any leak of pressurized fluid can penetrate the skin, causing severe tissue damage and burns. Use of guards or shields around the hose assembly to reduce the risk of injury.
- Whipping hose--under high operating pressures, the hose and/or fitting can come loose or blow, causing the end of the hose to whip with great force. Again, the hose assembly should be shielded or guarded, even possibly secured, to reduce the risk of injury or damage from this whipping action.
- Hydraulic fluids are flammable and can explode with a source of ignition. To reduce the risk of possible injury or property damage, eliminate ignition sources and to properly route the hose assembly to minimize the chance of combustion.
- Most all hose is conductive. In some cases a nonconductive hose is required. To reduce the risk of electrocution or other serious mishap, the correct hose specification, either conductive or nonconductive, should be used.
- Should a hydraulic hose assembly fail, loss of hydraulic pressure will affect the operation of equipment. Take proper precaution to reduce risk of sudden power loss of the equipment that could cause personal injury.
- When air or gaseous materials are being conveyed, the correct hose should be used. A pin-perforated cover may be required. Perforations in the cover will prevent permeated gases from accumulating and blistering the cover.
- Extreme care should be used when operating handheld hydraulic tools where the operator is in proximity to the hydraulic hose assembly. The following steps should be taken to reduce the risk of injury.
 - Use strain relievers on each end of the hose to prevent kinking, excessive bending, or stress on the hose at the coupling.
 - Never use the hose assembly to pull or carry the tool.
 - Exposed hose near the operator should be guarded in case hose assembly fails to prevent injury from high pressure or high temperature fluid.
 - Operators of the tool should be protected with the required safety clothing considering the job and fluids being used.
 - The hose should be protected against any external damage.
- Hose assemblies should be properly routed to reduce risk of strain and the possibility of the hose bursting. Proper routing will also protect the assembly against flex fatigue, excessive heat, or abrasion.



警告

胶管的选择

如何为设备选择合适的胶管，对于正常操作和胶管及其相关设备的安全应用至关重要。如对于您的应用选择不适当胶管，则可能会导致胶管泄漏、爆裂或其他故障，由此可能导致泄漏出的液体或飞行物造成财产损失或严重人身伤害。一些在正确选择胶管时所涉及的考虑因素包含：

- | | | |
|---------|--------|--------|
| ● 胶管尺寸 | ● 胶管长度 | ● 胶管接头 |
| ● 所输送液体 | ● 弯曲度 | ● 温度 |
| ● 胶管压力 | ● 静态水压 | ● 安装设计 |



WARNING

Selection of Hose

Selection of the proper hose for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to the selection of the hose for your application can result in hose leakage, bursting or other failure, which can cause serious bodily injury or property damage from spraying fluids or flying projectiles. Some the factors involved in the selection of the proper hose are:

- | | | |
|------------------|------------------------|-----------------------|
| ● Hose Size | ● Hose Length | ● Hose Ends |
| ● Fluid Conveyed | ● Bends | ● Temperature |
| ● Hose Pressure | ● Static Head Pressure | ● Installation Design |

正确的安装和胶管工艺路线

PROPER INSTALLATION & HOSE ROUTING



警告：胶管组件不当的选择、安装或维护都可能导致过早的损坏，人身伤害或财产损失。

- 当更换或安装液压胶管组件时，必须使用下面的做法。
- 进行预安装检查，包括下面几点：
 - 检查确认胶管的类型，尺寸和长度规格是否正确。
 - 检查胶管组件是否有明显的缺陷。
 - 检查配件有无任何划痕或毛刺之类的损坏。
 - 检查胶管是否按照建议的指导方针来安装。
 - 检查胶管是否损坏（弯折，压碎，扭转）。
 - 操持组件小心谨慎。弯曲胶管时不要超过推荐的弯曲半径。
 - 不能在扭转或扭曲的情况下安装胶管组件。
 - 当组件上需要减少磨损和压力点时，使用必要的限制和保护装置。



Warning: improper selection, installation or maintenance of a hose assembly, may result in premature failures, serious bodily injury, or property damage.

The following practices should be used when replacing a hydraulic hose assembly or installing a new hydraulic assembly.

- Conduct pre–installation inspection, including the following:
 - Check to insure the hose is the correct specification in style, size, and length.
 - Check that the hose assembly has no visible nonconformity.
 - Check fittings for any damage including nicks or burrs.
 - Check that the hose is routed properly using suggested guidelines.
 - Check that the hose is not damaged (kinked, crushed, twisted).
- Handle assembly with care. Do not bend hose beyond the recommended bend radius.
- Hose assemblies should not be installed in a torqued or twisted condition.
- Use necessary restraints and protective devices when necessary to reduce wear and stress points on the assembly.



警告

使用寿命影响因素

SERVICE LIFE FACTORS

胶管和胶管组合件使用寿命有限。有很多减少胶管使用寿命的因素，胶管失效可能引起严重的人身伤害和 / 或财产损失。注意以下可能降低胶管寿命的因素

- 实际工作压力 – 胶管的实际工作压力不能超过康迪泰克工程规定的和目录规格中出现的推荐工作压力。选择胶管时应保证推荐的最大实际工作压力等于或大于系统压力。爆破压力（工作压力的四倍）不应当用作胶管的实际工作压力。
- 胶管暴露于高于工作压力的冲击压力下，将会缩短胶管使用寿命。如果冲击强烈，请选择具有较高推荐工作压力的胶管。
- 爆破压力 – 在液压系统设计中爆破压力从来不被考虑，仅供测试目的用。爆破压力会对胶管造成危害。
- 实际工作温度 – 高温工作状态会由于胶料的降解而损坏胶管并不利于接头牢固。胶管持续的在等于或大于最大工作温度的情况下工作将会引起内胶、外胶和增强层的损坏，缩短胶管寿命。应特别注意保证在静态和动态条件下，输送介质和周围环境的温度不要超过胶管的限制。在特定胶管使用寿命规定的温度范围内操作胶管是很重要的。
- 弯曲半径 – 在胶管推荐的最小弯曲半径范围内弯曲胶管将会缩短胶管的寿命。优化弯曲途径以使固有问题降到最小。
- 过大的外力如弯曲，扭转或缠结都将会降低胶管寿命。用正确的接头或适配器以阻止任何不必要的外力。
- 耐化学性 – 为增大胶管的性能和使用寿命，考虑使用耐化学的内胶，外胶和接头，包括 O 型密封圈。选择胶管必须确保胶管的内胶，外胶和接头与输送介质的兼容性。
- 胶管组合件的尺寸必须足以让压力降到最低并避免由于产热或过量的扰动对胶管造成的危害。
- 要想延长胶管总成的使用寿命必须保证胶管和接头与环境相容，或充分的保护其远离诸如紫外线，臭氧，盐水，或能引起组合件老化和缩短胶管寿命的化学物质等元素的危害。
- 尽管胶管被设计的具有一定的耐磨性，但应注意避免过量的磨损，这样会破坏胶管的外胶，从而加速胶管的损坏。
- 为保证一个安全合适的胶管总成，要使用合适的接头并按照正确的扣压规格进行扣压和安装。确保胶管接头与管体相匹配。



WARNING

Hose and hose assemblies have a finite life. There are a number of factors that will reduce hose life. Hose failure may cause serious personal injury and property damage. Be aware of the following factors that may reduce hose life:

- Operating Pressure–The maximum operating pressure within the hose should not exceed the recommended working pressure as specified by ContiTech and shown in the catalog specifications. Hose selection must be made so that the recommended maximum operating pressure is equal to or greater than the system pressure. Burst pressure, which is four times the working pressure, should not be used as the operating pressure of the hose.
- Exposing the hose to a surge pressure, above the working pressure of the hose, will shorten hose life. If surges are severe, select a hose with a higher recommended working pressure.
- Burst pressure–The burst pressure should never be considered in a hydraulic system design. The burst pressure is for test purposes only. Burst pressure is detrimental to the hose.
- Operating Temperatures–High heat conditions may have an adverse affect on hose due to the degradation of the rubber and the affect on fitting retention. Continuous use at or above the maximum operating temperature of the hose will cause deterioration of the tube, cover and reinforcement, reducing the hose life. Care should be taken to insure that fluid and ambient temperatures, both static and transient, don’ t exceed the limitations of the hose. It is important to operate a hose assembly within the specified temperature range of the specific life.
- Bend Radius–Flexing the hose to less than its recommended minimum bend radius will decrease hose life. Optimize routing to minimize inherent problems.
- Excessive external force such as flexing, twisting, or kinking will reduce hose life. Use the correct fitting or adapter to prevent any unnecessary external force.
- Chemical Resistance–Consider the chemical resistance of the tube, cover, and the fitting, including the o–ring, to maximize hose performance and life. Hose selection must assure compatibility of the hose, tube, cover, and fittings with the fluid used.
- The size of the hose assembly components must be adequate to keep pressure losses to a minimum and reduce the risk of damage to the hose due to heat generation or excessive turbulence.
- Extend hose assembly life by making sure hose and fittings are compatible with the environment or sufficiently protected from the elements, such as ultraviolet light, ozone, salt water, or chemicals that can cause degradation of assembly components and shorten hose life.
- A hose is designed with a certain level of abrasion resistance, but care should be taken to avoid excessive abrasion, which can damage the hose cover, accelerating hose failure.
- Use the proper end fittings and crimp or install to the proper crimp specification to insure a safe and proper hose assembly. Make sure that hose fittings are compatible with the hose.



胶管维护

HOSE MAINTENANCE

胶管和接头维护程序会降低设备的故障停机时间，并维持液压系统的最佳操作性能。下面就是一些维护提醒：

- 基于设备先前的历史，成套的维修 / 检测程序，和使用要求的严格性或潜在危险，胶管总成应当以定期的频率被检测。
- 当检测胶管总成时，始终保持小心。在系统检测过程中，为减小人身伤害风险，不要接触组合件，并注意胶管总成附近的潜在危险区。
- 检测胶管和接头如下：
 - 钢丝暴露，折坏，或腐蚀。
 - 管体或接头处泄漏。
 - 接头破裂，损坏或腐蚀。
 - 其他明显的损坏迹象。
 - 如果以上任何情况出现，胶管总成应当立即更换。
- 液压系统也应当检测如下：
 - 泄漏端口
 - 胶管夹子，保护或防护系统的损坏或遗漏。
 - 总成过多的灰尘或油污。
 - 系统流体状况，流体温度，污染和滞留空气的情况。
 - 如果任何以上情况被发现，应当采取合适的正确行为。
- 功能测试应当被执行来决定系统是否无泄漏和操作正确。
- 如果胶管总成可以被测试并从液压系统中分离，可以采取进一步的措施以确保一个适当维修的总成：
 - 胶管总成分离后，用干净的压缩空气吹洗，或用相溶的干净介质冲洗。
 - 检测胶管内胶的切口，残留物和清洁度。
 - 检测胶管的直线度保证胶管没有发生扭曲。
 - 保证接头状况良好，并合适的扣压或装配到总成上。
 - 如果以上任何状况被发现，应当更换胶管总成。
- 胶管总成应当按 SAE J1517 概述的批准的实验台和规程，进行静液压测试。在实验压力或胶管工作压力的两倍情况下测试 30 秒到 1 分钟。当达到测试压力时，目测胶管有无任何损坏，泄漏，或表明接头松动的管体相对于接头移动的迹象。如果任何一种情况存在，总成应当被替换。
- 具体的接头更换间隔必须基于早先的使用寿命，政府和工厂的推荐，否则损坏会引起人身伤害危险或财产损失。

胶管维护

HOSE MAINTENANCE

- A hose and fitting maintenance program can reduce equipment downtime and maintain peak operating performance of the hydraulic system. Here are a few maintenance reminders.
- Hose assemblies should be inspected on a regular basis with frequency based on prior history of the equipment, a set maintenance/ inspection program, and the severity of the application or risk potential.
 - Always use caution when inspecting hose assemblies. To reduce the risk of personal injury during system checkouts, do not touch the assembly and be aware of the potentially hazardous area surrounding the hose assembly.
 - Inspect hose and fittings for the following :
 - Exposed, broken, or corroded reinforcement wires.
 - leaks in the hose or at the fitting.
 - Cracked, damaged, or corroded fittings.
 - Other signs of significant deterioration.
 - If any of the above conditions exist, the hose assembly should be replaced immediately.
 - The hydraulic system should also be inspected for the following:
 - leaking ports.
 - damaged or missing hose clamps, guards, or shields.
 - Excessive dirt or grease on the assembly.
 - Condition of system fluid, fluid temperature, contamination, and air entrapment.
 - If any of the above conditions are found, appropriate corrective action should be taken.
 - Functional tests should be conducted to determine if system are leak-free and operating properly.
 - If hose assembly can be inspected and detached from the hydraulic system, additional steps can be taken to ensure a properly maintained assembly.
 - With hose assembly detached, clean assembly by blowing out with clean, compressed air or rinsed with a compatible cleaning fluid.
 - Inspect hose tube for cuts, obstructions, and cleanliness.
 - Check layline of the hose to make sure the hose is not twisted.
 - Check fittings to insure they are in good condition and properly crimped or attached to the assembly.
 - If any of the above conditions are found, the hose assembly should be replaced.
 - The hose assembly should be hydrostatically tested, using the approved test stands and procedures as outlined in SAE J1517. Test at proof pressure, or twice the working pressure of the hose, for 30 seconds to one minutes. When test pressure is reached, visually inspect the hose for any signs of weakness, leaks, or any hose movement relative to the fitting that would indicate a loose fitting. If any of these conditions exist, the assembly should be replaced.
 - Specific hose assembly replacement intervals must be considered based on previous service life, government or industry recommendations, or when failures could result in injury risk or property damage.

胶管贮存

HOSE STORAGE

温度，湿度，臭氧，阳光直射，油，溶剂，腐蚀性液体，昆虫，啮齿类动物和放射性材料都会对胶管产品造成危害，并使胶管过早失效。胶管应当贮存在阴暗，干燥的环境中并远离热源，电气设备，及上述有害元素。胶管理想的贮存温度是 +10℃到 +20℃，最大为 38℃。Temperature, humidity, ozone, sunlight, oils, solvent, corrosive liquids, insects, rodents, and radioactive materials can adversely affect hose products and cause premature failures. Hose should be stored in a dark, dry atmosphere away from heat sources, electrical equipment, and the above adverse elements. The ideal storage temperature for rubber hose is +10℃ to +20℃ , with a maximum of 38℃ .



温度极限



怕晒



怕湿防潮



禁止堆叠易倾斜

钢丝编织和缠绕胶管总成说明

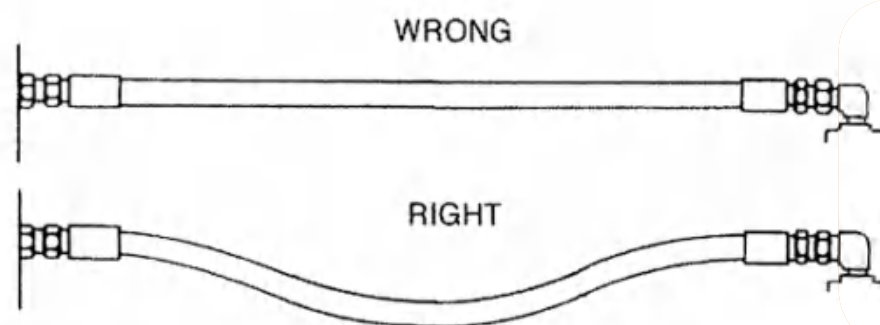
CORRECT ASSEMBLY INSTALLATION & ROUTING

令人满意的性能和外观取决于胶管的正确安装。过长破坏安装的外观的整齐，且增加不必要的设备成本。胶管组件长度不足时，充分的弯曲，扩张，或收缩将导致动力传输不足并缩短胶管的使用寿命。

Satisfactory performance and appearance depend upon proper hose installation. Excessive length destroys the trim appearance of an installation and adds unnecessarily to the cost of the equipment. Hose assemblies of insufficient length to permit adequate flexing, expansion, or contraction will cause poor power transmission and shorten the life of the hose.

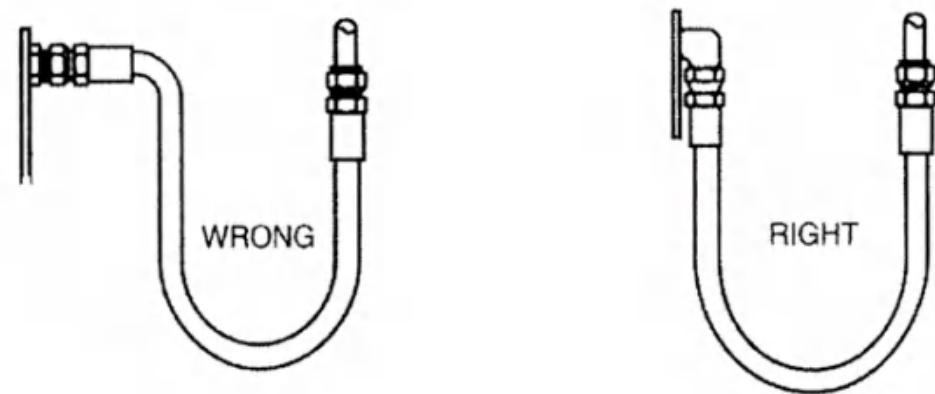
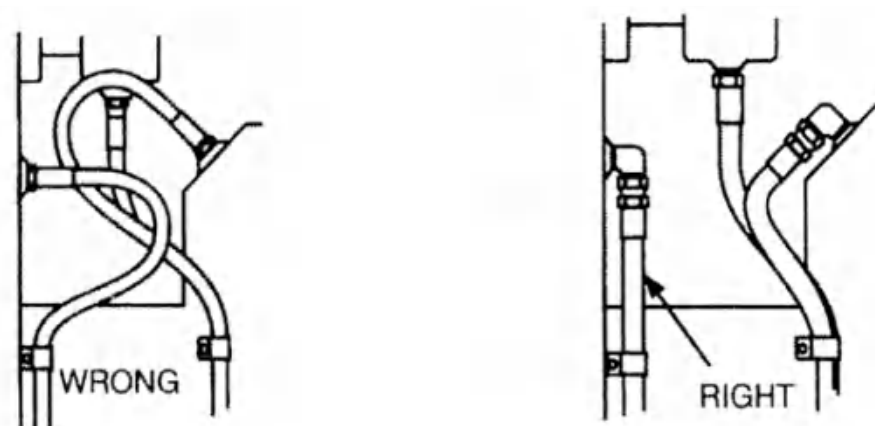
下面的图给出了胶管的正确安装建议，以实现最大的性能和节约。

The diagrams below offer suggestions for proper hose installations to obtain the maximum in performance and economy.



在激增的高压下，胶管长度将会改变 +2% 到 -4%，为扩张和收缩提供足够的松弛部分。
Since hose may change in length from +2% to -4% under the surge of high pressure, provide sufficient slack for expansion and contraction.

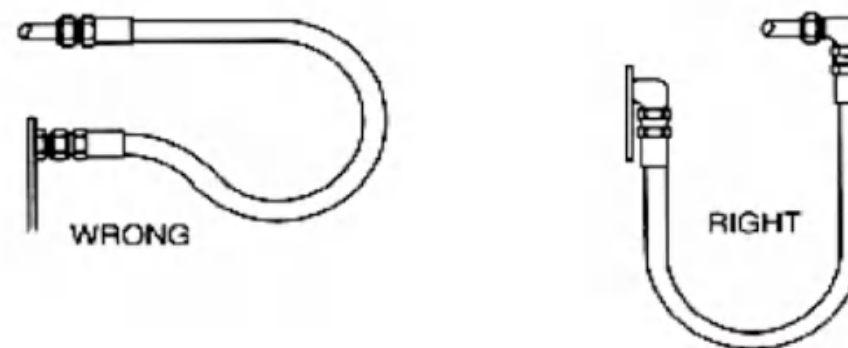
通过使用 45° 和 90° 的连接头和配件获得胶管直达线路。改善外观避免胶管过长。
Obtain direct routing of the hose through use of 45° and 90° adapters and fittings. Improve appearance by avoiding excessive hose length.



用合适角度的连接头避免胶管突然的扭曲或弯折。
Avoid sharp twist or bend in hose by using proper angle adapters.

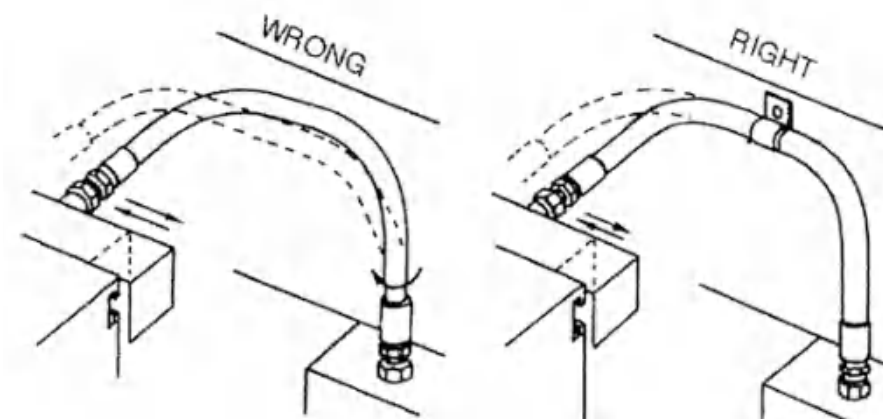
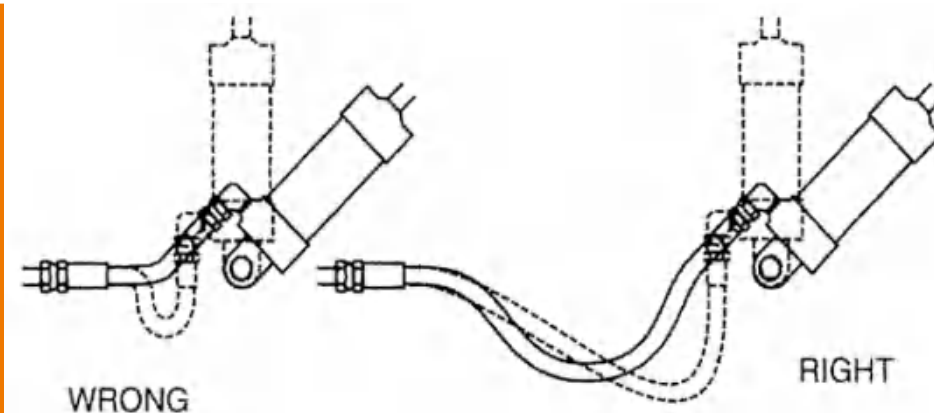
正确的安装 & 胶管工艺路线

PROPER INSTALLATION & HOSE ROUTING

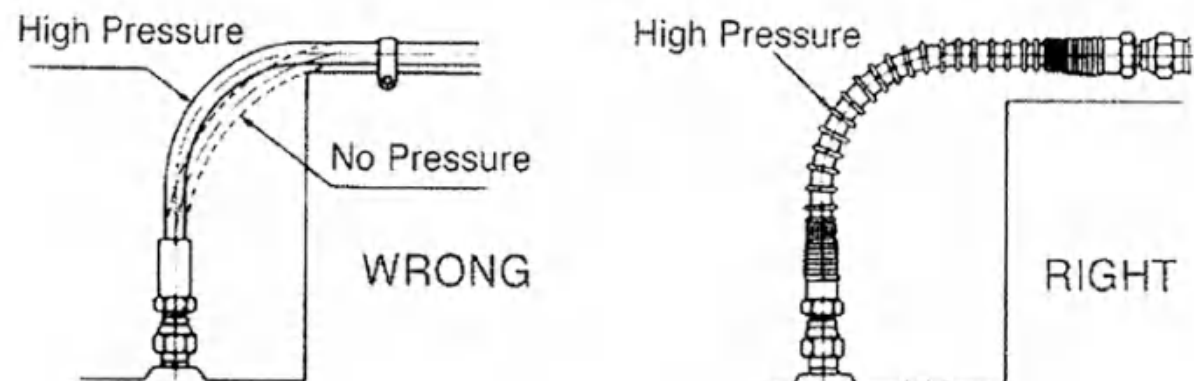


半径降到要求的最低值以下时，需要一个角度适配器（如图），以避免胶管的突然弯曲。
Where the radius falls below the required minimum, an angle adapter should be used as shown above to avoid sharp bends in the hose.

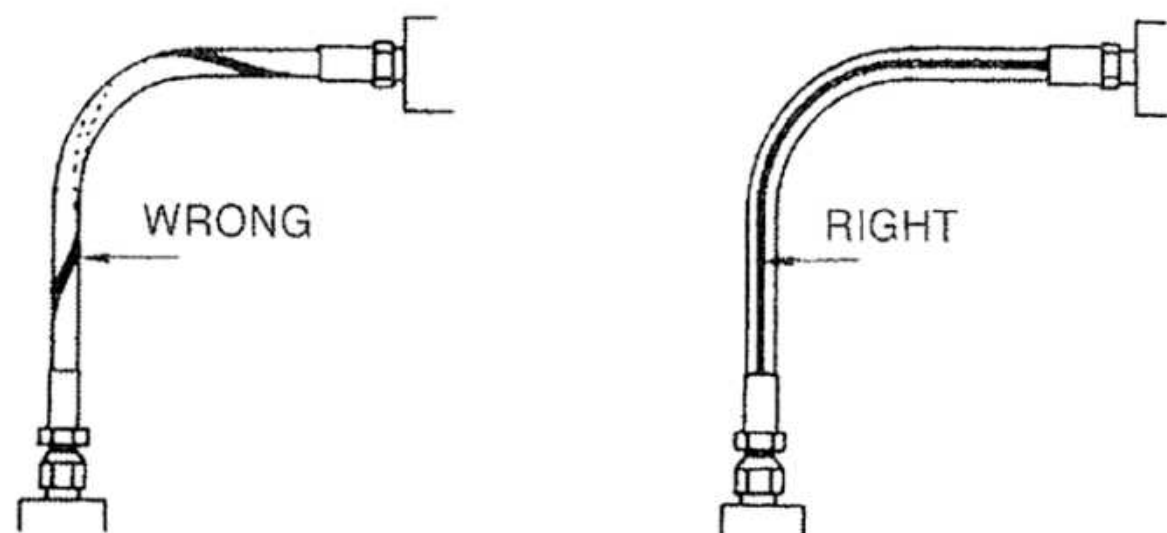
在弯曲应用和避免磨损方面分配位移最重要的是适当的胶管长度。
Adequate hose length is most important to distribute movement on flexing applications and to avoid abrasion.



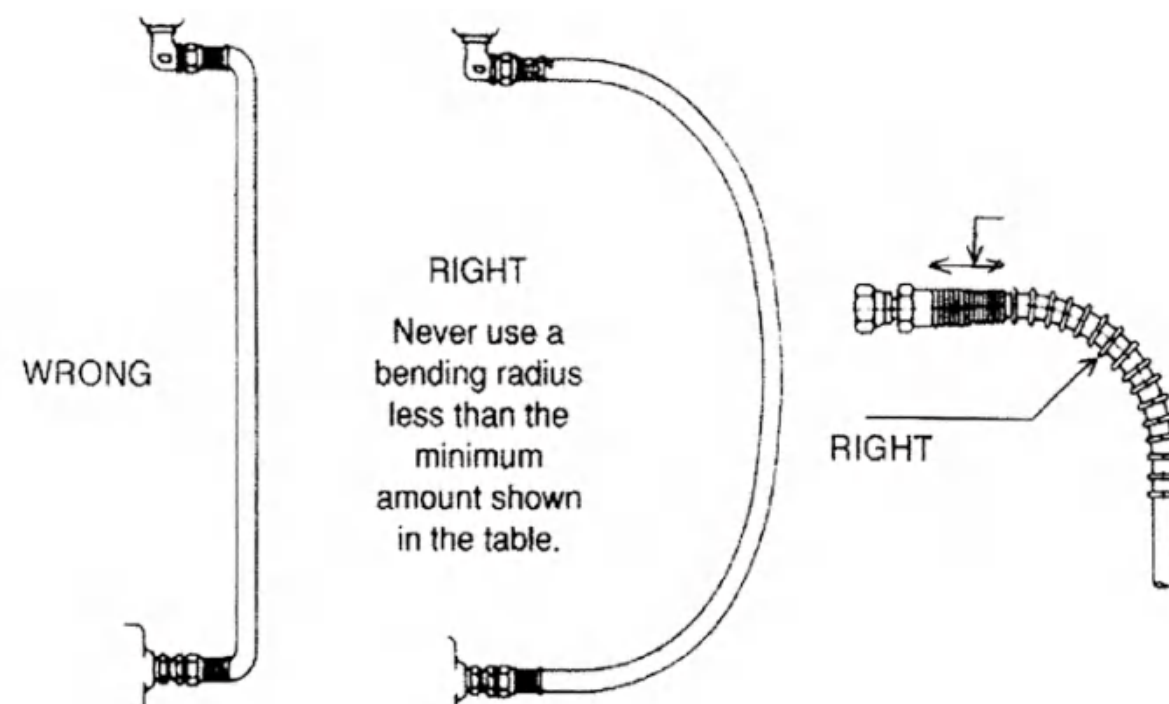
为了避免弯曲胶管的管道在两个位面向里弯，在换位面时固定软管，如图。
To avoid twisting in hose lines bent in two planes, clamp hose at change of plane, as shown.



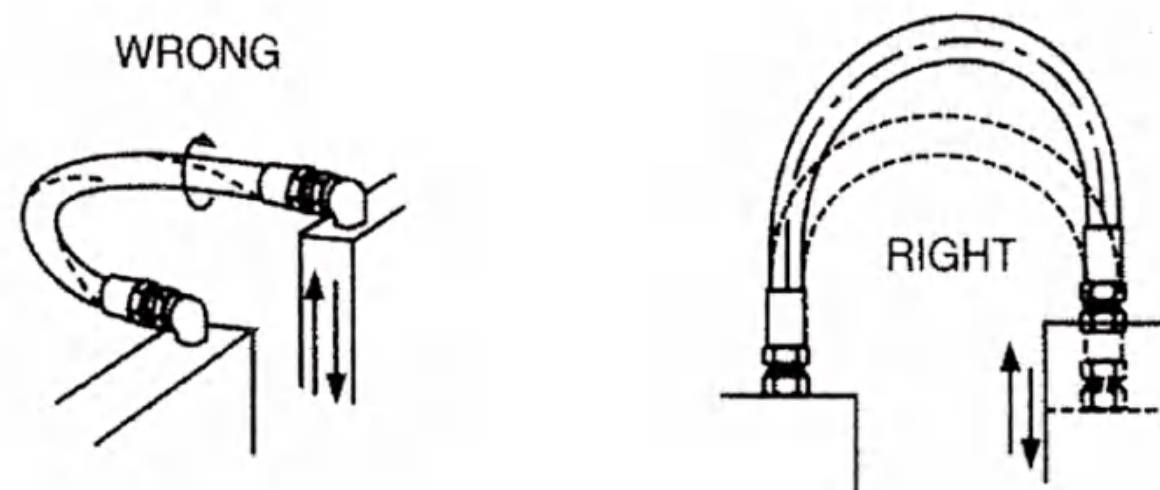
由胶管加压造成长度的改变，不要固定弯曲部位，弯曲能吸收改变并用一个弹簧装置保护胶管。不要将高压管路和低压管路固定在一起，用一个弹簧装置保护胶管。
Due to changes in length when the hose is pressurized, do not clamp at bends so the curves can absorb changes and protect the hose with a spring guard. Do not clamp high and low pressure lines together, and protect the hose with a spring guard.



胶管不应扭曲。当胶管在一种扭曲的状态下安装时性能减弱。另外，在扭曲的胶管中的压力易于使连接头变松。设计机械运动弯曲而不是扭曲。
Hose should not be twisted. Hose is weakened when installed in a twisted position. Also, pressure in twisted hoses tends to loosen fitting connections. Design so that machine motion produces bending rather than twisting.



为避免扭曲和变形，胶管必须在同一平面上弯曲运动指导胶管连接。
To prevent twisting and distortion, the hose should be bent in the same plane as the motion of the boss to which the hose is connected.



不要使用小于最小弯曲半径的弯曲半径，详见胶管规格表。不允许胶管突然的弯曲，使用合适的弹簧保护器降低线路压塌和限制漏气的风险。

⚠ 注意：小于最小弯曲半径将大大降低胶管组件的寿命。

Never use a bending radius less than the minimum shown in the hose specification tables. Do not allow the hose to bend sharply to reduce the risk of collapsing of line and restriction of flow by using proper spring guard.

⚠ **Attention: Exceeding minimum bend radius will greatly reduce hose assembly life.**