



东华重工 金通橡胶
DONGHUA HEAVY INDUSTRY JINTONG RUBBER

液压软管“工匠”
HYDRAULIC HOSE 'ARTISAN'

液压软管产品手册
Hydraulic Hose Manual



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企业简介

Company Introduction

兖矿集团邹城金通橡胶有限公司始建于1987年，是山东能源集团旗下液压胶管专业制造高新技术企业。公司专注于钢丝增强液压橡胶软管及组合件的生产销售、液压管路的配套设计、制造和服务。可以依据国标、美标SAE、德标DN、欧标EN等不同技术标准组织生产，产品规格从Φ5mm—Φ76mm，综合配套能力突出。产品广泛应用于煤炭矿山、工程机械、机电装备、石油钻探等行业领域。

公司主要装备选用国际一流设备，现有德国Mayer编织生产线18条，缠绕生产4条，混炼胶生产线1条，包塑生产线1条。我们采用一流的工艺设计，精益的生产过程控制和完善的检测手段，铸造优质的产品服务于国内外客户，并能提供各种类型的技术支持和售后服务。我们拥有自己的研发中心，有能力设计胶料配方和总成接头，与多所知名大学保持密切的合作关系。公司拥有23项国家专利，公司先后通过了MSHA认证、GOST认证和UL认证，连续被山东省橡胶行业协会评为“山东省橡胶行业综合实力50强企业”，获得了“山东名牌”、“山东省著名商标”等荣誉。

产品销售至全国30个省和自治区，国际市场覆盖超过40个国家，包括美国、英国、德国、澳大利亚、巴西、意大利、俄罗斯和日本。发展中的金通公司正按照“主业突出、品牌引领、精益发展、通达世界、员工荣耀”的发展思路拼搏前行。

Jintong Rubber CO., LTD. was established in 1987. It is a subsidiary hydraulic hose manufacturer of Shandong Energy Group. We focused on the production and sales of the steel wire reinforced hydraulic hose and hose assemblies, the match design, manufacture and service of hydraulic pipeline. We can organize the production according to GB (Chinese Standard), SAE (America Standard), DN (Germany Standard), EN (European Standard) and other different technical standard. The hose ID size is from 5mm to 76mm. We have the strong supporting capacity. The products are widely used in coal mine machinery, construction machinery, mechanical and electrical machinery, petroleum drilling machinery and other industries.

We uphold the concept of Innovation Promotion and Quality First, promote the enterprise development with technological innovation and precision production. We have the world-class equipment, first-class technological design and lean production process control, so we can provide best products and service for the customers from home and abroad.

Under the guidance of our science and technology innovation, our many research achievements reached the leading level of domestic industry enterprise and filled the gaps in domestic industry products. So far, our company has 23 national patents. Our company has repeatedly been named "The Top 50 Strong Comprehensive Strength Enterprises in Rubber Industry of Shandong Province". We have won many honors such like "Shandong Province Famous brand", "Shandong Province Famous Trademark". We have got the international certificate such like MSHA and GOST.

Developing Jintong Rubber Company is striving forward under the right leadership of Yankuang Group according to the development strategy. The strategy is highlighting the main industry, leading the brand, Lean production development, accessing the world and glorifying the personnel.



检测设备 Test Machine

公司主要装备选用国际一流设备，现有德国Mayer编织生产线18条，缠绕生产线4条，混炼胶生产线1条，包塑生产线1条，我们采用一流的工艺设计，精益的生产过程控制和完善的检测手段，铸造优质的产品服务于国内外客户，并能提供各种类型的技术支持和售后服务。



生产设备 Manufacturing Capability

Jintong Rubber CO.,LTD. uses the international first class equipment. We have 18 sets Germany Mayer braiding production line, 4 sets spiral production line, 1 Rubber Compounding production line and 1 plastic smooth cover hose production line.



企业资质

Enterprise Qualification

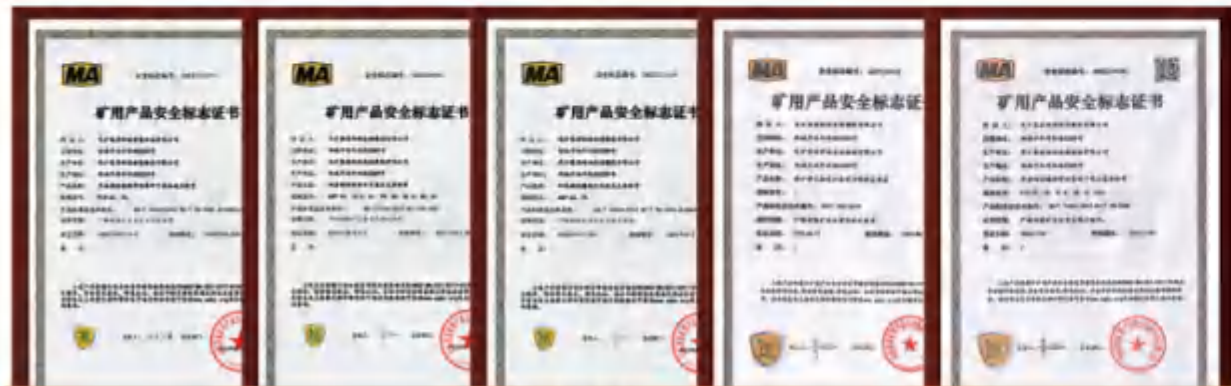
我们拥有自己的研发中心，有能力设计胶料配方和总成接头。与多所知名大学保持密切的合作关系。公司拥有23项国家专利。公司先后通过了MSHA认证、GOST认证和UL认证，连续被山东省橡胶行业协会评为“山东省橡胶行业综合实力50强企业”，获得了“山东名牌”、“山东省著名商标”等荣誉。



营业执照
Business license



高新技术企业证书
High and New Technology Enterprise Certificate



矿用产品安全标志证书
Mining Product Safety Certificate



矿用产品安全标志证书
Mining Product Safety Certificate

企业资质

Enterprise Qualification

We have our own research institution and we have the capability to make our own rubber compounding mixing and techniques design. We kept close relationship with many well-known universities. So far, our company has 23 national patents. We have got the international certificate such like MSHA and GOST. Our company has repeated been named "The Top 50 Strong Comprehensive Strength Enterprises in Rubber Industry of Shandong Province". We have won many honors such like "Shandong Province Famous brand" "Shandong Province Famous Trademark".

通过国际专业机构认证：



实用新型专利证书
Utility Model patent Certificate



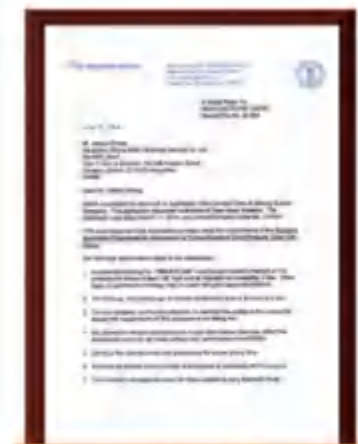
发明专利证书
Invention Patent Certificate



质量管理体系认证证书
Quality Management System Certificate



GOST R证书
GOST R Certificate



UL认证
UL Certificate

产品应用

Product Application

产品广泛应用于煤炭矿山、工程机械、机电装备、石油钻探等行业领域。

The products are widely used in coal mine machinery, construction machinery, mechanical and electrical machinery, petroleum drilling machinery and other industries.

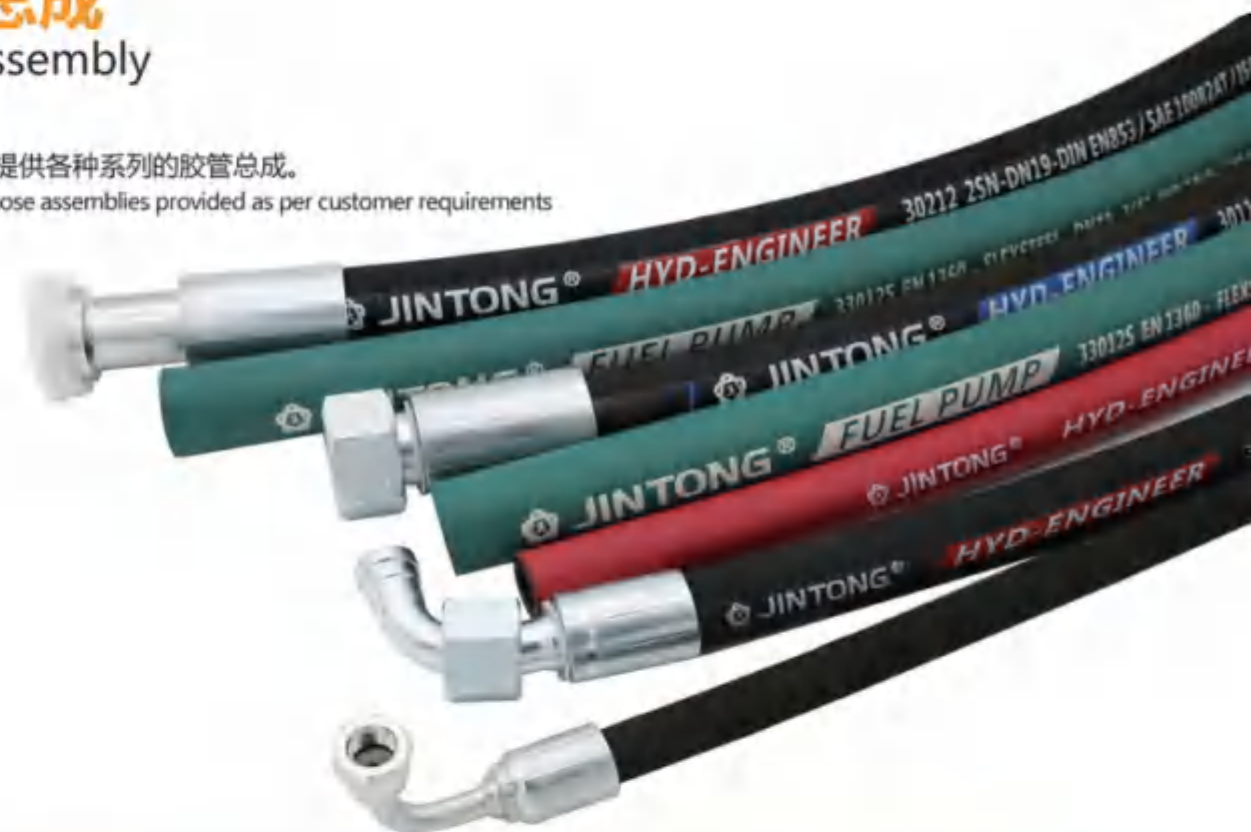


胶管总成

Hose Assembly

根据客户需求，提供各种系列的胶管总成。

Different series of hose assemblies provided as per customer requirements



美标德标液压软管技术参数表 / SAE EN STANDARD



SAE 100R1AT
EN853 1SN

- 结构:**
 内胶层: 丁腈橡胶或氯丁橡胶
 增强层: 一层高强度钢丝编织层
 外胶层: 耐油耐候合成橡胶
 外观为黑色布纹, DN25及以下规格可提供光面管
- 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°C至+100°C

- Construction:**
 Tube: NBR or CR
 Reinforcement: one high tensile steel wire braid
 Cover: oil and weather resistant synthetic rubber
 Black wrapped cover, The size from DN 5 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°C

规格	内径 Inside Diameter			增强层直径 Reinforcement Diameter	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	单米重量 Weight
	CODE	DN	inch			mm	bar	psi	bar		
30103	5	3/16"	4.8	9.5	11.5	250	3625	1000	14500	90	0.17
30104	6	1/4"	6.4	11.0	13.0	225	3263	900	13050	100	0.21
30105	8	5/16"	7.9	12.7	14.7	215	3118	860	12470	115	0.26
30106	10	3/8"	9.5	15.0	17.0	180	2610	720	10440	125	0.33
30108	12	1/2"	12.7	18.1	20.1	160	2320	640	9280	180	0.42
30110	16	5/8"	15.9	21.3	23.3	130	1885	520	7540	200	0.50
30112	20	3/4"	19.1	25.2	27.3	105	1523	420	6090	240	0.64
30116	25	1"	25.4	33.2	35.5	88	1276	352	5104	300	0.86
30120	32	1.1/4"	31.8	40.8	44.0	63	914	252	3654	420	1.26
30124	40	1.1/2"	38.1	46.8	50.5	50	725	200	2900	500	1.55
30132	50	2"	50.8	60.0	64.0	40	580	160	2320	630	2.02
30140	63	2.1/2"	63.5	73.0	78.0	35	508	140	2030	760	2.53



SAE 100R2AT
EN853 2SN

- 结构:**
 内胶层: 丁腈橡胶或氯丁橡胶
 增强层: 二层高强度钢丝编织层
 外胶层: 耐油耐候合成橡胶
 外观为黑色布纹, DN25及以下规格可提供光面管
- 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°C至+100°C

- Construction:**
 Tube: NBR or CR
 Reinforcement: two high tensile steel wire braids
 Cover: oil and weather resistant synthetic rubber
 Black wrapped cover, The size from DN 5 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°C

规格	内径 Inside Diameter			增强层直径 Reinforcement Diameter	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	单米重量 Weight
	CODE	DN	inch			mm	mm	bar	psi		
30203	5	3/16"	4.8	11.0	13.0	415	6018	1660	24070	90	0.28
30204	6	1/4"	6.4	12.7	14.7	400	5800	1600	23200	100	0.35
30205	8	5/16"	7.9	14.4	16.4	350	5075	1400	20300	115	0.42
30206	10	3/8"	9.5	16.7	18.7	330	4785	1320	19140	125	0.50
30208	12	1/2"	12.7	19.8	21.8	275	3988	1100	15950	180	0.63
30210	16	5/8"	15.9	23.0	25.0	250	3625	1000	14500	200	0.73
30212	20	3/4"	19.1	27.0	29.0	215	3118	860	12470	240	0.90
30216	25	1"	25.4	35.0	37.5	165	2393	660	9570	300	1.24
30220	32	1.1/4"	31.8	44.5	47.5	125	1813	500	7250	420	1.75
30224	40	1.1/2"	38.1	50.7	54.5	90	1305	360	5220	500	2.09
30232	50	2"	50.8	63.5	67.5	80	1160	320	4640	630	2.72
30240	63	2.1/2"	63.5	75.0	80.0	70	1015	280	4060	760	3.37



SAE 100 R3 EN854 2TE

- ▶ **结构:**
内胶层: 丁腈橡胶或氯丁橡胶
增强层: 二层高强度纤维编织层
外胶层: 耐油耐气候合成橡胶
外观为黑色布纹, DN25及以下规格可提供光面管
- ▶ **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°C至+100°C

- ▶ **Construction:**
Tube: NBR or CR
Reinforcement: two braids of suitable fiber
Cover: oil and weather resistant synthetic rubber
Black wrapped cover, The size from DN 5 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°C

规格	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight	
	DN	inch			mm	bar	psi	bar			psi
30304	6	1/4"	6.4	11.8	14.2	87	1262	348	5046	75	0.16
30305	8	5/16"	7.9	14.6	17.2	84	1218	336	4872	100	0.23
30306	10	3/8"	9.5	16.1	18.7	78	1131	312	4524	100	0.25
30308	12	1/2"	12.7	20.8	23.5	70	1015	280	4060	125	0.38
30310	16	5/8"	15.9	23.8	26.6	61	885	244	3538	140	0.45
30312	20	3/4"	19.1	28.3	31.5	52	754	208	3016	150	0.57
30316	25	1"	25.4	34.8	38.0	39	566	156	2262	205	0.75
30320	32	1.1/4"	31.8	41.8	45.0	26	377	104	1508	250	0.88



SAE 100 R6 EN854 1TE

- ▶ **结构:**
内胶层: 丁腈橡胶或氯丁橡胶
增强层: 一层高强度纤维编织层
外胶层: 耐油耐气候合成橡胶
外观为黑色布纹, DN25及以下规格可提供光面管
- ▶ **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°C至+100°C

- ▶ **Construction:**
Tube: NBR or CR
Reinforcement: one braid of suitable fiber
Cover: oil and weather resistant synthetic rubber
Black wrapped cover, The size from DN 5 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°C

规格	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight	
	DN	inch			mm	bar	psi	bar			psi
30604	6	1/4"	6.4	10.0	12.4	28	406	112	1624	65	0.11
30605	8	5/16"	7.9	11.8	14.2	28	406	112	1624	75	0.14
30606	10	3/8"	9.5	13.9	16.3	28	406	112	1624	75	0.17
30608	12	1/2"	12.7	17.4	20.0	28	406	112	1624	100	0.24
30610	16	5/8"	15.9	20.4	23.0	24	348	96	1392	125	0.28
30612	20	3/4"	19.1	24.4	27.0	21	305	84	1218	150	0.37
30616	25	1"	25.4	32.0	35.0	21	305	84	1218	165	0.61



SAE 100 R12

- ▶ **结构:**
内胶层: 丁腈橡胶或氯丁橡胶
增强层: 四层高强度钢丝缠绕层
外胶层: 耐油耐天候合成橡胶
外观为黑色布纹
- ▶ **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°C至+121°C

- ▶ **Construction:**
Tube: NBR or CR
Reinforcement: four high tensile steel wire spirals
Cover: oil and weather resistant synthetic rubber
Black wrapped cover
- ▶ **Applicable medium:**
Petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water
- ▶ **Temperature range:**
-40 to +121°C

规格 CODE	DN	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight
		inch	mm			bar	psi	bar	psi		
31206	10	3/8"	9.5	17.2	20.2	280	4060	1120	16240	125	0.69
31208	12	1/2"	12.7	20.6	23.8	280	4060	1120	16240	180	0.86
31210	16	5/8"	15.9	24.6	27.4	280	4060	1120	16240	200	1.02
31212	20	3/4"	19.1	27.6	30.5	280	4060	1120	16240	240	1.23
31216	25	1"	25.4	34.8	38.0	280	4060	1120	16240	300	1.91
31220	32	1.1/4"	31.8	44.0	47.0	210	3045	840	12180	420	2.56
31224	40	1.1/2"	38.1	51.0	54.0	175	2538	700	10150	500	2.97
31232	50	2"	50.8	63.0	67.0	175	2538	700	10150	630	4.18



SAE 100 R13

- ▶ **结构:**
内胶层: 丁腈橡胶或氯丁橡胶
增强层: 四层或六层高强度钢丝缠绕层
外胶层: 耐油耐天候合成橡胶
外观为黑色布纹
- ▶ **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°C至+121°C

- ▶ **Construction:**
Tube: NBR or CR
Reinforcement: four or six high tensile steel wire spirals
Cover: oil and weather resistant synthetic rubber
Black wrapped cover
- ▶ **Applicable medium:**
Petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water
- ▶ **Temperature range:**
-40 to +121°C

规格 CODE	DN	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight
		inch	mm			bar	psi	bar	psi		
31312	20	3/4"	19.1	28.4	32.0	350	5075	1400	20300	240	1.54
31316	25	1"	25.4	35.2	39.0	350	5075	1400	20300	300	2.14
31320	32	1.1/4"	31.8	46.8	51.0	350	5075	1400	20300	420	3.97
31324	40	1.1/2"	38.1	53.8	58.0	350	5075	1400	20300	500	4.77
31332	50	2"	50.8	66.8	72.0	350	5075	1400	20300	630	6.65



SAE 100 R15

结构:

内胶层: 丁腈橡胶或氯丁橡胶
 增强层: 四层或六层高强度钢丝缠绕层
 外胶层: 耐油耐天候合成橡胶
 外观为黑色布纹

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°C至+121°C

Construction:

Tube: NBR or CR
 Reinforcement: four or six high tensile steel wire spirals
 Cover: oil and weather resistant synthetic rubber
 Black wrapped cover

Applicable medium:

Petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water

Temperature range:

-40 to +121°C

规格	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight	
	DN	inch			mm	bar	psi	bar			psi
31512	20	3/4"	19.1	28.3	32.0	420	6090	1680	24360	265	1.64
31516	25	1"	25.4	35.2	39.0	420	6090	1680	24360	330	2.04
31520	32	1.1/4"	31.8	46.8	51.0	420	6090	1680	24360	445	3.97
31524	40	1.1/2"	38.1	53.8	58.0	420	6090	1680	24360	530	4.77
31532	50	2"	50.8	68.0	72.0	420	6090	1680	24360	700	6.77



SAE 100 R16

结构:

内胶层: 丁腈橡胶或氯丁橡胶
 增强层: 二层高强度钢丝编织层
 外胶层: 耐油耐天候合成橡胶
 外观为黑色布纹, DN25及以下规格可提供光面管

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°C至+100°C

Construction:

Tube: NBR or CR
 Reinforcement: two high tensile steel wire braids
 Cover: oil and weather resistant synthetic rubber
 Black wrapped cover, The size from DN 5 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°C

规格	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight	
	DN	inch			mm	mm	mm	bar			psi
21604	6	1/4"	6.4	11.3	13.0	400	5800	1600	23200	50	0.26
21605	8	5/16"	7.9	13.0	15.0	350	5075	1400	20300	55	0.32
21606	10	3/8"	9.5	15.0	17.0	330	4785	1320	19140	65	0.38
21608	12	1/2"	12.7	18.5	20.5	275	3988	1100	15950	90	0.51
21610	16	5/8"	15.9	22.0	24.0	250	3625	1000	14500	100	0.66
21612	20	3/4"	19.1	25.7	27.7	215	3118	860	12470	120	0.83
21616	25	1"	25.4	33.2	35.6	165	2393	660	9570	150	1.11



SAE 100 R17

- ▶ **结构:**
内胶层: 丁腈橡胶或氯丁橡胶
增强层: 一层或两层高强度钢丝编织层
外胶层: 耐油耐天候合成橡胶
外观为黑色布纹, DN25及以下规格可提供光面管
- ▶ **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°C至+100°C

- ▶ **Construction:**
Tube: NBR or CR
Reinforcement: one or two high tensile steel wire braids
Cover: oil and weather resistant synthetic rubber
Black wrapped cover, The size from DN 5 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°C

规格	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight	
	DN	inch			mm	bar	psi	bar			psi
21703	5	3/16"	4.8	9.0	11.0	210	3045	840	12180	45	0.17
21704	6	1/4"	6.4	10.0	12.0	210	3045	840	12180	50	0.19
21705	8	5/16"	7.9	11.7	13.7	210	3045	840	12180	55	0.21
21706	10	3/8"	9.5	13.7	15.8	210	3045	840	12180	65	0.26
21708	12	1/2"	12.7	16.8	19.0	210	3045	840	12180	90	0.35
21710	16	5/8"	15.9	22.0	24.0	210	3045	840	12180	100	0.66
21712	20	3/4"	19.1	25.7	27.7	210	3045	840	12180	120	0.83
21716	25	1"	25.4	33.2	35.6	210	3045	840	12180	150	1.16



EN856 4SP

- ▶ **结构:**
内胶层: 丁腈橡胶或氯丁橡胶
增强层: 四层高强度钢丝缠绕层
外胶层: 耐油耐天候合成橡胶
外观为黑色布纹
- ▶ **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°C至+100°C

- ▶ **Construction:**
Tube: NBR or CR
Reinforcement: four high tensile steel wire spirals
Cover: oil and weather resistant synthetic rubber
Black wrapped cover
- ▶ **Applicable medium:**
Petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water
- ▶ **Temperature range:**
-40 to +100°C

规格	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight	
	DN	inch			mm	bar	psi	bar			psi
31006	10	3/8"	9.5	17.6	21.0	450	6525	1800	26100	180	0.75
31008	12	1/2"	12.7	20.6	24.0	420	6090	1680	24360	230	0.90
31010	16	5/8"	15.9	23.5	27.0	380	5510	1520	22040	250	1.26
31012	20	3/4"	19.1	28.4	32.0	350	5075	1400	20300	300	1.50
31016	25	1"	25.4	35.2	39.0	325	4713	1300	18850	340	2.01
31020	32	1.1/4"	31.8	46.0	50.5	210	3045	840	12180	460	3.09
31024	40	1.1/2"	38.1	52.0	56.5	185	2683	740	10730	560	3.63
31032	50	2"	50.8	65.0	69.5	165	2393	660	9570	660	4.62



EN856 4SH

- ▶ **结构:**
内胶层: 丁腈橡胶或氯丁橡胶
增强层: 四层高强度钢丝缠绕层
外胶层: 耐油耐天候合成橡胶
外观为黑色布纹
- ▶ **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°C至+100°C

- ▶ **Construction:**
Tube: NBR or CR
Reinforcement: four high tensile steel wire spirals
Cover: oil and weather resistant synthetic rubber
Black wrapped cover
- ▶ **Applicable medium:**
Petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water
- ▶ **Temperature range:**
-40 to +100°C

规格	内径 Inside Diameter			增强层直径 Reinforcement Diameter	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	单米重量 Weight
	CODE	DN	inch			mm	bar	psi	bar		
31112	20	3/4"	19.1	28.3	32.0	420	6090	1680	24360	280	1.64
31116	25	1"	25.4	35.2	39.0	380	5510	1520	22040	340	2.13
31120	32	1.1/4"	31.8	42.0	45.5	350	5075	1400	20300	460	2.59
31124	40	1.1/2"	38.1	49.0	53.5	290	4205	1160	16820	560	3.19
31132	50	2"	50.8	63.6	68.0	250	3625	1000	14500	700	4.72



EN857 1SC

- ▶ **结构:**
内胶层: 丁腈橡胶或氯丁橡胶
增强层: 一层高强度钢丝编织层
外胶层: 耐油耐天候合成橡胶
外观为黑色布纹, DN25及以下规格可提供光面管
- ▶ **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°C至+100°C

- ▶ **Construction:**
Tube: NBR or CR
Reinforcement: one high tensile steel wire braid
Cover: oil and weather resistant synthetic rubber
Black wrapped cover, The size from DN 5 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°C

规格	内径 Inside Diameter			增强层直径 Reinforcement Diameter	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	单米重量 Weight
	CODE	DN	inch			mm	bar	psi	bar		
31704	6	1/4"	6.4	10.0	12.0	225	3263	900	13050	75	0.19
31705	8	5/16"	7.9	11.7	13.7	215	3118	860	12470	85	0.21
31706	10	3/8"	9.5	13.7	15.8	180	2610	720	10440	90	0.26
31708	12	1/2"	12.7	16.8	19.0	160	2320	640	9280	130	0.35
31710	16	5/8"	15.9	20.3	22.3	130	1885	520	7540	150	0.44
31712	20	3/4"	19.1	23.8	26.0	105	1523	420	6090	180	0.53
31716	25	1"	25.4	31.3	33.6	88	1276	352	5104	230	0.76



EN857 2SC

- ▶ **结构:**
 内胶层: 丁腈橡胶或氯丁橡胶
 增强层: 二层高强度钢丝编织层
 外胶层: 耐油耐天候合成橡胶
 外观为黑色布纹, DN25及以下规格可提供光面管
- ▶ **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°C至+100°C

- ▶ **Construction:**
 Tube: NBR or CR
 Reinforcement: two high tensile steel wire braids
 Cover: oil and weather resistant synthetic rubber
 Black wrapped cover, The size from DN 5 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°C

规格	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight	
	DN	inch			mm	bar	psi	bar			psi
31604	6	1/4"	6.4	11.3	13.0	400	5800	1600	23200	75	0.26
31605	8	5/16"	7.9	13.0	15.0	350	5075	1400	20300	85	0.32
31606	10	3/8"	9.5	15.0	17.0	330	4785	1320	19140	90	0.38
31608	12	1/2"	12.7	18.5	20.5	275	3988	1100	15950	130	0.51
31610	16	5/8"	15.9	22.0	24.0	250	3625	1000	14500	170	0.66
31612	20	3/4"	19.1	25.7	27.7	215	3118	860	12470	200	0.83
31616	25	1"	25.4	33.2	35.6	165	2393	660	9570	250	1.11



FUEL HOSE

EN1360 / UL330

- ▶ **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: 耐油耐天候合成橡胶
 外观为黑色或彩色光面管
- ▶ **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: oil and weather resistant synthetic rubber
 Black or colour smooth cover hose
- ▶ **Applicable medium:**
 Hose range suitable to carry hydraulic fluids such as gas, oil, diesel, etc.

规格	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight	
	DN	inch			mm	bar	psi	bar			psi
33010	16	5/8"	15.9	21.0	25.0	20	290	80	1160	80	0.49
33012	20	3/4"	19.1	25.0	29.0	20	290	80	1160	100	0.65
33014	22	7/8"	22.2	28.0	32.0	20	290	80	1160	130	0.82
33016	25	1"	25.4	32.0	36.0	20	290	80	1160	150	0.95



EN857 1SNK

- ▶ **结构:**
 内胶层: 丁腈橡胶或氯丁橡胶
 增强层: 一层高强度钢丝编织层
 外胶层: 耐油耐候合成橡胶
 外观为黑色布纹, DN25及以下规格可提供光面管
- ▶ **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°C至+100°C

- ▶ **Construction:**
 Tube: NBR or CR
 Reinforcement: one high tensile steel wire braid
 Cover: oil and weather resistant synthetic rubber
 Black wrapped cover, The size from DN 5 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°C

规格	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight	
	DN	inch			mm	bar	psi	bar			psi
60104	6	1/4"	6.4	10.2	12.0	290	4205	1160	16820	40	0.19
60105	8	5/16"	7.9	11.8	13.8	250	3625	1000	14500	55	0.21
60106	10	3/8"	9.5	13.8	15.8	230	3335	920	13340	65	0.26
60108	12	1/2"	12.7	16.8	19.0	200	2900	800	11600	80	0.35
60110	16	5/8"	15.9	20.3	22.3	150	2175	600	8700	100	0.44
60112	20	3/4"	19.1	23.8	26.0	125	1813	500	7250	120	0.53
60116	25	1"	25.4	31.3	33.6	110	1595	440	6380	150	0.76



EN857 2SNK

- ▶ **结构:**
 内胶层: 丁腈橡胶或氯丁橡胶
 增强层: 二层高强度钢丝编织层
 外胶层: 耐油耐候合成橡胶
 外观为黑色布纹, DN25及以下规格可提供光面管
- ▶ **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°C至+100°C

- ▶ **Construction:**
 Tube: NBR or CR
 Reinforcement: two high tensile steel wire braids
 Cover: oil and weather resistant synthetic rubber
 Black wrapped cover, The size from DN 5 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°C

规格	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight	
	DN	inch			mm	mm	mm	bar			psi
60204	6	1/4"	6.4	11.4	13.1	450	6525	1800	26100	45	0.26
60205	8	5/16"	7.9	13.0	15.0	420	6090	1680	24360	55	0.32
60206	10	3/8"	9.5	15.0	17.0	385	5583	1540	22330	65	0.38
60208	12	1/2"	12.7	18.7	20.7	350	5075	1400	20300	90	0.51
60210	16	5/8"	15.9	22.0	24.0	290	4205	1160	16820	100	0.66
60212	20	3/4"	19.1	25.7	27.7	280	4060	1120	16240	120	0.83
60216	25	1"	25.4	33.2	35.6	210	3045	840	12180	150	1.11

矿用液压软管技术参数表 / MINING RUBBER HOSE STANDARD



101

一层钢丝编织液压软管

GB/T3683, MT/T98, Q/0883ZJT001

- ▶ **结构:**
 内胶层: 丁腈橡胶或氯丁橡胶
 增强层: 一层高强度钢丝编织层
 外胶层: 耐油耐天候合成橡胶
 外观为黑色布纹, DN25及以下规格可提供光面管
- ▶ **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°C至+100°C

- ▶ **Construction:**
 Tube: NBR or CR
 Reinforcement: one high tensile steel wire braid
 Cover: oil and weather resistant synthetic rubber
 Black wrapped cover, The size from DN 5 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°C

规格 CODE	内径 Inside Diameter			增强层直径 Reinforcement Diameter	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	单米重量 Weight
	DN	inch	mm			MPa	psi	MPa	psi		
10104	6	1/4"	6.4	11.0	13.0	23.0	3335	69.0	10005	100	0.22
10105	8	5/16"	7.9	12.7	14.7	22.0	3190	66.0	9570	115	0.27
10106	10	3/8"	9.5	15.3	18.0	18.0	2610	54.0	7830	125	0.37
10108	12	1/2"	12.7	19.3	22.0	16.0	2320	48.0	6960	180	0.46
10110	16	5/8"	15.9	22.3	25.0	13.0	1885	39.0	5655	200	0.54
10112	20	3/4"	19.1	25.3	28.0	11.0	1595	33.0	4785	240	0.66
10114	22	7/8"	22.2	28.3	31.0	10.0	1450	30.0	4350	280	0.74
10116	25	1"	25.4	32.3	35.0	9.0	1305	27.0	3915	300	0.89
10120	32	1-1/4"	31.8	39.0	42.0	7.0	1015	21.0	3045	420	1.13
10124	40	1-1/2"	38.1	45.0	49.0	5.0	725	15.0	2175	500	1.36
10132	50	2"	50.8	58.0	62.0	4.0	580	12.0	1740	630	1.72
10140	63	2-1/2"	63.5	71.0	76.0	3.5	508	10.5	1523	760	2.31
10148	76	3"	76.2	84.0	89.0	3.0	435	9.0	1305	840	2.70



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二层钢丝编织液压软管

GB/T3683, MT/T98, Q/0883ZJT001

- ▶ **结构:**
 内胶层: 丁腈橡胶或氯丁橡胶
 增强层: 二层高强度钢丝编织层
 外胶层: 耐油耐天候合成橡胶
 外观为黑色布纹, DN25及以下规格可提供光面管
- ▶ **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°C至+100°C

- ▶ **Construction:**
 Tube: NBR or CR
 Reinforcement: two high tensile steel wire braids
 Cover: oil and weather resistant synthetic rubber
 Black wrapped cover, The size from DN 5 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°C

规格 CODE	内径 Inside Diameter			增强层直径 Reinforcement Diameter	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	单米重量 Weight
	DN	inch	mm			MPa	psi	MPa	psi		
10204	6	1/4"	6.4	12.7	14.7	60	8700	180	26100	100	0.37
10205	8	5/16"	7.9	14.4	16.4	40	5800	120	17400	115	0.45
10206	10	3/8"	9.5	17.0	20.0	40	5800	120	17400	125	0.58
10208	12	1/2"	12.7	21.0	24.0	35	5075	105	15225	180	0.71
10210	16	5/8"	15.9	24.0	27.0	30	4350	90	13050	200	0.82
10212	20	3/4"	19.1	27.0	30.0	25	3625	75	10875	240	0.97
10214	22	7/8"	22.2	30.0	33.0	22	3190	66	9570	280	1.09
10216	25	1"	25.4	34.0	37.0	21	3045	63	9135	300	1.28
10220	32	1-1/4"	31.8	40.8	44.0	13	1885	39	5655	420	1.64
10224	40	1-1/2"	38.1	46.8	51.0	12	1740	36	5220	500	1.93
10232	50	2"	50.8	60.0	64.0	10	1450	30	4350	630	2.41
10240	63	2-1/2"	63.5	73.0	78.0	7	1015	21	3045	760	3.19
10248	76	3"	76.2	86.0	91.0	6	870	18	2610	840	3.60



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三层钢丝编织液压软管

GB/T3683, MT/T98, Q/0853ZJT001

- ▶ **结构:**
内胶层: 丁腈橡胶或氯丁橡胶
增强层: 三层高强度钢丝编织层
外胶层: 耐油耐天候合成橡胶
外观为黑色布纹, DN25及以下规格可提供光面管
- ▶ **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°C至+100°C

- ▶ **Construction:**
Tube: NBR or CR
Reinforcement: three high tensile steel wire braids
Cover: oil and weather resistant synthetic rubber
Black wrapped cover, The size from DN 5 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°C

规格	内径 Inside Diameter			增强层直径 Reinforcement Diameter	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	单米重量 Weight
	CODE	DN	inch			mm	MPa	psi	MPa		
10304	6	1/4"	6.4	14.4	16.7	70	10150	210	30450	100	0.53
10305	8	5/16"	7.9	16.1	18.5	50	7250	150	21750	115	0.64
10306	10	3/8"	9.5	18.7	22.0	45	6525	135	19575	125	0.80
10308	12	1/2"	12.7	22.7	26.0	40	5800	120	17400	180	0.96
10310	16	5/8"	15.9	25.7	29.0	35	5075	105	15225	200	1.10
10312	20	3/4"	19.1	28.8	32.0	30	4350	90	13050	240	1.30
10314	22	7/8"	22.2	31.8	35.0	25	3625	75	10875	280	1.45
10316	25	1"	25.4	35.8	39.0	23	3335	69	10005	300	1.68
10320	32	1 1/4"	31.8	42.6	46.0	15	2175	45	6525	420	2.17
10324	40	1 1/2"	38.1	48.6	53.0	14	2030	42	6090	500	2.51
10332	50	2"	50.8	62.0	66.0	12	1740	36	5220	630	3.11
10340	63	2 1/2"	63.5	75.0	80.0	8	1160	24	3480	760	4.12
10348	76	3"	76.2	88.0	93.0	7	1015	21	3045	840	4.68



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4SP型四层钢丝缠绕中压软管

GB/T10544, MT/T98, Q/0883ZJT002

- ▶ **结构:**
内胶层: 丁腈橡胶或氯丁橡胶
增强层: 四层高强度钢丝缠绕层
外胶层: 耐油耐天候合成橡胶
外观为黑色布纹
- ▶ **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°C至+100°C

- ▶ **Construction:**
Tube: NBR or CR
Reinforcement: four high tensile steel wire spirals
Cover: oil and weather resistant synthetic rubber
Black wrapped cover
- ▶ **Applicable medium:**
Petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water
- ▶ **Temperature range:**
-40 to +100°C

规格	内径 Inside Diameter			增强层直径 Reinforcement Diameter	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	单米重量 Weight
	CODE	DN	inch			mm	mm	MPa	psi		
11006	10	3/8"	9.5	19.2	22.5	70	10150	210	30450	180	0.86
11008	12	1/2"	12.7	22.4	26.0	60	8700	180	26100	230	1.17
11010	16	5/8"	15.9	25.9	29.5	55	7975	165	23925	250	1.38
11012	20	3/4"	19.1	29.9	33.5	46	6670	138	20010	300	1.71
11016	25	1"	25.4	36.2	40.0	35	5075	105	15225	340	2.15
11020	32	1-1/4"	31.8	44.0	48.0	32	4640	96	13920	460	2.66
11024	40	1-1/2"	38.1	51.0	55.0	25	3625	75	10875	560	3.13
11032	50	2"	50.8	63.5	68.0	20	2900	60	8700	660	4.26
11040	63	2-1/2"	63.5	76.5	81.0	20	2900	60	8700	760	6.03
11048	76	3"	76.2	89.5	95.0	20	2900	60	8700	860	8.09



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4SH型四层钢丝缠绕中压软管

GB/T10544、MT/T98、Q/0883ZJT002

- ▶ **结构:**
内胶层: 丁腈橡胶或氯丁橡胶
增强层: 四层高强度钢丝缠绕层
外胶层: 耐油耐天候合成橡胶
外观为黑色布纹
- ▶ **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°C至+100°C

- ▶ **Construction:**
Tube: NBR or CR
Reinforcement: four high tensile steel wire spirals
Cover: oil and weather resistant synthetic rubber
Black wrapped cover
- ▶ **Applicable medium:**
Petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water
- ▶ **Temperature range:**
-40 to +100°C

规格	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight	
	CODE	DN			inch	mm	MPa	psi			MPa
11112	20	3/4"	19.1	28.3	32.0	42	6090	168	24360	280	1.54
11116	25	1"	25.4	35.2	39.0	38	5510	152	22040	340	2.14
11120	32	1-1/4"	31.8	42.0	45.5	35	5075	140	20300	460	2.66
11124	40	1-1/2"	38.1	49.0	53.5	30	4350	120	17400	560	3.33
11132	50	2"	50.8	63.6	68.0	25	3625	100	14500	700	4.84

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R13型多层钢丝缠绕的高温高压重型软管

GB/T10544、MT/T98、Q/0883ZJT002

- ▶ **结构:**
内胶层: 丁腈橡胶或氯丁橡胶
增强层: 四层或六层高强度钢丝缠绕层
外胶层: 耐油耐天候合成橡胶
外观为黑色布纹
- ▶ **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°C至+100°C

- ▶ **Construction:**
Tube: NBR or CR
Reinforcement: four or six high tensile steel wire spirals
Cover: oil and weather resistant synthetic rubber
Black wrapped cover
- ▶ **Applicable medium:**
Petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water
- ▶ **Temperature range:**
-40 to +100°C

规格	内径 Inside Diameter		增强层直径 Reinforcement Diameter	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	单米重量 Weight	
	CODE	DN			inch	mm	MPa	psi			MPa
11312	20	3/4"	19.1	28.4	32	35	5075	140	20300	240	1.54
11316	25	1"	25.4	35.2	39	35	5075	140	20300	300	2.14
11320	32	1-1/4"	31.8	46.8	51	35	5075	140	20300	420	3.97
11324	40	1-1/2"	38.1	53.8	58	35	5075	140	20300	500	4.77
11332	50	2"	50.8	66.8	72	35	5075	140	20300	630	6.65
11340	63	2-1/2"	63.5	80.5	85	35	5075	140	20300	760	8.63



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R15型多层钢丝缠绕的高温超高压重型软管

GB/T10544、MT/T98、Q/0883ZJT002

- ▶ **结构:**
内胶层: 丁腈橡胶或氯丁橡胶
增强层: 四层或六层高强度钢丝缠绕层
外胶层: 耐油耐天候合成橡胶
外观为黑色布纹
- ▶ **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°C至+100°C

- ▶ **Construction:**
Tube: NBR or CR
Reinforcement: four or six high tensile steel wire spirals
Cover: oil and weather resistant synthetic rubber
Black wrapped cover
- ▶ **Applicable medium:**
Petroleum based and water glycol hydraulic oil, lubricating oil, emulsion, air and water
- ▶ **Temperature range:**
-40 to +100°C

规格 CODE	内径 Inside Diameter			增强层直径 Reinforcement Diameter	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	单米重量 Weight
	DN	inch	mm			MPa	psi	MPa	psi		
11516	25	1"	25.4	35.2	39	42	6090	168	24360	330	2.04
11520	32	1-1/4"	31.8	46.8	51	42	6090	168	24360	445	3.97
11524	40	1-1/2"	38.1	53.8	58	42	6090	168	24360	530	4.77
11532	50	2"	50.8	68.0	72	42	6090	168	24360	700	6.77
11540	63	2-1/2"	63.5	80.5	85	42	6090	168	24360	820	9.29

通用信息

General Information

软管总成订货指南

为了更加容易的订购金通产品, 下面详细介绍了金通产品的订货方法:
 In order to order JINTONG product more easily, we will introduce one detailed Order Point Method for JINTONG products as below.

软管 Hydraulic hose

软管订货按以下方式表示:



软管总成 Hydraulic hose assembly

- 1 根据实际工况和使用条件选择合适的软管，确定软管型号；
According to the actual working condition and using condition to choose the suitable hydraulic hose and ensure the type of hydraulic hose
- 2 确定软管总成两端的接头螺纹形式、密封形式及尺寸；
Ensure the fitting thread form for the both ends of the hydraulic hose assembly, seal form and size.
- 3 如果软管总成两端的接头都是弯头，应注明两个弯头所对应的装配角度；
If the fitting of hydraulic hose assembly which in the both ends is elbow, please note the displacement angel for the two elbow.
- 4 根据实际使用需求，确定软管总成的长度及规格；
The order number for the hydraulic hose assembly as below;

总成订货号按以下方式表示：

The order number for the hydraulic hose assembly as below;



软管编号

Hydraulic hose part number

两端接头的型号

The type of both ends fitting

软管总成的总长度 (mm)

The overall length of hydraulic hose assembly.

两端接头都为弯头时的装配角度

The displacement angle for the both ends of elbow

护套类型

Guard type

接头或护套的详细信息，请联系相关销售或技术人员。

Regarding to the detailed information for the fitting or guard type, please contact with the salesman or technist.

应用 Application

有太多的外部因素会影响到液压软管的功能和使用寿命，而仅仅通过一些基础参数的选择，如压力、温度、尺寸等，还不足以提供最合适的产品。

行之有效的方法，就是从最终使用条件入手，并且在实践中不断丰富软管的应用。

主要操作因素

- 市场应用(农业、工程机械、海工、煤矿等)
- 机器/设备类型
- 系统压力
- 静态/动态
- 压裂脉冲(频率、振幅)
- 冲击, 峰值
- 吸油口压力
- 流量
- 环境/流体温度 (持续温度、峰值温度)
- 可生物降解液压油
- 其他流体 - 液体/气体
- 弯曲半径
- 其他

主要外部环境因素

- 极端的环境条件
- 紫外线/太阳光
- 臭氧/烟雾/海水
- 有限的空间
- 磨损/尖锐物体
- 机械负载(拉力、压力、扭力)
- 机械振动
- 接头加热
- 接头有电压/电流
- 电场/磁场
- 热环境
- 火花/火焰
- 其他

其他要求

- 证书/认证
- 客户标准
- 环境要求
- 工作安全要求



应用 Application

There are so many operational factors affecting the functionality and service life of hydraulic rubber hoses and there is such a wide variety of external circumstances they have to work in that some few basic parameters such as pressure, size and fitting types cannot provide a sufficient basis for selecting and producing the proper product. The only unfailing way is to start from the end—to learn and thoroughly understand the application the hose assembly will work in.

Hose hint

You do not always need additional sleeve to protect the hose against abrasion! Parker high and extremely high abrasion resistant Tough Cover and super Tough versions with 80-time and 45-time higher abrasion resistance do the same, but better and cheaper.



Main operational factors:

- Market [agriculture, construction, marine, mining...]
- Machine/ equipment type
- Hydraulic system pressure
- Static/ dynamic
- Extreme pulses [frequency, amplitude]
- Surges, peaks, spikes
- Suction strains
- Flow rate
- Ambient/ fluid temperature [permanent, peak]
- Biodegradable oil
- Other fluid - liquid/ gaseous
- Bend radius, etc

Main external circumstances:

- Extreme environmental conditions
- Ultraviolet light/ sunlight
- Ozone/ smog/ salt water
- Restricted space
- Abrasives/ sharp-edged objects
- Mechanical loads [strain, stress, torsion]
- Mechanical vibrations
- Fittings heated
- Fittings under voltage/ current
- Electrical/ magnetic field
- Heat exposure
- Flame/fire exposure etc

Other requirements:

- Certificate/ approval needed
- Special [OEM] specification
- Environmental requirements
- Work safety requirements



尺寸 Size

在液压系统中，为了避免紊流对管路及其他元件带来的消极影响，我们根据以往长期的经验，对流速做了一些限制。压力管路、回油管路和吸油管路的限制都不同。

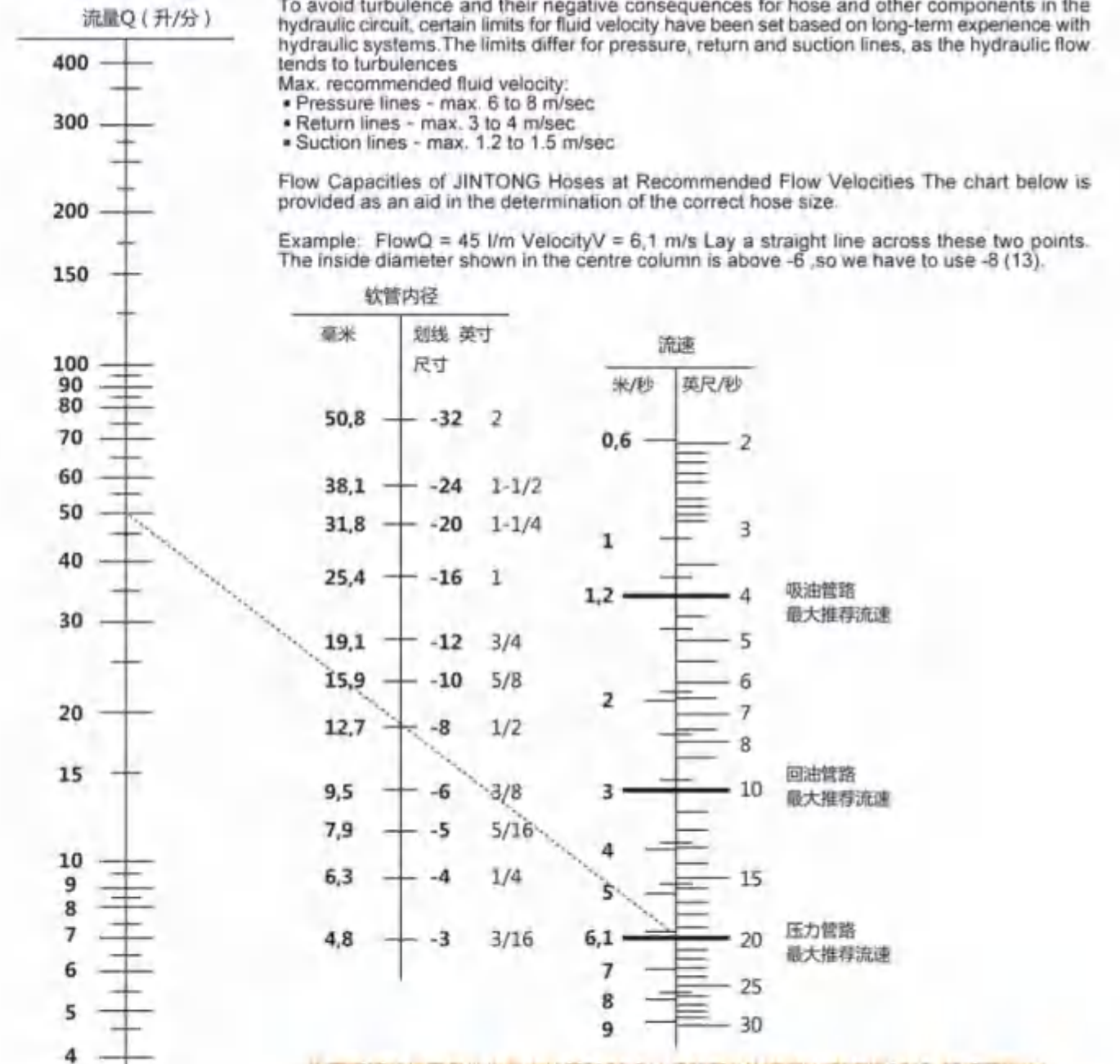
最大推荐流速:

- 压力管路 - 约 6.1 m/s
- 回油管路 - 约 3 m/s
- 吸油管路 - 约 1.2 m/s

下面的流量选择表可以帮助您正确地选择软管尺寸:

使用方法: 根据您的系统要求确定合适的流量Q, 再根据管路类型选择合适的流速, 两点的连线与中间软管内径栏的交点即为所需的软管内径。若交点在两个尺寸之间, 则选择较大的内径规格。举例如下: 系统流量为45升/分的压力管路, 推荐流速则为6.1米/秒, 两点连线后, 与内径栏的交点在-6和-8之间, 因此内径规格应选择-8(13毫米)。

软管流量选择表



推荐流速的使用条件为最大粘度3155.S.U.(38°C)的液压油(在室温18°C-68°C范围内)。



温度 Temperature

在选择金通橡胶时，请仔细阅读每种软管的参数介绍，以了解每种软管的工作温度。金通橡胶可提供适应较高温度的耐高温软管，请参考软管产品章节以获取相应数据。

For Jintong hoses you can find the recommended temperature ranges for fluids and for water and air (when applicable) in the datasheet of each hose type in this catalogue.



高温

工作压力 Working pressure

资料中有关胶管的动态工作压力是指胶管在连续工作时允许的最高压力。按照有关国际标准规定的液压胶管的安全系数，我们推荐的工作压力通常为胶管最低爆破压力值的四分之一。

The dynamic working pressure of the hose in the technical data means the maximum pressure which allows the hose for continuous working. According to the international standard of the hydraulic hose safety factor, the working pressure we recommend is 1/4 of the minimum burst pressure values.

冲击压力和疲劳寿命 Surge pressure and fatigue life

胶管的选择是根据液压系统设计的最高压力值来确定的。由于液压系统的压力值通常是动态的，有时会出现冲击压力，冲击压力峰值会大大高于系统的最高压力值。但系统上一般都有置流阀，故冲击压力不会严重影响胶管的疲劳寿命。对于冲击压力特别频繁的液压系统，建议选用特别耐脉冲的胶管产品。

The selection of the hose is according to the maximum pressure value of the designed hydraulic system. Usually the hydraulic system's pressure is dynamic, sometimes the impact pressure happens, and the impact pressure is much higher than the maximum system pressure. But normally there's the capital flow valve in the hydraulic system, so the surge pressure will not seriously affect the fatigue life. We suggest the user to use special impulse resistant hose for the hydraulic system which surge pressure is frequent.

化学相容性 Chemical compatibility

若使用特殊的液压介质，用户应确保所选用的胶管总成胶管内、外层、接头以及O形密封圈与介质相容。

If you use the special hydraulic medium, the user should ensure the medium is compatible with the hose assembly inner, outer layer, fitting and O sealing ring.

摩擦 Friction

胶管在使用时如常与硬物接触或摩擦，建议在胶管外部加弹簧护套。

When you use the hose, if the hose contact with hard objects or friction frequently, we suggest adding one spring sheathed outside of the hose.

弯曲半径 Bending radius

安装胶管总成时应注意到胶管的最小弯曲半径。若弯曲半径过小，将降低胶管的承压能力并影响其使用寿命。

When you install hose assembly, you should pay attention to the minimum bending radius. If the bending radius is too small, it will reduce the hose pressure bearing ability and also its use life.



软管的布排/安装/环境影响

Hydraulic Hose Arrangement/Installation/Environmental Influence

正确

软管总成的布管方式及工作环境直接影响其使用寿命。下列图表表明了正确的管路排布方式，这有利于最大地延长软管的使用寿命及保证软管的安全工作性能。

Hose assembly installation arrangement and working environment can directly affects its service life. The following diagram shows the note to install the hose and it is good to extend the service life and ensure the work safety performance of hose.

当软管平直连接时，必须保证软管有足够的松弛度以便于软管在受压力而长度发生变化时自身可进行调节。受压时，软管太短会导致软管从软管接头上拔脱或长期有应力作用于接头上，导致接头金属损伤或密封失效。

When the hose is connected straightly, must ensure that the hose have enough degree of elasticity so that the hose can be adjusted accordingly when the length change under pressure. If the hose is too short, it will make the fittings push out, or the fitting will be damaged or failure of seal under the long term stress.

确定软管长度时必须考虑到软管总成有足够的松弛度，以降低软管工作状态下的张力。但软管总成长度也不能太长，以避免软管摩擦设备或其它的零部件。

The degree of elasticity must be considered while you confirm the hose length to reduce the tension of the hose under the working. However, if the hose assembly is too long, it will have a friction with equipment or other parts.

应避免软管机械扭曲，在安装时应保证软管的弯曲半径大于其最小弯曲半径。

Don't make the hose distort during installing the hose, the bend radius of the hose must be bigger than its minimum bend radius.

错误

正确

错误

软管的排布路线是软管接头选型的一个重要依据，正确的接头选型能避免软管的扭曲和软管长度上的浪费，也能减少接头使用数量。

Hydraulic hose arrangement is the base to choose the hose fittings, the right fittings type choose can be avoid the distorted hose and hose waste and reduce the using count of the fittings.

正确使用管夹（夹持/支撑）能保证管路排布的稳定性，避免软管与设备表面接触而损坏软管，避免夹持方式妨碍软管自然移动和长度变化。

The right method to use hose clamp is important to keep stability for the hose arrangement; it can also avoid the damage when the hose contacts the surface of the equipment; and the clamping way can't hamper the natural movement and change in length of the hose.

高压和低压系统的软管不能交叉或固定在一起，因为不同的长度变化率会导致软管外胶损伤。

The high pressure and low pressure hose can't cross or fix together, because different length changing rate will result the damage of the hose cover.

管路设计时应首先考虑功能性，其次考虑美观性和方便性，同时应尽量考虑到维修和系统维护的需要。

Hydraulic hose arrangement must consider functionality first, and then the aesthetic and convenience, meanwhile the needs of system maintenance should be also considered.

通常情况下，软管不应与其他物品有直接的表面接触（包括软管与软管之间的接触），当不可避免发生接触时应考虑给软管配上护套。

In general, the hose shouldn't have the surface contact with other things. (Inclusive of the contact between hose and hose) The hose sheath should be considered when the contact is inevitable.

软管维护 Hose Maintenance

软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。下面是一些维护提醒。

- 基于设备先前的历史，成套的维护/检测程序，和使用要求严格性或潜在危险，软管总成应当以定期的频率被检测。
- 当检测软管总成时，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，并注意软管总成附近的潜在危险区。
- 检测软管和接头如下：
 - 钢丝暴露，拆坏；或服饰。
 - 管体或接头处泄露。
 - 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，软管总成应当立即更换。
- 液压系统也应当检测如下
 - 泄露端口
 - 软管夹子，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露和操作正确。
- 如果软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。
 - 软管总成分离后，用干净的压缩空气吹洗，或用相溶的干净介质冲洗。
 - 检测软管内胶的切口，残留物和清洁度。
 - 检测软管的直线度保证软管没有发生扭曲。
 - 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，应当更换软管总成。
- 软管总成应当按SAE J1517概述的批准的试验台和规程，进行静液压测试。在实验压力或软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，目测软管有无任何损坏，泄露，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，政府和工厂推荐，否则损坏引起人身伤害危险或财产损失。

A hose and fitting maintenance program can reduce equipment downtime and maintain peak operating performance of the hydraulic system. Here are 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 checkout, 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 30seconds to one minute. 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.

软管贮存 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软管产品造成危害，并使软管过早失效。软管应当贮存在阴暗，干燥的环境中并远离热源，电气设备，及上述有害元素。软管理想的贮存温度是+ 10°C到+ 20°C，最大为38摄氏度。

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°C to + 20°C, with a maximum of 38°C.

