

NITTA MOORE 树脂软管的特点

Features of Nitta Moore thermoplastic hoses

清洁、 减低环境负荷

Clean and Eco-friendly

由于是树脂材质，所以内面光滑，不会污染液压油。

Smooth inner surface of the plastic hoses keeps the operating oil clean.

现场配管

Piping on Site

如使用快插式接头或装配设备“MARK10”，则可现场轻松调整长度。

With the assembly tool “Mark 10,” it is easy to adjust length on site.

优越的 耐久性能

High Durability

由于加固层采用了合成纤维，抗冲击压力及重复弯曲等性能优越。

They are highly durable against impact pressure and repeated bending, because of the synthetic fiber reinforcement.

优越的 耐磨耗性能

High Abrasion Resistance

保护层材料采用的是特殊聚氨酯树脂，因此耐磨耗性能优越。

They have high abrasion resistance because special polyurethane resin is used as the cover material.

轻 量

Light

与橡胶软管相比，重量约减轻1/4~1/2。

They weigh only about a quarter to half that of rubber hoses.

紧凑型配管

Compact Piping

外径小，可以以小弯曲半径进行配管。

Small outer diameter enables piping in small bending radius.

<http://www.nitta.com.cn>



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液压软管产品

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头产品
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成 / 工具、专用夹具、工具
Machine, Jig, Tool
Assembling

软管装配方法
Hose Assembling
Method

技术资料
Technical Document

参考资料
Reference Document



⚠ 安全注意事项 / Precautions for Use

本“安全注意事项”是提醒您正确使用本公司产品的注意事项，旨在防止发生人身危害及财产损失等。这些注意事项根据错误操作时引起的危害及损失程度的大小，分为“危险”“警告”“注意”三个阶段。任何一个阶段都是有关安全的重要内容，请务必按照ISO4414-1982 (※1) 及JIS B8370 (1988) (※2)、ISO4414-1979 (※3) 及JIS B8361 (1982) (※4) 予以遵守。

These “Precautions for Use” provide instructions for the correct use of our product to prevent damage to people and property. The instructions are classified into three categories, “danger,” “warning,” and “caution,” depending on the extent of damage from improper use.

Every category contains important notes for safety so please follow these as well as ISO 4414-1982 (※1), JIS B 8370(1988)(※2), ISO4413-1979(※3), and JIS B 8361(1982)(※4).

(※1) ISO 4414-1982	Pneumatic fluid power... Recommendations for the application of equipment to transmission and control systems.	(※3) ISO 4413-1979	Hydraulic fluid power... General rules for the application of equipment to transmission and control systems.
(※2) JIS B 8370 (1988)	空气压力系统通则 Pneumatic System General Rules	(※4) JIS B 8361 (1982)	油压系统通则 Hydraulic System General Rules

⚠ 危险 / DANGER

限于在可能发生因操作错误导致死亡或重伤的危险状态、并且危险发生时警告紧急性高时。

For the limited cases of inappropriate use, where a dangerous situation leading to death or severe injury is expected and emergent warning is necessary at the occurrence of danger.

⚠ 警告 / WARNING

可能发生因操作错误导致死亡或重伤的危险状态时。

For the cases of inappropriate use, where a dangerous situation leading to death or severe injury is expected.

⚠ 注意 / CAUTION

可能发生因操作错误仅导致轻伤或物理性损失的危险状态时。

For the cases of inappropriate use, where a dangerous situation leading to minor injury or light damage to property is expected.

为更加安全地使用本设备，应仔细阅读下列注意事项。

有关各种产品的注意事项，各产品登载页面上也有记述。另外，应根据相关操作的说明进行确认。

For more safety information, please read the following carefully.

Notes for each product are also given on the product page. Please read the instructions for use as well.

免责声明

- ①对于因客户故意或过失、非本公司产品故障（包括软件的错误运行）所引起
的事故、发生自然灾害等导致的损失，本公司概不负责。 ③即使是由于向本公司咨询过的内容而发生的故障，如无明确记录属于本
公司责任的，本公司概不负责。
- ②不遵照本手册（包括使用说明书）中说明、或规定的使用方法进行操作 ④关于因使用或不可使用本公司产品所发生的附带损失（事业利益损失、
事业中断等），本公司概不负责。

⚠ 有关登载商品的注意事项 / Notes for the products in this catalog

有关对装配机MARK9及MARK10进行操作的注意事项，也分别记述在附有现品的使用说明书中。

Notes for the use of Assembling machines Mark 9 and 10 are also given in their instruction manual.

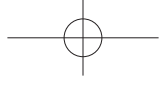
⚠ 危险 DANGER

- 不得用于以人身及生命的维护与管理为目的的设备与装置。
- 不得用于特别需要安全性的设备与装置。
- Cannot use for machines and equipment that maintain and control human life.
- Cannot use for machines and equipment that require an extremely high level of safety.

选择前 Before Selection!

⚠ 警告 WARNING

- 关于对本公司产品的操作，应由所安装的装置及设备/系统的设计者、或者规格确定人来进行判断。同时，这些设计者及规格确定人应根据需要通过测试及分析进行决定。对这些装置及设备、系统所规定的性能及安全性进行的保证，应由其适用性决定人负责。
- 关于对本公司产品的操作，应由知识和经验丰富的人员进行。
- 在确认安全之前，切勿从装置及设备、系统等对本公司产品进行操作或拆卸。
- 在手册明确记述的规格以外的环境及条件下使用时，请与本公司联系。
- 对用于运送人员的装置、设备、各种车辆、航空等交通工具、及用于人员乘坐的休闲设备、装置的使用，及对由于规格错误时直接影响人身的医疗设备及接触食品、饮水的设备的使用，请与本公司联系。
- Designers of instruments, machines, or connecting systems or those who make specifications should consider the handling of our products. In such consideration, a test or analysis should be conducted if necessary. It is their responsibility to assure the given safety and performance of the instruments, the machines, or the systems.
- Those who have sufficient knowledge and experience should handle our products.
- Please do not handle and remove our products from instruments, machines, or systems until safety is confirmed.
- Please contact us when using our products in situations and conditions that are not assumed in the specifications described in the catalog.
- Please contact us when using our products for equipment, machines, various types of vehicles, and commercial aircraft, for leisure machines and equipment to transport humans, for medical equipment that would cause human damage if the specifications were inappropriately followed, and for machines in contact with food or drinking water.



选择时 When Selecting!

警告 WARNING

- 应确认使用条件满足本手册记述的“使用条件”。
- 请勿在所使用的流体或环境气体中使用腐蚀性气体、易燃性气体等。
- 所使用的流体为气体时，应在最高使用压力1.0Mpa以下使用。（35NG系列软管除外）
- 切勿在产生过度振动及撞击的场所使用。
- 在流体及环境气体中使用化学品时，务必要参照“化学品耐受性资料栏”。
- 关于软管产品，其软管接头针对其软管品种而受限。务必按照规格所适合的组合进行选择。
- 本公司的软管产品及软管接头产品与其他公司的软管产品及软管接头产品不兼容。
- 软管产品根据软管种类决定其适用流体。应避免适用流体以外的使用方法。
- 软管产品与软管接头产品的使用条件不同时，应在该项目较小值以下进行选择。
- 软管产品需要适当的尺寸，以保证必要的流量。有时压力损失变大、油温上升而导致故障。流速、流量、软管内径的关系请参照“计算图表”项目。
- 软管产品的最大冲击压力为最高使用压力的1.5倍。由于冲击压力会给软管的使用寿命带来影响，超过规定值时，应选择与其相匹配的软管。
- 在电气工程等相关方面使用时，特别是在需要电气绝缘性时，应选择“非导电”规格的软管。详情请与本公司联系。
- Please check if the use condition satisfies the “use conditions” in the catalog.
- Do not use our products when a caustic or flammable gas is used as a fluid or is in the environment.
- Do not use our products in places where excessive vibration or impact may occur.
- Consult the “Table of chemical resistance” if chemicals are used as a fluid or in the environment.
- There are a limited group of hose couplings for each type of hose product. Please select correct combinations according to the specifications.
- Our hose products and hose couplings are not compatible with other company's hose products and hose connectors.
- Each type of hose product allows the use of a limited type of fluid. Do not use a fluid that is not allowed.
- If use conditions are different between hose products and hose couplings, please use them following the smaller data.
- The hose product must be of an appropriate size to maintain the necessary flow volume. If the size is not appropriate, the increase in pressure drop and oil temperature could cause problems. The relation of fluid velocity, fluid volume, and hose inner diameter is given in “Nomograph.”
- The maximum impact pressure of hose products is approximately 1.5 times higher than the maximum working pressure. Since the impact pressure may affect hose life, please select appropriate hoses when the pressure exceeds the specified value.
- When electric insulation is necessary, for example in electrical works, please select “Nonconductive” hoses. Contact us for details.

注意 CAUTION

- 使用水、乙二醇系列作动油时，软管没有问题，但是由于软管接头的镀金种类不同，有时不能使用。具体请与本公司联系。
- 软管产品在加压时，可能会发生±0.3%的长度变化，因此应保持软管适当的松弛度。
- 有时会从管或接头中抽取气体、液体、固体成分。其量根据材质及使用条件而不同。特别是可能发生使用方面的问题时，应确认后再使用。
- When water or glycol-type operating oil is used, hoses work without problem but some plated types of hose couplings cannot be used. Contact us for details.
- Hose products might change their length by ±3% under pressure, so do not stretch hoses tightly.

安装时 When Installing!

警告 WARNING

- 安装方法的相关说明另行记述。务必按照参照、记述的注意事项进行安装。
- 应避免使用螺丝部位及外壳表面出现损伤的接头。
- 使用可反复利用的产品（Resable接头等）时，务必确认其产品没有损伤。
- 对本公司以外的二次加工、主体拆解、改造的产品，将不予以保证。
- 软管产品一旦从接头脱落时，应采取将其固定安装在可能会给人或财产带来损失的位置上的方法。
- Instructions for connecting hoses are given in a separate document. Please read it and follow the instructions for installation.
- Do not use couplings with damaged threads and seat surface.
- If you use reusable products such as reusable couplings, ensure that they are not damaged.
- We will not guarantee the products which are additionally treated, decomposed or refabricated by others.
- For installation of hoses, please fix them in a place where unexpected disconnection of hose and couplings cannot cause damage to people or property.



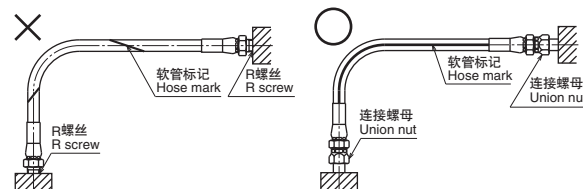
安装时 When Installing!

注意 CAUTION

- 应避免软管缠结、磨损而发生损伤。可能会导致软管的毁坏、破损、脱落等。
Prevent damaging the hoses, e.g. entanglement or abrasion. It could cause flattening, destruction, and disconnection.

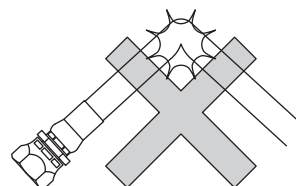
- 在张力及扭曲、旋转、最小弯曲半径以下使用软管时，应在无负荷状态下进行配管。

Install hoses to prevent loads such as tension, torsion, rotation, and bending with a radius under the minimum bending radius.



- 勿请折弯软管。折弯部分在最高使用压力以下可能会发生“疲劳破坏”。

Do not break a hose, which might cause “fatigue destruction” at the break point even under the maximum working pressure.



- 软管接头插入部分变脏时，应仔细擦拭掉表面污垢后再进行使用。
When the plug-in part of the hose couplings is dirty, clean the surface.

- 软管出现凹痕及外伤时，切勿使用。

Do not use hoses if they have a dent or damage.

- 加压后，切勿扭拧软管装品部件。发生扭曲时，软管内部结构发生变形，可能会导致“破坏”。

Do not twist hose assemblies after pressure is applied. When they are twisted, it could deform the inner structure of the hoses and result in “destruction.”

- 切勿乱扔、乱丢接头。可能会引起螺丝部位及外壳表面受损，导致漏油。

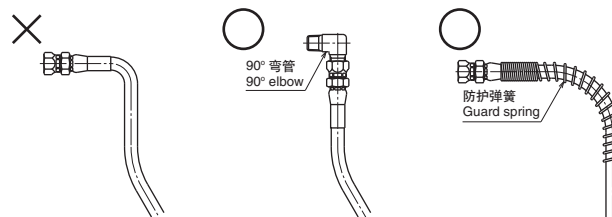
Do not throw and drop hose couplings, which might damage threads and sheets and lead to oil leakage.

- 螺丝部位应使用本公司规定的紧固螺栓进行旋拧。由于安装侧的材质不同，有时会产生膨起及龟裂等，因此安装时务必要确认安装侧的强度。

Tighten the hose coupling to the specified torque. Some material may expand or crack by the tightening, so check and confirm the strength of the part to be assembled.

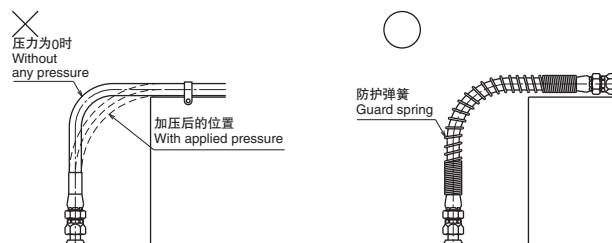
- 软管产品如从软管接头的端部急剧弯曲，则可能导致使用寿命降低。从软管接头端部确保软管外径以上的直线部分后，再进行弯曲。

Sharply bending a hose near the coupling could shorten the life of the hose. When bending a hose, keep the hose straight of the length longer than the outer diameter of the hose from the assembled part.



- 如对软管产品加压，则可能会无加压时没有影响的部分产生影响。应采取措施对防护器具进行检查等。

Pressure on hose products could cause interference with surrounding parts on which no interference exists before the pressure is applied. Please handle appropriately, e.g. introducing guard parts.



- 为固定软管而使用夹子（绝缘固定带等）时，应注意不要紧固过度。由于是在应力集中的状态下使用，可能会导致疲劳性破坏。

Do not over-tighten when using clamps such as INSULOK ties to fix a hose. Concentrated stress may cause “fatigue destruction.”

- 软管的设计主要注重抗内压，因此请勿施加外压。

Hose products are designed to withstand inner pressure, so do not apply outer pressure to them.

- 切勿重复使用软管产品、及Reusable接头以外的软管接头。

You cannot reuse hoses and hose couplings except reusable couplings.

- 在软管可能发生外部损伤时，应在软管外面施加金属线编织层或防护弹簧，对软管进行保护。

Protect a hose from possible outer damage by using a wire braid or guard spring.

- 安装一定时期的软管易发生弯曲。因更换设备、检查维修电路而拆卸下软管部件，再次进行安装时，应在原来的状态下进行安装。同时，安装时请清除接头的螺纹部位、座表面等的杂物，使用规定的螺栓紧固。

Hoses keep the bending shape if they are left over a certain period of time. When removing and reinstalling a hose assembly for machine exchange, circuit inspection, repair, and so forth, please attach the hose in the original position. When attaching it, clean the threads and seat of the coupling and tighten it to the specified torque.



使用时 When Using!	 警告 WARNING	• 加压时请勿与产品接触。加压时如不小心靠近或接触产品，软管及软管接头破损时可能会导致流体飞散，非常危险。 • 在流体高温状态下切勿接触产品。可能会导致“烧伤”。 • 在可使用“水”的情况下，注意防止其结冰。 • Do not touch hose products at the pressurization. If you improperly approach or touch a hose at the pressurization, it could be quite dangerous if an unexpected breakage of the hose or the coupling were to scatter fluid inside. • Do not touch hose products when the fluid is hot. It could cause a “burn.” • When “water” is used as a fluid, please keep it unfrozen.
保管时 When Storing!	 注意 CAUTION	• 在未使用状态下保管产品时，务必要保管在没有杂物的场所。如杂物等粘附在产品内部，则可能进入外部设备而导致发生故障。 • 应避免阳光直射，保管在40°C以下干燥的场所。 • 将软管产品直线、或最小弯曲半径以上卷起进行保管。 • 应避免在对软管产品及软管接头长期保管后使用。使用保证期为制造后一年。 • If you store unused products, keep them in a clean place to prevent dust. When fine particles such as dust enter the inside, they also enter the connecting equipment and may cause problems. • Keep hose products in a dry place under 40°C avoiding direct sunlight. • Store a hose in a straight position or in a coil with a larger diameter than the minimum bending diameter. • Try to use hoses and couplings within about one year after the production.
维护检查时 When Maintaining!	 注意 CAUTION	• 务必要定期进行检查。检查时应对外部损伤及腐蚀、磨损等、产品有无老化及配管是否合理进行确认，必要时更换新品。 • 关于软管的外部损伤、磨损，损伤达到合成纤维编织层、或几乎达到时，应进行更换。 • Please conduct periodic inspection. Confirm that there is no degradation such as outer damage, corrosion, and abrasion as well as any distorted parts and replace it with a new one if necessary. • Change the hose immediately if the outer damage or abrasion reaches, or is about to reach the synthetic fiber braid.

软管产品 / Hose products

软管总成的订购方法 / How to order

订购时应以下使用条件进行确认

Check the following usage conditions before ordering.

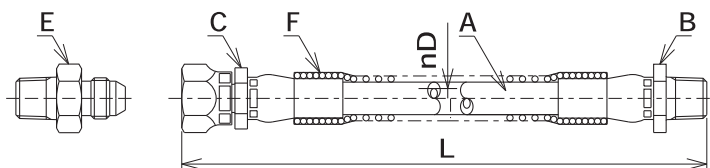
- 1 使用流体的种类及流量
- 2 使用压力
(常用压力与峰值压力: MPa)
- 3 使用温度范围
(流体温度与环境气体温度: °C)
- 4 软管弯曲半径
(最小弯曲半径: mm)

1. Type and volume of working fluid
 2. Working pressure (maximum working pressure and maximum impact pressure: MPa)
 3. Working temperature range (temperature of fluid and environment: °C)
 4. Bending radius of hose (minimum bending radius: mm)
- Check the following usage conditions before ordering.

应根据以上条件进行如下步骤 / Based on the above conditions, please follow the steps below.

- 1 选择软管的种类 (A)、内径尺寸 (D)。
- 2 显示软管总成的长度 (L)。(应以接头端部之间的长度进行表示)
- 3 告知接头 (B) (C) 及适配器 (E) 的种类、材质。
- 4 必要时标明防护弹簧及其他附件 (参照P.25) (F)。

1. Select the type of hose (A) and the inner diameter (D).
2. Indicate the length (L) of hose assembly. (Use the length between the edges of two couplings.)
3. Select types and materials of couplings (B and C) and adaptor (E).
4. Specify if guard spring and other accessories (F) are required. See P.67 for accessories.



软管选择一览表 / Hose selection table

● 钢制
Steel

● 钢制短型 (接头全长较短的类型)
Short steel (short-length type)

				油 压 配 管 用 Hydraulic Piping								
登 载 页 面 Page				11~14	15~20							
软管系列 / Hose series				最高使用压力 Max. working pressure (MPa)	LF70	1000	1100	1400	1500	※1 ※3	N3130	
标称尺寸 Size	内径 (in.) I.D. (in.)	内径 (mm) I.D. (mm)										
02	1/8	3.6	—		—	—	—	—	—	—		
03	3/16	4.8	—		—	—	—	15.0	21.0			
04	1/4	6.3	7.0		10.5	10.5	14.0	—	19.5			
05	5/16	7.9	—		—	—	—	—	17.5			
06	3/8	9.5	7.0		10.5	10.5	14.0	—	16.0			
08	1/2	12.7	—		10.5	10.5	—	—	14.0			
10	5/8	15.9	—		—	—	—	—	—			
12	3/4	19.0	—		—	—	—	—	9.0			
16	1	25.4	—		—	—	—	—	7.0			
适用温度范围 (°C) Temp. range (°C)					-40~+100	-40~+100	-40~+100	-40~+100	-40~+100	-40~+100		
特 点 Features					超柔软 弯曲半径小 Super flexible, small bend radius	细长、轻 Thin, light	铠装 金属丝编织层 Outer wire braid	细长、轻 Thin, light	细长、轻 Thin, light	柔软 Flexible		
用 例 Application					●工作机械 ●工程机械 ●一般作业机械等 ●Machine tools ●Construction machine ●Generaloperating machine, etc.	●工程机械 ●农业机械 ●工作机械等 ●Construction machine ●Farming machine ●Machine tools, etc.	●工作机械等 ●Machine tools, etc.	●工业车辆 ●农业机械等 ●Industrial vehicles ●Farming machine, etc.	●工业车辆 ●农业机械等 ●Industrial vehicles ●Farming machine, etc.	●工作机械 ●工业车辆 ●一般作业机械 ●机器人 ●工厂实用配管等 ●Machine tools ●Industrial vehicles ●General operating machine ●Robot ●Utility piping in factory, etc.		
适用接头 Couplings that can be used	接续部形状(P.9~10) Shapes of couplings (P.9 – 10)											
	SA			⊙	○	○	○	○	○			
	SE			⊙	○	○	○	○	○			
	SF			⊙	○		○	○	○			
	SK				△	△	△		○			
	SO								○			
	SC				○	○	○		○			
	SL				○	○	○		○			
	DF			○	○	○	○	○	△			
	AE (45°·90°)			△	○	○	○	○	○			
	AF (45°·90°)			⊙	○	○	○	○	○			
	AK (45°·90°)				△	△	△		△			
DF (45°·90°)			○	○	○	○		△				

※1 JIS K6375 (油压用纤维增强树脂软管) 类型1适用品/SEA100R7适用品。

※2 JIS K6375 (油压用纤维增强树脂软管) 类型2适用品/SEA100R8适用品。

※3 非导电型规格 (电气绝缘规格) 具体请参照P.41。

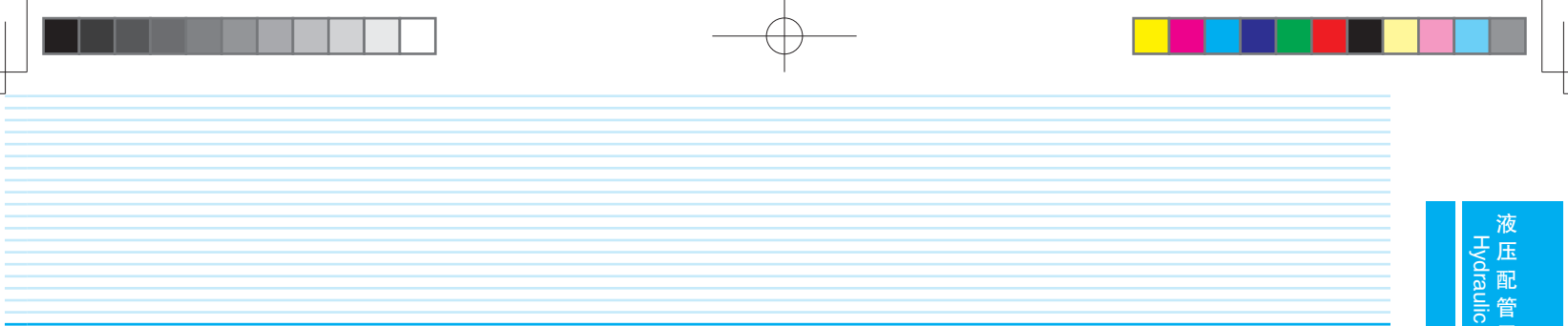
※4 有仅适用3130-02的Campucka接头。

*1 Matched to type A of JIS K 6375 (hydraulic braid-reinforced plastic hose), matched to SAE100R7.

*2 Matched to type B of JIS K 6375 (hydraulic braid-reinforced plastic hose), matched to SAE100R8.

*3 Nonconductive (electrically insulative). See P.41 for details.

*4 Campucka coupling (made-to-order) is available for 3130-02.



N3130-04 1000L SAXSE+010-G1

A 软管的种类
Type of hose

D 软管的内径尺寸
Inner diameter of hose

L 软管总成长度
Length of hose assembly

B 一端接头的种类
Type of one coupling

C 另一端接头的种类
Types of the other couplings

F 防护弹簧的安装形状
(注) 防护弹簧具有下列要素:
G1: 全长
G2: 两端 (请指定长度)
G3: 单侧 (请指定长度及安装方向)
Fitting shape of guard parts
(Ex) Below are the types of guard springs
G1: Full length
G2: Both ends (Please specify the length)
G3: Single end (Please specify the length and the direction of installation)

E 适配器种类
Types of adaptor

软管总成长度的容许差

软管总成长度容许差以JIS B 8362为准。

软管总成长度	长度容许差	
未滿500L	+10L	-0L
500L 以上 1000L未滿	+15L	-0L
1000L以上 2000L未滿	+20L	-0L
2000L以上 5000L未滿	+1.0%L	-0L
2000L以上 5000L未滿	+2.0%L	-0L

S 不锈钢制 Stainless ▲ 订购产品 Made-to-order products 其他流体请与本公司联系。 Contact us for other fluids.

油压配管用 Hydraulic Piping					清洁配管用 For Clean Use	
21~26		21~26	27~30	31~32	33~34	登载页面 Page
3130		※1 3700	N3000	※2 ※3 3R80	34PW	软管系列 / Hose series
20.0		—	—	—	20.0	标称尺寸 / Size
—		21.0	—	35.0	—	02
—		19.5	28.0	35.0	19.5	03
—		—	—	—	—	04
—		16.0	21.0	28.0	16.0	05
—		14.0	21.0	25.0	14.0	06
—		—	17.5	—	—	08
—		—	—	16.0	10.5	10
—		—	—	14.0	10.5	12
—		—	—	—	—	16
-40~+100		-55~+100	-40~+100	-40~+100	-30~+70	适用温度范围 (°C) Temp. range (°C)
可使用接头 coupling usable		环境规格 Eco-friendly	柔软 Flexible	高压 High pressure	纯水、化学药品 Pure water, chemicals	特点 Features
●一般作业机械 ●船舶涂装等 ●General industrial machine ●Ship painting, etc.		●产业车辆 ●船舶涂装等 ●Industrial vehicle ●Hose reel, etc.	●工程机械 ●产业车辆 ●喷射成型机 ●软管盘等 ●Construction machine ●Industrial vehicle ●Injection molding machine ●Hose reel, etc.	●工程机械 ●液压机 ●船舶等 ●Construction machine ●Hydraulic press ●Ship, etc.	●洁净室内设备 ●聚氨酯喷涂 ●淡水化装置 ●Facility in clean room ●Urethane coating ●Desalination equipment	用 例 Application
	○	○	○	○		SA
	○	○	○	○	S	SE
	○	○	○	○		SF
	○	○				SK
	○	○	○	○		SO
	○	○		○		SC
	○	○	○	○		SL
	△	△	△			DF
	○	○	○			AE (45°·90°)
	○	○	○			AF (45°·90°)
	△	△				AK (45°·90°)
	△	△	△			DF (45°·90°)

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成 / 工具专用夹具、工具
Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

技术资料
Technical Document

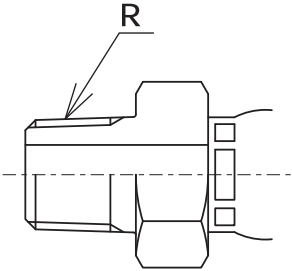
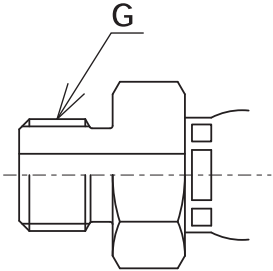
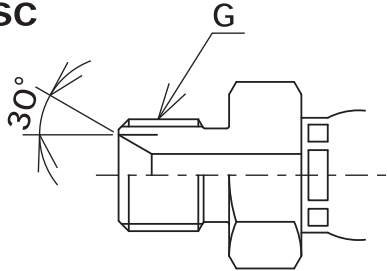
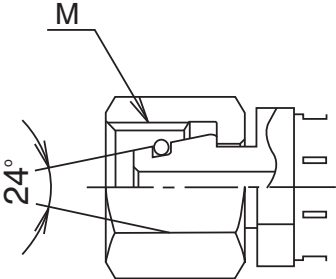
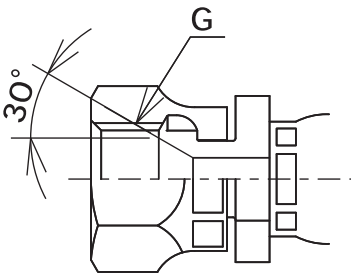
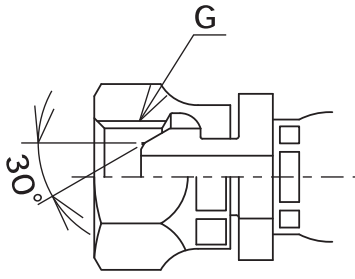
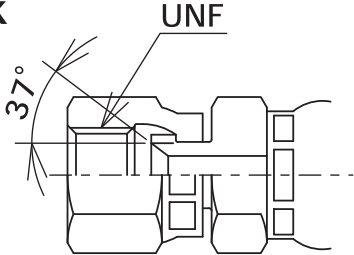
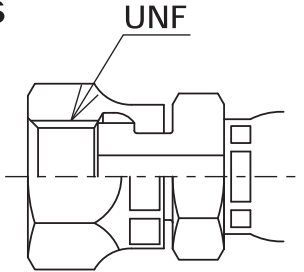
参考资料
Reference Document

软管转接头形状一览表 / List of hose connection shapes

产品编号显示例 / Example of part number

SE - PF - 04 - (N30) - (S)

接头种类及形状 Type and shape of coupling 参照以下内容 see below	螺丝种类 Thread typeg PT(R), PF(G), NPSM, UNF (仅显示尺寸 / Only size is shown)	软管尺寸 Hose size 02 = 1/8" 08 = 1/2" 03 = 3/16" 10 = 5/8" 04 = 1/4" 12 = 3/4" 05 = 5/16 16 = 1" 06 = 3/8"	软管产品编号 Hose part number 无显示 / No indication = N3130, 3130, 3700, 3000 14=1000, 1100, 1400, 1500 N30=N3000 PW=34PW	材质 Material
				无显示=钢 表面处理 (Campucka, swage型) S=SUS304 S6=SUS316 PW=34PW软管专用SUS316 No indication = steel Surface finish (Campucka and Swage types) S=SUS304 S6=SUS316 PW = SUS316 for 34PW hose

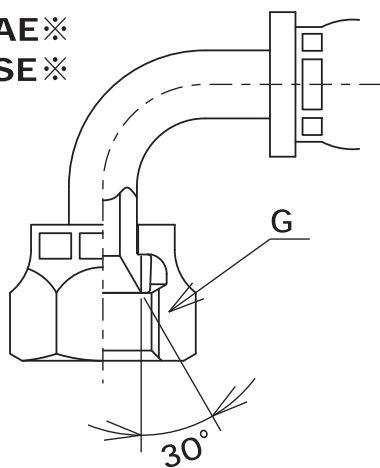
英制锥螺纹公接头 Tapered male-thread coupling SA 	英制螺纹公接头 (螺纹底端O型圈) O-ring port coupling with parallel male-thread SO 	英制螺纹公接头 (30°内锥) Parallel male-thread coupling (with 30° male seat) SC 
公制螺纹母接头 (24°锥面O型圈) Metric Female 24° Cone O-ring DF 	英制螺纹母接头 (30°内锥) Parallel female-thread union coupling (with 30° female seat) SE 	英制螺纹母接头 (30°外锥) Parallel female-thread union coupling (with 30° male seat) SF 
英制螺纹母接头 (37°内锥) Unified female-thread union coupling (with 37° female seat) SK 	英制螺纹母接头 (端面O型圈) Unified female-thread ORFS union coupling SGS 	

软管转接头形状一览表 / List of hose connection shapes

英制螺纹母接头 (30°内锥)

Parallel female-thread union bend coupling
(with 30° female seat)

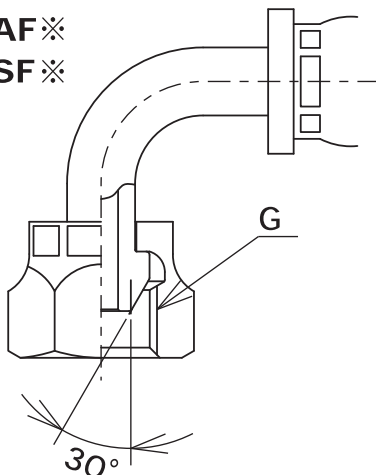
AE※
SE※



英制螺纹母接头 (30°外锥)

Parallel female-thread union bend coupling
(with 30° male seat)

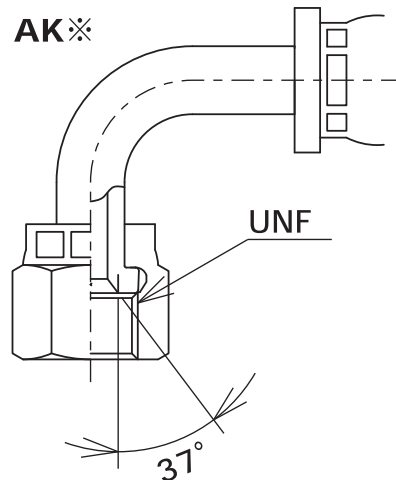
AF※
SF※



英制螺纹母接头 (37°内锥)

Unified female-thread union bend coupling
(with 37° female seat)

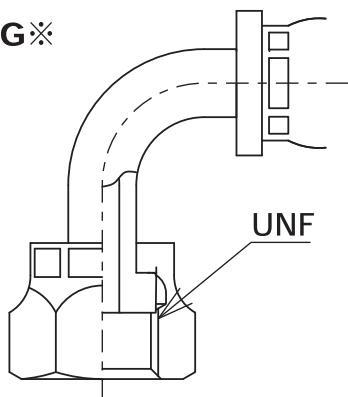
AK※



英制螺纹母接头 (端面O型圈)

Unified female-thread ORFS
union bend coupling

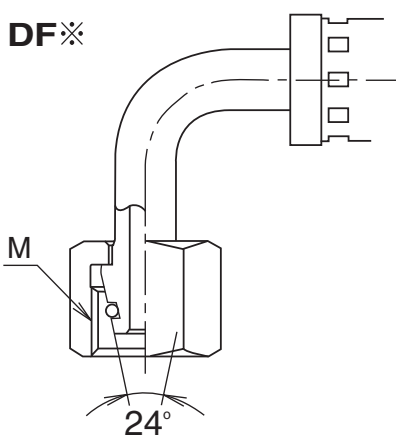
AG※



公制螺纹母接头 (24°锥面O型圈)

Metric Female 24° Cone O-ring

DF※



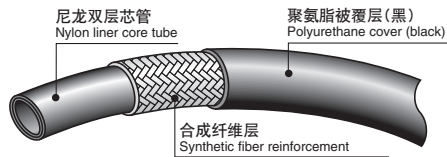
液压软管产品 Hydraulic Hose Clean Hose	液压配管用软管
	清洁配管用软管
转换接头 Adaptor	软管保护部件、特殊加工品 Hose Guard Part, Specially-Treated Part
	软管总成/工具专用夹具 Assembling Machine, Jig, Tool
软管装配方法 Hose Assembling Method	技术资料 Technical Document
	参考资料 Reference Document

LF70系列 / series

LF70

特点
Features

- 柔软性提高15%~25% (本公司比)
- 接头全长较短, 可以进行紧凑型配管
- Improved flexibility by 15-25% (compared to our other equivalent types)
- Short total length of coupling enables compact piping.



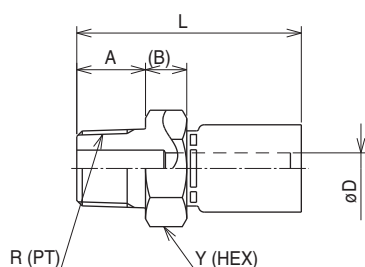
产品编号 Part No.	尺寸 / Size			最高 使用压力 Max. working press. (MPa)	最大 冲击压力 Max. impact press. (MPa)	最小 破坏压力 Min. destruction press. (MPa)	最小 弯曲半径 Min. bending radius (mm)	大概 质量 Weight (g/m)	适用 接头类型 Suitable coupling type
	标称尺寸 Size No.	内径 / I.D. (in.)	外径 O.D. (mm)						
LF70-04	04	1/4	6.4	10.3	7.0	8.8	28.0	27	60
LF70-06	06	3/8	9.5	13.9	7.0	8.8	28.0	45	90

- 适用流体: 矿物性一般液压油
- 使用温度范围: -40~+100°C
- 一箱的包装单位: 100m
- Appropriate fluid: mineral general operating oil
- Working temperature range: -40 to +100°C
- Length in a unit package: 100m

[Swage type]

(LF70用)
(For LF70)

SA



产品编号 Part No.	标称 尺寸 Size No.	R	A	B	最小 内径 Min.I.D. øD	L	Y (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SA-PT-04-14	04	1/4	13	8.5	3.5	50	19	43	PSA-04	SP14-04-07
SA-PT-06-14	06	3/8	15	9.0	6.8	54	22	72	PSA-06	SP14-06-07

■材质: 钢

■适用转换接头: 030, 130

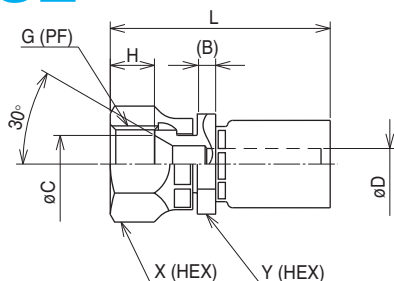
※适用压接下模为LF70专用压接下模。

●Material: steel

●Adaptor: 030, 130

※Die only for LF70.

SE



产品编号 Part No.	标称 尺寸 Size No.	G	B	C	最小 内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SE-PF-04-14	04	1/4	4.0	9.3	3.5	8.0	49	19	17	55	PSE-14-04	SP14-04-07
SE-PF-06-14	06	3/8	4.0	12.3	6.8	9.5	53	22	19	75	PSE-14-06	SP14-06-07

■材质: 钢

■适用转换接头: 010, 045, 090, 150, 020, 025, 064, 069, 030

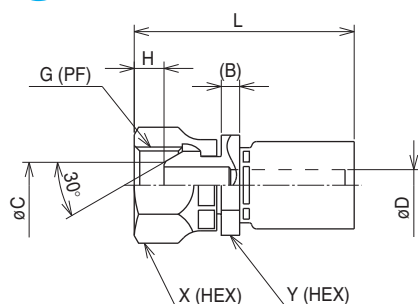
※适用压接下模为LF70专用压接下模。

●Material: steel

●Adaptor: 010, 045, 090, 150, 020, 025, 064, 069, 030

※Die only for LF70.

SF



产品编号 Part No.	标称 尺寸 Size No.	G	B	C	最小 内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SF-PF-04-14	04	1/4	4.0	7.5	3.5	5.5	49	19	17	55	PSE-14-04	SP14-04-07
SF-PF-06-14	06	3/8	4.0	10.0	6.8	6.5	53	22	19	75	PSE-14-06	SP14-06-07

■材质: 钢

■适用转换接头: 110, 145, 190, 130

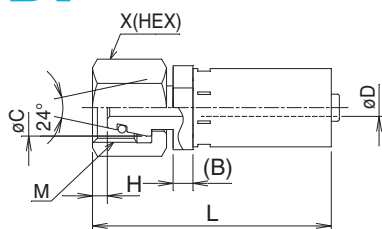
※适用压接下模为LF70专用压接下模。

●Material: steel

●Adaptor: 110, 145, 190, 130

※Die only for LF70.

DF



产品编号 Part No.	标称 尺寸 Size No.	M	B	C	最小内径 Min.I.D. øD	H	L	X (HEX)	重量 Weight (g)	适用压接下模 Die
DF-M14-04-14L	04	14	4	9.6	3.5	2	50	17	50	SP14-04
DF-M16-04-14S	04	16	4	12.1	3.5	2.5	51	19	57	SP14-04
DF-M18-06-14L	06	18	4	13.8	5.6	2.5	53	22	82	SP14-06

■材质: 钢

※适用压接下模为LF70专用压接下模。

●Material: steel

※Die only for LF70.

液压配管用软管
Hydraulic Hose

液压软管产品

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成/工具专用器具
Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

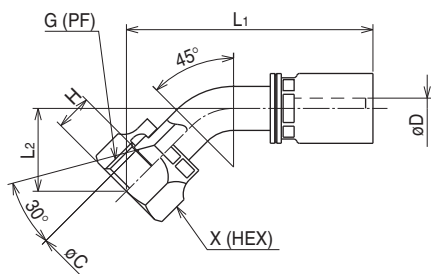
技术资料
Technical Document

参考资料
Reference Document

[Swage type]

(LF70用)
(For LF70)

AE45



产品编号 Part No.	标称尺寸 Size No.	G	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AE45-G-04-14	04	1/4	9.0	3.2	8.0	61	18	19	57	PFB-01+PA-04	SP14-04-07
AE45-G-06-14	06	3/8	12.0	5.6	9.5	74	25	22	90	PFB-01+PA-06	SP14-06-07

■材质: 钢

■适用转换接头: 010, 045, 090, 150, 030

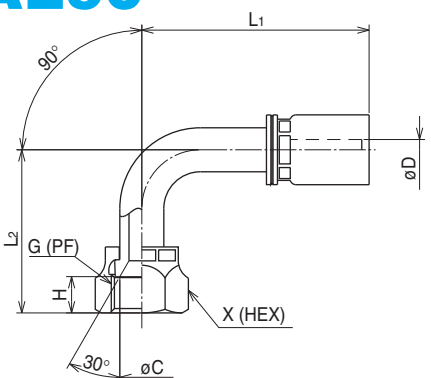
※适用压接下模为LF70专用压接下模。

●Material: steel

●Adaptor: 010, 045, 090, 150, 030

※Die only for LF70.

AE90



产品编号 Part No.	标称尺寸 Size No.	G	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AE90-G-04-14	04	1/4	9.0	3.2	8.0	51	33	19	59	PFB-01+PA-04	SP14-04-07
AE90-G-06-14	06	3/8	12.0	5.6	9.5	61	45	22	98	PFB-01+PA-06	SP14-06-07

■材质: 钢

■适用转换接头: 010, 045, 090, 150, 030

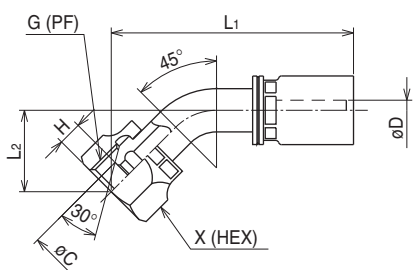
※适用压接下模为LF70专用压接下模。

●Material: steel

●Adaptor: 010, 045, 090, 150, 030

※Die only for LF70.

AF45



产品编号 Part No.	标称尺寸 Size No.	G	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AF45-G-04-14	04	1/4	7.0	3.2	5.5	63	19	19	58	PFB-01+PA-04	SP14-04-07
AF45-G-06-14	06	3/8	10.0	5.6	6.5	72	23	22	90	PFB-01+PA-06	SP14-06-07

■材质: 钢

■适用转换接头: 110, 145, 190, 130

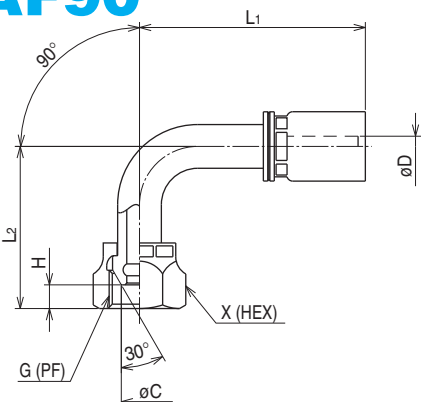
※适用压接下模为LF70专用压接下模。

●Material: steel

●Adaptor: 110, 145, 190, 130

※Die only for LF70.

AF90



产品编号 Part No.	标称尺寸 Size No.	G	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AF90-G-04-14	04	1/4	7.0	3.2	5.5	51	33	19	61	PFB-01+PA-04	SP14-04-07
AF90-G-06-14	06	3/8	10.0	5.6	6.5	61	45	22	100	PFB-01+PA-06	SP14-06-07

■材质: 钢

■适用转换接头: 110, 145, 190, 130

※适用压接下模为LF70专用压接下模。

●Material: steel

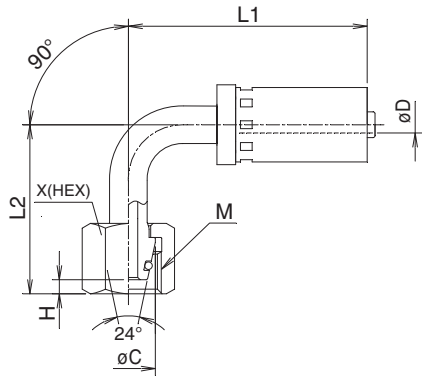
●Adaptor: 110, 145, 190, 130

※Die only for LF70.

[Swage type]

(LF70用)
(For LF70)

DF90



产品编号 Part No.	标称尺寸 Size No.	M	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	重量 Weight (g)	适用压接下模 Die
DF90-M14-O4-14L	04	14	9.6	3.2	2	51.5	37	17	58	SP14-04
DF90-M16-O4-14S	04	16	12.1	3.2	2.5	51.5	37.5	19	65	SP14-04
DF90-M18-O6-14L	06	18	13.8	5.6	2.5	61	40.5	22	101	SP14-06

■材质: 钢
※适用压接下模为LF70专用压接下模。
●Material: steel
※Die only for LF70.

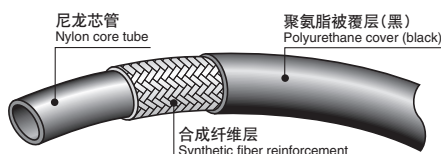
液压配管用软管 Hydraulic Hose	清洁配管用软管 Clean Hose
转换接头 Adaptor	软管保护部件、特殊加工品 Hose Guard Part, Specially-Treated Part
软管总成/工具、专用夹具、工具 Hose Assembly Machine, Jig, Tool	软管装配方法 Hose Assembling Method
技术资料 Technical Document	参考资料 Reference Document

1000·1100·1400·1500 系列 / series

1000

特点
Features

- 外径小
- 轻
- Small outer diameter
- Light



产品编号 Part No.	尺寸 / Size			最高 使用压力 Max. working press. (MPa)	最大 冲击压力 Max. impact press. (MPa)	最小 破坏压力 Min. destruction press. (MPa)	最小 弯曲半径 Min. bending radius (mm)	大概 质量 Weight (g/m)	适用 接头类型 Suitable coupling type
	标称尺寸 Size No.	内径 / I.D. (in.)	外径 O.D. (mm)						
1000-04	04	1/4	6.3	10.5	13.2	42.0	30	64	Swage
1000-06	06	3/8	9.5	10.5	13.2	42.0	60	90	
1000-08	08	1/2	12.7	10.5	13.2	42.0	80	131	

■ 适用流体: 矿物性一般液压油

■ 使用温度范围: -40~+100°C

■ 一箱的包装单位: 100m

■ Appropriate fluid: mineral general operating oil

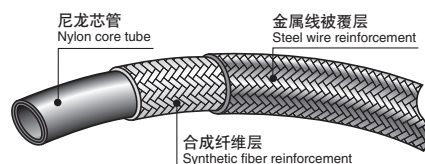
■ Working temperature range: -40 to +100°C

■ Length in a unit package: 100m

1100

特点
Features

- 外层涂装为金属线被覆层, 抗切屑性能强
- Outer wire reinforcement prevents the cutting powder



产品编号 Part No.	尺寸 / Size			最高 使用压力 Max. working press. (MPa)	最大 冲击压力 Max. impact press. (MPa)	最小 破坏压力 Min. destruction press. (MPa)	最小 弯曲半径 Min. bending radius (mm)	大概 质量 Weight (g/m)	适用 接头类型 Suitable coupling type
	标称尺寸 Size No.	内径 / I.D. (in.)	外径 O.D. (mm)						
1100-04	04	1/4	6.3	10.5	13.2	42.0	40	150	Swage
1100-06	06	3/8	9.5	10.5	13.2	42.0	60	220	
1100-08	08	1/2	12.7	10.5	13.2	42.0	80	300	

■ 适用流体: 矿物性一般液压油

■ 使用温度范围: -40~+100°C

■ 一箱的包装单位: 100m

■ Appropriate fluid: mineral general operating oil

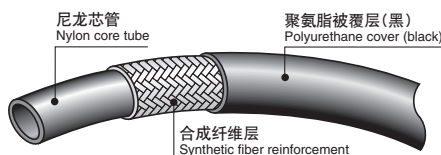
■ Working temperature range: -40 to +100°C

■ Length in a unit package: 100m

1400

特点
Features

- 外径小
- 轻
- Small outer diameter
- Light



产品编号 Part No.	尺寸 / Size			最高 使用压力 Max. working press. (MPa)	最大 冲击压力 Max. impact press. (MPa)	最小 破坏压力 Min. destruction press. (MPa)	最小 弯曲半径 Min. bending radius (mm)	大概 质量 Weight (g/m)	适用 接头类型 Suitable coupling type
	标称尺寸 Size No.	内径 / I.D. (in.)	外径 O.D. (mm)						
1400-04	04	1/4	6.3	14.0	17.5	56.0	30	64	Swage
1400-06	06	3/8	9.5	14.0	17.5	56.0	60	90	

■ 适用流体: 矿物性一般液压油

■ 使用温度范围: -40~+100°C

■ 一箱的包装单位: 100m

■ Appropriate fluid: mineral general operating oil

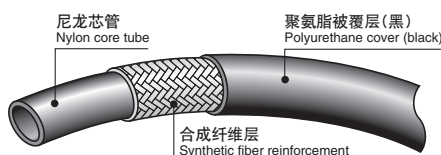
■ Working temperature range: -40 to +100°C

■ Length in a unit package: 100m

1500

特点
Features

- 外径小
- 轻
- Small outer diameter
- Light



产品编号 Part No.	尺寸 / Size			最高 使用压力 Max. working press. (MPa)	最大 冲击压力 Max. impact press. (MPa)	最小 破坏压力 Min. destruction press. (MPa)	最小 弯曲半径 Min. bending radius (mm)	大概 质量 Weight (g/m)	适用 接头类型 Suitable coupling type
	标称尺寸 Size No.	内径 / I.D. (in.)	外径 O.D. (mm)						
1500-03	03	3/16	5.1	15.0	18.8	60.0	20	45	Swage

■ 适用流体: 矿物性一般液压油

■ 使用温度范围: -40~+100°C

■ 一箱的包装单位: 100m

■ Appropriate fluid: mineral general operating oil

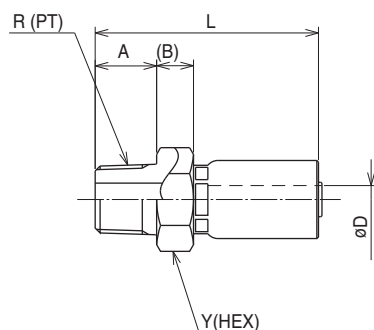
■ Working temperature range: -40 to +100°C

■ Length in a unit package: 100m

[Swage type]

(1000、1100、1400、1500用)
(For 1000, 1100, 1400, 1500)

SA



产品编号 Part No.	标称尺寸 Size No.	R	A	B	最小内径 Min.I.D. øD	L	Y (HEX)	大概重量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SA-PT-03-14	03	1/4	13	8.5	3.0	44	19	40	PSA-04	SP14-03
SA-PT-04-14	04	1/4	13	8.5	3.5	50	19	43	PSA-04	SP14-04
SA-PT-06-14	06	3/8	15	9.0	6.8	54	22	72	PSA-06	SP14-06
SA-PT-08-14	08	1/2	18	10.0	9.5	61	27	115	PSA-08	SP14-08※ SP10-08※

■材质: 钢

■适用转换接头: 030, 130

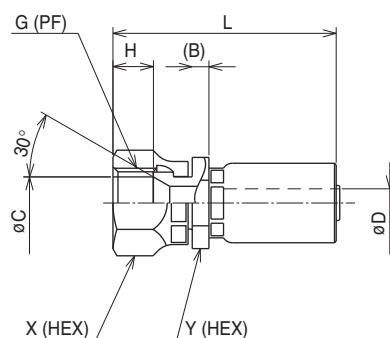
※1000-08使用SP14-08,1100-08使用SP10-08。

●Material: steel

●Adaptor: 030, 130

※Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

SE



产品编号 Part No.	标称尺寸 Size No.	G	B	C	最小内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概重量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SE-PF-03-14	03	1/4	4.0	9.5	3.0	8.0	44	19	17	42	PSE14-04	SP14-03
SE-PF-04-14	04	1/4	4.0	9.3	3.5	8.0	49	19	17	55	PSE14-04	SP14-04
SE-PF-06-14	06	3/8	4.0	12.3	6.8	9.5	53	22	19	75	PSE14-06	SP14-06
SE-PF-08-14	08	1/2	4.5	16.0	9.5	12.0	61	27	24	125	PSE14-08	SP14-08※ SP10-08※

■材质: 钢

■适用转换接头: 010, 045, 090, 150, 020, 025, 064, 069, 030

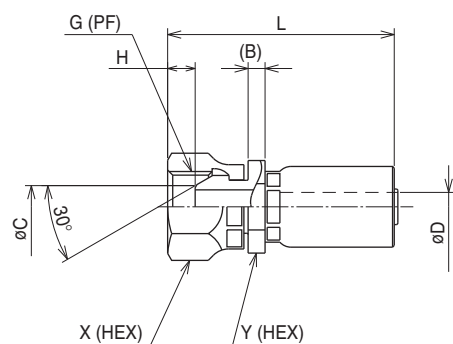
※1000-08使用SP14-08,1100-08使用SP10-08。

●Material: steel

●Adaptor: 010, 045, 090, 150, 020, 025, 064, 069, 030

※Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

SF



产品编号 Part No.	标称尺寸 Size No.	G	B	C	最小内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概重量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SF-PF-03-14	03	1/4	4.0	7.5	3.0	5.5	44	19	17	45	PSE14-04	SP14-03
SF-PF-04-14	04	1/4	4.0	7.5	3.5	5.5	49	19	17	55	PSE14-04	SP14-04
SF-PF-06-14	06	3/8	4.0	10.0	6.8	6.5	53	22	19	75	PSE14-06	SP14-06
SF-PF-08-14	08	1/2	4.5	13.2	9.5	9.0	61	27	24	125	PSE14-08	SP14-08※ SP10-08※

■材质: 钢

■适用转换接头: 110, 145, 190, 130

※1000-08使用SP14-08,1100-08使用SP10-08。

●Material: steel

●Adaptor: 110, 145, 190, 130

※Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

液压配管用软管
Hydraulic Hose
清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成/工具、专用工具
Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

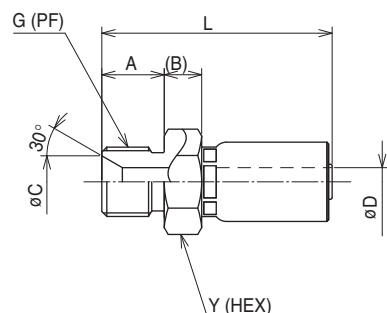
技术资料
Technical Document

参考资料
Reference Document

[Swage type]

(1000, 1100, 1400用)
(For 1000, 1100, 1400)

SC



产品编号 Part No.	标称 尺寸 Size No.	G	A	B	C	最小 内径 Min.I.D. øD	L	Y (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SC-PF-04-14	04	1/4	14	8.5	9.5	3.5	51	19	43	PSA-04	SP14-04
SC-PF-06-14	06	3/8	15	9.0	12.5	6.8	54	22	72	PSA-06	SP14-06
SC-PF-08-14	08	1/2	18	10.0	18.0	9.5	61	27	115	PSA-08	SP14-08※ SP10-08※

■材质: 钢

■适用转换接头: 060

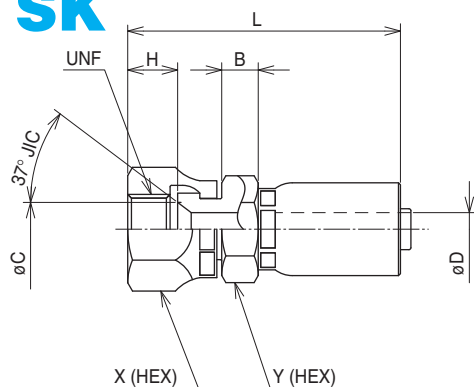
※1000-08使用SP14-08,1100-08使用SP10-08。

●Material: steel

●Adaptor: 060

※Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

SK



产品编号 Part No.	标称 尺寸 Size No.	UNF	B	C	最小 内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SK-7/16-04-14	04	7/16-20	6.5	7.5	3.5	9.0	51	19	17	58	PSK-04H	SP14-04
SK-9/16-06-14	06	9/16-18	7.5	11.0	6.8	10.0	57	22	19	82	PSK-06H	SP14-06
SK-3/4-08-14	08	3/4-16	4.5	14.5	9.5	11.5	57	27	22	105	PSE-14-08	SP14-08※ SP10-08※

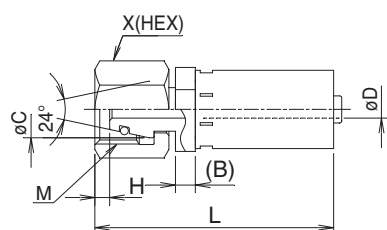
■材质: 钢

※1000-08使用SP14-08,1100-08使用SP10-08。

●Material: steel

※Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

DF



产品编号 Part No.	标称 尺寸 Size No.	M	B	C	最小内径 Min.I.D. øD	H	L	X (HEX)	重量 Weight (g)	适用压接下模 Die
DF-M12-03-14L	03	12	4	7.5	3	0.5	42	14	28	SP14-03
DF-M14-04-14L	04	14	4	9.6	3.5	2	50	17	50	SP14-04
DF-M16-04-14S	04	16	4	12.1	3.5	2.5	51	19	57	SP14-04
DF-M18-06-14L	06	18	4	13.8	5.6	2.5	53	22	82	SP14-06
DF-M22-08-14L	08	22	4	16.8	9.5	1.5	55	27	114	SP14-08

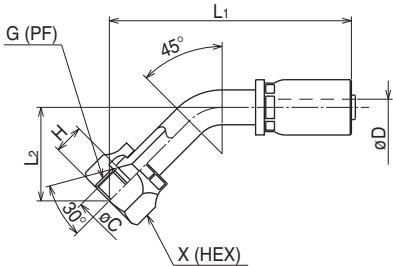
■材质: 钢

●Material: steel

[Swage type]

(1000、1100、1400用)
(For 1000, 1100, 1400)

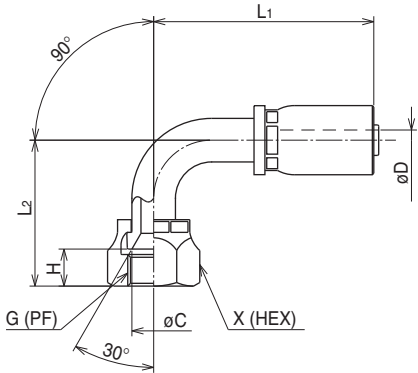
AE45



产品编号 Part No.	标称 尺寸 Size No.	G	C	最小 内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AE45-G-04-14	04	1/4	9.0	3.2	8.0	61	18	19	57	PFB-01+PA-04	SP14-04
AE45-G-06-14	06	3/8	12.0	5.6	9.5	74	25	22	90	PFB-01+PA-06	SP14-06
AE45-G-08-14	08	1/2	15.5	8.7	12.0	87	29	27	143	PFB-01+PA-08	SP14-08※ SP10-08※

■材质: 钢
■适用转换接头: 010、045、090、150、030
※1000-08使用SP14-08,1100-08使用SP10-08。
●Material: steel
●Adaptor: 010, 045, 090, 150, 030
※Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

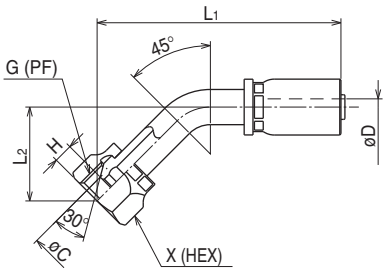
AE90



产品编号 Part No.	标称 尺寸 Size No.	G	C	最小 内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AE90-G-04-14	04	1/4	9.0	3.2	8.0	51	33	19	59	PFB-01+PA-04	SP14-04
AE90-G-06-14	06	3/8	12.0	5.6	9.5	61	45	22	98	PFB-01+PA-06	SP14-06
AE90-G-08-14	08	1/2	15.5	8.7	12.0	68	52	27	153	PFB-01+PA-08	SP14-08※ SP10-08※

■材质: 钢
■适用转换接头: 010、045、090、150、030
※1000-08使用SP14-08,1100-08使用SP10-08。
●Material: steel
●Adaptor: 010, 045, 090, 150, 030
※Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

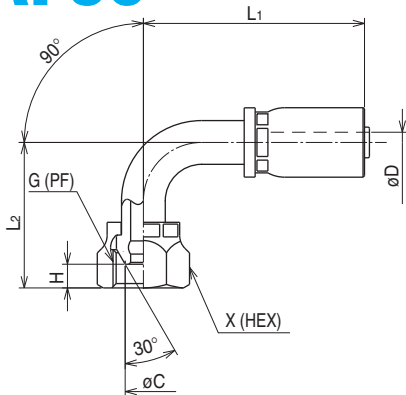
AF45



产品编号 Part No.	标称 尺寸 Size No.	G	C	最小 内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AF45-G-04-14	04	1/4	7.0	3.2	5.5	63	19	19	58	PFB-01+PA-04	SP14-04
AF45-G-06-14	06	3/8	10.0	5.6	6.5	72	23	22	90	PFB-01+PA-06	SP14-06
AF45-G-08-14	08	1/2	14.0	8.7	9.0	88	30	27	147	PFB-01+PA-08	SP14-08※ SP10-08※

■材质: 钢
■适用转换接头: 110、145、190、130
※1000-08使用SP14-08,1100-08使用SP10-08。
●Material: steel
●Adaptor: 110, 145, 190, 130
※Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

AF90



产品编号 Part No.	标称 尺寸 Size No.	G	C	最小 内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AF90-G-04-14	04	1/4	7.0	3.2	5.5	51	33	19	61	PFB-01+PA-04	SP14-04
AF90-G-06-14	06	3/8	10.0	5.6	6.5	61	45	22	100	PFB-01+PA-06	SP14-06
AF90-G-08-14	08	1/2	14.0	8.7	9.0	68	52	27	156	PFB-01+PA-08	SP14-08※ SP10-08※

■材质: 钢
■适用转换接头: 110、145、190、130
※1000-08使用SP14-08,1100-08使用SP10-08。
●Material: steel
●Adaptor: 110, 145, 190, 130
※Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

液压配管用软管
Hydraulic Hose
清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specialy-Treated Part

软管总成/工具专用工具
Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

技术资料
Technical Document

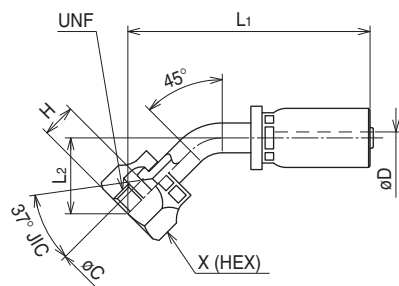
参考资料
Reference Document

[Swage type]

(1000、1100、1400用)

(For 1000, 1100, 1400)

AK45



产品编号 Part No.	标称尺寸 Size No.	UNF	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概重量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AK45-7/16-04-14-C	04	7/16-20	7.5	3.2	9.0	70	27	19	57	PFB-01+PA-04	SP14-04
AK45-9/16-06-14-C	06	9/16-18	11.0	5.6	10.0	91	39	22	90	PFB-01+PA-06	SP14-06
AK45-3/4-08-14-C	08	3/4-16	14.5	8.7	12.0	98	40	27	143	PFB-01+PA-08	SP14-08※ SP10-08※

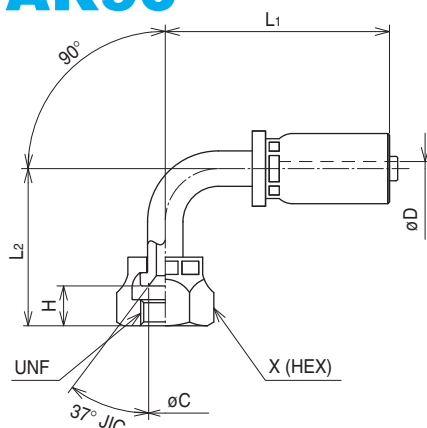
■材质：钢

※1000-08使用SP14-08,1100-08使用SP10-08。

●Material: steel

※Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

AK90



产品编号 Part No.	标称尺寸 Size No.	UNF	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概重量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AK90-7/16-04-14-C	04	7/16-20	7.5	3.2	9.0	51	36	19	59	PFB-01+PA-04	SP14-04
AK90-9/16-06-14-C	06	9/16-18	11.0	5.6	10.0	61	40	22	98	PFB-01+PA-06	SP14-06
AK90-3/4-08-14-C	08	3/4-16	14.5	8.7	12.0	68	57	27	153	PFB-01+PA-08	SP14-08※ SP10-08※

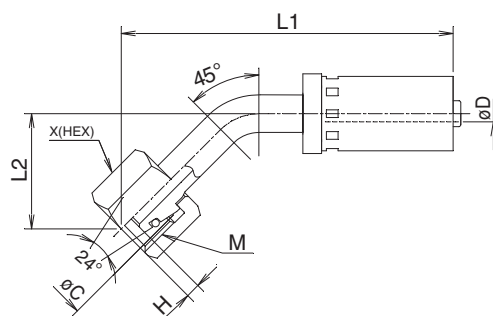
■材质：钢

※1000-08使用SP14-08,1100-08使用SP10-08。

●Material: steel

※Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

DF45

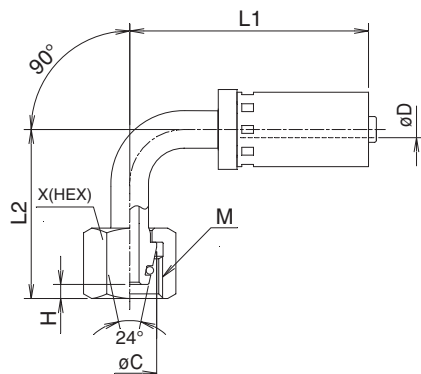


产品编号 Part No.	标称尺寸 Size No.	M	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	重量 Weight (g)	适用压接下模 Die
DF45-M14-04-14L	04	14	9.6	3.2	2	72	27	17	58	SP14-04
DF45-M16-04-14S	04	16	12.1	3.2	2.5	72	27	19	65	SP14-04
DF45-M18-06-14L	06	18	13.8	5.6	2.5	82	29	22	101	SP14-06
DF45-M22-08-14L	08	22	16.8	8.7	1.5	92	33	27	150	SP14-08

■材质：钢

●Material: steel

DF90



产品编号 Part No.	标称尺寸 Size No.	M	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	重量 Weight (g)	适用压接下模 Die
DF90-M14-04-14L	04	14	9.6	3.2	2	51.5	37	17	58	SP14-04
DF90-M16-04-14S	04	16	12.1	3.2	2.5	51.5	37.5	19	65	SP14-04
DF90-M18-06-14L	06	18	13.8	5.6	2.5	61	40.5	22	101	SP14-06
DF90-M22-08-14L	08	22	16.8	8.7	1.5	68.5	44	27	150	SP14-08

■材质：钢

●Material: steel



液 压 软 管 产 品	液 压 配 管 用 软 管 Hydraulic Hose
	清 洁 配 管 用 软 管 Clean Hose
转 换 接 头 Adaptor	
软 管 保 护 部 件、特 殊 加 工 品 Hose Guard Part, Specially-Treated Part	
软 管 总 成 / 工 具、专 用 夹 具 工 具 Assembling Machine, Jig, Tool	
软 管 装 配 方 法 Hose Assembling Method	
技 术 资 料 Technical Document	
参 考 资 料 Reference Document	

N3130·3130 系列 / series

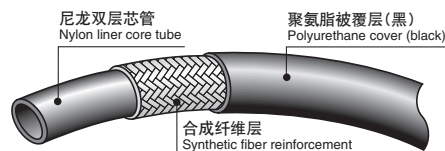
N3130

特点
Features

- 构造柔软且不易折断
- 适用于JIS K6375类型1
适用于SAE 100R7
- Flexible and tough
- JIS K 6375 certified,
SAE100R7 certified.

也可以制造电气绝缘性能优越的非导电性软管。
具体请与本公司联系。

Nonconductive hose with high electrical insulation
is also available. Contact us for details.



产品编号 Part No.	尺寸 / Size			最高 使用压力 Max. working press. (MPa)	最大 冲击压力 Max. impact press. (MPa)	最小 破坏压力 Min. destruction press. (MPa)	最小 弯曲半径 Min. bending radius (mm)	大概 质量 Weight (g/m)	适用 接头类型 Suitable coupling type
	标称尺寸 Size No.	内径 / I.D. (in.) (mm)	外径 O.D. (mm)						
N3130-03	03	3/16	4.8	10.4	21.0	26.3	84.0	20	65
N3130-04	04	1/4	6.4	12.7	19.5	24.4	77.0	40	105
N3130-05	05	5/16	8.1	14.7	17.5	21.9	70.0	45	130
N3130-06	06	3/8	9.8	16.4	16.0	20.0	63.0	50	150
N3130-08	08	1/2	12.8	20.3	14.0	17.5	56.0	75	210
N3130-12	12	3/4	19.2	26.6	9.0	11.3	35.0	130	290
N3130-16	16	1	25.7	33.4	7.0	8.8	28.0	165	400

■适用流体: 矿物性一般液压油

■使用温度范围: -40~+100°C

■一箱的包装单位: 03, 04, 05, 06, 08尺寸→100m
12, 16尺寸→50m

■Appropriate fluid: mineral general operating oil

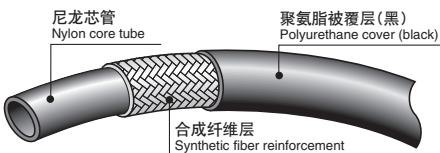
■Working temperature range: -40 to +100°C

■Length in a package: 100 m for sizes 03, 04, 05, 06, 08 and 50 m for sizes 12, 16

3130

特点
Features

- 耐油性、抗药性优越
- 可使用Reusable接头
- Excellent oil and chemical durability
- Reusable coupling can be used



产品编号 Part No.	尺寸 / Size			最高 使用压力 Max. working press. (MPa)	最大 冲击压力 Max. impact press. (MPa)	最小 破坏压力 Min. destruction press. (MPa)	最小 弯曲半径 Min. bending radius (mm)	大概 质量 Weight (g/m)	适用 接头类型 Suitable coupling type
	标称尺寸 Size No.	内径 / I.D. (in.) (mm)	外径 O.D. (mm)						
3130-02	02	1/8	3.6	8.3	20.0	25.0	72.0	15	45

■适用流体: 矿物性一般液压油

■使用温度范围: -40~+100°C

■一箱的包装单位: 100m

■Appropriate fluid: mineral general operating oil

■Working temperature range: -40 to +100°C

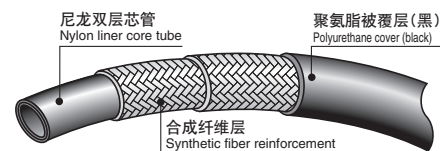
■Length in a package: 100 m

3700 系列 (低温环境规格)

3700

特点
Features

- 即使在低温环境气体 (-55°C) 下仍具有优越的柔软、稳定性能
- 适用于JIS K6375类型1
适用于SAE 100R7
- High flexibility and steady performance under low temperature environment (-55°C).
- JIS K 6375 A certified, SAE 100R7 certified.



产品编号 Part No.	尺寸 / Size			最高 使用压力 Max. working press. (MPa)	最大 冲击压力 Max. impact press. (MPa)	最小 破坏压力 Min. destruction press. (MPa)	最小 弯曲半径 Min. bending radius (mm)	大概 质量 Weight (g/m)	适用 接头类型 Suitable coupling type
	标称尺寸 Size No.	内径 / I.D. (in.) (mm)	外径 O.D. (mm)						
3700-03	03	3/16	4.8	10.5	21.0	26.3	84.0	19	76
3700-04	04	1/4	6.3	12.8	19.5	24.4	77.0	32	101
3700-06	06	3/8	9.5	16.3	16.0	20.0	63.0	51	141
3700-08	08	1/2	12.7	20.2	14.0	17.5	56.0	76	196

■适用流体: 矿物性一般液压油

■使用温度范围: -55~+100°C

■一箱的包装单位: 100m

■Appropriate fluid: mineral general operating oil

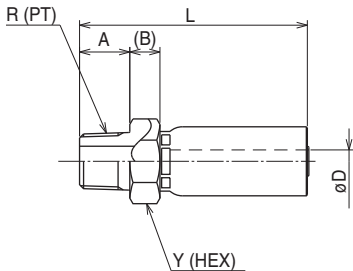
■Working temperature range: -55 to +100°C

■Length in a package: 100m

[Swage type]

(N3130、3130用) (3700用)
(For N3130, 3130) (For 3700)

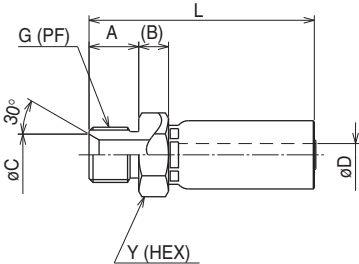
SA



产品编号 Part No.	标称尺寸 Size No.	R	A	B	最小内径 Min.I.D. øD	L	Y (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SSA-PT-02	02	1/8	10	6.5	1.8	38	14	15	PSA-02	SP3-02-001
SA-PT-03	03	1/4	13	8.5	2.8	57	19	50	PSA-04	SP3-03
SA-PT-04	04	1/4	13	8.5	3.9	61	19	60	PSA-04	SP3-04
SA-PT-05	05	3/8	15	9.0	5.6	62	22	80	PSA-06	SP3-05
SA-PT-06	06	3/8	15	9.0	6.8	67	22	90	PSA-06	SP3-06
SA-PT-08	08	1/2	18	10.0	10.0	76	27	140	PSA-08	SP3-08
SA-PT-12	12	3/4	20	10.0	16.0	82	36	220	PSA-12	SP3-12
SA-PT-16	16	1	23	10.0	20.9	100	41	340	PSA-16	SP3-16

■材质: 钢
■适用转换接头: 030、130
●Material: steel
●Adaptor: 030, 130

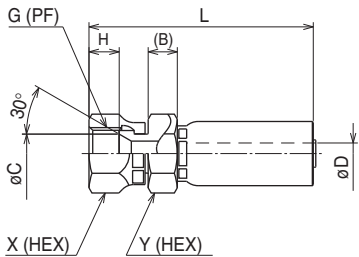
SC



产品编号 Part No.	标称尺寸 Size No.	G	A	B	C	最小内径 Min.I.D. øD	L	Y (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SC-PF-03	03	1/4	13	8.5	9.5	2.8	57	19	50	PSA-03	SP3-03
SC-PF-04	04	1/4	13	8.5	9.5	3.9	61	19	60	PSA-04	SP3-04
SC-PF-06	06	3/8	15	9.0	12.5	6.8	67	22	90	PSA-06	SP3-06
SC-PF-08	08	1/2	18	10.0	16.5	10.0	76	27	140	PSA-08	SP3-08
SC-PF-12	12	3/4	20	10.0	21.5	16.0	82	36	220	PSA-12	SP3-12
SC-PF-16	16	1	22	10.0	27.5	20.9	99	41	340	PSA-16	SP3-16

■材质: 钢
■适用转换接头: 060
●Material: steel
●Adaptor: 060

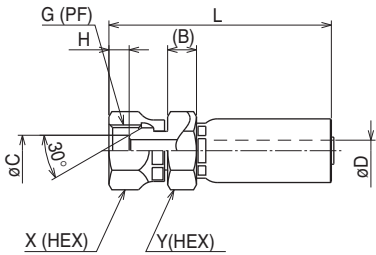
SE



产品编号 Part No.	标称尺寸 Size No.	G	B	C	最小内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SSE-PF-02	02	1/8	4.0	6.8	1.8	7.0	42	14	14	25	PSE-02-001	SP3-02-001
SE-PF-03	03	1/4	6.0	9.5	2.8	8.0	58	19	19	70	PSE-03	SP3-03
SE-PF-04	04	1/4	8.0	9.3	3.9	8.0	64	19	17	75	PSE-04	SP3-04
SE-PF-05	05	3/8	8.5	12.0	5.6	10.0	66	22	22	100	PSE-05	SP3-05
SE-PF-06	06	3/8	9.5	12.3	6.8	10.0	71	22	19	100	PSE-06	SP3-06
SE-PF-08	08	1/2	9.0	15.5	10.0	12.5	80	27	27	170	PSE-08	SP3-08
SE-PF-12	12	3/4	10.5	21.5	16.0	13.0	87	36	36	280	PSE-12	SP3-12
SE-PF-16	16	1	11.0	27.5	20.9	15.0	105	41	41	400	PSE-16	SP3-16

■材质: 钢
■适用转换接头: 010、045、090、150、020、025、064、069、030
●Material: steel
●Adaptor: 010, 045, 090, 150, 020, 025, 064, 069, 030

SF



产品编号 Part No.	标称尺寸 Size No.	G	B	C	最小内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SSF-PF-02	02	1/8	4.0	5.0	1.8	3.0	41	14	14	25	PSE-02-001	SP3-02-001
SF-PF-03	03	1/4	6.0	7.5	2.8	5.5	58	19	19	70	PSE-03	SP3-03
SF-PF-04	04	1/4	8.5	7.5	3.9	5.5	63	19	17	75	PSE-04	SP3-04
SF-PF-05	05	3/8	8.5	10.0	5.6	6.5	66	22	22	100	PSE-05	SP3-05
SF-PF-06	06	3/8	9.5	10.0	6.8	6.5	71	22	19	100	PSE-06	SP3-06
SF-PF-08	08	1/2	9.0	14.0	10.0	9.0	80	27	27	170	PSE-08	SP3-08
SF-PF-12	12	3/4	10.5	19.0	16.0	9.5	87	36	36	280	PSE-12	SP3-12
SF-PF-16	16	1	11.0	25.4	20.9	10.0	105	41	41	410	PSE-16	SP3-16

■材质: 钢
■适用转换接头: 110、145、190、130
●Material: steel
●Adaptor: 110, 145, 190, 130

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成/工具专用工具
Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

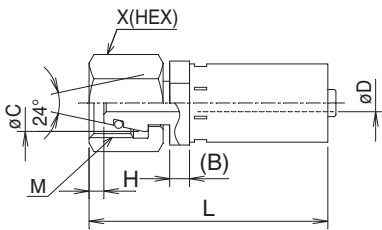
技术资料
Technical Document

参考资料
Reference Document

[Swage type]

(N3130、3130用) (3700用)
(For N3130, 3130) (For 3700)

DF



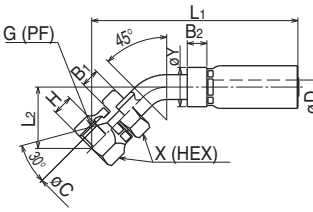
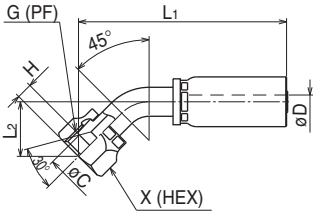
产品编号 Part No.	标称 尺寸 Size No.	M	B	C	最小内径 Min.I.D. øD	H	L	X (HEX)	重量 Weight (g)	适用压接下模 Die
DF-M14-O4L	04	14	8	9.6	3.9	2	64	17	70	SP3-04
DF-M16-O4S	04	16	8	12.1	3.9	2.5	64	19	75	SP3-04
DF-M18-O6L	06	18	9.5	13.8	6.8	2.5	71	22	100	SP3-06
DF-M22-O8L	08	22	9	16.8	10	1.5	80	27	170	SP3-08

■材质：钢
●Material: steel

[Swage type]

(N3130、3130用) (3700用)
(For N3130, 3130) (For 3700)

AE45・SE45



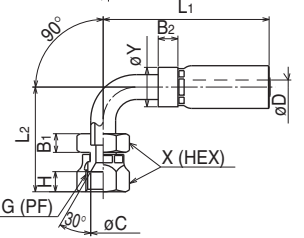
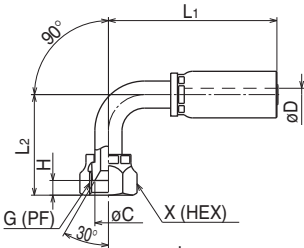
产品编号 Part No.	标称尺寸 Size No.	G	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AE45-G-04	04	1/4	9.0	3.2	8.0	71	18	19	70	PFB-01+PA-04	SP3-04
AE45-G-06	06	3/8	12.0	5.6	9.5	87	25	22	105	PFB-01+PA-06	SP3-06
AE45-G-08	08	1/2	15.5	8.7	12.5	102	29	27	170	PFB-01+PA-08	SP3-08

■材质: 钢
■适用转换接头: 010、045、090、150、020、025、064、069、030
●Material: steel
●Adaptor: 010、045、090、150、020、025、064、069、030

产品编号 Part No.	标称尺寸 Size No.	G	B ₁	B ₂	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	øY	适用压接上模 Pusher	适用压接下模 Die
★ SE45-PF-12	12	3/4	10.5	12.5	21.0	16.0	13.5	129	40	36	30	380	PFB-02+PHB-12	SP3-12
★ SE45-PF-16	16	1	12.5	12.5	28.0	20.9	16.5	154	47	41	36	590	PFB-02+PHB-16	SP3-16

■材质: 钢
■适用转换接头: 010、045、090、150、020、025、064、069、030
★订购产品
●Material: steel
●Adaptor: 010、045、090、150、020、025、064、069、030
★Made-to-order

AE90・SE90



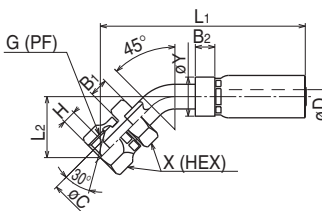
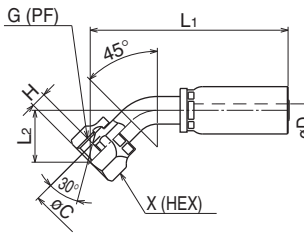
产品编号 Part No.	标称尺寸 Size No.	G	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AE90-G-04	04	1/4	9.0	3.2	8.0	59	33	19	75	PFB-01+PA-04	SP3-04
AE90-G-06	06	3/8	12.0	5.6	9.5	74	45	22	115	PFB-01+PA-06	SP3-06
AE90-G-08	08	1/2	15.5	8.7	12.5	83	54	27	180	PFB-01+PA-08	SP3-08

■材质: 钢
■适用转换接头: 010、045、090、150、020、025、064、069、030
●Material: steel
●Adaptor: 010、045、090、150、020、025、064、069、030

产品编号 Part No.	标称尺寸 Size No.	G	B ₁	B ₂	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	øY	适用压接上模 Pusher	适用压接下模 Die
SE90-PF-12	12	3/4	10.5	12.5	21.0	16.0	13.5	108	77	36	30	405	PFB-02+PHB-12	SP3-12
SE90-PF-16	16	1	12.5	12.5	28.0	20.9	16.5	127	87	41	36	645	PFB-02+PHB-16	SP3-16

■材质: 钢
■适用转换接头: 010、045、090、150、020、025、064、069、030
●Material: steel
●Adaptor: 010、045、090、150、020、025、064、069、030

AF45・SF45



产品编号 Part No.	标称尺寸 Size No.	G	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AF45-G-04	04	1/4	7.0	3.2	5.5	73	19	19	70	PFB-01+PA-04	SP3-04
AF45-G-06	06	3/8	10.0	5.6	6.5	85	23	22	110	PFB-01+PA-06	SP3-06
AF45-G-08	08	1/2	14.0	8.7	9.0	103	29	27	155	PFB-01+PA-08	SP3-08

■材质: 钢
■适用转换接头: 110、145、190、130
●Material: steel
●Adaptor: 110、145、190、130

产品编号 Part No.	标称尺寸 Size No.	G	B ₁	B ₂	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	øY	适用压接上模 Pusher	适用压接下模 Die
★ SF45-PF-12	12	3/4	10.5	12.5	19.0	16.0	9.5	129	40	36	30	381	PFB-02+PHB-12	SP3-12
★ SF45-PF-16	16	1	11.0	12.5	25.4	20.9	10.0	151	60	41	36	601	PFB-02+PHB-16	SP3-16

■材质: 钢
■适用转换接头: 110、145、190、130
★订购产品
●Material: steel
●Adaptor: 110、145、190、130
★Made-to-order

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specialty-Treated Part

软管总成/工具专用工具
Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

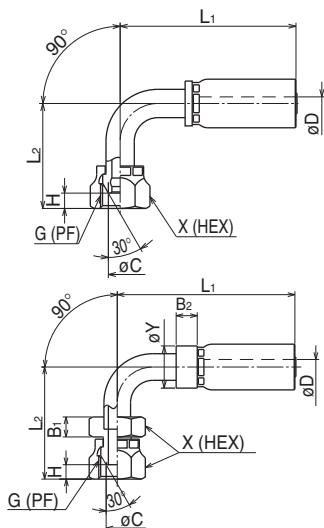
技术资料
Technical Document

参考资料
Reference Document

[Swage type]

(N3130、3130用) (3700用)
(For N3130, 3130) (For 3700)

AF90·SF90



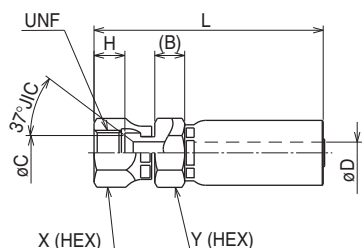
产品编号 Part No.	标称 尺寸 Size No.	G	C	最小 内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用 压接下模 Die
AF90-G-04	04	1/4	7.0	3.2	5.5	61	33	19	75	PFB-01+PA-04	SP3-04
AF90-G-06	06	3/8	10.0	5.6	6.5	74	45	22	115	PFB-01+PA-06	SP3-06
AF90-G-08	08	1/2	14.0	8.7	9.0	83	52	27	165	PFB-01+PA-08	SP3-08

■材质: 钢
■适用转换接头: 110、145、190、130
●Material: steel
●Adaptor: 110, 145, 190, 130

产品编号 Part No.	标称 尺寸 Size No.	G	B ₁	B ₂	C	最小 内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概 质量 Weight (g)	øY	适用压接上模 Pusher	适用 压接下模 Die
★ SF90-PF-12	12	3/4	10.5	12.5	19.0	16.0	9.5	108	77	36	30	405	PFB-02+PHB-12	SP3-12
★ SF90-PF-16	16	1	11.0	12.5	25.4	20.9	10.0	127	86	41	36	645	PFB-02+PHB-16	SP3-16

■材质: 钢
■适用转换接头: 110、145、190、130
★订购产品
●Material: steel
●Adaptor: 110, 145, 190, 130
★Made-to-order

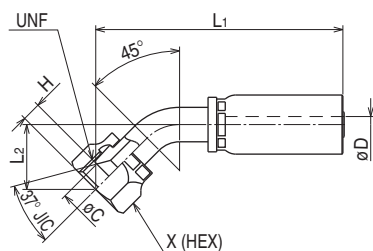
SK



产品编号 Part No.	标称 尺寸 Size No.	UNF	B	C	最小 内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用 压接下模 Die
SK-7/16-03	03	7/16	6.5	7.5	2.8	10.0	58	15.9	14.3	50	PSK-7/16-04	SP3-03
SK-7/16-04	04	7/16	6.5	7.5	3.9	10.0	61	15.9	15.9	60	PSK-7/16-04	SP3-04
SK-1/2-04	04	1/2	9.5	9.0	3.9	9.5	65	19.0	15.9	60	PSK-1/2-04	SP3-04
SK-9/16-04	04	9/16	7.0	11.0	3.9	10.0	65	19.0	15.9	65	PSK-9/16-04	SP3-04
SK-9/16-06	06	9/16	9.5	11.0	6.8	10.0	72	19.0	19.0	90	PSK-9/16-06	SP3-06
SK-3/4-06	06	3/4	8.5	14.5	6.8	12.0	72	24.0	19.0	95	PSK-3/4-06	SP3-06
SK-3/4-08	08	3/4	9.0	14.5	10.0	12.0	77	24.0	22.0	125	PSK-3/4-08	SP3-08
SK-7/8-08	08	7/8	9.0	17.3	10.0	13.0	81	27.0	22.0	145	PSE-08	SP3-08

■材质: 钢
★订购产品
●Material: steel
★Made-to-order

AK45



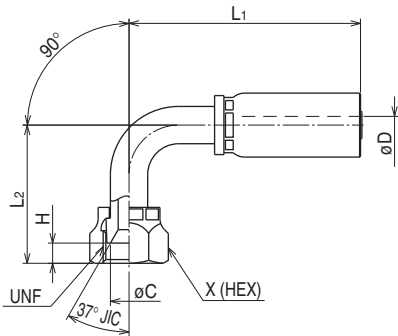
产品编号 Part No.	标称 尺寸 Size No.	UNF	C	最小 内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用 压接下模 Die
AK45-7/16-03	03	7/16	7.5	2.6	9.0	69	18	19	57	PFB-01+PA-04	SP3-03
AK45-7/16-04-C	04	7/16	7.5	3.2	9.0	72	18	19	64	PFB-01+PA-04	SP3-04
AK45-9/16-06-C	06	9/16	11.0	5.6	10.0	89	24	22	110	PFB-01+PA-06	SP3-06
AK45-3/4-08-C	08	3/4	14.5	8.7	11.5	100	27	27	161	PFB-01+PA-08	SP3-08

■材质: 钢
★订购产品
●Material: steel
★Made-to-order

[Swage type]

(N3130、3130用) (3700用)
(For N3130, 3130) (For 3700)

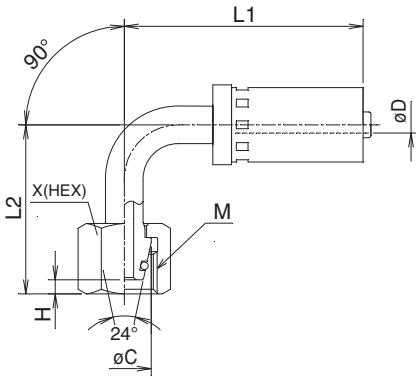
AK90



产品编号 Part No.	标称尺寸 Size No.	UNF	C	最小内径 Min. I.D. øD	H	L ₁	L ₂	X (HEX)	大概重量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AK90-7/16-03	03	7/16	7.5	2.6	9.0	58	32	19	62	PFB-01+PA-04	SP3-03
AK90-7/16-04-C	04	7/16	7.5	3.2	9.0	61	32	19	69	PFB-01+PA-04	SP3-04
AK90-9/16-06-C	06	9/16	11.0	5.6	10.0	74	43	22	117	PFB-01+PA-06	SP3-06
AK90-3/4-08-C	08	3/4	14.5	8.7	11.5	83	47	27	171	PFB-01+PA-08	SP3-08

■材质: 钢
★订购产品
●Material: steel
★Made-to-order

DF90



产品编号 Part No.	标称尺寸 Size No.	M	C	最小内径 Min. I.D. øD	H	L ₁	L ₂	X (HEX)	重量 Weight (g)	适用压接下模 Die
DF90-M14-O4L	04	14	9.6	3.2	2	71	37	17	70	SP3-04
DF90-M16-O4S	04	16	12.1	3.2	2.5	71	37.5	19	70	SP3-04
DF90-M18-O6L	06	18	13.8	5.6	2.5	87	40.5	22	105	SP3-06
DF90-M22-O8L	08	22	16.8	8.7	1.5	102	44	27	170	SP3-08

■材质: 钢
●Material: steel

液压配管用软管
Hydraulic Hose
清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成/工具专用夹具
Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

技术资料
Technical Document

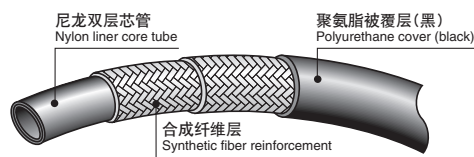
参考资料
Reference Document

N3000 系列 / series

N3000

特点
Features

- 构造柔软且不易折断
- Flexible and tough



产品编号 Part No.	尺寸 / Size				最高	最大	最小	最小	大概	适用
	标称尺寸 Size No.	内径 / I.D.		外径 O.D. (mm)	使用压力 Max. working press. (MPa)	冲击压力 Max. impact press. (MPa)	破坏压力 Min. destruction press. (MPa)	弯曲半径 Min. bending radius (mm)	质量 Weight (g/m)	接头类型 Suitable coupling type
		(in.)	(mm)							
N3000-04	04	1/4	6.3	13.3	28.0	27.3	112.0	50	120	Swage
N3000-06	06	3/8	9.5	17.5	21.0	28.0	84.0	65	190	
N3000-08	08	1/2	12.7	21.3	21.0	28.0	84.0	80	280	
N3000-10	10	5/8	15.9	25.5	17.5	23.3	70.0	120	355	

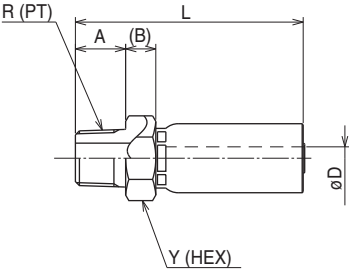
- 适用流体：矿物性一般液压油
- 使用温度范围：-40~+100℃
- 一箱的包装单位：04、06、08尺寸→100m
10尺寸→50m
- Appropriate fluid: mineral general operating oil
- Working temperature range: -40 to +100℃
- Length in a package: 100 m for sizes 04, 06, 08 and 50 m for sizes 10

[Swage type]

注意: 04尺寸接头与N3130共用, 但压接下模为N3000系列, 敬请注意。
Caution: The size 04 coupling for N3130 can also be used, but the swage die must be used for N3000.

(N3000用)
(For N3000)

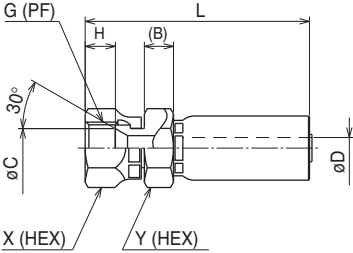
SA



产品编号 Part No.	标称 尺寸 Size No.	R	A	B	最小 内径 Min.I.D. øD	L	Y (HEX)	大概 质量 Weight (g)	适用 压接上模 Pusher	适用压接下模 Die
SA-PT-04	04	1/4	13	8.5	3.9	61	19	60	PSA-04	SPN-04
SA-PT-06-N30	06	3/8	15	9.0	6.8	67	22	90	PSA-06	SPN-06
SA-PT-08-N30	08	1/2	18	10.0	10.0	76	27	140	PSA-08	SPN-08
SA-PT-10-N30	10	3/4	20	10.0	13.0	80	32	180	PSA-10	SPN-10

- 材质: 钢
■适用转换接头: 030, 130
●Material: steel
●Adaptor: 030, 130

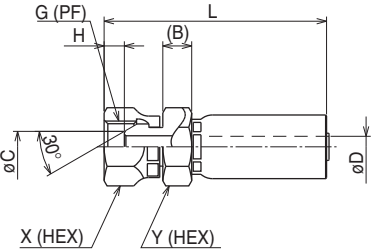
SE



产品编号 Part No.	标称 尺寸 Size No.	G	B	C	最小 内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概 质量 Weight (g)	适用 压接上模 Pusher	适用压接下模 Die
SE-PF-04	04	1/4	8.0	9.3	3.9	8.0	64	19	17	75	PSE-04	SPN-04
SE-PF-06-N30	06	3/8	9.5	12.3	6.8	9.5	71	22	19	110	PSE-06	SPN-06
SE-PF-08-N30	08	1/2	9.0	15.5	10.0	12.5	80	27	27	170	PSE-08	SPN-08
SE-PF-10-N30	10	3/4	10.5	21.0	13.1	13.0	84	32	32	220	PSE-10	SPN-10

- 材质: 钢
■适用转换接头: 010, 045, 090, 150, 020, 025, 064, 069, 030
●Material: steel
●Adaptor: 010, 045, 090, 150, 020, 025, 064, 069, 030

SF



产品编号 Part No.	标称 尺寸 Size No.	G	B	C	最小 内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概 质量 Weight (g)	适用 压接上模 Pusher	适用压接下模 Die
SF-PF-04	04	1/4	8.5	7.5	3.9	5.5	63	19	17	75	PSE-04	SPN-04
SF-PF-06-N30	06	3/8	9.5	10.0	6.8	6.5	71	22	19	110	PSE-06	SPN-06
SF-PF-08-N30	08	1/2	9.0	14.0	10.0	9.0	80	27	27	170	PSE-08	SPN-08
SF-PF-10-N30	10	3/4	10.5	19.0	13.1	9.5	84	32	32	220	PSE-10	SPN-10

- 材质: 钢
■适用转换接头: 110, 145, 190, 130
●Material: steel
●Adaptor: 110, 145, 190, 130

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成/工具专用夹具
Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

技术资料
Technical Document

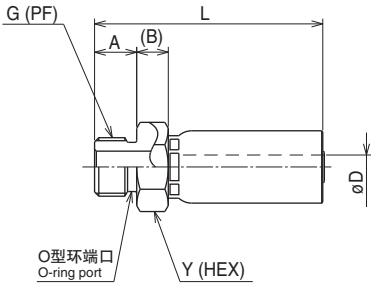
参考资料
Reference Document

[Swage type]

注意: 04尺寸接头与N3130共用, 但压接下模为N3000系列, 敬请注意。
Caution: The size 04 coupling for N3130 can also be used, but the swage die must be used for N3000.

(N3000用)
(For N3000)

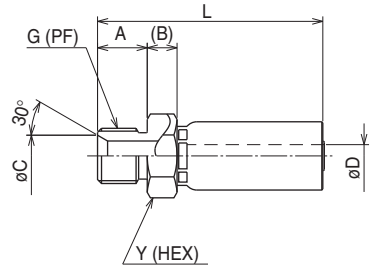
SO



产品编号 Part No.	标称 尺寸 Size No.	G	A	B	最小 内径 Min.I.D. øD	L	Y (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SO-PF-04	04	1/4	11	8.5	3.9	59	19	55	PSA-04	SPN-04
SO-PF-06-N30	06	3/8	12	9.0	6.8	64	22	85	PSA-06	SPN-06
SO-PF-08-N30	08	1/2	15	10.0	10.0	73	27	135	PSA-08	SPN-08

- 材质: 钢
■O型环: 04-JIS B2401-P11, 06-JIS B2401-P14, 08-JIS B2401-P18
ⓘ 不带O型环。
●Material: steel
●O-ring: 04-JIS B2401-P11, 06-JIS B2401-P14, 08-JIS B2401-P18
ⓘ O-ring is not mounted inside.

SC



产品编号 Part No.	标称 尺寸 Size No.	G	A	B	C	最小 内径 Min.I.D. øD	L	Y (HEX)	大概 质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SC-PF-04	04	1/4	13	8.5	9.5	3.9	61	19	60	PSA-04	SPN-04
SC-PF-06-N30	06	3/8	15	9.0	12.5	6.8	67	22	90	PSA-06	SPN-06
★ SC-PF-08-N30	08	1/2	18	10.0	16.5	10.0	76	27	140	PSA-08	SPN-08
★ SC-PF-10-N30	10	3/4	20	10.0	22.0	13.0	80	32	180	PSA-10	SPN-10

- 材质: 钢
■适用转换接头: 060
★订购产品
●Material: steel
●Adaptor: 060
★Made-to-order

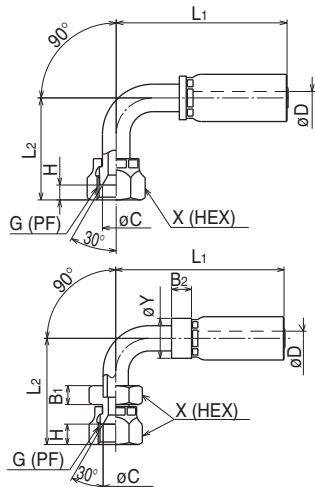


[Swage type]

注意：04尺寸接头与N3130共用，但压接下模为N3000系列，敬请注意。
Caution: The size 04 coupling for N3130 can also be used, but the swage die must be used for N3000.

(N3000用)
(For N3000)

AE90·SE90



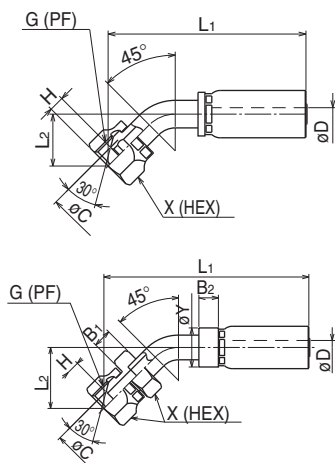
产品编号 Part No.	标称尺寸 Size No.	G	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AE90-G-04	04	1/4	9.0	3.2	8.0	59	33	19	75	PFB-01+PA-04	SPN-04
AE90-G-06-N30	06	3/8	12.0	5.6	9.5	73	45	22	122	PFB-01+PA-06	SPN-06
AE90-G-08-N30	08	1/2	15.5	8.7	12.5	83	52	27	189	PFB-01+PA-08	SPN-08

■材质：钢
■适用转换接头：010、045、090、150、020、025、064、069、030
●Material: steel
●Adaptor: 010, 045, 090, 150, 020, 025, 064, 069, 030

产品编号 Part No.	标称尺寸 Size No.	G	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
★ SE90-PF-10-N30	10	3/4	21.0	13.1	13.0	105	76	32	354	PFB-02+PHB-12	SPN-10

■材质：钢
■适用转换接头：010、045、090、150、020、025、064、069、030
★订购产品
●Material: steel
●Adaptor: 010, 045, 090, 150, 020, 025, 064, 069, 030
★Made-to-order

AF45·SF45



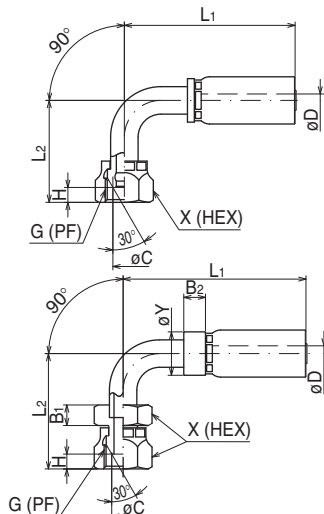
产品编号 Part No.	标称尺寸 Size No.	G	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AF45-G-04	04	1/4	7.0	3.2	5.5	73	19	19	70	PFB-01+PA-04	SPN-04
AF45-G-06-N30	06	3/8	10.0	5.6	6.5	85	23	22	115	PFB-01+PA-06	SPN-06
AF45-G-08-N30	08	1/2	14.0	8.7	9.0	103	29	27	185	PFB-01+PA-08	SPN-08

■材质：钢
■适用转换接头：110、145、190、130
●Material: steel
●Adaptor: 110, 145, 190, 130

产品编号 Part No.	标称尺寸 Size No.	G	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
★ SF45-PF-10-N30	10	3/4	19.0	13.1	9.5	126	40	32	335	PFB-02+PHB-12	SPN-10

■材质：钢
■适用转换接头：110、145、190、130
★订购产品
●Material: steel
●Adaptor: 110, 145, 190, 130
★Made-to-order

AF90·SF90



产品编号 Part No.	标称尺寸 Size No.	G	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
AF90-G-04	04	1/4	7.0	3.2	5.5	61	33	19	75	PFB-01+PA-04	SPN-04
AF90-G-06-N30	06	3/8	10.0	5.6	6.5	74	45	22	125	PFB-01+PA-06	SPN-06
AF90-G-08-N30	08	1/2	14.0	8.7	9.0	83	52	27	190	PFB-01+PA-08	SPN-08

■材质：钢
■适用转换接头：110、145、190、130
●Material: steel
●Adaptor: 110, 145, 190, 130

产品编号 Part No.	标称尺寸 Size No.	G	C	最小内径 Min.I.D. øD	H	L ₁	L ₂	X (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
★ SF90-PF-10-N30	10	3/4	19.0	13.1	9.5	105	77	32	360	PFB-02+PHB-12	SPN-10

■材质：钢
■适用转换接头：110、145、190、130
★订购产品
●Material: steel
●Adaptor: 110, 145, 190, 130
★Made-to-order

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管装配方法
Hose Assembling
Method

技术资料
Technical Document

参考资料
Reference Document

3R80 系列 / series

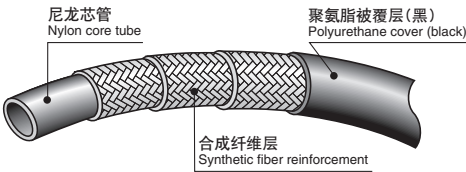
3R80

特点
Features

- 耐油性、化学品耐受性能优越
- 适用于JIS K6375 类型2
- 适用于SAE 100R8
- Excellent oil and chemical durability
- JIS K 6375 A certified, SAE 100R8 certified.

也可以制造电气绝缘性能优越的非导电性软管。
具体请与本公司联系。

Nonconductive hose with high electrical insulation
is also available. Contact us for details.



产品编号 Part No.	尺寸 / Size			最高 使用压力 Max. working press. (MPa)	最大 冲击压力 Max. impact press. (MPa)	最小 破坏压力 Min. destruction press. (MPa)	最小 弯曲半径 Min. bending radius (mm)	大概 质量 Weight (g/m)	适用 接头类型 Suitable coupling type
	标称尺寸 Size No.	内径 / I.D. (in.)	外径 O.D. (mm)						
3R80-03	03	3/16	4.8	12.7	35.0	46.6	140.0	38	115
3R80-04	04	1/4	6.3	15.5	35.0	46.6	140.0	51	175
3R80-06	06	3/8	9.5	19.1	28.0	37.3	112.0	64	221
3R80-08	08	1/2	12.7	22.2	25.0	33.3	98.0	102	283
3R80-12	12	3/4	19.0	28.6	16.0	21.3	63.0	165	380
3R80-16	16	1	25.4	36.9	14.0	18.7	56.0	254	572

- 适用流体：矿物性一般液压油
- 使用温度范围：-40~+100°C
- 一箱的包装单位：03、04、05、06、08尺寸→100m
12、16尺寸→50m

reusable接头为订购产品。

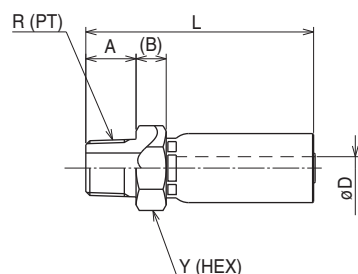
- Appropriate fluid: mineral general operating oil
- Working temperature range: -40 to +100°C
- Length in a package: 100 m for sizes 03, 04, 05, 06, 08 and 50 m for sizes 12,16
- reusable connector is made-to-order.

[Swage type]

注意: 06、08尺寸接头与N3000共用, 但压接下模为3R80系列, 敬请注意。
Caution: The size 06 and 08 coupling for N3000 can also be used, but the swage die must be used for 3R80.

(3R80用)
(For 3R80)

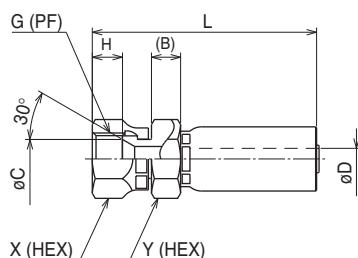
SA



产品编号 Part No.	标称尺寸 Size No.	R	A	B	最小内径 Min.I.D. øD	L	Y (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SA-PT-03-3R	03	1/4	13	8.5	2.8	53	19	50	PSA-04	SPH-03
SA-PT-04-3R	04	1/4	13	8.5	3.9	61	19	60	PSA-04	SPH-04
SA-PT-06-N30	06	3/8	15	9.0	6.8	67	22	90	PSA-06	SPH-06
SA-PT-08-N30	08	1/2	18	10.0	10.0	76	27	140	PSA-08	SPH-08
SA-PT-12-3R	12	3/4	20	10.0	16.0	83	36	220	PSA-12	SPH-12
SA-PT-16-3R	16	1	23	10.0	20.9	100	41	340	PSA-16	SPH-16

■材质: 钢
■适用转换接头: 030, 130
●Material: steel
●Adaptor: 030, 130

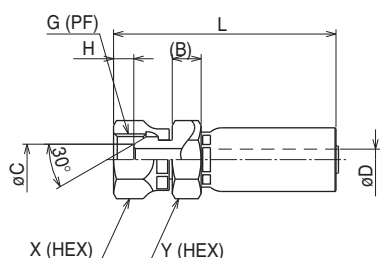
SE



产品编号 Part No.	标称尺寸 Size No.	G	B	C	最小内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SE-PF-03-3R	03	1/4	6.0	9.5	2.8	8.0	55	19	19	60	PSE-03	SPH-03
SE-PF-04-3R	04	1/4	8.5	9.5	3.9	8.0	63	19	19	80	PSE-04	SPH-04
SE-PF-06-N30	06	3/8	9.5	12.3	6.8	9.5	71	22	19	110	PSE-06	SPH-06
SE-PF-08-N30	08	1/2	9.0	15.5	10.0	12.5	80	27	27	170	PSE-08	SPH-08
SE-PF-12-3R	12	3/4	10.5	21.5	16.0	13.0	87	36	36	280	PSE-12	SPH-12
SE-PF-16-3R	16	1	11.0	27.5	20.9	15.0	105	41	41	400	PSE-16	SPH-16

■材质: 钢
■适用转换接头: 010, 045, 090, 150, 020, 025, 064, 069, 030
●Material: steel
●Adaptor: 010, 045, 090, 150, 020, 025, 064, 069, 030

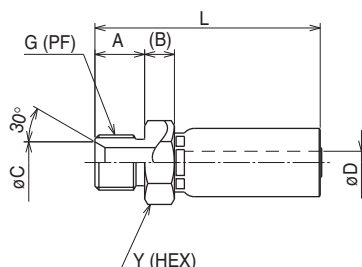
SF



产品编号 Part No.	标称尺寸 Size No.	G	B	C	最小内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
SF-PF-03-3R	03	1/4	6.0	7.5	2.8	5.5	55	19	19	60	PSE-03	SPH-03
SF-PF-04-3R	04	1/4	8.5	7.5	3.9	5.5	63	19	19	80	PSE-04	SPH-04
SF-PF-06-N30	06	3/8	9.5	10.0	6.8	6.5	71	22	19	110	PSE-06	SPH-06
SF-PF-08-N30	08	1/2	9.0	14.0	10.0	9.0	80	27	27	170	PSE-08	SPH-08
SF-PF-12-3R	12	3/4	10.5	19.0	16.0	9.5	87	36	36	280	PSE-12	SPH-12
SF-PF-16-3R	16	1	11.0	25.4	20.9	10.0	105	41	41	410	PSE-16	SPH-16

■材质: 钢
■适用转换接头: 110, 145, 190, 130
●Material: steel
●Adaptor: 110, 145, 190, 130

SC



产品编号 Part No.	标称尺寸 Size No.	G	A	B	C	最小内径 Min.I.D. øD	L	Y (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 Die
★ SC-PF-03-3R	03	1/4	13	8.5	9.5	2.8	53	19	50	PSA-04	SPH-03
SC-PF-04-3R	04	1/4	13	8.5	9.5	3.9	61	19	60	PSA-04	SPH-04
SC-PF-06-N30	06	3/8	15	9.0	12.5	6.8	67	22	90	PSA-06	SPH-06
★ SC-PF-08-N30	08	1/2	18	10.0	16.5	10.0	76	27	140	PSA-08	SPH-08

■材质: 钢
■适用转换接头: 060
★订购产品
●Material: steel
●Adaptor: 060
★Made-to-order

液压配管用软管
Hydraulic Hose
清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件
Hose Guard Part
Specialty-Treated Part

软管装配方法
Hose Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

技术资料
Technical Document

参考资料
Reference Document

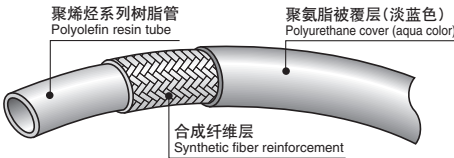
34PW系列 / series

纯水用、聚氨酯成型机用、食品/饮水用

34PW

特点
Features

- 防潮性能优越
- 化学品耐受性能优越
- 抗污染性优越
- 使用符合美国FDA规格、厚生省告示第20号规格试验标准的材料，清洁卫生
- High water-barrier performance
- Excellent chemical durability
- Anti-taint property
- Sanitary, because of the material that matches the FDA standard and complies with No.20 of the Ministry of welfare, Japan.



产品编号 Part No.	尺寸 / Size				最高	最大	最小	最小	大概	适用
	标称尺寸 Size No.	内径 / I.D.		外径 O.D. (mm)	使用压力 Max. working press. (MPa)	冲击压力 Max. impact press. (MPa)	破坏压力 Min. destruction press. (MPa)	弯曲半径 Min. bending radius (mm)	质量 Weight (g/m)	接头类型 Suitable coupling type
		(in.)	(mm)							
34PW-02-LBU	02	1/8	3.6	8.3	20.0	25.0	80.0	25	45	Swage
34PW-04-LBU	04	1/4	6.3	12.5	19.5	24.4	78.0	30	95	
34PW-06-LBU	06	3/8	9.5	16.4	16.0	20.0	64.0	50	134	
34PW-08-LBU	08	1/2	12.7	20.3	14.0	17.5	56.0	75	241	
34PW-12-LBU	12	3/4	19.0	28.7	10.5	13.2	42.0	125	368	
34PW-16-LBU	16	1	25.4	36.5	10.5	13.2	42.0	200	554	

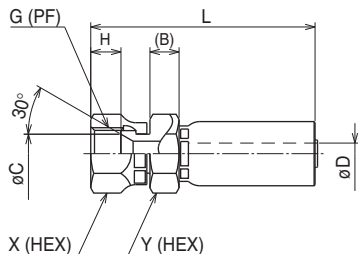
- 适用流体：纯水、化学药品（异氰酸酯）
- 使用温度范围：-30~+70℃
- 基本上是在本公司工厂进行接头的安装（总成）。
- ☞ 上表各压力为使用PW接头时的值。
- ☞ 产品编号带有颜色符号（-LBU）。
- Appropriate fluid: pure water, chemicals (isocyanate), etc.
- Working temperature range: -30 to +70℃
- Assembly operation should be done at our factory.
- ☞ Each pressure in the above table represents a pressure with the use of a PW coupling.
- ☞ "-LBU" stands for light blue.



[Swage type]

(34PW用)
(For 34PW)

SE (PW接头) / (PW coupling)



不锈钢 (SUS316) / Stainless (SUS316)

产品编号 Part No.	标称尺寸 Size No.	G	B	C	最小内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概质量 Weight (g)	适用 压接上模 Pusher	适用压接下模 / Die	
												第一次 / First	第二次 / Second
SE-G-04-PW	04	1/4	8.5	9.0	4.0	8.0	63	19	19	80	PSE-04	SP3-04-VC	-
SE-G-06-PW	06	3/8	9.5	12.0	6.9	9.0	71	22	22	110	PSE-06	SP3-06-VC	-
SE-G-08-PW	08	1/2	9.0	15.5	10.0	12.5	80	27	27	170	PSE-08	SP3-08-VC	-
SE-G-12-PW	12	3/4	10.0	21.0	16.0	13.5	86	36	36	270	PSE-12	SPH-12-1-ST	SPH-12-VC
SE-G-16-PW	16	1	11.0	28.0	20.9	16.5	105	41	41	410	PSE-16	SPH-16-1-ST	SPH-16-37VC

■材质: 不锈钢 (SUS316)

■接头的安装 (装配) 基本上是在本公司工厂进行。

🔍 根据要求, 仅限接头可以进行超声波处理。具体请与本公司联系。

🔍 关于钢制接头, 04、06、08尺寸与N3130系列共用; 12、16尺寸与3R80系列共用。

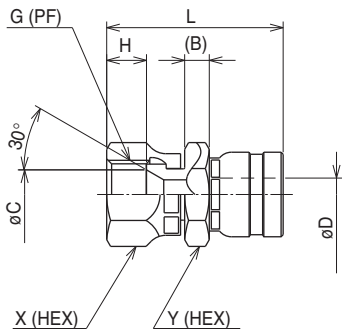
■Material: stainless steel SUS316.

■Assembly of couplings with hose is to be done at our factory.

🔍 Ultrasonic cleaning is available only for the couplings, if required. Contact us for details.

🔍 As for the steel couplings; sizes 04, 06, and 08 for N3130 series, and sizes 12 and 16 for 3R80 can also be used.

SE (PWL接头) 7.0MPa以下用 (PWL coupling) for under 7.0 MPa



不锈钢 (SUS316) / Stainless (SUS316)

产品编号 Part No.	标称尺寸 Size No.	G	B	C	最小内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模	
												第一次 / First	第二次 / Second
SE-G-04-PWL	04	1/4	6.0	9.0	5.0	8.0	42	19	19	60	PSE-04-PWL	SPP-04-VC	-
SE-G-06-PWL	06	3/8	6.0	12.0	8.0	9.5	44	22	22	70	PSE-06-PWL	SPP-06-VC	-
SE-G-08-PWL	08	1/2	8.0	15.5	11.0	12.5	54	27	27	130	PSE-08-PWL	SPP-08-VC	-
SE-G-12-PWL	12	3/4	10.0	21.0	16.0	13.5	64	36	36	230	PSE-12-PWL	SPP-12-VC	-
SE-G-16-PWL	16	1	10.0	28.0	22.0	16.5	67	41	41	310	PSE-16-PWL	SPP-16-VC	-

■最高使用压力 (静压): 7.0MPa

■材质: 不锈钢 (SUS316)

■接头的安装 (装配) 基本上是在本公司工厂进行。

🔍 根据要求, 仅接头可以进行超声波处理。具体请与本公司联系。

🔍 关于钢制接头, 04、06、08尺寸与N3130系列共用; 12、16尺寸与3R80系列共用。

■Maximum working pressure (static pressure): 7.0MPa

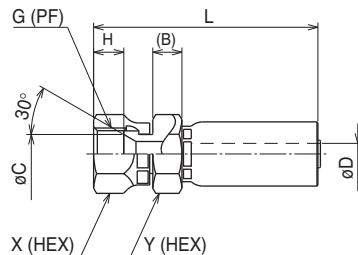
■Material: stainless steel SUS316

■Assembly of couplings with hose is to be done at our factory.

🔍 Ultrasonic cleaning is available only for the couplings, if required. Contact us for details.

🔍 As for the steel couplings; sizes 04, 06, and 08 for N3130 series, and sizes 12 and 16 for 3R80 can also be used

SE



不锈钢 (SUS304) / Stainless (SUS304)

产品编号 Part No.	标称尺寸 Size No.	G	B	C	最小内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概质量 Weight (g)	适用压接上模 Pusher	适用压接下模 / Die	
												第一次 / First	第二次 / Second
SSE-PF-02-S	02	1/8	4.0	7.0	1.8	7.0	42	14	14	25	PSE-02-001	SP3-02-001	-
SE-PF-04-S	04	1/4	8.5	9.5	3.9	8.0	63	19	19	80	PSE-04	SP3-04-1-ST	SP3-04
SE-PF-06-S	06	3/8	9.5	12.5	6.8	9.5	71	22	22	110	PSE-06	SP3-06-1-ST	SP3-06
SE-PF-08-S	08	1/2	9.0	16.0	10.0	12.0	80	27	27	170	PSE-08	SP3-08-1-ST	SP3-08
SE-PF-12-3R-S	12	3/4	10.5	21.5	16.0	13.0	87	36	36	280	PSE-12	SPH-12-1-ST	SPH-12
SE-PF-16-3R-S	16	1	11.0	27.5	20.9	15.0	105	41	41	400	PSE-16	SPH-16-1-ST	SPH-16

■材质: 不锈钢 (SUS304)

■接头的安装 (装配) 基本上是在本公司工厂进行。

🔍 根据要求, 仅接头可以进行超声波处理。具体请与本公司联系。

🔍 关于钢制接头, 02尺寸与3130系列共用。04、06、08尺寸与N3130系列共用; 12、16尺寸与3R80系列共用。

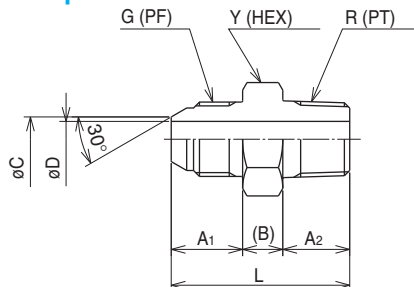
■Material: stainless steel SUS304

■Assembly of couplings with hose is to be done at our factory.

🔍 Ultrasonic cleaning is available only for the couplings, if required. Contact us for details.

🔍 As for the steel coupling, size 02 for 3130 series, sizes 04, 06, and 08 for N3130 series, and sizes 12 and 16 for 3R80 can also be used.

34PW用转换接头 Adaptor for 34PW



不锈钢 (SUS316) / Stainless (SUS316)

产品编号 Part No.	标称尺寸 Size No.	G	R	A ₁	A ₂	B	C	最小内径 Min.I.D. øD	L	Y (HEX)	大概质量 Weight (g)
010-04-04-PW	04	1/4	1/4	13	14	8.0	7.0	5.5	35	19	40
010-06-06-PW	06	3/8	3/8	16	15	9.0	10.0	8.0	40	22	60
010-08-08-PW	08	1/2	1/2	19	18	10.0	13.0	11.0	47	27	100
010-12-12-PW	12	3/4	3/4	21	20	12.0	19.0	16.0	53	36	180
010-16-16-PW	16	1	1	23	23	13.0	25.0	22.0	59	41	250

■材质: 不锈钢 (SUS316)

■接头的安装 (装配) 基本上是在本公司工厂进行。

🔍 根据要求, 仅接头可以进行超声波处理。具体请与本公司联系。

■Material: stainless steel SUS316

🔍 Ultrasonic cleaning is available only for the couplings, if required. Contact us for details.

液压软管产品

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件
Hose Guard Part,
Specialty-Treated Part

软管总成 / 工具专用器具
Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

技术资料
Technical Document

参考资料
Reference Document

转换接头产品 / Adaptor Products

转换接头 / Adaptor



装配方法
How to assemble
▶▶▶ P60

规格 / Specification

材 质: 钢、SUS304、SUS316
Material: Steel, SUS304, SUS316

使用条件 / Usage conditions

适 用 流 体 : 矿物性一般液压油

最高使用压力: 根据G螺纹侧及R螺纹侧额定尺寸而定。

异径尺寸根据较大一侧的尺寸而定。

【设备连接侧管用椎体螺纹类型】及【中间连接型】

02~08 : 35.0MPa

12 : 27.5MPa

16 : 20.5MPa

【设备连接侧管用平行螺纹类型】

04~12 : 21.0MPa

16 : 10.5MPa

使用温度范围: 【设备连接侧管用椎体螺纹类型】及【中间连接型】-55°C~+120°C

: 【设备连接侧管用平行螺纹类型】-30°C~+100°C

Appropriate fluid : Mineral hydraulic oil
Maximum working pressure : It changes with the size of G- and R-threads, and when different sizes exist in one product, the larger one is to be counted.
(taper thread type to the equipment side or interconnection type)
02 to 08 : 35.0MPa
12 : 27.5MPa
16 : 20.5MPa
(parallel thread type to the equipment side)
04 to 12 : 21.0MPa
16 : 10.5MPa
Working temperature range : (Taper thread type to the equipment side or interconnection type to the equipment)
-55°C to +120°C
(Parallel thread type to the equipment side)
-30°C to +100°C

产品型号示例 / Example of part number

010-04-04-(S)

转替接头形状 / Adaptor shape

参照下页 (P36)
see the next page

G (PF) 螺纹尺寸
Size of G(PF) thread

02=1/8"	08=1/2"
04=1/4"	12=3/4"
06=3/8"	16=1"

R (PT) 或G (PF) 螺纹尺寸
Size of R (PT) or G (PF)

02=1/8"	08=1/2"
04=1/4"	12=3/4"
06=3/8"	16=1"

材质 / Material

无显示=钢 / Steel
S=SUS304

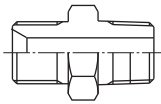


转换接头连接部位形状一览表 / Adaptor shapes chart

设备连接侧管用椎体螺纹类型 (30°内锥) / Taper thread type to equipment side (with 30° female seat)

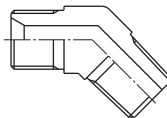
直通型
Straight type

110



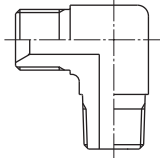
45°弯管型
45° elbow type

145



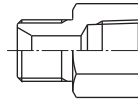
90°弯管型
90° elbow type

190



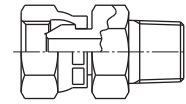
母螺纹平直型
Female-thread straight type

130



管用平行公螺纹型
Parallel male-thread type

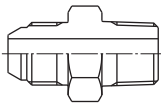
060



设备连接侧管用椎体螺纹类型 (30°外锥) / Taper thread screw type to equipment side (with 30° male seat)

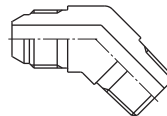
直通型
Straight type

010



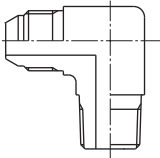
45°弯管型
45° elbow type

045



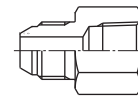
90°弯管型
90° elbow type

090



母螺纹平直型
Female-thread straight type

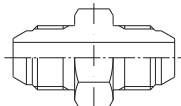
030



中间连接型 (30°外锥) / Interconnection type (with 30° male seat)

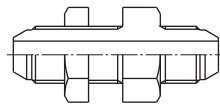
直通型
Straight type

150



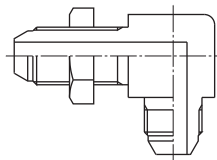
穿板直通型
Panel touch straight type

020



穿板式90°弯管型
Panel touch 90° straight type

025



其他形状请另行联系。
Contact us for other shapes.

液压软管产品

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成/工具专用工具
Assembling
Machine, Jig, Tool

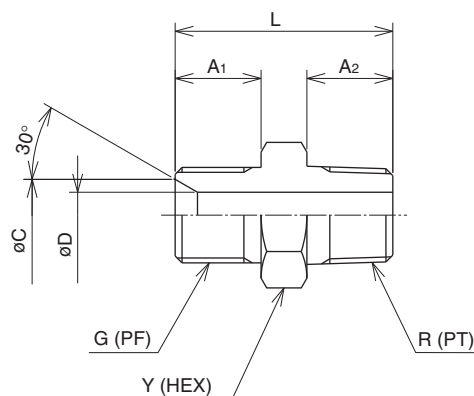
软管装配方法
Hose Assembling
Method

技术资料
Technical Document

参考资料
Reference Document

【设备连接侧英制管用锥螺纹类型】(30°内锥) / Taper thread type to equipment side (with 30° female seat)

110



产品编号 Part No.	G	R	A ₁	A ₂	C	最小 内径 Min.I.D. øD	L	Y (HEX)	大概 质量 Weight (g)
110-02-02	1/8	1/8	10	10	7.0	3.0	28	14	20
110-02-04	1/8	1/4	10	13	7.0	3.0	31	17	30
110-04-02	1/4	1/8	13	10	9.0	5.5	31	19	30
110-04-04	1/4	1/4	13	13	9.5	5.0	34	19	35
110-04-06	1/4	3/8	13	15	9.0	5.5	36	22	50
110-06-04	3/8	1/4	15	13	12.5	5.0	36	22	50
110-06-06	3/8	3/8	15	15	12.5	8.0	38	22	55
110-06-08	3/8	1/2	15	18	12.5	8.0	43	27	90
110-08-06	1/2	3/8	18	15	15.5	11.0	43	27	90
110-08-08	1/2	1/2	18	18	16.0	11.0	46	27	100
110-08-12	1/2	3/4	18	20	15.5	10.0	50	36	165
110-12-08	3/4	1/2	20	18	21.0	16.0	50	36	165
110-12-12	3/4	3/4	20	20	21.5	16.0	52	36	175
110-12-16	3/4	1	20	22	21.0	16.0	54	41	235
110-16-12	1	3/4	22	20	27.5	22.0	56	41	235
110-16-16	1	1	22	22	27.5	22.0	57	41	245

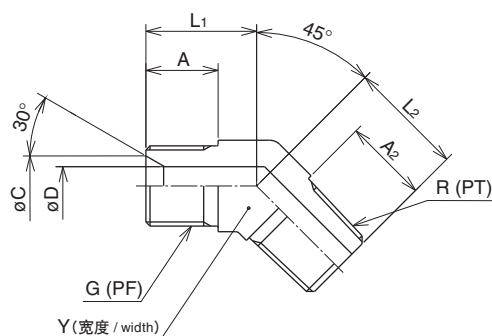
■材质: 钢

适用软管接头: SF, SF45, SF90, AF45, AF90

●Material: steel

Hose couplings: SF, SF45, SF90, AF45, AF90

145



产品编号 Part No.	G	R	A ₁	A ₂	C	最小 内径 Min.I.D. øD	L ₁	L ₂	Y (宽度 / width)	大概 质量 Weight (g)
145-02-02	1/8	1/8	14	14	7.0	3.0	18	18	14	20
★ 145-02-04	1/8	1/4	10	13	7.0	3.0	18	20	17	35
★ 145-04-02	1/4	1/8	13	14	9.0	5.5	19	20	17	36
145-04-04	1/4	1/4	13	14	9.0	5.5	19	20	17	40
★ 145-04-06	1/4	3/8	13	18	9.0	8.0	18	24	19	55
★ 145-06-04	3/8	1/4	15	14	12.5	8.0	23	21	19	57
145-06-06	3/8	3/8	15	15	12.5	8.0	23	24	19	65
★ 145-06-08	3/8	1/2	15	18	12.5	11.0	23	27	24	99
★ 145-08-06	1/2	3/8	18	15	16.0	11.0	26	24	24	95
145-08-08	1/2	1/2	18	22	15.5	11.0	26	27	24	100
★ 145-08-12	1/2	3/4	18	20	16.0	16.0	26	32	30	170
★ 145-12-08	3/4	1/2	20	18	21.5	16.0	32	27	30	170
145-12-12	3/4	3/4	20	20	21.5	16.0	32	32	30	190
★ 145-12-16	3/4	1	20	22	21.5	22.0	32	34	36	264
★ 145-16-12	1	3/4	22	20	27.5	22.0	35	32	36	250
145-16-16	1	1	22	22	28.0	22.0	35	34	36	275

■材质: 钢

适用软管接头: SF, SF45, SF90, AF45, AF90

★订购产品

●Material: steel

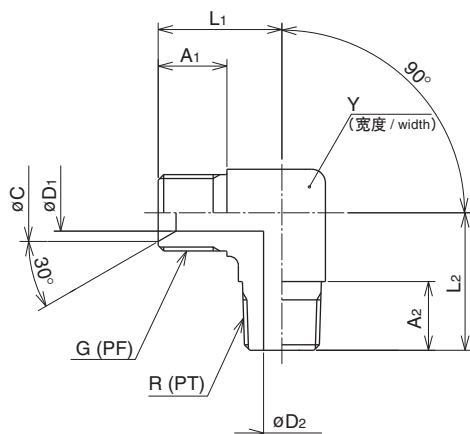
Hose couplings: SF, SF45, SF90, AF45, AF90

★Made-to-order



【设备连接侧英制管用锥螺纹类型】(30°内锥) / Taper thread type to equipment side (with 30° female seat)

190



产品编号 Part No.	G	R	A ₁	A ₂	C	D ₁	D ₂	L ₁	L ₂	Y (宽度 / width)	大概 质量 Weight (g)
190-02-02	1/8	1/8	9	14	7.0	3.0	4.0	18	22	14	30
190-02-04	1/8	1/4	10	13	7.0	3.0	5.0	20	27	17	50
190-04-02	1/4	1/8	13	10	9.5	6.0	4.0	25	20	17	45
190-04-04	1/4	1/4	13	13	9.5	5.0	5.0	23	27	17	50
190-04-06	1/4	3/8	13	18	9.0	5.5	8.0	25	30	19	80
190-06-04	3/8	1/4	15	16	12.5	8.0	5.5	27	28	19	75
190-06-06	3/8	3/8	15	15	12.5	8.0	8.0	27	30	19	145
190-06-08	3/8	1/2	15	22	12.5	8.0	11.0	28	38	24	140
190-08-06	1/2	3/8	18	20	15.5	11.0	8.0	31	32	24	140
190-08-08	1/2	1/2	18	18	16.0	11.0	11.0	31	38	24	165
190-08-12	1/2	3/4	18	24	15.5	11.0	16.0	34	43	30	250
190-12-08	3/4	1/2	20	22	21.0	16.0	11.0	36	41	30	250
190-12-12	3/4	3/4	20	20	21.5	16.0	16.0	36	43	30	265
190-12-16	3/4	1	20	22	21.5	16.0	22.0	42	46	36	400
190-16-12	1	3/4	22	20	27.5	22.0	16.0	42	43	36	400
190-16-16	1	1	22	27	27.5	22.0	22.0	42	46	36	460

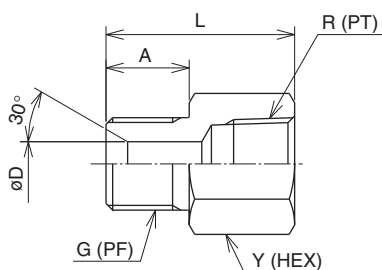
■材质: 钢

适用软管接头: SF, SF45, SF90, AF45, AF90

●Material: steel

Hose couplings:SF, SF45, SF90, AF45, AF90

130



产品编号 Part No.	G	R	A	C	最小 内径 Min.I.D. øD	L	Y (HEX)	大概 质量 Weight (g)
130-02-02	1/8	1/8	10	7.0	3.0	25	14	18
130-04-04	1/4	1/4	13	9.0	5.5	30	19	36
130-06-06	3/8	3/8	15	12.5	8.0	34	22	52
130-08-08	1/2	1/2	18	15.5	11.0	40	27	88
130-12-12	3/4	3/4	20	21.0	16.0	45	36	175
130-16-16	1	1	22	28.0	22.0	50	41	221

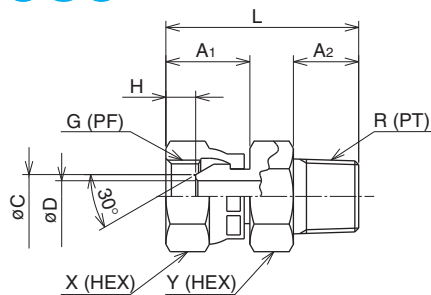
■材质: 钢

适用软管接头: SA, SF, SF45, SF90, AF45, AF90

●Material: steel

Hose couplings:SA, SF, SF45, SF90, AF45, AF90

060



产品编号 Part No.	G	R	A ₁	A ₂	C	最小 内径 Min.I.D. øD	H	L	X (HEX)	Y (HEX)	大概 质量 Weight (g)
060-02-02	1/8	1/8	16.0	11	5.0	2.8	3.0	35	14	14	25
060-04-04	1/4	1/4	17.0	13	7.0	5.0	5.5	38	19	19	50
060-06-06	3/8	3/8	19.0	15	10.0	7.2	6.5	44	22	22	80
060-08-08	1/2	1/2	23.5	18	13.2	11.0	9.5	52	27	27	115
060-12-12	3/4	3/4	23.5	21	19.0	16.0	9.5	57	36	36	220
060-16-16	1	1	27.0	23	25.4	21.5	10.0	63	41	41	300

■材质: 钢

适用软管接头: SC

●Material: steel

Hose couplings:SC

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成/工具专用工具
Assembling
Machine, Jig, Tool

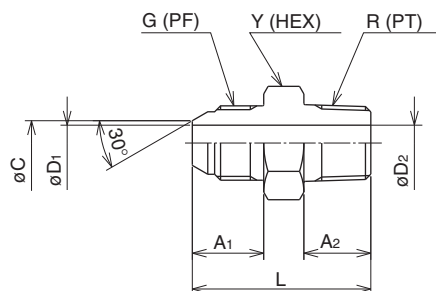
软管装配方法
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参考资料
Reference Document

【设备连接侧英制管用锥螺纹类型】 (30°外锥) / Taper thread type to equipment side (with 30° male seat)

010



产品编号 Part No.	G	R	A ₁	A ₂	C	D ₁	D ₂	L	Y (HEX)	大概 质量 Weight (g)
010-02-02	1/8	1/8	12	10	4.5	3.0	3.0	30	14	20
010-02-04	1/8	1/4	12	13	4.5	3.0	5.5	34	17	30
010-04-02	1/4	1/8	14	10	7.5	5.5	3.0	32	19	30
010-04-04	1/4	1/4	14	13	7.5	5.5	5.5	35	19	35
010-04-06	1/4	3/8	14	15	7.5	5.5	8.0	37	22	50
010-06-04	3/8	1/4	16	13	10.0	8.0	5.5	39	22	50
010-06-06	3/8	3/8	16	15	10.0	8.0	8.0	40	22	55
010-06-08	3/8	1/2	16	18	10.0	8.0	11.0	44	27	85
010-08-06	1/2	3/8	19	15	13.0	11.0	8.0	44	27	85
010-08-08	1/2	1/2	19	18	13.0	11.0	11.0	47	27	95
010-08-12	1/2	3/4	19	20	13.0	11.0	16.0	53	36	160
010-12-08	3/4	1/2	21	18	19.0	16.0	11.0	51	36	160
010-12-12	3/4	3/4	21	20	19.0	16.0	16.0	53	36	170
010-12-16	3/4	1	21	22	19.0	16.0	22.0	56	41	230
010-16-12	1	3/4	23	20	25.0	22.0	16.0	56	41	230
010-16-16	1	1	23	22	25.0	22.0	22.0	58	41	235

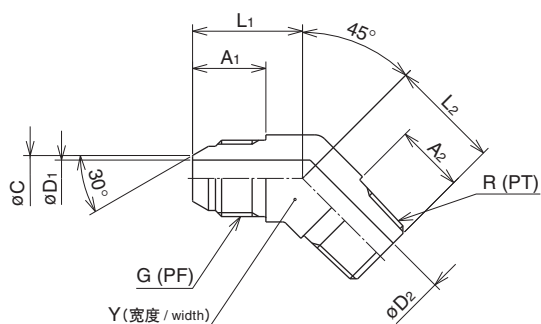
■材质: 钢

适用软管接头: SE, SE45, SE90, AE45, AE90

●Material: steel

Hose couplings: SE, SE45, SE90, AE45, AE90

045



产品编号 Part No.	G	R	A ₁	A ₂	C	D ₁	D ₂	L ₁	L ₂	Y (宽度 / width)	大概 质量 Weight (g)
045-02-02	1/8	1/8	12	10	4.5	3.0	3	18	18	14	20
045-02-04	1/8	1/4	12	13	4.5	3.0	5	20	20	17	35
045-04-02	1/4	1/8	16	14	7.0	5.5	3	22	18	17	35
045-04-04	1/4	1/4	14	13	7.5	5.0	5	22	20	17	40
045-04-06	1/4	3/8	16	18	7.0	5.5	8	22	24	19	60
045-06-04	3/8	1/4	16	13	10.0	8.0	5	24	20	19	60
045-06-06	3/8	3/8	16	15	10.0	8.0	8	24	24	19	65
045-06-08	3/8	1/2	17	22	10.0	8.0	11	24	27	24	90
045-08-06	1/2	3/8	20	18	13.0	11.0	8	27	24	24	90
045-08-08	1/2	1/2	19	18	13.0	11.0	11	27	27	24	100
045-08-12	1/2	3/4	20	23	13.0	11.0	16	27	32	30	160
045-12-08	3/4	1/2	21	22	19.0	16.0	11	32	27	30	170
045-12-12	3/4	3/4	21	23	19.0	16.0	16	32	32	30	190
045-12-16	3/4	1	21	26	19.0	16.0	22	32	34	36	265
045-16-12	1	3/4	23	23	25.0	22.0	16	35	32	36	265
045-16-16	1	1	23	22	25.0	22.0	22	35	34	36	295

■材质: 钢

适用软管接头: SE, SE45, SE90, AE45, AE90

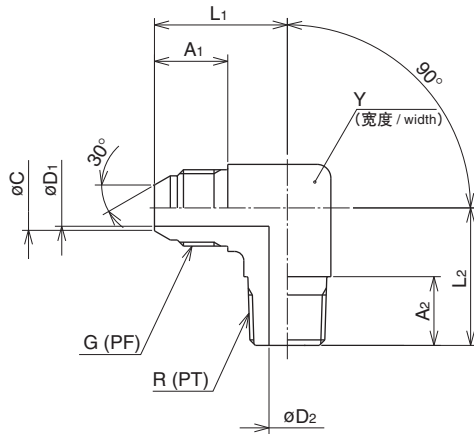
●Material: steel

Hose couplings: SE, SE45, SE90, AE45, AE90



【设备连接侧英制管用锥螺纹类型】(30°外锥) / Taper thread type to equipment side (with 30° male seat)

090



产品编号 Part No.	G	R	A ₁	A ₂	C	D ₁	D ₂	L ₁	L ₂	Y (宽度 / width)	大概 质量 Weight (g)
090-02-02	1/8	1/8	14	12	4.5	3.0	4	22	22	14	30
090-02-04	1/8	1/4	12	13	4.5	3.0	5	23	27	17	45
090-04-02	1/4	1/8	14	10	7.5	5.0	3	24	23	17	45
090-04-04	1/4	1/4	14	13	7.5	5.0	5	24	27	17	50
090-04-06	1/4	3/8	16	18	7.5	5.5	8	29	30	19	80
090-06-04	3/8	1/4	16	13	10.0	8.0	5	29	27	19	75
090-06-06	3/8	3/8	16	15	10.0	8.0	8	29	30	19	80
090-06-08	3/8	1/2	16	18	10.0	8.0	11	29	38	24	145
090-08-06	1/2	3/8	20	18	13.0	11.0	8	33	30	24	140
090-08-08	1/2	1/2	20	22	13.0	11.0	11	33	38	24	165
090-08-12	1/2	3/4	20	24	13.0	11.0	16	36	43	30	250
090-12-08	3/4	1/2	21	22	19.0	16.0	11	36	38	30	250
090-12-12	3/4	3/4	21	20	19.0	16.0	16	36	43	30	265
090-12-16	3/4	1	23	25	19.0	16.0	22	42	46	36	400
090-16-12	1	3/4	23	24	25.0	22.0	16	42	43	36	400
090-16-16	1	1	23	22	25.0	22.0	22	42	46	36	400

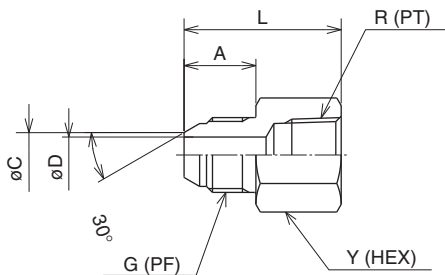
■材质: 钢

适用软管接头: SE, SE45, SE90, AE45, AE90

●Material: steel

Hose couplings: SE, SE45, SE90, AE45, AE90

030



产品编号 Part No.	G	R	A	C	最小 内径 Min.I.D. øD	L	Y (HEX)	大概 质量 Weight (g)
030-02-02	1/8	1/8	12	4.5	3.0	27	14	20
030-04-04	1/4	1/4	14	7.5	5.5	30	19	25
030-06-06	3/8	3/8	16	10.0	8.0	35	22	55
030-08-08	1/2	1/2	19	13.0	11.0	41	27	75
030-12-12	3/4	3/4	21	19.0	16.0	46	36	160
030-16-16	1	1	23	25.0	22.0	51	41	220

■材质: 钢

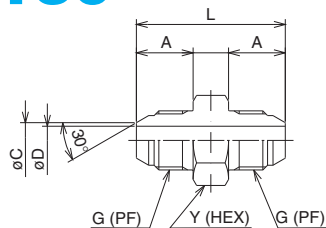
适用软管接头: SA, SE, SE45, SE90, AE45, AE90

●Material: steel

Hose couplings: SA, SE, SE45, SE90, AE45, AE90

【中间连接型】(30°外锥) / Interconnection type (with 30° male seat)

150



产品编号 Part No.	G	A	C	最小 内径 Min.I.D. øD	L	Y (HEX)	大概 质量 Weight (g)
150-02-02	1/8	12	4.5	3.0	31	14	15
150-04-04	1/4	14	7.5	5.5	36	19	50
150-06-06	3/8	16	10.0	8.0	42	22	75
150-08-08	1/2	19	13.0	11.0	48	27	85
150-12-12	3/4	21	19.0	16.0	54	36	160
150-16-16	1	23	25.0	22.0	59	41	230

■材质: 钢

适用软管接头: SE, SE45, SE90, AE45, AE90

●Material: steel

Hose couplings: SE, SE45, SE90, AE45, AE90

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成 / 工具、专用工具
Assembling
Machine, Jig, Tool

软管装配方法
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软管保护部件、特殊加工品 / Hose Guard Parts and Specially-Treated items

软管特殊加工品 / Specially-treated hoses

非导电（电气绝缘）加工 / Nonconductive (electric insulating) processing

订购产品
Made-to-order

树脂软管一般都具有优越的电气绝缘性能，但电气工程等所使用设备的液压软管等在使用上特别需要电气绝缘性能，所以有时也规定漏电流值。需要电气绝缘性能时，为防止水分从外部浸入而导致电气绝缘性能降低，也可以制造没有对保护层实施针刺加工（抽气用的孔加工）的软管。

Although plastic hoses are generally electrically insulated, sometimes leakage current is regulated for hydraulic hoses of electrical work equipment or for the hoses that are especially required to be insulated. When electrical insulation is required, we can make a hose cover with no pin-pricking processing (no pin hole processing for gas venting) in order to prevent the reduction of electrical insulation due to external water invasion.

具体请与本公司联系。
Contact us for details.

软管保护部件 / Hose guard parts

各软管保护部件的安装形状 / Hose guard parts attached

① 软管全长 Covering whole hose

G1、S1、E1、P1、C1



安装在软管整个长度上。
The whole hose is covered.

② 接头两端 Covering both ends

G2、S2、E2、P2、C2



安装在接头两端。应指定长度。
Both ends of the coupling are covered. Please specify the length.

③ 接头一端 Covering single end

G3、S3、E3、P3、C3



安装在接头一端。应指定长度及安装方向。
One end of the coupling is covered. Please specify the length and direction.

具体请参照P7“软管总成的订购方法”。
For more details, see "How to order hose assembly" on page 7.

防护弹簧 / Guard spring



特点 / Features

- 防止软管扭结，防止软管扁平
- 保固软管不受磨损、损伤
- It prevents kinks and flattening of the hose.
- It prevents abrasion and damage to the hose

规格 / Specification

材质：钢 / Material: steel

使用时，将密着状态的软管拉长2~2.5倍进行使用。
Expand the spring 2~2.5 times the original length when in use.

用手向接头管套旋拧，安装弹簧。
Attach the spring by screwing over the coupling socket with the hand.

也可以制造SUS304、SUS316。
The spring can also be made of SUS304 or SUS316, please consult us if you need them.

使用温度范围 / Working temperature range

以软管为准
Same as the working temperature range of the hose.

单品订购时 / For single part order

具体请与本公司联系。
Contact us.

标准长度：贴紧状态下，1.7m
Unit length: 1.7 m in contracted state

安装产品编号 / Part number

G1: 软管全长 / For whole hose

G2: 接头两端 / For both ends

G3: 接头一端 / For single end

G2、G3的情况下，应指定长度。
Specify the length for G2 and G3.

LF70系列用 / For LF70 series

产品编号 Part No.	适用软管尺寸 Hose size	弹簧外径 Spring O.D. (mm)	弹簧线径 Spring wire diameter (mm)
YM07-04-1700L-MCH	04	15.3	1.6
YM07-06-1700L-MCH	06	19.1	2.0

1000、1400、1500系列用 / For 1000, 1400, 1500 series

产品编号 Part No.	适用软管尺寸 Hose size	弹簧外径 Spring O.D. (mm)	弹簧线径 Spring wire diameter (mm)
YM10-03-1700L-MCH	03	12.9	1.4
YM10-04-1700L-MCH	04	15.8	1.6
YM10-06-1700L-MCH	06	19.6	2.0
YM10-08-1700L-MCH	08	23.0	2.0

1100系列用 / For 1100 series

产品编号 Part No.	适用软管尺寸 Hose size	弹簧外径 Spring O.D. (mm)	弹簧线径 Spring wire diameter (mm)
YM11-04-1700L-MCH	04	15.8	1.6
YM11-06-1700L-MCH	06	19.6	2.0
YM11-08-1700L-MCH	08	23.7	2.0

N3130、3130、3700、34PW (04、06、08) 系列用 / For N3130, 3130, 3700, 34PW (04,06,08) series

产品编号 Part No.	适用软管尺寸 Hose size	弹簧外径 Spring O.D. (mm)	弹簧线径 Spring wire diameter (mm)
YMS-02-1700L-MCH	02	11.6	1.4
YMS-03-1700L-MCH	03	15.4	1.6
YMS-04-1700L-MCH	04	18.2	2.0
YMS-05-1700L-MCH	05	19.6	2.0
YMS-06-1700L-MCH	06	21.2	2.0
YMS-08-1700L-MCH	08	25.1	2.0
YMS-12-1700L-MCH	12	32.7	2.6
YMS-16-1700L-MCH	16	39.1	2.6



N3000系列用 / For N3000 series

产品编号 Part No.	适用软管尺寸 Hose size	弹簧外径 Spring O.D. (mm)	弹簧线径 Spring wire diameter (mm)
YMS-04-1700L-MCH	04	18.2	2.0
YMSN-06-1700L-MCH	06	22.4	2.0
YMSN-08-1700L-MCH	08	26.2	2.0
YMSN-10-1700L-MCH	10	31.7	2.6

3R80、34PW (12、16) 系列用 / For 3R80, 34PW (12,16) series

产品编号 Part No.	适用软管尺寸 Hose size	弹簧外径 Spring O.D. (mm)	弹簧线径 Spring wire diameter (mm)
YMSH-03-1700L-MCH	03	17.3	2.0
YMSH-04-1700L-MCH	04	20.5	2.0
YMSH-06-1700L-MCH	06	23.7	2.0
YMSH-08-1700L-MCH	08	28.1	2.6
YMSH-12-1700L-MCH	12	35.6	2.9
YMSH-16-1700L-MCH	16	43.2	2.9

液压软管产品 Hydraulic Hose Clean Hose	液压配管用软管 Hydraulic Hose
	清洁配管用软管 Clean Hose
转换接头 Adaptor	
软管保护部件、特殊加工品 Hose Guard Part, Specially-Treated Part	
软管总成 / 工具、专用夹具、工具 Assembling Machine, Jig, Tool	
软管装配方法 Hose Assembling Method	
技术资料 Technical Document	
参考资料 Reference Document	

尼龙保护套 / Nylon spiral tube



特点 / Features

- 轻
- 保护软管不受磨损、损伤
- 可在配管后进行安装
- 用于捆扎软管
- 耐化学品腐蚀强
- Light
- It prevents abrasion and damage to the hose.
- It can be attached after piping.
- For binding hoses
- Excellent chemical durability

规格 / Specification

材 质: 尼龙
Material: nylon
颜 色: 黑色
Color: black

也可以利用聚乙烯材料进行制作。
具体请与本公司联系。
Polyethylene spiral tube is also available.
Contact us for details.

使用温度范围 / Working temperature range

尼 龙 / nylon: -40°C~+105°C
聚乙烯 / polyethylene: -40°C~+85°C

单品订购时 / For single part order

具体请与本公司联系。
Contact us.

标准长度: SPN-06-0 100m
Unit length SPN-11-0, SPN-18-0 50m

产品编号 Part No.	外径×内径 Outer×inner diameters (mm)	壁厚 Thickness (mm)	间距 Pitch (mm)	推荐软管 尺寸 Recommended hose size (mm)
SPN-06-0-100M	5.5×4	0.75	10	02~04
SPN-11-0-50M	10.6×9	0.8	12	03~08
SPN-18-0-50M	16.6×15	0.8	18	08~16

热收缩管 / Heat contraction tube



特点 / Features

- 作为外部绝缘体
- 保护软管不受磨损、损伤
- 用于捆扎软管
- As an insulator from outside.
- For preventing abrasion and damage to the hose.
- For binding multiple hoses.

规格 / Specification

材 质: EPR
Material: EPR
颜 色: 黑色
Color: black

使用温度范围 / Working temperature range

-50°C~+80°C

单品订购时 / For single part order

具体请与本公司联系。
Contact us.

标准长度: 5m
Unit length

产品编号 Part No.	加热收缩前 内径 Inner diameter before heat contraction (mm)	加热收缩后 内径 Inner diameter after heat contraction (mm)	加热收缩后 壁厚 Thickness after heat contraction (mm)
H990-NT200-5M	20	10.0	1
H990-NT250-5M	25	12.5	1
H990-NT300-5M	30	15.0	1
H990-NT400-5M	40	20.0	1

安装产品编号 / Part number

E1: 软管全长 / For whole hose
E2: 接头两端 / For both ends
E3: 接头一端 / For single end

E2、E3的情况下, 应指定长度。
Specify the length for E2 and E3.



乙烯基树脂管 / Vinyl pipe



特点 / Features

- 用于可能有碎石飞溅时
- For preventing any damage from outside such as stone hitting etc.

规格 / Specification

材 质: PVC

Material: vinyl chloride

安装加工最大长度: 02~06尺寸 2.5m
08~16尺寸 1.5m

Max attachment length: 02 to 06 size: 2.5M
08 to 16 size: 1.5M

使用温度范围 / Working temperature range

0°C~+40°C

单品订购时 / For single part order

具体请与本公司联系。
Contact us.

具体请与本公司联系。
Contact us for details.

安装产品编号 / Part number

P1: 软管全长 / For whole hose
P2: 接头两端 / For both ends
P3: 接头一端 / For single end

P2、P3的情况下, 应指定长度。
Specify the length for S2 and S3.

波纹管 / Corrugated pipe



特点 / Features

- 轻
- 柔软
- 保护软管不受磨损、损伤
- 可在配管后安装
- Light
- Flexible
- It prevents abrasion and damage to the hose.
- The attachment after hose installmet is also possible

规格 / Specification

材 质: 聚丙烯

Material: Polypropylene

颜 色: 黑色
Color: black

使用温度范围 / Working temperature range

-40°C~+95°C

单品订购时 / For single part order

具体请与本公司联系。
Contact us.

具体请与本公司联系。
Contact us for details.

安装产品编号 / Part number

C1: 软管全长 / For whole hose
C2: 接头两端 / For both ends
C3: 接头一端 / For single end

C2、C3的情况下, 应指定长度。
Specify the length for E2 and E3.

液压软管产品

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成 / 工具专用工具
Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

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Reference Document

软管装配机/工具、

软管装配工具 / Hose assembly tools

NITTA MOORE树脂软管及接头等是在严格的质量管理体制下生产的, 为了充分发挥其特性, 必须使用正确的方法进行装配。应确认装配机及其用具种类、适用压接上模、压接下模的使用方法, 正确进行软管装配。具体请参照附有实物的操作说明书。

Although Nitta Moore plastic hoses and couplings are produced under thorough quality control, they should be correctly assembled to maximize the full potential. Please read the instructions for the use of assembling machines, tools, pushers, and dies, and assemble the hose parts with care. For details, please see the product instruction manual.

装配工具 MARK 10 / Assembling tool Mark 10



特点 Features

- 重量轻, 易于搬运
- 不选择装配场所
- Light and easy to carry.
- Anywhere, anyplace, for assembling operation

规格 / Specification

重量: 4kg
尺寸: W118×L118×H330mm
材质: 铸铝

MARK 10的使用方法有以下3种。

- ① 固定在设备上。
- ② 水平放置在地板上。(使用后缓冲臂及棘轮扳手HEX32)
- ③ 使用支架并利用螺栓固定在操作台上。

Weight : 4kg
Size : W118 x L118 x H330mm

Material : aluminum die casting

Mark 10 can be used in the following three ways:

- ① Fixed on a vice
- ② Laid on the floor (with rear cushion arm and ratchet wrench HEX32)
- ③ Fixed on a work table by bolts

装配方法 Assembling method

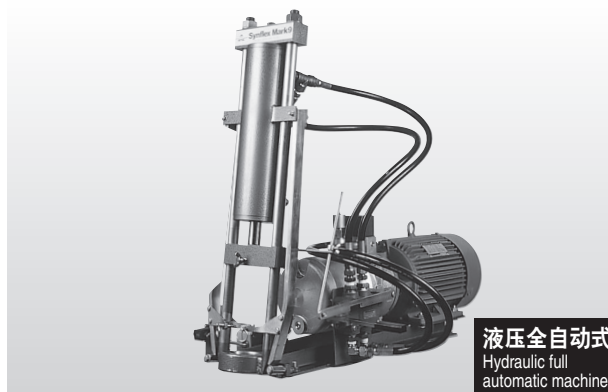
▶▶▶ P47



注意 Caution

由于是铸铝材质, 如滑落等受到强烈撞击时, 可能会导致本体破损, 因此, 操作时应充分注意。
Since it is aluminum die casting, strong impact incurred when dropped will cause damage to the body. Please handle with care.

装配机 MARK 9 / Assembling machine Mark 9



特点 Features

- 大幅度缩短装配作业时间
- 适用于大量装配软管时
- Significant reduction of the operation time
- Beneficial for assembling a large quantities

规格 / Specification

马达容量 : 200V 3相 2.2kw (3马力)
液 压 泵 : 最高压力 14.3Mpa
使用压力 11.2Mpa (已设定卸载压力)

使 用 油 : 相当于涡轮油VG46

液压汽缸 : 复动特殊汽缸 冲程 150mm

重 量 : 90kg

尺 寸 : W520×L820×H800mm

Motor power : 200V, three-phase, 2.2 kw (3 horse power)

Hydraulic pump : Max pressure 14.3 MPa

Working pressure 11.2 MPa (relief pressure already set)

Working oil : turbine oil VG46 or the equivalent

Hydraulic cylinder : double-acting special cylinder stroke 150 mm

Weight : 90kg

Size : W520 x L820 x H800mm

装配方法 Assembling method

▶▶▶ P49

专用夹具/工具

Hose Assembly
Machine Special
Jigs and Tools

装配用夹具/工具 / Hose assembly jigs and tools

是使用MARK9、MARK10等装配工具对软管进行装配等时使用的夹具和工具。
The followings are assembly jigs and tools for Mark 9 and 10.

压接上模 / Pusher

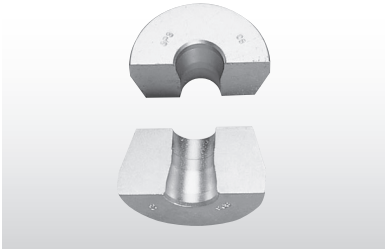


是在装配时对软管接头部分固定时使用的夹具。

This is a jig to fix the sleeve of the hose coupling when assembling.

适用产品编号的选择
List of suitable part numbers
▶▶▶ P52

压接下模 / Die



是在装配时对软管接头管套压扣用的夹具。

This is a jig to swage the socket of the hose coupling when assembling.

适用产品编号的选择
List of suitable part numbers
▶▶▶ P52

手持软管剪刀 / Hand hose cutter



产品编号: HC03

可以剪切02~08尺寸的软管。

Part number: HC03

This can cut hoses from sizes 02 to 08.

软管切割机 / Hose cutter



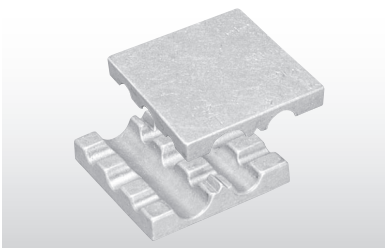
产品编号: HC01

可切割所有尺寸的软管。底座上有固定螺栓孔, 可以进行固定。

Part number: HC01

This can cut all hose sizes. There are bolt holes in the base to fix the cutter.

夹持压接下模 (钳模) / Holding die (vice block)



产品编号: HD01 (02、03、04、05、06、08用)
HD02 (08、12、16用)

用于固定软管。

Part number: HDD1 (for 03, 04, 05, 06, 08)
HDD12 (for 08, 12, 16)

This is used to fix hoses.

应在HD01的3/16部分使用02尺寸。

装配润滑油 / Assembly lubricant



产品编号: 钢制接头装配用

...PG3740 (日本金属加工润滑油) (油色: 绿)

不锈钢制接头装配用

...CFH68 (日石三菱) (油色: 黄)

容量: 500cc

使用于将软管插入软管接头时、及利用装配工具加固时。

Part number: For assembling steel connectors: PG3740 (Nihon Kohsakyu) (lubricant color: green)
For assembling stainless connectors: CFH68 (Nisseki Mitsubishi) (lubricant color: yellow)

Content: 500 ml

This is used when you insert a hose into a hose connector or swage connectors with assembling tools.



注意
Caution

没有涂抹本公司指定的润滑油时, 可能会导致镀层脱落及管套翘曲等接头破损。

If the recommended lubricant is not applied, coating damage and/or socket buckling may occur.

液压软管产品

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成/工具专用费、工具
Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

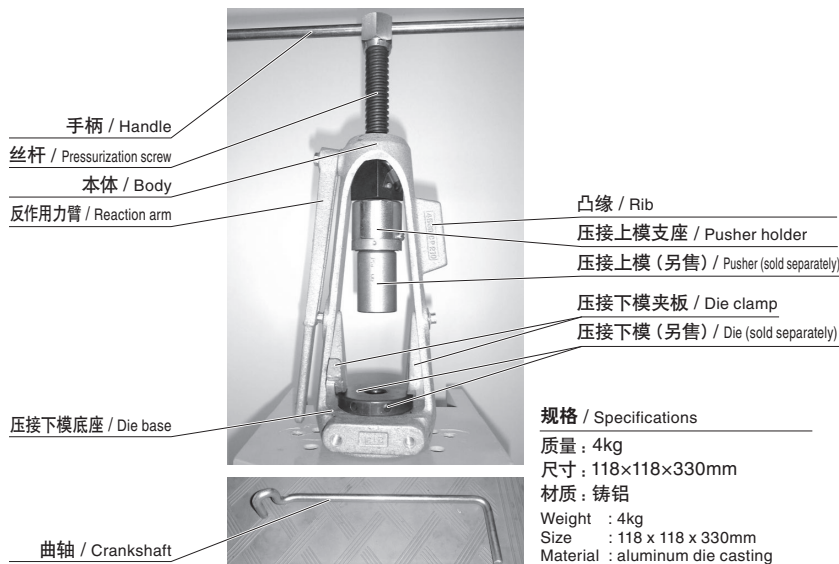
技术资料
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参考资料
Reference Document

软管装配方法 / Hose Assembling Methods

Swage接头 (使用MARK10时) / Swage coupling (with Mark 10)

构成及规格 / Setup and specifications



MARK10的设置方法有以下3种:
There are three ways to set Mark 10 as follows:

1 固定在虎钳上 (推荐) Fixed on vice (recommended)

使用虎钳夹持住凸缘部进行固定。
(本书中是利用固定在虎钳上的方法进行标记的。)
Fix the rib of Mark 10 with a vice.
(In this document, we follow this way of setting.)

2 平放在地板上 Laid on floor

以反作用力臂为支架, 平放在地板上。
Lay Mark 10 with the support of the reaction arm.

3 固定在操作台上 Fixed on the working base

使用备用的固定支架, 利用螺栓对支架及操作台进行固定。
Use the optional fixing bracket and fix the bracket onto the working base with bolts.

装配方法 / Assembling method

1 准备 Preparation



准备符合使用条件的软管、swage接头、压力器、夹模、软管切割机、夹持模、润滑油^{*}、塑料锤、刻度尺、白笔。
Prepare appropriate hose, swage coupling, pusher, die, hose cutter, holding die, lubricant^{*}, plastic hammer, scale, and white pen.

※润滑油...
钢接头 : 日本金属加工润滑油PG3740
不锈钢接头 : 日石三菱CFH68
*lubricant...
Steel connector : Nihon Kosakuyu PG3740
Stainless connector : Nisseki Mitsubishi CFH68

注意 没有涂抹本公司指定的润滑油时, 会导致镀层脱落及管套翘曲等接头破损。
If the recommended lubricant is not applied, coating damage and/or socket buckling may occur

注意 购买时, 每套带有50cc/瓶的润滑油 (钢接头用)。
A 50cc bottle of lubricant (for steel coupling) comes with a set.

2 软管切割 Hose cutting



根据软管总成长度来决定软管切割长度, 使用专用软管切割机进行切割, 使切口成直角。
Determine the cutting length of the hose based on the hose assembling length and cut the hose squarely using the special hose cutter.

警告 请勿接触切割机的刀刃部位。
Do not touch the blade of the cutter.

注意 切口倾斜时, 会导致软管脱落及漏液。
The slanted cut section could cause pullout of the hose and leakage.

注意 刀刃切割质量差, 则不能正确进行装配。应更换切割机。
If the blade is blunt, correct assembly is not possible. Change the hose cutter in this case.

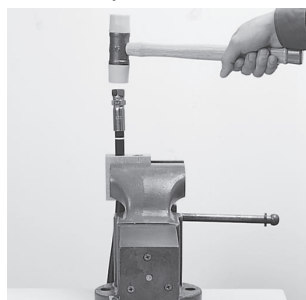
3 软管插入长度的标记 Marking the insertion length of the hose



利用刻度尺测量插入接头的软管长度, 使用白笔将该位置标注在软管上。
Measure the insertion length of the hose with a scale and mark the hose at the insertion length with the white pen.

注意 推荐以2mm粗的线条标记插入长度, 以便能在接头紧固后进行确认。
It is recommended to draw a marking line with a width of about 2 mm in order to check it after swaging.

4 接头的插入准备 Preparation for the hose insertion



在软管内面涂抹清洁的润滑油, 将接头插入至软管插入长度的标记位置。难以插入时, 使用夹持模固定在虎钳上, 并使用塑料锤。
Apply the lubricant to the inner surface of the hose and insert the coupling to the marked position. When it is difficult, use the holding die to fix the hose and hit the coupling with the plastic hammer.

注意 如没有插入至指定长度, 会导致软管脱落及漏液、接头破损。
If the insertion is incomplete, pullout of the hose, leakage, or damage may occur.



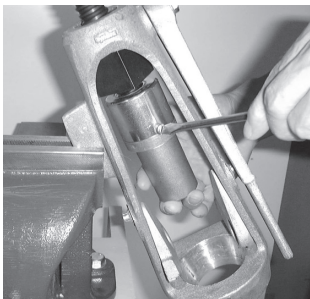
5 MARK10的固定 Fixing Mark 10



将MARK10的凸缘部固定在虎钳上之后，提升丝杆至最上部。
Fix the rib of Mark 10 on the vice and pull out the pressurization screw to the longest position. The die clamp should be open as shown in the figure.

注意 如果没有插入至指定长度，会导致软管脱落及漏液、接头破损。
Caution
If you release your grip, the pusher holder will come down by its own weight. Take care not to trap your fingers.

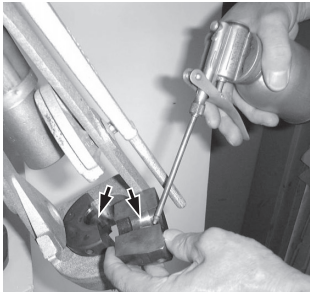
6 压接上模的安装 Attachment of pusher



将压接上模安装在压接上模支架上。(用手) 旋转压接上模支架螺丝至压接上模自由转动。此时应确认压接上模是否转动。
Attach the pusher to the pusher holder. Fix the pusher by turning the screw of the pusher holder with the hand so that the pusher can freely rotate. Check if the pusher is really able to rotate.

注意 压接上模使用错误，会导致软管脱落及漏液、接头破损。
Caution
The wrong choice of pusher will cause pullout of the hose, leakage, or damage.

7 润滑油的涂抹 Application of lubricant



在压接下模内面涂抹润滑油。
Apply lubricant to the inner surface of the die.

※润滑油…
钢接头：日本金属加工润滑剂PG3740
不锈钢接头：日石三菱CFH68

*lubricant...
Steel connector : Nihon Kosakuyu PG3740
Stainless connector : Nisseki Mitsubishi CFH68

注意 没有涂抹本公司指定的润滑油时，会导致镀层脱落及管套翘曲等接头破损。
Caution
If the recommended lubricant is not applied, coating damage and/or socket buckling may occur.

8 压接下模的固定(单端) Fixing a mate of the die



将压接下模的单端固定在锥形压接下模承窝上。
Fix a mate of the die onto the tapered base.

注意 使用错误的夹模时，会导致软管脱落及漏液、接头破损。
Caution
The wrong choice of pusher will cause pullout of the hose, leakage, or damage.

9 插入压接上模 Insertion to pusher



将插入软管的接头插入压接上模内。
Insert the coupling, to which the hose is inserted, into the pusher.

10 压接下模的固定(另一端) Fixing the other mate of the die



将压接下模的另一端放入压接下模承窝，转动压接下模支架并锁定压接下模，然后加以固定。
Put the other mate of the die on the base. Turn the die clamp to lock the die and fix it firmly.

注意 切勿将手放入夹模。
Caution
Do not put your hand in the die.

11 压接下模与接头的对齐 Adjustment of positions of die and coupling



在压接下模承窝的下方位置，左右持软管，尽量笔直地将接头按压向压接上模，同时右手顺时针转动加压丝杆，降下压接上模。此时，在降下压接上模的同时进行位置对齐，使压接下模孔与接头端部一致。
Hold the hose beneath the die base with your left hand. Pushing the coupling toward the pusher, turn the pressurization screw clockwise with your right hand to send the pusher down. As the pusher comes down, adjust the positions of the die hole and the coupling edge so they coincide.

注意 如模孔与接头端部不一致，则会导致管套卡住(损伤)等接头破损。
Caution
Discrepancy of the positions of the die hole and the coupling edge might cause damage to the coupling, such as socket defect.

Swage接头 (使用MARK10时) / Swage coupling (with Mark 10)

12 旋转手柄 Rotating handle



注意：不要过紧！
Do not over-tighten the screw.

安装加压丝杆的手柄，双手顺时针旋转，降下压接上模。紧固至压接上模与压接下模承窝接触。
Attach the handle to the pressurization screw and rotate the handle clockwise to send the pusher down. Continue until the pusher touches the die.

- 注意** 没有下降到压接上模与压接下模接触，则紧固不足，会导致软管脱落及漏液。
Caution If you stop before the pusher touches the die, the swaging is insufficient and pullout of the hose or leakage may occur.
- 注意** 压接上模与压接下模接触，切勿强硬加力。会导致设备发生故障。
Caution If you do not stop rotating the handle even after the pusher reaches the die, the tool may crash.
- 注意** 切勿急速释放手柄。手柄反弹会很危险。
Caution Do not take your hands off the handle abruptly. The handle will return in a dangerous fashion.
- 注意** 操作时应小心注意，以防夹伤手。
Caution For safe operation, do not get your hands trapped.

13 软管总成的拆卸 Detaching hose assembly



拆卸掉压接下模支座，逆时针转动加压丝杆，提升压接上模，从压接下模中拆卸掉软管总成。难以拆卸时，应使用塑料锤轻轻敲打。
Un-install the die clamp, rotate the pressurization screw anti-clockwise to send the pusher up, and remove the hose assembly from the die. If it is difficult to remove the assembly, gently tap the die with the plastic hammer.

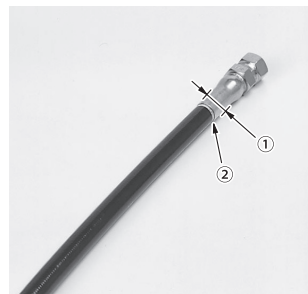
注意 应小心压接下模滑落。
Caution Pay strict attention to prevent the die from falling.

14 软管装配结束 Completion of hose assembling



注意 应除去压接下模内面的杂物、灰尘，薄涂一层油进行存放，以免生锈。
Caution Before putting the die in storage, remove dust from the inner surface and thinly grease it to prevent rust.

15 软管装配结束后的完成确认 Check of hose assembly

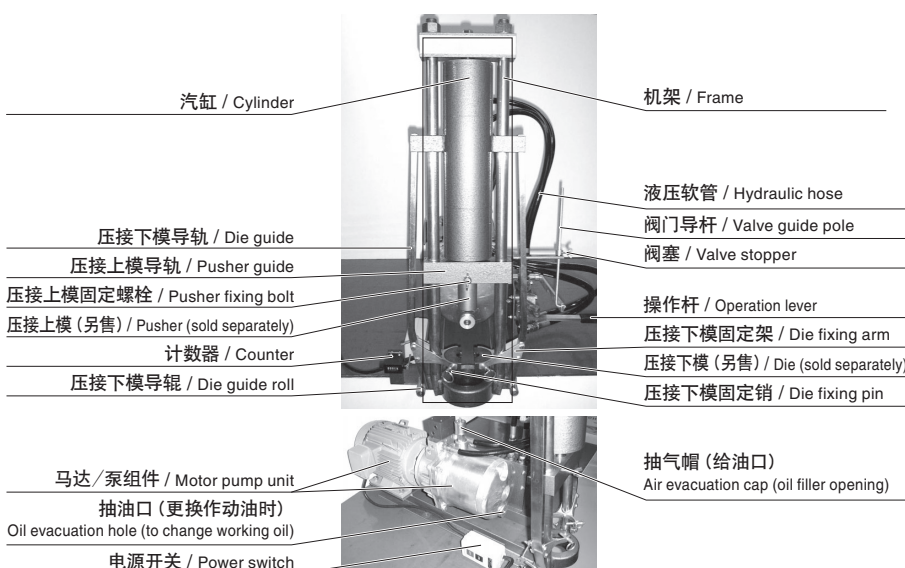


- ① 紧固直径的检查 (参照P.52)
 - ② 检查软管插入长度的标记位置
 - ③ 接头外观检查
(有无破损，压接下模痕迹是否吻合)
 - ④ 软管外观检查
(有无折断、损伤)
- 通过上述确认，发现异常状况时，则不能使用该软管总成。
(Check for any kink or cut.)
- (1) Check the swage diameter (see p.52).
 - (2) Check the mark position of the hose insertion length.
 - (3) Check the appearance of the coupling.
(Check for any damage or misalignment of the track of the die.)
 - (4) Check the appearance of the hose.
(Check for any kink or cut.)
- Should problems occur, do not use the hose assembly.

注意 运转方面的注意事项、各部分的微调、维护检查等，请参照附有实物的操作说明书。
For details such as maintenance, please read the instruction manual that comes with the product.

Swage接头 (使用MARK9时) / Swage coupling (with Mark 9)

构成及规格 / Setup and specifications



规格 / Specifications

质量: 90kg
尺寸: 520×820×800mm
电动马达: 3相 200V 2.2kw
油压泵: 最高压力14.3MPa
使用压力11.2MPa
(已设定泄压压力)

液压汽缸: 复动特殊汽缸
冲程150mm

使用油: 涡轮油 相当于VG46

Weight: 90kg
Size: 520x820x800mm
Electric motor: three phase 200V 2.2kw
Hydraulic pump: Max. pressure 14.3 MPa
Working pressure 11.2 MPa
(Relief pressure already set)

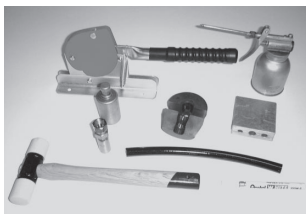
Hydraulic cylinder: Double-acting special cylinder stroke 150 mm

Working oil: turbine oil VG46 or equivalent

注意 设置方法及电气配线等，具体请参照附有实物的操作说明书。
For details such as setting-up and electric wiring, please read the instruction manual that comes with the product.

装配方法 / Assembling method

1 准备 Preparation



注意
Caution
如果没有涂本公司指定的润滑油时，会导致镀层脱落及管套翘曲等接头破损。
If the recommended lubricant is not applied, coating damage and/or socket buckling may occur.

准备符合使用条件的软管、swage接头、压接上模、压接下模、软管切割机、夹持模、润滑油*、塑料锤、刻度尺、白笔。
Prepare appropriate hose, swage coupling, pusher, die, hose cutter, holding die, lubricant*, plastic hammer, scale, and white pen.

※润滑油…

钢接头：日本金属加工润滑剂PG3740
不锈钢接头：日石三菱CFH68

*lubricant...

Steel connector：Nihon Kosakuyu PG3740
Stainless connector：Nisseki Mitsubishi CFH68

购买时，每套带有50cc/瓶的润滑油（钢接头用）。
A 50cc bottle of lubricant (for steel coupling) comes with a set.

2 软管切割 Hose cutting



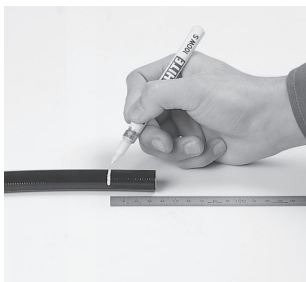
根据软管总长度来决定软管切割长度，使用专用软管切割机进行切割，使切口成直角。
Determine the cutting length of the hose based on the hose assembling length and cut the hose squarely using the special hose cutter.

警告
Warning
请勿接触切割机的刀刃部位。
Do not touch the blade of the cutter.

注意
Caution
切口倾斜时，会导致软管脱落及漏液。
The slanted cut section could cause pullout of the hose and leakage.

注意
Caution
刀刃切割质量差，则不能正确进行装配。应更换切割机。
If the blade is blunt, correct assembly is not possible. Change the hose cutter in this case.

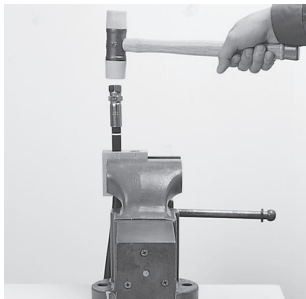
3 软管插入长度的标记 Marking the insertion length of the hose



利用刻度尺测量插入接头的软管长度，使用白笔将该位置标注在软管上。
Measure the insertion length of the hose with a scale and mark the hose at the insertion length with the white pen.

推荐以2mm粗的线条标记插入长度，以便在接头紧固后进行确认。
It is recommended to draw a marking line with a width of about 2 mm in order to check it after swaging.

4 接头的插入准备 Preparation for the hose insertion



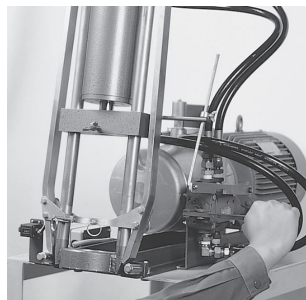
在软管内面涂抹清洁的润滑油，将接头插入至软管插入长度的标记位置。难以插入时，使用夹持模固定在虎钳上，并使用塑料锤。

Apply the lubricant to the inner surface of the hose and insert the coupling to the marked position. When it is difficult, use the holding die to fix the hose and hit the coupling with the plastic hammer.

注意
Caution
如没有插入至指定长度，会导致软管脱落及漏液、接头破损。

If the insertion is incomplete, pullout of the hose, leakage, or damage may occur.

5 压接上模支架的提升 Lifting pusher holder



向内推压操作杆，提升压接上模支架。
Push the operation lever to the back to lift up the pusher holder.

警告
Warning
在没有安装压接下模、压接上模的状态下，请不要降下压接上模支架。可能会导致机器破损或人员受伤。
Do not let the pusher holder down before the die pusher is attached.

6 压接上模的安装 Attachment of pusher

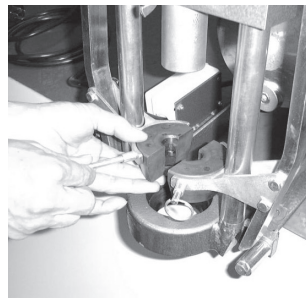


将压接上模安装在压接上模支架上。用手旋转压接上模支架螺丝至压接上模自由转动。固定压接上模。
Attach the pusher to the pusher holder. Fix the pusher by turning the screw of the pusher holder so that the pusher can freely rotate.

警告
Warning
务必在切断电源后进行操作。
Only operate with the power off.

注意
Caution
压接上模错误安装，会导致软管脱落及漏液、接头破损。
The wrong choice of pusher will cause pullout of the hose, leakage, or damage.

7 压接下模的固定 Fixing die

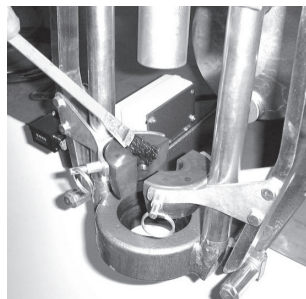


使用固定销将压接下模安装在压接下模支架上。
Attach the die onto the die fixing arm using the fixing pin.

警告
Warning
务必在切断电源后进行操作。
Only operate with the power off.

注意
Caution
使用错误的压接下模时，会导致软管脱落及漏液、接头破损。
The wrong choice of pusher will cause pullout of the hose, leakage, or damage.

8 润滑油的涂抹 Application of lubricant



在压接下模内面涂抹润滑油。
Apply lubricant to the inner surface of the die.

※润滑油…

钢接头：日本金属加工润滑剂PG3740
不锈钢接头：日石三菱CFH68

*lubricant...

Steel connector：Nihon Kosakuyu PG3740
Stainless connector：Nisseki Mitsubishi CFH68

注意
Caution
如果没有涂本公司指定的润滑油时，会导致镀层脱落及管套翘曲等接头破损。
If the recommended lubricant is not applied, coating damage and/or socket buckling may occur.

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part, Specialty-Treated Part

软管装配方法
Hose Assembling Method

软管装配方法
Hose Assembling Method

技术资料
Technical Document

参考资料
Reference Document

Swage接头 (使用MARK9时) / Swage coupling (with Mark 9)

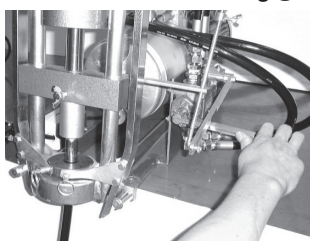
9 插入压接上模 Insertion to pusher



将插入软管的接头插入压接上模内。
Insert the coupling, to which the hose is inserted, into the pusher.

警告 应使用可以用手充分持握长度的软管。
Warning Use a hose of sufficient length to hold the hose.

10 软管装配① Hose assembling①



在压接下模承窝的下方位置, 左手持软管, 尽量笔直地将接头按压向压接上模, 同时右手将操作杆拉至近前, 降下压接上模。
此时, 在降下压接上模的同时进行位置对齐, 使压接下模孔与接头端部一致。

Hold the hose beneath the die base with your left hand. Pushing the connector toward the pusher, pull the operation lever with your right hand to send the pusher down.
As the pusher comes down, adjust the positions of the die hole and the connector edge so they coincide.

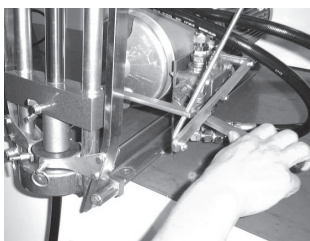
危险 如在压接下模承窝位置持握软管, 有被压接下模夹伤手的危险。
Danger It is dangerous to hold the hose near the die base. The die could trap your hand.

危险 运转过程中, 切勿接触活动部件。
Danger Never touch the moving parts when operating the tool.

注意 如模孔与接头端部不一致, 则会导致管套卡住 (损伤) 等接头破损。
Caution Discrepancy of the positions of the die hole and the connector edge might cause damage to the coupling, such as socket defect.

注意 压接下模闭合时, 注意不要使压接下模夹住软管。
Caution When the die closes, check that the hose is not stuck in the die.

11 软管装配② Hose assembling②



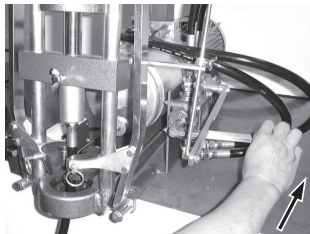
拉近操作杆, 直至压接上模接触到压接下模。

Pull the operation lever until the pusher touches the die.

注意 没有下降到压接上模与压接下模接触, 则紧固不足, 会导致软管脱落及漏液。

If you stop before the pusher touches the die, the swaging is insufficient and pullout of the hose or leakage may occur.

12 软管装配③ Hose assembling③

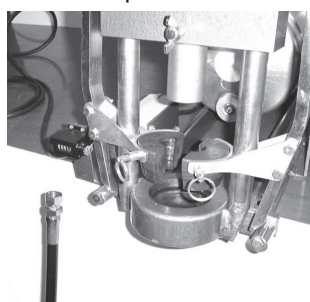


右手向内推操作杆, 提升压接上模。压接上模上升, 则压接下模自动打开, 取出总成软管。

(汽缸的上升位置根据阀塞自由变化)
Push the operation lever to the back with your right hand to send the pusher up. When the pusher goes up, the die opens by itself and the hose assembly can be removed.
(The valve stopper adjusts the upper position of the cylinder.)

注意 应小心压接下模滑落。
Caution Pay strict attention to prevent the die from falling.

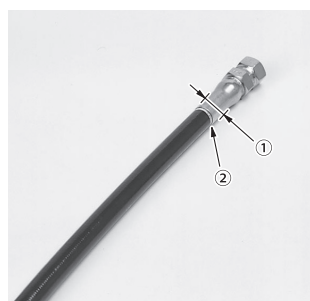
13 软管装配结束 Completion of hose assembling



注意 应除去压接下模内面的杂物、灰尘, 薄涂一层油进行存放, 以免生锈。

Before putting the die in storage, remove dust from the inner surface and thinly grease it to prevent rust.

14 软管装配结束后的完成确认 Check of hose assembly



① 紧固直径的检查 (参照P.52)

② 检查软管插入长度的标记位置

③ 接头外观检查

(有无破损, 压接下模痕迹是否吻合)

④ 软管外观检查

(有无折断、损伤)

通过上述确认, 发现异常状况时, 则不能使用该软管总成。

(1) Check the swage diameter (see p.52).

(2) Check the mark position of the hose insertion length.

(3) Check the appearance of the coupling. (Check for any damage or misalignment of the track of the die.)

(4) Check the appearance of the hose. (Check for any kink or cut.)

Should problems occur, do not use the hose assembly.

运转方面的注意事项、各部分的微调、维护检查等, 请参照附有实物的操作说明书。
For details such as maintenance, please read the instruction manual that comes with the product.

Swage接头 (MARK9、MARK10共用资料) / Swage coupling (applicable to both Mark 10 and Mark 9)

【Swage接头 / Swage coupling】

※关于没有登载的产品编号, 请与本公司联系。

For any couplings which are not introduced in the catalogue, please contact us.

A 接头扣除长度 / Coupling deduction length

软管的切割长度为软管接头总成长度减去接头扣除长度※后的长度。

The cutting length of a hose is obtained by the hose-coupling assembly length minus the coupling deduction length*.

※接头扣除长度……

图中A (SA接头) +B (SE/SF接头)

Coupling deduction length: A (SA coupling) and B (SE, SF coupling) in the figure.

例如: 3130-08×1000L

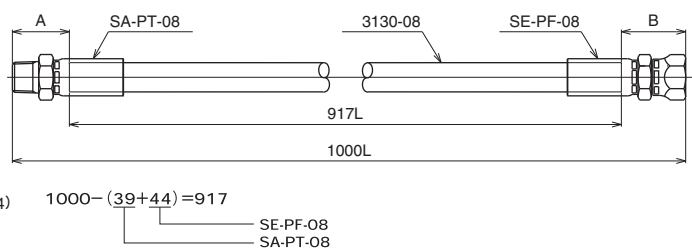
SA-PT-08×SE-PF-08

进行上述软管装配时, 以1000- (39+44)

=917切割软管。

Ex. 3130-08×1000L SA-PT-08×SE-PF-08

If you wish to make a hose assembly using the above, cut the hose at the length of 1000 - (39 + 44) = 917.



B 压接上模、压接下模的选择 / Selection of pusher die

压接上模及压接下模上刻印有产品编号。

用错产品编号, 可能会导致漏油及软管脱落, 或不能装配等, 务必要进行确认。

Part numbers are punched on pushers and dies.

The wrong pusher or die will cause oil leakage or pullout of the hose, or disable hose assembling, so always check the number.

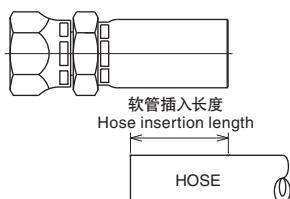
C 软管插入长度 / Hose insertion length

软管插入长度应以下表为参考。

如软管插入长度不足, 则会导致漏油及软管脱落, 因此应在对软管下表插入长度做出标记后, 插入至该位置。

Hose insertion lengths are presented in the list below.

A shortage of hose insertion length will cause oil leakage or pullout of the hose. So mark the hose at the hose insertion length given in the list and insert the coupling into the hose to meet the marked position.



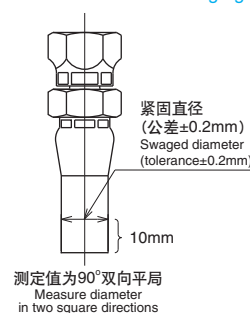
D 压扣后的管套外径 / Socket outer diameter after swaging

压扣后的管套外径尺寸测定位置为距管套前端约10mm的部分。定期对压扣完成的尺寸进行确认。

另外, 如压扣完成的尺寸不合格, 则会导致漏油及软管脱落, 应与本公司联系。

The socket outer diameter after swaging is measured at the point of about 10 mm from the socket end.

Please regularly check the finished size. If the size is not appropriate, consult us to avoid possible oil leakage or pullout of the hose.



【钢制接头 / Steel coupling】

软管系列 Hose series	软管尺寸 Hose size	Swage接头产品编号 Swage coupling part No.	A	B	软管插入长度 Hose insertion length (mm)	D	
			接头扣除长度 Coupling deduction length (mm)	适用压接上模产品编号 Pusher part No.		使用压接下模产品编号 Die part No.	压扣后管套外径 Socket outer diameter after swagin (mm) ±0.2
LF70	04	SA-PT-04-14	32.0	PSA-04	SP14-04-07	19	12.4※ ¹
		SE-PF-04-14	31.0	PSE-14-04			
		SF-PF-04-14					
	06	SA-PT-06-14	33.0	PSA-06	SP14-06-07	22	15.6※ ¹
SE-PF-06-14	32.0	PSE-14-06					
SF-PF-06-14							
1000・1100・1400	04	SA-PT-04-14	32.0	PSA-04	SP14-04	19	12.7
		SE-PF-04-14	31.0	PSE-14-04			
		SF-PF-04-14					
	06	SA-PT-06-14	33.0	PSA-06	SP14-06	22	15.9
SE-PF-06-14	32.0	PSE-14-06					
SF-PF-06-14							
1000	08	SA-PT-08-14	37.0	PSA-08	SP14-08	24	19.5
SE-PF-08-14		37.0	PSE-14-08				
SF-PF-08-14							
1100	08	SA-PT-08-14	37.0	PSA-08	SP10-08	24	19.9
		SE-PF-08-14	37.0	PSE-14-08			
		SF-PF-08-14					
1500	03	SA-PT-03-14	30.0	PSA-04	SP14-03	14.5	10.5
		SE-PF-03-14		PSE-14-04			
		SF-PF-03-14	29.0				
3130・34PW	02	SSA-PT-02	26.0	PSA-02	SP3-02-001	12	9.2
		SSE-PF-02		PSE-02-001			
		SSF-PF-02	30.0				
N3130・3700 3130・34PW	03	SA-PT-03	32.0	PSA-04	SP3-03	26	12.4
		SE-PF-03	33.0	PSE-03			
		SF-PF-03					
	04	SA-PT-04	33.0	PSA-04	SP3-04	28	14.4
		SE-PF-04	36.0	PSE-04			
		SF-PF-04					
	05	SA-PT-05	35.0	PSA-06	SP3-05	28	16.0
		SE-PF-05	38.0	PSE-05			
		SF-PF-05					
	06	SA-PT-06	35.0	PSA-06	SP3-06	33	17.6
		SE-PF-06	39.0	PSE-06			
		SF-PF-06					
	08	SA-PT-08	39.0	PSA-08	SP3-08	37	21.5
		SE-PF-08		PSE-08			
		SF-PF-08	44.0				

※1...LF70压扣后的套筒外径公差为±0.1mm。

*1 The tolerance of the socket outer diameter after swaging for LF70 is ±0.1mm.

软管系列 Hose series	软管尺寸 Hose size	Swage接头产品编号 Swage coupling part No.	A	B		C	D
			接头扣除长度 Coupling deduction length (mm)	适用压接上模产品编号 Pusher part No.	使用压接下模产品编号 Die part No.	软管插入长度 Hose insertion length (mm)	压扣后管套外径 Socket outer diameter after swaging (mm) ±0.2
N3130	12	SA-PT-12	43.0	PSA-12	SP3-12	40	28.1
		SE-PF-12	47.0	PSE-12			
		SF-PF-12					
	16	SA-PT-16	48.0	PSA-16	SP3-16	52	34.5
		SE-PF-16	53.0	PSE-16			
		SF-PF-16					
N3000	04	SA-PT-04	33.0	PSA-04	SPN-04	28	14.6
		SE-PF-04	36.0	PSE-04			
		SF-PF-04					
	06	SA-PT-06-N30	35.0	PSA-06	SPN-06	33	18.9
		SE-PF-06-N30	39.0	PSE-06			
		SF-PF-06-N30					
	08	SA-PT-08-N30	39.0	PSA-08	SPN-08	37	22.7
		SE-PF-08-N30	44.0	PSE-08			
		SF-PF-08-N30					
3R80	03	SA-PT-03-3R	35.0	PSA-04	SPH-03	23	13.5
		SE-PF-03-3R	36.0	PSE-03			
		SF-PF-03-3R					
	04	SA-PT-04-3R	33.0	PSA-04	SPH-04	28	17.2
		SE-PF-04-3R	36.0	PSE-04			
		SF-PF-04-3R					
	06	SA-PT-06-N30	35.0	PSA-06	SPH-06	33	20.1
		SE-PF-06-N30	39.0	PSE-16			
		SF-PF-06-N30					
	08	SA-PT-08-N30	39.0	PSA-08	SPH-08	37	23.0
		SE-PF-08-N30	44.0	PSE-18			
		SF-PF-08-N30					
3R80 • 34PW	12	SA-PT-12-3R	43.0	PSA-12	SPH-12	40	29.5
		SE-PF-12-3R	47.0	PSE-12			
		SF-PF-12-3R					
	16	SA-PT-16-3R	48.0	PSA-16	SPH-16	52	37.8
		SE-PF-16-3R	53.0	PSE-16			
		SF-PF-16-3R					



液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

液压软管产品

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成/工具、专用工具
Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

技术资料
Technical Document

参考资料
Reference Document

技术资料 / Technical Document

软管的选择方法 / How to select a hose

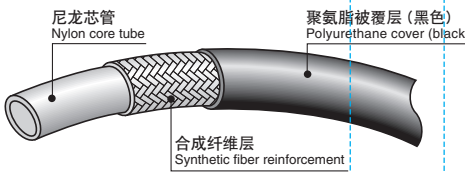
目录手册的正确看法 / How to read the catalog

N3130

特点
Features

- 构造柔软且不易折断
- 适于JIS K 6375类型1
适于SAE100R7
- Flexible and tough
- JIS K 6375 type 1 certified,
SAE100R7 certified

可以制造电气绝缘性能优越的非导电软管。
具体请与本公司联系。
Nonconductive hose with high electrical insulation is also available.



尼龙芯管
Nylon core tube

合成纤维层
Synthetic fiber reinforcement

聚氨酯被覆层 (黑色)
Polyurethane cover (black)

产品编号 Part No.	尺寸 / Size			最高 使用压力 Max. working press. (MPa)	最大 冲击压力 Max. impact press. (MPa)	最小 破坏压力 Min. destruction press. (MPa)	最小 弯曲半径 Min. bending radius (mm)	大概 质量 Weight (g/m)	适用 接头类型 Suitable coupling type
	标称尺寸 Size No.	内径 / I.D. (in.) (mm)	外径 O.D. (mm)						
※ N3130-03	03	3/16 4.8	10.4	21.0	26.3	84.0	20	65	Swage
※ N3130-04	04	1/4 6.4	12.7	19.5	24.4	77.0	40	105	
※ N3130-05	05	5/16 8.1	14.7	17.5	21.9	70.0	45	130	
※ N3130-06	06	3/8 9.8	16.4	16.0	20.0	63.0	50	150	
※ N3130-08	08	1/2 12.8	20.3	14.0	17.5	56.0	75	210	
※ N3130-12	12	3/4 19.2	26.6	9.0	11.3	35.0	130	290	
※ N3130-16	16	1 25.7	33.4	7.0	8.8	28.0	165	400	

■ 适用流体: 矿物性一般液压油
■ 使用温度范围: -40~+100°C
■ 一箱的包装单位: 03, 04, 05, 06, 08尺寸→100m
12, 16尺寸→50m
■ Appropriate fluid: mineral general operating oil
■ Working temperature range: -40 to +100°C
■ Length in a package: 100 m for sizes 03, 04, 05, 06, 08 and 50 m for sizes 12, 16

1 尺寸 (内径) / Size (inner diameter)

为保证适当的流量, 需要选择恰当的软管尺寸 (内径)。

一般以下列流速范围为标准。

软管及接头的内径过小, 则压力损失增大, 油温上升, 导致故障。

另外, 压力损失根据流体粘度、流量、回路长度等而发生变化。

流速、内径、流量的关系请参考P.58[计算图表]。

It is necessary to select the correct hose size (inner diameter) to obtain the necessary flow volume.

In general, the flow speed range shown below is the standard.

Too small an inner diameter of hose and coupling leads to an increase of flow speed, which causes problems such as pressure loss and increase of oil temperature. Pressure loss may vary with fluid viscosity, flow volume, and circuit length.

To see how flow speed, inner diameter, and flow volume, relate to each other, refer to [nomograph] on P.58

泵吸入及返回线 / Pump intake and return line	0.5~1.5m/sec
加压线 / Pressurization line	2.0~8.0m/sec

2 压力 / Pressure

液压回路中流体压力在实际应用中多种多样, 有伴随负压的压力, 也有静态压力加冲击压力的压力等等。

软管的最高使用压力 (常用压力) 显示为可连续使用的最高压力, 一般对应泄压设定压力进行选择。

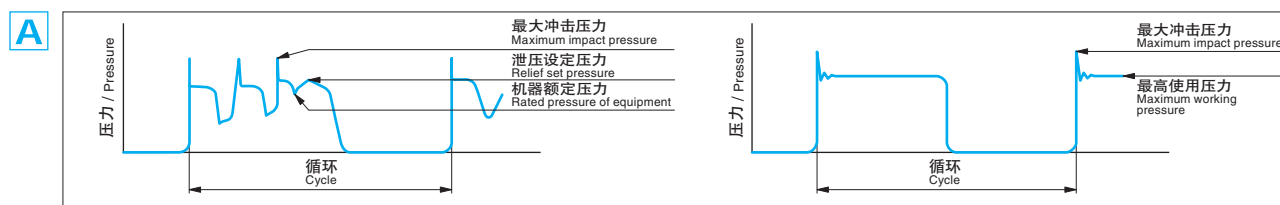
但是, 软管上被施于伴随一般回路开闭的冲击压力, 对软管的使用寿命产生很大的影响, 因此, 冲击压力的最大值超过规定值时, 需要选择与其相对应的软管。同时, 针对负压来说, 树脂一般比橡胶更具有刚性, 负压小则没有问题, 但负压大时, 应与本公司联系。

Fluid pressure in hydraulic circuits varies, e.g. negative pressure, static fluid, or impact pressure. The maximum working pressure (regular pressure) of the hose represents the maximum pressure for continuous use, and is generally set according to the relief set pressure.

However, since the impact pressure due to the opening and closing of circuits has serious influence on hose life, it is important to select suitable hoses so that the maximum impact pressure will not exceed the standard. Although plastic is usually more rigid than rubber against negative pressure and can withstand small negative pressure, contact us if large negative pressure is expected.

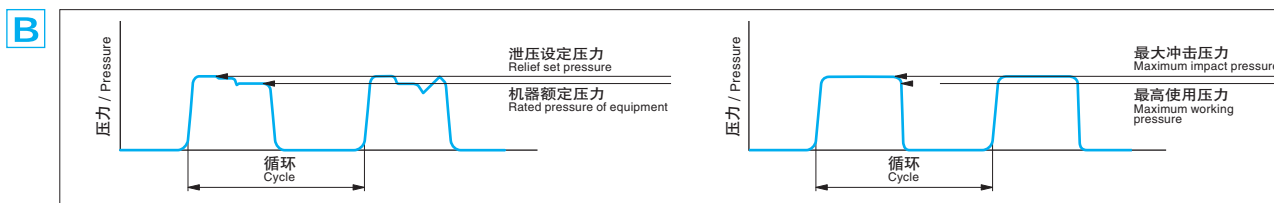
最大冲击压力在 [A] 的情况下, 为最高使用压力的1.5倍。在 [B] 的情况下, 请参照目录值。

The maximum impact pressure is about 1.5 times the maximum working pressure of case [A]. Refer to the catalog for case [B].



※试验例为液压冲击试验机上所使用的压力波形。特别是 [B], 以SAE、ISO为标准, 被JIS所规定。

* The test examples are the pressure waveforms used for the hydraulic impact test machine. In particular [B] is provided for JIS, pursuant to SAE and ISO.



※试验例为液压冲击试验机上所使用的压力波形。特别是 **B**，以SAE、ISO为标准，被JIS所规定。

The test examples are the pressure waveforms used for the hydraulic impact test machine. In particular [B] is provided for JIS, pursuant to SAE and ISO.

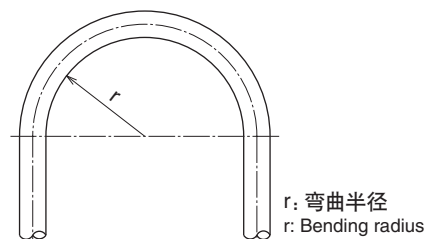
3 弯曲半径 / Bending radius

软管多是弯曲使用，但软管的挠性也有限度。如以小于规定的最小弯曲半径折弯使用的话，就会导致软管磨损，甚至折断（纠结）等故障，因此需要加以注意。

应以规定的最小半径以上的半径进行使用。

The hose can be bent, but there is always a limit. If the hose is bent at a radius smaller than the minimum bending radius, deformation or kink of the hose may occur and cause problems.

Please bend the hose at a radius larger than the minimum bending radius.



4 接头 / Coupling

接头是由与机器的连接部、六角部及与软管的组装部构成，如包括转换接头，则种类非常多。

另外，在输入装置等方面，螺纹的种类及密封面角度与JIS不同，所以有时不能与另一侧顺利连接。因此，对另一侧装置端口的螺纹种类、密封方法、密封面形状及角度，应在仔细确认的基础上进行选择。

The coupling consists of a connection to equipment, a hexagonal part, and a connection to the hose. There are various types of couplings, including adaptors. Sometimes connections to the imported equipment do not work well because their thread and sheet shape differs from the JIS standard. Therefore, check the thread type, sealing method and sheet surface shape and angle of equipment to be connected before selecting couplings.

5 电气绝缘性能（非导电软管） / Electrical insulation (nonconductive hose)

树脂软管一般都具有优越的电气绝缘性能，但电气工程等所使用设备的液压软管等在使用上特别需要电气绝缘性能，有时也规定漏电流值，所以，请与本公司联系。另外，需要电气绝缘性能时，为防止水分从外部浸入而导致电气绝缘性能降低，也可以制造没有对保护层实施针刺加工（抽气用的孔加工）的软管。

Plastic hoses in general have high electrical insulation. When electrical insulation is particularly necessary, e.g. for the hydraulic hose of electrical work equipment, leakage current is sometimes determined. Contact us in this case. When electrical insulation is required, a nonconductive hose without pin pricking (no pin hole for gas venting) is also available to prevent the reduction of electrical insulation due to external water invasion.

6 流体的种类 / Fluid type

软管的芯管是由耐油性强的树脂制作而成的，所以在矿物性液压油、水成系列液压油的使用方面没有特别的妨碍，但合成系列液压油及难燃性特殊油中也有对软管产生影响的。

另外，接头及转换接头的标准一般是对钢材进行加工并实施镀锌，如使用可能会给材质及表面处理带来影响的特殊流体，则应事前与本公司联系。

Since the hose core tube is made of high oil resistant plastic, it will not be damaged by mineral or aqueous hydraulic oil. However, some types of synthetic hydraulic oil and nonflammable special oil could affect the hose. Typical couplings and adaptors are made of zinc galvanized steel. Contact us if using a special fluid that may damage the material or the surface processing.

✎ 使用水、乙二醇系列液压油时，应选择不锈钢接头。或者也可以制造黑色氧化处理品（限于螺纹接管、订购产品）。
Stainless couplings or black colored couplings (made-to-order) are also available if using water or glycol hydraulic oil.

7 使用温度（流体温度、环境气体温度） / Working temperature (fluid temperature, atmospheric temperature)

如在超过规定的高温下使用软管，会加快树脂的老化，影响软管的使用寿命。

另外，在低于规定的低温下使用，则硬度增加，易于折断。

同时，在受到辐射热等环境气体温度的影响时，应在利用隔热材料保护的状态下使用。

Using a hose at a temperature higher than the specification may cause thermal degradation and could shorten the hose life. Also using at a temperature lower than the specification could make the hose harder and frangible. When effects of atmospheric temperature, e.g. radiational heat, are expected, use a heat insulator to protect the hose.

软管长度的取决方法 / How to determine the hose length

固定配管的情况下 / Fixed piping

在加压时软管会发生±3%的长度变化，所说应给与软管适当的松弛度，以免施加拉伸应力。

另外，根据软管的不同规格分别规定了最小弯曲半径，因此应遵守其标准，确保直线部分（软管外径部分的长度），不要从软管端部急剧弯曲。

Since the length of the hose may change by ±3% when pressurized, give some extra length to the hose to prevent shrinkage stress. Also since the minimum bending radius is determined for the specification of each hose, follow the standard and keep the hose straight (for about the same length as the outer diameter of the hose) near the coupling edge to prevent sharp bending.

■直线使用软管时的计算公式 / Formula when using the hose in a straight line

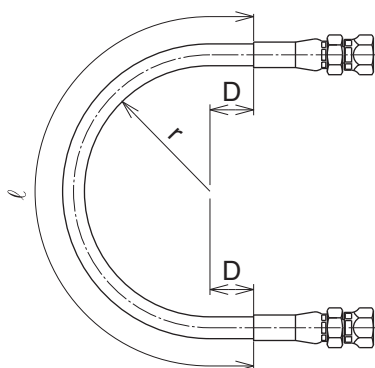


$$L = Y \times 1.03$$

L : 软管总成的长度 / Length of hose assembly

Y : 使用直线距离 / Working straight length

■U字型使用软管时的计算公式 / Formula when using the hose in a U-line



$$l = \pi (r + D/2) + 2D$$

l : 软管的自由长度 / Free length of hose

π : 圆周率 / Ludolphian number

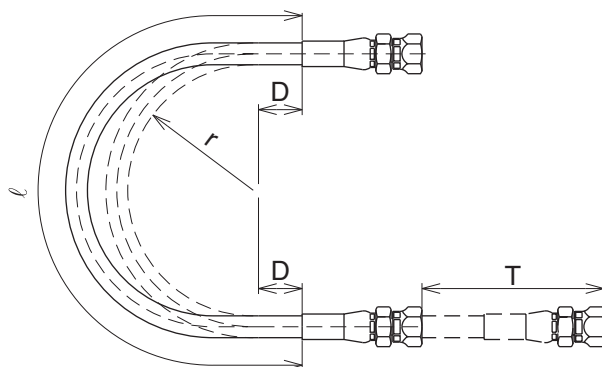
r : 软管的最小弯曲半径 / Minimum bending radius of hose

D : 软管的最大外径 / Maximum outer diameter of hose

可移动配管的情况下 / Movable piping

软管可移动时，应注意软管的动作并设定长度，以免在接头处发生急剧弯曲及纠结。

For movable hose, determine the hose length with attention paid to the hose movement to prevent sharp bending or kink near the coupling edge.



$$l = \pi (r + D/2) + 2D + T$$

l : 软管的自由长度 / Free length of hose

π : 圆周率 / Ludolphian number

r : 软管的最小弯曲半径 / Minimum bending radius of hose

D : 软管的最大外径 / Maximum outer diameter of hose

T : 动程 / Stroke

对应流量、流速的软管尺寸选择方法 / How to select the hose size for given flow volume and velocity

计算图表的说明 / Explanation of nomograph

下图所示的图表用于选择适于装置的正确软管尺寸。请不要使流速偏离数据栏所示范围以外。

如流速高于图表推荐值, 则会导致压力损失增大、温度上升等故障。软管内流淌流体时, 其“流量”、“流速”及“软管”断面面积存在如下关系:

$$\text{软管断面面积 (cm}^2\text{)} = \frac{\text{流量 (}\ell/\text{min)}}{\text{流速 (m/sec)} \times 60} \times 10$$

因此, 在这三个值中, 决定了某两个值, 则另外一个值也自然就固定了。

将其关系表示在图表中的就是计算图表。

The figure below is to help in the selection of the most suitable choice of hose for equipment. Keep the flow velocity in the column. If the flow velocity exceeds the recommended value, problems such as increased pressure loss and overheating could occur. Generally, when fluid flows in a hose, the “flow volume”, “flow velocity”, and “hose cross section” are linked as shown in the formula below.

$$\text{Hose cross section (cm}^2\text{)} = \frac{\text{Flow volume (}\ell/\text{min)}}{\text{Flow velocity (m/sec)} \times 60} \times 10$$

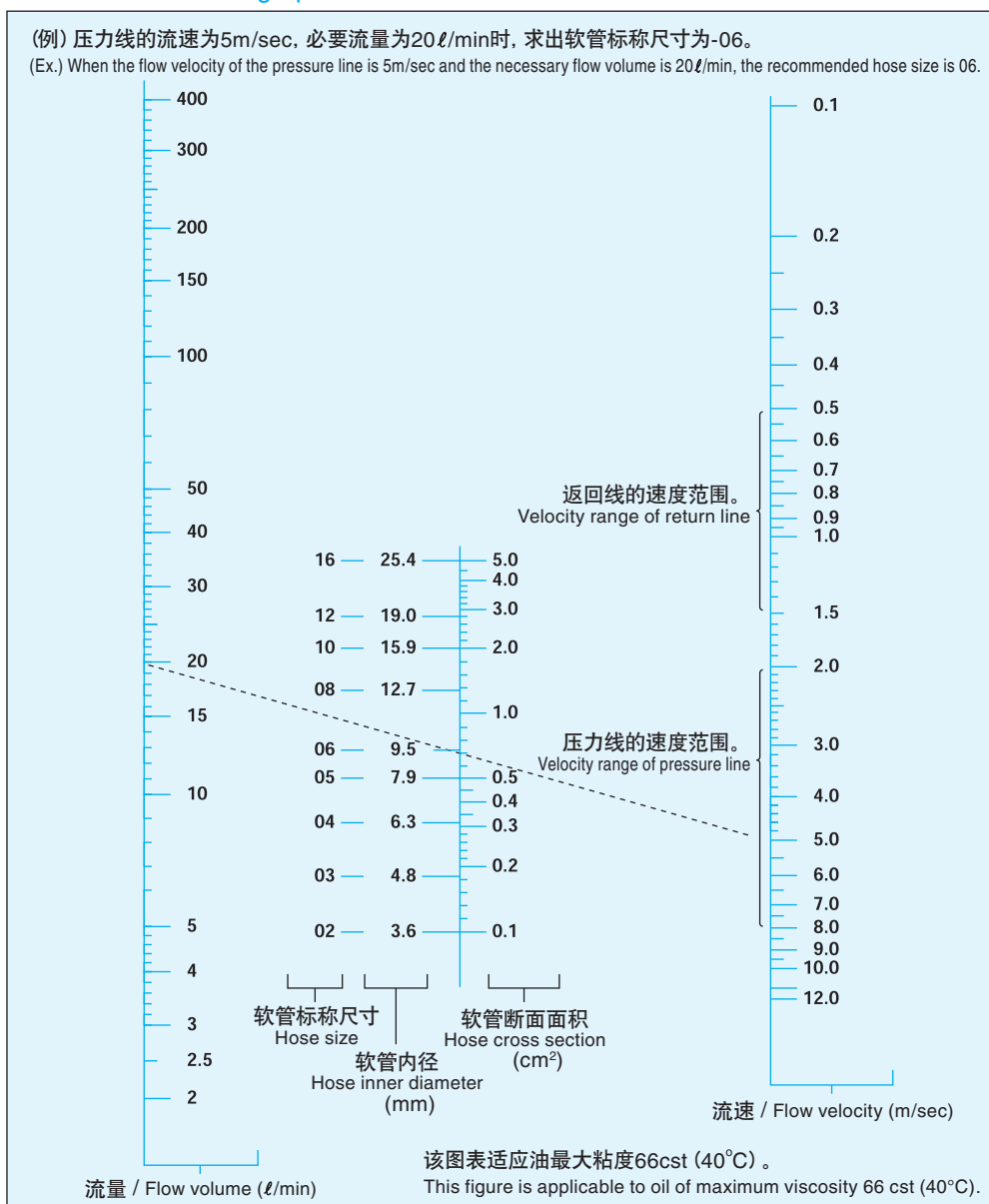
Therefore, if any two of the three are given, the rest is determined by this formula.

图表的使用方法 / How to use the graph

- 1) 在左端线图上确定压力线的吐出流量。
- 2) 在右端线图上确定推荐范围内的适当流速。
- 3) 用直线连接以上确定的两点, 由中央线图及交点找出适当的软管内径。

- (1) Select the discharge flow volume of the pressure line in the leftmost line graph.
- (2) Select the flow velocity in the recommended range of the rightmost line graph.
- (3) Draw a line connecting both points obtained above and find the correct hose inner diameter at the point where the line crosses the central graph.

计算图表 / Nomograph



液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part, Specially-Treated Part

软管总成/工具、专用工具
Assembling Machine, Jig, Tool

软管装配方法
Hose Assembling Method

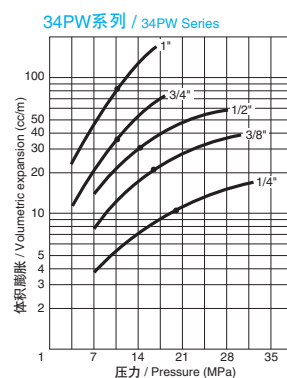
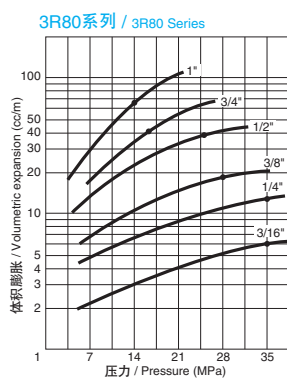
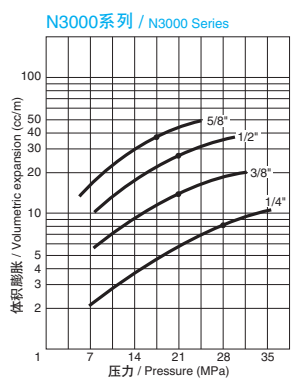
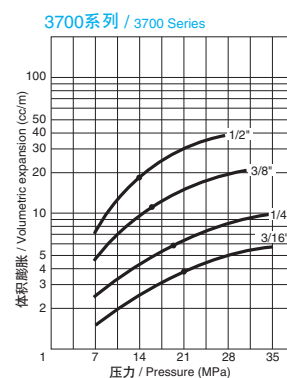
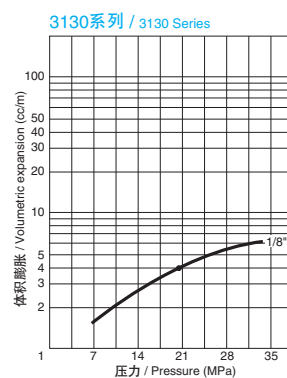
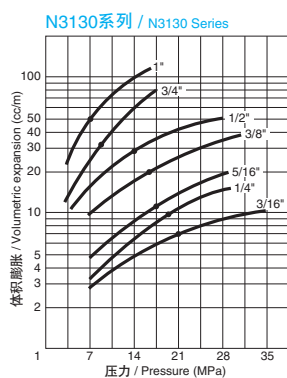
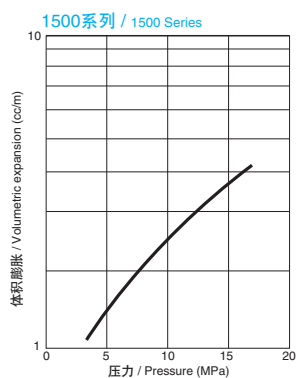
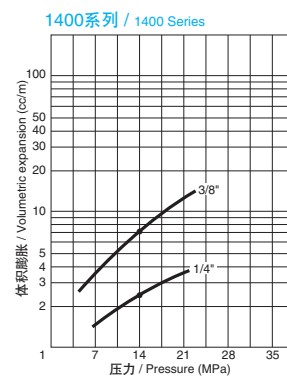
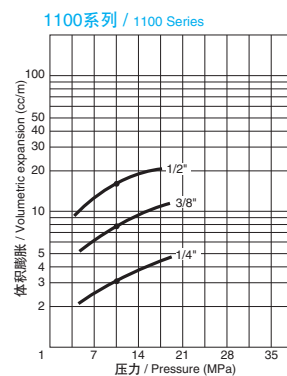
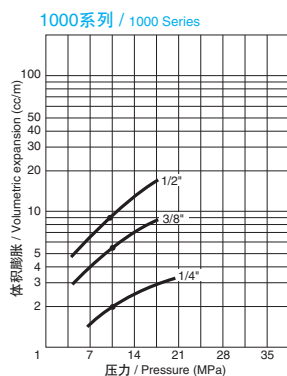
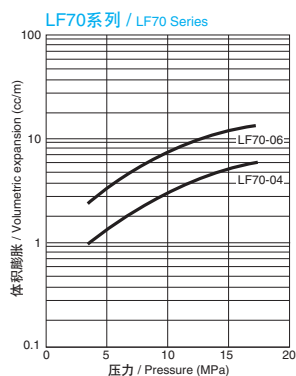
技术资料
Technical Document

参考资料
Reference Document

软管体积膨胀图表一览 / Graphs for cubical expansion of hoses

图表视图 / How to use the graph

- 1) ●...表示最高使用压力。 1) represents the maximum working pressure.
- 2) 软管尺寸全部表示内径。 2) The hose size indicates inner diameter.



软管接头、转换接头紧固扭矩 / Tightening torque of hose couplings and adapters

【管用平行螺纹 / Parallel pipe thread】

螺纹尺寸 / Thread size	1/8	1/4	3/8	1/2	3/4	1
G(PF)螺纹 / G (PF) Thread	15N・m	25N・m	34N・m	64N・m	132N・m	196N・m

【管用锥形螺纹 / Taper pipe thread】

螺纹尺寸 / Thread size	1/8	1/4	3/8	1/2	3/4	1
R(PT)螺纹 / R (PT) Thread	10~15N・m	25~30N・m	45~50N・m	60~70N・m	120~140N・m	140~160N・m

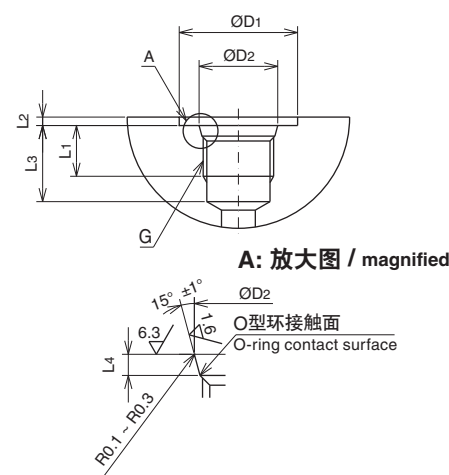
【通用细螺纹 / Unified fine thread】

螺纹尺寸 / Thread size	7/16-20	1/2-20	9/16-18	3/4-16	7/8-14
UNF螺纹 / UNF Thread	25N・m	30N・m	40N・m	50N・m	60N・m

【夹具用无机械接头美国标准直管螺纹接头 / American Standard straight pipe threads for free-fitting mechanical joints for fixtures】

螺纹尺寸 / Thread size	1/4	3/8
NPSM螺纹 / NPSM Thread	25N・m	34N・m
M螺纹 / M Thread	25N・m	34N・m

【JIS规格O型环端口的形状及尺寸 / Shape and size of JIS-standard O-ring port】



螺纹名称 Thread name G	D1±0.3	D1 ^{+0.1} ₀	L1 (最小 / Min.)	L2 (最大 / Max.)	L3 (最小 / Min.)	L4 ^{+0.40} ₀	适用O型环的编号 Suitable O-ring number
1/8	18	11.6	10	1.0	15	2.0	P8
1/4	24	15.6	12	1.5	18	2.5	P11
3/8	28	18.6	12	2.0	18	2.5	P14
1/2	34	22.6	16	2.5	24	2.5	P18
3/4	45	29.8	17	2.5	25	3.5	P24
1	51	35.8	21	2.5	30	3.5	P29

- O形的O型环接触面上不得出现轴方向的伤痕或螺旋状的工具痕迹。
- D1螺钉孔面必须与螺纹轴线垂直或平行。
- There must be no axial scratch or spiral tool mark on the O-shaped O-ring contact surface.
- D1 scraped surface must be squarely or flat to the thread axis.

软管接头(带座)与转换接头的连接方法 / Connection method of hose coupling (with sheet) and adaptor

1 连接 / Coupling

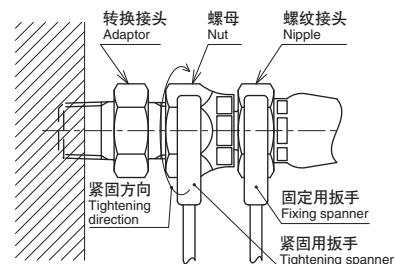
用手紧固，直到座表面之间切实接触。
Tighten with your hand until the two sheets perfectly contact each other.

注意 应将转替接头及接头的轴对齐，以免座表面之间单端接触。另外，紧固后，确认接头与转替接头稳固接触。
Caution Adjust the axes of the coupling and adaptor to prevent non-uniform contact of sheets. After tightening with your hand, please check for any unwanted space between the coupling and adaptor.

2 固定 / Fixing

使用扳手固定螺纹接头，以免座表面转动，应使用转矩扳手紧固螺母。(参照图)
转矩扳手的转动速度高时，座表面产生的面压小，会导致漏泄，因此，应再次缓缓紧固，直至发出“啪”的声音。

Fix the adaptor and nipple with a spanner so that the sheets cannot rotate together, and tighten the nut with a torque wrench (see the figure). When the rotation speed of the torque wrench is high, the surface pressure at the sheet surface is low, which might cause leakage. In this case, slowly tighten again until you feel a click.



注意 此时的紧固转矩应按照“管用平行螺纹”的推荐紧固转矩一览表数值进行紧固。
另外，请不要在接触状态下转动座表面，不然会导致座表面损伤、漏泄。
Caution The tightening torque should follow the figures in the “parallel pipe thread” table on the previous page. If the sheets are rotated while contacting each other, it will damage the sheet surface and cause leakage.

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螺纹规格 / Technical standard for threads

种 类 / Types

螺纹名称 / Thread symbol	螺纹种类 / Thread type	相关规格 / Related standard
G (PF)	管用平行螺纹 / Parallel pipe thread	JIS B0202
R (PT)	管用锥形螺纹 / Taper pipe thread	JIS B0203
UNC	通用粗螺纹 / Unified coarse thread	JIS B0206
UNF	通用细螺纹 / Unified fine thread	JIS B0208
M	公制粗螺纹 / Metric coarse thread	JIS B0205
M	公制细螺纹 / Metric fine thread	JIS B0207
NPT	美国标准通用锥管螺纹 / American Standard taper pipe threads for general use	ANSI B1 • 20 • 1
NPS	美国标准直螺纹 / American Standard straight threads	ANSI B1 • 20 • 1
NPTF	干式密封美国标准锥管螺纹 / Dryseal American Standard taper pipe threads	ANSI B1 • 20 • 3
NPSM	夹具用美国标准直管螺纹接头 (无需安装无机械接头) / American Standard straight pipe threads for free-fitting mechanical joints for fixtures	ANSI B1 • 20 • 1

等 级 / Class

螺纹种类 Thread type	螺纹种类 Parallel male pipe thread		通用螺纹 Unified thread						公制螺纹 / Metric thread	
									母螺纹 Female thread	公螺纹 Male thread
等级 / Class	A级 / Class A	B级 / Class B	3A级 / Class 3A	3B级 / Class 3B	2A级 / Class 2A	2B级 / Class 2B	1A级 / Class 1A	1B级 / Class 1B	4H~6H	6~8g
表示方法 / Notation	A	B	3A	3B	2A	2B	1A	1B	4H~6H	6~8g

表示例 / Expressional example

G 3/4-B

等级 / Class

尺寸 / Size

螺纹标识 / Thread symbol

9/16-18 UNF-2B

等级 / Class

螺纹标识 / Thread symbol

螺纹牙数 / Number of screw threads

螺纹尺寸 / Thread size

M 18×1.5-2

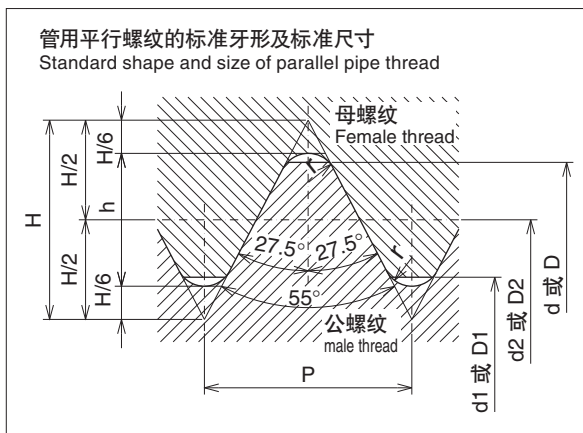
等级 / Class

间距 / Pitch

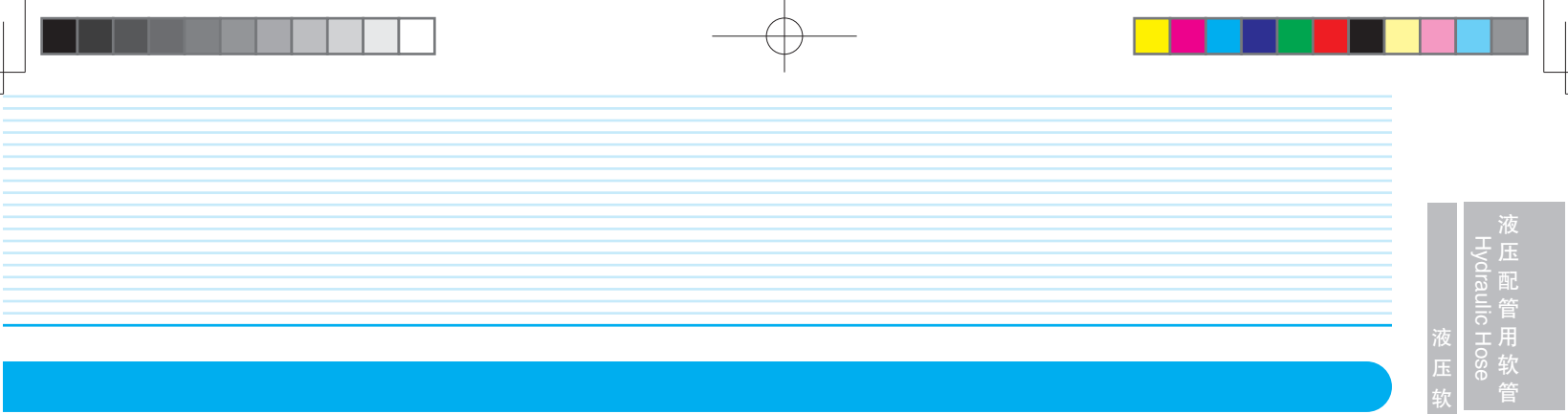
螺纹尺寸 / Thread size

螺纹标识 / Thread symbol

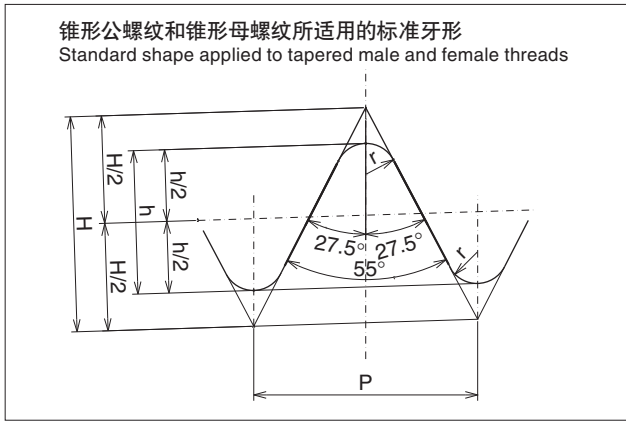
【管用平行螺纹 / Parallel pipe thread】【JIS B0202】



Thread name	Numbe of screw threads (per 25.4mm) n	Pitch P (reference)	Height of thread h	Height of thread h	Male thread		
					Outer diameter d	Pitch diameter d ₂	Root diameter d ₁
					Female thread		
					Root diameter D	Pitch diameter D ₂	Inner diameter D ₁
G1/8	28	0.9071	0.581	0.12	9.728	9.147	8.566
G1/4	19	1.3368	0.856	0.18	13.157	12.301	11.445
G3/8	19	1.3368	0.856	0.18	16.662	15.806	14.950
G1/2	14	1.8143	1.162	0.25	20.955	19.793	18.631
G3/4	14	1.8143	1.162	0.25	26.441	25.279	24.117
G1	11	2.3091	1.479	0.32	33.249	31.770	30.291

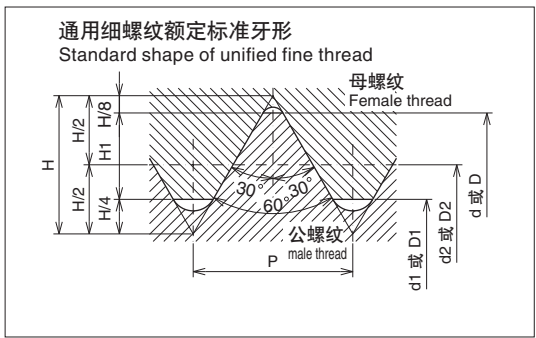


【管用锥形螺纹 / Taper pipe threads】 【JIS B0203】



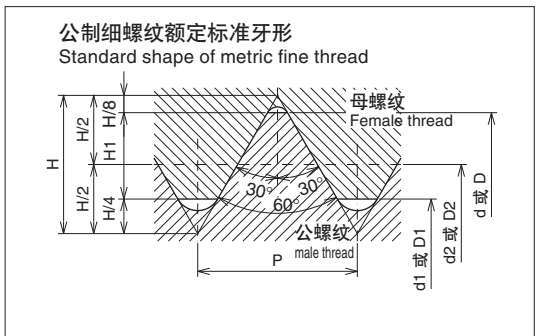
Thread name (PT)	Thread				Standard diameter			Position of standard diameter			Tolerance of D ₁ , D ₂ and D ₁ of parallel female thread	Length of useful thread				Size of carbon-steel pipe (reference)	
	Number of screw threads (per 25.4mm) n	Pitch P (reference)	Height of thread h	Curvature radius r or r ²	Male thread			Male thread		Female thread							
					Outer diameter d	Pitch diameter d ₂	Root diameter d ₁	From pipe edge		At pipe edge							
								Standard length	Tolerance along axis	Tolerance along axis							
												Female thread					
												Root diameter D	Pitch diameter D ₂	Inner diameter D ₁			
From position of standard diameter to smaller diameter part	From position of standard diameter to larger diameter part	Taper female thread	Parallel male thread	Taper female thread, parallel female thread	From pipe or pipe coupling (reference)	From standard diameter, pipe, pipe coupling edge	Outer diameter	Thickness									
R1/8	28	0.9701	0.581	0.12	9.728	9.147	8.566	3.97	0.91	1.13	0.071	2.5	6.2	7.4	4.4	10.5	2.0
R1/4	19	1.3368	0.856	0.18	13.157	12.301	11.445	6.01	1.34	1.67	0.104	3.7	9.4	11.0	6.7	13.8	2.3
R3/8	19	1.3368	0.856	0.18	16.662	15.806	14.950	6.35	1.34	1.67	0.104	3.7	9.7	11.4	7.0	17.3	2.3
R1/2	14	1.8143	1.162	0.25	20.955	19.793	18.631	8.16	1.81	2.27	0.142	5.0	12.7	15.0	9.1	21.7	2.8
R3/4	14	1.8143	1.162	0.25	26.441	25.279	24.117	9.53	1.81	2.27	0.142	5.0	14.1	16.3	10.2	27.2	2.8
R1	11	2.3091	1.479	0.32	33.249	31.770	30.291	10.39	2.31	2.89	0.181	6.4	16.2	19.1	11.6	34.0	3.2

【通用细螺纹 / Unified fine thread】 【JIS B0208】



Thread name	Number of screw threads (per 25.4mm) n	Pitch P (reference)	Height of engagement H ₁	Male thread		
				Outer diameter d	Pitch diameter d ₂	Root diameter d ₁
				Female thread		
				Root diameter D	Pitch diameter D ₂	Inner diameter D ₁
1/4 -28 UNF	28	0.9071	0.491	6.350	5.761	5.367
5/16-24 UNF	24	1.0583	0.573	7.938	7.249	6.792
3/8 -24 UNF	24	1.0583	0.573	9.525	8.837	8.379
7/16-20 UNF	20	1.2700	0.687	11.112	10.287	9.738
1/2 -20 UNF	20	1.2700	0.687	12.700	11.874	11.326
9/16-18 UNF	18	1.4111	0.764	14.288	13.371	12.761
5/8 -18 UNF	18	1.4111	0.764	15.875	14.958	14.348
3/4 -16 UNF	16	1.5875	0.859	19.050	18.019	17.330
7/8 -14 UNF	14	1.8143	0.982	22.225	21.046	20.262

【公制细螺纹 / Metric fine thread】 【JIS B0207】



Thread name	Pitch P (reference)	Height of engagement H ₁	Male thread		
			Outer diameter d	Pitch diameter d ₂	Root diameter d ₁
			Female thread		
			Root diameter D	Pitch diameter D ₂	Inner diameter D ₁
M12×1.5	1.5	0.812	12.000	11.026	10.376
M14×1.5	1.5	0.812	14.000	13.026	12.376
M16×1.5	1.5	0.812	16.000	15.026	14.376
M18×1.5	1.5	0.812	18.000	17.026	16.376
M20×1.5	1.5	0.812	20.000	19.026	18.376
M22×1.5	1.5	0.812	22.000	21.026	20.376
M24×1.5	1.5	0.812	24.000	23.026	22.376
M30×1.5	1.5	0.812	30.000	29.026	28.376

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树脂软管规格 / Technical standard for plastic hoses

项目 Item		日本 / Japan		ISO		美国 / USA	
		JIS K 6375 (软管 / Hose) JIS B 8362 (软管总成 / Hose assembly)		ISO 3949		SAE J 517	
规格 Standard		类型1 / Type 1		类型2 / Type 2		100R7	100R8
类型 / Type		类型1 / Type 1		类型2 / Type 2		100R7	100R8
主要性能 Main performance	最高使用压力 Maximum working pressure	最小破坏压力 Minimum burst pressure × 1/4	←	←	←	←	←
	试验压力 Test pressure	最高使用压力 Maximum working pressure × 2	←	←	←	←	←
	最小破坏压力 Minimum burst pressure	最高使用压力 Maximum working pressure × 4	←	←	←	←	←
	使用温度范围 Working temperature range	−40℃~+100℃	←	←	←	−40℃~+93℃	←
	耐疲劳性 Fatigue resistance	压力 pressure	最高使用压力 Maximum working pressure × 125%	最高使用压力 Maximum working pressure × 133%	最高使用压力 Maximum working pressure × 125%	最高使用压力 Maximum working pressure × 133%	最高使用压力 Maximum working pressure × 125%
		波形 Waveform	方形 Square	←	←	←	←
		次数 Frequency	15万次 150,000	20万次 200,000	15万次 150,000	20万次 200,000	15万次 150,000
		油温 Oil temperature	93℃	←	←	←	←
		循环 Cycle	30~75次/分 30 to 75 cycle/min	←	←	←	←
		油的种类 Oil type	JIS K2213 (涡轮油) 的两种, ISOVG46或 与此相当的油 Two types of JIS K2213 (turbine oil), ISOVG46 or equivalent	←	ISO 3448的 ISO VG46 ISOVG46 of ISO3448	←	无规定 No specification
	长度变化率 (最高使用压力时) Change rate of length (at max. working pressure)		+3~-3%	←	←	←	←
其他性能 Other performance	耐低温性 Low-temperature resistance	−40℃×24Hr放置后, 以最小 弯曲半径折弯, 然后进行 耐压试验 Bend hose at minimum bending radius, 8 to 12 sec after leaving it for 24hr at −40℃. Then perform the pressure durability test.	←	←	←	←	←
	外面面积的 耐臭氧性 Ozone resistance of outer surface	臭氧浓度0.5ppm, 40℃×72Hr 放置后, 以2倍的倍率进行 放大目测检查 Perform visual check at two-fold magnification after leaving it for 72 hr at 40℃ under the ozone concentration 0.5 ppm.	←	←	←	臭氧浓度0.5ppm, 40℃×72Hr 放置后, 以7倍的倍率进行 放大目测检查 Perform visual check at seven-fold magnification after leaving it for 72 hr at 40℃ under the ozone concentration 0.5 ppm.	←
	内外棉涂层的 耐油性 Hydraulic resistance of inner and outer surface	检查No3油, 100℃×72Hr 浸渍后的体积变化率 +35~-15% +35 to -15% of volume change rate after dipping for 72 hr at 100℃ in No. 3 oil.	←	←	←	检查ASTM No3, 100℃×70Hr 浸渍后的体积变化率 +35~-15% +35 to -15% of volume change rate after dipping for 70 hr at 100℃ in ASTM No. 3.	←

单位换算表 / Table of unit conversion

长度 / Length

m	in	foot	yard	mile
1	3.937×10	3.2808	1.0936	6.2×10^{-4}
2.57×10^{-2}	1	8.3333×10^{-2}	2.778×10^{-2}	1.6×10^{-5}
3.048×10^{-1}	1.2×10	1	3.3333×10^{-1}	1.9×10^{-4}
9.114×10^{-1}	3.6×10	3	1	5.7×10^{-4}
1.6093×10^3	6.3360×10^4	5.280×10^3	1.760×10^3	1

重量 / Weight

kg	ton(英 / UK)	ton(美 / USA)	lb	Ounce
1	9.842×10^{-4}	1.1023×10^{-3}	2.2046	3.5274×10
1.016×10^3	1	1.12	2.240×10^3	3.5838×10^4
9.072×10^3	8.9286×10^{-1}	1	2×10^3	3.2×10^4
4.536×10^3	4.464×10^{-4}	5×10^{-4}	1	1.6×10
2.835×10^3	2.79×10^{-5}	3.13×10^{-5}	6.25×10^{-2}	1

压力 / Pressure

Pa	MPa	bar	kgf/cm ²	psi	mmHg
1	1×10^{-6}	1×10^{-5}	1.0197×10^{-5}	1.4504×10^{-4}	7.5006×10^{-3}
1×10^5	1×10^{-1}	1	1.0197	1.4504×10	7.5006×10^2
9.8067×10^4	9.8067×10^{-2}	9.8067×10^{-1}	1	1.4223×10	7.3556×10^2
6.8948×10^3	6.8948×10^{-3}	6.4898×10^{-2}	7.0307×10^{-2}	1	5.1715×10
1.3332×10^2	1.3332×10^{-4}	1.332×10^{-3}	1.3595×10^{-3}	1.934×10^{-2}	1

力 / Force

N	dyn	kgf
1	1×10^5	1.0197×10^{-1}
1×10^{-5}	1	1.0197×10^{-6}
9.8066	9.8066×10^5	1

※ ☐ 表示SI单位。* ☐ is the SI unit.

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Hose Guard Part,
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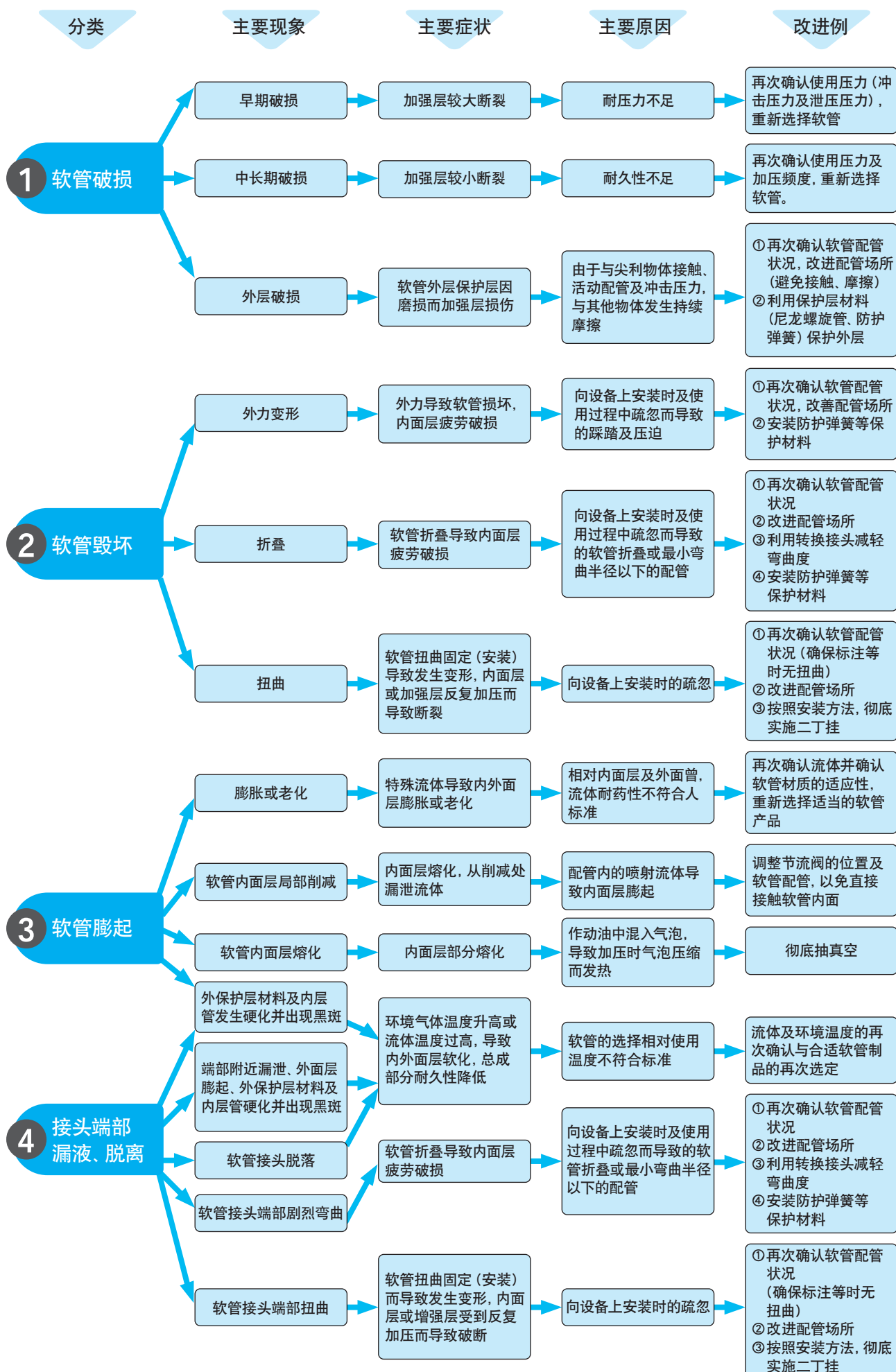
软管成/工具专用夹具
Assembling
Machine, Jig, Tool

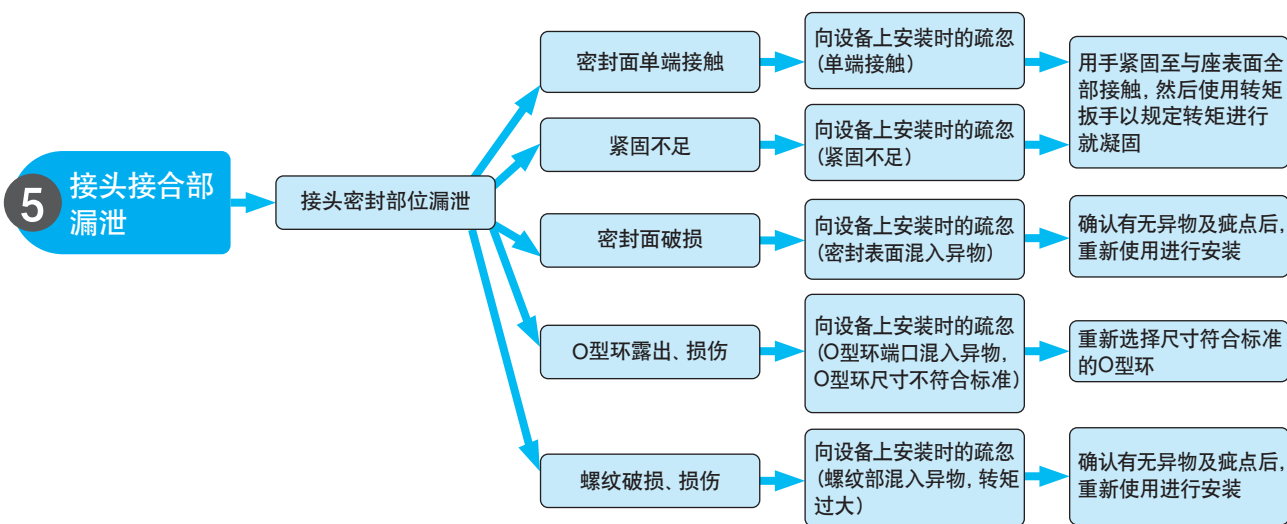
软管装配方法
Hose Assembling
Method

技术资料
Technical Document

参考资料
Reference Document

没有正确使用软管总成时的故障





液压软管产品	液压配管用软管 Hydraulic Hose
	清洁配管用软管 Clean Hose
转换接头 Adaptor	
软管保护部件、特殊加工品 Hose Guard Part, Specially-Treated Part	
软管总成/工具专用夹具 Assembling Machine, Jig, Tool	
软管装配方法 Hose Assembling Method	
技术资料 Technical Document	
参考资料 Reference Document	

化学品耐受性列表 / Chemical resistance list

请参考所附的化学品耐受性列表以便安全地使用产品。请特别注意以下列出的说明。
Please refer to the attached chemical resistance list for the safe use of the products. Special attention should also be paid to the explanation written below.

《每种化学品的有效性标准 / Criteria of availability for each chemical》

- : 无影响 / No influence
△ : 需进一步确认 / Further confirmation required
× : 不适用 / Not applicable
— : 无可用的数据 / No data available

当出现△情况并向我们咨询时，我们需要以下数据进行判断。

- ①运行中压力，②运行中的最高温度，③化学品浓度，
④安装条件，⑤应用

When consulting with us in case of △, following data are necessary for us to judge.
①Pressure in operation, ②Max. temperature in operation, ③Concentration of chemicals,
④Installation condition, ⑤Application.

- 1) 此处显示的数据得自于实验室。温度、压力和液体暴露时间或其他特殊条件的变化会影响列表中的结果，因此，我们不对此作明示或暗示的保证。
 - 2) 使用前请确保在真实工作环境下评估产品。
 - 3) 列表中的水溶液，除非另行说明，其中的化学品在室温下均处于饱和状态。
 - 4) 该列表仅显示化学品在液体条件下的耐受性，完全与化学品气体渗透量无关。如果化学品气体一旦渗透过产品将发生危险，则请勿将产品用于该化学品。
 - 5) 请向我们咨询有关镀锌材料的化学品耐受性。
1. The data shown here are based upon laboratory. Variations in temperature, pressure, fluids duration of exposure or other special conditions influence the results in the list and therefore no guarantee is expressed or implied.
 2. Please be sure to evaluate the products in the condition at a real workplace before use.
 3. In case of aqueous solution in the list, the chemicals are all in a saturated condition at a room temperature, unless otherwise stated.
 4. The list only shows chemical resistance at the liquid condition of chemicals but not referring at all to the gas permeation quality. Do not use the products for the chemicals which is dangerous if the gas permeates through/from the products.
 5. Please consult with us about the chemical resistance for the galvanized materials.

❗ Campucka接头用于一般工作油，不得用于其他类型的液体。

Campucka couplings are for the general operating oil and can not be used for any other kinds of liquids.

❗ 使用水乙二醇工作油时，用于接头的材料应为根据要求特制的不锈钢或黑色氧化处理材料。

When using the aqueous glycol operating oil, the materials for the couplings should be stainless or black oxidizing ones specially arranged upon request.

化学品耐受性列表 (指南) / Chemical resistance list (Guideline)

化学品 (重量浓度%, 温度℃) Chemicals (Weight concentration %, Temperature °C)	软管材料 Hose materials					软管接头/转换接头材质 Hose couplings/ Adaptors		
	尼龙 Nylon	聚烯烃 Polyolefi	聚氨酯 Urethane	聚氯乙烯 PVC	聚酯 Polyester	钢 Steel	SUS304	SUS316
A 2-Aminophenyl Disulfide (2-氨基苯基二硫)	○	○	△	—	—	—	—	—
Acetaldehyde (乙醛)	△	×	×	×	○	○	○	○
Acetic Acid (醋酸) (10%, 20℃)	△	○	×	○	△	×	△	○
Acetic Acid (醋酸) (100%, 20℃)	×	×	×	—	—	×	△	△
Acetic Acid (醋酸) (50%, 20℃)	×	△	×	—	—	×	△	△
Acetic Acid (醋酸) (50%, 70℃)	×	×	×	—	—	×	△	△
Acetic Anhydride (醋酸酐)	×	△	×	×	×	×	△	△
Acetoamide (乙酰胺)	—	×	—	—	—	—	—	—
Acetone (丙酮)	△	△	×	×	△	○	△	△
Acetyl Bromide (溴乙酰)	×	×	×	—	—	—	—	—
Acetyl Chloride (氯乙酰)	×	×	×	×	×	○	—	△
Acetylene (乙炔)	○	○	○	—	○	○	○	○
Acrylonitrile (丙烯腈)	—	△	—	—	—	—	△	△
Alum (明矾)	×	○	—	○	—	—	—	—
Aluminium Acetate (醋酸铝)	○	○	—	—	—	—	—	—
Aluminium Bromide (溴化铝)	△	○	—	—	—	—	—	—
Aluminium Chloride (氯化铝)	△	○	—	○	—	×	×	×
Aluminium Fluoride (氟化铝)	△	○	—	—	—	△	×	×
Aluminium Nitrate (硝酸铝)	△	○	△	—	—	—	—	△
Aluminium Sulfate (硫酸铝)	×	×	×	—	—	×	×	×
Ammonia Anhydrous (无水氨)	○	○	—	—	—	—	○	○
Ammonia Gas Cold (冷氨气)	×	×	×	—	△	○	○	○
Ammonia Gas Hot (热氨气)	×	×	×	—	△	○	△	△
Ammonia Liquid (液氨)	○	○	—	—	—	—	○	○



该表显示基于水性液体在常温饱和状态下(除非另行说明)。
The table shows relative merits under condition that cardinal number of aqueous liquor is based on saturated status with ordinary temperature unless otherwise specified.

A	化学品 (重量浓度%, 温度 °C) Chemicals (Weight concentration %, Temperature °C)	软管材料 Hose materials					软管接头/转换接头材质 Hose couplings/ Adaptors		
		尼龙 Nylon	聚烯烃 Polyolefi	聚氨酯 Urethane	聚氯乙烯 PVC	聚酯 Polyester	钢 Steel	SUS304	SUS316
	Ammonia Water (氨水)	△	○	△	—	△	△	△	△
	Ammonium Carbonate (碳酸铵)	○	○	—	—	—	—	△	△
	Ammonium Chloride (氯化铵)	○	○	○	○	○	×	△	△
	Ammonium Hydroxide (氢氧化铵)	△	○	△	×	×	△	△	△
	Ammonium Nitrate (硝酸铵)	○	○	○	○	△	○	△	△
	Ammonium Persulphate (过硫酸铵)	○	○	—	—	—	—	—	—
	Ammonium Phosphate (磷酸铵)	○	○	○	○	△	×	△	△
	Ammonium Sulfate (硫酸铵)	○	○	—	○	—	×	○	○
	Amyl Acetate (醋酸戊酯)	○	×	×	×	△	×	—	○
	Amyl Alcohol (戊醇)	△	△	△	○	○	△	—	—
	Amyl Borate (硼酸戊酯)	—	△	—	—	—	—	—	—
	Amyl Naphthalene (戊醇萘)	—	△	—	—	—	—	—	—
	Anethole (茴香醚)	○	—	—	—	—	—	—	—
	Aniline (苯胺)	×	×	×	△	×	×	△	△
	Aniline Dyes (苯胺染料)	×	○	—	—	—	—	—	—
	Animal oil (Lard oil) (动物油(精制猪油))	○	○	○	○	○	×	—	△
	Aqua Regia (王水)	×	×	×	—	—	—	—	—
	Arsenic Acid (砷酸)	△	○	—	—	—	—	△	△
	Asphalt (沥青)	○	○	○	○	○	○	○	○
	ASTM lubricant No.1 (ASTM润滑油1号)	○	×	○	—	○	○	○	○
	ASTM lubricant No2 (ASTM润滑油2号)	○	×	×	—	○	○	○	○
	ASTM lubricant No.3 (ASTM润滑油3号)	○	×	×	—	○	○	○	○
	ASTM Standard fuel oil A (ASTM标准燃油A)	○	×	○	—	○	○	○	○
	ASTM Standard fuel oil B (ASTM标准燃油B)	○	×	○	—	○	○	○	○
	ASTM Standard fuel oil C (ASTM标准燃油C)	○	×	○	—	○	○	○	○
B	Balium Hydroide (氢氧化钡)	○	○	—	—	—	×	—	○
	Barium Chloride (氯化钡)	○	○	○	○	○	×	—	△
	Barium Sulfate (硫酸钡)	○	○	—	—	—	△	△	△
	Barium Sulfide (硫化钡)	○	○	—	—	—	—	—	△
	Beet sugar oil (甜菜糖油)	○	○	—	—	—	—	—	○
	Benzene (苯)	△	×	×	×	△	△	△	△
	Benzin (石油精)	△	×	○	—	—	—	—	—
	Benzoaldehyde (苯甲醛)	△	×	△	×	○	×	△	△
	Benzoic Acid (苯甲酸)	○	○	×	○	×	×	△	△
	Benzyl Alcohol (苯甲醇)	△	△	△	△	△	○	△	△
	Benzyl Benzoate (苯甲酸苄酯)	—	—	—	—	—	—	—	—
	Benzyl Chloride (氯化苄)	×	—	—	—	—	—	—	×
	Borax (硼砂)	○	○	○	△	○	△	—	○
	Boric acid (硼酸)	○	○	○	○	○	×	△	△
	Bromine (溴)	×	×	×	△	×	×	—	×
	Bunker fuel (船用燃油)	△	△	—	—	—	—	—	△
	Buthane (丁烷)	○	△	—	—	—	○	○	○
	Butyl Acetate (醋酸丁酯)	○	×	×	×	△	○	—	△
	Butyl Acrylate (丙烯酸丁酯)	○	×	—	—	—	—	—	—
	Butyl Alcohol (丁醇)	△	△	△	○	○	○	○	○
	Butyl Cellosolve (丁氧基乙醇)	△	—	—	—	—	—	—	△
	Butyl Stearate (硬脂酸丁酯)	○	—	—	—	—	—	—	—
C	Calcium Acetate (乙酸钙)	○	○	○	—	—	△	—	△
	Calcium Arsenate (砷酸钙)	○	○	○	○	○	—	—	—
	Calcium Bisulfite (亚硫酸氢钙)	○	○	○	△	○	×	—	△
	Calcium Chloride (氯化钙)	○	○	△	○	○	△	△	△
	Calcium Hydroxide (氢氧化钙)	○	○	○	○	△	△	△	△
	Calcium Hypochlorite (次氯酸钙) (20%, 20°C)	×	○	×	○	△	×	—	△
	Calcium Nitrate (硝酸钙)	○	○	—	—	—	—	—	—
	Calcium Sulfide (硫化钙)	○	○	—	—	—	—	—	△
	Cane sugar liquor (蔗糖浆)	○	○	—	—	—	○	—	○
	Carbitol (卡必醇)	—	△	—	—	—	—	—	△
	Carbon Dioxide (二氧化碳)	○	○	○	—	—	○	○	○

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part,
Specially-Treated Part

软管总成/工具、专用工具
Assembling
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技术资料
Technical Document

参考资料
Reference Document

化学品耐受性列表 / Chemical resistance list

该表显示基于水性液体在常温饱和状态下 (除非另行说明)。

The table shows relative merits under condition that cardinal number of aqueous liquor is based on saturated status with ordinary temperature unless otherwise specified.

化学品 (重量浓度%, 温度 °C) Chemicals (Weight concentration %, Temperature °C)	软管材料 Hose materials					软管接头/转换接头材质 Hose couplings/ Adaptors		
	尼龙 Nylon	聚烯烃 Polyolefi	聚氨酯 Urethane	聚氯乙烯 PVC	聚酯 Polyester	钢 Steel	SUS304	SUS316
C Carbon Oxide (一氧化碳)	○	○	○	—	—	○	○	○
Carbon Tetrachloride (四氯化碳)	×	×	×	△	×	△	△	△
Carbone Disulfide (二硫化碳)	×	×	×	×	△	○	○	○
Carbonic Acid (碳酸)	○	△	△	—	—	×	△	△
Castor Oil (蓖麻油)	○	○	△	○	△	○	△	△
Cellosolve (溶剂)	△	△	—	—	—	—	—	△
Cellosolve Acetate (醋酸溶剂)	△	—	×	—	—	—	—	—
Chloride gas (dry) (氯气(干))	×	×	×	△	×	○	×	×
Chloride gas (wet) (氯气(湿))	×	×	×	—	—	—	×	×
Chloro acetone (氯丙酮)	—	×	—	—	—	—	—	—
Chlororform (氯仿)	△	×	×	△	△	×	△	△
Chlorosulfonic acid (氯磺酸)	×	×	—	—	—	—	×	×
Chlorotoluene (氯甲苯)	×	×	—	—	—	—	—	—
Chromic Acid (铬酸) (10%, 70 °C)	×	×	×	—	×	×	×	△
Chromic Acid (铬酸) (2%, 50 °C)	×	×	×	—	×	×	×	△
Chromic acid (铬酸) (2%, 70 °C)	×	×	×	△	×	×	×	△
Chromic acid (铬酸) (25%, 70 °C)	×	×	×	—	×	×	×	△
Citric acid (柠檬酸)	○	○	△	○	△	×	△	△
Coal-Tar (煤焦油)	○	△	○	○	○	○	○	○
Copper Chloride (氯化铜)	△	○	○	○	○	×	×	×
Copper Cyanide (氰化铜)	○	○	—	—	—	—	—	○
Copper Sulfate (硫酸铜)	○	○	○	○	○	×	△	○
Corn oil (玉米油)	○	△	○	○	○	△	—	○
Cotton seed oil (棉花籽油)	○	△	○	○	○	○	△	△
Creosote (木榴油)	×	△	×	△	×	○	△	△
Cresol (甲醇)	×	×	×	△	×	△	△	○
Cyclohexane (环己烷)	○	×	△	△	○	○	—	△
Cyclohexanol (环己醇)	○	△	—	—	—	△	△	△
Cyclohexanone (环己酮)	○	×	×	—	○	△	—	—
D Decalin (萘烷)	○	△	—	—	—	—	—	—
Developer (Hypo) (显影剂(海波))	△	○	△	—	—	—	—	—
Diacetone Alcohol (双丙酮醇)	○	○	△	×	△	△	○	○
Dibenzine Ether (二苯醚)	△	×	×	—	—	—	—	○
Dibutyl Ether (二丁醚)	△	×	△	—	—	—	—	—
Dibutyl Phthalate (邻苯二甲酸二丁酯)	○	△	△	—	△	—	—	—
Dichlorobenzene (二氯苯)	△	×	×	—	—	○	—	—
Diethanol Amine (二羟乙基胺)	○	—	△	—	△	△	—	○
Diethyl Ether (< Ethyl Ether) (二乙醚(乙醚))	△	△	△	△	△	○	○	○
Diethyl Ether (二乙醚)	△	△	△	△	△	○	—	△
Diethyl Sebacate (癸二酸二乙酯)	△	×	—	—	—	—	—	—
Diisopropyl Ketone (二异丙基甲酮)	△	△	×	—	—	—	—	—
Dimethyl Formamide (二甲替甲酰胺)	×	△	×	—	—	—	—	—
Dinitrogen oxide (Nitrous Oxide) (一氧化二氮(氧化亚氮))	○	×	×	○	○	×	△	○
Diocetyl Phthalate (邻苯二甲酸二辛酯) (DOP)	○	×	△	×	△	—	—	—
Diocetyl Sebacate (癸二酸二辛酯) (DOS)	○	×	△	—	—	—	—	—
Dipentene (Limonene) (二戊烯(柠檬油精))	△	×	×	—	—	—	—	—
Diphenyl (联苯)	△	×	×	—	—	—	—	—
Diphenyl Oxide (二苯醚)	—	—	—	—	—	—	—	—
Dowtherm (道氏热载体) (100 °C)	—	—	—	—	—	—	—	—
Dowtherm (道氏热载体) (200 °C)	—	—	—	—	—	—	—	—
E Epichlorohydrin (表氯醇)	×	—	—	—	—	—	—	—
Ester Silicate (硅酸酯)	○	—	—	—	—	—	—	—
Ethanol Amine (乙醇胺)	×	×	—	—	—	—	—	—
Ethyl Acetate (乙酸乙酯)	○	△	×	×	△	○	△	△
Ethyl Acetoacetate (乙酰乙酸乙酯)	—	—	—	—	—	—	—	—
Ethyl Acrylate (丙烯酸乙酯)	—	—	×	—	—	—	—	—
Ethyl Alcohol (乙醇)	△	△	×	△	△	○	△	○
Ethyl Benzene (苯乙烷)	—	×	—	—	—	—	○	○



该表显示基于水性液体在常温饱和状态下 (除非另行说明)。
The table shows relative merits under condition that cardinal number of aqueous liquor is based on saturated status with ordinary temperature unless otherwise specified.

化学品 (重量浓度%, 温度℃) Chemicals (Weight concentration %, Temperature °C)	软管材料 Hose materials					软管接头/转换接头材质 Hose couplings/ Adaptors		
	尼龙 Nylon	聚烯烃 Polyolefi	聚氨酯 Urethane	聚氯乙烯 PVC	聚酯 Polyester	钢 Steel	SUS304	SUS316
E Ethyl Cellulose (乙基纤维素)	—	○	—	—	—	—	—	△
Ethyl Chloride (氯乙烷)	○	×	×	×	×	○	○	○
Ethyl Oxalate (草酸乙酯)	○	×	×	—	—	—	—	—
Ethyl Silicate (硅酸乙酯)	△	—	—	—	—	—	—	—
Ethylene Chlorohydrin (氯乙醇)	×	×	×	×	×	—	—	—
Ethylene Diamine (乙二胺)	×	×	—	—	—	—	—	—
Ethylene Dioxide (二氧化乙烷)	×	△	×	×	×	△	△	△
Ethylene Glycol (乙二醇)	○	○	○	○	○	△	△	△
Ethylene Oxide (氧乙烷)	○	×	×	—	△	△	—	△
F Fatty Acids (脂肪酸)	○	×	△	○	○	×	△	○
Ferric Chloride (氯化铁)	△	○	—	○	—	×	×	×
Ferric Chloride (氯化铁)	○	○	○	○	○	△	△	△
Ferric Nitrate (硝酸铁) (II)	○	○	—	—	—	—	—	—
Fluorine (氟)	—	×	×	△	×	×	—	△
Fluoroboric acid (氟硼酸)	—	○	×	△	×	△	—	○
Formaldehyde (甲醛) (40%, 20°C)	×	△	×	○	△	○	△	△
Formic acid (甲酸) (25%, 20°C)	×	○	×	○	×	×	△	○
Formic acid (甲酸) (50%, 20°C)	×	○	×	—	—	×	△	○
Formic acid (甲酸) (90%, 20°C)	×	△	×	—	—	×	△	○
Freon 114 (氟利昂114)	△	—	—	△	△	○	○	○
Freon 12 (氟利昂12)	△	—	—	△	△	○	○	○
Freon 21 (氟利昂21)	△	—	—	△	△	○	○	○
Freon 22 (氟利昂22)	△	—	—	△	△	○	○	○
Freon11 (氟利昂11)	△	—	—	△	△	○	○	○
Freon113 (氟利昂113)	△	—	—	△	△	○	○	○
Furan (呋喃)	×	—	—	—	—	—	—	—
Furfural (糠醛)	×	×	×	—	—	△	△	△
Furfuryl Alcohol (糠醇)	○	○	○	○	○	—	—	—
G Gasoline (汽油)	○	△	×	△	○	○	○	○
Gelatine (明胶)	△	△	△	○	○	△	○	○
Glucose (葡萄糖)	○	○	○	○	○	○	○	○
Glue (胶水)	○	○	—	○	○	○	—	△
Glycerine (甘油)	○	○	△	○	○	○	○	○
Grease (润滑油)	○	△	△	○	○	○	○	○
H Heavy water (重水)	○	○	○	—	—	—	—	—
Heptane (庚烷)	○	×	○	△	○	○	○	○
Hexane (己烷)	○	×	△	△	○	○	△	△
Hexyl Alcohol (己醇)	△	△	—	—	—	—	—	—
Hydrazine (肼)	△	△	—	—	—	—	—	—
Hydrobromic Acid (氢溴酸) (20%, 20°C)	△	○	—	—	—	—	×	×
Hydrobromic Acid (氢溴酸) (20%, 70°C)	×	△	—	—	—	—	×	×
hydrobromic Acid (氢溴酸) (37%, 20°C)	△	○	—	—	—	—	×	×
Hydrochloric Acid (氢氯酸) (10%, 20°C)	△	○	×	○	×	×	×	×
Hydrochloric Acid (氢氯酸) (20%, 20°C)	×	△	×	—	×	×	×	×
Hydrochloric Acid (氢氯酸) (20%, 80°C)	×	×	×	—	×	×	×	×
Hydrochloric Acid (氢氯酸) (38%, 20°C)	×	○	×	—	×	×	×	×
Hydrocyanic Acid (氢氰酸)	×	○	—	○	—	×	—	○
Hydrofluoric Acid (氢氟酸) (10%, 20°C)	×	△	×	△	×	×	×	×
Hydrofluoric Acid (氢氟酸) (20%, 20°C)	×	△	×	—	×	×	×	×
Hydrofluoric Acid (氢氟酸) (40%, 20°C)	×	△	×	—	×	×	×	×
Hydrofluoric Acid (Anhydrous) (氢氟酸(无水))	×	×	×	—	—	×	—	×
Hydrogen (氢气)	○	○	○	○	○	○	○	○
Hydrogen Peroxide (过氧化氢) (30%, 20°C)	×	△	×	△	×	×	△	△
Hydrogen Peroxide (过氧化氢) (5%, 20°C)	○	○	△	○	○	×	△	△
Hydrogen Peroxide (过氧化氢) (5%, 50°C)	△	△	×	—	—	×	△	△
Hydrogen Sulfide (硫化氢)	△	△	—	—	—	—	—	△
Hydroquinone (对苯二酚)	○	○	—	—	—	—	—	—
Hypochlorous acid (次氯酸)	△	○	×	—	—	—	—	—

液压配管用软管
Hydraulic Hose

清洁配管用软管
Clean Hose

转换接头
Adaptor

软管保护部件、特殊加工品
Hose Guard Part, Specially-Treated Part

软管总成/工具、专用工具
Assembling Machine, Jig, Tool

软管装配方法
Hose Assembling Method

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参考资料
Reference Document

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化学品 (重量浓度%, 温度 °C) Chemicals (Weight concentration %, Temperature °C)	软管材料 Hose materials					软管接头/转换接头材质 Hose couplings/ Adaptors		
	尼龙 Nylon	聚烯烃 Polyolefi	聚氨酯 Urethane	聚氯乙烯 PVC	聚酯 Polyester	钢 Steel	SUS304	SUS316
I Isobutyl Alcohol (异丁醇)	△	○	—	—	—	—	—	—
Isocyanates (异氰酸酯)	○	○	○	—	—	—	—	—
Isooctane (异辛烷)	○	×	×	—	○	○	△	△
Isopropyl Acetate (醋酸异丙酯)	○	×	△	×	△	○	—	△
Isopropyl Alcohol (异丙醇)	△	○	—	—	—	○	△	△
Isopropyl Ether (异丙醚)	△	△	—	—	—	○	△	△
J JP fuel oil (喷射燃油(JP燃油))	△	×	△	—	○	○	○	○
K Kerosene (煤油)	○	△	○	△	○	○	○	○
Kerosene (煤油)	○	△	○	—	—	—	○	○
Ketones (酮)	○	○	△	×	△	○	△	△
L Lacquer (清漆)	△	△	△	×	△	△	—	—
Lactic Acid (乳酸)	△	△	—	○	○	△	△	△
Lard oil (精制猪油)	○	○	○	○	○	○	—	△
Lead Acetate (醋酸铅)	○	△	—	—	—	×	△	—
Lead Arsenate (砷酸铅)	○	○	○	○	○	—	—	—
Lead Nitrate (硝酸铅)	○	○	—	—	—	—	—	—
Lead Sulfamate (氨基磺酸铅)	○	○	—	—	—	—	—	—
Lead Sulfate (硫酸铅)	○	○	○	○	○	×	—	△
Linoleic acid Dipentene (亚油酸二戊烯)	△	△	—	—	—	—	—	—
Linseed oil (亚麻子油)	○	×	○	—	—	—	—	—
Liquid Chloride (液体氯)	×	×	×	—	—	—	—	—
Liquidified Petroleum Gas (液化石油气)	○	△	—	—	—	—	○	○
Lubricant (Ether type) (润滑剂(醚型))	△	×	×	—	△	○	○	○
Lubricant (mineral oil type) (润滑剂(矿物油型))	○	×	○	○	○	○	○	○
Lye solutions (碱溶液)	○	○	—	—	—	—	—	—
M Magnesium Chloride (氯化镁)	○	○	○	○	○	△	×	×
Magnesium Hydroxide (氢氧化镁)	○	○	△	△	○	○	—	△
Magnesium Sulfate (硫酸镁)	○	○	○	○	○	△	○	○
Maleic acid (马来酸)	○	○	△	○	△	○	△	△
Malic Acid (苹果酸)	○	○	—	—	—	△	△	△
Mercaptane (硫醇)	—	×	—	—	—	—	—	—
Mercuric Chloride (氯化汞)	○	○	○	△	○	×	×	×
Mercury (汞)	○	○	—	○	○	—	—	△
Methane (甲烷)	○	○	○	×	○	△	—	△
Methyl Acetate (乙酸甲酯)	○	△	×	×	△	△	—	○
Methyl Alcohol (甲醇)	△	△	×	×	△	△	△	△
Methyl Bromide (甲基溴)	△	×	×	×	×	—	—	○
Methyl Chloride (甲基氯)	×	×	×	×	×	△	○	○
Methyl Iso Butyl Ketone (甲基异丁基酮)	△	△	×	×	△	△	—	△
MethylEthyl Ketone (甲基乙基酮)	△	△	×	×	△	○	△	△
Methylene Dichloride (二氯甲烷)	×	△	×	—	—	—	—	—
Metyl Metacrylate (甲基丙烯酸甲酯)	○	×	—	—	—	—	—	—
Metyl Sulfate (硫酸二甲酯)	△	×	×	—	○	—	—	—
Mineral oil (矿物油)	○	△	○	○	○	○	○	○
Monochloro Acetic Acid (一氯醋酸)	×	×	×	×	×	—	—	—
Monochloro Benzene (一氯代苯)	×	×	×	—	—	—	—	—
Monoethanol Amine (单乙醇胺)	○	△	—	—	—	—	—	—
N Naphtha (石脑油)	○	×	△	×	△	○	△	△
Naphthalene (萘)	○	△	△	×	△	○	—	△
Naphthenic acid (环烷酸)	—	○	—	—	—	—	—	—
Natural gas (天然气)	○	○	—	—	—	—	○	○
n-Hexa Aldehyde (正己醛)	—	×	—	—	—	—	—	—
Nickel Acetate (醋酸镍)	○	○	—	—	—	—	—	△
Nickel Chloride (氯化镍)	×	○	—	×	×	×	—	×
Nickel Sulfate (硫酸镍)	○	○	—	—	—	×	△	△
Nitric acid (硝酸) (10%, 20°C)	×	○	×	○	△	×	△	○
Nitric Acid (硝酸) (10%, 70°C)	×	△	×	—	—	×	△	○
Nitric Acid (硝酸) (30%, 20°C)	×	△	×	○	×	×	△	○



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	化学品 (重量浓度%, 温度℃) Chemicals (Weight concentration %, Temperature °C)	软管材料 Hose materials					软管接头/转换接头材质 Hose couplings/ Adaptors		
		尼龙 Nylon	聚烯烃 Polyolefi	聚氨酯 Urethane	聚氯乙烯 PVC	聚酯 Polyester	钢 Steel	SUS304	SUS316
N	Nitric Acid (硝酸) (30%, 70°C)	×	×	×	—	×	×	△	○
	Nitric Acid (硝酸) (61%, 20°C)	×	×	×	—	×	×	△	○
	Nitric Acid (fuming 20°C) (发烟硝酸(20°C))	×	×	×	—	×	×	△	○
	Nitrobenzene (硝基苯)	×	×	×	×	×	○	△	△
	Nitroethane (硝基乙烷)	—	×	—	—	—	—	—	—
	Nitrogen (氮气)	○	○	○	○	○	○	○	○
	Nitromethane (硝基甲烷)	—	×	—	—	—	—	—	—
	Nitropropane (硝基丙烷)	—	×	—	—	—	—	—	—
O	Octyl Alcohol (辛醇)	×	△	—	—	—	—	—	△
	Oleic Acid (油酸)	○	△	△	△	○	△	△	△
	Olive Oil (橄榄油)	○	○	○	—	—	—	○	○
	Oxalic Acid (草酸)	○	○	△	○	△	△	×	×
	Oxygene (氧气)	△	△	△	—	—	—	○	○
	Ozone (臭氧)	△	△	△	△	○	△	△	○
P	Palm oil (棕榈油)	○	△	—	—	—	△	—	△
	Palmitin Acid (棕榈酸)	○	○	○	○	○	△	△	△
	Pentane (戊烷)	○	×	○	△	○	○	—	△
	Perchloroethylene (四氯乙烯)	×	×	×	△	×	○	—	△
	Petroleum (石油)	○	×	○	○	○	○	—	—
	Phenol (苯酚)	×	△	×	△	×	×	△	△
	Phenyl Disulfide (二苯基二硫醚)	○	×	△	—	—	—	—	—
	Phenyl Hydrazine (苯肼)	—	—	—	—	—	—	—	—
	Phorone (佛尔酮)	—	—	—	—	—	—	—	—
	Phosphoric Acid (磷酸) (50%, 20°C)	△	○	×	○	×	△	△	△
	Phosphoric Acid (磷酸) (50%, 70°C)	×	○	×	—	×	×	△	×
	Phosphoric Acid (磷酸) (75%, 20°C)	×	○	×	—	—	×	△	△
	Phosphorobenzene (偶磷苯)	○	○	△	—	—	—	—	△
	Pickling Acid (Nitric acid 20%/Fluoric acid 4%) (浸蚀(硝酸20%/氟酸4%))	×	○	—	—	—	—	—	—
	Pickling Acid (Nitric acid 40%/Fluoric acid 15%) (浸蚀(硝酸40%/氟酸15%))	×	○	—	—	—	—	—	—
	Picric Acid (苦味酸)	×	△	×	○	×	△	△	△
	Pine oil (松油)	×	×	—	—	—	△	△	○
	Pinene (松蒎)	○	×	—	—	—	—	—	—
	Piperidine (哌啶)	△	△	—	—	—	—	—	—
	Potassium Bichromate (重铬酸钾)	△	○	△	—	×	○	—	△
	Potassium Chloride (氯化钾)	○	○	○	○	○	×	△	○
	Potassium Cyanide (氰化钾)	○	○	—	—	—	△	△	△
	Potassium Hydroxide (氢氧化钾)	△	○	△	△	×	△	△	△
	Potassium Nitrate (硝酸钾)	△	○	○	○	○	△	△	△
	Potassium Perchlorate (高氯酸钾)	×	△	×	△	×	×	×	×
	Potassium Permanganate (高锰酸钾) (5%, 20°C)	×	△	×	○	—	△	△	△
	Potassium Sulfate (硫酸钾)	○	○	○	○	△	×	△	△
	Propane (丙烷)	○	○	△	○	○	○	○	○
	Propyl Acetate (醋酸丙酯)	○	×	×	—	—	○	—	○
	Propyl Alcohol (丙醇)	△	△	×	—	—	△	○	○
	Propylene (丙烯)	○	—	—	—	—	○	○	○
	Pyridine (吡啶)	×	○	△	×	△	○	—	△
	Pyrrole (吡咯)	—	△	—	—	—	—	—	—
S	Salicylic Acid (水杨酸)	—	○	—	—	—	—	△	△
	Salt Water (Brine) (咸水(盐水))	○	○	—	—	—	—	△	△
	Sea Water (海水)	○	○	○	○	○	△	○	○
	Silicone Grease (硅滑脂)	○	△	—	—	—	—	—	—
	Silicone oil (硅油)	○	△	—	—	—	—	—	—
	Silver Nitrate (硝酸银)	△	○	—	—	—	—	—	—
	Soap aqueous solution (肥皂水)	○	△	○	○	○	○	○	○
	Soda Ash (苏打灰)	○	○	○	—	—	—	△	△
	Soda (Carbonated) water (苏打(碳酸盐)水)	○	○	○	○	○	—	—	—
	Sodium Bicarbonate (碳酸氢钠)	○	○	○	○	○	△	—	△
	Sodium Bisulphate (硫酸氢钠)	○	○	○	—	—	—	—	—

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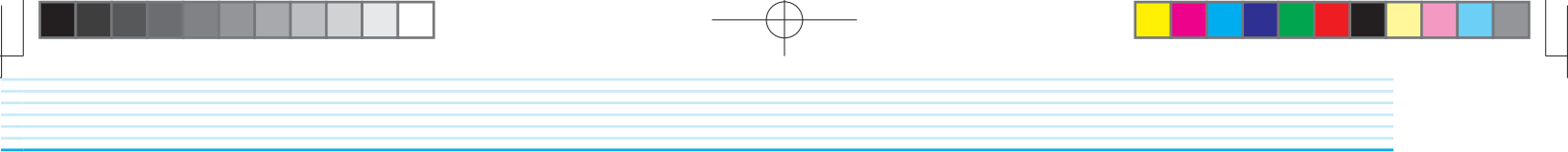
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	尼龙 Nylon	聚烯烃 Polyolefi	聚氨酯 Urethane	聚氯乙烯 PVC	聚酯 Polyester	钢 Steel	SUS304	SUS316
S Sodium Carbonate (碳酸钠)	○	○	○	○	○	○	△	△
Sodium Cyanide (氰化钠)	○	○	○	○	○	○	—	△
Sodium Hydroxide (氢氧化钠)	△	△	—	—	—	×	—	○
Sodium Hydroxide (氢氧化钠) (30%, 20°C)	○	○	×	—	—	—	—	—
Sodium Hydroxide (氢氧化钠) (30%, 70°C)	×	×	×	—	—	—	—	—
Sodium Hydroxide (氢氧化钠) (10%, 20°C)	○	○	×	○	△	△	△	△
Sodium Hypochlorite (次氯酸钠) (5%, 20°C)	×	○	×	○	△	×	×	△
Sodium Hypochlorite (次氯酸钠) (5%, 70°C)	×	△	×	—	—	×	×	△
Sodium Metaphosphate (偏磷酸钠)	○	○	—	—	—	—	—	△
Sodium Nitrate (硝酸钠)	○	○	○	○	○	○	○	○
Sodium Perborate (过硼酸钠)	○	○	—	—	—	—	—	△
Sodium Peroxide (过氧化钠)	×	○	—	—	—	○	—	△
Sodium Phosphate (磷酸钠)	○	○	○	○	○	×	△	△
Sodium Silicate (硅酸钠)	○	○	○	○	○	△	—	△
Sodium Sulfate (硫酸钠)	○	○	○	○	○	○	△	△
Sodium Sulfide (硫化钠)	○	○	○	○	○	△	△	△
Sodium Sulfite (亚硫酸钠)	×	×	—	—	—	—	○	○
Sodium Thiosulfate (硫代硫酸钠)	○	○	○	○	○	×	—	△
Soy Bean oil (大豆油)	○	○	—	—	—	—	△	○
Stannic Chloride (四氯化锡)	△	○	—	—	—	—	×	×
Stannous chloride (二氯化锡)	△	○	○	○	○	×	×	×
Stearic Acid (硬脂酸)	○	○	○	○	○	×	△	△
Styrene (苯乙烯)	△	△	△	—	△	△	—	△
Sulfur (硫)	○	○	○	○	○	○	△	△
Sulfur Chloride (氯化硫)	—	×	—	—	—	—	—	△
Sulfur Dioxide (二氧化硫)	×	×	×	△	△	△	—	△
Sulfur Trioxide (三氧化硫)	△	○	×	○	×	△	△	△
Sulfuric Acid (硫酸) (10%, 20°C)	△	△	×	△	×	×	×	×
Sulfuric Acid (硫酸) (10%, 70°C)	×	△	×	—	—	×	×	×
Sulfuric Acid (硫酸) (30%, 20°C)	×	△	×	△	×	×	×	×
Sulfuric Acid (硫酸) (30%, 70°C)	×	×	×	—	—	×	×	×
Sulfuric Acid (硫酸) (98%, 20°C)	×	×	×	—	—	×	×	×
Sulfuric Acid (fuming 20°C) (发烟硫酸(20°C))	×	×	×	△	△	△	△	△
Sulfurous Acid (亚硫酸)	×	×	×	△	△	△	△	△
T Table Salt (Common Salt) (精制食盐(食盐))	○	○	○	○	○	△	△	△
Tannic Acid (单宁酸)	○	○	△	○	△	△	△	△
Tartaric acid (酒石酸)	△	○	○	○	○	△	△	△
Terpineol (松油醇)	○	×	—	—	—	—	—	—
Tetrachloro Ethane (四氯乙烷)	△	×	—	—	—	—	—	—
Tetraethyl Lead (四乙铅)	△	△	—	—	—	—	—	△
Tetrahydro Furan (四氢呋喃)	△	×	—	—	—	—	—	—
Tetraline (四氢化萘)	△	×	—	—	—	—	—	—
Tetrametyl Lead (四甲铅)	○	—	○	—	○	—	—	—
Thionyl Chloride (亚硫酸酐)	×	×	—	—	—	—	—	—
Toluene (甲苯)	△	×	×	×	△	○	○	○
Triacetine (醋精)	—	—	—	—	—	—	—	—
Tributoxyethyl Phosphate (磷酸三丁氧乙酯)	○	—	—	—	—	—	—	—
Tributyl Phosphate (磷酸三丁酯)	○	×	△	×	△	○	—	○
Trichloroacetate (三氯醋酸乙酯)	×	△	×	△	×	—	△	△
Trichloroethylene (三氯乙烯)	△	×	×	△	×	○	—	○
Tricresyl Phosphate (磷酸甲苯)	○	×	△	—	—	—	—	—
Triethanolamine (三乙醇胺)	○	×	—	—	—	○	—	○
Tung oil (桐油)	○	○	—	—	—	—	—	—
Turpentine oil (松节油)	○	×	○	○	○	△	—	○
U Uric acid (尿酸)	○	○	×	○	×	—	—	—
V Vegetable oil (植物油)	○	○	—	—	—	—	—	—
X Xylene (二甲苯)	△	×	×	×	△	○	○	○
Z Zeolite (沸石)	○	○	—	—	—	—	—	—



该表显示基于水性液体在常温饱和状态下（除非另行说明）。

The table shows relative merits under condition that cardinal number of aqueous liquor is based on saturated status with ordinary temperature unless otherwise specified.

化学品 (重量浓度%, 温度℃) Chemicals (Weight concentration %, Temperature °C)	软管材料 Hose materials					软管接头/转换接头材质 Hose couplings/ Adoptors		
	尼龙 Nylon	聚烯烃 Polyolefi	聚氨酯 Urethane	聚氯乙烯 PVC	聚酯 Polyester	钢 Steel	SUS304	SUS316
Zinc Acetate (醋酸锌)	○	○	—	—	—	—	—	—
Zinc Chloride (氯化锌)	△	○	○	○	○	△	△	○
Zinc Sulfide (硫化锌)	△	○	△	○	△	×	△	△

液压配管用软管
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Clean Hose

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Assembling
Machine, Jig, Tool

软管装配方法
Hose Assembling
Method

技术资料
Technical Document

参考资料
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