

既製品
OEM品
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取扱会社
アクセスエンジニアリング株式会社

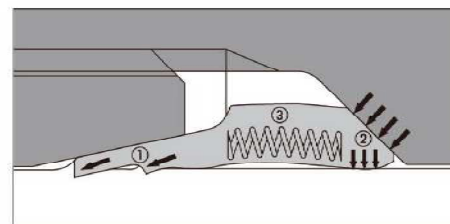


A

Technical information

特卡套式管接头

$$\textcircled{1} + \textcircled{2} + \textcircled{3} = 1\frac{1}{2} \textcircled{C}$$

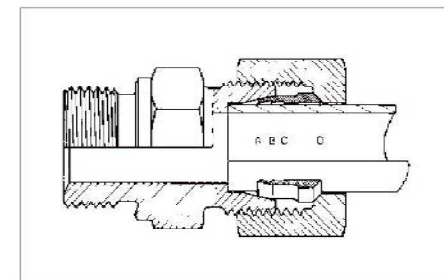


卡套式管接头为流体传动和控制系统提供了管路和元件之间的可靠连接和密封，这归功于迈思特卡套独特的内部结构。

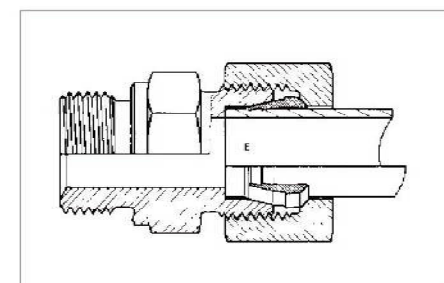
- ◆ 卡套是在受控条件下逐渐切入钢管的。如图所示，卡套的前刃A和后刃B相继切入钢管，当两个刃口都切入到设计深度时，止动边C限制了刃口过量切入对管子造成损伤的可能性。
- ◆ 和传统的单个刃口卡套不同，迈思特卡套在刃口部位有A、B、C三个点和钢管接触，使一切作用于卡套的应力在多个接触点处均匀分配。加上卡套尾环D抱紧钢管后对于管路振动的阻尼作用，使得迈思特卡套具有特别优良的耐冲击和振动性能。
- ◆ 卡套特殊的设计、材料和热处理工艺使得卡套具有特别优良的弹性。接头装配后卡套中部应微微拱起，由此产生的弹性效应避免了金属接触密封的应力松弛现象，从而可确保卡套长期地可靠工作和反复多次的装拆使用。

卡套具有理想的密封性能，可适用于大多数工况条件，包括高真空度的密封，小分子气体的密封以及高压液压油的密封。

特卡套的理想功能需要靠正确的装配来保证，不正确的装配会导致钢管拔脱，接头泄漏，弹性消失而抗振动性能降低等问题。为此用户在装配前，应仔细阅读样本中的装配说明或请迈思特公司或迈思特公司指定分销商进行装配技术培训和指导。



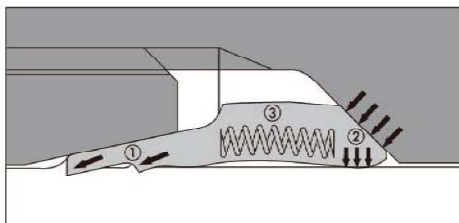
螺母拧紧前



螺母拧紧后

Bite type fitting

① + ② + ③ = 1½ ○

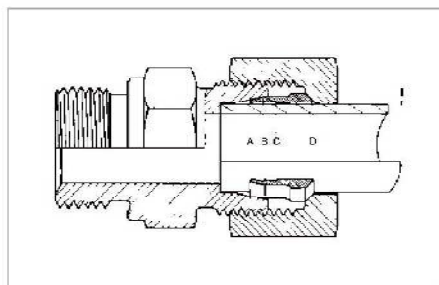


Bite type tube fitting produces a leak free connection of tubes and components in fluid system, owing to the unique internal geometry of master cutting ring. The design of cutting ring is based on three essential functions.

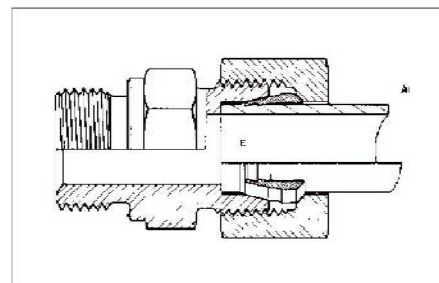
- ◆ The front cutting edge (A) has already started cutting into the tube before the second cutting edge (B) starts. As soon as both cutting edges have cut into tube to the designed depth, further advance is limited by the stop shape (C).
- ◆ Owing to the design of both cutting edges (A and B) and stop shape (C) all force arising are equally distributed. This distribution along with the specially designed interior collar (D) of the ring guarantees increased safety, particularly with regard to vibration and flexure stresses.
- ◆ The special ring design, material and heat treatment allow a defined elastic deformation of the ring. The spring effect compensates subsidences of tube bite and threads, thus ensuring long term leakfree performance without retightening.

Mater cutting ring have demonstrated a remarkable ability to remain leak free under various service conditions ranging from sealing high vacuum and small molecule gases to high pressure hydraulic fluids.

However, proper installation ensures the perfect function. Poorly assembling may make the tube leak and spring effect disappear to cause anti-vibration. Please read the instruction carefully or ask master company technician and appointed distributors to provide technical training before assembling.



Before tightening the nut



After tightening the nut

卡套式管接头的装配

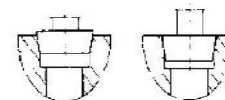
采用预装体进行预装：

A-预装配



- 定期检查
定时的检查（如每装50个卡套检查一次）。
如内锥磨损、变形会造成批量装配的报废。

B



- 内锥量规
用内锥量规检查预装体内锥。量规平面若低于内锥，则预装体不合格，必须更换。除了用量规检查外，还应肉眼检查内锥的其他变形、损坏。

C



- 把预装体夹紧在台虎钳上，螺纹涂以少量润滑油。

D

正确

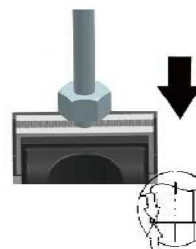


错误



- 把螺母、卡套依次套上钢管
- 注意：卡套的安装千万不能反向

E



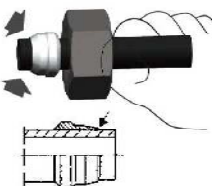
- 把螺母拧到预装体上，用手拧紧。
- 把钢管压紧，保证管端和预装体接触

F



- 为了确保正确的拧紧圈数，必须在螺母和钢管上做好标记
- 用扳手把螺母拧紧1¼圈
- 20mm以上规格，建议按下表加长扳手

G

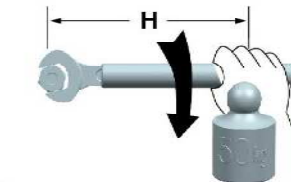


- 松开螺母检查卡套刃口前钢管被刃口切入处，隆起部分的材料应堆积刃口前。
- 如果切入不深（隆起量不足），则应稍稍再拧紧。经检验合格后，才能进入最终装配。经过预装的卡套允许在钢管上稍微转动。

H-正式装配



- 把经过预装的管子插入到接头体内，拧紧螺母，从力矩激增点（明显感应力矩突变的一点）起再拧紧1/6~1/4圈。切忌超过1/4圈！



接头规格 管子外径 高	扳手长度 H (mm)
18-L 16-S	300
22-L	400
28-L 20-S	500
35-L 25-S	900
42-L 30-S	1200
38-S	1500

Bite type tube fitting assembly instruction

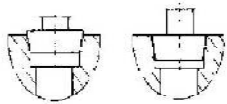
Adopt pre-assembly part to assemble

A. Pre-assembly



regular check (after 50 pre-assemblies) eg cone abrasion and deformation make them out of service.

B



cone gauge

Using cone gauge to check pre-assembly part cone. If the gauge surface is below cone, the pre-assembly part is nonconformity, must be changed. Besides cone gauge, using the eyes to check the cone whether worn or deformed.

C



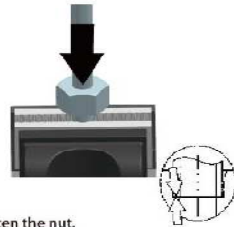
Put the pre-assembly part in the vise and lubricate the thread.

D



Put nut and cutting ring into tube
Note: Do not assemble the cutting ring in opposite direction

E



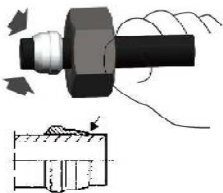
Tighten the nut.
Press tube end firmly in the assembly body.

F



Mark position of the nut and tube to ensure the tightening turns.
Tighten the nut by 1-1/4 turns
Recommended to use spanner extension for sizes over 20mm. see below chart.

G



Loose nut to check that a visible collar covers the front of the first cutting edge. Tighten if it is not deep. After check it is conformity, it could be process final assembly. It does not matter if the ring can be rotated on the tube end.

H-Formal assembly



Insert the assembly part into the fitting, tighten nut, retightening 1/6-1/4 turn from the increasing torque point that torque changes obviously. Do not surpass 1/4 turn.

Size	spanner length H(mm)
18-L 16-S	300
22-L	400
28-L 20-S	500
35-L 25-S	900
42-L 30-S	1200
38-S	1500

特卡套式管接头的装配

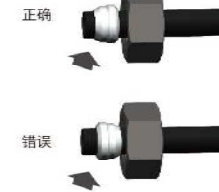
采用接头体直接预装 —— 一个接头体只允许进行一次预装!

A-预装配



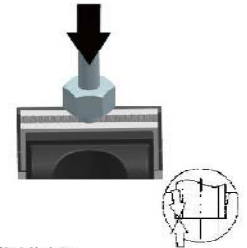
- 必须是新的接头体
- 螺纹涂以少量润滑油

B



- 把螺母卡套依次套上钢管
- 确保螺母和卡套的方向不能反

C



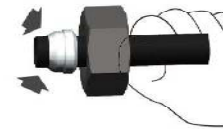
- 把接头体拧紧
- 把螺母拧上接头体，把管子接到接头体内锥孔低端，用手把螺母拧紧。确保管端和接头体接触。

D



为确保正确的拧紧圈数，必须在螺母上做好标记。
用扳手把螺母拧紧1 1/2圈（管子不应有转动）。
20mm以上规格，建议按下表加长扳手。

E



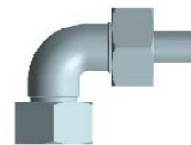
松开螺母检查卡套刃口前钢管被刃口切入处，隆起部分的材料应堆积刃口前。如果切入不深（隆起量不足），则应稍稍再拧紧。经检验合格后，才能进入最终装配，经过预装的卡套允许在钢管上稍微转动。

F

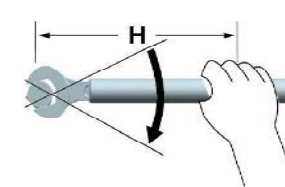


把经过预装的管子插入到接头体内，拧紧螺母，从力矩激增点（明显感觉力矩突变的一点）起再拧紧1/6-1/4圈。切忌超过1/4圈!

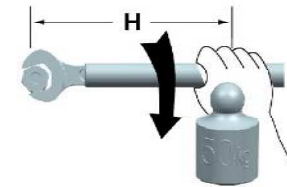
G



所有已经预装卡套的接头，在进行管路正式装配时，只需拧紧螺母，从力矩激增点起再拧紧1/4圈



过量的拧紧会造成接头泄漏



接头规格 管子外径 高	扳手长度 H (mm)
18-L 16-S	300
22-L	400
28-L 20-S	500
35-L 25-S	900
42-L 30-S	1200
38-S	1500

Bite type tube fitting assembly instruction

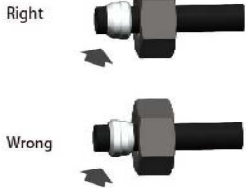
Adopt fitting directly to assemble--one fitting allows one pre-assembly

A.Pre-assembly



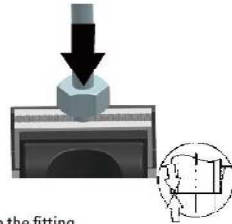
Use new fitting
The threads should be lubricated.

B



Put nut and cutting ring into tube
Note: Do not assemble the cutting ring and nut in opposite direction

C



Tighten the fitting
Put nut into fitting, press tube-end firmly into cone, then tighten the nut by hand to ensure tube-end is in touch with fitting.

D



D.Mark position of the nut and tube to ensure the tightening turns.
Tighten the nut by 1-1/2 turns (tube should not be rotated)
Recommended to use spanner extension for sizes over 20mm.see below chart.

E



Loose nut to check that a visible collar covers the front of the first cutting edge.
Tighten if it is not be deep.After check it is conformity, it could be process final assembly.It does not matter if the ring can be rotated on the tube end.

F

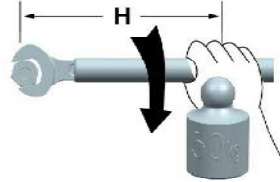
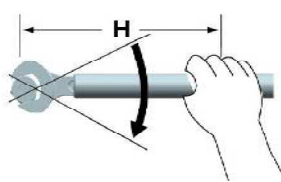


formal assembly
Insert the assembly part into the fitting, tighten nut, retightening 1/6-1/4turns from the increasing torque point that torque changes obviously.
Do not surpass 1/4 turns

G



In the formal tube assembly, tighten nut and retightening 1/4turns from the increasing torque point for all the pre-assembly bite type tube fitting.



Size	spanner length H(mm)
18-L 16-S	300
22-L	400
28 L 20 S	500
35-L 25-S	900
42-L 30-S	1200
38-S	1500

油口端拧紧力矩

Tightening torques for port connection

适用于ISO 9974-1 / ISO 6149 / DIN 3852-T1-X型油口 / DIN 3852-T3-W型油口

公制ISO螺纹M

ISO 9974-1 / ISO 6149 / DIN 3852-T1-form X port connections
/ DIN 3852-T3-form W port connections / ISO Metric thread

			MA / Nm			
			端直通管接头 Straight male stud fitting			
系列 Series	管子外径 Tube O.D.	螺纹 G Thread	A型 Form A	B型 Form B	E型 Form E	F型 Form F
L	6	M10 x 1,0	9	18	18	15
	8	M12 x 1,5	20	30	25	25
	10	M14 x 1,5	35	45	45	35
	12	M16 x 1,5	45	65	55	40
	15	M18 x 1,5	55	80	70	45
	18	M22 x 1,5	65	140	125	60
	22	M27 x 2,0	90	190	180	100
	28	M33 x 2,0	150	340	310	160
	35	M42 x 2,0	240	500	450	210
	42	M48 x 2,0	290	630	540	260
S	6	M12 x 1,5	20	35	35	35
	8	M14 x 1,5	35	55	55	45
	10	M16 x 1,5	45	70	70	55
	12	M18 x 1,5	55	110	90	70
	14	M20 x 1,5	55	150	125	80
	16	M22 x 1,5	65	170	135	100
	20	M27 x 2,0	90	270	180	170
	25	M33 x 2,0	150	410	310	310
	30	M42 x 2,0	240	540	450	330
	38	M48 x 2,0	290	700	540	420

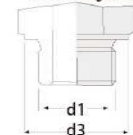
上表所列拧紧力矩允许+10%的误差

Tolerance of tightening torques listed in above table +10%

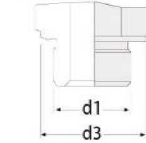
螺纹拧入前应使用液压油润滑！表中所列拧紧力矩适用于配合偶的材质是钢。

Lubricate stud with hydraulic oil before screwing in ! Tightening torques related to counterpart made of steel

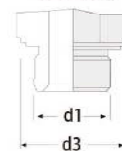
A型
金属垫圈密封
(DIN7603)
metal ring sealing



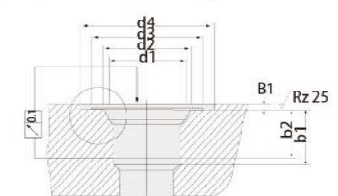
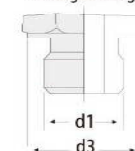
B型
金属平面密封
metal surface sealing



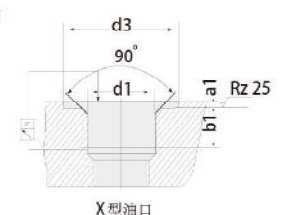
E型
弹性密封 - ED
ED sealing



F型
O型圈密封
O-ring sealing



W型油口



X型油口

油口端拧紧力矩

Tightening torques for port connection

适用于ISO 1179-1 / DIN 3852-T2-X型油口,英制 (BSPP)平管螺纹

ISO 1179-1 / DIN 3852-T2-form X port connections , BSPP thread

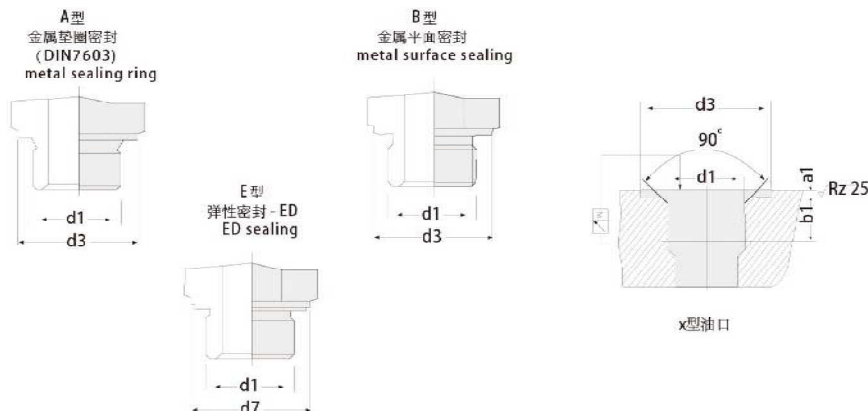
系列 Series	管子外径 o.d. Tube O.D.	螺纹 G Thread	MA / Nm		
			A型 Form A	B型 Form B	E型 Form E
端直通管接头 Straight male stud fitting					
L	6	G 1/8A	9	18	18
	8	G 1/4A	35	35	35
	10	G 1/4A	35	35	35
	12	G 3/8A	45	70	70
	15	G 1/2A	65	140	90
	18	G 1/2A	65	100	90
	22	G 3/4A	90	180	180
	28	G 1A	150	330	310
	35	G 1 1/4A	240	540	450
42	G 1 1/2A	290	630	540	
S	6	G 1/4A	35	55	55
	8	G 1/4A	35	55	55
	10	G 3/8A	45	90	80
	12	G 3/8A	45	90	80
	14	G 1/2A	65	150	115
	16	G 1/2A	65	130	115
	20	G 3/4A	90	270	180
	25	G 1A	150	340	310
	30	G 1 1/4A	240	540	450
38	G 1 1/2A	290	700	540	

上表所列拧紧力矩允许+10%的误差

Tolerance of tightening torques listed in above table +10%

螺纹拧入前应使用液压油润滑! 表中所列拧紧力矩适用于配合偶的材质是钢。

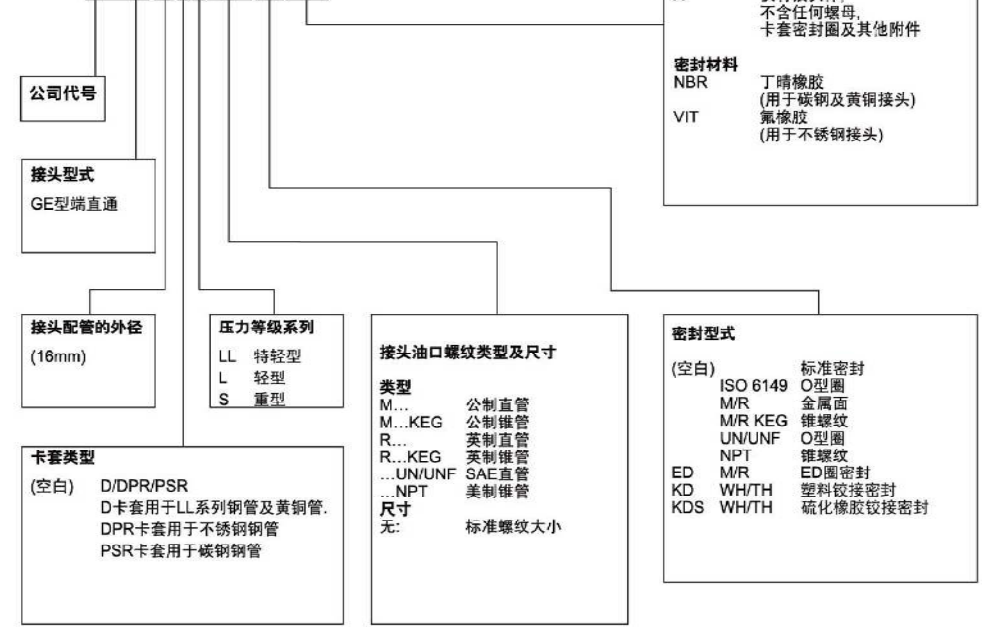
Lubricate stud with hydraulic oil before screwing in ! Tightening torques related to counterpart made of steel



如何订购迈思特M接头:


























How to order M-fitting



















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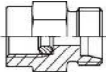
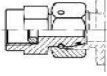


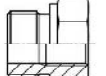

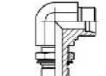
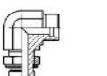
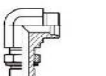
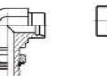
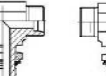

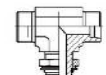
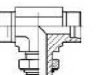
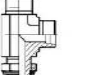
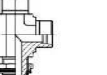
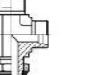
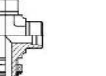
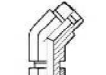

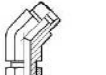

订货举例	
订货号	描述
M-GE12SR1/2EDGF	端直通 12mm管外径, 重型系列, G1/2BSPP, ED圈丁腈橡胶密封, 包含螺母及卡套, 无六价铬镀锌碳钢接头。
M-GE12LR71X	端直通 12mm管外径, 轻系列, G3/8BSPP, 金属面B型密封, 包含螺母及卡套, 无六价铬镀锌碳钢接头。
M-EVT08L0MDMS	可调向三通, 8mm管外径, 轻型, 黄铜接头, 不含螺母及卡套。
M-EL38SV1/TOMDCF	可调向导管三通, 38mm管外径, 重型, 无六价铬镀锌碳钢接头, 不含螺母及卡套, 旋转螺母端密封材料为氟橡胶。

产品一览




















油口连接 Male stud connector	 M-GE-R P28/29	 M-GE-M P30	 M-GE-R-ED P31	 M-GE-M-ED P32	 M-GE-R (KEG) P34	 M-GEO P35
	 M-GE-NPT P33	 M-GE-UNF/UN P36				
弯通接头 Non adjustable	 M-WE-M(KEG) P37	 M-WE-R (KEG) P37	 M-WE-NPT P38			
	 M-TE-R (KEG) P39	 M-TE-M(KEG) P39	 M-TE-NPT P40	 M-LE R (KEG) P40		
	 M-LE-M(KEG) P41	 M-LE-NPT P42				
管与管连接 Tube to Tube	 M-G P43	 M-GR P44	 M-W P45	 M-T P46	 M-TR P47	 M-K P48
	 M-SV P49	 M-WSV P50				

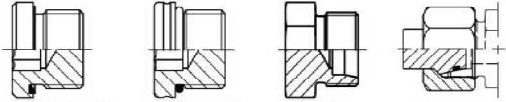
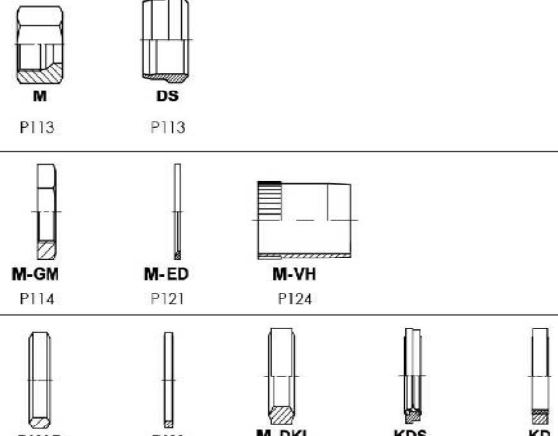
绞接式接头 Banjo fittings	 M-WH-R-KDS P53	 M-WH-R P53	 M-WH-M-KDS P54	 M-WH-M P54	 M-TH-M-KDS P56	 M-TH-M P56
	 M-TH-R-KDS P55	 M-TH-R P55				
组合连接 Tube to swivel	 M-EW P57	 M-EV P58	 M-ET P59	 M-EL P60		
	 M-RED P74-77					
直通组合连接 Male stud connector	 M-EGE-R-ED P61	 M-EGE-M-ED P62	 M-EGE-NPT P63	 M-GZ P64	 M-GZR P65	

产品一览

<p>压力表连接 Pressure gauge adapter</p>	 <p>M-MAV P66</p>  <p>M-MAVE P67</p>
<p>内螺纹连接 Tube to female</p>	 <p>M-GAI-R P68</p>  <p>M-GAI-M P69</p>
<p>油口变径连接 Port reducers</p>	 <p>M-RI P70/71</p>  <p>M-RI-ED P72/73</p>
<p>弯通可调接头 Locknut adjustable</p>	 <p>M-WEE-M P78</p>  <p>M-WEE-M-OR P79</p>  <p>M-WEE-R P80</p>  <p>M-WEE-UNF P81</p>  <p>M-TEE-M P82</p>  <p>M-TEE-M-OR P83</p> <hr/>  <p>M-TEE-R P84</p>  <p>M-TEE-UNF P85</p>  <p>M-LEE-M P86</p>  <p>M-LEE-M-OR P87</p>  <p>M-LEE-R P88</p>  <p>M-LEE-UNF P89</p> <hr/>  <p>M-VEE-M P90</p>  <p>M-VEE-OR P91</p>  <p>M-VEE-R P92</p>  <p>M-VEE-UNF P93</p>

产品一览

<p>旋转螺母与直螺母 Nut</p>	 <p>公制 F682EDML P94</p>
<p>公制螺纹与管连接 ISO6149-2螺纹 Stud ends Metric thread ISO6149-2 thread</p>	 <p>C87OMLO P95</p>  <p>CC87OMLO P96</p>  <p>V87OMLO P101</p>  <p>S87OMLO P105</p>  <p>R87OMLO P109</p>
<p>美制螺纹与管连接 Stud ends UN/UNF thread</p>	 <p>C50MLO P97</p>  <p>CC50LO P98</p>  <p>V50MLO P102</p>  <p>S50MLO P106</p>  <p>R50MLO P110</p>
<p>英制螺纹与管连接 Stud ends BSPP thread</p>	 <p>C40MLO P99</p>  <p>V40MLO P103</p>  <p>R40MLO P107</p>  <p>S40MLO P111</p>
<p>公制螺纹与管连接 DIN3852螺纹 Stud ends Metric thread DIN3852 thread</p>	 <p>C80MLO P100</p>  <p>V80MLO P104</p>  <p>R80MLO P108</p>  <p>S80MLO P112</p>

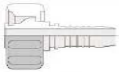


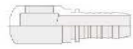

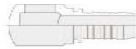



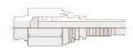



<p>堵头 Plugs</p>	 <p>M-VSTI M/R-ED M-VSTI M-OR M-ROV M-VKA</p> <p>P115 P116 P117 P120</p>
<p>附件 Components</p>	 <p>M DS</p> <p>P113 P113</p> <p>M-GM M-ED M-VH</p> <p>P114 P121 P124</p> <p>DKAD DKA M-DKI KDS KD</p> <p>P118 P118 P119 P122 P123</p>

扣压式软管接头 Swaged Hose Fitting













<p>套筒 Ferrule</p>	 <p>00110-A 00110 03310 00200 00210 00400 01400 00401</p> <p>00018 00TFO 00710</p>
<p>公制螺纹 平面密封 Flat seal</p>	 <p>10311, 10312 20211, 20212 20231, 20232 20241, 20242 20291, 20292</p>
<p>公制螺纹 60°锥密封 60° Cone seal</p>	 <p>10611, 10612 20611, 20612 20641, 20642 20691, 20692</p>
<p>公制螺纹 球面密封 Multiseal</p>	 <p>20111, 20112 20141, 20142 20191, 20192</p>
<p>公制螺纹 74°锥密封 74° Cone seal</p>	 <p>10711, 10712 20711, 20712 20741, 20742 20791, 20792</p>
<p>公制螺纹 90°锥密封 过板 90° Cone seal</p>	 <p>10811L</p>
<p>公制螺纹24° 锥密封过板 轻系列 24° Cone O-Ring Seal L.T</p>	 <p>10411, 10412 20411, 20412 20441, 20442 20491, 20492</p>
<p>公制螺纹24° 锥密封过板 重系列 24° Cone O-Ring Seal H.T</p>	 <p>10511, 10512 20511, 20512 20541, 20542 20591, 20592</p>
<p>公制螺纹24° 锥球面密封 过板轻系列 24° Cone Multiseal L.T</p>	 <p>20411C, 20412C 20491C, 20492C</p>

公制螺纹24° 锥球面密封 过板重系列 24° Cone Multiseal H.T					
20511C、20512C	20541C、20542C	20591C、20592C			
公制卡套 直管 Standpipe straight					
50011、50012	50041、50042	50091、50092	NL NS	RL RS	
英管螺纹O 形圈密封 BSP O-Ring Seal					
12211、12212					
英锥管螺纹 BSPT					
13011-SP、13012-SP					
英管螺纹 球面密封 BSP Multiseal					
22111、22112	22141、22142	22191、22192			
英管螺纹 平面密封 BSP Flat Seal					
22211、22212	22241、22242	22291、22292			
	12611、12612	12611A、12612A	22611、22612	22641、22642	22691、22692
	22611D、22612D	22611D-SM、22612D-SM	22691K、22692K		
SEA O -Ring Seal					
16011、16012					
美制锥螺纹 NPT					
15611、15612					

美制JIC螺 纹74°锥密 封 JIC 74° Cone Seal					
16711、16712	26711、26712	26741、26742	26791、26792	26711D、26712D	
	26711D-SM、26712D-SM	26791K、26792K			
美制SAE螺 纹90°锥面 密封 SAE 90° Cone Seal					
17811、17812	27811、27812	27841、27842	27891、27892		
美制ORFS螺 纹平面密封 ORFS Flat Seal					
14211、14212	24211、24212	24241、24242	24291、24292		
美制NPSM螺 纹60°锥面 密封 NPSM 60° Cone Seal					
21611、21612	21641、21642	21691、21692			
SAE法兰式 轻系列 SAE Flange L.T					
87311、87312	87341、87342	87391、87392	FL		
SAE法兰式 重系列 SAE Flange H.T					
87611、87612	87641、87642	87691、87692	FS		
日制法兰 Flange					
88111、88112	88141、88142	88191、88192			
日式公制 螺纹60°锥 密封 Metric 60° Cone Seal					
18611、18612	28611、28612	28641、28642	28691、28692		
日式英管 螺纹60°锥 密封 GAS 60° Cone Seal					
29611、29612	29641、29642	29691、29692			

公制螺纹 水管接头 Metric Waterwash		20011T
矿用接头 Staplelok	 	60011、60012 67011、67012
铰接接头 Banjo	   	70011、70012 700M 72011、72012 720B
美制锥螺纹 旋转接头 NPT Awivel	 	15611SW 15691KSW
美制SAE螺 纹旋转接 头 SAE O -Ring Boss Awivel	 	16011SW 16091KSW
双面连接 接头 Double Connection	 	90011 90012

剥内外胶软管接头 Interlock Hose Fitting

套筒 Ferrule			00621 00621-R15
英制螺纹 British	     	13013-SP 12613 22613 22643 22693 22613-OR	
美制锥螺纹 NPT		15613	
美制ORFS 螺纹平面 密封 ORFS Flat Seal	  	24213 24243 24293	

特約店

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