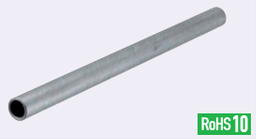
Steel Pipes for Hydraulics / Swaged Sleeve Fittings for Hydraulics

Steel Pipes for Hydraulics



RoHS10

OST

M Material: OST-2 (STPS-2 (JIS B2351))

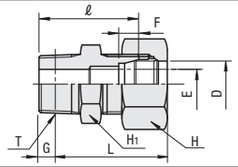
Part Number Type	D	L 1mm Increment	t	Unit Price 1 ~ 4 pc(s). L20~250	L251~500	L501~750	L751~1000	L1001~1500
OST	6	20~1500	1.0					
	8		1.0					
	10		1.2					
	12		1.5					

Ordering Example: Part Number - L → OST8 - 250

Swaged Sleeve Fittings for Hydraulics Connectors

RoHS10

Type	M Material	S Surface Treatment
KTGS	Main Body, Nut: EN 1.1158 Equiv. Sleeve : Carbon Steel	Trivalent Chromate -



Part Number Type	No.	Applicable Pipe O.D. D	T R(PT)	E	Reference Dia. G	Tightening by Hand Approx. L	Hex Socket H1	Hex Socket H	F	ℓ	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 30 pcs.
KTGS	6-1	6	1/8	4	3.97	34.5	14	14	7	28		
	6-2	6	1/4	4	6.01	37.5	17	14	7	33		
	8-1	8	1/8	4	3.97	35.5	17	17	7	29		
	8-2	8	1/4	6	6.01	37.5	17	17	7	33		
	10-2	10	1/4	7	6.01	38.5	17	19	7	33		
	10-3	10	3/8	8	6.35	39.0	19	19	7	34		
	12-2	12	1/4	7	6.01	38.5	19	22	7	33		
	6A-2	10.5	1/4	7	6.01	34.5	17	19	7	33		
	8A-3	13.8	3/8	9	6.35	40	22	24	7.5	37		
	10A-4	17.3	1/2	12	8.16	44.5	27	32	8	41		
	15A-6	21.7	3/4	16	9.53	48	32	36	9	45		

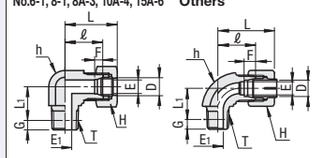
Use No.6A, 8A, 10A, 15A with the same No. of SUT□, JIS-STPG□ (**P.1265**). Sleeves of No.6A, 8A, 10A, 15A is different from those for KTGSL (**P.1302**). No. 8, 10 and 12 have approx. 1.4mm protrusion for improving pressure resistance.

Swaged Sleeve Fittings for Hydraulics Elbow Nipples

RoHS10

Type	M Material	S Surface Treatment
KTGE	Main Body, Nut: EN 1.1158 Equiv. Sleeve : Carbon Steel	Trivalent Chromate -

No.6-1, 8-1, 8A-3, 10A-4, 15A-6 Others



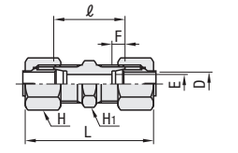
Part Number Type	No.	Applicable Pipe O.D. D	T R(PT)	E	E1	Reference Dia. G	Tightening by Hand Approx. L	L1	Wrench Flats h	Hex Socket H	F	ℓ	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 30 pcs.
KTGE	6-1	6	1/8	4	4	3.97	30.5	14	14	14	7	20		
	6-2	6	1/4	4	4.5	6.01	33.5	17	17	14	7	23		
	8-1	8	1/8	6	4	3.97	33.5	16	17	17	7	23		
	8-2	8	1/4	6	7	6.01	33.5	18	17	17	7	23		
	10-2	10	1/4	8	7	6.01	34.5	19	17	19	7	23		
	10-3	10	3/8	8	9	6.35	35.5	19.5	19	19	7	24		
	12-2	12	1/4	10	7	6.01	35.5	20.5	19	22	7	24		
	8A-3	13.8	3/8	11	9	6.35	40	22.5	22	24	7.5	28		
	10A-4	17.3	1/2	14	12	8.16	44.5	30	27	32	8	32		
	15A-6	21.7	3/4	18	16	9.53	46.5	32.5	32	36	9	34		

Use No.8A, 10A, 15A with the same No. of SUT□, JIS-STPG□ (**P.1265**). Sleeves of No.8A, 10A, 15A is different from those for KTGSL (**P.1302**). No. 8 has approx. 1.4mm protrusion for improving pressure resistance.

Swaged Sleeve Fittings for Hydraulics Union

RoHS10

Type	M Material	S Surface Treatment
KTGR	Main Body, Nut: EN 1.1158 Equiv. Sleeve : Carbon Steel	Trivalent Chromate -



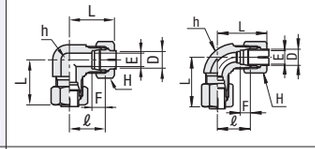
Part Number Type	No.	Applicable Pipe O.D. D	E	Hex Socket H1	Hex Socket H	F	ℓ	Tightening by Hand Approx. L	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 30 pcs.
KTGR	6	6	4	14	14	7	30	51		
	8	8	6	17	17	7	31	52		
	10	10	8	17	19	7	31	54		
	12	12	10	19	22	7	31	54		

Swaged Sleeve Fittings for Hydraulics Elbow

RoHS10

Type	M Material	S Surface Treatment
KTGLB	Main Body, Nut: EN 1.1158 Equiv. Sleeve : Carbon Steel	Trivalent Chromate -

No.6 No.8, 10

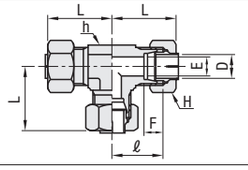


Part Number Type	No.	Applicable Pipe O.D. D	E	Wrench Flats h	Hex Socket H	F	ℓ	Tightening by Hand Approx. L	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 30 pcs.
KTGLB	6	6	4	14	14	7	20	30.5		
	8	8	6	17	17	7	23	33.5		
	10	10	8	17	19	7	23	34.5		

Swaged Sleeve Fittings for Hydraulics Tee

RoHS10

Type	M Material	S Surface Treatment
KTGTE	Main Body, Nut: EN 1.1158 Equiv. Sleeve : Carbon Steel	Trivalent Chromate -

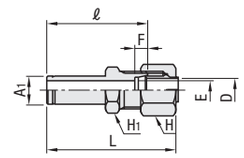


Part Number Type	No.	Applicable Pipe O.D. D	E	Wrench Flats h	Hex Socket H	F	ℓ	Tightening by Hand Approx. L	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 30 pcs.
KTGTE	6	6	4	14	14	7	20	30.5		
	8	8	6	17	17	7	23	33.5		
	10	10	8	17	19	7	23	34.5		
	12	12	10	19	22	7	24	35.5		

Swaged Sleeve Fittings for Hydraulics Reducers

RoHS10

Type	M Material	S Surface Treatment
KTGRE	Main Body, Nut: EN 1.1158 Equiv. Sleeve : Carbon Steel	Trivalent Chromate -

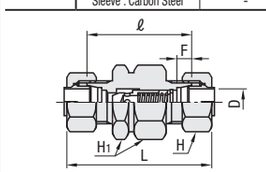


Part Number Type	No.	Applicable Nominal Dia. of Fitting A1	Applicable Pipe O.D. D	E	Hex Socket H1	Hex Socket H	F	ℓ	Tightening by Hand Approx. L	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 30 pcs.
KTGRE	8-6	8	6	4	14	14	7	39	49.5		
	10-6	10	6	4	14	14	7	40	50.5		
	10-8	10	8	6	17	17	7	40	50.5		
	12-6	12	6	4	14	14	7	41	51.5		
	12-8	12	8	6	17	17	7	41	51.5		
	12-10	12	10	8	17	19	7	41	52.5		

Swaged Sleeve Fittings for Hydraulics Reverse Flow Prevention Union

RoHS10

Type	M Material	S Surface Treatment
KTGZR	Main Body, Nut: EN 1.1158 Equiv. Sleeve : Carbon Steel	Trivalent Chromate -



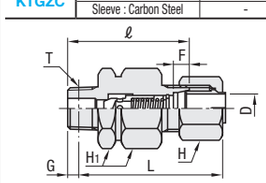
Part Number Type	No.	Applicable Pipe O.D. D	Rating Flow ℓ/min	Cracking Pressure MPa	Hex Socket H1	Hex Socket H	F	ℓ	Tightening by Hand Approx. L	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 30 pcs.
KTGZR	10-05	10	18	0.05	24	19	7	49	72		
	10-45			0.45							
	12-05	12	18	0.05	24	22	7	51	74		
	12-45			0.45							

Features: Fitting with a built-in reverse flow prevention structure.

Swaged Sleeve Fittings for Hydraulics Reverse Flow Prevention Connectors

RoHS10

Type	M Material	S Surface Treatment
KTGZC	Main Body, Nut: EN 1.1158 Equiv. Sleeve : Carbon Steel	Trivalent Chromate -



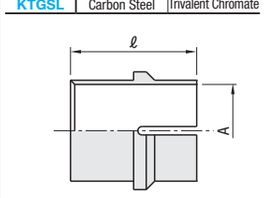
Part Number Type	No.	Applicable Pipe O.D. D	Rating Flow ℓ/min	Cracking Pressure MPa	T R(PT)	Position of Gauge Dia. G	Hex Socket H1	Hex Socket H	F	ℓ	Tightening by Hand Approx. L	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 30 pcs.
KTGZC	10-05	10	18	0.05	1/4	6.01	24	19	7	53	58.5		
	10-45			0.45									
	12-05	12	18	0.05	3/8	6.35	24	22	7	55	60		
	12-45			0.45									

Features: Fitting with a built-in reverse flow prevention structure.

Swaged Sleeve Fittings for Hydraulics Sleeve

RoHS10

Type	M Material	S Surface Treatment
KTGSL	Carbon Steel	Trivalent Chromate

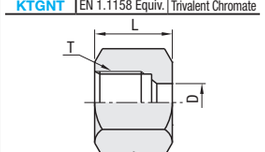


Part Number Type	No.	A	ℓ	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 30 pcs.
KTGSL	6	6	14		
	8	8	14		
	10	10	15		
	12	12	15		

Swaged Sleeve Fittings for Hydraulics Nut

RoHS10

Type	M Material	S Surface Treatment
KTGNT	EN 1.1158 Equiv.	Trivalent Chromate



Part Number Type	No.	D	T	H Hex Socket	L	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 30 pcs.
KTGNT	6	7.3	M12x1.5	14	15		
	8	9.3	M14x1.5	17	15		
	10	11.3	M16x1.5	19	16		
	12	13.3	M18x1.5	22	16		

Ordering Example: Part Number → KTGS8-1, KTGR6

Structure and Tightening Procedure of Swaged Sleeve Fittings

Swaged Sleeve Fittings are composed of a main body, a sleeve and a nut.

[Tightening Procedure]

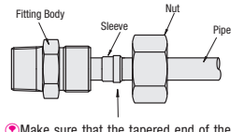
For utilizing performance of Swaged Sleeve Fittings for Steel Pipes, use of appropriate pipe and accurate tightening of fitting are required. The following pre-tightening will make plumbing smooth and secure.

(1) Pre-tightening

①Insert the pipe with nut and sleeve inserted as shown in right figure into the fitting body. Make sure that pipe end contacts abutment part. Inadequate swaging due to the inadequate tightening may cause the pipe to pull out.
②Tighten the nut by hand.
③Tighten the nut with a wrench while rotating the pipe to the end of its rotation. Put a mark on this position of fitting body and the nut.
④Further tighten the nut by a wrench with1-1/4 turn at this mark.
⑤Loosen the nut once to see the state of the sleeve in order to confirm the following.
1) There is some millimeter distance between pipe end and sleeve end.
2)No substantial movement of the sleeve toward the direction of pipe axis is allowable. Moving toward circumferential direction is acceptable.

(2) Full Tightening

Attach the pre-tightened pipe with fitting body and tighten the nut by a wrench until you feel sudden resistance. Further tighten the nut by 1/4 turn, and tightening will be done.



Make sure that the tapered end of the sleeve is facing the fitting body. If inserted backwards, pipe will not be properly swaged and may pull-off.

[Disassembly / Retightening]

- Can be disassembled just by loosening the nut. However, never tighten and loosen the nut while pressurized as it is very dangerous.
- 8 or more disassemblies and retightening are possible by following the Full Tightening Procedure as shown in (2).

· Specifications (KTGZR / KTGZC)

Applicable Pipe Dia.		Max. Operating Pressure	Operating Temperature Range
10-12mm	10,12	3MPa	-20°C~120°C

· Specifications (Other Than Above)

Applicable Pipe Dia.		Max. Operating Pressure	Operating Temperature Range
8mm	8	50MPa	-20°C~250°C
6A	10.5		
10,12mm	10,12		
8A	13.8		
10A	17.3	40MPa	
15A	21.7		

[Applicable Pipes]

(1) JIS G 3454 Carbon Steel Pipe for Pressure Service EN 1.0254 Equiv.
(2) JIS G 3455 Carbon Steel Pipe for High Pressure Service STP370
(3) JIS G 3456 Carbon Steel Pipe for High Temperature Service STP370
(4) JIS G 3459 Stainless Steel Pipe for Plumbing EN 1.4301 Equiv. and EN 1.4401 Equiv.
(5) Japan Fluid Power Association Standard JOHS-102 Accurate Carbon Steel Pipes for Hydraulics OST