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innovations · of · customers

Leak - Proof Flow & Control Solution Partner

The Best Partner
for Value Creation

S-LOK® SCO O-Ring Face Seal Fittings

HanSun

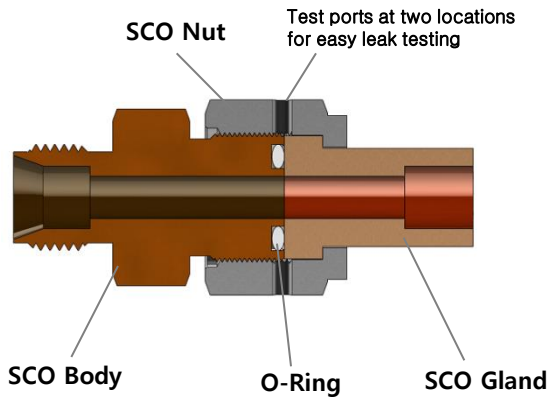
한선엔지니어링(주)
HANSUN ENGINEERING CO., LTD.



HanSun

Technical data

Basic Components & Assembly



Features

- * Sealing from vacuum to positive pressure within a wide range of temperature up to 550°F
- * Easy Installation & Disassembly
- * Eliminating turbulence and dead zone within the Fitting
- * According to SAE J 1453 or ISO 8434-3

Materials of Component

- * Bodies, Glands & Nuts : SUS 316
- * Automatic tube weld fittings : SUS 316L

Pressure Ratings

- * ASME B31.1 & B31.3

He Leak Testing

- * Max leak rate : 4×10^{-9} SCCS (Std cm³/s)

O-Ring Information

- Standard

- * SCO Bodies;
70 durometer
Fluorocarbon FKM(Viton)
- * SAE/MS Thread;
90 durometer
Fluorocarbon FKM(Viton)

- Temperature Rating

Material	Temperature Rating °F(°C)
Fluorocarbon FKM	400 (204)
Buna N	250 (121)
PTFE	450 (232)
Perfluoroelastomer	550 (287)
Ethylene propylene	300 (148)

- O-Ring Uniform Size Number




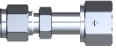


















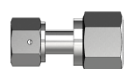


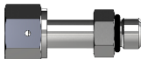
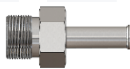
SCO Size	O-Ring Uniform Size Number
1/4	-011
3/8	-012
1/2	-014
3/4	-018
1	-021

SAE/MS Thread Size	O-Ring Uniform Size Number
7/16-20	-904
9/16-18	-906
3/4-16	-908
1 1/16-12	-912
1 5/16-12	-916

Index

Glands

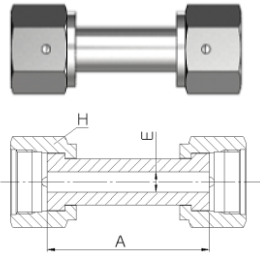
Bodies

	Union SCO-GU	4		Union SCO-BU	6		Male NPT Connector SCO-BMC	8
	S-Lok Tube Fitting Connector SCO-GSC	4		Bulkhead Union SCO-BBU	6		Female NPT Connector SCO-BFC	8
	Tube Adapter SCO-GA	4		Reducing Union SCO-BUR	6		Male Elbow NPT Connector SCO-BLM	8
	Tube Socket Weld Connector SCO-GSWC	4		Union Elbow SCO-BL	6		Male SAE/MS Connector SCO-BUS	8
	Tube Socket Weld Reducing SCO-GSWR	4		Union Tee SCO-BT	6		Male SAE/MS Positionable Elbow SCO-BLS	8
	Male Tube Weld Connector SCO-GWC	5		S-Lok Tube Fitting Connector SCO-BSC	7	<h3>E.T.C. Parts</h3>		
	Automatic Tube Weld Connector SCO-GWAC	5		S-Lok Tube Fitting Bulkhead Connector SCO-BSCB	7			
	Male NPT Connector SCO-GMC	5		S-Lok Tube Fitting Elbow SCO-BSL	7		Blind Nut SCO-BLNUT	9
	Female NPT Connector SCO-GFC	5		Tube Socket Weld Connector SCO-BSWC	7		Blind Cap SCO-CAP	9
	Male SAE/MS Connector SCO-GUS	5		Automatic Tube Weld Connector SCO-BWAC	7			

Glands

► Union

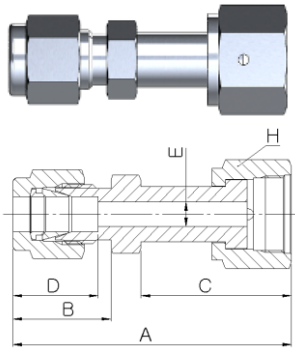
SCO-GU



Ordering Number	SCO Size	A	E	H
SCO-GU-4	1/4	36.1	4.4	11/16
SCO-GU-8	1/2	40.9	9.6	15/16

► S-Lok Tube Fitting Connector

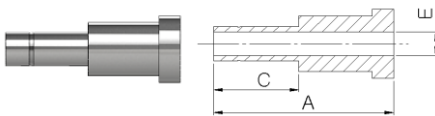
SCO-GSC



Ordering Number.	SCO Size	Tube O.D.	A	B	C	D	E	H
SCO-GSC-4-4T	1/4	1/4	42.94	17.78	19.6	15.24	4.4	11/16
SCO-GSC-8-6T	1/2	3/8	46.52	19.3	20.6	16.76	7.11	15/16
SCO-GSC-8-8T	1/2	1/2	49.84	21.84	20.6	22.86	10.41	15/16
SCO-GSC-12-12T	3/4	3/4	55.41	21.84	23.9	24.38	15.5	1-3/8
SCO-GSC-16-16T	1	1	63.19	26.41	24.9	31.24	20.6	1-5/8

► Tube Adapter

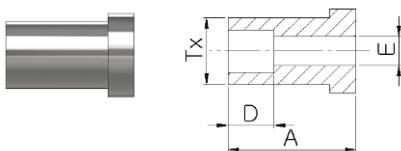
SCO-GA



Ordering Number.	SCO Size	Tube O.D.	A	C	E
SCO-GA-4-4T	1/4	1/4	33.3	15.75	4.31
SCO-GA-8-6T	1/2	3/8	35.1	17.5	6.86
SCO-GA-8-8T	1/2	1/2	41.1	23.2	9.4
SCO-GA-12-12T	3/4	3/4	45.7	24.7	15.5
SCO-GA-16-16T	1	1	52.1	31.7	20.32

► Tube Socket Weld Connector

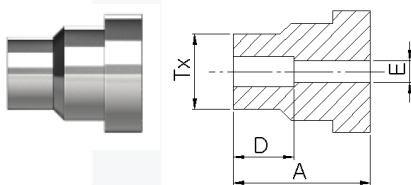
SCO-GSWC



Ordering Number.	SCO Size	Tube O.D.	A	D	E	Tx
SCO-GSWC-4-4T	1/4	1/4	19.6	7.87	4.4	10.21
SCO-GSWC-6-6T	3/8	3/8	20.6	9.65	6.7	13.28
SCO-GSWC-8-8T	1/2	1/2	20.6	12.7	9.6	16.31
SCO-GSWC-12-12T	3/4	3/4	23.9	14.22	15.5	23.77
SCO-GSWC-16-16T	1	1	24.9	19.05	20.6	28.7

► Tube Socket Weld Reducing Connector

SCO-GSWR

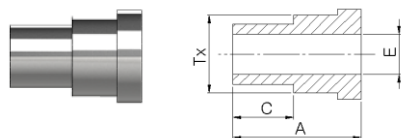


Ordering Number	SCO Size	Tube O.D.	A	D	E	Tx
SCO-GSWR-4-2T	1/4	1/8	19.6	6.35	2.28	7.87
SCO-GSWR-8-4T	1/2	1/4	20.6	7.87	4.82	11.17

Glands

► Male Tube Weld Connector

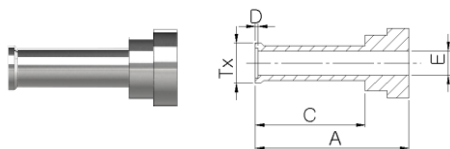
SCO-GWC



Ordering Number	SCO Size	Tube O.D.	A	C	E	Tx
SCO-GWC-4-2T	1/4	1/8	19.6	7.1	1.4	10.21
SCO-GWC-4-4T	1/4	1/4	28.4	10.4	3.0	10.21
SCO-GWC-8-4T	1/2	1/4	23.1	10.4	3.0	16.31
SCO-GWC-8-6T	1/2	3/8	21.3	10.4	5.8	16.31
SCO-GWC-8-8T	1/2	1/2	26.9	12.7	8.4	16.31

► Automatic Tube Weld Connector

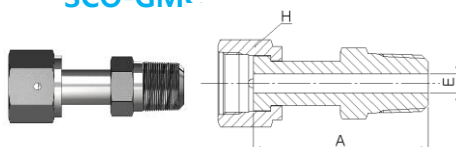
SCO-GWAC



Ordering Number	SCO Size	Tube O.D.	A	C	D	E	Tx	Wall Thickness
SCO-GWAC-4-4T	1/4	1/4	28.4	19.8	0.51	4.4	7.4	0.035
SCO-GWAC-8-6T	1/2	3/8	28.7	20.0	0.76	7.7	10.4	0.035
SCO-GWAC-8-8T	1/2	1/2	29.0	20.3	1.0	9.6	14.0	0.049
SCO-GWAC-12-12T	3/4	3/4	30.5	20.3	1.0	15.5	20.3	0.049
SCO-GWAC-16-16T	1	1	35.8	25.4	1.0	20.6	26.9	0.065

► Male NPT Connector

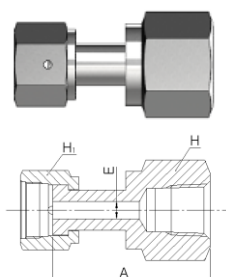
SCO-GMC



Ordering Number	SCO Size	NPT Size	A	E	H
SCO-GMC-4-4N	1/4	1/4	40.4	4.4	11/16
SCO-GMC-8-6N	1/2	3/8	42.4	9.6	15/16
SCO-GMC-8-8N	1/2	1/2	47.5	9.6	15/16
SCO-GMC-12-12N	3/4	3/4	51.6	15.5	1-3/8
SCO-GMC-16-16N	1	1	59.9	20.6	1-5/8

► Female NPT Connector

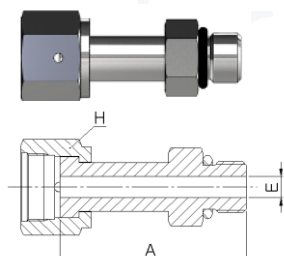
SCO-GFC



Ordering Number	SCO Size	NPT Size.	A	E	H	H ₁
SCO-GFC-4-4N	1/4	1/4	39.9	4.4	3/4	11/16
SCO-GFC-8-6N	1/2	3/8	43.9	9.6	7/8	15/16
SCO-GFC-8-8N	1/2	1/2	49.8	9.6	1-1/16	15/16
SCO-GFC-12-12N	3/4	3/4	53.8	15.5	1-5/16	1-3/8
SCO-GFC-16-16N	1	1	58.2	20.6	1-5/8	1-5/8

► Male SAE MS Connector

SCO-GUS

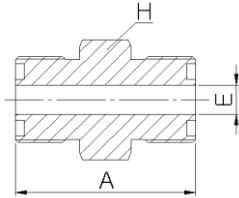


Ordering Number	SCO Size	Straight Thread size	A	E	H
SCO-GUS-4-4U	1/4	7/16-20	39.1	4.4	11/16
SCO-GUS-8-6U	1/2	9/16-18	41.7	9.6	15/16
SCO-GUS-8-8U	1/2	3/4-16	43.4	9.6	15/16
SCO-GUS-12-12U	3/4	1-1/16-12	52.6	15.5	1-3/8
SCO-GUS-16-16U	1	1-5/16-12	55.1	20.6	1-5/8

Bodies

► Union

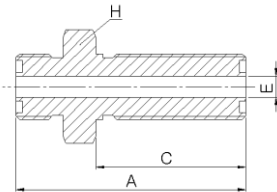
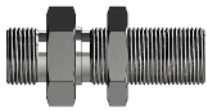
SCO-BU



Ordering Number	SCO Size	A	E	H
SCO-BU-4	1/4	27.6	4.4	5/8
SCO-BU-8	1/2	35.4	9.6	7/8

► Bulkhead Union

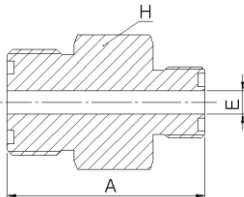
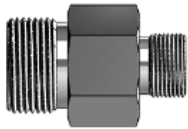
SCO-BBU



Ordering Number	SCO Size	A	C	E	H	Panel Hole Drill Size	Max Panel Thickness
SCO-BBU-4	1/4	48.2	31.5	4.4	13/16	14.27	9.1
SCO-BBU-8	1/2	58.3	36.5	9.6	1-1/8	20.61	10.2

► Reducing Union

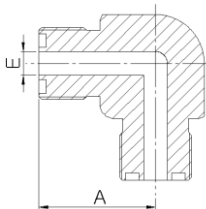
SCO-BUR



Ordering Number	SCO Size	SCO Size	A	E	H
SCO-BUR-8-4	1/2	1/4	32.4	4.4	7/8

► Union Elbow

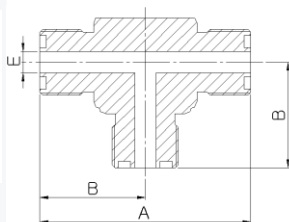
SCO-BL



Ordering Number	SCO Size	A	E
SCO-BL-4	1/4	21.5	4.4
SCO-BL-8	1/2	28.0	9.6
SCO-BL-12	3/4	37.3	15.5
SCO-BL-16	1	41.7	20.6

► Union Tee

SCO-BT

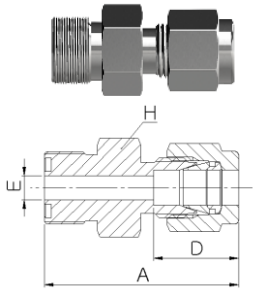


Ordering Number	SCO Size	A	B	E
SCO-BT-4	1/4	43.0	21.5	4.4
SCO-BT-8	1/2	56.0	28.0	9.6
SCO-BT-12	3/4	74.6	37.3	15.5
SCO-BT-16	1	83.4	41.7	20.6

Bodies

► S-Lok Tube Fitting Connector

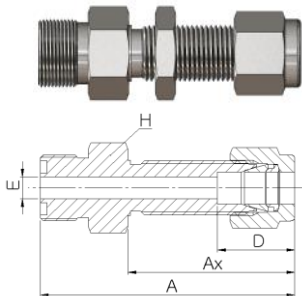
SCO-BSC



Ordering Number	SCO Size	Tube O.D.	A	D	E	H
SCO-BSC-4-2T	1/4	1/8	33.04	12.7	2.28	11/16
SCO-BSC-4-4T	1/4	1/4	35.58	15.24	4.4	11/16
SCO-BSC-8-6T	1/2	3/8	41.9	16.76	7.11	15/16
SCO-BSC-8-8T	1/2	1/2	44.45	22.86	9.6	15/16
SCO-BSC-12-12T	3/4	3/4	51.82	24.38	15.5	1-3/8
SCO-BSC-16-16T	1	1	58.2	31.24	20.6	1-5/8

► S-Lok Tube Fitting Bulkhead Union

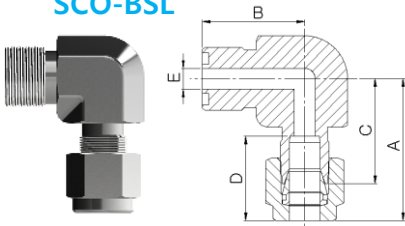
SCO-BSCB



Ordering Number	SCO Size	Tube O.D.	A	Ax	D	E	H	Panel Hole Drill Size	Max Panel Thickness
SCO-BSCB-4-4T	1/4	1/4	51.32	33.52	15.24	4.4	11/16	11.5	10.16
SCO-BSCB-8-6T	1/2	3/8	59.43	36.83	16.76	7.11	15/16	14.68	11.17
SCO-BSCB-8-8T	1/2	1/2	64.51	41.91	22.86	9.6	15/16	19.44	12.7
SCO-BSCB-12-12T	3/4	3/4	77.59	47.49	24.38	15.5	1-3/8	25.79	16.76
SCO-BSCB-16-16T	1	1	89.2	57.4	31.24	20.6	1-5/8	33.73	19.05

► S-Lok Tube Fitting Union Elbow

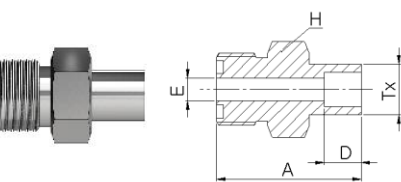
SCO-BSL



Ordering Number	SCO Size	Tube O.D.	A	B	C	D	E
SCO-BSL-4-4T	1/4	1/4	26.92	21.5	19.55	15.24	4.4
SCO-BSL-8-6T	1/2	3/8	30.48	28.0	23.11	16.76	7.11
SCO-BSL-8-8T	1/2	1/2	36.06	28.0	25.9	22.86	9.6
SCO-BSL-12-12T	3/4	3/4	39.87	37.3	29.71	24.38	15.5
SCO-BSL-16-16T	1	1	49.02	41.7	36.83	31.24	20.6

► Tube Socket Weld Connector

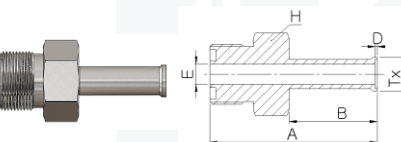
SCO-BSWC



Ordering Number	SCO Size	Tube O.D.	A	D	E	H	Tx
SCO-BSWC-4-4T	1/4	1/4	28.21	7.87	4.4	5/8	11.17
SCO-BSWC-6-6T	3/8	3/8	31.83	9.65	6.7	3/4	15.74
SCO-BSWC-8-8T	1/2	1/2	34.53	12.7	9.6	7/8	19.05
SCO-BSWC-12-12T	3/4	3/4	42.03	14.22	15.5	1-1/4	26.67
SCO-BSWC-16-16T	1	1	46.02	19.05	20.6	1-1/2	33.27

► Automatic Tube Weld Connector

SCO-BWAC

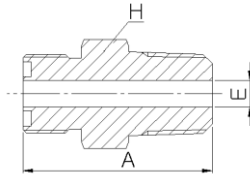


Ordering Number	SCO Size	Tube O.D.	A	B	D	E	H	Tx	Wall Thickness
SCO-BWAC-4-4T	1/4	1/4	37.6	19.8	0.5	4.4	5/8	7.4	0.035
SCO-BWAC-8-6T	1/2	3/8	42.6	20.0	0.8	7.7	3/4	10.4	0.035
SCO-BWAC-8-8T	1/2	1/2	42.9	20.3	1	9.6	7/8	14.0	0.049
SCO-BWAC-12-12T	3/4	3/4	50.4	20.3	1	15.5	1-1/4	20.3	0.049
SCO-BWAC-16-16T	1	1	57.2	25.4	1	20.6	1-1/2	26.9	0.065

Bodies

► Male NPT Connector

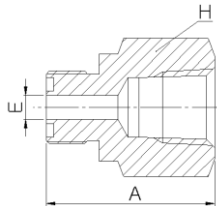
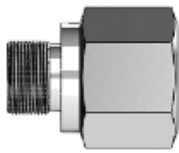
SCO-BMC



Ordering Number	SCO Size	NPT Size	A	E	H
SCO-BMC-4-2N	1/4	1/8	27.8	4.4	5/8
SCO-BMC-4-4N	1/4	1/4	31.8	4.4	5/8
SCO-BMC-8-6N	1/2	3/8	37.6	9.6	7/8
SCO-BMC-8-8N	1/2	1/2	41.6	9.6	7/8
SCO-BMC-12-12N	3/4	3/4	51.1	15.5	1-1/4
SCO-BMC-16-16N	1	1	55.8	20.6	1-1/2

► Female NPT Connector

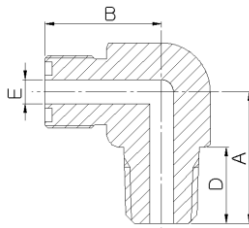
SCO-BFC



Ordering Number	SCO Size	NPT Size	A	E	H
SCO-BFC-4-2N	1/4	1/8	31.8	4.4	9/16
SCO-BFC-4-4N	1/4	1/4	35.3	4.4	3/4
SCO-BFC-8-6N	1/2	3/8	39.9	9.6	7/8
SCO-BFC-8-8N	1/2	1/2	45.0	9.6	1-1/16
SCO-BFC-12-12N	3/4	3/4	49.0	15.5	1-5/16
SCO-BFC-16-16N	1	1	51.3	20.6	1-5/8

► Male Elbow NPT Connector

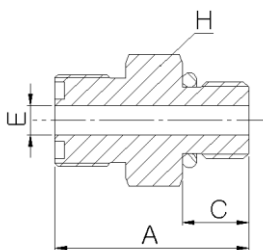
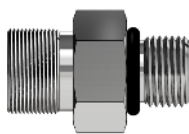
SCO-BLM



Ordering Number	SCO Size	NPT Size	A	B	D	E
SCO-BLM-4-8N	1/4	1/8	22.1	21.5	10.0	4.4
SCO-BLM-4-4N	1/4	1/4	26.7	21.5	14.0	4.4
SCO-BLM-8-6N	1/2	3/8	32.0	28.0	15.0	9.6
SCO-BLM-8-8N	1/2	1/2	36.8	28.0	19.0	9.6
SCO-BLM-12-12N	3/4	3/4	42.4	37.3	21.0	15.5
SCO-BLM-16-16N	1	1	49.3	41.7	24.0	20.6

► Male SAE/MS Connector

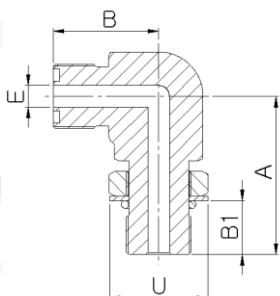
SCO-BUS



Ordering Number	SCO Size	Straight Thread size	A	C	E	H
SCO-BUS-4-4U	1/4	7/16-20	26.94	9.14	4.4	5/8
SCO-BUS-4-6U	1/4	9/16-18	27.7	9.9	4.4	11/16
SCO-BUS-8-4U	1/2	7/16-20	31.74	9.14	9.6	7/8
SCO-BUS-8-6U	1/2	9/16-18	32.5	9.9	9.6	7/8
SCO-BUS-8-8U	1/2	3/4-16	33.77	11.17	9.6	7/8
SCO-BUS-12-12U	3/4	1-1/16-12	45.08	14.98	15.5	1-1/4
SCO-BUS-16-16U	1	1-5/16-12	46.78	14.98	20.6	1-1/2

► Male SAE/MS Positionable Elbow

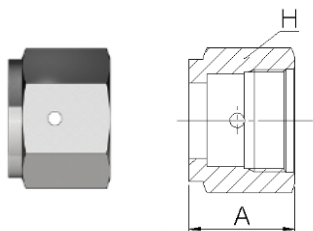
SCO-BLS



Ordering Number	SCO Size	Straight Thread size	A	B	B ₁	E	U
SCO-BLS-4-4U	1/4	7/16-20	30.2	21.5	9.9	4.4	16.51
SCO-BLS-8-6U	1/2	9/16-18	39.1	28.0	11.17	9.6	20.06
SCO-BLS-8-8U	1/2	3/4-16	41.9	28.0	12.7	9.6	25.65
SCO-BLS-12-12U	3/4	1-1/16-12	54.1	37.3	16.76	15.5	36.57
SCO-BLS-16-16U	1	1-5/16-12	58.7	41.7	16.76	20.6	43.94

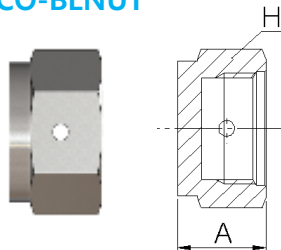
E.T.C. Parts

► NUT SCO-NUT



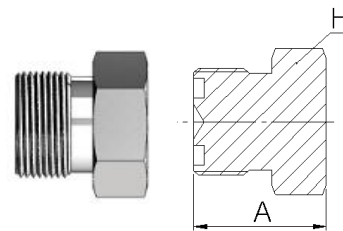
Ordering Number	SCO Size	A	H
SCO-NUT-4	1/4	14.7	11/16
SCO-NUT-8	1/2	21.0	15/16
SCO-NUT-12	3/4	26.0	1-3/8
SCO-NUT-16	1	27.8	1-5/8

► BLIND NUT SCO-BLNUT



Ordering Number	SCO Size	A	H
SCO-BLNUT-4	1/4	11.2	11/16
SCO-BLNUT-8	1/2	14.2	15/16
SCO-BLNUT-12	3/4	19.1	1-3/8
SCO-BLNUT-16	1	20.6	1-5/8

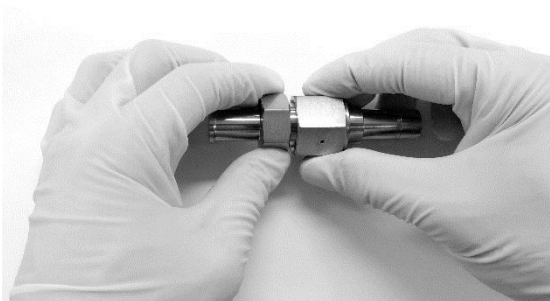
► BLIND CAP SCO-CAP



Ordering Number	SCO Size	A	H
SCO-CAP-4	1/4	16.7	5/8
SCO-CAP-8	1/2	21.8	7/8
SCO-CAP-12	3/4	27.4	1-1/4
SCO-CAP-16	1	27.9	1-1/2

SCO Fitting Installation Instruction

1. Figure Tight.



2. 1/8 (45°) Turn with Wrench.



3. Special Note

O-Ring should be removed to prevent thermal damage when welding of bodies or glands.



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