

Raccordi a compressione in super duplex  
Compression fittings in super duplex

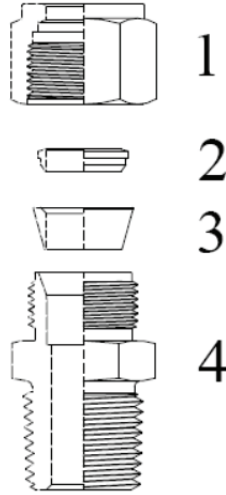
### COMPRESSION FITTINGS IN SUPER DUPLEX UNS S32760/F55

I.T.E. Company to create a tube fittings design for connecting UNS S32760/F55 tube systems. This fitting combines a patented, advanced-geometry shape for the back ferrule and a patented ferrule hardening process.

The result is α-LOK tube fitting that can reliably grip and seal on exceptionally hard **Super Duplex Stainless Steel** tube.

α-LOK UNS S32760/F55 tube fittings are available in sizes from 1/4 to 3/4 in. and can be installed using simple hand tools. All UNS S32760/F55 and 6-moly tube fitting components are manufactured from controlled chemistry material with a minimum pitting resistance equivalent (PRE) value of 42.5.

Each α-LOK UNS S32760/F55 tube fitting component is stamped with its material type.



Material of Construction		
Item	Components	Material
1	Nut	UNS S32760/F55 Super Duplex S.S.
2	Back Ferrule	UNS S31254/F44 Super Austenitic S.S.
3	Front Ferrule	UNS S32760/F55 Super Duplex S.S.
4	Body	UNS S32760/F55 Super Duplex S.S.



**DO NOT MIX COMPONENTS OF OTHER MATERIALS WITH SUPER DUPLEX S.S.**

#### Pressure Rating

Pressure ratings for a fluid system are determined by the end connection or system component with the lowest pressure rating. Ratings for the end connections listed in this catalog are discussed below.

#### α-LOK Tube Fitting

α-LOK tube fitting listed in this catalogue are rated to the pressure rating of the tubing (see table below).

#### Pressure Ratings for α-LOK UNS S32760/F55 Tube Fittings used with Super Duplex Stainless Steel Tubing

Pressure ratings are calculated from S values (38 700 psi [266 MPa]), in accordance with ASME B31.3, Process Piping. Pressure ratings are for metal temperatures from -20 to 100°F (-28 to 37°C). Super Duplex tubing, fully annealed, meets ASTM A789 or equivalent. Hardness value is HRC 32 or less. **For gas service, use tube wall thicknesses outside the shaded area.**

Tube OD In.	Tube Wall Thickness, In.				
	0.0035	0.049	0.065	0.083	0.095
Working Pressure, psig ( bar )					
1/4	10 000 (690)	15 000 (1040)	-	-	-
3/8	6 500 (450)	10 100 (700)	12 700 (880)	-	-
1/2	5 000 (350)	7 200 (500)	10 100 (700)	12 900 (890)	-
5/8	-	5 800 (400)	7 600 (530)	10 100 (700)	-
3/4	-	4 700 (330)	6 300 (440)	8 500 (590)	10 000 (690)

Multiply working pressure from the table above by the appropriate factor to obtain working pressure at elevated temperatures.

Example: 1/4 in. tubing with 0.035 in. wall at 300°F (148°C):

The working pressure at 100°F (37°C) is 10 000 psig (690 bar).

The Temperature factor for 300°F (148°C) is 0.85 10000 psig (690 bar) x 0.85 is 8500 (585).

The working pressure for 1/4 in. tubing with 0.035 in. wall at 300°F (148°C) is 8500 psig (585 bar).

Temperature °F ( °C )	Factor
200 (93)	0.90
300 (148)	0.85
400 (204)	0.82
500 (260)	0.81
600 (316)	0.80

### COMPRESSION FITTINGS IN SUPER DUPLEX UNS S32760 / F55

#### Installation Instruction

α-LOK tube fittings are supplied completely assembled

#### Normal use

- 1) Ensure that the end of the tube is cut square and any burrs removed without causing undue chamfering of the tube end.
- 2) Insert the tube into a α-LOK fitting ensuring that the tube is firmly butted home into the body of the fitting and the nut is finger tight. (Fig.1)
- 3) With the body firmly held, mark the nut in the finger tightened position and rotate the nut one and a quarter turns from the marked position. The correctly made connection is then completed. (Fig.2)
- 4) For size up to 3/16" and 4 mm tube fittings only three quarters of a turn from finger tight is necessary.

#### High pressure applications, high safety factor systems

To allow for possible tolerance variations in tube diameters when the application demands the maximum pressure sealing capabilities of the fitting, It is recommended that the nut is tightened until the tube cannot be rotated by hand. From this point the nut should then be tightened one and a quarter turns.

#### Retightening and disassembly

With α-LOK tube fittings the connection can be disconnected and retightened many times and the same reliable, safe leak proof connection obtained. Holding the body with a spanner, the nut is tightened to the original position and then given a slight extra effort to retain positive sealing. (Fig. 3)

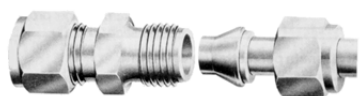


Fig. 1

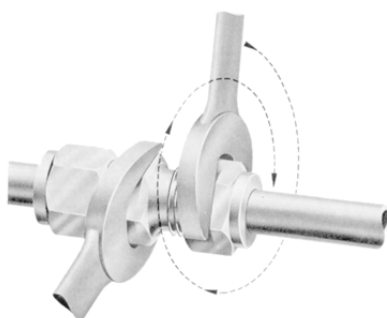


Fig. 2

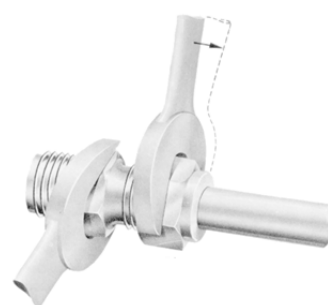
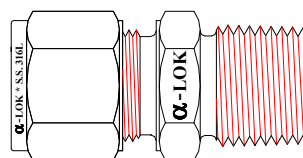
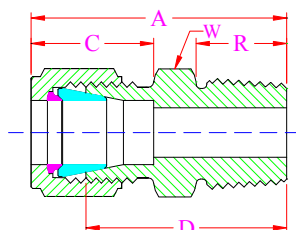


Fig. 3

### COMPRESSION FITTINGS IN SUPER DUPLEX UNS S32760/F55



#### Terminale Dritto Maschio – Straight Male Connector

Pollici - Inches

Code	Tube O.D.	NPT Thread	A	C	D	R	W Hex
SD-CM 4-1	1/4	1/16	1.29	0.70	1.00	0.38	1/2
SD-CM 4-2	1/4	1/8	1.29	0.70	1.00	0.38	1/2
SD-CM 4-4	1/4	1/4	1.49	0.70	1.20	0.56	9/16
SD-CM 4-6	1/4	3/8	1.51	0.70	1.22	0.56	11/16
SD-CM 4-8	1/4	1/2	1.76	0.70	1.47	0.75	7/8
SD-CM 4-12	1/4	3/4	1.82	0.70	1.53	0.75	1-1/16
SD-CM 6-2	3/8	1/8	1.38	0.76	1.09	0.38	5/8
SD-CM 6-4	3/8	1/4	1.57	0.76	1.28	0.56	5/8
SD-CM 6-6	3/8	3/8	1.57	0.76	1.28	0.56	11/16
SD-CM 6-8	3/8	1/2	1.82	0.76	1.53	0.75	7/8
SD-CM 6-12	3/8	3/4	1.88	0.76	1.59	0.75	1-1/16
SD-CM 8-2	1/2	1/8	1.53	0.87	1.13	0.38	13/16
SD-CM 8-4	1/2	1/4	1.71	0.87	1.31	0.56	13/16
SD-CM 8-6	1/2	3/8	1.71	0.87	1.31	0.56	13/16
SD-CM 8-8	1/2	1/2	1.93	0.87	1.53	0.75	7/8
SD-CM 8-12	1/2	3/4	1.99	0.87	1.59	0.75	1-1/16
SD-CM 8-16	1/2	1	2.28	0.87	1.88	0.94	1-3/8
SD-CM 10-6	5/8	3/8	1.74	0.87	1.34	0.56	15/16
SD-CM 10-8	5/8	1/2	1.93	0.87	1.53	0.75	15/16
SD-CM 10-12	5/8	3/4	1.99	0.87	1.59	0.75	1-1/16
SD-CM 12-8	3/4	1/2	1.99	0.87	1.59	0.75	1-1/16
SD-CM 12-12	3/4	3/4	1.99	0.87	1.59	0.75	1-1/16
SD-CM 12-16	3/4	1	2.28	0.87	1.88	0.94	1-3/8

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### COMPRESSION FITTINGS IN SUPER DUPLEX UNS S32760/F55

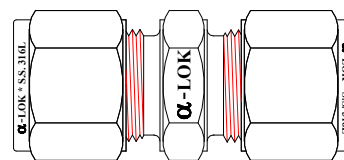
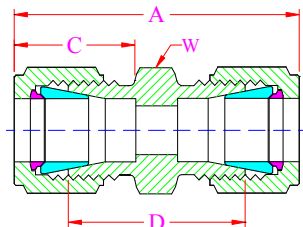


**Terminale Dritto Femmina – Straight Female Connector**  
**Pollici - Inches**

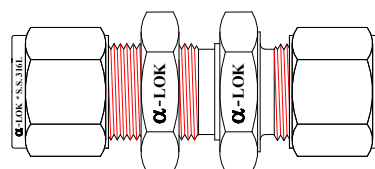
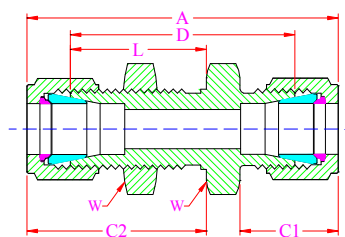
Code	Tube O.D.	NPT Thread	A	C	D	W Hex
SD-CF 4-2	1/4	1/8	1.23	0.70	0.94	9/16
SD-CF 4-4	1/4	1/4	1.42	0.70	1.13	3/4
SD-CF 4-6	1/4	3/8	1.48	0.70	1.19	7/8
SD-CF 4-8	1/4	1/2	1.67	0.70	1.38	1-1/16
SD-CF 6-2	3/8	1/8	1.29	0.76	1.00	5/8
SD-CF 6-4	3/8	1/4	1.48	0.76	1.19	3/4
SD-CF 6-6	3/8	3/8	1.54	0.76	1.25	7/8
SD-CF 6-8	3/8	1/2	1.73	0.76	1.44	1-1/16
SD-CF 6-12	3/8	3/4	1.85	0.76	1.56	1-1/4
SD-CF 8-4	1/2	1/4	1.59	0.87	1.19	13/16
SD-CF 8-6	1/2	3/8	1.65	0.87	1.25	7/8
SD-CF 8-8	1/2	1/2	1.84	0.87	1.44	1-1/16
SD-CF 8-12	1/2	3/4	1.96	0.87	1.56	1-1/4
SD-CF 10-6	5/8	3/8	1.65	0.87	1.25	13/16
SD-CF 10-8	5/8	1/2	1.84	0.87	1.44	1-1/16
SD-CF 12-8	3/4	1/2	1.84	0.87	1.44	1-1/16
SD-CF 12-12	3/4	3/4	1.96	0.87	1.56	1-3/8

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### COMPRESSION FITTINGS IN SUPER DUPLEX UNS S32760/F55



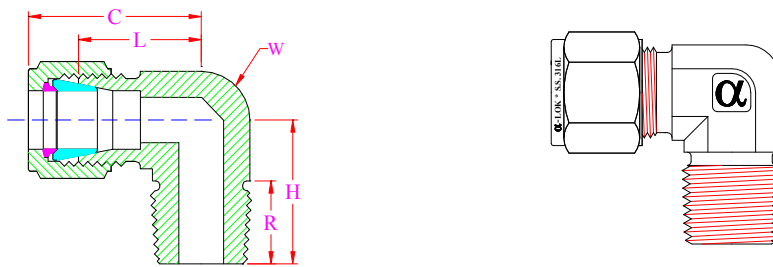
Intermedio Dritto – Straight Union					
Pollici - Inches					
Code	Tube O.D.	A	C	D	W Hex
SD-U 4	1/4	1.62	0.70	1.03	1/2
SD-U 6	3/8	1.77	0.76	1.19	5/8
SD-U 8	1/2	2.02	0.87	1.22	13/16
SD-U 10	5/8	2.05	0.87	1.25	15/16
SD-U 12	3/4	2.11	0.87	1.31	1-1/16



Intermedio Passaparete – Bulkhead Union							
Pollici - Inches							
Code	Tube O.D.	A	C <sup>1</sup>	C <sup>2</sup>	D	L	W Hex
SD-BU 4	1/4	2.27	0.70	1.31	1.69	1.02	5/8
SD-BU 6	3/8	2.46	0.76	1.44	1.88	1.15	3/4
SD-BU 8	1/2	2.80	0.87	1.65	2.00	1.25	15/16
SD-BU 10	5/8	2.86	0.87	1.68	2.06	1.28	1-1/16
SD-BU 12	3/4	3.11	0.87	1.87	2.31	1.47	1-3/16

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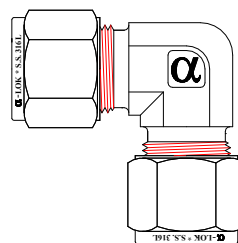
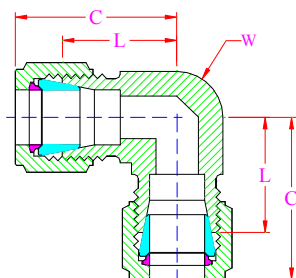


**Terminale Gomito Maschio – Male Elbow Connector**  
**Pollici - Inches**

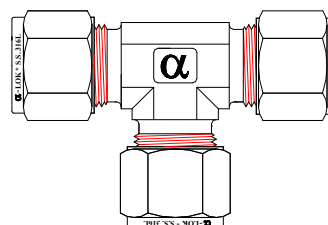
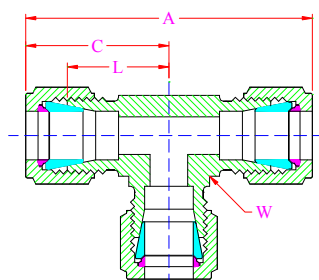
Code	Tube O.D.	NPT Thread	C	H	L	R	W Hex
SD-EM 4-2	1/4	1/8	1.06	0.74	0.77	0.38	1/2
SD-EM 4-4	1/4	1/4	1.06	0.93	0.77	0.56	9/16
SD-EM 4-6	1/4	3/8	1.17	1.04	0.88	0.56	11/16
SD-EM 4-8	1/4	1/2	1.25	1.31	0.96	0.75	13/16
SD-EM 6-2	3/8	1/8	1.20	0.82	0.91	0.38	5/8
SD-EM 6-4	3/8	1/4	1.20	1.01	0.91	0.56	5/8
SD-EM 6-6	3/8	3/8	1.23	1.13	0.97	0.56	11/16
SD-EM 6-8	3/8	1/2	1.31	1.31	1.02	0.75	13/16
SD-EM 6-12	3/8	3/4	1.46	1.46	1.17	0.75	1-1/16
SD-EM 8-4	1/2	1/4	1.42	1.12	1.02	0.56	13/16
SD-EM 8-6	1/2	3/8	1.42	1.12	1.02	0.56	13/16
SD-EM 8-8	1/2	1/2	1.42	1.31	1.02	0.75	13/16
SD-EM 8-12	1/2	3/4	1.57	1.46	1.17	0.75	1-1/16
SD-EM 10-6	5/8	3/8	1.50	1.20	1.10	0.56	15/16
SD-EM 10-8	5/8	1/2	1.50	1.39	1.10	0.75	15/16
SD-EM 10-12	5/8	3/4	1.57	1.46	1.17	0.75	1-1/16
SD-EM 12-8	3/4	1/2	1.57	1.46	1.17	0.75	1-1/16
SD-EM 12-12	3/4	3/4	1.57	1.46	1.17	0.75	1-1/16

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### COMPRESSION FITTINGS IN SUPER DUPLEX UNS S32760/F55



Intermedio A Gomito – Union Elbow				
Pollici - Inches				
Code	Tube O.D.	C	L	W Hex
SD-UE 4	1/4	1.06	0.77	1/2
SD-UE 6	3/8	1.20	0.91	5/8
SD-UE 8	1/2	1.42	1.02	13/16
SD-UE 10	5/8	1.50	1.10	15/16
SD-UE 12	3/4	1.57	1.17	1-1/16

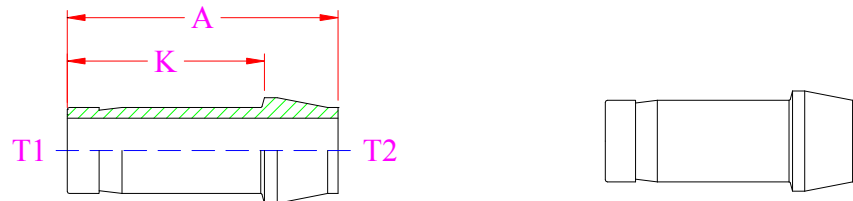


Intermedio a Tee – Union Tee					
Pollici - Inches					
Code	Tube O.D.	A	C	L	W Hex
SD-UT 4	1/4	2.12	1.06	0.77	1/2
SD-UT 6	3/8	2.40	1.20	0.91	5/8
SD-UT 8	1/2	2.84	1.42	1.02	13/16
SD-UT 10	5/8	3.06	1.53	1.13	1
SD-UT 12	3/4	3.14	1.57	1.16	1-1/16

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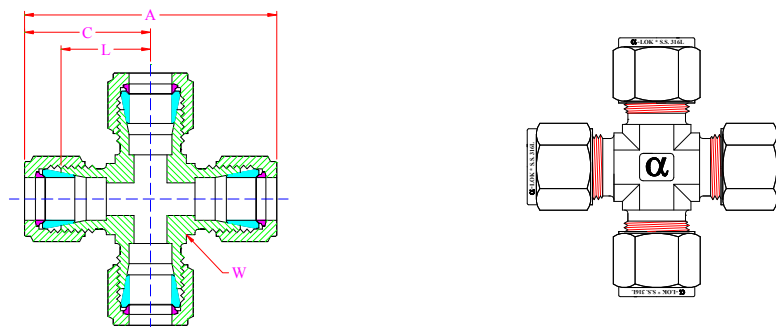


### COMPRESSION FITTINGS IN SUPER DUPLEX UNS S32760/F55



**Inserto di Collegamento – Port Connector**  
Pollici - Inches

Code	Tube 1 O.D.	Tube 2 O.D.	A	K
SD-PC 4-4	1/4	1/4	1.07	0.76
SD-PC 6-6	3/8	3/8	1.16	0.84
SD-PC 8-8	1/2	1/2	1.59	1.11
SD-PC 12-12	3/4	3/4	1.65	1.16

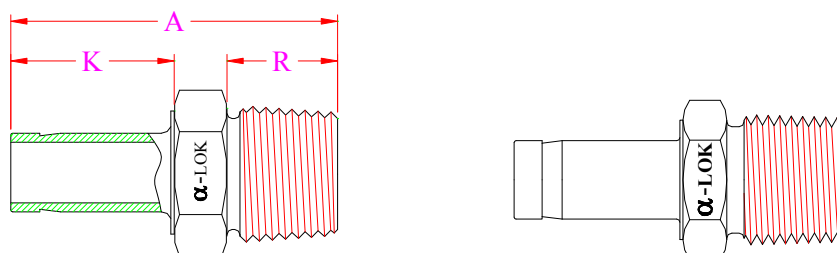


**Intermedio a Croce – Union Cross**  
Pollici - Inches

Code	Tube O.D.	A	C	L	W Hex
SD-UC 4	1/4	2.12	1.06	0.77	1/2
SD-UC 6	3/8	2.40	1.20	0.91	5/8
SD-UC 8	1/2	2.84	1.42	1.02	13/16
SD-UC 12	3/4	3.14	1.57	1.16	1-1/16

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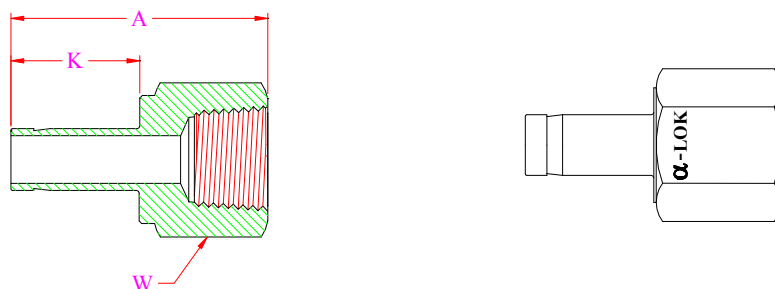
### COMPRESSION FITTINGS IN SUPER DUPLEX UNS S32760/F55



Adattatore Maschio – Male Adapter						
Pollici - Inches						
Code	Tube O.D.	NPT Thread	A	R	K	W Hex
SD-AM 4-2	1/4	1/8	1.25	0.38	0.63	7/16
SD-AM 4-4	1/4	1/4	1.46	0.56	0.63	9/16
SD-AM 4-6	1/4	3/8	1.49	0.56	0.63	11/16
SD-AM 4-8	1/4	1/2	1.71	0.75	0.63	7/8
SD-AM 6-2	3/8	1/8	1.32	0.38	0.69	7/16
SD-AM 6-4	3/8	1/4	1.53	0.56	0.69	9/16
SD-AM 6-6	3/8	3/8	1.56	0.56	0.69	11/16
SD-AM 6-8	3/8	1/2	1.78	0.75	0.69	7/8
SD-AM 8-4	1/2	1/4	1.75	0.56	0.91	9/16
SD-AM 8-6	1/2	3/8	1.78	0.56	0.91	11/16
SD-AM 8-8	1/2	1/2	2.00	0.75	0.91	7/8
SD-AM 10-8	5/8	1/2	2.06	0.75	0.97	7/8
SD-AM 12-8	3/4	1/2	2.06	0.75	0.97	7/8
SD-AM 12-12	3/4	3/4	2.06	0.75	0.97	1-1/16
SD-AM 12-16	3/4	1	2.41	0.94	0.97	1-3/8

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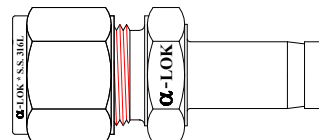
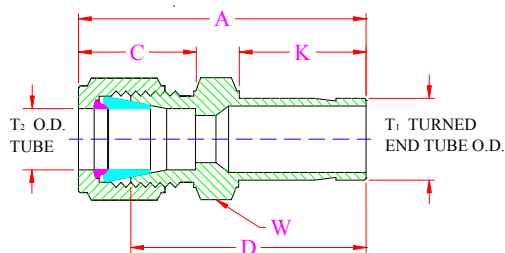
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Adattatore Femmina – Female Adapter					
Pollici - Inches					
Code	Tube O.D.	NPT Thread	A	K	W Hex
SD-AF 4-2	1/4	1/8	1.31	0.63	9/16
SD-AF 4-4	1/4	1/4	1.47	0.63	3/4
SD-AF 4-6	1/4	3/8	1.56	0.63	7/8
SD-AF 4-8	1/4	1/2	1.80	0.63	1-1/16
SD-AF 6-2	3/8	1/8	1.36	0.69	9/16
SD-AF 6-4	3/8	1/4	1.55	0.69	3/4
SD-AF 6-6	3/8	3/8	1.59	0.69	7/8
SD-AF 6-8	3/8	1/2	1.84	0.69	1-1/16
SD-AF 8-4	1/2	1/4	1.72	0.91	3/4
SD-AF 8-6	1/2	3/8	1.80	0.91	7/8
SD-AF 8-8	1/2	1/2	2.10	0.91	1-1/16
SD-AF 10-6	5/8	3/8	1.86	0.97	7/8
SD-AF 10-8	5/8	1/2	2.09	0.97	1-1/16
SD-AF 12-8	3/4	1/2	2.10	0.97	1-1/16
SD-AF 12-12	3/4	3/4	2.16	0.97	1-1/4
SD-AF 12-16	3/4	1	2.30	0.97	1-5/8

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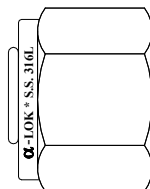
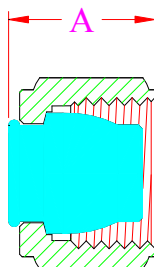
### COMPRESSION FITTINGS IN SUPER DUPLEX UNS S32760/F55



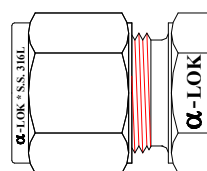
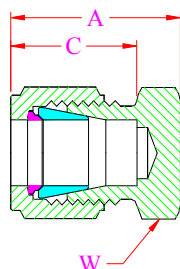
Riduzione – Reducer							
Pollici - Inches							
Code	Tube 1 O.D.	Tube 2 O.D.	A	C	D	K	W Hex
SD-R 4-2	1/4	1/8	1.45	0.70	1.16	0.53	1/2
SD-R 4-3	1/4	3/16	1.48	0.60	1.19	0.56	1/2
SD-R 4-4	1/4	1/4	1.54	0.70	1.25	0.63	1/2
SD-R 4-5	1/4	5/16	1.57	0.70	1.28	0.66	1/2
SD-R 4-6	1/4	3/8	1.60	0.70	1.31	0.69	1/2
SD-R 4-8	1/4	1/2	1.82	0.70	1.53	0.91	9/16
SD-R 4-10	1/4	5/8	1.89	0.70	1.60	0.97	11/16
SD-R 4-12	1/4	3/4	1.88	0.70	1.59	0.97	13/16
SD-R 6-4	3/8	1/4	1.63	0.76	1.34	0.63	5/8
SD-R 6-8	3/8	1/2	1.91	0.76	1.62	0.91	5/8
SD-R 6-10	3/8	5/8	1.98	0.76	1.69	0.97	11/16
SD-R 6-12	3/8	3/4	1.98	0.76	1.69	0.97	13/16
SD-R 8-4	1/2	1/4	1.77	0.87	1.37	0.63	13/16
SD-R 8-6	1/2	3/8	1.84	0.87	1.44	0.69	13/16
SD-R 8-10	1/2	5/8	2.12	0.87	1.72	0.97	13/16
SD-R 8-12	1/2	3/4	2.12	0.87	1.72	0.97	13/16
SD-R 8-16	1/2	1	2.37	0.87	1.97	1.22	1-1/16
SD-R 10-12	5/8	3/4	2.15	0.87	1.75	0.97	15/16
SD-R 10-14	5/8	7/8	2.21	0.87	1.81	1.03	15/16
SD-R 10-16	5/8	1	2.40	0.87	2.00	1.22	1-1/16
SD-R 12-8	3/4	1/2	2.15	0.87	1.75	0.91	1-1/16
SD-R 12-16	3/4	1	2.46	0.87	2.06	1.22	1-1/16

Le quote riportate nelle tabelle sono indicative. Ci riserviamo il diritto di modificarle senza preavviso  
The dimensions indicated in the tables are approximate. We reserve the right to change without notice

### COMPRESSION FITTINGS IN SUPER DUPLEX UNS S32760/F55



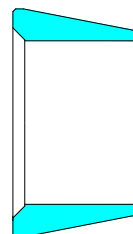
Tappo per Raccordo – Plug for Fitting				
Pollici - Inches				
Code	Tube O.D.	Thread	A	W Hex
SD-P 4	1/4	7/16-20	0.50	9/16
SD-P 6	3/8	9/16-20	0.56	11/16
SD-P 8	1/2	3/4-20	0.69	7/8
SD-P 10	5/8	7/8-20	0.69	1
SD-P 12	3/4	1-20	0.69	1-1/8



Tappo per Tubo – Plug for Tube				
Pollici - Inches				
Code	Tube O.D.	A	C	W Hex
SD-C 4	1/4	0.92	0.70	1/2
SD-C 6	3/8	1.01	0.76	5/8
SD-C 8	1/2	1.15	0.87	13/16
SD-C 10	5/8	1.18	0.87	15/16
SD-C 12	3/4	1.25	0.87	1-1/16

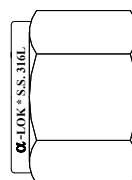
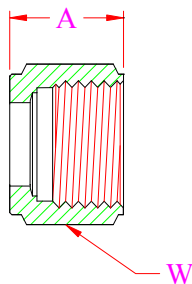
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### COMPRESSION FITTINGS IN SUPER DUPLEX UNS S32760/F55



Anello Posteriore Back Ferrules	
Code	Tube O.D.
SD-FB 4	1/4
SD-FB 6	3/8
SD-FB 8	1/2
SD-FB 10	5/8
SD-FB 12	3/4

Anello Anteriore Front Ferrules	
Code	Tube O.D.
SD-FF 4	1/4
SD-FF 6	3/8
SD-FF 8	1/2
SD-FF 10	5/8
SD-FF 12	3/4



Dado – Nut Pollici - Inches			
Code	Tube O.D.	A	W Hex
SD-N 4	1/4	0.50	9/16
SD-N 6	3/8	0.56	11/16
SD-N 8	1/2	0.69	7/8
SD-N 10	5/8	0.69	1
SD-N 12	3/4	0.69	1-1/8

Le quote riportate nelle tabelle sono indicative. Ci riserviamo il diritto di modificarle senza preavviso  
The dimensions indicated in the tables are approximate. We reserve the right to change without notice