The Premium Quality Dk-Lok Tube Fittings

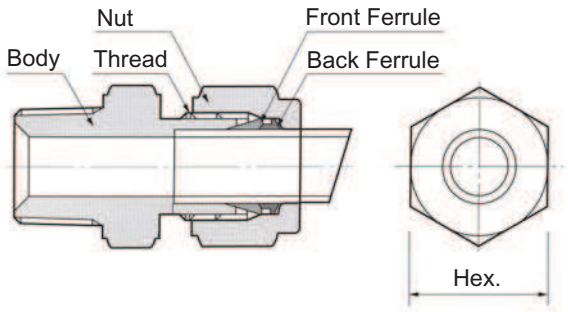
Dk-Lok Tube Fitting is designed using industrial codes and specifications with additional Cutting-Edge Engineering on swaging action and sealing integrity. Dk-Lok provides excellent leak-free sealing on high pressure gas, vacuum, impulse, thermal shock, heavy vibration, and many other stringent applications.

Dk-Lok brings you excellent quality, outstanding customer service, and availability.
Enjoy Dk-Lok tube fitting working on your application!

Construction of Dk-Lok Tube Fittings

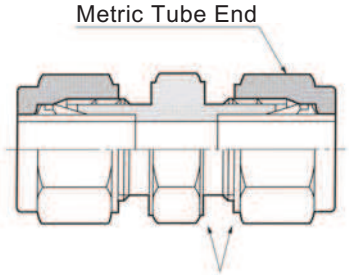
Dk-Lok Tube Fitting consists of body, front ferrule, back ferrule and nut. The features include;

- Excellent product range up to 2 in. and 38 mm OD.
- Additional engineering on sealing integrity and swaging action.
- Re-usable and predictable quality.
- Gaugable.
- Excellent leak-free sealing integrity on heavy vibration, vacuum and impulse.
- Heat-Code Traceability.
- No torque transferring to connective tubing during installation.



Identification of Metric Dk-Lok Tube Fitting

Metric Dk-Lok tube fitting has stepped shoulder on body and nut hex. Shaped fitting such as tee, elbow, and cross forging has no such step on body.



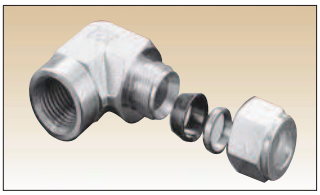
Stepped Shoulders on Nut and Body

Dk-Lok Material Standards

Dk-Lok tube fitting are supplied in various materials to satisfy the needs of various applications including on shore oil & gas, refinery, offshore oil & gas, chemical, petrochemical, analytical instrumentation, steel mill, power plant, shipbuilding, pharmaceutical, and alternative fuel.

Table 1.

Material	Bar Stock	Forging
Stainless Steel 316	ASTM A276 Type 316 ASTM A479 Type 316 ASME SA479 Type 316 JIS G4303	ASTM A182 ASME SA182 JIS G3214
Brass	ASTM B16 UNS C36000 ASTM B453 UNS C35300 JIS H3250 Alloy C3604	ASTM B283 Alloy 37700 JIS H3250 Alloy C3771
Carbon Steel	ASTM A108 JIS G4051 S20C - S48C	ASTM A105 JIS G4051 S20C - S48C
Duplex	ASTM A276 S31803 ASTM A479 S31803	ASTM A182 F51
Super Duplex	ASTM A479 S32750	ASTM A182 F51
Aluminum	ASTM B211 Alloy 2024 T6	ASTM B247
Alloy 20	ASTM B473 UNS N08020	ASTM B462 UNS N08020
Hastelloy C276	ASTM B574 UNS N10276	ASTM B564 UNS N10276
Alloy 400	ASTM B164 UNS N04400	ASTM B564 UNS N04400
Alloy 600	ASTM B166 UNS N06600	ASTM B564 UNS N06600
Alloy 625	ASTM B446 UNS N06625	ASTM B564 UNS N06625
Alloy 825	ASTM B425 UNS N08825	ASTM B564 UNS N08825
Titanium Gr. 2	ASTM B348 Gr. 2	ASTM B381 F3
PTFE	ASTM D1710	ASTM D3293



Carbon Steel Dk-Lok Tube Fittings

Carbon steel fitings are white zinc plated. Every carbon steel fitting is supplied with SS316 back ferrule.

Product Cleaning

Every Dk-Lok tube fitting is cleaned to remove surface contamination, iron particles from cutting tools, oil from cutting fluid, and loose particles. For further information, refer to DK cleaning standard DC-01. Special cleaning for oxygen service application is available on request. Refer to special cleaning standard DC-11.

O-ring

Dk-Lok fitting pipe end with O-ring is supplied; 70 durometer NBR O-ring on Brass and Carbon steel fittings, 90 durometer FKM O-ring on Stainless steel fitting.
Other O-ring is available on request.

Dk-Lok Port Dimension

Dimensions on Dk-Lok Port in the catalog are approximate figures and shown in finger-tight position.

Alternative Fuels

Stainless steel 316 Dk-Lok tube fitting are tested to the requirements of ECE R110, EIHP Draft, ECE R67 and certified by TUV.

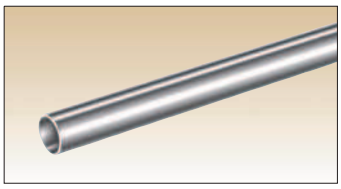
All dimensions are in millimeters unless otherwise specified and only for reference subject to change.

Tubing

For safe, reliable and leak-free Dk-Lok fitting system, tubing should be considered as one of fitting components.

- Tubing is assembled by simple wrench make-up on Dk-Lok fitting. This results in less assembly and maintenance costs.
- Tubing assembly on Dk-Lok fitting is re-usable.
- Tubing is bendable. It allows lower pressure drop with fewer connections. This in turn reduces system costs because of less fabricating manpower.
- Pipe threading or welding is difficult to disassemble and re-assemble.
- Piping requires skilled worker for welding & threading.

1.Tubing Selection
2.Tubing Handling



1. Tubing Selection

Hardness

- Tubing must be softer than fitting material. The metal tubing must be fully annealed and suitable for bending and flaring.
- Tubing hardness must be selected according to the information in the table 2 to 13.

Surface

- Tubing must have a surface free from scratches, draw mark, dirt, durst and flat spots.

Ovality

- Tubing in oval or out-of-roundness may not fit into the fitting. Do not force the tubing into the fitting; it may damage the fitting sealing system on nut, ferrules, and body.

Wall thickness

- The table 2 to 13 list tubing working pressure ratings in a wide range of wall thickness. A too thin wall may collapse and a too thick wall may not properly be deformed by the ferrule action.
- Do not use tubing wall thickness not listed in the table 2 to 13.

Weld tubing

- Welded tubing should have a not measurable bead on its outside diameter.

2. Tubing Handling

Careful handling and storage practices will protect tubing from unnecessary scratches, nicks, or degrading the good tubing surface finish.

- Tubing ends should be capped so any foreign materials will not fall inside during transportation and storage.
- Do not drag across tubing rack, cement, gravel or any rough surface.
- Do use correct tube cutter for tube material. The wrong cutter may result in excessive deformation of the tube end.
- Do not cut deep with each turn of cutting.
- Tube cutters and hacksaws should be sharp enough.
- Hacksaw blades should have at least 32 teeth per inch.
- Do deburr tube ends before inserting in fittings.

Dk-Lok Tube Fitting Pressure Rating

The pressure rating of Dk-Lok Tube Fitting is rated to the working pressure of connective tubing.
The allowable working pressure of tubing in various materials is listed in the table 2 to 13.

Material

Using like tubing and fitting material is essential for leak-free sealing system.
Unlike material may have different mechanical properties that may adversely affect the fitting seal on tubing.
The only exception is copper tubing with brass Dk-Lok fitting.

Gas Application

Dk-Lok tube fitting is designed for a wide range of leak-free application including gas leak proof and vacuum tight service. Gases (helium, hydrogen, nitrogen, air, etc.) can escape even the most minute leak-path due to their very small molecules. Tube therefore must be handled not to have scratches, draw mark, nicks, flat spots, dirt, and durst.

Use NOT thin wall tubing for gas applications.
Heavier wall tubing resists the ferrule action whereas thin wall tubing may collapse with little resistance to ferrule action.

For Gas service, use the tubing wall listed on un-shadowed section in table 2 to 13.

Vacuum Application

Dk-Lok tube fittings have been proved to be excellent vacuum tight seal in many applications including analytical industry.
Dk-Lok Tube Fittings comply with the leakage requirements of TA-LUFT 2002.

Cryogenic Application

Dk-Lok Fittings in SS316 Stainless Steel provide highly reliable performance on cryogenic application.
Cryogenic temperature is considered to be temperatures below -100°F (-73°C).

High Pressure Application

Pressure 500 psig (34.5 bar) or higher is considered generally high pressure. In the high pressure system scratches, draw mark, nicks, flat spots, and dirt on tubing may cause leakage.

- For gas application, select the gas applicable tubing wall thickness from Table 2 to 13.
- Follow the suggestion on tubing selection, handling, and installation.

Table 2. Fractional Seamless Stainless Steel Tubing

Fully annealed austenitic Type 304 or 316 seamless tubing ASTM A269 or ASTM A213, or equivalent. Tubing to be free from scratches, draw mark, dirt, durst, flat spots, and suitable for bending and flaring. Recommended hardness: 80 HRB or less.

OD in.	Wall Thickness (in.)														
	0.012	0.014	0.016	0.020	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134	0.156	0.188
1/16	6,800	8,100	9,400	12,000											
1/8					8,500	10,900									
3/16					5,400	7,000	10,200					Working Pressure in PSIG			
1/4					4,000	5,100	7,500	10,200							
5/16						4,000	5,800	8,000							
3/8						3,300	4,800	6,500	8,600						
1/2						2,400	3,500	4,700	6,200						
5/8							2,900	4,000	5,200	6,000					
3/4							2,400	3,300	4,200	4,900	5,800	6,400			
7/8							2,000	2,800	3,600	4,200	4,800	5,400	6,100		
1								2,400	3,100	3,600	4,200	4,700	5,300	6,200	
1 1/4									2,400	2,800	3,300	3,600	4,100	4,900	
1 1/2										2,300	2,700	3,000	3,400	4,000	4,900
2											2,000	2,200	2,500	2,900	3,600

Table 3. Metric Seamless Stainless Steel Tubing

OD mm	Wall Thickness (mm)												
	0.8	1.0	1.2	1.5	1.8	2.0	2.2	2.5	2.8	3.0	3.5	4.0	4.5
3	710												
6	330	420	520	670									
8		310	380	490						Working Pressure in Bar			
10		240	300	380									
12		200	240	310	380	430							
14		180	220	280	340	390	430						
15		170	200	260	320	360	400						
16			190	240	300	330	370						
18			170	210	260	290	320	370					
20			150	190	230	260	290	330	380				
22			130	170	210	230	260	300	340				
25					180	200	230	260	300	320			
28						180	200	230	260	280	330		
30						170	190	210	240	260	310		
32						160	170	200	230	240	290	330	
38							140	170	190	200	240	280	310

- Tubing allowable working pressure is calculated at -20 to 100°F (-28 to 37°C) using allowable stress value of 20,000 psi according to ASME B31.3 Process Piping Code.
- Pressure calculations are based on **maximum O.D. and minimum wall thickness** and no allowance is made for corrosion and erosion. i.e., ASTM A269 1/2 in. OD x 0.035 in.WT: OD tolerance ± 0.005 in., WT tolerance ± 15%. Calculations are based on 0.505 in.OD x 0.0298 in. WT.
- Safety Factor is 3.75 to 1, considering ultimate tensile strength of 75,000 psi.
- To determine working pressure of ASME B31.1 Power Piping Code, multiply the ASME 31.3 rating by 0.94.

Weld Stainless Steel Tubing Allowable Working Pressure

To determine the working pressure of weld tubing to the requirements of ASME B31.3 Code, de-rating factors below must be applied. For single weld tubing multiply by 0.80, and for double weld tubing multiply by 0.85.

Example: SS316 seamless 1/2 in. O.D. x 0.065 in. WT allowable working pressure: 4700 psi.
To determine the work pressure of the single weld tubing, multiply 4700 psi by 0.80.
4700 psig x 0.80 = 3760 psig at -20 to 100°F (-28 to 37°C).

All dimensions are in millimeters unless otherwise specified and only for reference subject to change.

Table 4. Fractional Seamless Copper Tubing

Soft annealed seamless copper tubing ASME B75 or equivalent. Soft annealed (Temper 0) copper water tube, type K or Type L ASTM B88. Recommended hardness: 60 HRB or less.

OD in.	Wall Thickness (in.)									
	0.010	0.012	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120
1/8			2,700	3,600						
3/16			1,800	2,300	3,400				Working Pressure in PSIG	
1/4			1,300	1,600	2,500	3,500				
5/16				1,300	1,900	2,700				
3/8				1,000	1,600	2,200				
1/2				800	1,100	1,600	2,100			
5/8					900	1,200	1,600	1,900		
3/4					700	1,000	1,300	1,500	1,800	
7/8					600	800	1,100	1,300	1,500	
1					500	700	900	1,100	1,300	1,500

Table 5. Metric Seamless Copper Tubing

OD mm	Wall Thickness (mm)										
	0.7	0.8	1.0	1.2	1.5	1.6	1.8	2.0	2.2	2.5	3.0
3	225	260									
4	165	191	244	295					Working Pressure in Bar		
6		122	157	192	245	263					
8		89	114	140	179	193					
10		70	89	109	140	150	172	193			
12		58	73	89	114	123	140	158			
14			62	76	96	103	118	133	148	171	209
16			54	66	83	89	102	114	127	147	180
18			48	58	74	79	90	101	112	129	159
22			39	47	59	64	72	81	90	103	126
25			34	41	52	56	63	71	78	90	110

- Allowable working pressure calculated at -20 to 100°F (-28 to 37°C) using S value of 6,000 psi according to ASME B31.3 Code.
- Safety Factor is 5 to 1, considering ultimate tensile strength of 30,000 psi.

Table 6. Fractional Seamless Carbon Steel Tubing

Soft annealed seamless carbon steel hydraulic tubing ASTM A179 or equivalent. Tubing to be free from scratches, draw mark, dirt, durst, flat spots, and suitable for bending and flaring. Recommended hardness: 72 HRB or less.

OD in.	Wall Thickness (in.)												
	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134	0.148	0.165	0.180	0.220
1/8	8,000	10,200											
3/16	5,100	6,600	9,600										
1/4	3,700	3,700	7,000	9,600						Working Pressure in PSIG			
5/16		3,800	5,500	7,600									
3/8		3,100	4,500	6,200									
1/2		2,300	3,300	4,500	5,900								
5/8		1,800	2,600	3,500	4,600	5,300							
3/4			2,100	2,900	3,700	4,300	5,100						
7/8			1,800	2,400	3,200	3,700	4,300						
1			1,500	2,100	2,700	3,200	3,700	4,100					
1 1/4				1,600	2,100	2,500	2,900	3,200	3,600	4,000	4,600	5,000	
1 1/2					1,800	2,000	2,400	2,600	3,000	3,300	3,700	4,100	5,100
2						1,500	1,700	1,900	2,200	2,400	2,700	3,000	3,700

Table 7. Metric Seamless Carbon Steel Tubing

OD mm	Wall Thickness (mm)												
	0.8	1.0	1.2	1.5	1.8	2.0	2.2	2.5	2.8	3.0	3.5	4.0	4.5
3	670	830											
6	310	400	490	630									
8		290	360	460						Working Pressure in Bar			
10		230	280	360									
12		190	230	290	360	410	450						
14		160	190	250	300	340	380						
15		150	180	230	280	320	350						
16			170	210	260	290	330	380					
18			150	190	230	260	290	330					
20			130	170	200	230	250	290	330				
22			120	150	180	210	230	260	300				
25					160	180	200	230	260	280			
28						160	180	200	230	250	290		
30						150	160	190	210	230	270		
32						140	150	170	200	210	250	290	
38							130	140	160	180	210	240	280

- Allowable working pressure calculated at -20 to 100°F (-28 to 37°C) using S value of 15,700 psi according to ASME B31.3 Code.
- Safety Factor is 3 to 1, considering ultimate tensile strength of 47,000 psi.
- To determine working pressure of ASME B31.1 Power Piping Code, multiply the ASME 31.3 rating by 0.75.

Table 8. Fractional Seamless Alloy 400 Tubing

Fully annealed seamless Alloy 400 tubing ASTM B165 or equivalent. Tubing to be free from scratches, draw mark, dirt, durst, flat spots, and suitable for bending and flaring. Recommended hardness: 75 HRB or less.

OD in.	Wall Thickness (in.)							
	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120
1/8	7,900	10,200						
1/4	3,700	4,800	7,000	9,600		Working Pressure in PSIG		
3/8		3,100	4,400	6,100				
1/2		2,300	3,300	4,400				
3/4			2,200	3,000	4,000	4,600		
1				2,200	2,900	3,400	3,900	4,300

- Allowable working pressure calculated at -20 to 100°F (-28 to 37°C) using S value of 18,700 psi according to ASME B31.3 Code.
- Safety Factor is 3.74 to 1, considering ultimate tensile strength of 70,000 psi.
- To determine working pressure of ASME B31.1 Power Piping Code, multiply the ASME 31.3 rating by 0.93.

Table 9. Fractional Seamless Alloy C276 Tubing

Fully annealed seamless Alloy C276 tubing ASTM B622 or equivalent. Tubing to be free from scratches, draw mark, dirt, durst, flat spots, and suitable for bending and flaring. Recommended hardness: 100 HRB or less.

OD in.	Wall Thickness (in.)					
	0.02	0.028	0.035	0.049	0.065	0.083
1/8	8,200	12,000	15,300	Working Pressure in PSIG		
3/16	5,300	7,700	9,900	14,400		
1/4		5,600	7,200	10,600	14,400	
5/16			5,700	8,200	11,300	
3/8			4,700	6,700	9,200	
1/2			3,400	4,900	6,700	8,800

- Allowable working pressure calculated at ambient temperature using S value of 27,300 psi according to ASME B31.3 Code.
- Safety Factor is 3.66 to 1, considering ultimate tensile strength of 100,000 psi.
- To determine working pressure of ASME B31.1 Power Piping Code, multiply the ASME 31.3 rating by 0.78.

Table 10. Fractional Seamless Alloy 825 Tubing

Fully annealed seamless Alloy 825 tubing ASTM B423 or equivalent. Tubing to be free from scratches, draw mark, dirt, durst, flat spots, and suitable for bending and flaring. Recommended hardness: 95 HRB or less.

OD in.	Wall Thickness (in.)					
	0.02	0.028	0.035	0.049	0.065	0.083
1/8	7,500	11,000	14,000	Working Pressure in PSIG		
3/16	4,800	7,000	9,000	13,000		
1/4		5,100	6,500	9,500	13,000	
5/16			5,100	7,400	10,100	
3/8			4,100	6,000	8,300	
1/2			3,000	4,400	6,000	7,900

- Allowable working pressure calculated at ambient temperature using S value of 23,300 psi according to ASME B31.3 Code.
- Safety Factor is 3.64 to 1, considering ultimate tensile strength of 85,000 psi.
- To determine working pressure of ASME B31.1 Power Piping Code, multiply the ASME 31.3 rating by 0.94.

Table 11. Fractional Seamless Alloy 625 Tubing

Fully annealed seamless Alloy 625 tubing ASTM B444 Grade 1 or equivalent.
Tubing to be free from scratches, draw mark, dirt, durst, flat spots, and suitable for bending and flaring.

OD in.	Wall Thickness (in.)					
	0.02	0.028	0.035	0.049	0.065	0.083
1/8	12,500	18,200	23,100	Working Pressure in PSIG		
3/16	8,000	11,600	14,900	21,500		
1/4		8,400	10,800	15,700	21,400	
5/16			8,400	12,200	16,800	
3/8			6,900	10,000	13,700	
1/2			4,200	6,000	8,200	10,700

- Allowable working pressure calculated at ambient temperature using S value of 40,000 psi according to ASME B31.3 Code.
- Safety Factor is 3 to 1, considering ultimate tensile strength of 120,000 psi.

Table 12. Fractional Seamless Super Duplex Tubing

Fully annealed Super Duplex tubing ASTM A789 S32750 or equivalent. Tubing to be free from scratches, draw mark, dirt, durst, flat spots, and suitable for bending and flaring. Recommended hardness: 32 HRC or less.

OD in.	Wall Thickness (in.)					
	0.028	0.035	0.049	0.065	0.083	0.095
1/4	7,700	9,900	15,000			
3/8		6,400	9,200	12,700		
1/2		5,000	7,200	10,000	12,900	
5/8			5,700	7,700	10,100	
3/4			4,700	6,300	8,200	10,000

- Allowable working pressure calculated at ambient temperature using S value of 38,700 psi according to ASME B31.3 Code.
- Safety Factor is 3 to 1, considering ultimate tensile strength of 116,000 psi.

Table 13. Fractional Seamless Alloy 20 Tubing

Fully annealed seamless Alloy 20 tubing ASTM B729 or equivalent. Tubing to be free from scratches, draw mark, dirt, durst, flat spots, and suitable for bending and flaring. Recommended hardness: 95 HRB or less.

OD in.	Wall Thickness (in.)					
	0.02	0.028	0.035	0.049	0.065	0.083
1/8	8,400	12,200	15,400			
3/16	5,300	7,700	9,900	14,400		
1/4		5,600	7,200	10,500	14,300	
5/16			5,600	8,200	11,200	
3/8			4,600	6,600	9,100	
1/2			2,800	4,000	5,400	7,200

- Allowable working pressure calculated at ambient temperature using S value of 22,900 psi according to ASME B31.3 Code.
- To determine working pressure of ASME B31.1 Power Piping Code, multiply the ASME 31.3 rating by 0.88.

Table 14.

Temp °F	Temp °C	Stainless 304	Stainless 316	C.steel A179	Copper B75	825 B423	C276 B622	625 B444	20 B729	400 B165	Super Duplex A789
100	38	1	1	1	1	1	1	1	1	1	1
200	93	1	1	0.96	0.8	0.92	1	1	0.9	0.88	0.9
300	149	1	1	0.9	0.78	0.87	1	1	0.86	0.79	0.85
400	204	0.94	0.97	0.86	0.5	0.83	1	1	0.83	0.79	0.82
500	260	0.88	0.9	0.82	0.13	0.79	0.98	0.97	0.79	0.79	0.81
600	316	0.82	0.85	0.77		0.76	0.93	0.95	0.77	0.79	0.8
700	371	0.8	0.82	0.73		0.74	0.87	0.93	0.76	0.79	
800	427	0.76	0.8	0.59		0.73	0.84	0.93	0.73	0.76	
900	482	0.73	0.78			0.73	0.81	0.93			
1000	538	0.69	0.77			0.71	0.79	0.93			
1200	649	0.3	0.37				0.35	0.33			

Temperature De-rating Factors

The pressure rating of Dk-Lok port is governed by the connective tubing pressure rating.

To determine allowable working pressure at elevated temperature, multiply working pressure by applicable factor shown in table 14.

Example: SS316 seamless tubing 1/2 in. O.D. x 0.065 in.WT at 700 F.
4700 psig x 0.82 = 3854 psi.

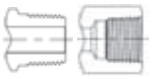
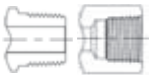
Allowable working pressure of SS316 seamless 1/2 in. O.D. x 0.065 in. WT is 3854 psi at 700 oF.

Dk-Lok Pipe End Pressure Rating

Pressure ratings of Dk-Lok tube port is governed by the connective tubing pressure rating. The allowable working pressure of those fittings with both Dk-Lok port and pipe end port are determined by the lower pressure port.

Table 15. Dk-Lok Pipe Thread Designator.

Legends
- DK : Dk-Lok pipe thread designator.
- E : Equivalent.

	DK	Reference Specification	Thread Configuration	E
Tapered Pipe Thread	N	ASME B1.20.1 (NPT) SAE AS71051		-
	R	ISO 7-1 BS EN 10226-1(BSPT) DIN 2999 (male thread only) JIS B0203 (PT)		RT
Parallel Pipe Thread	G	ISO 228-1 BS 2779 (BSPP) JIS B0202 (PF) DIN 3852 FORM A		RS
	GB	ISO 228-1 BS 2779 (BSPP) JIS B0202 (PF) DIN 3852 FORM B		RP
	GP	ISO 228-1 BS 2779 (BSPP) JIS B0202 (PF) SAE J475 SAE J1926		PR
Parallel Pipe Thread	GG	ISO 228-1 BS 2779 (BSPP) JIS B0202 (PF) EN 837-1& EN 837-3		RG
	GR	ISO 228-1 BS 2779 (BSPP) JIS B0202 (PF) DIN 3852 FORM Z		RP
	GY	ISO 228-1 BS 2779 (BSPP) JIS B0202 (PF) DIN 3852 FORM Y		RJ
SAE Straight Thread	U	ASME B1.1 ISO R725 SAE J475 SAE J514		SR
	UO	ASME B1.1 ISO R725 SAE J475 SAE J514		OR
	UP	ASME B1.1, ISO R725 SAE J475 SAE J514		ST
	NO	ASME B1.20.1, SAE AS71051 SAE J514		OR

Pipe Thread Sealants

Pipe thread sealant for tapered pipe thread assembly is essential to ensure leak-free thread sealing. Sealant usually contains a lubricant. Thread sealant fills the voids between the threads and prevents thread galling.

Wrap PTFE tape clockwise from first thread. Do not overhang the first thread; the tape may get into the fluid system.

Pressure Equivalents :

1 bar = 100 kPa = 14.503 psi 1 kPa = 0.01 bar = 0.145 psi
1 psi = 0.069 bar = 6.89 kPa 1 kg/cm^2 = 0.98 bar = 14.22 psi

Table 16. Tapered Pipe Thread Pressure Ratings

Applicable to Dk-Lok thread designator: N and R

ISO/NPT Pipe Size	SS316 and Carbon Steel				Brass			
	Male		Female		Male		Female	
	pisg	bar	pisg	bar	pisg	bar	pisg	bar
S value	20ksi				10ksi			
1/16	14,000	965	6,600	455	7,400	510	3,300	227
1/8	10,000	689	6,400	441	5,000	345	3,200	220
1/4	8,300	572	6,500	448	4,100	282	3,200	220
3/8	8,000	551	5,200	358	4,000	275	2,600	179
1/2	7,800	537	4,800	331	3,900	269	2,400	165
3/4	7,500	517	4,600	317	3,700	255	2,300	158
1	5,300	365	4,400	303	2,600	179	2,200	152
1-1/4	6,200	427	5,000	345	3,100	214	2,500	172
1-1/2	5,100	351	4,500	310	2,500	172	2,200	152
2	4,000	276	3,900	269	2,000	138	1,900	131

Allowable Working Pressure

Dk-Lok ISO Parallel Male Pipe Thread End

Applicable to Dk-Lok thread designator: G, GB, and GP.

SS316 and carbon steel fitting thread ends up to 1 in. are rated to 5900 psi (406 bar)

Dk-Lok SAE Straight Thread End

Applicable to Dk-Lok thread designator: U, UO, and UP.

SS316 and carbon steel fitting thread ends up to 16U (1 5/16-12) are rated to 6000 psi (413 bar)

Dk-Lok Tube Socket Weld End

Applicable to Dk-Lok tube fitting part number: DCSW and DLSW.

SS316 and carbon steel fitting tube socket ends up to 1/2 in. (-8) are rated to 7000 psi (482 bar)

Dk-Lok Pipe Butt Weld End

Applicable to Dk-Lok tube fitting part number: DCW and DLW.

SS316 and carbon steel fitting pipe butt weld ends up to 3/4 in. (-12P) are rated to 6000 psi (413 bar)

- Pressure ratings are based on ASME B31.3 Process Piping Code, at ambient temperature.
- For further information about each size end rating, contact the authorized Dk-Lok distributor in your region.

Table 17. Elastomer seal temperature ratings

Elastomer O-ring	Rating
NBR	-40 to 110°C (-40 to 230°F)
FKM	-28 to 204°C (-18 to 400°F)
FFKM (Kalrez®)	-30 to 275°C (-22 to 527°F)

Care must be taken as fitting with elastomer O-ring seal may have lower temperature rating.

Kalrez® : TM Dupont

Odering Information

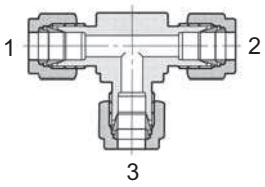
Suffix the material designator to the part number.

Example : DU-8-**S**

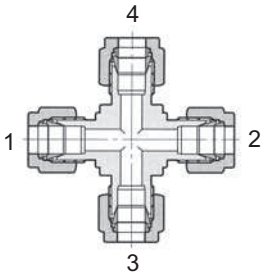
Table 18. Material Designor

Material	Designator
Stainless Steel 316/316L	S
Dual Grade	
Brass	B
Carbon Steel	C
Stainless Steel 310	310
Duplex	D
Super Duplex	SD
Aluminum	AL
Alloy 20	L20
Hastelloy C276	HC
Alloy 400	M
Alloy 600	IN
Alloy 625	L625
Alloy 825	L825
Titanium Gr. 2	TI
PTFE	PE

Tee & Cross Fittings



Tee fitting part number is described by first the run (1 and 2) and next the branch (3).



Cross fitting part number is described by first the run (1 and 2) and next the branch (3 and 4).

Table 18. Pipe Thread Size Designator

Nom. Size in.	1/16	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Designator	1	2	4	6	8	12	16	20	24	32

Table 19. Tube O.D. Designator

OD in.	1/16	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 1/2	2
Designator	1	2	3	4	5	6	8	10	12	14	16	20	24	32
OD mm	2mm	3mm	4mm	6mm	8mm	10mm	12mm	16mm	20mm	22mm	25mm	28mm	32mm	38mm
Designator	2M	3M	4M	6M	8M	10M	12M	16M	20M	22M	25M	28M	32M	38M

Z series Dk-Lok

Dk-Lok Z Series single ferrule tube fitting is designed and manufactured to the highest quality standards.This fitting includes single ferrule with standard Dk-Lok fitting body and nut. To help identify Dk-Lok Z series from Dk-Lok Tube fitting, nut is black Molybdenum Disulfide (MoS2) coated.

Material

Dk-Lok Z Series single ferrule tube fitting is manufactured in stainless steel 316.

Pressure and Temperature Ratings

Dk-Lok Z Series fittings are identical to Dk-Lok Tube Fittings in pressure and temperature ratings.

Dimensions

Dk-Lok Z Series fittings are dimensionally identical to Dk-Lok Tube Fittings.

Ordering Information

To order Z series, insert Z in the standard Dk-Lok tube fitting part number.

Examples : DU**Z**-8-S, DMC**Z**8-8N-S, DN**Z**-4-S

Z Series Ferrule

Z series Ferrule	
Part No.	Tube O.D.
DFZ-4	1/4
DFZ-6	3/8
DFZ-8	1/2
DFZ-12	3/4
DFZ-16	1