IDK-LOK
Tube Fittings

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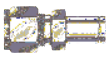
DR  47 48

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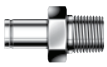
DAM-R  51

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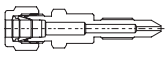
DPCM  73

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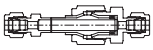
DEU  74

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The Premium Quality DK-Lok Tube Fittings

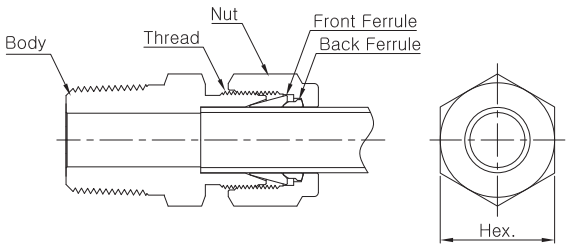
DK-Lok Tube Fitting is designed using industrial codes and specifications with additional Cutting-Edge Engineering on swaging action and sealing integrity. DK-Lok provides excellent leak-free sealing on high pressure gas, vacuum, impulse, thermal shock, heavy vibration, and many other stringent applications.

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

Construction of DK-Lok Tube Fittings

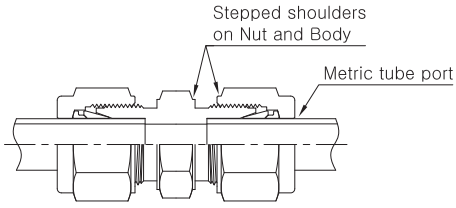
DK-Lok Tube Fitting consists of body, front ferrule, back ferrule and nut. The features include;

- Excellent product range up to 2 in. and 50 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 such step on body as well.



Product Cleaning

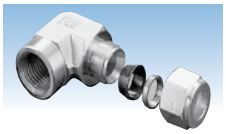
Every DK-Lok tube fitting is cleaned to remove surface contamination, iron particles from cutting tools, oil from cutting fluid, and loose particles. For further information refer to DK cleaning standard DC-01. Specialcleaning for oxygen service application is available on request. Refer to specialcleaning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

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.

Material	Bar stock	Forging
Stainless Steel316	ASTM A276	ASTM A182
	ASTM A479	ASME SA182
	ASME SA479	JIS G3214
	JIS G4303	
Brass	ASTM B16 UNS C36000	ASTM B283 UNS C37700
	ASTM B453 UNS C35300	JIS H3250 Alloy C3771
	JIS H3250 Alloy C3604	
Carbon Steel	ASTM A675 Gr.60-90	ASTM A105
	JIS G4051 S20C - S48C	JIS G4051 S20C - S48C
Duplex	ASTM A276 S31803	ASTM A182 F51
	ASTM A479 S31803	
Super Duplex	ASTM A479 S32750	ASTM A182 F53
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 fittings are white zinc plated. Every carbon steel fitting is supplied with SS316 back ferrule and Carbon Steel front ferrule with black fast plated.

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.

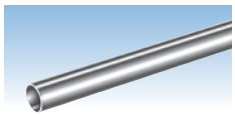
DK-Lok Port Dimension

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

Alternative Fuels

Stainless steel316 DK-Lok Tube Fittings are tested to the requirements of ECE R110, EIHP Draft, ECE R67 and certified by TUV.

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

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, dust and flat spots.

Ovality

- Tubing in oval or out-of-roundness way 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.

Wallthickness

- 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.

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 materialis 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 dust

Use NOT thin wall tubing for gas applications.
Heavier wall tubing resists the ferrule action whereas thin walltubing 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℃).

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.

Stainless Steel Tubing

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, dust, 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	0.02	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.12	0.134	0.156	0.188
1/16	6800	8100	9400	12000											
1/8					8500	10900									
3/16					5400	7000	10200								
1/4					4000	5100	7500	10200			Working Pressure in psig				
5/16						4000	5800	8000							
3/8						3300	4800	6500	8600						
1/2						2400	3500	4700	6200						
5/8							2900	4000	5200	6000					
3/4							2400	3300	4200	4900	5800				
7/8							2000	2800	3600	4200	4800				
1								2400	3100	3600	4200	4700			
1 1/4									2400	2800	3300	3600	4100	4900	
1 1/2										2300	2700	3000	3400	4000	4900
2											2000	2200	2500	2900	3600

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									
10		240	300	380									
12		200	240	310	380	430				Working Pressure in bar			
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
50										150	180	210	240

- According to the requirements of ASME B31.3 Process Piping Code and ASME B31.1 Power Piping Code, allowable working pressure calculated at -20 to 100˚F (-28 to 37˚C) using S value of 20,000 psi.
- Pressure calculations are based on **maximum O.D. and minimum wallthickness** 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.

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).

Copper Tubing

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 LASTM 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			2700	3600						
3/16			1800	2300	3400			Working Pressure in psig		
1/4			1300	1600	2500	3500				
5/16				1300	1900	2700				
3/8				1000	1600	2200				
1/2				800	1100	1600	2100			
5/8					900	1200	1600	1900		
3/4					700	1000	1300	1500	1800	
7/8					600	800	1100	1300	1500	
1					500	700	900	1100	1300	1500

Table 5. **Metric Seamless Copper Tubing**

OD mm	Wall Thickness (mm)								
	0.7	0.8	1.0	1.2	1.5	1.8	2.0	2.2	2.5
3	225	260							
4	165	191	244	295				Working Pressure in bar	
6		122	157	192	245				
8			114	140	179				
10			89	109	140				
12			73	89	114	140	158		
14			62	76	96	118	133		
16					83	102	114	127	147
18					74	90	101	112	129
22					59	72	81	90	103
25					52	63	71	78	90

- According to the requirements of ASME B31.3 Process Piping Code and ASME B31.1 Power Piping Code, allowable working pressure calculated at -20 to 100℉ (-28 to 37℃) using S value of 6000 psi.
- Safety Factor is 5 to 1, considering ultimate tensile strength of 30,000 psi.

Carbon Steel Tubing

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	8000	10200											
3/16	5100	6600	9600										
1/4	3700	3700	7000	9600						Working Pressure in psig			
5/16		3800	5500	7600									
3/8		3100	4500	6200									
1/2		2300	3300	4500	5900								
5/8		1800	2600	3500	4600	5300							
3/4			2100	2900	3700	4300	5100						
7/8			1800	2400	3200	3700	4300						
1			1500	2100	2700	3200	3700	4100					
1 1/4				1600	2100	2500	2900	3200	3600	4000	4600	5000	
1 1/2					1800	2000	2400	2600	3000	3300	3700	4100	5100
2						1500	1700	1900	2200	2400	2700	3000	3700

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									
10		230	280	360						Working Pressure in bar			
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 Process Piping 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 B31.3 rating by 0.85

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, dust, 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	7900	10100						
1/4	3700	4800	7000	9500		Working Pressure in psig		
3/8		3100	4400	6100				
1/2		2300	3200	4400				
3/4			2200	3000	4000	4600		
1				2200	2900	3400	3900	4300

- According to the requirements of ASME B31.3 Process Piping Code and ASME B31.1 Power Piping Code, allowable working pressure calculated at -20 to 100˚F (-28 to 37˚C) using S value of 18,700 psi.
- Safety Factor is 3.74 to 1, considering ultimate tensile strength of 70,000 psi.

Table 9. Fractional Seamless Alloy C276 Tubing

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

OD in.	Wall Thickness (in.)			
	0.028	0.035	0.049	0.065
1/4	4000	5100	7500	10200
5/16		4000	5800	7800
3/8		3300	4800	6500
1/2		2600	3700	5100

* Working Pressure in psig

- According to the requirements of ASME B31.3 Process Piping Code and ASME B31.1 Power Piping Code, allowable working pressure calculated at ambient temperature using S value of 27,300 psi.
- Safety Factor is 3.66 to 1, considering ultimate tensile strength of 100,000 psi.

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, dust, flat spots, and suitable for bending and flaring. Recommended hardness: 100 HRB or less.

OD In	Wall Thickness (in.)		
	0.035	0.049	0.065
1/4	6400	9300	11600
3/8	4100	5900	8200
1/2	3000	4300	5900

* Working Pressure in psig

- According to the requirements of ASME B31.3 Process Piping Code and ASME B31.1 Power Piping Code, allowable working pressure calculated at ambient temperature using S value of 23,300 psi.
- Safety Factor is 3.64 to 1, considering ultimate te8200nsile strength of 85,000 psi.

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, dust, flat spots, and suitable for bending and flaring.

OD in.	Wall Thickness (in.)		
	0.035	0.049	0.065
1/4	7300	10700	14600
3/8	4700	6800	9400
1/2	3500	5000	6800

* Working Pressure in psig

- Allowable working pressure is 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.
- To determine working pressure of ASME B31.1 Power Piping Code, multiply the ASME B31.3 rating by 0.86.

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, dust, flat spots, and suitable for bending and flaring. Recommended hardness: 32 HRC or less.

OD in.	Wall Thickness (in.)				
	0.035	0.049	0.065	0.083	0.095
1/4	10000	15000			
3/8	6500	10100	12700		
1/2	5000	7200	10100	12900	
5/8		5800	7600	10100	
3/4		4700	6300	8500	10000

* Working Pressure in psig

- 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, dust, flat spots, and suitable for bending and flaring. Recommended hardness: 95 HRB or less.

OD in	Wall Thickness (in.)			
	0.028	0.035	0.049	0.065
1/8			Working Pressure in psig	
3/16				
1/4	4500	5100	7500	10200
5/16				
3/8		3300	4800	6500
1/2		2600	3700	5100

* Working Pressure in psig

- Allowable working pressure calculated at ambient temperature using S value of 23,300 psi according to ASME B31.3 Process Piping Code.
- To determine working pressure of ASME B31.1 Power Piping Code, multiply the ASME B31.3 rating by 0.98.

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 °F.

Table 14.

Temp.		Stainless		C.steel	Copper	825	C276	625	20	400	Super Duplex
°F	°C	304	316	A179	B75	B423	B622	B444	B729	B165	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			

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.

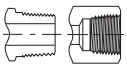
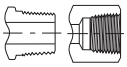
	DK	Reference Specification	Thread Configuration	E
Tapered Pipe Thread	N	ASME B1.20.1 (NPT) SAE AS71051		
	R	ISO 7-1 BS EN 10226-1 (BSPT) DIN 2999 (male thread only) JIS B0203 (PT)		RT
Parallel Pipe Thread	G	ISO 228-1 BS 2779 (BSPP) JIS B0202 (PF) DIN 3852 FORM A		RS
	GB	ISO 228-1 BS 2779 (BSPP) JIS B0202 (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

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	
	psig	bar	psig	bar	psig	bar	psig	bar
S value	20ksi				10ksi			
1/16	14000	965	6600	455	7400	510	3300	227
1/8	10000	689	6400	441	5000	345	3200	220
1/4	8300	572	6500	448	4100	282	3200	220
3/8	8000	551	5200	358	4000	275	2600	179
1/2	7800	537	4800	331	3900	269	2400	165
3/4	7500	517	4600	317	3700	255	2300	158
1	5300	365	4400	303	2600	179	2200	152
1 1/4	6200	427	5000	345	3100	214	2500	172
1 1/2	5100	351	4500	310	2500	172	2200	152
2	4000	276	3900	269	2000	138	1900	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 7,000 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 6,000 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.

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/cm² = 0.98 bar = 14.22 psi

Table 17. Elastomer seal temperature ratings

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

Care must be taken as fitting with elastomer O-ring sealmay have lower temperature rating.
Kalrez®: DupPont™

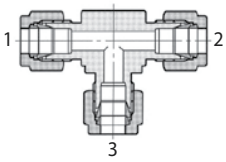
Ordering Information

Suffix the material designator to the part number. Example: DU-8-S

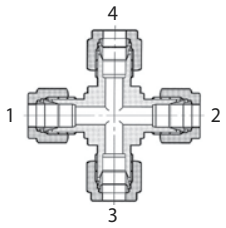
Table 18. **Material Designator**

Material	Designator
Stainless Steel316	S
Dual Grade	
Brass	B
Carbon Steel	C
Stainless 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 and 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)

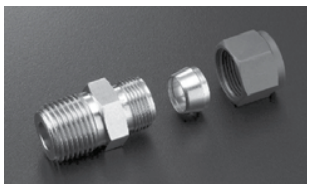
Table 19. **Pipe Thread Size Designator**

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 20. **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	3 mm	4 mm	6 mm	8mm	10 mm	12 mm	16 mm	20 mm	22 mm	25 mm	28 mm	32 mm	38 mm	42 mm	50 mm
Designator	2M	3 M	4 M	6 M	8 M	10 M	12 M	16 M	20 M	22 M	25 M	28 M	32 M	38 M	42 M	50 M

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 (MoS_2) coated.

Material

DK-Lok Z Series single ferrule tube fitting is manufactured in stainless steel316.

Dimensions

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

Pressure and Temperature Ratings

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

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

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