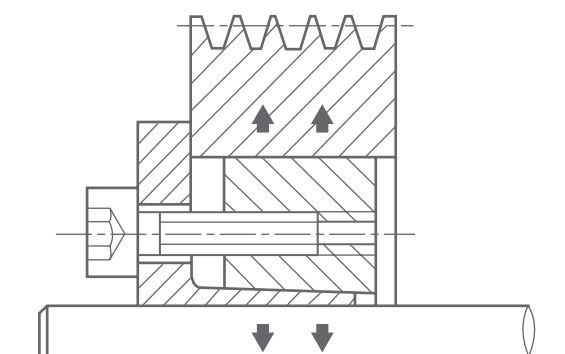


NSPT-LOCKS



Suitable for Shaft Diameter

Metric: $\phi 18 \sim \phi 400(\text{mm})$

Inch: $3/4'' \sim 153/4''$

FA NSPT-LOCKS is an extension series of type D locks. The bore diameters can be from 18mm to 400mm with the largest possible outside diameter of 495mm. This type of components has high installation suitability and is widely used general mechanical joints nowadays.

By simply tightening the bolts, the inner and outer rings will move along the taper surface oppositely causing radial pressure and fractional force, which makes the hubs and the shaft join together.

There are two types of FA NSPT-LOCKS: FA1 and FA2. The only difference between the two is the flange diameter of the inner ring. For FA1 type, the flange diameter of inner ring is 6mm larger than the outer ring. For FA2 type, the flange diameters of both rings are same.

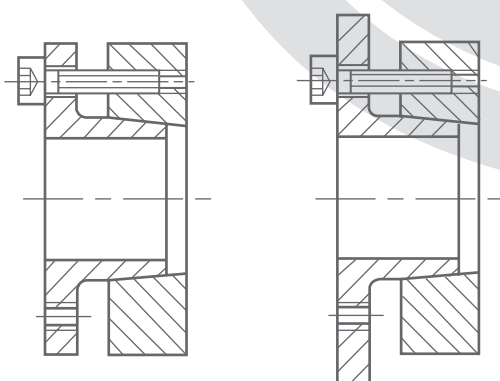
A fascinating point of FA NSPT-LOCKS is the simplicity. It is designed to suit for self-installation; and its requirements to the hub bore and shaft diameters are not very strict. This saves the time and the cost of machining process.

Conversion: 1 inch = 25.40mm

Conversion

1 ft-lbs. = 0.1382 kgf.m = 1.3550 N.m

1 Psi = 0.0007 kgf/mm² = 0.0069 Mpa



FA1

FA2

Expression of NSPT-LOCKS Type FA

NL 50 X 80 FA

NSPT-LOCKS FA

Outside Diameter D

Shaft Diameter D

NSPT-LOCKS Code

FA NSPT-LOCKS

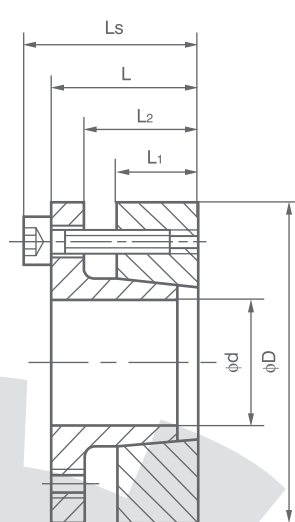
NSPT-LOCKS

Conversion

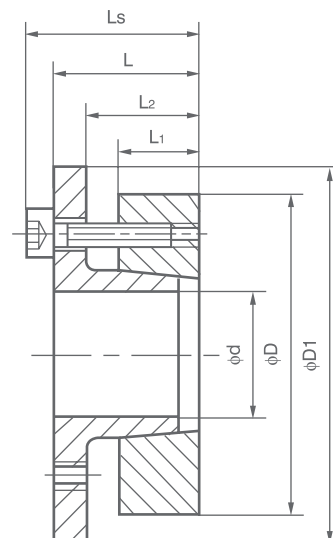
1 ft-lbs. = 0.1382 kgf-m = 1.3550 N.m

1 Psi = 0.0007 kgf/mm² = 0.0069 Mpa

Inches



FA1



FA2

FA NSPT-LOCKS

NSPT Catalog	INCH SERIES INCHES				INCHES				Mt ft-lb	Axial force lb	pw psi	pn psi	LOCKING SCREW	
	Size	d	D	D1	L1	L2	L	Ls					No.x type	Ms ft-lb
NL0.34FA	3/4	0.750	1.850	2.205	0.669	0.866	1.102	1.339	274	8550	41970	17790	5xM6	11
NL0.78FA	7/8	0.875	1.850	2.205	0.669	0.866	1.102	1.339	296	8550	38410	17790	5xM6	11
NL0.1516FA	15/16	0.938	1.969	2.323	0.669	0.866	1.102	1.339	325	8550	34860	17070	5xM6	11
NL1.00FA	1	1.000	1.969	2.323	0.669	0.866	1.102	1.339	412	10350	40550	19920	6xM6	11
NL1.18FA	1 1/8	1.125	2.165	2.520	0.669	0.866	1.102	1.339	455	10350	36280	18500	6xM6	11
NL1.316FA	1 3/16	1.1875	2.165	2.520	0.669	0.866	1.102	1.339	477	10350	33430	18500	6xM6	11
NL1.14FA	1 1/4	1.250	2.362	2.717	0.669	0.866	1.102	1.339	694	13500	46950	22050	8xM6	11
NL1.38FA	1 3/8	1.375	2.362	2.717	0.669	0.866	1.102	1.339	767	13500	41970	22050	8xM6	11
NL1.716FA	1 7/16	1.4375	2.559	2.913	0.669	0.866	1.102	1.339	795	13500	42680	20630	8xM6	11
NL1.12FA	1 1/2	1.500	2.559	2.913	0.669	0.866	1.102	1.339	875	13500	38410	20630	8xM6	11
NL1.58FA	1 5/8	1.625	2.953	3.307	0.787	0.984	1.299	1.614	1461	22050	44960	24190	7xM8	26
NL1.1116FA	1 11/16	1.688	2.953	3.307	0.787	0.984	1.299	1.614	1512	22050	43390	24190	7xM8	26
NL1.34FA	1 3/4	1.750	2.953	3.307	0.787	0.984	1.299	1.614	1591	22050	41260	24190	7xM8	26
NL1.78FA	1 7/8	1.875	3.150	3.504	0.787	0.984	1.299	1.614	1685	22050	39120	22760	7xM8	26
NL1.1516FA	1 15/16	1.9375	3.150	3.504	0.787	0.984	1.299	1.614	1772	22050	36990	22760	7xM8	26
NL2.00FA	2	2.000	3.150	3.504	0.787	0.984	1.299	1.614	1801	22050	36420	22760	7xM8	26
NL2.18FA	2 1/8	2.125	3.346	3.700	0.787	0.984	1.299	1.614	2228	25200	38410	24900	8xM8	26
NL2.316FA	2 3/16	2.188	3.346	3.700	0.787	0.984	1.299	1.614	2250	25200	37990	24900	8xM8	26
NL2.14FA	2 1/4	2.250	3.543	3.898	0.787	0.984	1.299	1.614	2315	25200	36990	23480	8xM8	26
NL2.38FA	2 3/8	2.375	3.543	3.898	0.787	0.984	1.299	1.614	2431	25200	34860	23480	8xM8	26
NL2.716FA	2 7/16	2.4375	3.740	4.094	0.787	0.984	1.299	1.614	2818	28350	38130	24900	9xM8	26
NL2.12FA	2 1/2	2.500	3.740	4.094	0.787	0.984	1.299	1.614	2887	28350	37700	24900	9xM8	26
NL2.916FA	2 9/16	2.562	3.740	4.094	0.787	0.984	1.299	1.614	2959	28350	36280	24900	9xM8	26
NL2.1116FA	2 11/16	2.6875	4.331	4.685	0.945	1.181	1.575	1.969	4442	40275	41260	24560	8xM10	51
NL2.34FA	2 3/4	2.750	4.331	4.685	0.945	1.181	1.575	1.969	4558	40275	39830	25610	8xM10	51

Note: All the items listed in the above are for the standard parts in stock.

Conversion: 1 inch = 25.40mm

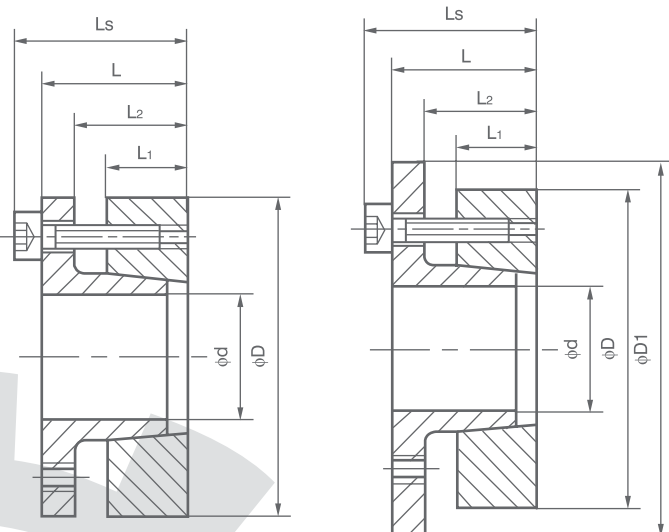
NSPT-LOCKS

Conversion

1 ft-lbs. = 0.1382 kgf-m = 1.3550 N.m

1 Psi = 0.0007 kgf/mm² = 0.0069 Mpa

Inches



FA NSPT-LOCKS

NSPT Catalog	INCH SERIES				INCHES				Mt ft-lb	Axial force lb	pw psi	pn psi	LOCKING SCREW	
	Size	d	D	D1	L1	L2	L	Ls					No.x type	Ms ft-lb
NL2.78FA	27/8	2.875	4.528	4.882	0.945	1.181	1.575	1.969	4717	40275	38410	24190	8xM10	51
NL2.1516FA	215/16	2.9375	4.528	4.882	0.945	1.181	1.575	1.969	4848	40275	36990	24190	8xM10	51
NL3.00FA	3	3.000	4.724	5.079	0.945	1.181	1.575	2.598	4920	40275	37700	25180	8xM10	51
NL3.14FA	31/4	3.2500	4.921	5.276	0.945	1.181	1.575	1.969	5173	40275	35570	24190	8xM10	51
NL3.38FA	33/8	3.375	4.921	5.276	0.945	1.181	1.575	1.969	6150	45000	36990	25610	9xM10	51
NL3.716FA	37/16	3.4375	5.118	5.472	0.945	1.181	1.575	1.969	6389	45000	36990	24190	9xM10	51
NL3.12FA	31/2	3.500	5.118	5.472	0.945	1.181	1.575	1.969	6584	45000	35570	24190	9xM10	51
NL3.34FA	33/4	3.750	5.315	5.669	0.945	1.181	1.575	1.969	7670	50400	36690	18500	10xM10	51
NL3.1516FA	315/16	3.9375	5.709	6.063	1.024	1.260	1.732	2.205	9696	60300	38410	27030	8xM12	91
NL4.00FA	4	4.000	5.709	6.063	1.024	1.260	1.732	2.205	9848	60300	37840	27030	8xM12	91
NL4.716FA	4 7/16	4.4375	6.102	6.457	1.024	1.260	1.732	2.205	10564	60300	34140	25610	8xM1	91
NL4.34FA	4 3/4	4.750	6.496	6.850	1.024	1.260	1.732	2.205	12952	67050	35570	25610	9xM12	91
NL4.1516FA	415/16	4.9375	7.087	7.441	1.339	1.575	2.126	2.598	18813	90000	34140	24190	12xM12	91
NL5.716FA	57/16	5.4375	7.480	7.844	1.339	1.575	2.126	2.677	19536	86400	29880	21340	9xM14	138
NL5.1516FA	515/16	5.9375	7.874	8.228	1.339	1.575	2.126	2.677	23878	99000	32720	24190	10xM14	138
NL6.14FA	61/4	6.520	7.874	8.622	1.339	1.575	2.126	2.677	27496	107775	32720	24190	11xM14	138
NL6.716FA	6 7/16	6.4375	8.858	9.213	1.732	1.969	2.520	3.071	32561	119250	25610	18500	12xM14	138
NL6.1516FA	615/16	6.9375	9.252	9.606	1.732	1.969	2.520	3.071	34008	119250	24190	18500	12xM14	138
NL7.716FA	77/16	7.4375	9.843	10.196	1.732	1.969	2.520	3.071	45513	148500	29880	21340	15xM14	138
NL7.1516FA	715/16	7.9375	10.236	10.591	1.732	1.969	2.520	3.071	47756	148500	27030	21340	15xM14	138

Expression of NSPT-LOCKS Type FA

NL 2.1516 FA (1,2)





NSPT-LOCKS

FA

Inches

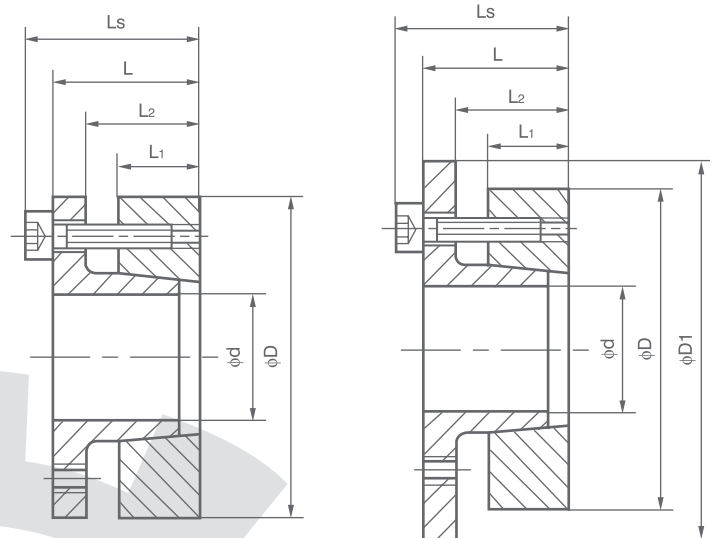
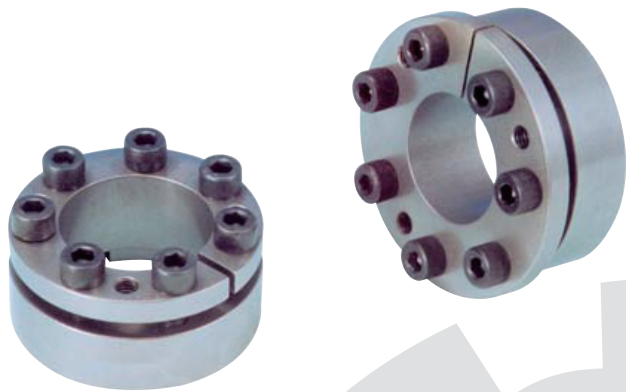
METRIC SIZES INCHES			INCH SERIES INCHES			INCHES				Mt	Axial	pw	pn	LOCKING SCREW	
Size	d	D	Size	d	D	L1	L2	L	Ls	ft-lb	force lb	psi	psi	No.x type	Ms ft-lb
20x47	0.787	1.850	3/4	0.750	1.850	0.669	0.866	1.102	1.339	274	8550	41970	17790	5xM6	11
22x47	0.866	1.850	7/8	0.875	1.850	0.669	0.866	1.102	1.339	296	8550	38410	17790	5xM6	11
24x50	0.945	1.969				0.669	0.866	1.102	1.339	325	8550	34860	17070	5xM6	11
25x50	0.984	1.969	1	1.000	1.969	0.669	0.866	1.102	1.339	412	10350	40550	19920	6xM6	11
28x55	1.102	2.165	1 1/8	1.125	2.165	0.669	0.866	1.102	1.339	455	10350	36280	18500	6xM6	11
30x55	1.181	2.165	1 3/16	1.1875	2.165	0.669	0.866	1.102	1.339	477	10350	33430	18500	6xM6	11
32x60	1.259	2.362	1 1/4	1.250	2.362	0.669	0.866	1.102	1.339	694	13500	46950	22050	8xM6	11
35x60	1.378	2.362	1 3/8	1.375	2.362	0.669	0.866	1.102	1.339	767	13500	41970	22050	8xM6	11
38x65	1.496	2.559	1 7/16	1.4375	2.559	0.669	0.866	1.102	1.339	795	13500	42680	20630	8xM6	11
40x65	1.575	2.559	1 1/2	1.500	2.559	0.669	0.866	1.102	1.339	875	13500	38410	20630	8xM6	11
			1 5/8	1.625	2.953	0.787	0.984	1.299	1.614	1461	22050	44960	24190	7xM8	26
42x75	1.653	2.953	1 11/16	1.688	2.953	0.787	0.984	1.299	1.614	1512	22050	43390	24190	7xM8	26
45x75	1.772	2.953	1 3/4	1.750	2.953	0.787	0.984	1.299	1.614	1591	22050	41260	24190	7xM8	26
48x80	1.890	3.150	1 7/8	1.875	3.150	0.787	0.984	1.299	1.614	1685	22050	39120	22760	7xM8	26
50x80	1.969	3.150	1 15/16	1.9375	3.150	0.787	0.984	1.299	1.614	1772	22050	36990	22760	7xM8	26
			2	2.000	3.150	0.787	0.984	1.299	1.614	1801	22050	36420	22760	7xM8	26
55x85	2.165	3.346	2 1/8	2.125	3.346	0.787	0.984	1.299	1.614	2228	25200	38410	24900	8xM8	26
			2 3/16	2.188	3.346	0.787	0.984	1.299	1.614	2250	25200	37990	24900	8xM8	26
			2 1/4	2.250	3.543	0.787	0.984	1.299	1.614	2315	25200	36990	23480	8xM8	26
60x90	2.362	3.543	2 3/8	2.375	3.543	0.787	0.984	1.299	1.614	2431	25200	34860	23480	8xM8	26
			2 7/16	2.4375	3.740	0.787	0.984	1.299	1.614	2818	28350	38130	24900	9xM8	26
			2 1/2	2.500	3.740	0.787	0.984	1.299	1.614	2887	28350	37700	24900	9xM8	26
65x95	2.559	3.740	2 9/16	2.562	3.740	0.787	0.984	1.299	1.614	2959	28350	36280	24900	9xM8	26
			2 11/16	2.6875	4.331	0.945	1.181	1.575	1.969	4442	40275	41260	25610	8xM10	51
70x110	2.756	4.331	2 3/4	2.750	4.331	0.945	1.181	1.575	1.969	4558	40275	39830	25610	8xM10	51
			2 7/8	2.875	4.528	0.945	1.181	1.575	1.969	4717	40275	38410	24190	8xM10	51
75x115	2.953	4.528	2 15/16	2.9375	4.528	0.945	1.181	1.575	1.969	4848	40275	36990	24190	8xM10	51
			3	3.000	4.724	0.945	1.181	1.575	1.969	4920	40275	37700	25180	8xM10	51
80x120	3.150	4.724	3 1/4	3.2500	4.921	0.945	1.181	1.575	1.969	5173	40275	35570	24190	8xM10	51
85x125	3.346	4.921	3 3/8	3.375	4.921	0.945	1.181	1.575	1.969	6150	45000	36990	25610	9xM10	51
			3 7/16	3.4375	5.118	0.945	1.181	1.575	1.969	6389	45000	36990	24190	9xM10	51
90x130	3.543	5.118	3 1/2	3.500	5.118	0.945	1.181	1.575	1.969	6584	45000	35570	24190	9xM10	51
95x135	3.740	5.315	3 3/4	3.750	5.315	0.945	1.181	1.575	1.969	7670	50400	36690	18500	10xM10	51
100x145	3.937	5.709	3 15/16	3.9375	5.709	1.024	1.260	1.732	2.205	9696	60300	38410	27030	8xM12	91
			4	4.000	5.709	1.024	1.260	1.732	2.205	9848	60300	37840	27030	8xM12	91
110X155	4.331	6.102	4 7/16	4.4375	6.102	1.024	1.260	1.732	2.205	10564	60300	34140	25610	8xM12	91
120x165	4.724	6.496	4 3/4	4.750	6.496	1.024	1.260	1.732	2.205	12952	67050	35570	25610	9xM12	91
130x180	5.118	7.087	4 15/16	4.9375	7.087	1.339	1.575	2.126	2.598	18813	90000	34140	24190	12xM12	91
140x190	5.512	7.480	5 7/16	5.4375	7.480	1.339	1.575	2.126	2.677	19536	86400	29880	21340	9xM14	138
150x200	5.906	7.874	5 15/16	5.9375	7.874	1.339	1.575	2.126	2.677	23878	99000	32720	24190	10xM14	138
160x210	6.299	8.268				1.339	1.575	2.126	2.677	27496	107775	32720	24190	11xM14	138
170x225	6.693	8.858	6 7/16	6.4375	8.858	1.732	1.969	2.520	3.071	32561	119250	25610	18500	12xM14	138
180x235	7.087	9.252	6 15/16	6.9375	9.252	1.732	1.969	2.520	3.071	34008	119250	24190	18500	12xM14	138
190x250	7.480	9.843	7 7/16	7.4375	9.843	1.732	1.969	2.520	3.071	45513	148500	29880	21340	15xM14	138
200x260	7.874	10.236	7 15/16	7.9375	10.236	1.732	1.969	2.520	3.071	47756	148500	27030	21340	15xM14	138

NSPT-LOCKS

Conversion

1 ft-lbs. = 0.1382 kgf-m = 1.3550 N.m
1 Psi = 0.0007 kgf/mm² = 0.0069 Mpa

Metric



FA NSPT-LOCKS

Catalog	Fundamental Dimensions					Internal Hexagon Headed Bolt		Rated Load		Pf	MA	G
	dxD	L1	L	L2	Ls	D1	SIZES	QTY	Ft KN	Mt KN.M	Mpa	N.M
CL18X47FA	17	28	22	34	56	M6x20	5	38.0	0.35	270	14	0.26
CL19X47FA	17	28	22	34	56	M6x20	5	38.0	0.37	280	14	0.27
CL20X47FA	17	28	22	34	56	M6x20	5	38.0	0.38	295	14	0.27
CL22X47FA	17	28	22	34	56	M6x20	5	38.0	0.41	245	14	0.28
CL24X50FA	17	28	22	34	59	M6x20	5	38.0	0.45	285	14	0.29
CL25X50FA	17	28	22	34	59	M6x20	6	45.6	0.57	255	14	0.29
CL28X55FA	17	28	22	34	64	M6x20	6	45.6	0.63	235	14	0.35
CL30X55FA	17	28	22	34	64	M6x20	6	45.6	0.66	295	14	0.36
CL32X60FA	17	28	22	34	69	M6x20	8	60.6	0.97	270	14	0.44
CL35X60FA	17	28	22	34	69	M6x20	8	60.6	1.06	250	14	0.47
CL38X65FA	17	28	22	34	74	M6x20	8	60.6	1.15	235	14	0.48
CL40X65FA	17	28	22	34	74	M6x20	8	60.6	1.21	300	14	0.55
CL42X75FA	20	33	25	41	84	M8x25	7	98.0	2.05	295	35	0.76
CL45X75FA	20	33	25	41	84	M8x25	7	98.0	2.20	270	35	0.78
CL48X80FA	20	33	25	41	89	M8x25	7	98.0	2.35	260	35	0.81
CL50X80FA	20	33	25	41	89	M8x25	7	98.0	2.45	270	35	0.87
CL55X85FA	20	33	25	41	94	M8x25	8	112.0	3.08	245	35	0.94
CL60X90FA	20	33	25	41	99	M8x25	8	112.0	3.36	255	35	1.0
CL63X95FA	20	33	25	41	104	M8x25	9	126.0	3.87	280	35	1.06
CL65X95FA	20	33	25	41	104	M8x25	9	126.0	4.09	250	35	1.70
CL70X110FA	24	40	30	50	119	M10x30	8	179.0	6.30	250	70	1.79
CL75X115FA	24	40	30	50	124	M10x30	8	179.0	6.70	260	70	1.89
CL80X120FA	24	40	30	50	129	M10x30	8	179.0	7.15	250	70	1.98
CL85X125FA	24	40	30	50	134	M10x30	9	200	8.50	260	70	2.15
CL90X130FA	24	40	30	50	139	M10x30	9	200	9.10	260	70	2.24
CL95X135FA	24	40	30	50	144	M10x30	10	224	10.6	260	70	3.07
CL100X145FA	26	44	32	56	154	M12x30	8	268	13.4	270	125	3.35
CL110X155FA	26	44	32	56	164	M12x30	8	268	14.6	240	125	3.59
CL120X165FA	26	44	32	56	174	M12x30	9	298	17.9	250	125	5.04
CL130X180FA	34	54	40	68	189	M12x30	12	400	26.0	240	125	5.33

Note: All the items listed in the above are for the standard parts in stock.

Conversion:1 inch = 25.40mm

NSPT-LOCKS

Metric

Conversion: 1 inch = 25.40mm

Conversion

1 ft.-lbs. = 0.1382 kgf-m = 1.3550 N.m

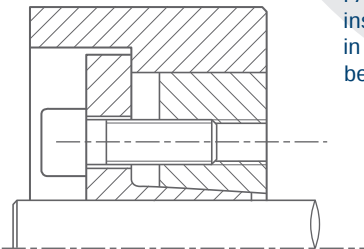
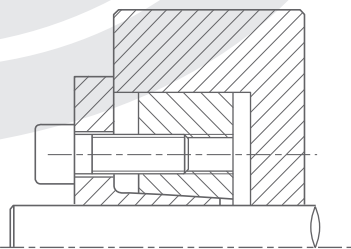
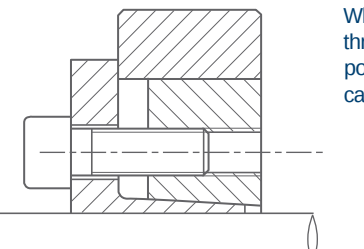
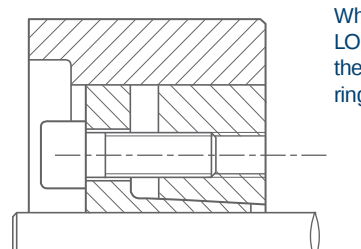
1 Psi = 0.0007 kgf/mm² = 0.0069 Mpa

FA NSPT-LOCKS

Catalog dxD	Fundamental Dimensions					Internal Hexagon Headed Bolt		Rated Load		Pf	MA	G
	L1	L	L2	Ls	D1	SIZES	QTY	Ft KN	Mt KN.M	Mpa	N.M	kg
CL140x190FA	34	54	40	68	199	M14x40	9	384	27.0	210	190	5.81
CL150x200FA	34	54	40	68	209	M14x40	10	440	33.0	230	190	6.67
CL160x210FA	34	54	40	68	219	M14x40	11	470	38.0	230	190	7.61
CL170x225FA	44	64	50	78	234	M14x40	12	530	45.0	180	190	8.05
CL180x235FA	44	64	50	78	244	M14x40	12	530	47.0	180	190	8.90
CL190x250FA	44	64	50	78	259	M14x40	15	590	49.0	170	190	9.58
CL200x260FA	44	64	50	78	269	M14x40	15	590	52.0	175	190	10.68
CL220x285FA	50	75	56	91	295	M16x40	12	548	60.2	141	355	14.4
CL240x305FA	50	75	56	91	315	M16x40	15	685	82.2	161	355	15.5
CL260x325FA	50	75	56	91	335	M16x40	18	731	95.0	159	355	16.7
CL280x355FA	60	87	66	105	365	M18x50	16	879	123.5	139	485	24.0
CL300x375FA	60	87	66	105	385	M18x50	18	989	148.3	146	485	25.5
CL320x405FA	74	104	81	124	415	M20x50	18	1141	182.5	128	690	38.0
CL340x425FA	74	104	81	124	435	M20x50	21	1282	218.0	136	690	40.0
CL360x455FA	86	120	94	142	465	M22x60	18	1611	290.0	138	930	48.0
CL380x475FA	86	120	94	142	485	M22x60	21	1605	305.0	131	930	57.0
CL400x495FA	86	120	94	142	505	M22x60	21	1775	355.0	137	930	63.0

Note: All items listed in the above table will be produced made-to-order.

Conventional Installation of FA NSPT-LOCKS

 FA2 NSPT-LOCKS can be installed through bored hubs in step-bored format. It should be positioned in axial direction. 1	 FA2 NSPT-LOCKS can be installed through non-through bored hub and positioned with the hub end. It should be positioned in axial direction. 3
 When installing FA2 NSPT-LOCKS through step-bored format, the position of hub bore and the rings can be adjusted in axial direction. 2	 When installing FA1 NSPT-LOCKS with through bored hub, the position of hub bore and the rings can be adjusted freely. 4