

SPIETH Clamping Sleeves Type DS (inch)

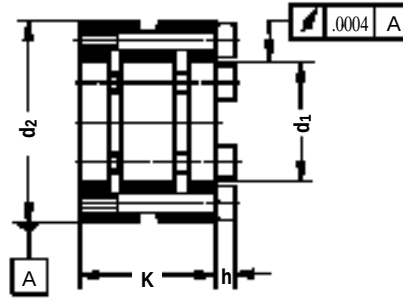
ORDERING EXAMPLES:

SLEEVE d1 = 1.50" dia. for 1.50" shaft dia.
d2 = 2.500" dia. for 2.500" hub bore
K = 1.81" for min. hub width 1.75"

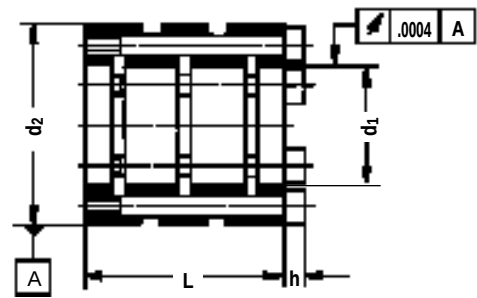
ORDER DSK 1.50 x 2.50

SLEEVE d1 = 3.0" dia. for 3.0" shaft dia.
d2 = 4.25" dia. for 4.25" hub bore
L = 3.06" for min. hub width 3.0"

ORDER DSL 3.0 X 4.25



TYPE DSK



TYPE DSL

Table dimensions in inches

Catalog Number DSK-DSL	Inside Dia. d1 H6	Outside Dia. d2 h5	Sleeve Length		Clamping Screw			Torque Per Screw MA (in.-lbs.)	DSK Mass Moment of Inertia lb-in ²	DSL Mass Moment of Inertia lb-in ²	DSK Transmissible		DSL Transmissible		**Tolerances of Mating Components	
			K	L	Size	h	No.				Torque M (ft.-lbs.)	Ax. Load Fa (lbs.)	Torque M (ft.-lbs.)	Ax. Load Fa (lbs.)	Shaft Dia. h5	Hub Bore H6
.50 x 1.13	.500	1.125	.81	1.31	8 - 32	.16	6	49	0.015	0.020	24	1035	40	1750	+ .0000	+ .0005/- .0000
.63 x 1.25	.625	1.250	1.31	1.56	8 - 32	.16	6	49	0.055	0.061	52	1960	95	3410	- .0003	
.75 x 1.50	.750	1.500	1.56	2.06	10 - 32	.19	6	87	0.148	0.187	71	2130	125	3840		+ .0006
.88 x 1.63	.875	1.625	1.56	2.06	10 - 32	.19	6	87	0.177	0.223	152	4205	190	5200		- .0000
1.00 x 1.75	1.000	1.750	1.56	2.06	10 - 32	.19	6	87	0.228	0.287	188	4575	230	5640		
1.13 x 1.88	1.125	1.875	1.56	2.06	10 - 32	.19	6	87	0.287	0.362	217	4710	270	5810	+ .0000	
1.25 x 2.00	1.250	2.000	1.56	2.06	10 - 32	.19	6	87	0.332	0.419	260	4950	320	6050	- .0004	
1.38 x 2.38	1.375	2.375	1.81	2.56	1/4 - 20	.25	6	150	0.745	0.995	450	7920	500	8800		+ .0007
1.50 x 2.50	1.500	2.500	1.81	2.56	1/4 - 20	.25	6	150	0.998	1.323	520	7850	570	8700		- .0000
1.75 x 2.75	1.750	2.750	1.81	2.56	1/4 - 20	.25	6	150	1.285	1.718	640	8400	700	9380		
2.00 x 3.00	2.000	3.000	1.81	2.56	1/4 - 20	.25	6	150	1.635	2.186	750	8980	820	9950		
2.25 x 3.50	2.250	3.500	2.06	3.06	3/8 x 16	.37	6	365	2.516	3.367	1550	16,760	1680	18,100	+ .0000	
2.50 x 3.75	2.500	3.750	2.06	3.06	3/8 x 16	.37	6	365	5.298	6.882	1860	17,500	2050	19,200	- .0005	+ .0009
2.75 x 4.00	2.750	4.000	2.06	3.06	3/8 x 16	.37	6	365	6.319	8.208	2160	18,800	2320	20,200		- .0000
3.00 x 4.25	3.000	4.250	2.06	3.06	3/8 x 16	.37	6	365	8.949	11.357	2470	19,550	2700	21,500		
3.25 x 4.38	3.250	4.375	2.06	3.06	5/16x18	.31	6	305	8.974	11.586	2520	19,400	2770	21,300		
3.50 x 4.88	3.500	4.875	2.31	3.56	5/16x18	.31	6	305	12.584	15.197	2610	18,500	2820	20,200		
3.75 x 5.00	3.750	5.000	2.12	3.12	5/16x18	.31	8	305	14.604	17.218	3250	21,000	5350	34,200	+ .0000	
4.00 x 5.25	4.000	5.250	2.12	3.12	5/16x18	.31	8	305	17.029	19.643	3450	21,000	5650	34,200	- .0006	
4.25 x 5.50	4.250	5.500	2.12	3.12	5/16x18	.31	10	305	19.545	22.068	4700	26,200	7650	41,800		+ .0010
4.50 x 5.75	4.500	5.750	2.12	3.12	5/16x18	.31	10	305	21.879	24.493	4950	26,200	8050	41,800		- .0000
4.75 x 6.00	4.750	6.000	2.12	3.12	5/16x18	.31	10	305	24.374	26.918	5200	26,200	8450	41,800		
5.00 x 6.25	5.000	6.250	2.12	3.12	5/16x18	.31	10	305	26.729	29.343	5450	26,200	8900	41,800		
5.25 x 6.5	5.000	6.500	2.12	3.12	5/16x18	.31	10	305	29.157	32.009	5720	26,200	8900	41,800	+ .0000	
5.50 x 6.75	5.500	6.750	2.12	3.12	5/16x18	.31	10	305	31.579	34.193	6050	26,200	9850	41,800	- .0007	
6.00 x 7.25	6.000	7.250	2.12	3.12	5/16x18	.31	10	305	36.832	39.446	6500	26,200	10,550	41,800		+ .0011
6.50 x 7.75	6.500	7.750	2.12	3.12	5/16x18	.31	10	305	42.685	44.699	8550	31,500	11,000	51,300	- .0000	
7.00 x 8.25	7.000	8.250	2.12	3.62	5/16x16	.31	10	305	47.338	49.952	9200	31,500	14,000	51,300		
7.50 x 9.00	7.500	9.000	2.62	3.62	3/8 x 16	.38	12	365	53.804	56.418	12,000	38,500	19,000	62,700	+ .0000	
8.00 x 9.50	8.000	9.500	2.62	3.62	3/8 x 16	.38	12	365	59.057	61.671	12,700	38,500	20,600	62,700	- .0008	
8.50 x 10.00	8.500	10.000	2.62	3.62	3/8 x 16	.38	12	365	64.310	66.924	13,600	38,500	21,100	62,700		+ .0012
9.00 x 10.50	9.000	10.500	2.62	3.62	3/8 x 16	.38	12	365	69.563	72.177	14,500	38,500	23,100	62,700		- .0000
9.50 x 11.00	9.500	11.000	2.62	3.62	3/8 x 16	.38	12	365	74.816	77.470	15,200	38,500	24,600	62,700	+ .0000	
10.00 x 12.00	10.000	12.000	2.62	4.12	3/8 x 16	.38	16	365	82.494	85.108	19,800	48,200	32,200	78,300	- .0009	

SPECIFICATIONS AND DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE

* LIMITS ARE BASED ON ISO STANDARDS (INCREASED TOLERANCE RANGE TO H7/h6 WILL DECREASE TRANSMISSIBLE LOAD BY 10%)

SPECIAL OR LARGER SIZES AVAILABLE ON REQUEST

SPIETH Clamping Sleeves Type DSM (inch)

ORDERING EXAMPLES:

To Suit NEMA
MOTOR FRAME:

143T
324T

ORDER:

DSM .88 x 1.63
DSM 2.13 x 3.38
or DSM 2.13 x 3.38 SL (Special Length)

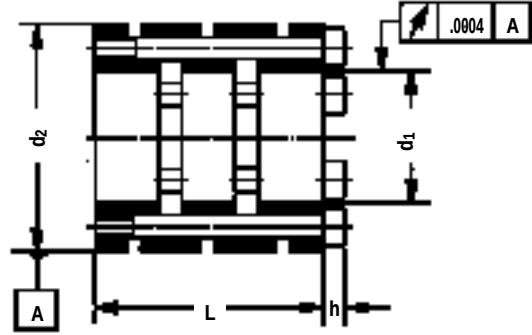


Table dimensions in inches

Catalog Number DSM	Inside Dia. d ₁ H6	Outside Dia. d ₂ h5	Sleeve Length L	Clamping Screw			Torque Per Screw M _A (in.-lbs.)	DSM Mass Moment of Inertia lb•in ²	DSM Transmissible		**Tolerances of Mating Components		NEMA Motor Frame Designation	Allow- able Shaft Torque (ft.-lbs.)
				Size	h	No.			Torque	Ax. Load	NEMA Shaft Dia.	Hub Bore H6		
												M (ft.-lbs.)	F _a (lbs.)	
AVAILABLE ONLY ON SPECIAL REQUEST													42	
.50x1.00	.500	1.000	1.03	6-32	.14	4	30	0.047	45	1950	+ .0000 - .0005	+ .0005	48	1.5
.50x1.00	.500	1.000	1.03	6-32	.14	4	30	0.047	45	1950		- .0000	48	1.5
.63x1.25	.625	1.250	1.31	8-32	.16	6	49	0.061	90	3550		+ .0006	56, 56H	4.6
.88x1.63	.875	1.625	1.81	10-32	.19	6	87	0.179	210	5850		- .0000	143T, 145T, 182, 184	7.6
1.13x1.94	1.125	1.937	2.06	10-32	.19	6	87	0.326	400	8800			182T, 184T, 213, 215	18
1.38x2.31	1.375	2.312	2.56	1/4-20	.25	6	150	0.952	480	9800			213T, 215T, 254U, 256U	30
1.63x2.88	1.625	2.875	2.56	5/16-18	.31	6	345	2.949	1400	23300	+ .0007 - .0000		254T, 256T, 284TS, 286TS, 326S	60
1.63x2.88SL	1.625	2.875	3.63	5/16-18	.31	6	345	3.433	1400	23300			254T, 256T, 284U, 286U	60
1.88x3.13	1.875	3.125	3.06	5/16-18	.31	6	345	3.926	1850	23500			284T, 286T, 324TS, 326TS, 364US, 366TS, 365US	145
1.88x3.13SL	1.875	3.125	4.06	5/16-18	.31	6	345	4.573	1850	23500			284T, 286T, 324U, 326U	145
2.13x3.38	2.125	3.375	3.56	5/16-18	.31	6	345	5.345	2150	24000			324T, 326T, 364US, 366TS, 365US, 404US, 405TS, 444US, 445US	225
2.13x3.38SL	2.125	3.375	4.56	5/16-18	.31	6	345	6.231	2150	24000			324T, 326T, 364U, 365U	225
2.38x3.50	2.375	3.500	4.06	5/16-18	.31	6	345	7.615	2550	25900	+ .0009 - .0000		364T, 365T, 444TS, 445TS, 447TS, 440TS	325
2.38x3.50SL	2.375	3.500	5.06	5/16-18	.31	6	345	11.710	2550	25900			364T, 365T, 404U, 405U	325
2.88x4.00	2.875	4.000	5.06	5/16-18	.31	8	345	13.017	3400	28800			404T, 405T, 444U, 445U	375
3.38x4.50	3.375	4.500	5.06	5/16-18	.31	8	345	27.385	5200	37300			444T, 445T, 447T, 449T	1560

Safety Factor (SF) of SPIETH Clamping Sleeve is calculated by the following formula:

$$SF = \left(\frac{\text{Transmissible Torque of Sleeve}}{\text{Allowable Torque of Motor Shaft}} \right) \quad \text{based on highest HP and lowest RPM of given electric motor}$$

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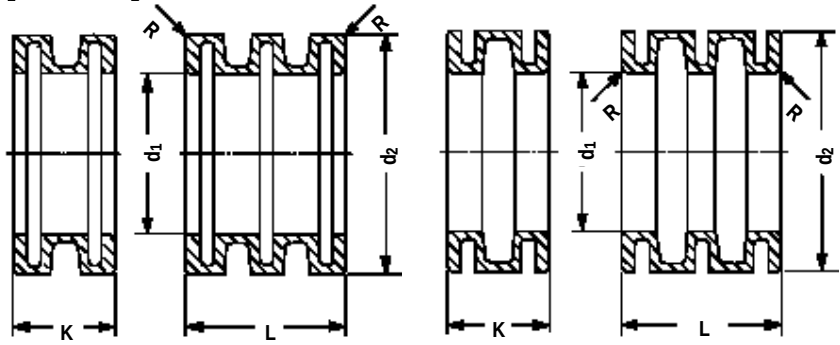
SPIETH Clamping Sleeves

Type AK, AL & IK, IL (inch)

ORDERING EXAMPLES:

SLEEVE d = 1.00" dia. for 1.00" shaft dia.
D = 1.625" dia. for 1.625" hub bore
K = .813" for min. hub width .75"
Clamping by retainer fastened to housing
ORDER AK 1.00" x 1.63"

SLEEVE d = 2.00" dia. for 2.00" shaft dia.
D = 3.00" dia. for 3.00" hub bore
Clamping by retainer fasted to shaft
ORDER IL 2.00" x 3.00"



TYPE AK
TYPE AL
Outer Clamping Sleeves clamped by
retainer fastened to housing

TYPE IK
TYPE IL
Inner Clamping Sleeves clamped by
retainer fastened to shaft center

Table dimensions in inches

Catalog Number AK-AL & IK-IL	Inside Dia. d ₁ H6	Outside Dia. d ₂ h5	Sleeve Length		R	Applied Compression Force Fc (lbs.)	AK & IK Mass Moment of Inertia	AL & IL Mass Moment of Inertia	AK & IK Transmissible		AL & IL Transmissible		**Tolerances of Mating Components Shaft Dia. H5 Hub Bore H6	
			K	L			lb-in ²	lb-in ²	Torque M (ft.-lbs.)	Ax. Load Fa (lbs.)	Torque M (ft.-lbs.)	Ax. Load Fa (lbs.)		
.38 x .63	.3750	.6250	.500	.750	.02	4000	0.006	0.009	7.2	520	13	950	+.0000/-0.0002	+.0004 -.0000
.44 x .69	.4375	.6875	.500	.750	.02	4000	0.009	0.011	9.4	620	17	1100		
.50 x .75	.5000	.7500	.500	.750	.02	4000	0.012	0.016	17	730	23	1300		
.56 x .88	.5625	.8750	.563	.875	.02	4000	0.043	0.048	15	770	27	1400		
.63 x 1.00	.6250	1.000	.563	.875	.02	4400	0.116	0.147	19	980	34	1750	+.0000 -.0003	+.0005 -.0000
.69 x 1.19	.6875	1.1875	.625	1.000	.02	4800	0.138	0.175	38	1400	70	2550		
.75 x 1.25	.7500	1.250	.625	1.000	.04	4800	0.179	0.225	47	1550	80	2800		
.88 x 1.50	.8750	1.500	.813	1.375	.04	4800	0.225	0.284	72	2100	130	3800		
1.00 x 1.63	1.000	1.625	.813	1.375	.04	7200	0.260	0.329	87	2300	150	4150	+.0000 -.0004	+.0006 -.0000
1.13 x 1.75	1.125	1.750	.813	1.375	.04	7200	0.584	0.780	110	2600	200	4650		
1.25 x 2.00	1.250	2.000	1.000	1.625	.04	13200	0.783	1.038	170	3500	300	6300		
1.38 x 2.25	1.375	2.250	1.000	1.625	.04	13200	1.008	1.347	200	3750	350	6750		
1.50 x 2.25	1.500	2.250	1.000	1.625	.06	13200	1.282	1.715	250	4200	460	7550	+.0000 -.0005	+.0007 -.0000
1.75 x 2.75	1.750	2.750	1.250	2.000	.06	20500	1.973	2.641	400	5900	720	10600		
2.00 x 3.00	2.000	3.000	1.250	2.000	.06	20500	4.155	5.398	550	6600	1000	11900		
2.25 x 3.50	2.250	3.500	1.500	2.500	.06	29500	6.525	6.438	780	8600	1400	15500		
2.50 x 3.50	2.500	3.500	1.250	2.000	.06	20500	7.048	8.907	730	7400	1300	13300	+.0000 -.0005	+.0009 -.0000
2.75 x 4.00	2.750	4.000	1.500	2.500	.06	29500	7.038	9.087	970	9200	1750	16500		
3.00 x 4.25	3.000	4.250	1.500	2.500	.06	29500	9.869	11.919	1070	9500	1930	17000		
3.25 x 4.50	3.250	4.500	1.500	2.500	.06	39000	11.454	13.504	1500	12500	2700	22500		
3.50 x 5.00	3.500	5.000	1.813	3.000	.06	45500	13.356	15.406	1850	13700	3300	24600	+.0000 -.0006	+.0010 -.0000
3.75 x 5.25	3.750	5.250	1.625	2.625	.06	34500	15.327	17.308	1950	13500	3500	22200		
4.00 x 5.50	4.000	5.500	1.813	3.000	.06	39500	17.160	19.210	2250	15000	4050	26700		
4.50 x 6.00	4.500	6.000	1.813	3.000	.06	39500	19.116	21.112	2700	16000	4800	29000		
5.00 x 6.50	5.000	6.500	1.813	3.000	.06	39500	20.963	23.014	3600	18500	6500	33000	+.0000 -.0007	+.0011 -.0000
5.50 x 7.00	5.500	7.000	1.813	3.000	.06	39500	24.768	26.818	4200	19500	7400	35000		
6.00 x 7.50	6.000	7.500	1.813	3.000	.06	39500	28.888	30.938	4700	20600	8400	37000		
6.50 x 7.75	6.500	7.750	2.000	3.000	.06	62500	33.008	35.058	8550	31500	11000	51300		
7.00 x 8.25	7.000	8.250	2.000	3.000	.06	62500	37.128	39.178	9200	31500	14000	51300	+.0000 -.0008	+.0012 -.0000
7.50 x 9.00	7.500	9.000	2.438	3.625	.06	82000	42.199	44.249	12000	38500	19600	62700		
8.00 x 9.50	8.000	9.500	2.438	3.625	.06	82000	46.319	48.369	12700	38500	20600	62700		
8.50 x 10.00	8.500	10.000	2.438	3.625	.06	82000	50.439	52.489	13600	38500	21100	62700		
9.00 x 10.50	9.000	10.500	2.438	3.625	.06	82000	54.559	56.609	14500	38500	23100	62700	+.0000 -.0009	+.0012 -.0000
9.50 x 11.00	9.500	11.000	2.438	3.625	.06	82000	58.679	60.729	15200	38500	24600	62700		
10.00 x 12.00	10.000	12.000	2.813	4.000	.06	102000	64.701	66.751	19800	48200	32200	78300		