

**Long-lasting,
Precision
Springs—
Inch & Metric (ISO)
JIS**

**Optimum
results, longer
spring life**

MaxLife[®]



Global leader in
providing fabrication
and stamping solutions

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1-800-938-6868
Distributed by
AFCO



MaxLife® Die Springs

Product Applications

Dayton MaxLife® Die Springs are designed to the highest quality standards, and manufactured to outperform and outlast other major brands. All Dayton die springs are available in a wide range of lengths, diameters, and load classifications in both inch and metric sizes. In addition, all springs are color-coded for easy identification of load range.

Corrosion-resistant Dayton die springs are made from pre-tempered chrome silicon wire to improve dimensional accuracy, minimize high-stress cracking, optimize the working life of press and mold dies, and help reduce downtime. Many manufacturers specify Dayton die springs to ensure optimum operation in heavy industry applications, including: automotive; aircraft; appliance; electrical; and electronic.

Quality & Performance

From the incoming raw material (tested for tensile strength, dimensional accuracy, and surface quality) to the finished product, every Dayton die spring undergoes continuous quality control to ensure optimum product performance. In comparison testing, Dayton die springs consistently outperform and outlast other major brands.

All Dayton die springs are stress relieved after coiling, then compressed to solid to enhance fatigue life. Further, they are ground square at both ends (see insert), then shot-peened. (Shot-peening supplements compressive strength to reduce stress and extend spring life.) Finally, all

finished springs are electro-statically coated with a durable, anti-corrosive vinyl, and color-coded for easy identification of load ranges.



Ordering Information

Dayton die springs are ordered according to: the amount of pressure applied to the spring (see “Load Deflection Table”); the hole diameter (which determines the rod diameter); and, the free length of the spring (see drawing on usage category page). On each order, please specify quantity and “Catalog Number.”

In the example below, the first “Catalog Number” is DMD37-1200. “DMD” refers to Medium Duty Inch. “37” refers to a $\frac{3}{8}$ hole diameter and $\frac{3}{16}$ rod diameter. The “1200” designation further defines the product with a free length of 12. The “Load Deflection Table” on each catalog page provides percentage of deflection, travel to solid, and load @ 1” or 1mm deflection to help determine the exact spring to select. The second product code shown is for an extra heavy duty metric spring. The “Efficient Operating Range” of any spring should not be exceeded. For safe operation, when changing from another manufacturer to a Dayton die spring, verify that the travel of both springs is the same.

HOW TO ORDER

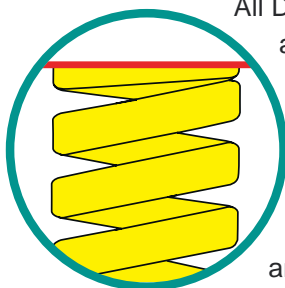
Specify:	Qty.	Catalog Number
Example:	16	DMD37-1200
	24	ED32-127

Worldwide Distribution, On-time Delivery

Dayton maintains a large inventory of Dayton MaxLife® Die Springs in all standard categories throughout our system. There are no minimum size orders, and on-time delivery is a top priority. A Firm Delivery Schedule (FDS) is provided in each catalog section.

Industry Standards

All Dayton MaxLife® Die Springs are designed to meet or exceed technical specifications and other criteria as established by industry guidelines. Designated springs are manufactured to meet or exceed The International Organization for Standardization (ISO) and/or Japanese Industrial Standards (JIS).



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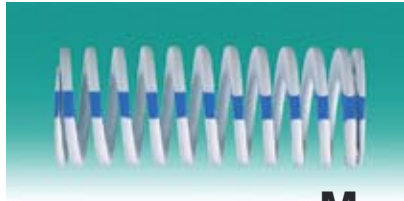
Heavy Load—DP 94 40-43



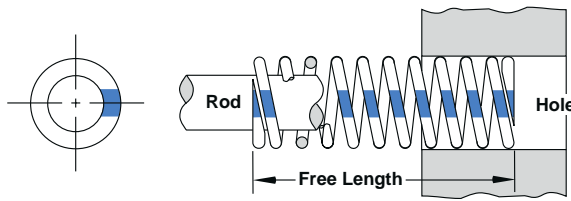
Extra Heavy Load—DP 95 44-47



Medium Pressure Inch



Type **M**



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	10	M37-300
	22	M150-1200

Note: Efficient Operating Range is 25% to 50% of the free length. (Maximum deflection = 50%; long life = 40%; and optimum life = 25%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)		
				50% Deflection		40% Deflection		25% Deflection		Travel to Solid Deflection (in)			
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)				
3/8	3/16	1	M37-100	37	.500	29	.400	18	.250	.572	7.3		
		1.25	M37-125	41	.625	33	.500	20	.313	.725	6.5		
		1.5	M37-150	38	.750	30	.600	19	.375	.896	5.0		
		1.75	M37-175	37	.875	29	.700	18	.438	1.088	4.2		
		2	M37-200	38	1.000	30	.800	19	.500	1.163	3.8		
		2.5	M37-250	38	1.250	30	1.000	19	.625	1.552	3.0		
		3	M37-300	30	1.500	24	1.200	15	.750	1.821	2.0		
		12	M37-1200	42	6.000	34	4.800	21	3.000	7.800	0.7		
1/2	9/32	1	M50-100	55	.500	44	.400	28	.250	.536	11.0		
		1.25	M50-125	55	.625	44	.500	28	.313	.719	8.8		
		1.5	M50-150	59	.750	47	.600	29	.375	.831	7.8		
		1.75	M50-175	51	.875	41	.700	25	.438	.972	5.8		
		2	M50-200	52	1.000	42	.800	26	.500	1.091	5.2		
		2.5	M50-250	63	1.250	50	1.000	31	.625	1.464	5.0		
		3	M50-300	53	1.500	42	1.200	26	.750	1.850	3.5		
		3.5	M50-350	56	1.750	45	1.400	28	.875	2.190	3.2		
		4.5	M50-450	56	2.250	45	1.800	28	1.125	2.736	2.5		
		5.5	M50-550	58	2.750	46	2.200	29	1.375	3.436	2.1		
		6.5	M50-650	49	3.250	39	2.600	24	1.625	3.787	1.5		
		7.5	M50-750	45	3.750	36	3.000	23	1.875	4.075	1.2		
12	M50-1200	48	6.000	38	4.800	24	3.000	6.215	0.8				
5/8	11/32	1	M62-100	95	.500	76	.400	48	.250	.528	19.0		
		1.25	M62-125	89	.625	72	.500	45	.313	.665	14.3		
		1.5	M62-150	98	.750	78	.600	49	.375	.850	13.0		
		1.75	M62-175	86	.875	69	.700	43	.438	.982	9.8		
		2	M62-200	102	1.000	82	.800	51	.500	1.126	10.2		
		2.5	M62-250	91	1.250	73	1.000	46	.625	1.476	7.3		
		3	M62-300	99	1.500	79	1.200	50	.750	1.842	6.6		
		3.5	M62-350	88	1.750	70	1.400	44	.875	2.229	5.0		
		4	M62-400	92	2.000	74	1.600	46	1.000	2.577	4.6		
		12	M62-1200	96	6.000	77	4.800	48	3.000	7.609	1.6		
		3/4	3/8	1	M75-100	188	.500	150	.400	94	.250	.516	37.6
				1.25	M75-125	179	.625	144	.500	90	.313	.665	28.7
1.5	M75-150			167	.750	133	.600	83	.375	.788	22.2		
1.75	M75-175			162	.875	130	.700	81	.438	.934	18.5		
2	M75-200			161	1.000	129	.800	81	.500	1.081	16.1		
2.5	M75-250			159	1.250	127	1.000	79	.625	1.374	12.7		
3	M75-300			158	1.500	126	1.200	79	.750	1.667	10.5		
3.5	M75-350			156	1.750	125	1.400	78	.875	1.961	8.9		
4	M75-400			154	2.000	123	1.600	77	1.000	2.254	7.7		
4.5	M75-450			155	2.250	124	1.800	78	1.125	2.547	6.9		
5	M75-500			153	2.500	122	2.000	76	1.250	2.841	6.1		
5.5	M75-550			154	2.750	123	2.200	77	1.375	3.134	5.6		
6	M75-600			153	3.000	122	2.400	77	1.500	3.426	5.1		
6.5	M75-650			153	3.250	122	2.600	76	1.625	3.720	4.7		
7.5	M75-750			154	3.750	123	3.000	77	1.875	4.306	4.1		
12	M75-1200			150	6.000	120	4.800	75	3.000	6.945	2.5		

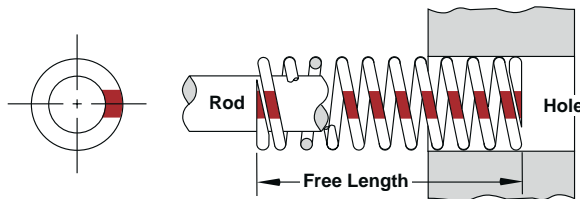
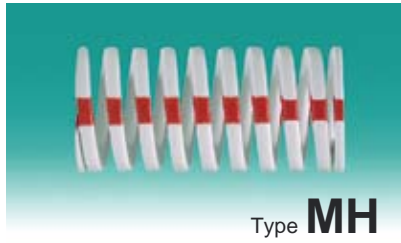
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Medium Pressure Inch

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				50% Deflection		40% Deflection		25% Deflection		Travel to Solid	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Deflection (in)	
1	1/2	1	M100-100	290	.500	232	.400	145	.250	.509	58.0
		1.25	M100-125	330	.625	264	.500	165	.313	.663	52.8
		1.5	M100-150	301	.750	241	.600	150	.375	.792	40.1
		1.75	M100-175	294	.875	235	.700	147	.438	.944	33.6
		2	M100-200	289	1.000	231	.800	145	.500	1.097	28.9
		2.5	M100-250	283	1.250	226	1.000	141	.625	1.403	22.6
		3	M100-300	279	1.500	223	1.200	140	.750	1.709	18.6
		3.5	M100-350	277	1.750	221	1.400	138	.875	2.014	15.8
		4	M100-400	274	2.000	219	1.600	137	1.000	2.320	13.7
		4.5	M100-450	272	2.250	218	1.800	136	1.125	2.625	12.1
		5	M100-500	270	2.500	216	2.000	135	1.250	2.931	10.8
		5.5	M100-550	270	2.750	216	2.200	135	1.375	3.236	9.8
6	M100-600	270	3.000	216	2.400	135	1.500	3.542	9.0		
7	M100-700	266	3.500	213	2.800	133	1.750	4.154	7.6		
8	M100-800	268	4.000	214	3.200	134	2.000	4.764	6.7		
12	M100-1200	264	6.000	211	4.800	132	3.000	7.210	4.4		
1 1/4	5/8	1.5	M125-150	389	.750	311	.600	194	.375	.792	51.8
		1.75	M125-175	350	.875	280	.700	175	.438	.935	40.0
		2	M125-200	357	1.000	286	.800	179	.500	1.156	35.7
		2.5	M125-250	391	1.250	313	1.000	196	.625	1.481	31.3
		3	M125-300	383	1.500	306	1.200	191	.750	1.804	25.5
		3.5	M125-350	378	1.750	302	1.400	189	.875	2.131	21.6
		4	M125-400	374	2.000	299	1.600	187	1.000	2.457	18.7
		4.5	M125-450	371	2.250	297	1.800	186	1.125	2.784	16.5
		5	M125-500	370	2.500	296	2.000	185	1.250	3.112	14.8
		5.5	M125-550	369	2.750	295	2.200	184	1.375	3.435	13.4
		6	M125-600	366	3.000	293	2.400	183	1.500	3.758	12.2
		7	M125-700	364	3.500	291	2.800	182	1.750	4.418	10.4
8	M125-800	364	4.000	291	3.200	182	2.000	5.068	9.1		
10	M125-1000	360	5.000	288	4.000	180	2.500	6.375	7.2		
12	M125-1200	360	6.000	288	4.800	180	3.000	7.681	6.0		
1 1/2	3/4	2	M150-200	450	1.000	360	.800	225	.500	1.120	45.0
		2.5	M150-250	525	1.250	420	1.000	263	.625	1.361	42.0
		3	M150-300	519	1.500	415	1.200	260	.750	1.744	34.6
		3.5	M150-350	520	1.750	416	1.400	260	.875	1.966	29.7
		4	M150-400	532	2.000	426	1.600	266	1.000	2.344	26.6
		4.5	M150-450	513	2.250	410	1.800	257	1.125	2.595	22.8
		5	M150-500	500	2.500	400	2.000	250	1.250	2.960	20.0
		5.5	M150-550	506	2.750	405	2.200	253	1.375	3.203	18.4
		6	M150-600	480	3.000	384	2.400	240	1.500	3.554	16.0
		7	M150-700	497	3.500	398	2.800	249	1.750	4.162	14.2
		8	M150-800	516	4.000	413	3.200	258	2.000	4.856	12.9
		10	M150-1000	500	5.000	400	4.000	250	2.500	6.094	10.0
12	M150-1200	492	6.000	394	4.800	246	3.000	7.172	8.2		
2	1	2.5	M200-250	1216	1.250	973	1.000	608	.625	1.280	97.3
		3	M200-300	1140	1.500	912	1.200	570	.750	1.550	76.0
		3.5	M200-350	1138	1.750	910	1.400	569	.875	1.834	65.0
		4	M200-400	1128	2.000	902	1.600	564	1.000	2.125	56.4
		4.5	M200-450	1105	2.250	884	1.800	552	1.125	2.356	49.1
		5	M200-500	1095	2.500	876	2.000	548	1.250	2.745	43.8
		5.5	M200-550	1108	2.750	887	2.200	554	1.375	2.972	40.3
		6	M200-600	1116	3.000	893	2.400	558	1.500	3.282	37.2
		7	M200-700	1071	3.500	857	2.800	536	1.750	3.806	30.6
		8	M200-800	1072	4.000	858	3.200	536	2.000	4.439	26.8
		10	M200-1000	1050	5.000	840	4.000	525	2.500	5.860	21.0
		12	M200-1200	990	6.000	792	4.800	495	3.000	6.775	16.5

Medium Heavy Pressure Inch



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	14	MH62-175
	28	MH75-600

Note: Efficient Operating Range is 20% to 37% of the free length. (Maximum deflection = 37%; long life = 25%; and optimum life = 20%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

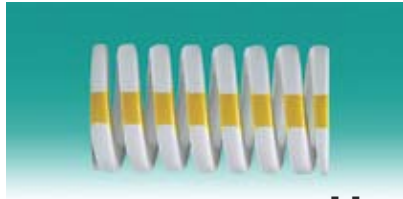
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				37% Deflection		25% Deflection		20% Deflection		Travel to Solid Deflection (in)	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)		
3/8	3/16	1	MH37-100	44	.370	30	.250	24	.200	.515	12.0
		1.25	MH37-125	42	.463	28	.313	23	.250	.576	9.0
		1.5	MH37-150	44	.555	30	.375	24	.300	.771	8.0
		1.75	MH37-175	47	.648	32	.438	25	.350	.922	7.2
		2	MH37-200	51	.740	35	.500	28	.400	1.031	6.9
		2.5	MH37-250	40	.925	27	.625	22	.500	1.226	4.3
		3	MH37-300	34	1.110	23	.750	19	.600	1.520	3.1
		12	MH37-1200	42	4.440	29	3.000	23	2.400	6.593	1.0
1/2	9/32	1	MH50-100	63	.370	43	.250	34	.200	.443	17.0
		1.25	MH50-125	64	.463	43	.313	35	.250	.670	13.8
		1.5	MH50-150	58	.555	39	.375	32	.300	.720	10.5
		1.75	MH50-175	65	.648	44	.438	35	.350	.931	10.0
		2	MH50-200	61	.740	41	.500	33	.400	1.023	8.2
		2.5	MH50-250	59	.925	40	.625	32	.500	1.316	6.4
		3	MH50-300	64	1.110	44	.750	35	.600	1.639	5.8
		3.5	MH50-350	65	1.295	44	.875	35	.700	1.915	5.0
		12	MH50-1200	53	4.440	36	3.000	29	2.400	6.216	1.2
5/8	11/32	1	MH62-100	107	.370	73	.250	58	.200	.431	29.0
		1.25	MH62-125	97	.463	66	.313	53	.250	.536	21.0
		1.5	MH62-150	100	.555	68	.375	54	.300	.609	18.0
		1.75	MH62-175	102	.648	69	.438	55	.350	.763	15.8
		2	MH62-200	108	.740	73	.500	58	.400	.892	14.6
		2.5	MH62-250	111	.925	75	.625	60	.500	1.250	12.0
		3	MH62-300	118	1.110	80	.750	64	.600	1.550	10.6
		3.5	MH62-350	104	1.295	70	.875	56	.700	1.725	8.0
		4	MH62-400	102	1.480	69	1.000	55	.800	2.053	6.9
				12	MH62-1200	111	4.440	75	3.000	60	2.400
3/4	3/8	1	MH75-100	216	.370	146	.250	117	.200	.418	58.4
		1.25	MH75-125	202	.463	136	.313	109	.250	.554	43.6
		1.5	MH75-150	191	.555	129	.375	104	.300	.655	34.5
		1.75	MH75-175	194	.648	131	.438	105	.350	.766	30.0
		2	MH75-200	189	.740	128	.500	102	.400	.936	25.6
		2.5	MH75-250	199	.925	134	.625	108	.500	1.228	21.5
		3	MH75-300	185	1.110	125	.750	100	.600	1.480	16.7
		3.5	MH75-350	185	1.295	125	.875	100	.700	1.757	14.3
		4	MH75-400	189	1.480	128	1.000	102	.800	1.978	12.8
		4.5	MH75-450	190	1.665	128	1.125	103	.900	2.127	11.4
		5	MH75-500	185	1.850	125	1.250	100	1.000	2.465	10.0
		5.5	MH75-550	187	2.035	127	1.375	101	1.100	2.764	9.2
6	MH75-600	200	2.220	135	1.500	108	1.200	2.749	9.0		
		12	MH75-1200	173	4.440	117	3.000	94	2.400	5.827	3.9

FDS[®]
FIRM DELIVERY SCHEDULE
1 Day

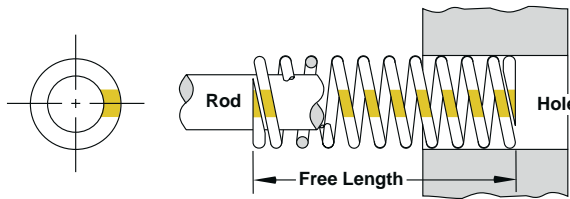
Medium Heavy Pressure Inch

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				37% Deflection		25% Deflection		20% Deflection		Travel to Solid Deflection (in)	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)		
1	1/2	1	MH100-100	335	.370	226	.250	181	.200	.387	90.5
		1.25	MH100-125	288	.463	195	.313	156	.250	.525	62.2
		1.5	MH100-150	273	.555	185	.375	148	.300	.627	49.2
		1.75	MH100-175	277	.648	187	.438	150	.350	.763	42.8
		2	MH100-200	284	.740	192	.500	154	.400	.900	38.4
		2.5	MH100-250	310	.925	209	.625	168	.500	1.162	33.5
		3	MH100-300	275	1.110	186	.750	149	.600	1.415	24.8
		3.5	MH100-350	282	1.295	191	.875	153	.700	1.685	21.8
		4	MH100-400	271	1.480	183	1.000	146	.800	1.928	18.3
		4.5	MH100-450	268	1.665	181	1.125	145	.900	2.228	16.1
		5	MH100-500	268	1.850	181	1.250	145	1.000	2.538	14.5
		5.5	MH100-550	263	2.035	177	1.375	142	1.100	2.652	12.9
6	MH100-600	262	2.220	177	1.500	142	1.200	2.952	11.8		
7	MH100-700	259	2.590	175	1.750	140	1.400	3.466	10.0		
8	MH100-800	260	2.960	176	2.000	141	1.600	3.922	8.8		
12	MH100-1200	289	4.440	195	3.000	156	2.400	6.100	6.5		
1 1/4	5/8	1.5	MH125-150	586	.555	396	.375	317	.300	.584	105.5
		1.75	MH125-175	590	.648	399	.438	319	.350	.720	91.0
		2	MH125-200	592	.740	400	.500	320	.400	.820	80.0
		2.5	MH125-250	588	.925	398	.625	318	.500	1.081	63.6
		3	MH125-300	585	1.110	395	.750	316	.600	1.280	52.7
		3.5	MH125-350	603	1.295	408	.875	326	.700	1.530	46.6
		4	MH125-400	579	1.480	391	1.000	313	.800	1.796	39.1
		4.5	MH125-450	573	1.665	387	1.125	310	.900	2.040	34.4
		5	MH125-500	566	1.850	383	1.250	306	1.000	2.265	30.6
		5.5	MH125-550	568	2.035	384	1.375	307	1.100	2.549	27.9
		6	MH125-600	582	2.220	393	1.500	314	1.200	2.725	26.2
		7	MH125-700	559	2.590	378	1.750	302	1.400	3.220	21.6
8	MH125-800	556	2.960	376	2.000	301	1.600	3.680	18.8		
10	MH125-1000	537	3.700	363	2.500	290	2.000	4.612	14.5		
12	MH125-1200	546	4.400	372	3.000	298	2.400	5.433	12.4		
1 1/2	3/4	2	MH150-200	892	.740	603	.500	482	.400	.774	120.6
		2.5	MH150-250	740	.925	500	.625	400	.500	1.018	80.0
		3	MH150-300	730	1.110	494	.750	395	.600	1.281	65.8
		3.5	MH150-350	699	1.295	473	.875	378	.700	1.519	54.0
		4	MH150-400	789	1.480	533	1.000	426	.800	1.767	53.3
		4.5	MH150-450	721	1.665	487	1.125	390	.900	2.057	43.3
		5	MH150-500	688	1.850	465	1.250	372	1.000	2.300	37.2
		5.5	MH150-550	692	2.035	468	1.375	374	1.100	2.598	34.0
		6	MH150-600	682	2.220	461	1.500	368	1.200	2.843	30.7
		7	MH150-700	673	2.590	455	1.750	364	1.400	3.329	26.0
		8	MH150-800	693	2.960	468	2.000	374	1.600	4.018	23.4
		10	MH150-1000	759	3.700	513	2.500	410	2.000	4.620	20.5
12	MH150-1200	639	4.440	432	3.000	346	2.400	5.735	14.4		
2	1	2.5	MH200-250	1036	.925	700	.625	560	.500	1.017	112.0
		3	MH200-300	971	1.110	656	.750	525	.600	1.284	87.5
		3.5	MH200-350	971	1.295	656	.875	525	.700	1.550	75.0
		4	MH200-400	940	1.480	635	1.000	508	.800	1.786	63.5
		4.5	MH200-450	957	1.665	647	1.125	518	.900	1.979	57.5
		5	MH200-500	981	1.850	663	1.250	530	1.000	2.258	53.0
		5.5	MH200-550	1009	2.035	682	1.375	546	1.100	2.503	49.6
		6	MH200-600	1041	2.220	704	1.500	563	1.200	2.817	46.9
		7	MH200-700	1002	2.590	677	1.750	542	1.400	3.291	38.7
		8	MH200-800	977	2.960	660	2.000	528	1.600	3.892	33.0
		10	MH200-1000	984	3.700	665	2.500	532	2.000	4.740	26.6
		12	MH200-1200	932	4.440	630	3.000	504	2.400	5.870	21.0

Heavy Pressure Inch



Type **H**



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	38	H62-250
	17	H100-300

Note: Efficient Operating Range is 15% to 30% of the free length. (Maximum deflection = 30%; long life = 20%; and optimum life = 15%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				30% Deflection		20% Deflection		15% Deflection		Travel to Solid Deflection (in)	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)		
3/8	3/16	1	H37-100	51	.300	34	.200	26	.150	.379	17.1
		1.25	H37-125	44	.375	30	.250	22	.188	.456	11.8
		1.5	H37-150	45	.450	30	.300	23	.225	.557	10.0
		1.75	H37-175	46	.525	31	.350	23	.263	.697	8.8
		2	H37-200	49	.600	32	.400	24	.300	.804	8.1
		2.5	H37-250	50	.750	33	.500	25	.375	1.100	6.6
		3	H37-300	45	.900	30	.600	23	.450	1.210	5.0
12	H37-1200	43	3.600	29	2.400	22	1.800	4.180	1.2		
1/2	9/32	1	H50-100	75	.300	50	.200	38	.150	.468	25.0
		1.25	H50-125	66	.375	44	.250	33	.188	.573	17.5
		1.5	H50-150	76	.450	50	.300	38	.225	.693	16.8
		1.75	H50-175	74	.525	49	.350	37	.263	.845	14.0
		2	H50-200	66	.600	44	.400	33	.300	1.000	11.0
		2.5	H50-250	74	.750	49	.500	37	.375	1.300	9.8
		3	H50-300	68	.900	45	.600	34	.450	1.430	7.5
3.5	H50-350	69	1.050	46	.700	35	.525	1.766	6.6		
12	H50-1200	68	3.600	46	2.400	34	1.800	6.122	1.9		
5/8	11/32	1	H62-100	143	.300	95	.200	71	.150	.363	47.5
		1.25	H62-125	131	.375	88	.250	66	.188	.476	35.0
		1.5	H62-150	135	.450	90	.300	68	.225	.588	30.0
		1.75	H62-175	131	.525	88	.350	66	.263	.700	25.0
		2	H62-200	130	.600	86	.400	65	.300	.813	21.6
		2.5	H62-250	126	.750	84	.500	63	.375	1.120	16.8
		3	H62-300	126	.900	84	.600	63	.450	1.350	14.0
3.5	H62-350	145	1.050	97	.700	72	.525	1.600	13.8		
4	H62-400	127	1.200	85	.800	64	.600	1.840	10.6		
12	H62-1200	119	3.600	79	2.400	59	1.800	5.311	3.3		
3/4	3/8	1	H75-100	394	.300	263	.200	197	.150	.305	131.4
		1.25	H75-125	360	.375	240	.250	180	.188	.392	96.0
		1.5	H75-150	329	.450	219	.300	164	.225	.491	73.0
		1.75	H75-175	331	.525	221	.350	166	.263	.565	63.0
		2	H75-200	318	.600	212	.400	159	.300	.655	53.0
		2.5	H75-250	311	.750	207	.500	155	.375	.849	41.4
		3	H75-300	354	.900	236	.600	177	.450	1.046	39.3
		3.5	H75-350	309	1.050	206	.700	154	.525	1.238	29.4
		4	H75-400	360	1.200	240	.800	180	.600	1.520	30.0
		4.5	H75-450	313	1.350	209	.900	157	.675	1.745	23.2
		5	H75-500	375	1.500	250	1.000	188	.750	1.911	25.0
		5.5	H75-550	368	1.650	245	1.100	184	.825	2.144	22.3
6	H75-600	362	1.800	241	1.200	181	.900	2.326	20.1		
12	H75-1200	328	3.600	218	2.400	164	1.800	4.380	9.1		

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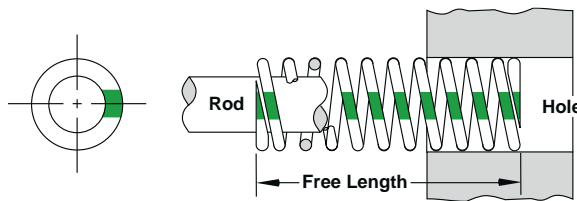
Heavy Pressure Inch

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				30% Deflection		20% Deflection		15% Deflection		Travel to Solid	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Deflection (in)	
1	1/2	1	H100-100	—	—	398	.200	299	.150	.285	199.0
		1.25	H100-125	600	.375	400	.250	301	.188	.383	160.0
		1.5	H100-150	690	.450	460	.300	345	.225	.497	153.4
		1.75	H100-175	579	.525	386	.350	290	.263	.632	110.3
		2	H100-200	570	.600	380	.400	285	.300	.709	95.0
		2.5	H100-250	577	.750	385	.500	288	.375	.866	76.9
		3	H100-300	567	.900	378	.600	284	.450	1.022	63.0
		3.5	H100-350	446	1.050	298	.700	223	.525	1.172	42.5
		4	H100-400	556	1.200	370	.800	278	.600	1.438	46.3
		4.5	H100-450	525	1.350	350	.900	263	.675	1.645	38.9
		5	H100-500	531	1.500	354	1.000	266	.750	1.836	35.4
		5.5	H100-550	523	1.650	349	1.100	262	.825	2.080	31.7
		6	H100-600	515	1.800	343	1.200	257	.900	2.282	28.6
7	H100-700	546	2.100	364	1.400	273	1.050	2.532	26.0		
8	H100-800	528	2.400	352	1.600	264	1.200	2.984	22.0		
12	H100-1200	540	3.600	360	2.400	270	1.800	4.580	15.0		
1 1/4	5/8	1.5	H125-150	1013	.450	675	.300	506	.225	.472	225.0
		1.75	H125-175	1029	.525	686	.350	515	.263	.561	196.0
		2	H125-200	960	.600	640	.400	480	.300	.628	160.0
		2.5	H125-250	945	.750	630	.500	473	.375	.806	126.0
		3	H125-300	891	.900	594	.600	446	.450	.965	99.0
		3.5	H125-350	882	1.050	588	.700	441	.525	1.176	84.0
		4	H125-400	863	1.200	575	.800	431	.600	1.320	71.9
		4.5	H125-450	864	1.350	576	.900	432	.675	1.523	64.0
		5	H125-500	855	1.500	570	1.000	428	.750	1.733	57.0
		5.5	H125-550	881	1.650	587	1.100	441	.825	1.965	53.4
		6	H125-600	950	1.800	634	1.200	475	.900	2.078	52.8
		7	H125-700	943	2.100	629	1.400	471	1.050	2.483	44.9
		8	H125-800	953	2.400	635	1.600	476	1.200	2.836	39.7
10	H125-1000	933	3.000	622	2.000	467	1.500	3.490	31.1		
12	H125-1200	893	3.600	595	2.400	446	1.800	4.300	24.8		
1 1/2	3/4	2	H150-200	1152	.600	768	.400	576	.300	.707	192.0
		2.5	H150-250	1125	.750	750	.500	563	.375	.920	150.0
		3	H150-300	1094	.900	729	.600	547	.450	1.215	121.5
		3.5	H150-350	1098	1.050	732	.700	549	.525	1.379	104.6
		4	H150-400	1086	1.200	724	.800	543	.600	1.568	90.5
		4.5	H150-450	1187	1.350	791	.900	593	.675	1.806	87.9
		5	H150-500	1050	1.500	700	1.000	525	.750	2.077	70.0
		5.5	H150-550	1059	1.650	706	1.100	530	.825	2.299	64.2
		6	H150-600	1053	1.800	702	1.200	527	.900	2.624	58.5
		7	H150-700	1023	2.100	682	1.400	511	1.050	2.972	48.7
		8	H150-800	989	2.400	659	1.600	494	1.200	3.485	41.2
		10	H150-1000	1020	3.000	680	2.000	510	1.500	4.367	34.0
		12	H150-1200	1037	3.600	691	2.400	518	1.800	5.293	28.8
2	1	2.5	H200-250	1800	.750	1200	.500	900	.375	.900	240.0
		3	H200-300	1683	.900	1122	.600	842	.450	1.042	187.0
		3.5	H200-350	1680	1.050	1120	.700	840	.525	1.350	160.0
		4	H200-400	1680	1.200	1120	.800	840	.600	1.580	140.0
		4.5	H200-450	1566	1.350	1044	.900	783	.675	1.827	116.0
		5	H200-500	1575	1.500	1050	1.000	788	.750	2.050	105.0
		5.5	H200-550	1592	1.650	1062	1.100	796	.825	2.366	96.5
		6	H200-600	1642	1.800	1094	1.200	821	.900	2.627	91.2
		7	H200-700	1583	2.100	1056	1.400	792	1.050	3.079	75.4
		8	H200-800	1685	2.400	1123	1.600	842	1.200	3.560	70.2
		10	H200-1000	1575	3.000	1050	2.000	788	1.500	4.497	52.5
		12	H200-1200	1566	3.600	1044	2.400	783	1.800	5.580	43.5

Extra Heavy Pressure Inch



Type **EH**



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	11	EH125-200
	30	EH125-1200

Note: Efficient Operating Range is 15% to 25% of the free length. (Maximum deflection = 25%; long life = 20%; and optimum life = 15%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				25% Deflection		20% Deflection		15% Deflection		Travel to Solid Deflection (in)	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)		
3/8	3/16	1	EH37-100	56	.250	45	.200	34	.150	.289	22.5
		1.25	EH37-125	58	.313	46	.250	35	.188	.356	18.5
		1.5	EH37-150	57	.375	46	.300	34	.225	.505	15.3
		1.75	EH37-175	50	.438	40	.350	30	.263	.599	11.4
		2	EH37-200	50	.500	40	.400	30	.300	.700	10.0
		2.5	EH37-250	50	.625	40	.500	30	.375	.913	8.0
		3	EH37-300	60	.750	48	.600	36	.450	1.077	8.0
		12	EH37-1200	60	3.000	48	2.400	36	1.800	4.585	2.0
1/2	9/32	1	EH50-100	91	.250	73	.200	55	.150	.371	36.5
		1.25	EH50-125	94	.313	75	.250	56	.188	.439	30.0
		1.5	EH50-150	93	.375	74	.300	56	.225	.471	24.8
		1.75	EH50-175	97	.438	77	.350	58	.263	.651	22.1
		2	EH50-200	95	.500	76	.400	57	.300	.747	19.0
		2.5	EH50-250	90	.625	72	.500	54	.375	.916	14.4
		3	EH50-300	84	.750	67	.600	50	.450	1.094	11.2
		3.5	EH50-350	83	.875	67	.700	50	.525	1.211	9.5
		12	EH50-1200	84	3.000	67	2.400	50	1.800	4.888	2.8
5/8	11/32	1	EH62-100	173	.250	138	.200	104	.150	.281	69.0
		1.25	EH62-125	160	.313	128	.250	96	.188	.375	51.0
		1.5	EH62-150	151	.375	121	.300	91	.225	.441	40.3
		1.75	EH62-175	162	.438	130	.350	97	.263	.578	37.0
		2	EH62-200	153	.500	122	.400	92	.300	.605	30.5
		2.5	EH62-250	158	.625	126	.500	95	.375	.786	25.2
		3	EH62-300	147	.750	118	.600	88	.450	.956	19.6
		3.5	EH62-350	152	.875	122	.700	91	.525	1.191	17.4
		4	EH62-400	147	1.000	118	.800	88	.600	1.373	14.7
				12	EH62-1200	150	3.000	120	2.400	90	1.800
3/4	3/8	1	EH75-100	363	.250	290	.200	218	.150	.263	145.0
		1.25	EH75-125	398	.313	318	.250	239	.188	.341	127.0
		1.5	EH75-150	324	.375	260	.300	195	.225	.466	86.5
		1.75	EH75-175	369	.438	295	.350	221	.263	.573	84.2
		2	EH75-200	362	.500	289	.400	217	.300	.668	72.3
		2.5	EH75-250	316	.625	253	.500	190	.375	.850	50.6
		3	EH75-300	311	.750	249	.600	187	.450	1.014	41.5
		3.5	EH75-350	332	.875	265	.700	199	.525	1.158	37.9
		4	EH75-400	300	1.000	240	.800	180	.600	1.399	30.0
		4.5	EH75-450	341	1.125	273	.900	205	.675	1.602	30.3
		5	EH75-500	344	1.250	275	1.000	206	.750	1.722	27.5
		5.5	EH75-550	303	1.375	242	1.100	182	.825	1.976	22.0
		6	EH75-600	332	1.500	265	1.200	199	.900	2.111	22.1
		12	EH75-1200	336	3.000	269	2.400	202	1.800	4.432	11.2

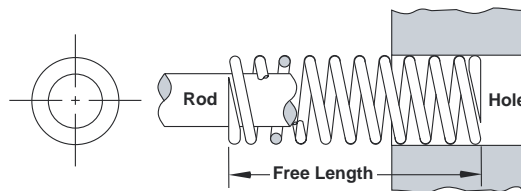
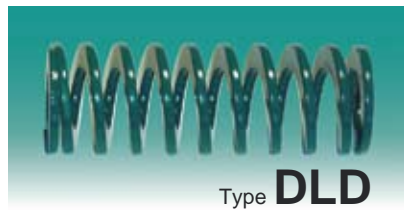
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Extra Heavy Pressure Inch

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				25% Deflection		20% Deflection		15% Deflection		Travel to Solid Deflection (in)	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)		
1	1/2	1.5	EH100-150	666	.375	533	.300	399	.225	.390	177.5
		2	EH100-200	615	.500	492	.400	369	.300	.609	123.0
		2.5	EH100-250	606	.625	485	.500	364	.375	.787	97.0
		3	EH100-300	600	.750	480	.600	360	.450	.936	80.0
		3.5	EH100-350	613	.875	490	.700	368	.525	1.160	70.0
		4	EH100-400	570	1.000	456	.800	342	.600	1.320	57.0
		4.5	EH100-450	585	1.125	468	.900	351	.675	1.493	52.0
		5	EH100-500	651	1.250	521	1.000	391	.750	1.704	52.1
1 1/4	5/8	6	EH100-600	648	1.500	518	1.200	389	.900	2.013	43.2
		12	EH100-1200	642	3.000	514	2.400	385	1.800	4.366	21.4
		2	EH125-200	975	.500	780	.400	585	.300	.542	195.0
		2.5	EH125-250	1058	.625	846	.500	635	.375	.818	169.2
		3	EH125-300	1027	.750	821	.600	616	.450	.983	136.9
		3.5	EH125-350	910	.875	728	.700	546	.525	1.148	104.0
		4	EH125-400	875	1.000	700	.800	525	.600	1.310	87.5
		4.5	EH125-450	872	1.125	698	.900	523	.675	1.524	77.5
		5	EH125-500	881	1.250	705	1.000	529	.750	1.718	70.5
		6	EH125-600	863	1.500	690	1.200	518	.900	2.078	57.5
1 1/2	3/4	8	EH125-800	986	2.000	789	1.600	592	1.200	2.749	49.3
		10	EH125-1000	948	2.500	758	2.000	569	1.500	3.383	37.9
		12	EH125-1200	825	3.000	660	2.400	495	1.800	4.047	27.5
		2	EH150-200	—	—	1416	.400	1062	.300	.440	354.0
		2.5	EH150-250	1672	.625	1338	.500	1003	.375	.633	267.5
		3	EH150-300	—	—	1320	.600	990	.450	.735	220.0
		3.5	EH150-350	1641	.875	1313	.700	984	.525	.933	187.5
		4	EH150-400	1650	1.000	1320	.800	990	.600	1.237	165.0
		4.5	EH150-450	1592	1.125	1274	.900	955	.675	1.312	141.5
		5	EH150-500	1625	1.250	1300	1.000	975	.750	1.514	130.0
2	1	6	EH150-600	1575	1.500	1260	1.200	945	.900	1.857	105.0
		8	EH150-800	1740	2.000	1392	1.600	1044	1.200	2.690	87.0
		10	EH150-1000	1680	2.500	1344	2.000	1008	1.500	3.470	67.2
		12	EH150-1200	1560	3.000	1248	2.400	936	1.800	4.260	52.0
		2.5	EH200-250	—	—	—	—	1538	.375	.480	410.0
		3	EH200-300	—	—	1740	.600	1305	.450	.650	290.0
		3.5	EH200-350	—	—	1925	.700	1444	.525	.800	275.0
		4	EH200-400	2400	1.000	1920	.800	1440	.600	1.010	240.0
4.5	EH200-450	2447	1.125	1958	.900	1468	.675	1.230	217.5		
5	EH200-500	2250	1.250	1800	1.000	1350	.750	1.410	180.0		
6	EH200-600	2310	1.500	1848	1.200	1386	.900	1.770	154.0		
8	EH200-800	2370	2.000	1896	1.600	1422	1.200	2.480	118.5		
10	EH200-1000	2200	2.500	1760	2.000	1320	1.500	3.190	88.0		
12	EH200-1200	2598	3.000	2078	2.400	1559	1.800	3.900	86.6		

Light Duty Inch-ISO Colors



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	40	DLD37-175
	58	DLD75-1200

Note: Efficient Operating Range is 25% to 50% of the free length. (Maximum deflection = 50%; long life = 40%; and optimum life = 25%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

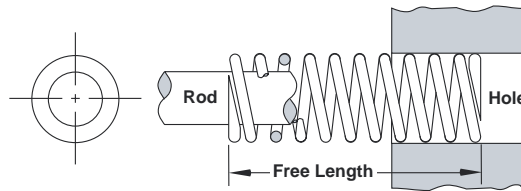
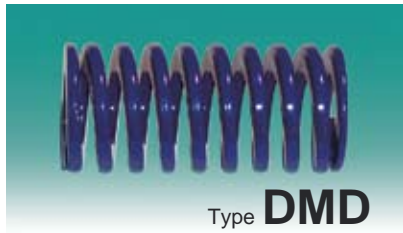
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				50% Deflection		40% Deflection		25% Deflection		Travel to Solid	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Deflection (in)	
3/8	3/16	1	DLD37-100	37	.500	29	.400	18	.250	.572	7.3
		1.25	DLD37-125	41	.625	33	.500	20	.313	.725	6.5
		1.5	DLD37-150	38	.750	30	.600	19	.375	.896	5.0
		1.75	DLD37-175	37	.875	29	.700	18	.438	1.088	4.2
		2	DLD37-200	38	1.000	30	.800	19	.500	1.163	3.8
		2.5	DLD37-250	38	1.250	30	1.000	19	.625	1.552	3.0
		3	DLD37-300	30	1.500	24	1.200	15	.750	1.821	2.0
	12	DLD37-1200	42	6.000	34	4.800	21	3.000	7.800	0.7	
1/2	9/32	1	DLD50-100	55	.500	44	.400	28	.250	.536	11.0
		1.25	DLD50-125	55	.625	44	.500	28	.313	.719	8.8
		1.5	DLD50-150	59	.750	47	.600	29	.375	.831	7.8
		1.75	DLD50-175	51	.875	41	.700	25	.438	.972	5.8
		2	DLD50-200	52	1.000	42	.800	26	.500	1.091	5.2
		2.5	DLD50-250	63	1.250	50	1.000	31	.625	1.464	5.0
		3	DLD50-300	53	1.500	42	1.200	26	.750	1.850	3.5
		3.5	DLD50-350	56	1.750	45	1.400	28	.875	2.190	3.2
	12	DLD50-1200	48	6.000	38	4.800	24	3.000	6.215	0.8	
5/8	11/32	1	DLD62-100	95	.500	76	.400	48	.250	.528	19.0
		1.25	DLD62-125	89	.625	72	.500	45	.313	.665	14.3
		1.5	DLD62-150	98	.750	78	.600	49	.375	.850	13.0
		1.75	DLD62-175	86	.875	69	.700	43	.438	.982	9.8
		2	DLD62-200	102	1.000	82	.800	51	.500	1.126	10.2
		2.5	DLD62-250	91	1.250	73	1.000	46	.625	1.476	7.3
		3	DLD62-300	99	1.500	79	1.200	50	.750	1.842	6.6
		3.5	DLD62-350	88	1.750	70	1.400	44	.875	2.229	5.0
		4	DLD62-400	92	2.000	74	1.600	46	1.000	2.577	4.6
	12	DLD62-1200	96	6.000	77	4.800	48	3.000	7.609	1.6	
3/4	3/8	1	DLD75-100	188	.500	150	.400	94	.250	.516	37.6
		1.25	DLD75-125	179	.625	144	.500	90	.313	.665	28.7
		1.5	DLD75-150	167	.750	133	.600	83	.375	.788	22.2
		1.75	DLD75-175	162	.875	130	.700	81	.438	.934	18.5
		2	DLD75-200	161	1.000	129	.800	81	.500	1.081	16.1
		2.5	DLD75-250	159	1.250	127	1.000	79	.625	1.374	12.7
		3	DLD75-300	158	1.500	126	1.200	79	.750	1.667	10.5
		3.5	DLD75-350	156	1.750	125	1.400	78	.875	1.961	8.9
		4	DLD75-400	154	2.000	123	1.600	77	1.000	2.254	7.7
		4.5	DLD75-450	155	2.250	124	1.800	78	1.125	2.547	6.9
		5	DLD75-500	153	2.500	122	2.000	76	1.250	2.841	6.1
		5.5	DLD75-550	154	2.750	123	2.200	77	1.375	3.134	5.6
		6	DLD75-600	153	3.000	122	2.400	77	1.500	3.426	5.1
	12	DLD75-1200	150	6.000	120	4.800	75	3.000	6.945	2.5	



Light Duty Inch-ISO Colors

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				50% Deflection		40% Deflection		25% Deflection		Travel to Solid	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Deflection (in)	
1	1/2	1	DLD100-100	290	.500	232	.400	145	.250	.509	58.0
		1.25	DLD100-125	330	.625	264	.500	165	.313	.663	52.8
		1.5	DLD100-150	301	.750	241	.600	150	.375	.792	40.1
		1.75	DLD100-175	294	.875	235	.700	147	.438	.944	33.6
		2	DLD100-200	289	1.000	231	.800	145	.500	1.097	28.9
		2.5	DLD100-250	283	1.250	226	1.000	141	.625	1.403	22.6
		3	DLD100-300	279	1.500	223	1.200	140	.750	1.709	18.6
		3.5	DLD100-350	277	1.750	221	1.400	138	.875	2.014	15.8
		4	DLD100-400	274	2.000	219	1.600	137	1.000	2.320	13.7
		4.5	DLD100-450	272	2.250	218	1.800	136	1.125	2.625	12.1
		5	DLD100-500	270	2.500	216	2.000	135	1.250	2.931	10.8
		5.5	DLD100-550	270	2.750	216	2.200	135	1.375	3.236	9.8
6	DLD100-600	270	3.000	216	2.400	135	1.500	3.542	9.0		
7	DLD100-700	266	3.500	213	2.800	133	1.750	4.154	7.6		
8	DLD100-800	268	4.000	214	3.200	134	2.000	4.764	6.7		
12	DLD100-1200	264	6.000	211	4.800	132	3.000	7.210	4.4		
1 1/4	5/8	1.5	DLD125-150	389	.750	311	.600	194	.375	.792	51.8
		1.75	DLD125-175	350	.875	280	.700	175	.438	.935	40.0
		2	DLD125-200	357	1.000	286	.800	179	.500	1.156	35.7
		2.5	DLD125-250	391	1.250	313	1.000	196	.625	1.481	31.3
		3	DLD125-300	383	1.500	306	1.200	191	.750	1.804	25.5
		3.5	DLD125-350	378	1.750	302	1.400	189	.875	2.131	21.6
		4	DLD125-400	374	2.000	299	1.600	187	1.000	2.457	18.7
		4.5	DLD125-450	371	2.250	297	1.800	186	1.125	2.784	16.5
		5	DLD125-500	370	2.500	296	2.000	185	1.250	3.112	14.8
		5.5	DLD125-550	369	2.750	295	2.200	184	1.375	3.435	13.4
		6	DLD125-600	366	3.000	293	2.400	183	1.500	3.758	12.2
		7	DLD125-700	364	3.500	291	2.800	182	1.750	4.418	10.4
8	DLD125-800	364	4.000	291	3.200	182	2.000	5.068	9.1		
10	DLD125-1000	360	5.000	288	4.000	180	2.500	6.375	7.2		
12	DLD125-1200	360	6.000	288	4.800	180	3.000	7.681	6.0		
1 1/2	3/4	2	DLD150-200	450	1.000	360	.800	225	.500	1.120	45.0
		2.5	DLD150-250	525	1.250	420	1.000	263	.625	1.361	42.0
		3	DLD150-300	519	1.500	415	1.200	260	.750	1.744	34.6
		3.5	DLD150-350	520	1.750	416	1.400	260	.875	1.966	29.7
		4	DLD150-400	532	2.000	426	1.600	266	1.000	2.344	26.6
		4.5	DLD150-450	513	2.250	410	1.800	257	1.125	2.595	22.8
		5	DLD150-500	500	2.500	400	2.000	250	1.250	2.960	20.0
		5.5	DLD150-550	506	2.750	405	2.200	253	1.375	3.203	18.4
		6	DLD150-600	480	3.000	384	2.400	240	1.500	3.554	16.0
		7	DLD150-700	497	3.500	398	2.800	249	1.750	4.162	14.2
		8	DLD150-800	516	4.000	413	3.200	258	2.000	4.856	12.9
		10	DLD150-1000	500	5.000	400	4.000	250	2.500	6.094	10.0
12	DLD150-1200	492	6.000	394	4.800	246	3.000	7.172	8.2		
2	1	2.5	DLD200-250	1216	1.250	973	1.000	608	.625	1.280	97.3
		3	DLD200-300	1140	1.500	912	1.200	570	.750	1.550	76.0
		3.5	DLD200-350	1138	1.750	910	1.400	569	.875	1.834	65.0
		4	DLD200-400	1128	2.000	902	1.600	564	1.000	2.125	56.4
		4.5	DLD200-450	1105	2.250	884	1.800	552	1.125	2.356	49.1
		5	DLD200-500	1095	2.500	876	2.000	548	1.250	2.745	43.8
		5.5	DLD200-550	1108	2.750	887	2.200	554	1.375	2.972	40.3
		6	DLD200-600	1116	3.000	893	2.400	558	1.500	3.282	37.2
		7	DLD200-700	1071	3.500	857	2.800	536	1.750	3.806	30.6
		8	DLD200-800	1072	4.000	858	3.200	536	2.000	4.439	26.8
		10	DLD200-1000	1050	5.000	840	4.000	525	2.500	5.860	21.0
		12	DLD200-1200	990	6.000	792	4.800	495	3.000	6.775	16.5
2 1/2	1 1/2	3	DLD250-300	—	—	1320	1.200	825	.750	1.490	110.0
		3.5	DLD250-350	—	—	1261	1.400	788	.875	1.750	90.1
		4	DLD250-400	—	—	1222	1.600	764	1.000	2.000	76.4
		4.5	DLD250-450	—	—	1192	1.800	745	1.125	2.250	66.2
		5	DLD250-500	—	—	1160	2.000	725	1.250	2.510	58.0
		6	DLD250-600	—	—	1145	2.400	715	1.500	3.020	47.7
		7	DLD250-700	—	—	1122	2.800	702	1.750	3.520	40.1
		8	DLD250-800	—	—	1104	3.200	690	2.000	4.030	34.5
10	DLD250-1000	—	—	1072	4.000	670	2.500	5.020	26.8		
12	DLD250-1200	—	—	1061	4.800	663	3.000	6.020	22.1		

Medium Duty Inch-ISO Colors



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	16	DMD37-1200
	27	DMD75-400

Note: Efficient Operating Range is 20% to 37% of the free length. (Maximum deflection = 37%; long life = 25%; and optimum life = 20%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				37% Deflection		25% Deflection		20% Deflection		Travel to Solid	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Deflection (in)	
3/8	3/16	1	DMD37-100	44	.370	30	.250	24	.200	.515	12.0
		1.25	DMD37-125	42	.463	28	.313	23	.250	.576	9.0
		1.5	DMD37-150	44	.555	30	.375	24	.300	.771	8.0
		1.75	DMD37-175	47	.648	32	.438	25	.350	.922	7.2
		2	DMD37-200	51	.740	35	.500	28	.400	1.031	6.9
		2.5	DMD37-250	40	.925	27	.625	22	.500	1.226	4.3
		3	DMD37-300	34	1.110	23	.750	19	.600	1.520	3.1
	12	DMD37-1200	42	4.440	29	3.000	23	2.400	6.593	1.0	
1/2	9/32	1	DMD50-100	63	.370	43	.250	34	.200	.443	17.0
		1.25	DMD50-125	64	.463	43	.313	35	.250	.670	13.8
		1.5	DMD50-150	58	.555	39	.375	32	.300	.720	10.5
		1.75	DMD50-175	65	.648	44	.438	35	.350	.931	10.0
		2	DMD50-200	61	.740	41	.500	33	.400	1.023	8.2
		2.5	DMD50-250	59	.925	40	.625	32	.500	1.316	6.4
		3	DMD50-300	64	1.110	44	.750	35	.600	1.639	5.8
	3.5	DMD50-350	65	1.295	44	.875	35	.700	1.915	5.0	
	12	DMD50-1200	53	4.440	36	3.000	29	2.400	6.216	1.2	
5/8	11/32	1	DMD62-100	107	.370	73	.250	58	.200	.431	29.0
		1.25	DMD62-125	97	.463	66	.313	53	.250	.536	21.0
		1.5	DMD62-150	100	.555	68	.375	54	.300	.609	18.0
		1.75	DMD62-175	102	.648	69	.438	55	.350	.763	15.8
		2	DMD62-200	108	.740	73	.500	58	.400	.892	14.6
		2.5	DMD62-250	111	.925	75	.625	60	.500	1.250	12.0
		3	DMD62-300	118	1.110	80	.750	64	.600	1.550	10.6
	3.5	DMD62-350	104	1.295	70	.875	56	.700	1.725	8.0	
	4	DMD62-400	102	1.480	69	1.000	55	.800	2.053	6.9	
	12	DMD62-1200	111	4.440	75	3.000	60	2.400	6.439	2.5	
3/4	3/8	1	DMD75-100	216	.370	146	.250	117	.200	.418	58.4
		1.25	DMD75-125	202	.463	136	.313	109	.250	.554	43.6
		1.5	DMD75-150	191	.555	129	.375	104	.300	.655	34.5
		1.75	DMD75-175	194	.648	131	.438	105	.350	.766	30.0
		2	DMD75-200	189	.740	128	.500	102	.400	.936	25.6
		2.5	DMD75-250	199	.925	134	.625	108	.500	1.228	21.5
		3	DMD75-300	185	1.110	125	.750	100	.600	1.480	16.7
		3.5	DMD75-350	185	1.295	125	.875	100	.700	1.757	14.3
		4	DMD75-400	189	1.480	128	1.000	102	.800	1.978	12.8
		4.5	DMD75-450	190	1.665	128	1.125	103	.900	2.127	11.4
		5	DMD75-500	185	1.850	125	1.250	100	1.000	2.465	10.0
		5.5	DMD75-550	187	2.035	127	1.375	101	1.100	2.764	9.2
6	DMD75-600	200	2.220	135	1.500	108	1.200	2.749	9.0		
	12	DMD75-1200	173	4.440	117	3.000	94	2.400	5.827	3.9	

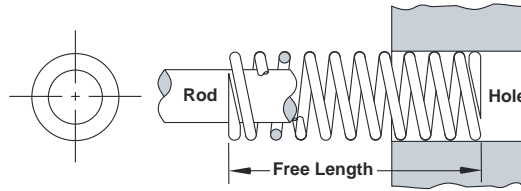
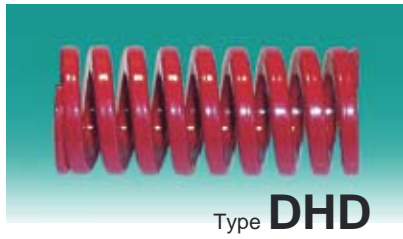


Medium Duty

Inch-ISO Colors

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				37% Deflection		25% Deflection		20% Deflection		Travel to Solid	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Deflection (in)	
1	1/2	1	DMD100-100	335	.370	226	.250	181	.200	.387	90.5
		1.25	DMD100-125	288	.463	195	.313	156	.250	.525	62.2
		1.5	DMD100-150	273	.555	185	.375	148	.300	.627	49.2
		1.75	DMD100-175	277	.648	187	.438	150	.350	.763	42.8
		2	DMD100-200	284	.740	192	.500	154	.400	.900	38.4
		2.5	DMD100-250	310	.925	209	.625	168	.500	1.162	33.5
		3	DMD100-300	275	1.110	186	.750	149	.600	1.415	24.8
		3.5	DMD100-350	282	1.295	191	.875	153	.700	1.685	21.8
		4	DMD100-400	271	1.480	183	1.000	146	.800	1.928	18.3
		4.5	DMD100-450	268	1.665	181	1.125	145	.900	2.228	16.1
		5	DMD100-500	268	1.850	181	1.250	145	1.000	2.538	14.5
		5.5	DMD100-550	263	2.035	177	1.375	142	1.100	2.652	12.9
6	DMD100-600	262	2.220	177	1.500	142	1.200	2.952	11.8		
7	DMD100-700	259	2.590	175	1.750	140	1.400	3.466	10.0		
8	DMD100-800	260	2.960	176	2.000	141	1.600	3.922	8.8		
12	DMD100-1200	289	4.440	195	3.000	156	2.400	6.100	6.5		
1 1/4	5/8	1.5	DMD125-150	586	.555	396	.375	317	.300	.584	105.5
		1.75	DMD125-175	590	.648	399	.438	319	.350	.720	91.0
		2	DMD125-200	592	.740	400	.500	320	.400	.820	80.0
		2.5	DMD125-250	588	.925	398	.625	318	.500	1.081	63.6
		3	DMD125-300	585	1.110	395	.750	316	.600	1.280	52.7
		3.5	DMD125-350	603	1.295	408	.875	326	.700	1.530	46.6
		4	DMD125-400	579	1.480	391	1.000	313	.800	1.796	39.1
		4.5	DMD125-450	573	1.665	387	1.125	310	.900	2.040	34.4
		5	DMD125-500	566	1.850	383	1.250	306	1.000	2.265	30.6
		5.5	DMD125-550	568	2.035	384	1.375	307	1.100	2.549	27.9
		6	DMD125-600	582	2.220	393	1.500	314	1.200	2.725	26.2
		7	DMD125-700	559	2.590	378	1.750	302	1.400	3.220	21.6
8	DMD125-800	556	2.960	376	2.000	301	1.600	3.680	18.8		
10	DMD125-1000	537	3.700	363	2.500	290	2.000	4.612	14.5		
12	DMD125-1200	546	4.400	372	3.000	298	2.400	5.433	12.4		
1 1/2	3/4	2	DMD150-200	892	.740	603	.500	482	.400	.774	120.6
		2.5	DMD150-250	740	.925	500	.625	400	.500	1.018	80.0
		3	DMD150-300	730	1.110	494	.750	395	.600	1.281	65.8
		3.5	DMD150-350	699	1.295	473	.875	378	.700	1.519	54.0
		4	DMD150-400	789	1.480	533	1.000	426	.800	1.767	53.3
		4.5	DMD150-450	721	1.665	487	1.125	390	.900	2.057	43.3
		5	DMD150-500	688	1.850	465	1.250	372	1.000	2.300	37.2
		5.5	DMD150-550	692	2.035	468	1.375	374	1.100	2.598	34.0
		6	DMD150-600	682	2.220	461	1.500	368	1.200	2.843	30.7
		7	DMD150-700	673	2.590	455	1.750	364	1.400	3.329	26.0
		8	DMD150-800	693	2.960	468	2.000	374	1.600	4.018	23.4
		10	DMD150-1000	759	3.700	513	2.500	410	2.000	4.620	20.5
12	DMD150-1200	639	4.440	432	3.000	346	2.400	5.735	14.4		
2	1	2.5	DMD200-250	1036	.925	700	.625	560	.500	1.017	112.0
		3	DMD200-300	971	1.110	656	.750	525	.600	1.284	87.5
		3.5	DMD200-350	971	1.295	656	.875	525	.700	1.550	75.0
		4	DMD200-400	940	1.480	635	1.000	508	.800	1.786	63.5
		4.5	DMD200-450	957	1.665	647	1.125	518	.900	1.979	57.5
		5	DMD200-500	981	1.850	663	1.250	530	1.000	2.258	53.0
		5.5	DMD200-550	1009	2.035	682	1.375	546	1.100	2.503	49.6
		6	DMD200-600	1041	2.220	704	1.500	563	1.200	2.817	46.9
		7	DMD200-700	1002	2.590	677	1.750	542	1.400	3.291	38.7
		8	DMD200-800	977	2.960	660	2.000	528	1.600	3.892	33.0
		9	DMD200-900	966	3.330	652	2.250	522	1.800	3.930	29.0
		10	DMD200-1000	984	3.700	665	2.500	532	2.000	4.740	26.6
12	DMD200-1200	932	4.440	630	3.000	504	2.400	5.870	21.0		
2 1/2	1 1/2	3	DMD250-300	1931	1.110	1305	.750	1044	.600	1.290	174.0
		3.5	DMD250-350	1852	1.295	1251	.875	1001	.700	1.520	143.0
		4	DMD250-400	1790	1.480	1210	1.000	968	.800	1.740	121.0
		4.5	DMD250-450	1765	1.665	1192	1.125	954	.900	1.980	106.0
		5	DMD250-500	1733	1.850	1171	1.250	937	1.000	2.220	93.7
		6	DMD250-600	1683	2.220	1137	1.500	910	1.200	2.670	75.8
		7	DMD250-700	1650	2.590	1115	1.750	892	1.400	3.120	63.7
		8	DMD250-800	1625	2.960	1098	2.000	878	1.600	3.570	54.9
		9	DMD250-900	1622	3.330	1096	2.250	877	1.800	4.060	48.7
		10	DMD250-1000	1620	3.700	1095	2.500	876	2.000	4.560	43.8
12	DMD250-1200	1607	4.440	1086	3.000	869	2.400	5.450	36.2		

Heavy Duty Inch-ISO Colors



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	78	DHD37-250
	12	DHD50-1200

Note: Efficient Operating Range is 15% to 30% of the free length. (Maximum deflection = 30%; long life = 20%; and optimum life = 15%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

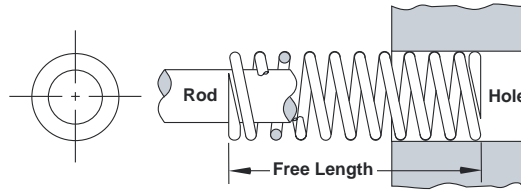
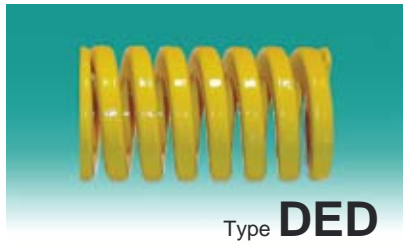
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				30% Deflection		20% Deflection		15% Deflection		Travel to Solid Deflection (in)	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)		
3/8	3/16	1	DHD37-100	51	.300	34	.200	26	.150	.379	17.1
		1.25	DHD37-125	44	.375	30	.250	22	.188	.456	11.8
		1.5	DHD37-150	45	.450	30	.300	23	.225	.557	10.0
		1.75	DHD37-175	46	.525	31	.350	23	.263	.697	8.8
		2	DHD37-200	49	.600	32	.400	24	.300	.804	8.1
		2.5	DHD37-250	50	.750	33	.500	25	.375	1.100	6.6
		3	DHD37-300	45	.900	30	.600	23	.450	1.210	5.0
		12	DHD37-1200	43	3.600	29	2.400	22	1.800	4.180	1.2
1/2	9/32	1	DHD50-100	75	.300	50	.200	38	.150	.468	25.0
		1.25	DHD50-125	66	.375	44	.250	33	.188	.573	17.5
		1.5	DHD50-150	76	.450	50	.300	38	.225	.693	16.8
		1.75	DHD50-175	74	.525	49	.350	37	.263	.845	14.0
		2	DHD50-200	66	.600	44	.400	33	.300	1.000	11.0
		2.5	DHD50-250	74	.750	49	.500	37	.375	1.300	9.8
		3	DHD50-300	68	.900	45	.600	34	.450	1.430	7.5
		3.5	DHD50-350	69	1.050	46	.700	35	.525	1.766	6.6
		12	DHD50-1200	68	3.600	46	2.400	34	1.800	6.122	1.9
5/8	11/32	1	DHD62-100	143	.300	95	.200	71	.150	.363	47.5
		1.25	DHD62-125	131	.375	88	.250	66	.188	.476	35.0
		1.5	DHD62-150	135	.450	90	.300	68	.225	.588	30.0
		1.75	DHD62-175	131	.525	88	.350	66	.263	.700	25.0
		2	DHD62-200	130	.600	86	.400	65	.300	.813	21.6
		2.5	DHD62-250	126	.750	84	.500	63	.375	1.120	16.8
		3	DHD62-300	126	.900	84	.600	63	.450	1.350	14.0
		3.5	DHD62-350	145	1.050	97	.700	72	.525	1.600	13.8
		4	DHD62-400	127	1.200	85	.800	64	.600	1.840	10.6
		12	DHD62-1200	119	3.600	79	2.400	59	1.800	5.311	3.3
3/4	3/8	1	DHD75-100	394	.300	263	.200	197	.150	.305	131.4
		1.25	DHD75-125	360	.375	240	.250	180	.188	.392	96.0
		1.5	DHD75-150	329	.450	219	.300	164	.225	.491	73.0
		1.75	DHD75-175	331	.525	221	.350	166	.263	.565	63.0
		2	DHD75-200	318	.600	212	.400	159	.300	.655	53.0
		2.5	DHD75-250	311	.750	207	.500	155	.375	.849	41.4
		3	DHD75-300	354	.900	236	.600	177	.450	1.046	39.3
		3.5	DHD75-350	309	1.050	206	.700	154	.525	1.238	29.4
		4	DHD75-400	360	1.200	240	.800	180	.600	1.520	30.0
		4.5	DHD75-450	313	1.350	209	.900	157	.675	1.745	23.2
		5	DHD75-500	375	1.500	250	1.000	188	.750	1.911	25.0
		5.5	DHD75-550	368	1.650	245	1.100	184	.825	2.144	22.3
6	DHD75-600	362	1.800	241	1.200	181	.900	2.326	20.1		
		12	DHD75-1200	328	3.600	218	2.400	164	1.800	4.380	9.1



Heavy Duty Inch-ISO Colors

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				30% Deflection		20% Deflection		15% Deflection		Travel to Solid	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Deflection (in)	
1	1/2	1	DHD100-100	—	—	398	.200	299	.150	.285	199.0
		1.25	DHD100-125	600	.375	400	.250	301	.188	.383	160.0
		1.5	DHD100-150	690	.450	460	.300	345	.225	.497	153.4
		1.75	DHD100-175	579	.525	386	.350	290	.263	.632	110.3
		2	DHD100-200	570	.600	380	.400	285	.300	.709	95.0
		2.5	DHD100-250	577	.750	385	.500	288	.375	.866	76.9
		3	DHD100-300	567	.900	378	.600	284	.450	1.022	63.0
		3.5	DHD100-350	446	1.050	298	.700	223	.525	1.172	42.5
		4	DHD100-400	556	1.200	370	.800	278	.600	1.438	46.3
		4.5	DHD100-450	525	1.350	350	.900	263	.675	1.645	38.9
		5	DHD100-500	531	1.500	354	1.000	266	.750	1.836	35.4
		5.5	DHD100-550	523	1.650	349	1.100	262	.825	2.080	31.7
6	DHD100-600	515	1.800	343	1.200	257	.900	2.282	28.6		
7	DHD100-700	546	2.100	364	1.400	273	1.050	2.532	26.0		
8	DHD100-800	528	2.400	352	1.600	264	1.200	2.984	22.0		
12	DHD100-1200	540	3.600	360	2.400	270	1.800	4.580	15.0		
1 1/4	5/8	1.5	DHD125-150	1013	.450	675	.300	506	.225	.472	225.0
		1.75	DHD125-175	1029	.525	686	.350	515	.263	.561	196.0
		2	DHD125-200	960	.600	640	.400	480	.300	.628	160.0
		2.5	DHD125-250	945	.750	630	.500	473	.375	.806	126.0
		3	DHD125-300	891	.900	594	.600	446	.450	.965	99.0
		3.5	DHD125-350	882	1.050	588	.700	441	.525	1.176	84.0
		4	DHD125-400	863	1.200	575	.800	431	.600	1.320	71.9
		4.5	DHD125-450	864	1.350	576	.900	432	.675	1.523	64.0
		5	DHD125-500	855	1.500	570	1.000	428	.750	1.733	57.0
		5.5	DHD125-550	881	1.650	587	1.100	441	.825	1.965	53.4
		6	DHD125-600	950	1.800	634	1.200	475	.900	2.078	52.8
		7	DHD125-700	943	2.100	629	1.400	471	1.050	2.483	44.9
8	DHD125-800	953	2.400	635	1.600	476	1.200	2.836	39.7		
10	DHD125-1000	933	3.000	622	2.000	467	1.500	3.490	31.1		
12	DHD125-1200	893	3.600	595	2.400	446	1.800	4.300	24.8		
1 1/2	3/4	2	DHD150-200	1152	.600	768	.400	576	.300	.707	192.0
		2.5	DHD150-250	1125	.750	750	.500	563	.375	.920	150.0
		3	DHD150-300	1094	.900	729	.600	547	.450	1.215	121.5
		3.5	DHD150-350	1098	1.050	732	.700	549	.525	1.379	104.6
		4	DHD150-400	1086	1.200	724	.800	543	.600	1.568	90.5
		4.5	DHD150-450	1187	1.350	791	.900	593	.675	1.806	87.9
		5	DHD150-500	1050	1.500	700	1.000	525	.750	2.077	70.0
		5.5	DHD150-550	1059	1.650	706	1.100	530	.825	2.299	64.2
		6	DHD150-600	1053	1.800	702	1.200	527	.900	2.624	58.5
		7	DHD150-700	1023	2.100	682	1.400	511	1.050	2.972	48.7
		8	DHD150-800	989	2.400	659	1.600	494	1.200	3.485	41.2
		10	DHD150-1000	1020	3.000	680	2.000	510	1.500	4.367	34.0
12	DHD150-1200	1037	3.600	691	2.400	518	1.800	5.293	28.8		
2	1	2.5	DHD200-250	1800	.750	1200	.500	900	.375	.900	240.0
		3	DHD200-300	1683	.900	1122	.600	842	.450	1.042	187.0
		3.5	DHD200-350	1680	1.050	1120	.700	840	.525	1.350	160.0
		4	DHD200-400	1680	1.200	1120	.800	840	.600	1.580	140.0
		4.5	DHD200-450	1566	1.350	1044	.900	783	.675	1.827	116.0
		5	DHD200-500	1575	1.500	1050	1.000	788	.750	2.050	105.0
		5.5	DHD200-550	1592	1.650	1062	1.100	796	.825	2.366	96.5
		6	DHD200-600	1642	1.800	1094	1.200	821	.900	2.627	91.2
		7	DHD200-700	1583	2.100	1056	1.400	792	1.050	3.079	75.4
		8	DHD200-800	1685	2.400	1123	1.600	842	1.200	3.560	70.2
		10	DHD200-1000	1575	3.000	1050	2.000	788	1.500	4.497	52.5
		12	DHD200-1200	1566	3.600	1044	2.400	783	1.800	5.580	43.5

Extra Heavy Duty Inch-ISO Colors



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	18	DED100-450
	24	DED125-500

Note: Efficient Operating Range is 15% to 25% of the free length. (Maximum deflection = 25%; long life = 20%; and optimum life = 15%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

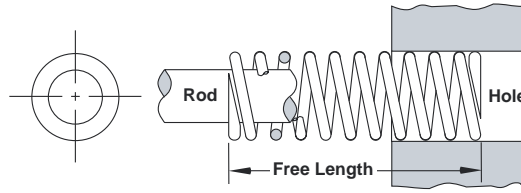
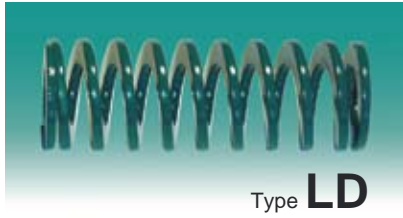
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				25% Deflection		20% Deflection		15% Deflection		Travel to Solid Deflection (in)	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)		
3/8	3/16	1	DED37-100	56	.250	45	.200	34	.150	.289	22.5
		1.25	DED37-125	58	.313	46	.250	35	.188	.356	18.5
		1.5	DED37-150	57	.375	46	.300	34	.225	.505	15.3
		1.75	DED37-175	50	.438	40	.350	30	.263	.599	11.4
		2	DED37-200	50	.500	40	.400	30	.300	.700	10.0
		2.5	DED37-250	50	.625	40	.500	30	.375	.913	8.0
		3	DED37-300	60	.750	48	.600	36	.450	1.077	8.0
1/2	9/32	12	DED37-1200	60	3.000	48	2.400	36	1.800	4.585	2.0
		1	DED50-100	91	.250	73	.200	55	.150	.371	36.5
		1.25	DED50-125	94	.313	75	.250	56	.188	.439	30.0
		1.5	DED50-150	93	.375	74	.300	56	.225	.471	24.8
		1.75	DED50-175	97	.438	77	.350	58	.263	.651	22.1
		2	DED50-200	95	.500	76	.400	57	.300	.747	19.0
		2.5	DED50-250	90	.625	72	.500	54	.375	.916	14.4
5/8	11/32	3	DED50-300	84	.750	67	.600	50	.450	1.094	11.2
		3.5	DED50-350	83	.875	67	.700	50	.525	1.211	9.5
		12	DED50-1200	84	3.000	67	2.400	50	1.800	4.888	2.8
		1	DED62-100	173	.250	138	.200	104	.150	.281	69.0
		1.25	DED62-125	160	.313	128	.250	96	.188	.375	51.0
		1.5	DED62-150	151	.375	121	.300	91	.225	.441	40.3
		1.75	DED62-175	162	.438	130	.350	97	.263	.578	37.0
3/4	3/8	2	DED62-200	153	.500	122	.400	92	.300	.605	30.5
		2.5	DED62-250	158	.625	126	.500	95	.375	.786	25.2
		3	DED62-300	147	.750	118	.600	88	.450	.956	19.6
		3.5	DED62-350	152	.875	122	.700	91	.525	1.191	17.4
		4	DED62-400	147	1.000	118	.800	88	.600	1.373	14.7
		12	DED62-1200	150	3.000	120	2.400	90	1.800	4.388	5.0
		1	DED75-100	363	.250	290	.200	218	.150	.263	145.0
1.25	DED75-125	398	.313	318	.250	239	.188	.341	127.0		
1.5	DED75-150	324	.375	260	.300	195	.225	.466	86.5		
1.75	DED75-175	369	.438	295	.350	221	.263	.573	84.2		
2	DED75-200	362	.500	289	.400	217	.300	.668	72.3		
2.5	DED75-250	316	.625	253	.500	190	.375	.850	50.6		
3	DED75-300	311	.750	249	.600	187	.450	1.014	41.5		
3.5	DED75-350	332	.875	265	.700	199	.525	1.158	37.9		
4	DED75-400	300	1.000	240	.800	180	.600	1.399	30.0		
4.5	DED75-450	341	1.125	273	.900	205	.675	1.602	30.3		
5	DED75-500	344	1.250	275	1.000	206	.750	1.722	27.5		
5.5	DED75-550	303	1.375	242	1.100	182	.825	1.976	22.0		
6	DED75-600	332	1.500	265	1.200	199	.900	2.111	22.1		
12	DED75-1200	336	3.000	269	2.400	202	1.800	4.432	11.2		



Extra Heavy Duty Inch-ISO Colors

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ .1" Deflection (lbs)
				25% Deflection		20% Deflection		15% Deflection		Travel to Solid	
				Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Load (lbs)	Deflection (in)	Deflection (in)	
1	1/2	1.25	DED100-125	631	.313	505	.250	379	.188	.400	202.0
		1.5	DED100-150	666	.375	533	.300	399	.225	.480	177.5
		1.75	DED100-175	578	.438	462	.350	347	.263	.570	132.0
		2	DED100-200	615	.500	492	.400	369	.300	.609	123.0
		2.5	DED100-250	606	.625	485	.500	364	.375	.787	97.0
		3	DED100-300	600	.750	480	.600	360	.450	.936	80.0
		3.5	DED100-350	613	.875	490	.700	368	.525	1.160	70.0
		4	DED100-400	570	1.000	456	.800	342	.600	1.320	57.0
		4.5	DED100-450	585	1.125	468	.900	351	.675	1.493	52.0
		5	DED100-500	651	1.250	521	1.000	391	.750	1.704	52.1
		5.5	DED100-550	523	1.375	418	1.100	314	.82	1.910	38.0
		6	DED100-600	648	1.500	518	1.200	389	.900	2.013	43.2
7	DED100-700	513	1.750	410	1.400	308	1.05	2.48	29.3		
8	DED100-800	510	2.000	408	1.600	306	1.20	2.84	25.5		
12	DED100-1200	642	3.000	514	2.400	385	1.800	4.366	21.4		
1 1/4	5/8	1.5	DED125-150	1046	.375	837	.300	628	.225	.440	279.0
		1.75	DED125-175	1011	.438	809	.350	606	.263	.530	231.0
		2	DED125-200	975	.500	780	.400	585	.300	.542	195.0
		2.5	DED125-250	1058	.625	846	.500	635	.375	.818	169.2
		3	DED125-300	1027	.750	821	.600	616	.450	.983	136.9
		3.5	DED125-350	910	.875	728	.700	546	.525	1.148	104.0
		4	DED125-400	875	1.000	700	.800	525	.600	1.310	87.5
		4.5	DED125-450	872	1.125	698	.900	523	.675	1.524	77.5
		5	DED125-500	881	1.250	705	1.000	529	.750	1.718	70.5
		5.5	DED125-550	880	1.375	704	1.100	528	.820	1.850	64.0
		6	DED125-600	863	1.500	690	1.200	518	.900	2.078	57.5
		7	DED125-700	858	1.750	686	1.400	515	1.05	2.33	49.0
8	DED125-800	986	2.000	789	1.600	592	1.200	2.749	49.3		
10	DED125-1000	948	2.500	758	2.000	569	1.500	3.383	37.9		
12	DED125-1200	825	3.000	660	2.400	495	1.800	4.047	27.5		
1 1/2	3/4	2	DED150-200	—	—	1416	.400	1062	.300	.440	354.0
		2.5	DED150-250	1672	.625	1338	.500	1003	.375	.633	267.5
		3	DED150-300	—	—	1320	.600	990	.450	.735	220.0
		3.5	DED150-350	1641	.875	1313	.700	984	.525	.933	187.5
		4	DED150-400	1650	1.000	1320	.800	990	.600	1.237	165.0
		4.5	DED150-450	1592	1.125	1274	.900	955	.675	1.312	141.5
		5	DED150-500	1625	1.250	1300	1.000	975	.750	1.514	130.0
		5.5	DED150-550	1348	1.375	1078	1.100	809	.820	1.810	98.0
		6	DED150-600	1575	1.500	1260	1.200	945	.900	1.857	105.0
		7	DED150-700	1314	1.750	1051	1.400	789	1.05	2.310	75.1
		8	DED150-800	1740	2.000	1392	1.600	1044	1.200	2.690	87.0
		10	DED150-1000	1680	2.500	1344	2.000	1008	1.500	3.470	67.2
12	DED150-1200	1560	3.000	1248	2.400	936	1.800	4.260	52.0		
2	1	2.5	DED200-250	—	—	—	—	1538	.375	.480	410.0
		3	DED200-300	—	—	1740	.600	1305	.450	.650	290.0
		3.5	DED200-350	—	—	1925	.700	1444	.525	.800	275.0
		4	DED200-400	2400	1.000	1920	.800	1440	.600	1.010	240.0
		4.5	DED200-450	2447	1.125	1958	.900	1468	.675	1.230	217.5
		5	DED200-500	2250	1.250	1800	1.000	1350	.750	1.410	180.0
		5.5	DED200-550	2214	1.375	1771	1.100	1328	.820	1.750	161.0
		6	DED200-600	2310	1.500	1848	1.200	1386	.900	1.770	154.0
		7	DED200-700	2153	1.750	1722	1.400	1292	1.05	2.210	123.0
		8	DED200-800	2370	2.000	1896	1.600	1422	1.200	2.480	118.5
		10	DED200-1000	2200	2.500	1760	2.000	1320	1.500	3.190	88.0
		12	DED200-1200	2598	3.000	2078	2.400	1559	1.800	3.900	86.6

Light Duty Metric-ISO



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	40	LD10-44
	58	LD20-305

Note: Efficient Operating Range is 25% to 35% of the free length. (Maximum deflection = 35%; long life = 30%; and optimum life = 25%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Load shown in Newtons (N).

LOAD DEFLECTION TABLE

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE						Load @ 1 mm Deflection (*N)			
				35% Deflection		30% Deflection		25% Deflection			Travel to Solid		
				Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)		Deflection (mm)		
10.0	5.0	25	LD10-25	88.0	8.8	75.0	7.5	63.0	6.3	10.3	10.0		
		32	LD10-32	95.2	11.2	81.6	9.6	68.0	8.0	13.1	8.5		
		38	LD10-38	90.4	13.3	77.5	11.4	64.6	9.5	15.6	6.8		
		44	LD10-44	92.4	15.4	79.2	13.2	66.0	11.0	18.0	6.0		
		51	LD10-51	89.5	17.9	76.5	15.3	64.0	12.8	20.9	5.0		
		64	LD10-64	96.3	22.4	82.6	19.2	68.8	16.0	26.0	4.3		
		76	LD10-76	85.1	26.6	73.0	22.8	60.8	19.0	31.2	3.2		
		305	LD10-305	117.5	106.8	100.7	91.5	83.9	76.3	125.0	1.1		
12.5	6.3	25	LD12-25	157.5	8.8	134.3	7.5	112.8	6.3	10.3	17.9		
		32	LD12-32	183.7	11.2	157.4	9.6	131.2	8.0	13.1	16.4		
		38	LD12-38	180.9	13.3	155.0	11.4	129.2	9.5	15.6	13.6		
		44	LD12-44	186.3	15.4	159.7	13.2	133.1	11.0	18.0	12.1		
		51	LD12-51	204.1	17.9	174.4	15.3	145.9	12.8	20.9	11.4		
		64	LD12-64	208.3	22.4	178.6	19.2	148.8	16.0	26.3	9.3		
		76	LD12-76	188.9	26.6	161.9	22.8	134.9	19.0	31.2	7.1		
		89	LD12-89	168.5	31.2	144.2	26.7	120.4	22.3	36.5	5.4		
		305	LD12-305	149.5	106.8	128.1	91.5	106.8	76.3	125.0	1.4		
16.0	8.0	25	LD16-25	205.9	8.8	175.5	7.5	147.4	6.3	10.3	23.4		
		32	LD16-32	256.5	11.2	219.8	9.6	183.2	8.0	13.1	22.9		
		38	LD16-38	256.7	13.3	220.0	11.4	183.4	9.5	15.6	19.3		
		44	LD16-44	263.3	15.4	225.7	13.2	188.1	11.0	18.0	17.1		
		51	LD16-51	281.0	17.9	240.2	15.3	201.0	12.8	20.9	15.7		
		64	LD16-64	239.7	22.4	205.4	19.2	171.2	16.0	26.3	10.7		
		76	LD16-76	266.0	26.6	228.0	22.8	190.0	19.0	31.2	10.0		
		89	LD16-89	268.3	31.2	229.6	26.7	191.8	22.3	36.5	8.6		
		102	LD16-102	278.5	35.7	238.7	30.6	198.9	25.5	41.8	7.8		
				305	LD16-305	267.0	106.8	228.8	91.5	190.8	76.3	125.0	2.5
20.0	10.0	25	LD20-25	491.0	8.8	418.5	7.5	351.5	6.3	10.2	55.8		
		32	LD20-32	504.0	11.2	432.0	9.6	360.0	8.0	12.5	45.0		
		38	LD20-38	442.9	13.3	379.6	11.4	316.4	9.5	15.0	33.3		
		44	LD20-44	462.0	15.4	396.0	13.2	330.0	11.0	18.0	30.0		
		51	LD20-51	438.6	17.9	374.9	15.3	313.6	12.8	20.0	24.5		
		64	LD20-64	448.0	22.4	384.0	19.2	320.0	16.0	25.0	20.0		
		76	LD20-76	478.8	26.6	410.4	22.8	342.0	19.0	30.0	18.0		
		89	LD20-89	436.8	31.2	373.8	26.7	312.2	22.3	35.0	14.0		
		102	LD20-102	428.4	35.7	367.2	30.6	306.0	25.5	41.0	12.0		
		115	LD20-115	439.3	40.3	376.1	34.5	313.9	28.8	46.0	10.9		
		127	LD20-127	422.8	44.5	362.0	38.1	302.1	31.8	51.0	9.5		
		139	LD20-139	409.1	48.7	350.3	41.7	292.3	34.8	56.0	8.4		
		152	LD20-152	399.0	53.2	342.0	45.6	285.0	38.0	61.0	7.5		
				305	LD20-305	427.2	106.8	366.0	91.5	305.2	76.3	122.0	4.0

*Newtons

Note: Newtons (N) to pounds force (lb.f.) = (N) x 0.225.

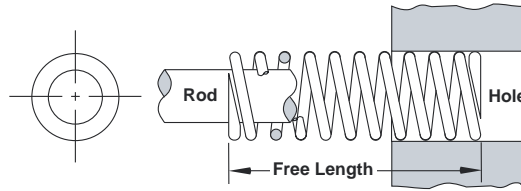
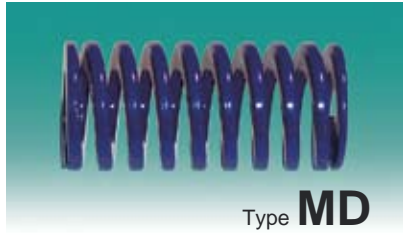


Light Duty Metric-ISO

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ 1 mm Deflection (*N)		
				35% Deflection		30% Deflection		25% Deflection		Travel to Solid			
				Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Deflection (mm)			
25.0	12.5	25	LD25-25	880.0	8.8	750.0	7.5	630.0	6.3	10.2	100.0		
		32	LD25-32	899.4	11.2	770.9	9.6	642.4	8.0	12.5	80.3		
		38	LD25-38	884.5	13.3	758.1	11.4	631.8	9.5	15.0	66.5		
		44	LD25-44	814.7	15.4	698.3	13.2	581.9	11.0	18.0	52.9		
		51	LD25-51	834.1	17.9	713.0	15.3	596.5	12.8	20.0	46.6		
		64	LD25-64	788.5	22.4	675.8	19.2	563.2	16.0	25.0	35.2		
		76	LD25-76	800.7	26.6	686.3	22.8	571.9	19.0	30.0	30.1		
		89	LD25-89	792.5	31.2	678.2	26.7	566.4	22.3	35.0	25.4		
		102	LD25-102	781.8	35.7	670.1	30.6	558.5	25.5	41.0	21.9		
		115	LD25-115	769.7	40.3	659.0	34.5	550.1	28.8	46.0	19.1		
		127	LD25-127	769.9	44.5	659.1	38.1	550.1	31.8	51.0	17.3		
		139	LD25-139	769.5	48.7	658.9	41.7	549.8	34.8	56.0	15.8		
		152	LD25-152	760.8	53.2	652.1	45.6	543.4	38.0	61.0	14.3		
		178	LD25-178	778.8	62.3	667.5	53.4	556.3	44.5	71.0	12.5		
		203	LD25-203	739.4	71.1	633.4	60.9	528.3	50.8	81.0	10.4		
305	LD25-305	747.6	106.8	640.5	91.5	534.1	76.3	122.0	7.0				
32.0	16.0	38	LD32-38	1250.2	13.3	1071.6	11.4	893.0	9.5	15.0	94.0		
		44	LD32-44	1119.6	15.4	959.6	13.2	799.7	11.0	18.0	72.7		
		51	LD32-51	1199.3	17.9	1025.1	15.3	857.6	12.8	20.0	67.0		
		64	LD32-64	1187.2	22.4	1017.6	19.2	848.0	16.0	25.0	53.0		
		76	LD32-76	1170.4	26.6	1003.2	22.8	836.0	19.0	30.0	44.0		
		89	LD32-89	1160.6	31.2	993.2	26.7	829.6	22.3	35.0	37.2		
		102	LD32-102	1142.4	35.7	979.2	30.6	816.0	25.5	41.0	32.0		
		115	LD32-115	1168.7	40.3	1000.5	34.5	835.2	28.8	46.0	29.0		
		127	LD32-127	1112.5	44.5	952.5	38.1	795.0	31.8	51.0	25.0		
		139	LD32-139	1120.1	48.7	959.1	41.7	800.4	34.8	56.0	23.0		
		152	LD32-152	1143.8	53.2	980.4	45.6	817.0	38.0	61.0	21.5		
		178	LD32-178	1133.9	62.3	971.9	53.4	809.9	44.5	71.0	18.2		
		203	LD32-203	1123.4	71.1	962.2	60.9	802.6	50.8	81.0	15.8		
		254	LD32-254	1111.3	88.9	952.5	76.2	793.8	63.5	102.0	12.5		
		305	LD32-305	1100.0	106.8	942.5	91.5	785.9	76.3	122.0	10.3		
40.0	20.0	51	LD40-51	1435.6	17.9	1227.1	15.3	1026.6	12.8	20.0	80.2		
		64	LD40-64	1635.2	22.4	1401.6	19.2	1168.0	16.0	25.0	73.0		
		76	LD40-76	1675.8	26.6	1436.4	22.8	1197.0	19.0	30.0	63.0		
		89	LD40-89	1591.2	31.2	1361.7	26.7	1137.3	22.3	35.0	51.0		
		102	LD40-102	1535.1	35.7	1315.8	30.6	1096.5	25.5	41.0	43.0		
		115	LD40-115	1595.9	40.3	1366.2	34.5	1140.5	28.8	46.0	39.6		
		127	LD40-127	1646.5	44.5	1409.7	38.1	1176.6	31.8	51.0	37.0		
		139	LD40-139	1558.4	48.7	1334.4	41.7	1113.6	34.8	56.0	32.0		
		152	LD40-152	1489.6	53.2	1276.8	45.6	1064.0	38.0	61.0	28.0		
		178	LD40-178	1570.0	62.3	1345.7	53.4	1121.4	44.5	71.0	25.2		
		203	LD40-203	1614.0	71.1	1382.4	60.9	1153.2	50.8	81.0	22.7		
		254	LD40-254	1511.3	88.9	1295.4	76.2	1079.5	63.5	102.0	17.0		
		305	LD40-305	1580.6	106.8	1354.2	91.5	1129.2	76.3	122.0	14.8		
		50.0	25.0	64	LD50-64	3494.4	22.4	2995.2	19.2	2496.0	16.0	25.0	156.0
				76	LD50-76	3325.0	26.6	2850.0	22.8	2375.0	19.0	30.0	125.0
89	LD50-89			3400.8	31.2	2910.3	26.7	2430.7	22.3	35.0	109.0		
102	LD50-102			3355.8	35.7	2876.4	30.6	2397.0	25.5	41.0	94.0		
115	LD50-115			3264.3	40.3	2794.5	34.5	2332.8	28.8	46.0	81.0		
127	LD50-127			3159.5	44.5	2705.1	38.1	2257.8	31.8	51.0	71.0		
139	LD50-139			3238.6	48.7	2773.1	41.7	2314.2	34.8	56.0	66.5		
152	LD50-152			3192.0	53.2	2736.0	45.6	2280.0	38.0	61.0	60.0		
178	LD50-178			3239.6	62.3	2776.8	53.4	2314.0	44.5	71.0	52.0		
203	LD50-203			3128.4	71.1	2679.6	60.9	2235.2	50.8	81.0	44.0		
254	LD50-254			3111.5	88.9	2667.0	76.2	2222.5	63.5	102.0	35.0		
305	LD50-305			3043.8	106.8	2607.8	91.5	2174.6	76.3	122.0	28.5		
63.0	38.0			76	LD63-76	5027.4	26.6	4309.2	22.8	3591.0	19.0	30.0	189.0
				89	LD63-89	4929.6	31.2	4218.6	26.7	3523.4	22.3	35.0	158.0
				102	LD63-102	4676.7	35.7	4008.6	30.6	3340.5	25.5	41.0	131.0
		115	LD63-115	4755.4	40.3	4071.0	34.5	3398.4	28.8	46.0	118.0		
		127	LD63-127	4583.5	44.5	3924.3	38.1	3275.4	31.8	51.0	103.0		
		152	LD63-152	4484.8	53.2	3844.1	45.6	3203.4	38.0	61.0	84.3		
		178	LD63-178	4454.5	62.3	3818.1	53.4	3181.8	44.5	71.0	71.5		
		203	LD63-203	4386.9	71.1	3757.5	60.9	3134.4	50.8	81.0	61.7		
		254	LD63-254	4178.3	88.9	3581.4	76.2	2984.5	63.5	102.0	47.0		
		305	LD63-305	4079.8	106.8	3495.3	91.5	2914.7	76.3	122.0	38.2		

*Newtons

Medium Duty Metric-ISO



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	16	MD10-305
	27	MD20-102

Note: Efficient Operating Range is 20% to 30% of the free length. (Maximum deflection = 30%; long life = 25%; and optimum life = 20%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Load shown in Newtons (N).

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ 1 mm Deflection (*N)
				30% Deflection		25% Deflection		20% Deflection		Travel to Solid	
				Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Deflection (mm)	
10.0	5.0	25	MD10-25	120.0	7.5	100.8	6.3	80.0	5.0	9.5	16.0
		32	MD10-32	124.8	9.6	104.0	8.0	83.2	6.4	12.2	13.0
		38	MD10-38	135.7	11.4	113.1	9.5	90.4	7.6	14.4	11.9
		44	MD10-44	136.0	13.2	113.3	11.0	90.6	8.8	16.7	10.3
		51	MD10-51	136.2	15.3	113.9	12.8	90.8	10.2	19.4	8.9
		64	MD10-64	144.0	19.2	120.0	16.0	96.0	12.8	24.3	7.5
		76	MD10-76	120.8	22.8	100.7	19.0	80.6	15.2	28.9	5.3
		305	MD10-305	164.7	91.5	137.3	76.3	109.8	61.0	116.0	1.8
12.5	6.3	25	MD12-25	225.0	7.5	189.0	6.3	150.0	5.0	9.5	30.0
		32	MD12-32	238.1	9.6	198.4	8.0	158.7	6.4	12.2	24.8
		38	MD12-38	244.0	11.4	203.3	9.5	162.6	7.6	14.4	21.4
		44	MD12-44	244.2	13.2	203.5	11.0	162.8	8.8	16.7	18.5
		51	MD12-51	237.2	15.3	198.4	12.8	158.1	10.2	19.4	15.5
		64	MD12-64	232.3	19.2	193.6	16.0	154.9	12.8	24.3	12.1
		76	MD12-76	232.6	22.8	193.8	19.0	155.0	15.2	28.9	10.2
		89	MD12-89	224.3	26.7	187.3	22.3	149.5	17.8	33.8	8.4
305	MD12-305	192.2	91.5	160.2	76.3	128.1	61.0	116.0	2.1		
16.0	8.0	25	MD16-25	370.5	7.5	311.2	6.3	247.0	5.0	9.5	49.4
		32	MD16-32	356.2	9.6	296.8	8.0	237.4	6.4	12.2	37.1
		38	MD16-38	386.5	11.4	322.1	9.5	257.6	7.6	14.4	33.9
		44	MD16-44	396.0	13.2	330.0	11.0	264.0	8.8	16.7	30.0
		51	MD16-51	403.9	15.3	337.9	12.8	269.3	10.2	19.4	26.4
		64	MD16-64	393.6	19.2	328.0	16.0	262.4	12.8	24.3	20.5
		76	MD16-76	405.8	22.8	338.2	19.0	270.6	15.2	28.9	17.8
		89	MD16-89	405.8	26.7	339.0	22.3	270.6	17.8	33.8	15.2
102	MD16-102	413.1	30.6	344.3	25.5	275.4	20.4	38.8	13.5		
305	MD16-305	439.2	91.5	366.2	76.3	292.8	61.0	116.0	4.8		
20.0	10.0	25	MD20-25	735.0	7.5	617.4	6.3	490.0	5.0	9.4	98.0
		32	MD20-32	697.0	9.6	580.8	8.0	464.6	6.4	12.0	72.6
		38	MD20-38	638.4	11.4	532.0	9.5	425.6	7.6	14.0	56.0
		44	MD20-44	627.0	13.2	522.5	11.0	418.0	8.8	16.5	47.5
		51	MD20-51	638.0	15.3	533.8	12.8	425.3	10.2	19.0	41.7
		64	MD20-64	620.2	19.2	516.8	16.0	413.4	12.8	24.0	32.3
		76	MD20-76	572.3	22.8	476.9	19.0	381.5	15.2	28.0	25.1
		89	MD20-89	587.4	26.7	490.6	22.3	391.6	17.8	33.0	22.0
		102	MD20-102	605.9	30.6	504.9	25.5	403.9	20.4	38.0	19.8
		115	MD20-115	624.5	34.5	521.3	28.8	416.3	23.0	43.0	18.1
		127	MD20-127	632.5	38.1	527.9	31.8	421.6	25.4	48.0	16.6
		139	MD20-139	629.7	41.7	525.5	34.8	419.8	27.8	52.0	15.1
		152	MD20-152	601.9	45.6	501.6	38.0	401.3	30.4	57.0	13.2
		305	MD20-305	741.2	91.5	618.0	76.3	494.1	61.0	114.0	8.1

*Newtons

Note: Newtons (N) to pounds force (lb.f.) = (N) x 0.225.

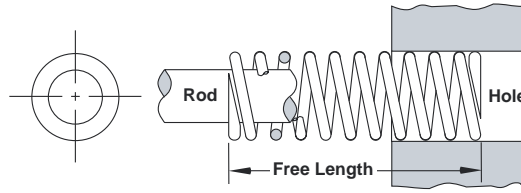
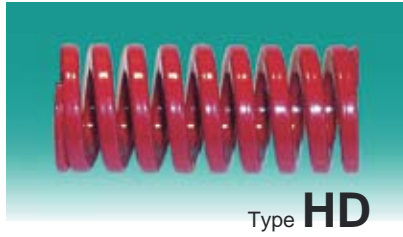


Medium Duty Metric-ISO

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ 1 mm Deflection (*N)		
				30% Deflection		25% Deflection		20% Deflection		Travel to Solid			
				Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Deflection (mm)			
25.0	12.5	25	MD25-25	1102.5	7.5	926.1	6.3	735.0	5.0	9.4	147.0		
		32	MD25-32	1132.8	9.6	944.0	8.0	755.2	6.4	12.0	118.0		
		38	MD25-38	1060.2	11.4	883.5	9.5	706.8	7.6	14.0	93.0		
		44	MD25-44	1066.6	13.2	888.8	11.0	711.0	8.8	16.5	80.8		
		51	MD25-51	1049.6	15.3	878.1	12.8	699.7	10.2	19.0	68.6		
		64	MD25-64	1017.6	19.2	848.0	16.0	678.4	12.8	24.0	53.0		
		76	MD25-76	985.0	22.8	820.8	19.0	656.6	15.2	28.0	43.2		
		89	MD25-89	1019.9	26.7	851.9	22.3	680.0	17.8	33.0	38.2		
		102	MD25-102	1009.8	30.6	841.5	25.5	673.2	20.4	38.0	33.0		
		115	MD25-115	966.0	34.5	806.4	28.8	644.0	23.0	43.0	28.0		
		127	MD25-127	986.8	38.1	823.6	31.8	657.9	25.4	48.0	25.9		
		139	MD25-139	967.4	41.7	807.4	34.8	645.0	27.8	52.0	23.2		
		152	MD25-152	948.5	45.6	790.4	38.0	632.3	30.4	57.0	20.8		
		178	MD25-178	950.5	53.4	792.1	44.5	633.7	35.6	67.0	17.8		
		203	MD25-203	962.2	60.9	802.6	50.8	641.5	40.6	76.0	15.8		
305	MD25-305	933.3	91.5	778.3	76.3	622.2	61.0	114.0	10.2				
32.0	16.0	38	MD32-38	2109.0	11.4	1757.5	9.5	1406.0	7.6	14.0	185.0		
		44	MD32-44	2085.6	13.2	1738.0	11.0	1390.4	8.8	16.5	158.0		
		51	MD32-51	2050.2	15.3	1715.2	12.8	1366.8	10.2	19.0	134.0		
		64	MD32-64	1900.8	19.2	1584.0	16.0	1267.2	12.8	24.0	99.0		
		76	MD32-76	1835.4	22.8	1529.5	19.0	1223.6	15.2	28.0	80.5		
		89	MD32-89	1845.0	26.7	1540.9	22.3	1230.0	17.8	33.0	69.1		
		102	MD32-102	1799.3	30.6	1499.4	25.5	1199.5	20.4	38.0	58.8		
		115	MD32-115	1776.8	34.5	1483.2	28.8	1184.5	23.0	43.0	51.5		
		127	MD32-127	1706.9	38.1	1424.6	31.8	1137.9	25.4	48.0	44.8		
		139	MD32-139	1763.9	41.7	1472.0	34.8	1175.9	27.8	52.0	42.3		
		152	MD32-152	1723.7	45.6	1436.4	38.0	1149.1	30.4	57.0	37.8		
		178	MD32-178	1735.5	53.4	1446.3	44.5	1157.0	35.6	67.0	32.5		
		203	MD32-203	1820.9	60.9	1518.9	50.8	1213.9	40.6	76.0	29.9		
		254	MD32-254	1630.7	76.2	1358.9	63.5	1087.1	50.8	95.0	21.4		
		305	MD32-305	1674.5	91.5	1396.3	76.3	1116.3	61.0	114.0	18.3		
40.0	20.0	51	MD40-51	2778.5	15.3	2324.5	12.8	1852.3	10.2	19.0	181.6		
		64	MD40-64	2688.0	19.2	2240.0	16.0	1792.0	12.8	24.0	140.0		
		76	MD40-76	2462.4	22.8	2052.0	19.0	1641.6	15.2	28.0	108.0		
		89	MD40-89	2421.7	26.7	2022.6	22.3	1614.5	17.8	33.0	90.7		
		102	MD40-102	2478.6	30.6	2065.5	25.5	1652.4	20.4	38.0	81.0		
		115	MD40-115	2477.1	34.5	2067.8	28.8	1651.4	23.0	43.0	71.8		
		127	MD40-127	2388.9	38.1	1993.9	31.8	1592.6	25.4	48.0	62.7		
		139	MD40-139	2397.8	41.7	2001.0	34.8	1598.5	27.8	52.0	57.5		
		152	MD40-152	2353.0	45.6	1960.8	38.0	1568.6	30.4	57.0	51.6		
		178	MD40-178	2354.9	53.4	1962.5	44.5	1570.0	35.6	67.0	44.1		
		203	MD40-203	2235.0	60.9	1864.4	50.8	1490.0	40.6	76.0	36.7		
		254	MD40-254	2293.6	76.2	1911.4	63.5	1529.1	50.8	95.0	30.1		
		305	MD40-305	2250.9	91.5	1877.0	76.3	1500.6	61.0	114.0	24.6		
		50.0	25.0	64	MD50-64	4012.8	19.2	3344.0	16.0	2675.2	12.8	24.0	209.0
				76	MD50-76	3830.4	22.8	3192.0	19.0	2553.6	15.2	28.0	168.0
89	MD50-89			3738.0	26.7	3122.0	22.3	2492.0	17.8	33.0	140.0		
102	MD50-102			3641.4	30.6	3034.5	25.5	2427.6	20.4	38.0	119.0		
115	MD50-115			3657.0	34.5	3052.8	28.8	2438.0	23.0	43.0	106.0		
127	MD50-127			3695.7	38.1	3084.6	31.8	2463.8	25.4	48.0	97.0		
139	MD50-139			3627.9	41.7	3027.6	34.8	2418.6	27.8	52.0	87.0		
152	MD50-152			3648.0	45.6	3040.0	38.0	2432.0	30.4	57.0	80.0		
178	MD50-178			3711.3	53.4	3092.8	44.5	2474.2	35.6	67.0	69.5		
203	MD50-203			3641.8	60.9	3037.8	50.8	2427.9	40.6	76.0	59.8		
229	MD50-229			3496.8	68.7	2916.6	57.3	2331.2	45.8	86.0	50.9		
254	MD50-254			3345.2	76.2	2787.7	63.5	2230.1	50.8	95.0	43.9		
305	MD50-305			3531.9	91.5	2945.2	76.3	2354.6	61.0	114.0	38.6		
63.0	38.0			76	MD63-76	7113.6	22.8	5928.0	19.0	4742.4	15.2	28.0	312.0
				89	MD63-89	6942.0	26.7	5798.0	22.3	4628.0	17.8	33.0	260.0
		102	MD63-102	6762.6	30.6	5635.5	25.5	4508.4	20.4	38.0	221.0		
		115	MD63-115	6451.5	34.5	5385.6	28.8	4301.0	23.0	43.0	187.0		
		127	MD63-127	6400.8	38.1	5342.4	31.8	4267.2	25.4	48.0	168.0		
		152	MD63-152	6201.6	45.6	5168.0	38.0	4134.4	30.4	57.0	136.0		
		178	MD63-178	6087.6	53.4	5073.0	44.5	4058.4	35.6	67.0	114.0		
		203	MD63-203	6090.0	60.9	5080.0	50.8	4060.0	40.6	76.0	100.0		
		229	MD63-229	6128.0	68.7	5111.2	57.3	4085.4	45.8	86.0	89.2		
		254	MD63-254	5974.1	76.2	4978.4	63.5	3982.7	50.8	95.0	78.4		
		305	MD63-305	5920.1	91.5	4936.6	76.3	3946.7	61.0	114.0	64.7		

*Newtons

Heavy Duty Metric-ISO



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	78	HD10-64
	12	HD12-305

Note: Efficient Operating Range is 15% to 25% of the free length. (Maximum deflection = 25%; long life = 20%; and optimum life = 15%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure..

Load shown in Newtons (N).

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ 1 mm Deflection (*N)
				25% Deflection		20% Deflection		15% Deflection		Travel to Solid	
				Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Deflection (mm)	
10.0	5.0	25	HD10-25	139.2	6.3	110.5	5.0	84.0	3.8	7.5	22.1
		32	HD10-32	140.0	8.0	112.0	6.4	84.0	4.8	9.6	17.5
		38	HD10-38	162.5	9.5	130.0	7.6	97.5	5.7	11.4	17.1
		44	HD10-44	165.0	11.0	132.0	8.8	99.0	6.6	13.2	15.0
		51	HD10-51	163.8	12.8	130.6	10.2	98.6	7.7	15.3	12.8
		64	HD10-64	171.2	16.0	137.0	12.8	102.7	9.6	19.2	10.7
		76	HD10-76	142.5	19.0	114.0	15.2	85.5	11.4	22.8	7.5
		305	HD10-305	160.2	76.3	128.1	61.0	96.2	45.8	91.5	2.1
12.5	6.3	25	HD12-25	265.2	6.3	210.5	5.0	160.0	3.8	7.5	42.1
		32	HD12-32	265.6	8.0	212.5	6.4	159.4	4.8	9.6	33.2
		38	HD12-38	278.4	9.5	222.7	7.6	167.0	5.7	11.4	29.3
		44	HD12-44	272.8	11.0	218.2	8.8	163.7	6.6	13.2	24.8
		51	HD12-51	253.4	12.8	202.0	10.2	152.5	7.7	15.3	19.8
		64	HD12-64	240.0	16.0	192.0	12.8	144.0	9.6	19.2	15.0
		76	HD12-76	250.8	19.0	200.6	15.2	150.5	11.4	22.8	13.2
		89	HD12-89	254.2	22.3	202.9	17.8	152.8	13.4	26.7	11.4
		305	HD12-305	213.6	76.3	170.8	61.0	128.2	45.8	91.5	2.8
16.0	8.0	25	HD16-25	472.5	6.3	375.0	5.0	285.0	3.8	7.5	75.0
		32	HD16-32	422.4	8.0	337.9	6.4	253.4	4.8	9.6	52.8
		38	HD16-38	460.8	9.5	368.6	7.6	276.5	5.7	11.4	48.5
		44	HD16-44	470.8	11.0	376.6	8.8	282.5	6.6	13.2	42.8
		51	HD16-51	474.9	12.8	378.4	10.2	285.7	7.7	15.3	37.1
		64	HD16-64	484.8	16.0	387.8	12.8	290.9	9.6	19.2	30.3
		76	HD16-76	488.3	19.0	390.6	15.2	293.0	11.4	22.8	25.7
		89	HD16-89	483.9	22.3	386.3	17.8	290.8	13.4	26.7	21.7
		102	HD16-102	492.2	25.5	393.7	20.4	295.3	15.3	30.6	19.3
		305	HD16-305	541.7	76.3	433.1	61.0	325.2	45.8	91.5	7.1
20.0	10.0	25	HD20-25	1360.8	6.3	1080.0	5.0	820.8	3.8	7.5	216.0
		32	HD20-32	1504.0	8.0	1203.2	6.4	902.4	4.8	9.6	188.0
		38	HD20-38	1225.5	9.5	980.4	7.6	735.3	5.7	11.0	129.0
		44	HD20-44	1232.0	11.0	985.6	8.8	739.2	6.6	13.0	112.0
		51	HD20-51	1203.2	12.8	958.8	10.2	723.8	7.7	15.0	94.0
		64	HD20-64	1153.6	16.0	922.9	12.8	692.2	9.6	19.0	72.1
		76	HD20-76	1134.3	19.0	907.4	15.2	680.6	11.4	23.0	59.7
		89	HD20-89	1126.2	22.3	898.9	17.8	676.7	13.4	27.0	50.5
		102	HD20-102	1127.1	25.5	901.7	20.4	676.3	15.3	31.0	44.2
		115	HD20-115	1105.9	28.8	883.2	23.0	664.3	17.3	35.0	38.4
		127	HD20-127	1084.4	31.8	866.1	25.4	651.3	19.1	38.0	34.1
		139	HD20-139	1078.8	34.8	861.8	27.8	647.9	20.9	42.0	31.0
		152	HD20-152	1071.6	38.0	857.3	30.4	643.0	22.8	46.0	28.2
		305	HD20-305	1144.5	76.3	915.0	61.0	687.0	45.8	91.0	15.0

*Newtons

Note: Newtons (N) to pounds force (lb.f.) = (N) x 0.225.

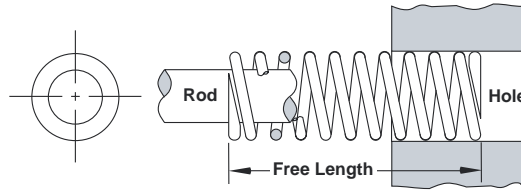
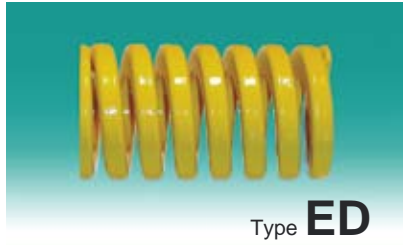


Heavy Duty Metric-ISO

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ 1 mm Deflection (*N)
				25% Deflection		20% Deflection		15% Deflection		Travel to Solid	
				Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Deflection (mm)	
25.0	12.5	25	HD25-25	2362.5	6.3	1875.0	5.0	1425.0	3.8	7.5	375.0
		32	HD25-32	2376.0	8.0	1900.8	6.4	1425.6	4.8	9.6	297.0
		38	HD25-38	2080.5	9.5	1664.4	7.6	1248.3	5.7	11.0	219.0
		44	HD25-44	2057.0	11.0	1645.6	8.8	1234.2	6.6	13.0	187.0
		51	HD25-51	1996.8	12.8	1591.2	10.2	1201.2	7.7	15.0	156.0
		64	HD25-64	1968.0	16.0	1574.4	12.8	1180.8	9.6	19.0	123.0
		76	HD25-76	1881.0	19.0	1504.8	15.2	1128.6	11.4	23.0	99.0
		89	HD25-89	1873.2	22.3	1495.2	17.8	1125.6	13.4	27.0	84.0
		102	HD25-102	1861.5	25.5	1489.2	20.4	1116.9	15.3	31.0	73.0
		115	HD25-115	1872.0	28.8	1495.0	23.0	1124.5	17.3	35.0	65.0
		127	HD25-127	1834.9	31.8	1465.6	25.4	1102.1	19.1	38.0	57.7
		139	HD25-139	1834.0	34.8	1465.1	27.8	1101.4	20.9	42.0	52.7
		152	HD25-152	1816.4	38.0	1453.1	30.4	1089.8	22.8	46.0	47.8
		178	HD25-178	1824.5	44.5	1459.6	35.6	1094.7	26.7	53.0	41.0
203	HD25-203	1818.6	50.8	1453.5	40.6	1091.9	30.5	61.0	35.8		
305	HD25-305	1747.3	76.3	1396.9	61.0	1048.8	45.8	91.0	22.9		
32.0	16.0	38	HD32-38	3686.0	9.5	2948.8	7.6	2211.6	5.7	11.0	388.0
		44	HD32-44	3564.0	11.0	2851.2	8.8	2138.4	6.6	13.0	324.0
		51	HD32-51	3481.6	12.8	2774.4	10.2	2094.4	7.7	15.0	272.0
		64	HD32-64	3392.0	16.0	2713.6	12.8	2035.2	9.6	19.0	212.0
		76	HD32-76	3268.0	19.0	2614.4	15.2	1960.8	11.4	23.0	172.0
		89	HD32-89	3144.3	22.3	2509.8	17.8	1889.4	13.4	27.0	141.0
		102	HD32-102	3111.0	25.5	2488.8	20.4	1866.6	15.3	31.0	122.0
		115	HD32-115	3081.6	28.8	2461.0	23.0	1851.1	17.3	35.0	107.0
		127	HD32-127	2957.4	31.8	2362.2	25.4	1776.3	19.1	38.0	93.0
		139	HD32-139	2992.8	34.8	2390.8	27.8	1797.4	20.9	42.0	86.0
		152	HD32-152	3340.2	38.0	2672.2	30.4	2004.1	22.8	46.0	87.9
		178	HD32-178	3310.8	44.5	2648.6	35.6	1986.5	26.7	53.0	74.4
		203	HD32-203	3291.8	50.8	2630.9	40.6	1976.4	30.5	61.0	64.8
		254	HD32-254	3232.2	63.5	2585.7	50.8	1939.3	38.1	76.0	50.9
305	HD32-305	3258.0	76.3	2604.7	61.0	1955.7	45.8	91.0	42.7		
40.0	20.0	51	HD40-51	4480.0	12.8	3570.0	10.2	2695.0	7.7	15.0	350.0
		64	HD40-64	4304.0	16.0	3443.2	12.8	2582.4	9.6	19.0	269.0
		76	HD40-76	4161.0	19.0	3328.8	15.2	2496.6	11.4	23.0	219.0
		89	HD40-89	4237.0	22.3	3382.0	17.8	2546.0	13.4	27.0	190.0
		102	HD40-102	4156.5	25.5	3325.2	20.4	2493.9	15.3	31.0	163.0
		115	HD40-115	4089.6	28.8	3266.0	23.0	2456.6	17.3	35.0	142.0
		127	HD40-127	4070.4	31.8	3251.2	25.4	2444.8	19.1	38.0	128.0
		139	HD40-139	4002.0	34.8	3197.0	27.8	2403.5	20.9	42.0	115.0
		152	HD40-152	3990.0	38.0	3192.0	30.4	2394.0	22.8	46.0	105.0
		178	HD40-178	3960.5	44.5	3168.4	35.6	2376.3	26.7	53.0	89.0
		203	HD40-203	3911.6	50.8	3126.2	40.6	2348.5	30.5	61.0	77.0
		254	HD40-254	3873.5	63.5	3098.8	50.8	2324.1	38.1	76.0	61.0
		305	HD40-305	3891.3	76.3	3111.0	61.0	2335.8	45.8	91.0	51.0
		50.0	25.0	64	HD50-64	6608.0	16.0	5286.4	12.8	3964.8	9.6
76	HD50-76			6441.0	19.0	5152.8	15.2	3864.6	11.4	23.0	339.0
89	HD50-89			6422.4	22.3	5126.4	17.8	3859.2	13.4	27.0	288.0
102	HD50-102			6247.5	25.5	4998.0	20.4	3748.5	15.3	31.0	245.0
115	HD50-115			6192.0	28.8	4945.0	23.0	3719.5	17.3	35.0	215.0
127	HD50-127			6105.6	31.8	4876.8	25.4	3667.2	19.1	38.0	192.0
139	HD50-139			5846.4	34.8	4670.4	27.8	3511.2	20.9	42.0	168.0
152	HD50-152			5852.0	38.0	4681.6	30.4	3511.2	22.8	46.0	154.0
178	HD50-178			5963.0	44.5	4770.4	35.6	3577.8	26.7	53.0	134.0
203	HD50-203			5943.6	50.8	4750.2	40.6	3568.5	30.5	61.0	117.0
254	HD50-254			5651.5	63.5	4521.2	50.8	3390.9	38.1	76.0	89.0
305	HD50-305			5569.9	76.3	4453.0	61.0	3343.4	45.8	91.0	73.0

*Newtons

Extra Heavy Duty Metric-ISO



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	18	ED25-115
	24	ED32-127

Note: Efficient Operating Range is 15% to 20% of the free length. (Maximum deflection = 20%; long life = 17%; and optimum life = 15%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Load shown in Newtons (N).

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ 1 mm Deflection (*N)
				20% Deflection		17% Deflection		15% Deflection		Travel to Solid	
				Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Deflection (mm)	
10.0	5.0	25	ED10-25	184.0	5.0	158.2	4.3	139.8	3.8	6.2	36.8
		32	ED10-32	178.6	6.4	150.7	5.4	133.9	4.8	8.0	27.9
		38	ED10-38	180.1	7.6	154.1	6.5	135.1	5.7	9.5	23.7
		44	ED10-44	169.0	8.8	144.0	7.5	126.7	6.6	11.0	19.2
		51	ED10-51	168.3	10.2	143.6	8.7	127.1	7.7	13.0	16.5
		64	ED10-64	169.0	12.8	143.9	10.9	126.7	9.6	16.0	13.2
		76	ED10-76	165.7	15.2	140.6	12.9	124.3	11.4	19.0	10.9
12.5	6.3	305	ED10-305	170.8	61.0	145.3	51.9	128.2	45.8	76.0	2.8
		25	ED12-25	292.5	5.0	251.6	4.3	222.3	3.8	6.2	58.5
		32	ED12-32	281.0	6.4	237.1	5.4	210.7	4.8	8.0	43.9
		38	ED12-38	273.6	7.6	234.0	6.5	205.2	5.7	9.5	36.0
		44	ED12-44	266.6	8.8	227.3	7.5	200.0	6.6	11.0	30.3
		51	ED12-51	267.2	10.2	227.9	8.7	201.7	7.7	13.0	26.2
		64	ED12-64	271.4	12.8	231.1	10.9	203.5	9.6	16.0	21.2
16.0	8.0	76	ED12-76	259.9	15.2	220.6	12.9	194.9	11.4	19.0	17.1
		89	ED12-89	258.1	17.8	219.0	15.1	194.3	13.4	22.0	14.5
		305	ED12-305	262.3	61.0	223.2	51.9	196.9	45.8	76.0	4.3
		25	ED16-25	590.0	5.0	507.4	4.3	448.4	3.8	6.2	118.0
		32	ED16-32	569.6	6.4	480.6	5.4	427.2	4.8	8.0	89.0
		38	ED16-38	548.0	7.6	468.7	6.5	411.0	5.7	9.5	72.1
		44	ED16-44	535.9	8.8	456.8	7.5	401.9	6.6	11.0	60.9
20.0	10.0	51	ED16-51	533.5	10.2	455.0	8.7	402.7	7.7	13.0	52.3
		64	ED16-64	527.4	12.8	449.1	10.9	395.5	9.6	16.0	41.2
		76	ED16-76	518.3	15.2	439.9	12.9	388.7	11.4	19.0	34.1
		89	ED16-89	525.1	17.8	445.5	15.1	395.3	13.4	22.0	29.5
		102	ED16-102	522.2	20.4	442.9	17.3	391.7	15.3	26.0	25.6
		305	ED16-305	512.4	61.0	436.0	51.9	384.7	45.8	76.0	8.4
		25	ED20-25	1465.0	5.0	1259.9	4.3	1113.4	3.8	6.2	293.0
20.0	10.0	32	ED20-32	1433.6	6.4	1209.6	5.4	1075.2	4.8	8.0	224.0
		38	ED20-38	1345.2	7.6	1150.5	6.5	1008.9	5.7	9.5	177.0
		44	ED20-44	1311.2	8.8	1117.5	7.5	983.4	6.6	11.0	149.0
		51	ED20-51	1305.6	10.2	1113.6	8.7	985.6	7.7	13.0	128.0
		64	ED20-64	1267.2	12.8	1079.1	10.9	950.4	9.6	16.0	99.0
		76	ED20-76	1241.8	15.2	1053.9	12.9	931.4	11.4	19.0	81.7
		89	ED20-89	1237.1	17.8	1049.5	15.1	931.3	13.4	22.0	69.5
		102	ED20-102	1236.2	20.4	1048.4	17.3	927.2	15.3	26.0	60.6
		115	ED20-115	1219.0	23.0	1038.8	19.6	916.9	17.3	29.0	53.0
		127	ED20-127	1206.5	25.4	1026.0	21.6	907.3	19.1	32.0	47.5
		139	ED20-139	1195.4	27.8	1014.8	23.6	898.7	20.9	35.0	43.0
		152	ED20-152	1185.6	30.4	1006.2	25.8	889.2	22.8	38.0	39.0
		305	ED20-305	1293.2	61.0	1100.3	51.9	971.0	45.8	76.0	21.2

*Newtons

Note: Newtons (N) to pounds force (lb.f.) = (N) x 0.225.



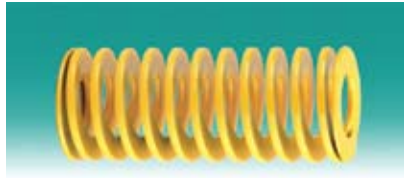
Extra Heavy Duty

Metric-ISO

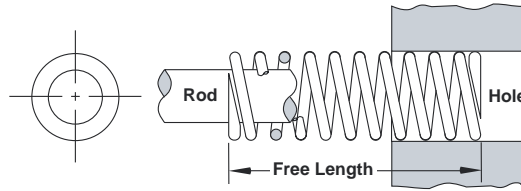
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE							Load @ 1 mm Deflection (*N)
				20% Deflection		17% Deflection		15% Deflection		Travel to Solid	
				Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Load (*N)	Deflection (mm)	Deflection (mm)	
25.0	12.5	32	ED25-32	2396.2	6.4	2021.8	5.4	1797.1	4.8	8.0	374.4
		38	ED25-38	2196.4	7.6	1878.5	6.5	1647.3	5.7	9.5	289.0
		44	ED25-44	2147.2	8.8	1830.0	7.5	1610.4	6.6	11.0	244.0
		51	ED25-51	2116.5	10.2	1805.3	8.7	1597.8	7.7	13.0	207.5
		64	ED25-64	2060.8	12.8	1754.9	10.9	1545.6	9.6	16.0	161.0
		76	ED25-76	1988.2	15.2	1687.3	12.9	1491.1	11.4	19.0	130.8
		89	ED25-89	1966.9	17.8	1668.6	15.1	1480.7	13.4	22.0	110.5
		102	ED25-102	1964.5	20.4	1666.0	17.3	1473.4	15.3	26.0	96.3
		115	ED25-115	1971.1	23.0	1679.7	19.6	1482.6	17.3	29.0	85.7
		127	ED25-127	1938.0	25.4	1648.1	21.6	1457.3	19.1	32.0	76.3
		152	ED25-152	1930.4	30.4	1638.3	25.8	1447.8	22.8	38.0	63.5
		178	ED25-178	1918.8	35.6	1633.2	30.3	1439.1	26.7	44.0	53.9
203	ED25-203	1908.2	40.6	1621.5	34.5	1433.5	30.5	51.0	47.0		
305	ED25-305	1884.9	61.0	1603.7	51.9	1415.2	45.8	76.0	30.9		
32.0	16.0	38	ED32-38	4014.3	7.6	3433.3	6.5	3010.7	5.7	9.5	528.2
		44	ED32-44	3734.7	8.8	3183.0	7.5	2801.0	6.6	11.0	424.4
		51	ED32-51	3600.6	10.2	3071.1	8.7	2718.1	7.7	13.0	353.0
		64	ED32-64	3445.8	12.8	2934.3	10.9	2584.3	9.6	16.0	269.2
		76	ED32-76	3321.2	15.2	2818.7	12.9	2490.9	11.4	19.0	218.5
		89	ED32-89	3209.3	17.8	2722.5	15.1	2416.0	13.4	22.0	180.3
		102	ED32-102	3162.0	20.4	2681.5	17.3	2371.5	15.3	26.0	155.0
		115	ED32-115	3220.0	23.0	2744.0	19.6	2422.0	17.3	29.0	140.0
		127	ED32-127	3149.6	25.4	2678.4	21.6	2368.4	19.1	32.0	124.0
		152	ED32-152	3100.8	30.4	2631.6	25.8	2325.6	22.8	38.0	102.0
		178	ED32-178	3139.9	35.6	2672.5	30.3	2354.9	26.7	44.0	88.2
		203	ED32-203	3507.8	40.6	2980.8	34.5	2635.2	30.5	51.0	86.4
254	ED32-254	3088.6	50.8	2626.6	43.2	2316.5	38.1	64.0	60.8		
305	ED32-305	2989.0	61.0	2543.1	51.9	2244.2	45.8	76.0	49.0		
40.0	20.0	51	ED40-51	6405.6	10.2	5463.6	8.7	4835.6	7.7	13.0	628.0
		64	ED40-64	6233.6	12.8	5308.3	10.9	4675.2	9.6	16.0	487.0
		76	ED40-76	5760.8	15.2	4889.1	12.9	4320.6	11.4	19.0	379.0
		89	ED40-89	5713.8	17.8	4847.1	15.1	4301.4	13.4	22.0	321.0
		102	ED40-102	5732.4	20.4	4861.3	17.3	4299.3	15.3	26.0	281.0
		115	ED40-115	5635.0	23.0	4802.0	19.6	4238.5	17.3	29.0	245.0
		127	ED40-127	5613.4	25.4	4773.6	21.6	4221.1	19.1	32.0	221.0
		152	ED40-152	5107.2	30.4	4334.4	25.8	3830.4	22.8	38.0	168.0
		203	ED40-203	5359.2	40.6	4554.0	34.5	4026.0	30.5	51.0	132.0
		254	ED40-254	5435.6	50.8	4622.4	43.2	4076.7	38.1	64.0	107.0
		305	ED40-305	5355.8	61.0	4556.8	51.9	4021.2	45.8	76.0	87.8
		50.0	25.0	64	ED50-64	9075.2	12.8	7728.1	10.9	6806.4	9.6
76	ED50-76			8694.4	15.2	7378.8	12.9	6520.8	11.4	19.0	572.0
89	ED50-89			8455.0	17.8	7172.5	15.1	6365.0	13.4	22.0	475.0
102	ED50-102			8262.0	20.4	7006.5	17.3	6196.5	15.3	26.0	405.0
115	ED50-115			8096.0	23.0	6899.2	19.6	6089.6	17.3	29.0	352.0
127	ED50-127			8026.4	25.4	6825.6	21.6	6035.6	19.1	32.0	316.0
152	ED50-152			7265.6	30.4	6166.2	25.8	5449.2	22.8	38.0	239.0
203	ED50-203			7592.2	40.6	6451.5	34.5	5703.5	30.5	51.0	187.0
254	ED50-254			7772.4	50.8	6609.6	43.2	5829.3	38.1	64.0	153.0
305	ED50-305	7747.0	61.0	6591.3	51.9	5816.6	45.8	76.0	127.0		

*Newtons

Extra Light Duty Metric-JIS



Type **DP-91**



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	40	DP91-1075
	58	DP91-16100

Note: Efficient Operating Range is 40% to 50% of the free length. (Maximum deflection = 50%; long life = 45%; and optimum life = 40%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE										Load @ 1 mm Deflection	
				50% Deflection		45% Deflection		40% Deflection		Travel to Solid					
				Load	Deflection	Load	Deflection	Load	Deflection	Deflection	Deflection	kg.f	*(N)		
10	5	20	DP91-1020	10.00	98.1	10.0	9.00	88.3	8.00	78.5	8.0	11.6	1.00	9.8	
		25	DP91-1025			12.5					11.2	10.0	14.5	0.80	7.9
		30	DP91-1030			15.0					13.5	12.0	17.4	0.67	6.5
		35	DP91-1035			17.5					15.7	14.0	20.3	0.57	5.6
		40	DP91-1040			20.0					18.0	16.0	23.2	0.50	4.9
		45	DP91-1045			22.5					20.2	18.0	26.1	0.44	4.4
		50	DP91-1050			25.0					22.5	20.0	29.0	0.40	3.9
		55	DP91-1055			27.5					24.7	22.0	31.9	0.36	3.6
		60	DP91-1060			30.0					27.0	24.0	34.8	0.33	3.3
		65	DP91-1065			32.5					29.2	26.0	37.7	0.31	3.0
		70	DP91-1070			35.0					31.5	28.0	40.6	0.29	2.8
75	DP91-1075	37.5	33.7	30.0	43.5	0.27	2.6								
80	DP91-1080	40.0	36.0	32.0	46.4	0.25	2.5								
12	6	20	DP91-1220	10.00	137.3	10.0	12.50	122.6	11.00	107.9	8.0	11.6	1.40	13.5	
		25	DP91-1225			12.5					11.2	10.0	14.5	1.12	10.8
		30	DP91-1230			15.0					13.5	12.0	17.4	0.93	9.0
		35	DP91-1235			17.5					15.7	14.0	20.3	0.80	7.7
		40	DP91-1240			20.0					18.0	16.0	23.2	0.70	6.7
		45	DP91-1245			22.5					20.2	18.0	26.1	0.62	6.0
		50	DP91-1250			25.0					22.5	20.0	29.0	0.56	5.4
		55	DP91-1255			27.5					24.7	22.0	31.9	0.51	4.9
		60	DP91-1260			30.0					27.0	24.0	34.8	0.47	4.5
		65	DP91-1265			32.5					29.2	26.0	37.7	0.43	4.2
		70	DP91-1270			35.0					31.5	28.0	40.6	0.40	3.9
75	DP91-1275	37.5	33.7	30.0	43.5	0.37	3.6								
80	DP91-1280	40.0	36.0	32.0	46.4	0.35	3.4								
14	7	25	DP91-1425	18.00	176.5	12.5	16.00	156.9	14.50	142.2	10.0	14.5	1.44	14.2	
		30	DP91-1430			15.0					13.5	12.0	17.4	1.20	11.9
		35	DP91-1435			17.5					15.7	14.0	20.3	1.03	10.2
		40	DP91-1440			20.0					18.0	16.0	23.2	0.90	8.9
		45	DP91-1445			22.5					20.2	18.0	26.1	0.80	7.9
		50	DP91-1450			25.0					22.5	20.0	29.0	0.72	7.1
		55	DP91-1455			27.5					24.7	22.0	31.9	0.65	6.5
		60	DP91-1460			30.0					27.0	24.0	34.8	0.60	5.9
		65	DP91-1465			32.5					29.2	26.0	37.7	0.55	5.5
		70	DP91-1470			35.0					31.5	28.0	40.6	0.51	5.1
		75	DP91-1475			37.5					33.7	30.0	43.5	0.48	4.7
80	DP91-1480	40.0	36.0	32.0	46.4	0.45	4.4								
90	DP91-1490	45.0	40.5	36.0	52.2	0.40	4.0								

*Newtons Note: Newtons (N) to pounds force (lb.f.) = (N) x 0.225.

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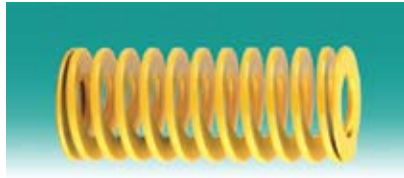


Extra Light Duty Metric-JIS

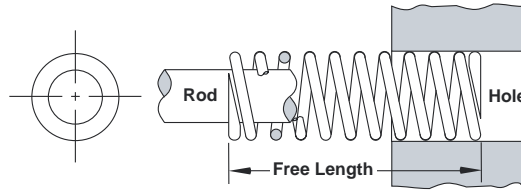
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											Load @ 1mm Deflection	
				50% Deflection		45% Deflection		40% Deflection		Travel to Solid						
				Load		Deflection	Load		Deflection	Load		Deflection	Deflection			
				kg.f	*(N)	mm	kg.f	*(N)	mm	kg.f	*(N)	mm	mm	kg.f	*(N)	
16	8	25	DP91-1625	21.00	206.0	12.5	19.00	186.3	11.2	17.00	166.7	10.0	14.5	1.68	16.7	
		30	DP91-1630			15.0			13.5			12.0	17.4	1.40	13.9	
		35	DP91-1635			17.5			15.7			14.0	20.3	1.20	11.9	
		40	DP91-1640			20.0			18.0			16.0	23.2	1.05	10.4	
		45	DP91-1645			22.5			20.0			18.0	26.1	0.94	9.3	
		50	DP91-1650			25.0			22.5			20.0	29.0	0.84	8.3	
		55	DP91-1655			27.5			24.7			22.0	31.9	0.77	7.6	
		60	DP91-1660			30.0			27.0			24.0	34.8	0.70	6.9	
		65	DP91-1665			32.5			29.2			26.0	37.7	0.65	6.4	
		70	DP91-1670			35.0			31.5			28.0	40.6	0.60	6.0	
		75	DP91-1675			37.5			33.7			30.0	43.5	0.56	5.6	
		80	DP91-1680			40.0			36.0			32.0	46.4	0.53	5.2	
90	DP91-1690	45.0	40.5	36.0	52.2	0.47	4.6									
100	DP91-16100	50.0	45.0	40.0	58.0	0.42	4.2									
18	9	25	DP91-1825	26.00	255.0	12.5	23.00	226.0	11.2	21.00	206.0	10.0	14.5	2.08	20.6	
		30	DP91-1830			15.0			13.5			12.0	17.4	1.74	17.2	
		35	DP91-1835			17.5			15.7			14.0	20.3	1.49	14.7	
		40	DP91-1840			20.0			18.0			16.0	23.2	1.30	12.9	
		45	DP91-1845			22.5			20.2			18.0	26.1	1.16	11.4	
		50	DP91-1850			25.0			22.5			20.0	29.0	1.04	10.3	
		55	DP91-1855			27.5			24.7			22.0	31.9	0.95	9.4	
		60	DP91-1860			30.0			27.0			24.0	34.8	0.87	8.6	
		65	DP91-1865			32.5			29.2			26.0	37.7	0.80	7.9	
		70	DP91-1870			35.0			31.5			28.0	40.6	0.74	7.4	
		75	DP91-1875			37.5			33.7			30.0	43.5	0.70	6.9	
		80	DP91-1880			40.0			36.0			32.0	46.4	0.65	6.4	
90	DP91-1890	45.0	40.5	36.0	52.2	0.58	5.7									
100	DP91-18100	50.0	45.0	40.0	58.0	0.52	5.2									
20	11	25	DP91-2025	32.00	313.8	12.5	29.00	284.4	11.2	26.00	255.0	10.0	14.5	2.56	25.5	
		30	DP91-2030			15.0			13.5			12.0	17.4	2.13	21.3	
		35	DP91-2035			17.5			15.7			14.0	20.3	1.83	18.2	
		40	DP91-2040			20.0			18.0			16.0	23.2	1.60	15.9	
		45	DP91-2045			22.5			20.2			18.0	26.1	1.42	14.2	
		50	DP91-2050			25.0			22.5			20.0	29.0	1.28	12.8	
		55	DP91-2055			27.5			24.7			22.0	31.9	1.16	11.6	
		60	DP91-2060			30.0			27.0			24.0	34.8	1.07	10.6	
		65	DP91-2065			32.5			29.2			26.0	37.7	0.98	9.8	
		70	DP91-2070			35.0			31.5			28.0	40.6	0.91	9.1	
		75	DP91-2075			37.5			33.7			30.0	43.5	0.85	8.5	
		80	DP91-2080			40.0			36.0			32.0	46.4	0.80	8.0	
		90	DP91-2090			45.0			40.5			36.0	52.2	0.71	7.1	
		100	DP91-20100			50.0			45.0			40.0	58.0	0.64	6.4	
		125	DP91-20125			62.5			56.2			50.0	73.5	0.51	5.1	
150	DP91-20150	75.0	67.5	60.0	87.0	0.43	4.3									
22	11	25	DP91-2225	40.00	392.0	12.5	36.00	353.0	11.2	32.00	314.0	10.0	14.5	3.20	31.4	
		30	DP91-2230			15.0			13.5			12.0	17.4	2.67	26.2	
		35	DP91-2235			17.5			15.7			14.0	20.3	2.29	22.4	
		40	DP91-2240			20.0			18.0			16.0	23.2	2.00	19.6	
		45	DP91-2245			22.5			20.2			18.0	26.1	1.78	17.4	
		50	DP91-2250			25.0			22.5			20.0	29.0	1.60	15.7	
		55	DP91-2255			27.5			24.7			22.0	31.9	1.46	14.3	
		60	DP91-2260			30.0			27.0			24.0	34.8	1.33	13.1	
		65	DP91-2265			32.5			29.2			26.0	37.7	1.23	12.1	
		70	DP91-2270			35.0			31.5			28.0	40.6	1.14	11.2	
		75	DP91-2275			37.5			33.7			30.0	43.5	1.07	10.5	
		80	DP91-2280			40.0			36.0			32.0	46.4	1.00	9.8	
		90	DP91-2290			45.0			40.5			36.0	52.2	0.89	8.7	
		100	DP91-22100			50.0			45.0			40.0	58.0	0.80	7.9	
		125	DP91-22125			62.5			56.2			50.0	72.5	0.64	6.3	
150	DP91-22150	75.0	67.5	60.0	87.0	0.53	5.2									

*Newtons

Extra Light Duty Metric-JIS



Type **DP-91**



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	12	DP91-2530
	27	DP91-60250

Note: Efficient Operating Range is 40% to 50% of the free length. (Maximum deflection = 50%; long life = 45%; and optimum life = 40%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											
				50% Deflection		45% Deflection		40% Deflection		Travel to Solid		Load @ 1mm Deflection			
				Load	Deflection	Load	Deflection	Load	Deflection	Deflection	Deflection	kg.f	*(N)		
				kg.f	*(N)	mm	kg.f	*(N)	mm	kg.f	*(N)	mm	mm	kg.f	*(N)
25	13.5	25	DP91-2525	50.00	490.3	12.5	45.00	441.3	11.2	40.00	392.3	10.0	14.5	4.00	39.2
		30	DP91-2530			15.0			13.5			12.0	17.4	3.33	32.7
		35	DP91-2535			17.5			15.7			14.0	20.3	2.85	28.0
		40	DP91-2540			20.0			18.0			16.0	23.2	2.50	24.5
		45	DP91-2545			22.5			20.2			18.0	26.1	2.22	21.8
		50	DP91-2550			25.0			22.5			20.0	29.0	2.00	19.6
		55	DP91-2555			27.5			24.7			22.0	31.9	1.82	17.8
		60	DP91-2560			30.0			27.0			24.0	34.8	1.67	16.3
		65	DP91-2565			32.5			29.2			26.0	37.7	1.54	15.1
		70	DP91-2570			35.0			31.5			28.0	40.6	1.43	14.0
		75	DP91-2575			37.5			33.7			30.0	43.5	1.33	13.1
		80	DP91-2580			40.0			36.0			32.0	46.4	1.25	12.3
		90	DP91-2590			45.0			40.5			36.0	52.2	1.11	10.9
		100	DP91-25100			50.0			45.0			40.0	58.0	1.00	9.8
		27	13.5			25			DP91-2725			60.00	588.0	12.5	54.00
30	DP91-2730			15.0	13.5	12.0	17.4	4.00	39.3						
35	DP91-2735			17.5	15.7	14.0	20.3	3.43	33.6						
40	DP91-2740			20.0	18.0	16.0	23.2	3.00	29.4						
45	DP91-2745			22.5	20.2	18.0	26.1	2.67	26.2						
50	DP91-2750			25.0	22.5	20.0	29.0	2.40	23.6						
55	DP91-2755			27.5	24.7	22.0	31.9	2.18	21.4						
60	DP91-2760			30.0	27.0	24.0	34.8	2.00	19.6						
65	DP91-2765			32.5	29.2	26.0	37.7	1.85	18.1						
70	DP91-2770			35.0	31.5	28.0	40.6	1.71	16.8						
75	DP91-2775			37.5	33.7	30.0	43.5	1.60	15.7						
80	DP91-2780			40.0	36.0	32.0	46.4	1.50	14.7						
90	DP91-2790			45.0	40.5	36.0	52.2	1.33	13.1						
100	DP91-27100			50.0	45.0	40.0	58.0	1.20	11.8						
125	DP91-27125			62.5	56.2	50.0	72.5	0.96	9.4						
150	DP91-27150	75.0	67.5	60.0	87.0	0.80	7.9								
175	DP91-27175	87.5	78.7	70.0	101.5	0.69	6.7								

*Newtons Note: Newtons (N) to pounds force (lb.f.) = (N) x 0.225.

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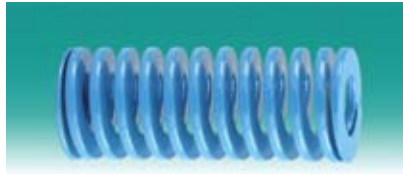


Extra Light Duty Metric-JIS

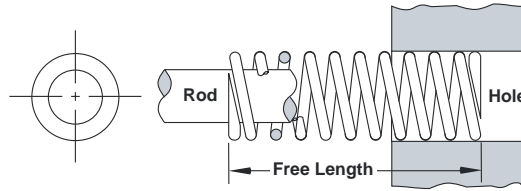
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE										Load @ 1mm Deflection	
				50% Deflection		45% Deflection		40% Deflection		Travel to Solid					
				Load	Deflection	Load	Deflection	Load	Deflection	Deflection	Deflection				
				kg.f	*(N)	mm	kg.f	*(N)	mm	kg.f	*(N)	mm	mm	kg.f	*(N)
30	16	25	DP91-3025	72.00	706.1	12.5	65.00	637.4	11.2	58.00	568.8	10.0	14.5	5.80	56.9
		30	DP91-3030			15.0			13.5			12.0	17.4	4.80	47.4
		35	DP91-3035			17.5			15.7			14.0	20.3	4.13	40.6
		40	DP91-3040			20.0			18.0			16.0	23.2	3.60	35.5
		45	DP91-3045			22.5			20.2			18.0	26.1	3.21	31.6
		50	DP91-3050			25.0			22.5			20.0	29.0	2.88	28.4
		55	DP91-3055			27.5			24.7			22.0	31.9	2.63	25.9
		60	DP91-3060			30.0			27.0			24.0	34.8	2.40	23.7
		65	DP91-3065			32.5			29.2			26.0	37.7	2.22	21.9
		70	DP91-3070			35.0			31.5			28.0	40.6	2.05	20.3
		75	DP91-3075			37.5			33.7			30.0	43.5	1.93	19.0
		80	DP91-3080			40.0			36.0			32.0	46.4	1.80	17.8
		90	DP91-3090			45.0			40.5			36.0	52.2	1.60	15.8
		100	DP91-30100			50.0			45.0			40.0	58.0	1.44	14.2
		125	DP91-30125			62.5			56.2			50.0	72.5	1.15	11.4
		150	DP91-30150			75.0			67.5			60.0	87.0	0.96	9.5
		175	DP91-30175			87.5			78.7			70.0	101.5	0.82	8.1
200	DP91-30200	100.0	90.0	80.0	116.0	0.72	7.1								
35	19	40	DP91-3540	98.00	961.1	20.0	88.00	863.0	18.0	78.00	764.9	16.0	23.2	4.90	47.8
		45	DP91-3545			22.5			20.2			18.0	26.1	4.36	42.5
		50	DP91-3550			25.0			22.5			20.0	29.0	3.92	38.2
		55	DP91-3555			27.5			24.7			22.0	31.9	3.56	34.8
		60	DP91-3560			30.0			27.0			24.0	34.8	3.26	31.9
		65	DP91-3565			32.5			29.2			26.0	37.7	3.02	29.4
		70	DP91-3570			35.0			31.5			28.0	40.6	2.80	27.3
		75	DP91-3575			37.5			33.7			30.0	43.5	2.61	25.5
		80	DP91-3580			40.0			36.0			32.0	46.4	2.45	23.9
		90	DP91-3590			45.0			40.5			36.0	52.2	2.17	21.2
		100	DP91-35100			50.0			45.0			40.0	58.0	1.96	19.1
		125	DP91-35125			62.5			56.2			50.0	72.5	1.57	15.3
		150	DP91-35150			75.0			67.5			60.0	87.0	1.30	12.7
175	DP91-35175	87.5	78.7	70.0	101.5	1.12	10.9								
200	DP91-35200	100.0	90.0	80.0	116.0	0.98	9.6								
40	22	40	DP91-4040	128.00	1255.3	20.0	115.00	1127.8	18.0	102.00	1000.3	16.0	23.2	6.38	62.5
		50	DP91-4050			25.0			22.5			18.0	29.0	5.12	55.6
		60	DP91-4060			30.0			27.0			20.0	34.8	4.26	50.0
		70	DP91-4070			35.0			31.5			22.0	40.6	3.65	45.5
		80	DP91-4080			40.0			36.0			24.0	46.4	3.20	41.7
		90	DP91-4090			45.0			40.5			26.0	52.2	2.84	38.5
		100	DP91-40100			50.0			45.0			28.0	58.0	2.56	35.7
		125	DP91-40125			62.5			56.2			30.0	72.5	2.04	33.3
		150	DP91-40150			75.0			67.5			32.0	87.0	1.70	31.3
		175	DP91-40175			87.5			78.7			36.0	101.5	1.46	27.8
		200	DP91-40200			100.0			90.0			40.0	116.0	1.28	25.0
250	DP91-40250	125.0	112.5	50.0	145.0	1.02	20.0								
50	27.5	50	DP91-5050	200.00	1961.3	25.0	180.00	1765.2	22.5	160.00	1569.1	20.0	29.0	8.00	78.5
		60	DP91-5060			30.0			27.0			24.0	34.8	6.66	65.4
		70	DP91-5070			35.0			31.5			28.0	40.6	5.71	56.0
		80	DP91-5080			40.0			36.0			32.0	46.4	5.00	49.0
		90	DP91-5090			45.0			40.5			36.0	52.2	4.44	43.6
		100	DP91-50100			50.0			45.0			40.0	58.0	4.00	39.2
		125	DP91-50125			62.5			56.2			50.0	72.5	3.20	31.4
		150	DP91-50150			75.0			67.5			60.0	87.0	2.66	26.2
		175	DP91-50175			87.5			78.7			70.0	101.5	2.28	22.4
		200	DP91-50200			100.0			90.0			80.0	116.0	2.00	19.6
		250	DP91-50250			125.0			112.5			100.0	145.0	1.60	15.7
300	DP91-50300	150.0	135.0	120.0	174.0	1.33	13.1								
60	33	60	DP91-6060	288.00	2824.3	30.0	259.00	2539.9	27.0	230.00	2255.5	24.0	34.8	9.59	94.0
		70	DP91-6070			35.0			31.5			28.0	40.6	8.22	80.6
		80	DP91-6080			40.0			36.0			32.0	46.4	7.19	70.5
		90	DP91-6090			45.0			40.5			36.0	52.2	6.40	62.7
		100	DP91-60100			50.0			45.0			40.0	58.0	5.76	56.4
		125	DP91-60125			62.5			56.2			50.0	72.5	4.60	45.1
		150	DP91-60150			75.0			67.5			60.0	87.0	3.84	37.6
		175	DP91-60175			87.5			78.7			70.0	101.5	3.29	32.2
		200	DP91-60200			100.0			90.0			80.0	116.0	2.88	28.2
		250	DP91-60250			125.0			112.5			100.0	145.0	2.30	22.6
300	DP91-60300	150.0	135.0	120.0	174.0	1.92	18.8								

*Newtons

Light Duty Metric-JIS



Type **DP-92**



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	17	DP92-1465
	10	DP92-2280

Note: Efficient Operating Range is 32% to 40% of the free length. (Maximum deflection = 40%; long life = 36%; and optimum life = 32%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											
				40% Deflection		36% Deflection		32% Deflection		Travel to Solid		Load @ 1mm Deflection			
				Load	Deflection	Load	Deflection	Load	Deflection	Deflection	Deflection	kg.f	*(N)		
				kg.f	*(N)	mm	kg.f	*(N)	mm	kg.f	*(N)	mm	mm	kg.f	*(N)
10	5	20	DP92-1020	14.50	142.2	8.0	13.00	127.5	7.2	11.50	112.8	6.4	11.6	1.61	17.6
		25	DP92-1025			10.0			9.0			8.0	14.5	1.45	14.1
		30	DP92-1030			12.0			10.8			9.6	17.4	1.21	11.8
		35	DP92-1035			14.0			12.6			11.2	20.3	1.03	10.1
		40	DP92-1040			16.0			14.4			12.8	23.2	0.90	8.8
		45	DP92-1045			18.0			16.2			14.4	26.1	0.80	7.8
		50	DP92-1050			20.0			18.0			16.0	29.0	0.73	7.1
		55	DP92-1055			22.0			19.8			17.6	31.9	0.66	6.4
		60	DP92-1060			24.0			21.6			19.2	34.8	0.60	5.9
		65	DP92-1065			26.0			23.4			20.8	37.7	0.55	5.4
		70	DP92-1070			28.0			25.2			22.4	40.6	0.51	5.0
75	DP92-1075	30.0	27.0	24.0	43.5	0.48	4.7								
80	DP92-1080	32.0	28.8	25.6	46.4	0.45	4.4								
12	6	20	DP92-1220	21.00	206.0	8.0	19.00	186.3	7.2	17.00	166.7	6.4	11.6	2.63	26.0
		25	DP92-1225			10.0			9.0			8.0	14.5	2.10	20.8
		30	DP92-1230			12.0			10.8			9.6	17.4	1.75	17.4
		35	DP92-1235			14.0			12.6			11.2	20.3	1.50	14.9
		40	DP92-1240			16.0			14.4			12.8	23.2	1.32	13.0
		45	DP92-1245			18.0			16.2			14.4	26.1	1.17	11.6
		50	DP92-1250			20.0			18.0			16.0	29.0	1.05	10.4
		55	DP92-1255			22.0			19.8			17.6	31.9	0.96	9.5
		60	DP92-1260			24.0			21.6			19.2	34.8	0.88	8.7
		65	DP92-1265			26.0			23.4			20.8	37.7	0.81	8.0
		70	DP92-1270			28.0			25.2			22.4	40.6	0.75	7.4
75	DP92-1275	30.0	27.0	24.0	43.5	0.70	6.9								
80	DP92-1280	32.0	28.8	25.6	46.4	0.66	6.5								
14	7	25	DP92-1425	28.00	275.0	10.0	25.00	245.0	9.0	22.00	216.0	8.0	14.5	2.80	27.0
		30	DP92-1430			12.0			10.8			9.6	17.4	2.34	22.5
		35	DP92-1435			14.0			12.6			11.2	20.3	2.00	19.3
		40	DP92-1440			16.0			14.4			12.8	23.2	1.75	16.9
		45	DP92-1445			18.0			16.2			14.4	26.1	1.56	15.0
		50	DP92-1450			20.0			18.0			16.0	29.0	1.40	13.5
		55	DP92-1455			22.0			19.8			17.6	31.9	1.27	12.3
		60	DP92-1460			24.0			21.6			19.2	34.8	1.17	11.3
		65	DP92-1465			26.0			23.4			20.8	37.7	1.08	10.4
		70	DP92-1470			28.0			25.2			22.4	40.6	1.00	9.6
		75	DP92-1475			30.0			27.0			24.0	43.5	0.93	9.0
80	DP92-1480	32.0	28.8	25.6	46.4	0.87	8.4								
90	DP92-1490	36.0	32.4	28.8	52.2	0.77	7.5								

*Newtons

Note: Newtons (N) to pounds force (lb.f.) = (N) x 0.225.

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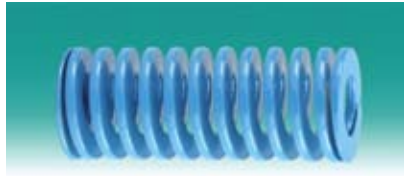


Light Duty Metric-JIS

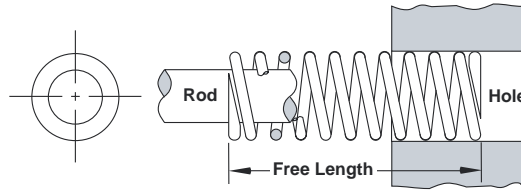
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											Load @ 1mm Deflection				
				40% Deflection		36% Deflection		32% Deflection		Travel to Solid									
				Load		Deflection		Load		Deflection		Load		Deflection		Deflection			
				kg.f	*(N)	mm		kg.f	*(N)	mm		kg.f	*(N)	mm		mm			
16	8	25	DP92-1625	35.00	343.0	10.0		32.00	314.0	9.0		28.00	275.0	8.0		14.5		3.50	34.4
		30	DP92-1630			12.0				10.8				9.6		17.4		2.92	28.6
		35	DP92-1635			14.0				12.6				11.2		20.3		2.50	24.6
		40	DP92-1640			16.0				14.4				12.8		23.2		2.19	21.5
		45	DP92-1645			18.0				16.2				14.4		26.1		1.95	19.1
		50	DP92-1650			20.0				18.0				16.0		29.0		1.75	17.2
		55	DP92-1655			22.0				19.8				17.6		31.9		1.60	15.6
		60	DP92-1660			24.0				21.6				19.2		34.8		1.46	14.3
		65	DP92-1665			26.0				23.4				20.8		37.7		1.35	13.2
		70	DP92-1670			28.0				25.2				22.4		40.6		1.25	12.3
		75	DP92-1675			30.0				27.0				24.0		43.5		1.17	11.5
		80	DP92-1680			32.0				28.8				25.6		46.4		1.10	10.7
90	DP92-1690	36.0		32.4		28.8		52.2		0.98	9.5								
100	DP92-16100	40.0		36.0		32.0		58.0		0.88	8.6								
18	9	25	DP92-1825	43.00	422.0	10.0		39.00	382.0	9.0		34.00	333.0	8.0		14.5		4.30	41.6
		30	DP92-1830			12.0				10.8				9.6		17.4		3.58	34.7
		35	DP92-1835			14.0				12.6				11.2		20.3		3.07	29.7
		40	DP92-1840			16.0				14.4				12.8		23.2		2.69	26.0
		45	DP92-1845			18.0				16.2				14.4		26.1		2.39	23.1
		50	DP92-1850			20.0				18.0				16.0		29.0		2.15	20.8
		55	DP92-1855			22.0				19.8				17.6		31.9		1.96	18.9
		60	DP92-1860			24.0				21.6				19.2		34.8		1.79	17.3
		65	DP92-1865			26.0				23.4				20.8		37.7		1.66	16.0
		70	DP92-1870			28.0				25.2				22.4		40.6		1.54	14.9
		75	DP92-1875			30.0				27.0				24.0		43.5		1.44	13.9
		80	DP92-1880			32.0				28.8				25.6		46.4		1.35	13.0
90	DP92-1890	36.0		32.4		28.8		52.2		1.20	11.6								
100	DP92-18100	40.0		36.0		32.0		58.0		1.07	10.4								
20	10	25	DP92-2025	54.00	529.6	10.0		49.00	481.0	9.0		43.00	421.7	8.0		14.5		5.40	52.7
		30	DP92-2030			12.0				10.8				9.6		17.4		4.50	43.9
		35	DP92-2035			14.0				12.6				11.2		20.3		3.86	37.7
		40	DP92-2040			16.0				14.4				12.8		23.2		3.38	32.9
		45	DP92-2045			18.0				16.2				14.4		26.1		3.00	29.3
		50	DP92-2050			20.0				18.0				16.0		29.0		2.70	26.4
		55	DP92-2055			22.0				19.8				17.6		31.9		2.45	24.0
		60	DP92-2060			24.0				21.6				19.2		34.8		2.25	22.0
		65	DP92-2065			26.0				23.4				20.8		37.7		2.08	20.3
		70	DP92-2070			28.0				25.2				22.4		40.6		1.93	18.8
		75	DP92-2075			30.0				27.0				24.0		43.5		1.80	17.6
		80	DP92-2080			32.0				28.8				25.6		46.4		1.69	16.5
		90	DP92-2090			36.0				32.4				28.8		52.2		1.50	14.6
		100	DP92-20100			40.0				36.0				32.0		58.0		1.35	13.2
		125	DP92-20125			50.0				45.0				40.0		73.5		1.08	10.5
150	DP92-20150	60.0		54.0		48.0		87.0		0.90	8.8								
22	11	25	DP92-2225	67.00	657.0	10.0		60.00	588.0	9.0		54.00	530.0	8.0		14.5		6.70	66.3
		30	DP92-2230			12.0				10.8				9.6		17.4		5.60	55.2
		35	DP92-2235			14.0				12.6				11.2		20.3		4.80	47.3
		40	DP92-2240			16.0				14.4				12.8		23.2		4.20	41.4
		45	DP92-2245			18.0				16.2				14.4		26.1		3.72	36.8
		50	DP92-2250			20.0				18.0				16.0		29.0		3.35	33.1
		55	DP92-2255			22.0				19.8				17.6		31.9		3.05	30.1
		60	DP92-2260			24.0				21.6				19.2		34.8		2.80	27.6
		65	DP92-2265			26.0				23.4				20.8		37.7		2.58	25.5
		70	DP92-2270			28.0				25.2				22.4		40.6		2.40	23.7
		75	DP92-2275			30.0				27.0				24.0		43.5		2.23	22.1
		80	DP92-2280			32.0				28.8				25.6		46.4		2.10	20.7
		90	DP92-2290			36.0				32.4				28.8		52.2		1.86	18.4
		100	DP92-22100			40.0				36.0				32.0		58.0		1.68	16.6
		125	DP92-22125			50.0				45.0				40.0		72.5		1.34	13.3
150	DP92-22150	60.0		54.0		48.0		87.0		1.12	11.0								

*Newtons

Light Duty Metric-JIS



Type **DP-92**



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	37	DP92-25175
	21	DP92-60300

Note: Efficient Operating Range is 32% to 40% of the free length. (Maximum deflection = 40%; long life = 36%; and optimum life = 32%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											
				40% Deflection		36% Deflection		32% Deflection		Travel to Solid		Load @ 1mm Deflection			
				Load kg.f	* (N) mm	Load kg.f	* (N) mm	Load kg.f	* (N) mm	Deflection mm	Deflection mm	kg.f	* (N)		
25	12.5	25	DP92-2525	84.00	823.8	10.0	78.00	745.0	9.0	67.00	657.1	8.0	12.0	8.40	82.1
		30	DP92-2530			12.0			10.8			9.6	14.4	7.00	68.4
		35	DP92-2535			14.0			12.6			11.2	16.8	6.00	58.7
		40	DP92-2540			16.0			14.4			12.8	19.2	5.25	51.3
		45	DP92-2545			18.0			16.2			14.4	21.6	4.67	45.6
		50	DP92-2550			20.0			18.0			16.0	24.0	4.20	41.1
		55	DP92-2555			22.0			19.8			17.6	26.4	3.82	37.3
		60	DP92-2560			24.0			21.6			19.2	28.8	3.50	34.2
		65	DP92-2565			26.0			23.4			20.8	31.2	3.23	31.6
		70	DP92-2570			28.0			25.2			22.4	33.6	3.00	29.3
		75	DP92-2575			30.0			27.0			24.0	36.0	2.80	27.4
		80	DP92-2580			32.0			28.8			25.6	38.4	2.63	25.7
		90	DP92-2590			36.0			32.4			28.8	43.2	2.33	22.8
		100	DP92-25100			40.0			36.0			32.0	48.0	2.10	20.5
		125	DP92-25125			50.0			45.0			40.0	60.0	1.68	16.4
		150	DP92-25150			60.0			54.0			48.0	72.0	1.40	13.7
		175	DP92-25175			70.0			63.0			56.0	84.0	1.20	11.7
27	13.5	25	DP92-2725	100.00	981.0	10.0	90.00	883.0	9.0	89.00	785.0	8.0	12.0	10.00	98.1
		30	DP92-2730			12.0			10.8			9.6	14.4	8.33	81.8
		35	DP92-2735			14.0			12.6			11.2	16.8	7.14	70.1
		40	DP92-2740			16.0			14.4			12.8	19.2	6.25	61.3
		45	DP92-2745			18.0			16.2			14.4	21.6	5.56	54.5
		50	DP92-2750			20.0			18.0			16.0	24.0	5.00	49.1
		55	DP92-2755			22.0			19.8			17.6	26.4	4.55	44.6
		60	DP92-2760			24.0			21.6			19.2	28.8	4.17	40.9
		65	DP92-2765			26.0			23.4			20.8	31.2	3.85	37.7
		70	DP92-2770			28.0			25.2			22.4	33.6	3.57	35.0
		75	DP92-2775			30.0			27.0			24.0	36.0	3.33	32.7
		80	DP92-2780			32.0			28.8			25.6	38.4	3.13	30.7
		90	DP92-2790			36.0			32.4			28.8	43.2	2.78	27.3
		100	DP92-27100			40.0			36.0			32.0	48.0	2.50	24.5
		125	DP92-27125			50.0			45.0			40.0	60.0	2.00	19.6
		150	DP92-27150			60.0			54.0			48.0	72.0	1.67	16.4
		175	DP92-27175			70.0			63.0			56.0	84.0	1.43	14.0

*Newtons Note: Newtons (N) to pounds force (lb.f.) = (N) x 0.225.



Light Duty Metric-JIS

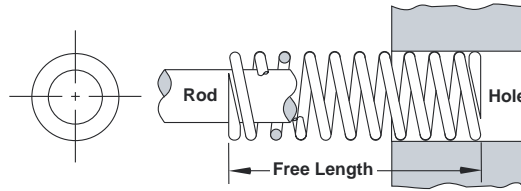
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE										Load @ 1mm Deflection	
				40% Deflection		36% Deflection		32% Deflection		Travel to Solid					
				Load	Deflection	Load	Deflection	Load	Deflection	Deflection	Deflection	kg.f	*(N)		
kg.f	*(N)	mm	kg.f	*(N)	mm	kg.f	*(N)	mm	mm	kg.f	*(N)				
30	15	25	DP92-3025	121.00	1186.6	10.0	109.00	1068.9	9.0	97.00	951.3	8.0	12.0	12.11	118.9
		30	DP92-3030			12.0			10.8			9.6	14.4	10.08	99.1
		35	DP92-3035			14.0			12.6			11.2	16.8	8.65	84.9
		40	DP92-3040			16.0			14.4			12.8	19.2	7.56	74.3
		45	DP92-3045			18.0			16.2			14.4	21.6	6.73	66.1
		50	DP92-3050			20.0			18.0			16.0	24.0	6.05	59.5
		55	DP92-3055			22.0			19.8			17.6	26.4	5.50	54.1
		60	DP92-3060			24.0			21.6			19.2	28.8	5.04	49.5
		65	DP92-3065			26.0			23.4			20.8	31.2	4.65	45.7
		70	DP92-3070			28.0			25.2			22.4	33.6	4.32	42.5
		75	DP92-3075			30.0			27.0			24.0	36.0	4.03	39.6
		80	DP92-3080			32.0			28.8			25.6	38.4	3.78	37.2
		90	DP92-3090			36.0			32.4			28.8	43.2	3.36	33.0
		100	DP92-30100			40.0			36.0			32.0	48.0	3.02	29.7
		125	DP92-30125			50.0			45.0			40.0	60.0	2.42	23.8
		150	DP92-30150			60.0			54.0			48.0	72.0	2.01	19.8
175	DP92-30175	70.0	63.0	56.0	84.0	1.71	17.0								
200	DP92-30200	80.0	72.0	64.0	96.0	1.51	14.9								
35	17.5	40	DP92-3540	165.00	1618.1	16.0	249.00	1461.2	14.4	132.00	1294.5	12.8	19.2	10.31	101.1
		45	DP92-3545			18.0			16.2			14.4	21.6	9.17	89.9
		50	DP92-3550			20.0			18.0			16.0	24.0	8.25	80.9
		55	DP92-3555			22.0			19.8			17.6	26.4	7.50	73.6
		60	DP92-3560			24.0			21.6			19.2	28.8	6.87	67.4
		65	DP92-3565			26.0			23.4			20.8	31.2	6.35	62.2
		70	DP92-3570			28.0			25.2			22.4	33.6	5.89	57.8
		75	DP92-3575			30.0			27.0			24.0	36.0	5.50	53.9
		80	DP92-3580			32.0			28.8			25.6	38.4	5.15	50.6
		90	DP92-3590			36.0			32.4			28.8	43.2	4.58	44.9
		100	DP92-35100			40.0			36.0			32.0	48.0	4.12	40.5
		125	DP92-35125			50.0			45.0			40.0	60.0	3.30	32.4
		150	DP92-35150			60.0			54.0			48.0	72.0	2.75	27.0
		175	DP92-35175			70.0			63.0			56.0	84.0	2.35	23.1
		200	DP92-35200			80.0			72.0			64.0	96.0	2.06	20.2
		40	20			40			DP92-4040			216.00	2118.2	16.0	194.00
50	DP92-4050			20.0	18.0	16.0	24.0	10.80	106.0						
60	DP92-4060			24.0	21.6	19.2	28.8	9.00	88.4						
70	DP92-4070			28.0	25.2	22.4	33.6	7.71	75.7						
80	DP92-4080			32.0	28.8	25.6	38.4	6.75	66.3						
90	DP92-4090			36.0	32.4	28.8	43.2	6.00	58.9						
100	DP92-40100			40.0	36.0	32.0	48.0	5.40	53.0						
125	DP92-40125			50.0	45.0	40.0	60.0	4.32	42.4						
150	DP92-40150			60.0	54.0	48.0	72.0	3.60	35.3						
175	DP92-40175			70.0	63.0	56.0	84.0	3.08	30.3						
200	DP92-40200			80.0	72.0	64.0	96.0	2.70	26.5						
250	DP92-40250			100.0	90.0	80.0	120.0	2.16	21.2						
50	DP92-5050			20.0	18.0	16.0	24.0	16.89	165.5						
60	DP92-5060			24.0	21.6	19.2	28.8	14.08	137.9						
70	DP92-5070			28.0	25.2	22.4	33.6	12.07	118.2						
80	DP92-5080			32.0	28.8	25.6	38.4	10.56	103.4						
90	DP92-5090	36.0	32.4	28.8	43.2	9.38	91.9								
100	DP92-50100	40.0	36.0	32.0	48.0	8.45	82.7								
125	DP92-50125	50.0	45.0	40.0	60.0	6.76	66.2								
150	DP92-50150	60.0	54.0	48.0	72.0	5.63	55.2								
175	DP92-50175	70.0	63.0	56.0	84.0	4.82	47.3								
200	DP92-50200	80.0	72.0	64.0	96.0	4.22	41.4								
250	DP92-50250	100.0	90.0	80.0	120.0	3.38	33.1								
300	DP92-50300	120.0	108.0	96.0	144.0	2.81	27.6								
60	30	60	DP92-6060	486.00	4766.0	24.0	437.00	4285.5	21.6	389.00	3814.8	19.2	28.8	20.25	198.7
		70	DP92-6070			28.0			25.2			22.4	33.6	17.35	170.3
		80	DP92-6080			32.0			28.8			25.6	38.4	15.18	149.0
		90	DP92-6090			36.0			32.4			28.8	43.2	13.50	132.5
		100	DP92-60100			40.0			36.0			32.0	48.0	12.15	119.2
		125	DP92-60125			50.0			45.0			40.0	60.0	9.72	95.4
		150	DP92-60150			60.0			54.0			48.0	72.0	8.10	79.5
		175	DP92-60175			70.0			63.0			56.0	84.0	6.94	68.1
		200	DP92-60200			80.0			72.0			64.0	96.0	6.07	59.6
		250	DP92-60250			100.0			90.0			80.0	120.0	4.86	47.7
300	DP92-60300	120.0	108.0	96.0	144.0	4.05	39.7								

*Newtons

Medium Duty Metric-JIS



Type **DP-93**



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	10	DP93-1020
	11	DP93-1625

Note: Efficient Operating Range is 25.6% to 32% of the free length. (Maximum deflection = 32%; long life = 28.8%; and optimum life = 25.6%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											
				32% Deflection		28.8% Deflection		25.6% Deflection		Travel to Solid		Load @ 1mm Deflection			
				Load kg.f	Deflection *(N) mm	Load kg.f	Deflection *(N) mm	Load kg.f	Deflection *(N) mm	Deflection mm	Deflection mm	kg.f	*(N)		
10	5	20	DP93-1020	20.00	196.1	6.4	18.00	176.5	5.8	16.00	156.9	5.1	7.6	3.13	30.8
		25	DP93-1025			8.0			7.2			6.4	9.5	2.50	24.5
		30	DP93-1030			9.6			8.6			7.7	11.4	2.08	20.4
		35	DP93-1035			11.2			10.1			9.0	13.3	1.78	17.4
		40	DP93-1040			12.8			11.5			10.2	15.2	1.56	15.4
		45	DP93-1045			14.4			13.0			11.5	17.1	1.38	13.6
		50	DP93-1050			16.0			14.4			12.8	19.0	1.25	12.3
		55	DP93-1055			17.6			15.8			14.1	20.9	1.13	11.1
		60	DP93-1060			19.2			17.3			15.4	22.8	1.04	10.2
		65	DP93-1065			20.8			18.7			16.6	24.7	0.96	9.5
70	DP93-1070	22.4	20.2	17.9	26.6	0.89	8.8								
75	DP93-1075	24.0	21.6	19.2	28.5	0.83	8.2								
80	DP93-1080	25.6	23.0	20.5	30.4	0.78	7.7								
12	6	20	DP93-1220	29.00	284.4	6.4	26.00	255.0	5.8	23.00	225.6	5.1	7.6	4.53	44.2
		25	DP93-1225			8.0			7.2			6.4	9.5	3.62	35.3
		30	DP93-1230			9.6			8.6			7.7	11.4	3.02	29.3
		35	DP93-1235			11.2			10.1			9.0	13.3	2.58	25.1
		40	DP93-1240			12.8			11.5			10.2	15.2	2.27	22.1
		45	DP93-1245			14.4			13.0			11.5	17.1	2.01	19.6
		50	DP93-1250			16.0			14.4			12.8	19.0	1.81	17.6
		55	DP93-1255			17.6			15.8			14.1	20.9	1.64	16.0
		60	DP93-1260			19.2			17.3			15.4	22.8	1.51	14.6
		65	DP93-1265			20.8			18.7			16.6	24.7	1.39	13.6
70	DP93-1270	22.4	20.2	17.9	26.6	1.29	12.6								
75	DP93-1275	24.0	21.6	19.2	28.5	1.20	11.8								
80	DP93-1280	25.6	23.0	20.5	30.4	1.13	11.0								
14	7	25	DP93-1425	39.00	392.5	8.0	3.00	343.2	7.2	31.00	304.0	6.4	9.5	4.87	47.5
		30	DP93-1430			9.6			8.6			7.7	11.4	4.06	39.5
		35	DP93-1435			11.2			10.1			9.0	13.3	3.48	33.8
		40	DP93-1440			12.8			11.5			10.2	15.2	3.04	29.8
		45	DP93-1445			14.4			13.0			11.5	17.1	2.70	26.4
		50	DP93-1450			16.0			14.4			12.8	19.0	2.43	23.8
		55	DP93-1455			17.6			15.8			14.1	20.9	2.21	21.6
		60	DP93-1460			19.2			17.3			15.4	22.8	2.03	19.7
		65	DP93-1465			20.8			18.7			16.6	24.7	1.87	18.3
		70	DP93-1470			22.4			20.2			17.9	26.6	1.74	17.0
75	DP93-1475	24.0	21.6	19.2	28.5	1.62	15.8								
80	DP93-1480	25.6	23.0	20.5	30.4	1.52	14.8								
90	DP93-1490	28.8	25.9	23.0	34.2	1.35	13.2								

*Newtons Note: Newtons (N) to pounds force (lb.f.) = (N) x 0.225.

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Medium Duty Metric-JIS

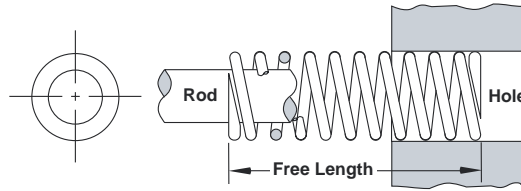
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											Load @ 1 mm Deflection	
				32% Deflection		28.8% Deflection		25.6% Deflection		Travel to Solid						
				Load	Deflection	Load	Deflection	Load	Deflection	Deflection	kg.f	*(N)	mm	mm	kg.f	*(N)
16	8	25	DP93-1625	51.00	500.1	8.0	46.00	451.1	7.2	41.00	402.1	6.4	9.5	6.39	62.8	
		30	DP93-1630			9.6			8.6			7.7	11.4	5.32	52.2	
		35	DP93-1635			11.2			10.1			9.0	13.3	4.55	44.7	
		40	DP93-1640			12.8			11.5			10.2	15.2	3.98	39.4	
		45	DP93-1645			14.4			13.0			11.5	17.1	3.54	35.0	
		50	DP93-1650			16.0			14.4			12.8	19.0	3.18	31.4	
		55	DP93-1655			17.6			15.8			14.1	20.9	2.89	28.5	
		60	DP93-1660			19.2			17.3			15.4	22.8	2.65	26.1	
		65	DP93-1665			20.8			18.7			16.6	24.7	2.45	24.2	
		70	DP93-1670			22.4			20.2			17.9	26.6	2.27	22.5	
		75	DP93-1675			24.0			21.6			19.2	28.5	2.11	20.9	
		80	DP93-1680			25.6			23.0			20.5	30.4	1.99	19.6	
90	DP93-1690	28.8	25.9	23.0	34.2	1.77	17.5									
100	DP93-16100	32.0	28.8	25.6	38.0	1.59	15.7									
18	9	25	DP93-1825	65.00	637.4	8.0	58.00	568.8	7.2	52.00	510.00	6.4	9.5	8.12	79.7	
		30	DP93-1830			9.6			8.6			7.7	11.4	6.77	66.2	
		35	DP93-1835			11.2			10.1			9.0	13.3	5.80	56.7	
		40	DP93-1840			12.8			11.5			10.2	15.2	5.07	50.0	
		45	DP93-1845			14.4			13.0			11.5	17.1	4.51	44.3	
		50	DP93-1850			16.0			14.4			12.8	19.0	4.06	39.8	
		55	DP93-1855			17.6			15.8			14.1	20.9	3.69	36.2	
		60	DP93-1860			19.2			17.3			15.4	22.8	3.38	33.1	
		65	DP93-1865			20.8			18.7			16.6	24.7	3.12	30.7	
		70	DP93-1870			22.4			20.2			17.9	26.6	2.90	28.5	
		75	DP93-1875			24.0			21.6			19.2	28.5	2.70	26.6	
		80	DP93-1880			25.6			23.0			20.5	30.4	2.53	24.9	
90	DP93-1890	28.8	25.9	23.0	34.2	2.25	22.2									
100	DP93-18100	32.0	28.8	25.6	38.0	2.02	19.9									
20	10	25	DP93-2025	80.00	784.5	8.0	72.00	706.1	7.2	64.00	627.6	6.4	9.5	10.00	98.1	
		30	DP93-2030			9.6			8.6			7.7	11.4	8.33	81.5	
		35	DP93-2035			11.2			10.1			9.0	13.3	7.14	69.7	
		40	DP93-2040			12.8			11.5			10.2	15.2	6.25	61.5	
		45	DP93-2045			14.4			13.0			11.5	17.1	5.55	54.6	
		50	DP93-2050			16.0			14.4			12.8	19.0	5.00	49.0	
		55	DP93-2055			17.6			15.8			14.1	20.9	4.54	44.5	
		60	DP93-2060			19.2			17.3			15.4	22.8	4.16	40.8	
		65	DP93-2065			20.8			18.7			16.6	24.7	3.84	37.8	
		70	DP93-2070			22.4			20.2			17.9	26.6	3.57	35.1	
		75	DP93-2075			24.0			21.6			19.2	28.5	3.33	32.7	
		80	DP93-2080			25.6			23.0			20.5	30.4	3.12	30.6	
		90	DP93-2090			28.8			25.9			23.0	34.2	2.77	27.3	
		100	DP93-20100			32.0			28.8			25.6	38.0	2.50	24.5	
		125	DP93-20125			40.0			36.0			32.0	47.5	2.00	19.6	
150	DP93-20150	48.0	43.2	38.4	57.0	1.67	16.3									
22	11	25	DP93-2225	97.00	951.3	8.0	87.00	853.2	7.2	77.00	755.1	6.4	9.5	12.13	118.0	
		30	DP93-2230			9.6			8.6			7.7	11.4	10.10	98.1	
		35	DP93-2235			11.2			10.1			9.0	13.3	8.65	83.9	
		40	DP93-2240			12.8			11.5			10.2	15.2	7.57	74.0	
		45	DP93-2245			14.4			13.0			11.5	17.1	6.74	65.7	
		50	DP93-2250			16.0			14.4			12.8	19.0	6.06	59.0	
		55	DP93-2255			17.6			15.8			14.1	20.9	5.50	53.6	
		60	DP93-2260			19.2			17.3			15.4	22.8	5.05	49.0	
		65	DP93-2265			20.8			18.7			16.6	24.7	4.66	45.5	
		70	DP93-2270			22.4			20.2			17.9	26.6	4.33	42.2	
		75	DP93-2275			24.0			21.6			19.2	28.5	4.04	39.3	
		80	DP93-2280			25.6			23.0			20.5	30.4	3.78	36.8	
		90	DP93-2290			28.8			25.9			23.0	34.2	3.36	32.8	
		100	DP93-22100			32.0			28.8			25.6	38.0	3.03	29.5	
		125	DP93-22125			40.0			36.0			32.0	47.5	2.42	23.6	
150	DP93-22150	48.0	43.2	38.4	57.0	2.01	19.7									

*Newtons

Medium Duty Metric-JIS



Type **DP-93**



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	14	DP93-2760
	18	DP93-60250

Note: Efficient Operating Range is 25.6% to 32% of the free length. (Maximum deflection = 32%; long life = 28.8%; and optimum life = 25.6%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											
				32% Deflection		28.8% Deflection		25.6% Deflection		Travel to Solid		Load @ 1mm Deflection			
				Load	Deflection	Load	Deflection	Load	Deflection	Deflection	Deflection	kg.f	*(N)		
25	12.5	25	DP93-2525	125.00	1225.9	8.0	112.00	1098.3	7.2	100.00	980.7	6.4	9.5	15.63	153.2
		30	DP93-2530			9.6			8.6			7.7	11.4	13.02	127.4
		35	DP93-2535			11.2			10.1			9.0	13.3	11.20	109.0
		40	DP93-2540			12.8			11.5			10.2	15.2	9.76	96.1
		45	DP93-2545			14.4			13.0			11.5	17.1	8.68	85.3
		50	DP93-2550			16.0			14.4			12.8	19.0	7.81	76.6
		55	DP93-2555			17.6			15.8			14.1	20.9	7.10	69.6
		60	DP93-2560			19.2			17.3			15.4	22.8	6.51	63.7
		65	DP93-2565			20.8			18.7			16.6	24.7	6.00	59.1
		70	DP93-2570			22.4			20.2			17.9	26.6	5.58	54.8
		75	DP93-2575			24.0			21.6			19.2	28.5	5.21	51.1
		80	DP93-2580			25.6			23.0			20.5	30.4	4.88	47.8
		90	DP93-2590			28.8			25.9			23.0	34.2	4.34	42.6
		100	DP93-25100			32.0			28.8			25.6	38.0	3.90	38.3
		125	DP93-25125			40.0			36.0			32.0	47.5	3.12	30.6
150	DP93-25150	48.0	43.2	38.4	57.0	2.60	25.5								
175	DP93-25175	56.0	50.4	44.8	66.5	2.23	21.9								
27	13.5	25	DP93-2725	146.00	1431.8	8.0	131.00	1284.7	7.2	117.00	1147.4	6.4	9.5	18.25	179.3
		30	DP93-2730			9.6			8.6			7.7	11.4	15.20	149.0
		35	DP93-2735			11.2			10.1			9.0	13.3	13.04	127.5
		40	DP93-2740			12.8			11.5			10.2	15.2	11.40	112.5
		45	DP93-2745			14.4			13.0			11.5	17.1	10.14	99.8
		50	DP93-2750			16.0			14.4			12.8	19.0	9.12	89.6
		55	DP93-2755			17.6			15.8			14.1	20.9	8.30	81.4
		60	DP93-2760			19.2			17.3			15.4	22.8	7.60	74.5
		65	DP93-2765			20.8			18.7			16.6	24.7	7.00	69.1
		70	DP93-2770			22.4			20.2			17.9	26.6	6.51	64.1
		75	DP93-2775			24.0			21.6			19.2	28.5	6.08	59.8
		80	DP93-2780			25.6			23.0			20.5	30.4	5.70	56.0
		90	DP93-2790			28.8			25.9			23.0	34.2	5.06	49.9
		100	DP93-27100			32.0			28.8			25.6	38.0	4.56	44.8
		125	DP93-27125			40.0			36.0			32.0	47.5	3.65	35.9
150	DP93-27150	48.0	43.2	38.4	57.0	3.04	29.9								
175	DP93-27175	56.0	50.4	44.8	66.5	2.61	25.6								

*Newtons Note: Newtons (N) to pounds force (lb.f.) = (N) x 0.225.

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Medium Duty Metric-JIS

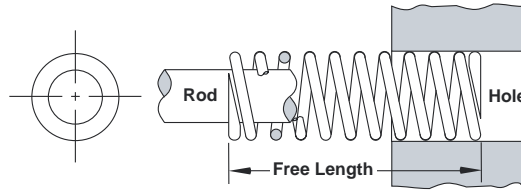
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											Load @ 1mm Deflection	
				32% Deflection		28.8% Deflection		25.6% Deflection		Travel to Solid						
				Load		Deflection	Load		Deflection	Load		Deflection	Deflection			
				kg.f	*(N)	mm	kg.f	*(N)	mm	kg.f	*(N)	mm	mm	kg.f	*(N)	
30	15	25	DP93-3025	180.00	1765.2	8.0	161.00	1578.9	7.2	144.00	1412.2	6.4	9.5	22.50	220.7	
		30	DP93-3030			9.6			8.6			7.7	11.4	18.75	183.4	
		35	DP93-3035			11.2			10.1			9.0	13.3	16.10	156.9	
		40	DP93-3040			12.8			11.5			10.2	15.2	14.06	138.5	
		45	DP93-3045			14.4			13.0			11.5	17.1	12.50	122.8	
		50	DP93-3050			16.0			14.4			12.8	19.0	11.25	110.3	
		55	DP93-3055			17.6			15.8			14.1	20.9	10.23	100.2	
		60	DP93-3060			19.2			17.3			15.4	22.8	9.37	91.7	
		65	DP93-3065			20.8			18.7			16.6	24.7	8.65	85.1	
		70	DP93-3070			22.4			20.2			17.9	26.6	8.03	78.9	
		75	DP93-3075			24.0			21.6			19.2	28.5	7.50	73.6	
		80	DP93-3080			25.6			23.0			20.5	30.4	7.03	68.9	
		90	DP93-3090			28.8			25.9			23.0	34.2	6.25	61.4	
		100	DP93-30100			32.0			28.8			25.6	38.0	5.62	55.2	
		125	DP93-30125			40.0			36.0			32.0	47.5	4.50	44.1	
		150	DP93-30150			48.0			43.2			38.4	57.0	3.75	36.8	
		175	DP93-30175			56.0			50.4			44.8	66.5	3.21	31.5	
200	DP93-30200	64.0	57.6	51.2	76.0	2.81	27.6									
35	17.5	40	DP93-3540	245.00	2402.6	12.8	220.00	2157.4	11.5	195.00	1912.3	10.2	15.2	19.14	187.5	
		45	DP93-3545			14.4			13.0			11.5	17.1	17.01	166.3	
		50	DP93-3550			16.0			14.4			12.8	19.0	15.31	149.4	
		55	DP93-3555			17.6			15.8			14.1	20.9	13.92	135.6	
		60	DP93-3560			19.2			17.3			15.4	22.8	12.76	124.2	
		65	DP93-3565			20.8			18.7			16.6	24.7	11.77	115.2	
		70	DP93-3570			22.4			20.2			17.9	26.6	10.93	106.8	
		75	DP93-3575			24.0			21.6			19.2	28.5	10.20	99.6	
		80	DP93-3580			25.6			23.0			20.5	30.4	9.57	93.3	
		90	DP93-3590			28.8			25.9			23.0	34.2	8.50	83.1	
		100	DP93-35100			32.0			28.8			25.6	38.0	7.65	74.7	
		125	DP93-35125			40.0			36.0			32.0	47.5	6.12	59.8	
		150	DP93-35150			48.0			43.2			38.4	57.0	5.10	49.8	
175	DP93-35175	56.0	50.4	44.8	66.5	4.37	42.7									
200	DP93-35200	64.0	57.6	51.2	76.0	3.82	37.3									
40	20	40	DP93-4040	320.00	3138.1	12.8	288.00	2824.3	11.5	256.00	2510.4	10.2	15.2	25.02	246.1	
		50	DP93-4050			16.0			14.4			12.8	19.0	20.00	196.1	
		60	DP93-4060			19.2			17.3			15.4	22.8	16.60	163.0	
		70	DP93-4070			22.4			20.2			17.9	26.6	14.28	140.2	
		80	DP93-4080			25.6			23.0			20.5	30.4	12.50	122.5	
		90	DP93-4090			28.8			25.9			23.0	34.2	11.11	109.1	
		100	DP93-40100			32.0			28.8			25.6	38.0	10.00	98.1	
		125	DP93-40125			40.0			36.0			32.0	47.5	8.00	78.5	
		150	DP93-40150			48.0			43.2			38.4	57.0	6.66	65.4	
		175	DP93-40175			56.0			50.4			44.8	66.5	5.71	56.0	
		200	DP93-40200			64.0			57.6			51.2	76.0	5.00	49.0	
		250	DP93-40250			80.0			72.0			64.0	95.0	4.00	39.2	
		50	25			50			DP93-5050			500.00	4903.3	16.0	450.00	4413.0
60	DP93-5060			19.2	17.3	15.4	22.8	26.04	254.7							
70	DP93-5070			22.4	20.2	17.9	26.6	22.32	219.1							
80	DP93-5080			25.6	23.0	20.5	30.4	19.53	191.3							
90	DP93-5090			28.8	25.9	23.0	34.2	17.36	170.5							
100	DP93-50100			32.0	28.8	25.6	38.0	15.62	153.2							
125	DP93-50125			40.0	36.0	32.0	47.5	12.50	122.6							
150	DP93-50150			48.0	43.2	38.4	57.0	10.41	102.1							
175	DP93-50175			56.0	50.4	44.8	66.5	8.92	87.6							
200	DP93-50200			64.0	57.6	51.2	76.0	7.81	76.6							
250	DP93-50250			80.0	72.0	64.0	95.0	6.25	61.3							
60	30	60	DP93-6060	723.00	7060.8	19.2	648.00	6354.7	17.3	575.00	5638.8	15.4	22.8	37.40	366.2	
		70	DP93-6070			22.4			20.2			17.9	26.6	32.10	315.0	
		80	DP93-6080			25.6			23.0			20.5	30.4	28.12	275.1	
		90	DP93-6090			28.8			25.9			23.0	34.2	25.00	245.2	
		100	DP93-60100			32.0			28.8			25.6	38.0	22.50	220.3	
		125	DP93-60125			40.0			36.0			32.0	47.5	18.00	176.2	
		150	DP93-60150			48.0			43.2			38.4	57.0	15.00	146.8	
		175	DP93-60175			56.0			50.4			44.8	66.5	12.85	125.9	
		200	DP93-60200			64.0			57.6			51.2	76.0	11.25	110.1	
		250	DP93-60250			80.0			72.0			64.0	95.0	9.00	88.1	
		300	DP93-60300			96.0			86.4			76.8	114.0	7.50	73.4	

*Newtons

Heavy Duty Metric-JIS



Type **DP-94**



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	40	DP94-1270
	52	DP94-22125

Note: Efficient Operating Range is 19.2% to 24% of the free length. (Maximum deflection = 24%; long life = 21.6%; and optimum life = 19.2%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											
				24% Deflection		21.6% Deflection		19.2% Deflection		Travel to Solid		Load @ 1mm Deflection			
				Load	Deflection	Load	Deflection	Load	Deflection	Deflection	Deflection	kg.f	*(N)		
		kg.f	*(N)	mm	kg.f	*(N)	mm	kg.f	*(N)	mm	mm	kg.f	*(N)		
10	5	20	DP94-1020	30.00	294.2	4.8	27.00	264.8	4.3	24.00	235.4	3.8	5.6	6.25	61.9
		25	DP94-1025			6.0			5.4			4.8	7.0	5.00	49.0
		30	DP94-1030			7.2			6.5			5.8	8.4	4.16	40.6
		35	DP94-1035			8.4			7.5			6.7	9.8	3.57	35.1
		40	DP94-1040			9.6			8.6			7.7	11.2	3.15	30.6
		45	DP94-1045			10.8			9.7			8.6	12.6	2.77	27.4
		50	DP94-1050			12.0			10.8			9.6	14.0	2.50	24.5
		55	DP94-1055			13.2			11.8			10.6	15.4	2.27	22.2
		60	DP94-1060			14.4			13.0			11.5	16.8	2.08	20.5
		65	DP94-1065			15.6			14.0			12.5	18.2	1.92	18.8
		70	DP94-1070			16.8			15.1			13.4	19.6	1.79	17.6
		75	DP94-1075			18.0			16.2			14.4	21.0	1.67	16.3
80	DP94-1080	19.2	17.3	15.4	22.4	1.56	15.3								
12	6	20	DP94-1220	43.00	421.7	4.8	38.00	372.7	4.3	34.00	333.4	3.8	5.6	8.90	87.7
		25	DP94-1225			6.0			5.4			4.8	7.0	7.10	69.5
		30	DP94-1230			7.2			6.5			5.8	8.4	5.97	57.5
		35	DP94-1235			8.4			7.5			6.7	9.8	5.11	49.8
		40	DP94-1240			9.6			8.6			7.7	11.2	4.47	43.3
		45	DP94-1245			10.8			9.7			8.6	12.6	3.98	38.8
		50	DP94-1250			12.0			10.8			9.6	14.0	3.58	34.7
		55	DP94-1255			13.2			11.8			10.6	15.4	3.25	31.5
		60	DP94-1260			14.4			13.0			11.5	16.8	2.98	29.0
		65	DP94-1265			15.6			14.0			12.5	18.2	2.74	26.7
		70	DP94-1270			16.8			15.1			13.4	19.6	2.54	24.9
		75	DP94-1275			18.0			16.2			14.4	21.0	2.37	23.2
80	DP94-1280	19.2	17.3	15.4	22.4	2.21	21.6								
14	7	25	DP94-1425	59.00	578.6	6.0	53.00	519.8	5.4	47.00	460.9	4.8	7.0	9.83	96.0
		30	DP94-1430			7.2			6.5			5.8	8.4	8.19	79.5
		35	DP94-1435			8.4			7.5			6.7	9.8	7.02	68.8
		40	DP94-1440			9.6			8.6			7.7	11.2	6.14	59.9
		45	DP94-1445			10.8			9.7			8.6	12.6	5.46	53.6
		50	DP94-1450			12.0			10.8			9.6	14.0	4.91	48.0
		55	DP94-1455			13.2			11.8			10.6	15.4	4.46	43.5
		60	DP94-1460			14.4			13.0			11.5	16.8	4.09	40.1
		65	DP94-1465			15.6			14.0			12.5	18.2	3.78	36.9
		70	DP94-1470			16.8			15.1			13.4	19.6	3.51	34.4
		75	DP94-1475			18.0			16.2			14.4	21.0	3.27	32.0
		80	DP94-1480			19.2			17.3			15.4	22.4	3.07	29.9
90	DP94-1490	21.6	19.4	17.3	25.2	2.72	26.6								

*Newtons Note: Newtons (N) to pounds force (lb.f.) = (N) x 0.225.

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Heavy Duty Metric-JIS

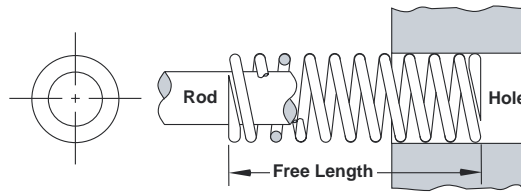
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE										Load @ 1 mm Deflection	
				24% Deflection		21.6% Deflection		19.2% Deflection		Travel to Solid					
				Load	Deflection	Load	Deflection	Load	Deflection	Deflection	Deflection	kg.f	*(N)		
kg.f	*(N)	mm	kg.f	*(N)	mm	kg.f	*(N)	mm	mm	kg.f	*(N)				
16	8	25	DP94-1625	77.00	755	6.0	69.00	676.7	5.4	62.00	608	4.8	7.0	18.83	126.7
		30	DP94-1630			7.2			6.5			5.8	8.4	10.69	104.8
		35	DP94-1635			8.4			7.5			6.7	9.8	9.16	90.7
		40	DP94-1640			9.6			8.6			7.7	11.2	8.02	79.0
		45	DP94-1645			10.8			9.7			8.6	12.6	7.12	70.7
		50	DP94-1650			12.0			10.8			9.6	14.0	6.41	63.3
		55	DP94-1655			13.2			11.8			10.6	15.4	5.83	57.4
		60	DP94-1660			14.4			13.0			11.5	16.8	5.34	52.9
		65	DP94-1665			15.6			14.0			12.5	18.2	4.93	48.6
		70	DP94-1670			16.8			15.1			13.4	19.6	4.58	45.4
		75	DP94-1675			18.0			16.2			14.4	21.0	4.28	42.2
		80	DP94-1680			19.2			17.3			15.4	22.4	4.01	39.5
90	DP94-1690	21.6	19.4	17.3	25.2	3.57	35.1								
100	DP94-16100	24.0	21.6	19.2	28.0	3.21	31.7								
18	9	25	DP94-1825	97.00	951.3	6.0	87.00	853.2	5.4	78.00	764.9	4.8	7.0	16.16	159.4
		30	DP94-1830			7.2			6.5			5.8	8.4	13.47	131.9
		35	DP94-1835			8.4			7.5			6.7	9.8	11.54	114.2
		40	DP94-1840			9.6			8.6			7.7	11.2	10.10	99.3
		45	DP94-1845			10.8			9.7			8.6	12.6	8.98	88.9
		50	DP94-1850			12.0			10.8			9.6	14.0	8.08	79.7
		55	DP94-1855			13.2			11.8			10.6	15.4	7.34	72.2
		60	DP94-1860			14.4			13.0			11.5	16.8	6.73	66.5
		65	DP94-1865			15.6			14.0			12.5	18.2	6.21	61.2
		70	DP94-1870			16.8			15.1			13.4	19.6	5.77	57.1
		75	DP94-1875			18.0			16.2			14.4	21.0	5.39	53.1
		80	DP94-1880			19.2			17.3			15.4	22.4	5.05	49.7
90	DP94-1890	21.6	19.4	17.3	25.2	4.50	44.2								
100	DP94-18100	24.0	21.6	19.2	28.0	4.04	39.8								
20	10	25	DP94-2025	120.00	1176.8	6.0	108.00	1059.1	5.4	96.00	941.4	4.8	7.0	20.00	196.1
		30	DP94-2030			7.2			6.5			5.8	8.4	16.66	162.3
		35	DP94-2035			8.4			7.5			6.7	9.8	14.28	140.5
		40	DP94-2040			9.6			8.6			7.7	11.2	12.50	122.3
		45	DP94-2045			10.8			9.7			8.6	12.6	11.11	109.5
		50	DP94-2050			12.0			10.8			9.6	14.0	10.00	98.1
		55	DP94-2055			13.2			11.8			10.6	15.4	9.09	88.8
		60	DP94-2060			14.4			13.0			11.5	16.8	8.33	81.9
		65	DP94-2065			15.6			14.0			12.5	18.2	7.69	75.3
		70	DP94-2070			16.8			15.1			13.4	19.6	7.14	70.3
		75	DP94-2075			18.0			16.2			14.4	21.0	6.67	65.4
		80	DP94-2080			19.2			17.3			15.4	22.4	6.25	61.1
		90	DP94-2090			21.6			19.4			17.3	25.2	5.55	54.4
		100	DP94-20100			24.0			21.6			19.2	28.0	5.00	49.0
		125	DP94-20125			30.0			27.0			24.0	35.0	4.00	39.2
150	DP94-20150	36.0	32.4	28.8	42.0	3.33	32.7								
22	11	25	DP94-2225	145.00	1422.0	6.0	130.00	1274.9	5.4	116.00	1137.6	4.8	7.0	24.16	237.0
		30	DP94-2230			7.2			6.5			5.8	8.4	20.13	196.1
		35	DP94-2235			8.4			7.5			6.7	9.8	17.30	169.8
		40	DP94-2240			9.6			8.6			7.7	11.2	15.10	147.7
		45	DP94-2245			10.8			9.7			8.6	12.6	13.40	132.3
		50	DP94-2250			12.0			10.8			9.6	14.0	12.08	118.5
		55	DP94-2255			13.2			11.8			10.6	15.4	10.94	107.3
		60	DP94-2260			14.4			13.0			11.5	16.8	10.06	98.9
		65	DP94-2265			15.6			14.0			12.5	18.2	9.28	91.0
		70	DP94-2270			16.8			15.1			13.4	19.6	8.63	84.9
		75	DP94-2275			18.0			16.2			14.4	21.0	8.04	79.0
		80	DP94-2280			19.2			17.3			15.4	22.4	7.55	73.9
		90	DP94-2290			21.6			19.4			17.3	25.2	6.71	65.8
		100	DP94-22100			24.0			21.6			19.2	28.0	6.04	59.3
		125	DP94-22125			30.0			27.0			24.0	35.0	4.83	47.4
150	DP94-22150	36.0	32.4	28.8	42.0	4.02	39.5								

*Newtons

Heavy Duty Metric-JIS



Type **DP-94**



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	33	DP94-40100
	44	DP94-60200

Note: Efficient Operating Range is 19.2% to 24% of the free length. (Maximum deflection = 24%; long life = 21.6%; and optimum life = 19.2%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE										Load @ 1mm Deflection			
				24% Deflection		21.6% Deflection		19.2% Deflection		Travel to Solid							
				Load		Deflection		Load		Deflection		Load		Deflection		Deflection	
				kg.f	*(N)	mm	kg.f	*(N)	mm	kg.f	*(N)	mm	mm	kg.f	*(N)		
25	12.5	25	DP94-2525			6.0						4.8	7.0	31.20	306.5		
		30	DP94-2530			7.2						5.8	8.4	25.97	253.6		
		35	DP94-2535			8.4						6.7	9.8	22.38	219.6		
		40	DP94-2540			9.6						7.7	11.2	19.47	191.0		
		45	DP94-2545			10.8						8.6	12.6	17.40	171.0		
		50	DP94-2550			12.0						9.6	14.0	15.58	153.2		
		55	DP94-2555			13.2						10.6	15.4	14.20	138.8		
		60	DP94-2560			14.4						11.5	16.8	12.98	127.9		
		65	DP94-2565	187.00	1833.8	15.6	169.00	1657.0	14.0	150.00	1471.0	12.5	18.2	12.00	117.7		
		70	DP94-2570			16.8						13.4	19.6	11.13	109.8		
		75	DP94-2575			18.0						14.4	21.0	10.40	102.2		
		80	DP94-2580			19.2						15.4	22.4	9.73	95.5		
		90	DP94-2590			21.6						17.3	25.2	8.65	85.0		
		100	DP94-25100			24.0						19.2	28.0	7.79	76.6		
		125	DP94-25125			30.0						24.0	35.0	6.23	61.3		
		150	DP94-25150			36.0						28.8	42.0	5.20	51.1		
		175	DP94-25175			42.0						33.6	49.0	4.46	43.8		
27	13.5	25	DP94-2725			6.0						4.8	7.0	36.40	357.5		
		30	DP94-2730			7.2						5.8	8.4	30.41	295.9		
		35	DP94-2735			8.4						6.7	9.8	26.20	256.1		
		40	DP94-2740			9.6						7.7	11.2	22.81	222.9		
		45	DP94-2745			10.8						8.6	12.6	20.30	199.6		
		50	DP94-2750			12.0						9.6	14.0	18.25	178.8		
		55	DP94-2755			13.2						10.6	15.4	16.50	161.9		
		60	DP94-2760			14.4						11.5	16.8	15.20	149.2		
		65	DP94-2765	219.00	2147.7	15.6	197.00	1931.9	14.0	175.00	1716.2	12.5	18.2	14.00	137.3		
		70	DP94-2770			16.8						13.4	19.6	13.03	128.1		
		75	DP94-2775			18.0						14.4	21.0	12.10	119.2		
		80	DP94-2780			19.2						15.4	22.4	11.40	111.4		
		90	DP94-2790			21.6						17.3	25.2	10.13	99.2		
		100	DP94-27100			24.0						19.2	28.0	9.12	89.4		
		125	DP94-27125			30.0						24.0	35.0	7.30	71.5		
		150	DP94-27150			36.0						28.8	42.0	6.08	59.6		
		175	DP94-27175			42.0						33.6	49.0	5.21	51.1		

*Newtons Note: Newtons (N) to pounds force (lb.f.) = (N) x 0.225.



Heavy Duty Metric-JIS

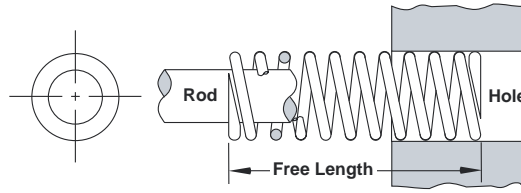
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											Load @ 1mm Deflection	
				24% Deflection		21.6% Deflection		19.2% Deflection		Travel to Solid						
				Load	Deflection	Load	Deflection	Load	Deflection	Deflection	kg.f	*(N)	mm	mm	kg.f	*(N)
30	15	25	DP94-3025	270.00	2647.8	6.0	243.00	2382.4	5.4	216.00	2118.2	4.8	7.0	45.00	441.3	
		30	DP94-3030			7.2			6.5			5.8	8.4	37.50	365.2	
		35	DP94-3035			8.4			7.5			6.7	9.8	32.26	316.1	
		40	DP94-3040			9.6			8.6			7.7	11.2	28.12	275.1	
		45	DP94-3045			10.8			9.7			8.6	12.6	25.00	246.3	
		50	DP94-3050			12.0			10.8			9.6	14.0	22.50	220.6	
		55	DP94-3055			13.2			11.9			10.6	15.4	20.40	199.8	
		60	DP94-3060			14.4			13.0			11.5	16.8	18.75	184.2	
		65	DP94-3065			15.6			14.0			12.5	18.2	17.30	169.5	
		70	DP94-3070			16.8			15.1			13.4	19.6	16.07	158.1	
		75	DP94-3075			18.0			16.2			14.4	21.0	15.00	147.1	
		80	DP94-3080			19.2			17.3			15.4	22.4	14.06	137.5	
		90	DP94-3090			21.6			19.4			17.3	25.2	12.50	122.4	
		100	DP94-30100			24.0			21.6			19.2	28.0	11.25	110.3	
		125	DP94-30125			30.0			27.0			24.0	35.0	9.00	88.3	
		150	DP94-30150			36.0			32.4			28.8	42.0	7.50	73.5	
		175	DP94-30175			42.0			37.8			33.6	49.0	6.42	63.0	
200	DP94-30200	48.0	43.2	38.4	56.0	5.62	55.2									
35	17.5	40	DP94-3540	367.00	3599.0	9.6	330.00	3236.2	8.6	293.00	2873.4	7.7	11.2	38.22	373.2	
		45	DP94-3545			10.8			9.7			8.6	12.6	33.98	334.1	
		50	DP94-3550			12.0			10.8			9.6	14.0	30.58	299.3	
		55	DP94-3555			13.2			11.9			10.5	15.4	27.80	273.7	
		60	DP94-3560			14.4			13.0			11.5	16.8	25.48	249.9	
		65	DP94-3565			15.6			14.0			12.5	18.2	23.53	229.9	
		70	DP94-3570			16.8			15.1			13.4	19.6	21.84	214.4	
		75	DP94-3575			18.0			16.2			14.4	21.0	20.39	199.5	
		80	DP94-3580			19.2			17.3			15.4	22.4	19.11	186.6	
		90	DP94-3590			21.6			19.4			17.3	25.2	16.99	166.1	
		100	DP94-35100			24.0			21.6			19.2	28.0	15.29	149.7	
		125	DP94-35125			30.0			27.0			24.0	35.0	12.23	119.7	
		150	DP94-35150			36.0			32.4			28.8	42.0	10.19	99.8	
175	DP94-35175	42.0	37.8	33.6	49.0	8.73	85.5									
200	DP94-35200	48.0	43.2	38.4	56.0	7.64	74.8									
40	20	40	DP94-4040	480.00	4707.2	9.6	432.00	4236.5	8.6	384.00	3765.8	7.7	11.2	50.00	489.1	
		50	DP94-4050			12.0			10.8			9.6	14.0	40.00	392.3	
		60	DP94-4060			14.4			13.0			11.5	16.8	33.33	327.5	
		70	DP94-4070			16.8			15.1			13.4	19.6	28.57	281.0	
		80	DP94-4080			19.2			17.3			15.4	22.4	25.00	244.5	
		90	DP94-4090			21.6			19.4			17.3	25.2	22.22	217.7	
		100	DP94-40100			24.0			21.6			19.2	28.0	20.00	196.1	
		125	DP94-40125			30.0			27.0			24.0	35.0	16.00	156.9	
		150	DP94-40150			36.0			32.4			28.8	42.0	13.33	130.8	
		175	DP94-40175			42.0			37.8			33.6	49.0	11.42	112.1	
		200	DP94-40200			48.0			43.2			38.4	56.0	10.00	98.1	
		250	DP94-40250			60.0			54.0			48.0	70.0	8.00	78.5	
		50	25			50			DP94-5050			750.00	7355.0	12.0	675.00	6619.5
60	DP94-5060			14.4	13.0	11.5	16.8	52.08	511.7							
70	DP94-5070			16.8	15.1	13.4	19.6	44.64	439.1							
80	DP94-5080			19.2	17.3	15.4	22.4	39.06	382.1							
90	DP94-5090			21.6	19.4	17.3	25.2	34.72	340.1							
100	DP94-50100			24.0	21.6	19.2	28.0	32.25	306.5							
125	DP94-50125			30.0	27.0	24.0	35.0	25.00	245.2							
150	DP94-50150			36.0	32.4	28.8	42.0	20.83	204.3							
175	DP94-50175			42.0	37.8	33.6	49.0	17.85	175.1							
200	DP94-50200			48.0	43.2	38.4	56.0	15.62	153.2							
250	DP94-50250			60.0	54.0	48.0	70.0	12.50	122.6							
300	DP94-50300			72.0	64.8	57.6	84.0	10.41	102.2							
60	30			60	DP94-6060	1080.00	10591.2	14.4	973.00	9541.9	13.0			864.00		
		70	DP94-6070	16.8	15.1			13.4			19.6	64.28	632.3			
		80	DP94-6080	19.2	17.3			15.4			22.4	56.25	550.2			
		90	DP94-6090	21.6	19.4			17.3			25.2	50.00	489.8			
		100	DP94-60100	24.0	21.6			19.2			28.0	45.00	441.3			
		125	DP94-60125	30.0	27.0			24.0			35.0	36.00	353.0			
		150	DP94-60150	36.0	32.4			28.8			42.0	30.00	294.2			
		175	DP94-60175	42.0	37.8			33.6			49.0	25.71	252.2			
		200	DP94-60200	48.0	43.2			38.4			56.0	22.50	220.7			
		250	DP94-60250	60.0	54.0			48.0			70.0	18.00	176.5			
		300	DP94-60300	72.0	64.8			57.6			84.0	15.00	147.1			

*Newtons

Extra Heavy Duty Metric-JIS



Type **DP-95**



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	7	DP95-1425
	10	DP95-2290

Note: Efficient Operating Range is 16% to 20% of the free length. (Maximum deflection = 20%; long life = 18%; and optimum life = 16%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											
				20% Deflection		18% Deflection		16% Deflection		Travel to Solid	Load @ 1mm Deflection				
				Load	Deflection	Load	Deflection	Load	Deflection	Deflection	kg.f	*N			
				kg.f	*N	mm	kg.f	*N	mm	kg.f	*N	mm	mm	kg.f	*N
10	5	20	DP95-1020	45.00	441.2	4.0	40.50	397.1	3.6	36.00	353.0	3.2	4.8	11.25	110.3
		25	DP95-1025			5.0			4.5			4.0	6.0	9.00	88.3
		30	DP95-1030			6.0			5.4			4.8	7.2	7.50	73.5
		35	DP95-1035			7.0			6.3			5.6	8.4	6.43	63.0
		40	DP95-1040			8.0			7.2			6.4	9.6	5.63	55.2
		45	DP95-1045			9.0			8.1			7.2	10.8	5.00	49.0
		50	DP95-1050			10.0			9.0			8.0	12.0	4.50	44.1
		55	DP95-1055			11.0			9.9			8.8	13.2	4.09	40.1
		60	DP95-1060			12.0			10.8			9.6	14.4	3.75	36.8
		65	DP95-1065			13.0			11.7			10.4	15.6	3.47	33.9
		70	DP95-1070			14.0			12.6			11.2	16.8	3.21	31.5
		75	DP95-1075			15.0			13.5			12.0	18.0	3.00	29.4
80	DP95-1080	16.0	14.4	12.8	19.2	2.82	27.6								
12	6	20	DP95-1220	58.00	568.6	4.0	52.00	509.8	3.6	46.40	454.9	3.2	4.8	14.50	142.2
		25	DP95-1225			5.0			4.5			4.0	6.0	11.60	113.7
		30	DP95-1230			6.0			5.4			4.8	7.2	9.67	94.8
		35	DP95-1235			7.0			6.3			5.6	8.4	8.29	81.2
		40	DP95-1240			8.0			7.2			6.4	9.6	7.25	71.1
		45	DP95-1245			9.0			8.1			7.2	10.8	6.44	63.2
		50	DP95-1250			10.0			9.0			8.0	12.0	5.80	56.9
		55	DP95-1255			11.0			9.9			8.8	13.2	5.27	51.7
		60	DP95-1260			12.0			10.8			9.6	14.4	4.83	47.4
		65	DP95-1265			13.0			11.7			10.4	15.6	4.44	43.7
		70	DP95-1270			14.0			12.6			11.2	16.8	4.13	40.6
		75	DP95-1275			15.0			13.5			12.0	18.0	3.85	37.9
80	DP95-1280	16.0	14.4	12.8	19.2	3.61	35.5								
14	7	25	DP95-1425	75.00	735.3	5.0	67.50	661.8	4.5	60.00	588.3	4.0	6.0	15.00	147.1
		30	DP95-1430			6.0			5.4			4.8	7.2	12.50	122.6
		35	DP95-1435			7.0			6.3			5.6	8.4	10.72	105.1
		40	DP95-1440			8.0			7.2			6.4	9.6	9.38	91.9
		45	DP95-1445			9.0			8.1			7.2	10.8	8.34	81.7
		50	DP95-1450			10.0			9.0			8.0	12.0	7.50	73.5
		55	DP95-1455			11.0			9.9			8.8	13.2	6.82	66.9
		60	DP95-1460			12.0			10.8			9.6	14.4	6.25	61.3
		65	DP95-1465			13.0			11.7			10.4	15.6	5.77	56.6
		70	DP95-1470			14.0			12.6			11.2	16.8	5.36	52.5
		75	DP95-1475			15.0			13.5			12.0	18.0	5.00	49.0
		80	DP95-1480			16.0			14.4			12.8	19.2	4.69	46.0
90	DP95-1490	18.0	16.2	14.4	21.6	4.17	40.9								

*Newtons Newtons (N) to pounds force (lb.f) = (N) x 0.225.

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Extra Heavy Duty Metric-JIS

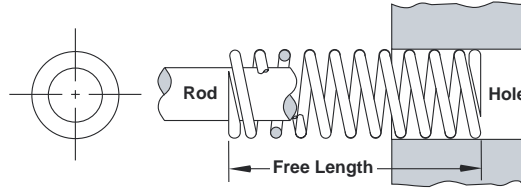
Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											Load @ 1 mm Deflection	
				20% Deflection		18% Deflection		16% Deflection		Travel to Solid						
				Load		Deflection	Load		Deflection	Load		Deflection	Deflection			
				kg.f	*N	mm	kg.f	*N	mm	kg.f	*N	mm	mm	kg.f	*N	
16	8	25	DP95-1625	100.00	981.0	5.0	90.00	883.0	4.5	80.00	785.0	4.0	6.0	20.00	196.3	
		30	DP95-1630			6.0			5.4			4.8	7.2	16.67	163.5	
		35	DP95-1635			7.0			6.3			5.6	8.4	14.29	140.2	
		40	DP95-1640			8.0			7.2			6.4	9.6	12.50	122.7	
		45	DP95-1645			9.0			8.1			7.2	10.8	11.11	109.0	
		50	DP95-1650			10.0			9.0			8.0	12.0	10.00	98.1	
		55	DP95-1655			11.0			9.9			8.8	13.2	9.09	89.2	
		60	DP95-1660			12.0			10.8			9.6	14.4	8.34	81.8	
		65	DP95-1665			13.0			11.7			10.4	15.6	7.69	75.5	
		70	DP95-1670			14.0			12.6			11.2	16.8	7.14	70.1	
		75	DP95-1675			15.0			13.5			12.0	18.0	6.67	65.4	
		80	DP95-1680			16.0			14.4			12.8	19.2	6.25	61.3	
90	DP95-1690	18.0	16.2	14.4	21.6	5.56	54.5									
100	DP95-16100	20.0	18.0	16.0	24.0	5.00	49.1									
18	9	25	DP95-1825	125.00	1226.0	5.0	113.00	1108.0	4.5	100.00	981.0	4.0	6.0	25.00	245.3	
		30	DP95-1830			6.0			5.4			4.8	7.2	20.84	204.4	
		35	DP95-1835			7.0			6.3			5.6	8.4	17.86	175.2	
		40	DP95-1840			8.0			7.2			6.4	9.6	15.63	153.3	
		45	DP95-1845			9.0			8.1			7.2	10.8	13.89	136.3	
		50	DP95-1850			10.0			9.0			8.0	12.0	12.50	122.6	
		55	DP95-1855			11.0			9.9			8.8	13.2	11.37	111.5	
		60	DP95-1860			12.0			10.8			9.6	14.4	10.42	102.2	
		65	DP95-1865			13.0			11.7			10.4	15.6	9.62	94.3	
		70	DP95-1870			14.0			12.6			11.2	16.8	8.93	87.6	
		75	DP95-1875			15.0			13.5			12.0	18.0	8.34	81.8	
		80	DP95-1880			16.0			14.4			12.8	19.2	7.82	76.6	
90	DP95-1890	18.0	16.2	14.4	21.6	6.95	68.1									
100	DP95-18100	20.0	18.0	16.0	24.0	6.26	61.3									
20	10	25	DP95-2025	160.00	1569.1	5.0	144.00	1412.2	4.5	128.00	1255.3	4.0	6.0	32.00	313.8	
		30	DP95-2030			6.0			5.4			4.8	7.2	26.67	261.5	
		35	DP95-2035			7.0			6.3			5.6	8.4	22.86	224.2	
		40	DP95-2040			8.0			7.2			6.4	9.6	20.00	196.1	
		45	DP95-2045			9.0			8.1			7.2	10.8	17.78	174.3	
		50	DP95-2050			10.0			9.0			8.0	12.0	16.00	156.9	
		55	DP95-2055			11.0			9.9			8.8	13.2	14.55	142.6	
		60	DP95-2060			12.0			10.8			9.6	14.4	13.33	130.8	
		65	DP95-2065			13.0			11.7			10.4	15.6	12.31	120.7	
		70	DP95-2070			14.0			12.6			11.2	16.8	11.43	112.1	
		75	DP95-2075			15.0			13.5			12.0	18.0	10.67	104.6	
		80	DP95-2080			16.0			14.4			12.8	19.2	10.00	98.1	
		90	DP95-2090			18.0			16.2			14.4	21.6	8.89	87.2	
		100	DP95-20100			20.0			18.0			16.0	24.0	8.00	78.5	
		125	DP95-20125			25.0			22.5			20.0	30.0	6.40	62.8	
150	DP95-20150	30.0	27.0	24.0	36.0	5.33	52.3									
22	11	25	DP95-2225	195.00	1912.0	5.0	176.00	1726.0	4.5	156.00	1530.0	4.0	6.0	39.00	382.5	
		30	DP95-2230			6.0			5.4			4.8	7.2	32.50	318.8	
		35	DP95-2235			7.0			6.3			5.6	8.4	27.86	273.2	
		40	DP95-2240			8.0			7.2			6.4	9.6	24.38	239.1	
		45	DP95-2245			9.0			8.1			7.2	10.8	21.67	212.5	
		50	DP95-2250			10.0			9.0			8.0	12.0	19.50	191.3	
		55	DP95-2255			11.0			9.9			8.8	13.2	17.73	173.9	
		60	DP95-2260			12.0			10.8			9.6	14.4	16.25	159.4	
		65	DP95-2265			13.0			11.7			10.4	15.6	15.00	147.1	
		70	DP95-2270			14.0			12.6			11.2	16.8	13.93	136.6	
		75	DP95-2275			15.0			13.5			12.0	18.0	13.00	127.5	
		80	DP95-2280			16.0			14.4			12.8	19.2	12.19	119.5	
		90	DP95-2290			18.0			16.2			14.4	21.6	10.83	106.3	
		100	DP95-22100			20.0			18.0			16.0	24.0	9.75	95.6	
		125	DP95-22125			25.0			22.5			20.0	30.0	7.80	76.5	
150	DP95-22150	30.0	27.0	24.0	36.0	6.50	63.8									

*Newtons

Extra Heavy Duty Metric-JIS



Type **DP-95**



HOW TO ORDER

Specify:	Qty.	Catalog #
Example:	16	DP95-2560
	16	DP95-60300

Note: Efficient Operating Range is 16% to 20% of the free length. (Maximum deflection = 20%; long life = 18%; and optimum life = 16%.) "Travel to Solid" is for reference only. Deflection beyond the Efficient Operating Range could create a safety hazard, and result in premature spring failure.

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											
				20% Deflection		18% Deflection		16% Deflection		Travel to Solid	Load @ 1mm Deflection				
				Load	Deflection	Load	Deflection	Load	Deflection	Deflection	kg.f	*N			
				kg.f	*N	mm	kg.f	*N	mm	kg.f	*N	mm	mm	kg.f	*N
25	12.5	25	DP95-2525			5.0			4.5			4.0	6.0	49.00	480.5
		30	DP95-2530			6.0			5.4			4.8	7.2	40.80	400.4
		35	DP95-2535			7.0			6.3			5.6	8.4	35.00	343.2
		40	DP95-2540			8.0			7.2			6.4	9.6	30.60	300.3
		45	DP95-2545			9.0			8.1			7.2	10.8	27.22	267.0
		50	DP95-2550			10.0			9.0			8.0	12.0	24.50	240.3
		55	DP95-2555			11.0			9.9			8.8	13.2	22.30	218.4
		60	DP95-2560			12.0			10.8			9.6	14.4	20.40	200.2
		65	DP95-2565	245.00	2402.6	13.0	221.00	2167.3	11.7	196.00	1922.1	10.4	15.6	18.80	184.8
		70	DP95-2570			14.0			12.6			11.2	16.8	17.50	171.6
		75	DP95-2575			15.0			13.5			12.0	18.0	16.30	160.2
		80	DP95-2580			16.0			14.4			12.8	19.2	15.30	150.2
		90	DP95-2590			18.0			16.2			14.4	21.6	13.60	133.5
		100	DP95-25100			20.0			18.0			16.0	24.0	12.30	120.1
		125	DP95-25125			25.0			22.5			20.0	30.0	9.80	96.1
		150	DP95-25150			30.0			27.0			24.0	36.0	8.17	80.1
		175	DP95-25175			35.0			31.5			28.0	42.0	7.00	68.6
27	13.5	25	DP95-2725			5.0			4.5			4.0	6.0	58.00	568.8
		30	DP95-2530			6.0			5.4			4.8	7.2	48.33	474.0
		35	DP95-2735			7.0			6.3			5.6	8.4	41.43	406.3
		40	DP95-2740			8.0			7.2			6.4	9.6	36.25	355.5
		45	DP95-2745			9.0			8.1			7.2	10.8	32.22	316.0
		50	DP95-2750			10.0			9.0			8.0	12.0	29.00	284.4
		55	DP95-2755			11.0			9.9			8.8	13.2	26.36	258.5
		60	DP95-2760			12.0			10.8			9.6	14.4	24.17	237.0
		65	DP95-2765	290.00	2844.0	13.0	261.00	2560.0	11.7	232.00	2275.0	10.4	15.6	22.31	218.8
		70	DP95-2770			14.0			12.6			11.2	16.8	20.71	203.1
		75	DP95-2775			15.0			13.5			12.0	18.0	19.33	189.6
		80	DP95-2780			16.0			14.4			12.8	19.2	18.13	177.7
		90	DP95-2790			18.0			16.2			14.4	21.6	16.11	158.0
		100	DP95-27100			20.0			18.0			16.0	24.0	14.50	142.2
		125	DP95-27125			25.0			22.5			20.0	30.0	11.60	113.8
		150	DP95-27150			30.0			27.0			24.0	36.0	9.67	94.8
		175	DP95-27175			35.0			31.5			28.0	42.0	8.28	81.3

*Newtons Newtons (N) to pounds force (lb.f) = (N) x 0.225.

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Extra Heavy Duty Metric-JIS

Hole Dia.	Rod Dia.	Free Length	Catalog Number	LOAD DEFLECTION TABLE											Load @ 1 mm Deflection								
				20% Deflection		18% Deflection		16% Deflection		Travel to Solid													
				Load		Deflection	Load		Deflection	Load		Deflection	Deflection										
				kg.f	*N	mm	kg.f	*N	mm	kg.f	*N	mm	mm	kg.f	*N								
30	15	25	DP95-3025	360.00	3530.4	5.0	324.00	3177.4	4.5	288.00	2824.3	4.0	6.0	72.00	706.1								
		30	DP95-3030			6.0			5.4			4.8	7.2	60.00	588.4								
		35	DP95-3035			7.0			6.3			5.6	8.4	51.43	504.3								
		40	DP95-3040			8.0			7.2			6.4	9.6	45.00	441.3								
		45	DP95-3045			9.0			8.1			7.2	10.8	40.00	392.3								
		50	DP95-3050			10.0			9.0			8.0	12.0	36.00	353.0								
		55	DP95-3055			11.0			9.9			8.8	13.2	32.72	320.9								
		60	DP95-3060			12.0			10.8			9.6	14.4	30.00	294.2								
		65	DP95-3065			13.0			11.7			10.4	15.6	27.69	271.6								
		70	DP95-3070			14.0			12.6			11.2	16.8	25.71	252.2								
		75	DP95-3075			15.0			13.5			12.0	18.0	24.00	235.4								
		80	DP95-3080			16.0			14.4			12.8	19.2	22.50	220.6								
		90	DP95-3090			18.0			16.2			14.4	21.6	20.00	196.1								
		100	DP95-30100			20.0			18.0			16.0	24.0	18.00	176.5								
		125	DP95-30125			25.0			22.5			20.0	30.0	14.40	141.2								
		150	DP95-30150			30.0			27.0			24.0	36.0	12.00	117.7								
175	DP95-30175	35.0	31.5	28.0	42.0	10.28	100.9																
200	DP95-30200	40.0	36.0	32.0	48.0	9.00	88.3																
35	17.5	40	DP95-3540	490.00	4805.3	8.0	441.00	4324.7	7.2	392.00	3844.2	6.4	9.6	61.25	600.7								
		45	DP95-3545			9.0			8.1			7.2	10.8	54.44	533.9								
		50	DP95-3550			10.0			9.0			8.0	12.0	49.00	480.5								
		55	DP95-3555			11.0			9.9			8.8	13.2	44.54	436.8								
		60	DP95-3560			12.0			10.8			9.6	14.4	40.83	400.4								
		65	DP95-3565			13.0			11.7			10.4	15.6	37.69	369.6								
		70	DP95-3570			14.0			12.6			11.2	16.8	35.00	343.2								
		75	DP95-3575			15.0			13.5			12.0	18.0	32.67	320.3								
		80	DP95-3580			16.0			14.4			12.8	19.2	30.62	300.3								
		90	DP95-3590			18.0			16.2			14.4	21.6	27.22	267.0								
		100	DP95-35100			20.0			18.0			16.0	24.0	24.50	240.3								
		125	DP95-35125			25.0			22.5			20.0	30.0	19.60	192.2								
		150	DP95-35150			30.0			27.0			24.0	36.0	16.33	160.2								
		175	DP95-35175			35.0			31.5			28.0	42.0	14.00	137.3								
		200	DP95-35200			40.0			36.0			32.0	48.0	12.25	120.1								
		40	20			40			DP95-4040			640.00	6276.3	8.0	576.00	5648.6	7.2	512.00	5021.0	6.4	9.6	80.00	784.5
50	DP95-4050			10.0	9.0	8.0	12.0	64.00	627.6														
60	DP95-4060			12.0	10.8	9.6	14.4	53.33	523.0														
70	DP95-4070			14.0	12.6	11.2	16.8	45.71	448.3														
80	DP95-4080			16.0	14.4	12.8	19.2	40.00	392.3														
90	DP95-4090			18.0	16.2	14.4	21.6	35.55	348.7														
100	DP95-40100			20.0	18.0	16.0	24.0	32.00	313.8														
125	DP95-40125			25.0	22.5	20.0	30.0	25.60	251.1														
150	DP95-40150			30.0	27.0	24.0	36.0	21.33	209.2														
175	DP95-40175			35.0	31.5	28.0	42.0	18.28	179.3														
200	DP95-40200			40.0	36.0	32.0	48.0	16.00	156.9														
250	DP95-40250			50.0	45.0	40.0	60.0	12.80	125.5														
50	25			50	DP95-5050	1000.00	9806.7	10.0	900.00	8826.0	9.0			800.00			7845.3			8.0	12.0	100.00	980.7
				60	DP95-5060			12.0			10.8									9.6	14.4	83.33	817.2
				70	DP95-5070			14.0			12.6									11.2	16.8	71.42	700.5
				80	DP95-5080			16.0			14.4									12.8	19.2	62.50	612.9
		90	DP95-5090	18.0	16.2			14.4			21.6	55.56	544.8										
		100	DP95-50100	20.0	18.0			16.0			24.0	50.00	490.3										
		125	DP95-50125	25.0	22.5			20.0			30.0	40.00	392.3										
		150	DP95-50150	30.0	27.0			24.0			36.0	33.33	326.9										
		175	DP95-50175	35.0	31.5			28.0			42.0	28.57	280.2										
		200	DP95-50200	40.0	36.0			32.0			48.0	25.00	245.2										
		250	DP95-50250	50.0	45.0			40.0			60.0	20.00	196.1										
		300	DP95-50300	60.0	54.0			48.0			72.0	16.66	163.4										
		60	30	60	DP95-6060			1440.00			14121.6	12.0	1296.00		12709.4	10.8		1152.00	11297.3	9.6	14.4	120.00	1176.8
				70	DP95-6070							14.0				12.6				11.2	16.8	102.86	1008.7
				80	DP95-6080							16.0				14.4				12.8	19.2	90.00	882.6
				90	DP95-6090							18.0				16.2				14.4	21.6	80.00	784.5
100	DP95-60100			20.0	18.0	16.0	24.0		72.00	706.1													
125	DP95-60125			25.0	22.5	20.0	30.0		57.60	564.9													
150	DP95-60150			30.0	27.0	24.0	36.0		48.00	470.7													
175	DP95-60175			35.0	31.5	28.0	42.0		41.14	403.5													
200	DP95-60200			40.0	36.0	32.0	48.0		36.00	353.0													
250	DP95-60250			50.0	45.0	40.0	60.0		28.80	282.4													
300	DP95-60300	60.0	54.0	48.0	72.0	24.00	235.4																

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