

# 'LONG LIFE' DIE SPRINGS

-Chrome Vanadium



**CE TOOLING, INC.**

*Manufacturer & Distributor of Fab Tools and Accessories. Allow us to quote your tool needs. 702 736-2958 [sales@cetooling.com](mailto:sales@cetooling.com)*

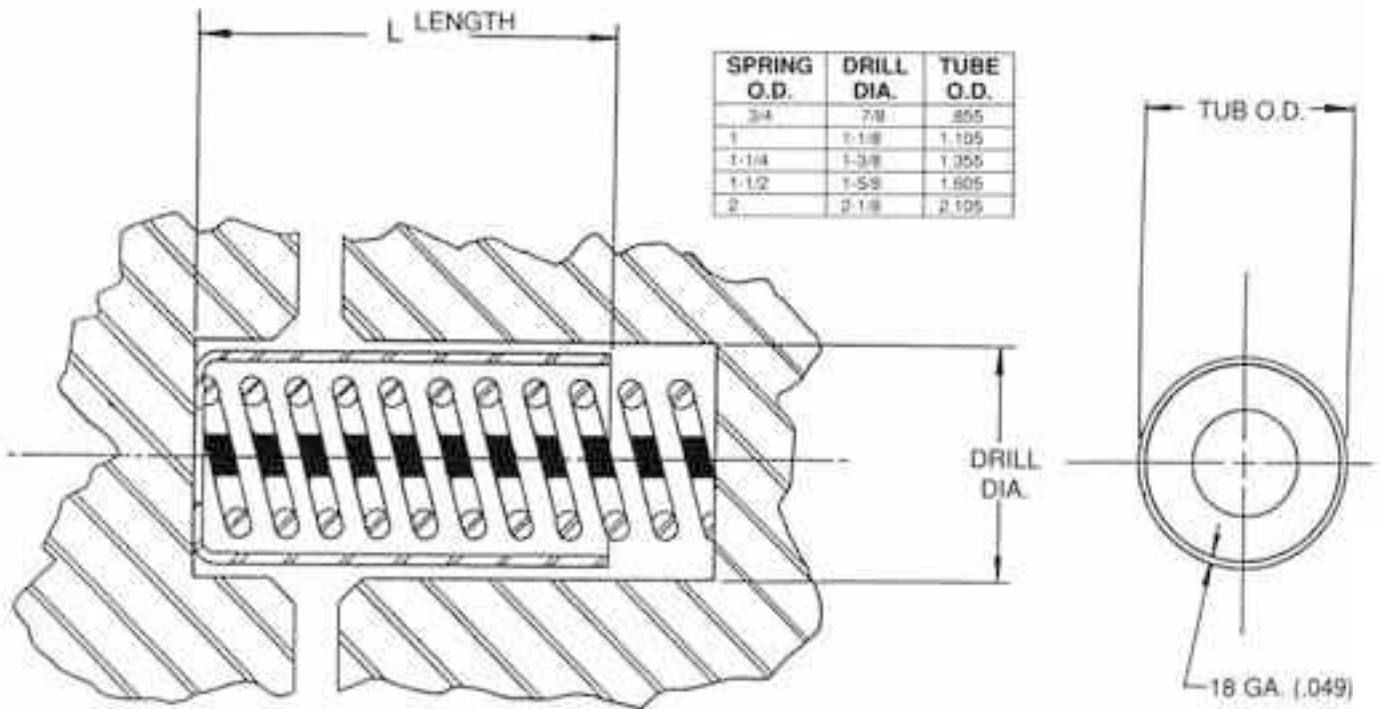


PUNCH BEND SHEAR

**TOOLS**

SOURCE CATALOG FOR Traditional Inch Springs

# SPRING CAGES



3/4" O.D. SPRING		1" O.D. SPRING		1-1/4" O.D. SPRING		1-1/2" O.D. SPRING		2" O.D. SPRING	
TIPCO NO.	L	TIPCO NO.	L	TIPCO NO.	L	TIPCO NO.	L	TIPCO NO.	L
SC075-100	1.00	SC100-100	1.00						
SC075-125	1.25	SC100-125	1.25						
SC075-150	1.50	SC100-150	1.50	SC125-150	1.50	SC150-150	1.50	SC200-150	1.50
SC075-175	1.75	SC100-175	1.75	SC125-175	1.75	SC150-175	1.75	SC200-175	1.75
SC075-200	2.00	SC100-200	2.00	SC125-200	2.00	SC150-200	2.00	SC200-200	2.00
SC075-225	2.25	SC100-225	2.25	SC125-225	2.25	SC150-225	2.25	SC200-225	2.25
SC075-250	2.50	SC100-250	2.50	SC125-250	2.50	SC150-250	2.50	SC200-250	2.50
SC075-275	2.75	SC100-275	2.75	SC125-275	2.75	SC150-275	2.75	SC200-275	2.75
SC075-300	3.00	SC100-300	3.00	SC125-300	3.00	SC150-300	3.00	SC200-300	3.00
SC075-325	3.25	SC100-325	3.25	SC125-325	3.25	SC150-325	3.25	SC200-325	3.25
SC075-350	3.50	SC100-350	3.50	SC125-350	3.50	SC150-350	3.50	SC200-350	3.50
SC075-375	3.75	SC100-375	3.75	SC125-375	3.75	SC150-375	3.75	SC200-375	3.75
SC075-400	4.00	SC100-400	4.00	SC125-400	4.00	SC150-400	4.00	SC200-400	4.00
SC075-425	4.25	SC100-425	4.25	SC125-425	4.25	SC150-425	4.25	SC200-425	4.25
SC075-450	4.50	SC100-450	4.50	SC125-450	4.50	SC150-450	4.50	SC200-450	4.50
SC075-475	4.75	SC100-475	4.75	SC125-475	4.75	SC150-475	4.75	SC200-475	4.75
SC075-500	5.00	SC100-500	5.00	SC125-500	5.00	SC150-500	5.00	SC200-500	5.00
SC075-550	5.50	SC100-550	5.50	SC125-550	5.50	SC150-550	5.50	SC200-550	5.50
SC075-600	6.00	SC100-600	6.00	SC125-600	6.00	SC150-600	6.00	SC200-600	6.00

**LONGER LENGTH AVAILABLE UPON REQUEST**

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# 'LONG LIFE' DIE SPRINGS

-Chrome Vanadium  
-Color Coded

We are proud to bring you a die spring which has been designed and produced (by Cima SpA of G.E.B. Group) in conjunction with the high technological requirements of today's stamping industry.

Chrome-vanadium steel is used exclusively in the manufacture of these springs and is, without doubt, the best material that modern technology can offer.

The springs are produced with the most modern and sophisticated machinery thereby guaranteeing material of excellent and constant quality during all of the production process.

All springs are shot peened to reduce working stress and to improve the spring surface.

Finally the springs are given an extensive stress test representing the most stringent control which a spring can tolerate.

The final product...a die spring which truly stands out amongst the rest.

**\* IMMEDIATELY AVAILABLE FROM STOCK.**

# MEDIUM DUTY

## 'LONG LIFE' CHROME VANADIUM DIE SPRINGS

**COLOR CODE:**

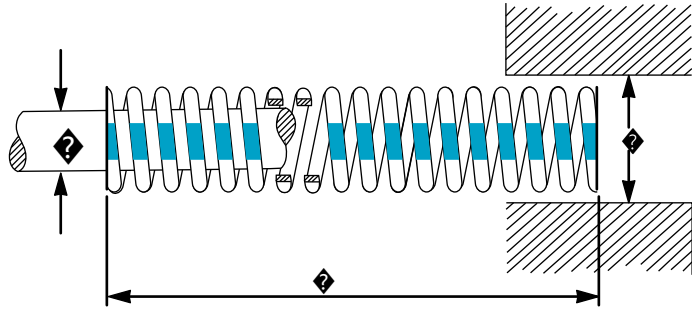
BLUE & WHITE

**MAXIMUM DEFLECTION:**

50% OF 'L'

**EFFICIENT OPERATING RANGE:**

25% TO 35% OF 'L'



D HOLE DIAMETER	d ROD DIAMETER	L		LOAD AT 50% DEFLECTION		LOAD AT 1/10" DEFLECTION		CATALOG NUMBER
		FREE LENGTH		LB	KG	LB	KG	
		IN	MM					
3/8" (9.5 mm)	3/16" (4.7mm)	1	25.4	28	12.7	5.6	2.54	M037- 100
		1 1/4	31.75	30	13.6	4.8	2.18	M037- 125
		1 1/2	38.1	28.5	12.93	3.8	1.72	M037- 150
		1 3/4	44.45	29.8	13.52	3.4	1.54	M037- 175
		2	50.8	28	12.7	2.8	1.27	M037- 200
		2 1/2	63.5	30	13.61	2.4	1.09	M037- 250
		3	76.2	27	12.25	1.8	0.82	M037- 300
		12	304.8	36	16.33	0.6	0.27	M037-1200
		1	25.4	50	22.68	10	4.54	M050- 100
		1 1/4	31.75	57.5	26.08	9.2	4.17	M050- 125
1 1/2	38.1	57	25.86	7.6	3.45	M050- 150		
1 3/4	44.45	59.5	26.99	6.8	3.08	M050- 175		
1/2" (13 mm)	9/32" (7 mm)	2	50.8	64	29.03	6.4	2.9	M050- 200
		2 1/2	63.5	65	29.48	5.2	2.36	M050- 250
		3	76.2	60	27.22	4	1.81	M050- 300
		3 1/2	88.9	52.5	23.81	3	1.36	M050- 350
		4 1/2	115	53	24.09	2.5	1.13	M050- 450
		5 1/2	140	57	25.91	2.1	0.95	M050- 550
		6 1/2	165	52	23.63	1.6	0.73	M050- 650
		7 1/2	191	41	18.64	1.1	0.5	M050- 750
		12	304.8	48	21.78	0.8	0.36	M050-1200
		5/8" (16 mm)	11/32" (8.7 mm)	1	25.4	65.5	29.71	13.1
1 1/4	31.75			80	36.29	12.8	5.81	M062- 125
1 1/2	38.1			81	36.74	10.8	4.9	M062- 150
1 3/4	44.45			84	38.1	9.6	4.35	M062- 175
2	50.8			88	39.92	8.8	3.99	M062- 200
2 1/2	63.5			75	34.02	6	2.72	M062- 250
3	76.2			84	38.1	5.6	2.54	M062- 300
3 1/2	88.9			84	38.1	4.8	2.18	M062- 350
4	101.6			88	39.92	4.4	2	M062- 400
12	304.8			84	38.1	1.4	0.64	M062-1200
3/4" (19.5 mm)	3/8" (9.5 mm)	1	25.4	156	70.76	31.2	14.52	M075- 100
		1 1/4	31.75	160	72.58	25.6	11.61	M075- 125
		1 1/2	38.1	150	68.04	20	9.07	M075- 150
		1 3/4	44.45	154	69.85	17.6	7.98	M075- 175
		2	50.8	144	65.32	14.4	6.53	M075- 200
		2 1/2	63.5	150	68.04	12	5.44	M075- 250
		3	76.2	144	65.32	9.6	4.35	M075- 300
		3 1/2	88.9	140	63.5	8	3.63	M075- 350
		4	101.6	144	65.32	7.2	3.27	M075- 400
		4 1/2	114.3	144	65.32	6.4	2.9	M075- 450
		5	127	140	63.5	5.6	2.54	M075- 500
		5 1/2	139.7	132	59.87	4.8	2.18	M075- 550
		6	152.4	120	54.43	4	1.81	M075- 600
		6 1/2	165	126	57.28	3.9	1.77	M075- 650
		7 1/2	191	123	55.91	3.3	1.5	M075- 750
12	304.8	144	65.32	2.4	1.09	M075-1200		

# MEDIUM DUTY

D	d	L		LOAD AT 50% DEFLECTION		LOAD AT 1/10" DEFLECTION		CATALOG NUMBER		
HOLE DIAMETER	ROD DIAMETER	FREE LENGTH		LB	KG	LB	KG			
		IN	MM							
1" (25.5 mm)	1/2" (13 mm)	1	25.4	268	121.56	53.6	24.31	M100- 100		
		1 1/4	31.75	272.5	123.61	43.6	19.78	M100- 125		
		1 1/2	38.1	252	114.31	33.6	15.24	M100- 150		
		1 3/4	44.45	252	114.31	28.8	13.06	M100- 175		
		2	50.8	232	105.24	23.2	10.52	M100- 200		
		2 1/2	63.5	250	113.4	20	9.07	M100- 250		
		3	76.2	228	103.42	15.2	6.89	M100- 300		
		3 1/2	88.9	224	101.61	12.8	5.81	M100- 350		
		4	101.6	240	108.86	12	5.44	M100- 400		
		4 1/2	114.3	234	106.14	10.4	4.72	M100- 450		
		5	127	240	108.86	9.6	4.35	M100- 500		
		5 1/2	139.7	242	109.77	8.8	3.99	M100- 550		
		6	152.4	240	108.86	8	3.63	M100- 600		
		7	177.8	252	114.31	7.2	3.27	M100- 700		
		8	203.2	224	101.61	5.6	2.54	M100- 800		
		12	304.8	240	108.86	4	1.81	M100-1200		
1 1/4" (32 mm)	5/8" (16 mm)	1 1/2	38.1	372	168.74	49.6	22.5	M125- 150		
		1 3/4	44.45	371	168.29	42.4	19.23	M125- 175		
		2	50.8	352	159.67	35.2	15.97	M125- 200		
		2 1/2	63.5	360	163.3	28.8	13.06	M125- 250		
		3	76.2	360	163.3	24	10.89	M125- 300		
		3 1/2	88.9	350	158.76	20	9.07	M125- 350		
		4	101.6	352	159.67	17.6	7.98	M125- 400		
		4 1/2	114.3	360	163.3	16	7.26	M125- 450		
		5	127	340	154.22	13.6	6.17	M125- 500		
		5 1/2	139.7	352	159.67	12.8	5.81	M125- 550		
		6	152.4	360	163.3	12	5.44	M125- 600		
		7	177.8	364	165.11	10.4	4.72	M125- 700		
		8	203.2	352	159.67	8.8	3.99	M125- 800		
				10	254	360	163.3	7.2	3.27	M125-1000
		12	304.8	336	152.41	5.6	2.54	M125-1200		
1 1/2" (38.5 mm)	3/4" (19.5 mm)	2	50.8	448	203.21	44.8	20.32	M150- 200		
		2 1/2	63.5	460	208.66	36.8	16.69	M150- 250		
		3	76.2	504	228.61	33.6	15.24	M150- 300		
		3 1/2	88.9	462	209.56	26.4	11.98	M150- 350		
		4	101.6	432	195.96	21.6	9.8	M150- 400		
		4 1/2	114.3	468	212.28	20.8	9.43	M150- 450		
		5	127	500	226.8	20	9.07	M150- 500		
		5 1/2	139.7	462	209.56	16.8	7.62	M150- 550		
		6	152.4	432	195.96	14.4	6.53	M150- 600		
		7	177.8	476	215.91	13.6	6.17	M150- 700		
		8	203.2	512	232.24	12.8	5.81	M150- 800		
				10	254	440	199.58	8.8	3.99	M150-1000
				12	304.8	480	217.73	8	3.63	M150-1200
2" (51 mm)	1" (25.5 mm)	2 1/2	63.5	1120	508.03	89.6	40.64	M200- 250		
		3	76.2	1152	522.55	76.8	34.84	M200- 300		
		3 1/2	88.9	1134	514.38	64.8	29.39	M200- 350		
		4	101.6	1104	500.77	55.2	25.04	M200- 400		
		4 1/2	114.3	1062	481.72	47.2	21.41	M200- 450		
		5	127	1040	471.74	41.6	18.87	M200- 500		
		5 1/2	139.7	1078	488.98	39.2	17.78	M200- 550		
		6	152.4	1056	479	35.2	15.97	M200- 600		
		7	177.8	1092	495.33	31.2	14.15	M200- 700		
		8	203.2	1024	464.49	25.6	11.61	M200- 800		
				10	254	1040	471.74	20.8	9.43	M200-1000
		12	304.8	1008	457.23	16.8	7.62	M200-1200		

# MEDIUM-HEAVY DUTY

## 'LONG LIFE' CHROME VANADIUM DIE SPRINGS

**COLOR CODE:**

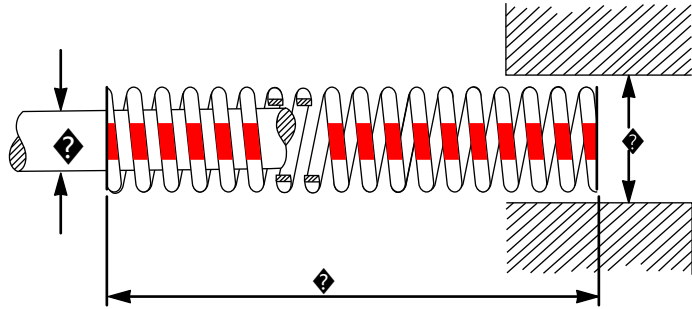
RED & WHITE

**MAXIMUM DEFLECTION:**

37% OF 'L'

**EFFICIENT OPERATING RANGE:**

20% TO 25% OF 'L'



D HOLE DIAMETER	d ROD DIAMETER	L FREE LENGTH		LOAD AT 37% DEFLECTION		LOAD AT 1/10" DEFLECTION		CATALOG NUMBER
		IN	MM	LB	KG	LB	KG	
3/8" (9.5 mm)	3/16" (4.7 mm)	1	25.4	33.3	15.1	9	4.08	MH037- 100
		1 1/4	31.75	33.8	15.33	7.3	3.31	MH037- 125
		1 1/2	38.1	37.19	16.87	6.7	3.04	MH037- 150
		1 3/4	44.45	37.58	17.05	5.8	2.63	MH037- 175
		2	50.8	37	16.78	5	2.27	MH037- 200
		2 1/2	63.5	38.85	17.62	4.2	1.91	MH037- 250
		3	76.2	33.3	15.1	3	1.36	MH037- 300
		12	304.8	39.96	18.13	0.9	0.41	MH037-1200
1/2" (13 mm)	9/32" (7 mm)	1	25.4	62.16	28.2	16.8	7.62	MH050- 100
		1 1/4	31.75	64.36	29.19	13.9	6.31	MH050- 125
		1 1/2	38.1	66.6	30.21	12	5.44	MH050- 150
		1 3/4	44.45	67.39	30.57	10.4	4.72	MH050- 175
		2	50.8	64.38	29.2	8.7	3.95	MH050- 200
		2 1/2	63.5	62.9	28.53	6.8	3.08	MH050- 250
		3	76.2	63.27	28.7	5.7	2.59	MH050- 300
		3 1/2	88.9	60.87	27.61	4.7	2.13	MH050- 350
	12	304.8	53.28	24.17	1.2	0.54	MH050-1200	
5/8" (16 mm)	11/32" (8.7 mm)	1	25.4	102.49	46.49	27.7	12.56	MH062- 100
		1 1/4	31.75	96.3	43.68	20.8	9.43	MH062- 125
		1 1/2	38.1	105.45	47.83	19	8.62	MH062- 150
		1 3/4	44.45	108.86	49.38	16.8	7.62	MH062- 175
		2	50.8	109.52	49.68	14.8	6.71	MH062- 200
		2 1/2	63.5	106.38	48.25	11.5	5.22	MH062- 250
		3	76.2	111	50.35	10	4.54	MH062- 300
		3 1/2	88.9	110.01	49.9	8.5	3.86	MH062- 350
	4	101.6	112.48	51.02	7.6	3.45	MH062- 400	
	12	304.8	119.88	54.38	2.7	1.22	MH062-1200	
3/4" (19.5 mm)	3/8" (9.5 mm)	1	25.4	213.12	96.67	57.6	26.13	MH075- 100
		1 1/4	31.75	203.72	92.41	44	19.96	MH075- 125
		1 1/2	38.1	177.6	80.56	32	14.52	MH075- 150
		1 3/4	44.45	186.62	84.65	28.8	13.06	MH075- 175
		2	50.8	183.52	83.24	24.8	11.25	MH075- 200
		2 1/2	63.5	177.6	80.56	19.2	8.71	MH075- 250
		3	76.2	159.84	72.5	14.4	6.53	MH075- 300
		3 1/2	88.9	165.76	75.19	12.8	5.81	MH075- 350
		4	101.6	177.6	80.56	12	5.44	MH075- 400
		4 1/2	114.3	186.48	84.59	11.2	5.08	MH075- 450
		5	127	192.4	87.27	10.4	4.72	MH075- 500
		5 1/2	139.7	195.36	88.62	9.6	4.35	MH075- 550
	6	152.4	177.6	80.56	8	3.63	MH075- 600	
	12	304.8	159.84	72.5	3.6	1.63	MH075-1200	

# MEDIUM-HEAVY DUTY

D HOLE DIAMETER	d ROD DIAMETER	L		LOAD AT 37% DEFLECTION		LOAD AT 1/10" DEFLECTION		CATALOG NUMBER
		FREE LENGTH		LB	KG	LB	KG	
		IN	MM					
1" (25.5 mm)	1/2" (13 mm)	1	25.4	266.4	120.84	72	32.66	MH100- 100
		1 1/4	31.75	288.91	131.05	62.4	28.3	MH100- 125
		1 1/2	38.1	275.28	124.87	49.6	22.5	MH100- 150
		1 3/4	44.45	285.12	129.33	44	19.96	MH100- 175
		2	50.8	272.32	123.52	36.8	16.69	MH100- 200
		2 1/2	63.5	266.4	120.84	28.8	13.06	MH100- 250
		3	76.2	257.52	116.81	23.2	10.52	MH100- 300
		3 1/2	88.9	279.72	126.88	21.6	9.8	MH100- 350
		4	101.6	272.32	123.52	18.4	8.35	MH100- 400
		4 1/2	114.3	253.08	114.8	15.2	6.89	MH100- 450
		5	127	266.4	120.84	14.4	6.53	MH100- 500
		5 1/2	139.7	260.48	118.15	12.8	5.81	MH100- 550
		6	152.4	248.64	112.78	11.2	5.08	MH100- 600
		7	177.8	248.64	112.78	9.6	4.35	MH100- 700
8	203.2	260.48	118.15	8.8	3.99	MH100- 800		
12	304.8	248.64	112.78	5.6	2.54	MH100-1200		
1 1/4" (32 mm)	5/8" (16 mm)	1 1/2	38.1	634.92	288	114.4	51.89	MH125- 150
		1 3/4	44.45	653.18	296.28	100.8	45.72	MH125- 175
		2	50.8	639.36	290.01	86.4	39.19	MH125- 200
		2 1/2	63.5	577.2	261.82	62.4	28.3	MH125- 250
		3	76.2	568.32	257.79	51.2	23.22	MH125- 300
		3 1/2	88.9	569.8	258.46	44	19.96	MH125- 350
		4	101.6	544.64	247.05	36.8	16.69	MH125- 400
		4 1/2	114.3	532.8	241.68	32	14.52	MH125- 450
		5	127	503.2	228.25	27.2	12.34	MH125- 500
		5 1/2	139.7	537.24	243.69	26.4	11.98	MH125- 550
		6	152.4	515.04	233.62	23.2	10.52	MH125- 600
		7	177.8	518	234.96	20	9.07	MH125- 700
		8	203.2	544.64	247.05	18.4	8.35	MH125- 800
		10	254	473.6	214.82	12.8	5.81	MH125-1000
12	304.8	497.28	225.57	11.2	5.08	MH125-1200		
1 1/2" (38.5 mm)	3/4" (19.5 mm)	2	50.8	799.2	362.52	108	48.99	MH150- 200
		2 1/2	63.5	791.8	359.16	85.6	38.83	MH150- 250
		3	76.2	692.64	314.18	62.4	28.3	MH150- 300
		3 1/2	88.9	683.76	310.15	52.8	23.95	MH150- 350
		4	101.6	710.4	322.24	48	21.77	MH150- 400
		4 1/2	114.3	719.28	326.27	43.2	19.6	MH150- 450
		5	127	680.8	308.81	36.8	16.69	MH150- 500
		5 1/2	139.7	700.04	317.54	34.4	15.6	MH150- 550
		6	152.4	674.88	306.13	30.4	13.79	MH150- 600
		7	177.8	683.76	310.15	26.4	11.98	MH150- 700
		8	203.2	615.68	279.27	20.8	9.43	MH150- 800
		10	254	651.2	295.38	17.6	7.98	MH150-1000
		12	304.8	639.36	290.01	14.4	6.53	MH150-1200
		2" (51 mm)	1" (25.5 mm)	2 1/2	63.5	1095.2	496.78	118.4
3	76.2			1065.6	483.36	96	43.55	MH200- 300
3 1/2	88.9			1036	469.92	80	36.29	MH200- 350
4	101.6			982.72	445.76	66.4	30.12	MH200- 400
4 1/2	114.3			999	453.15	60	27.22	MH200- 450
5	127			1036	469.93	56	25.4	MH200- 500
5 1/2	139.7			1025.64	465.23	50.4	22.86	MH200- 550
6	152.4			1047.84	475.3	47.2	21.41	MH200- 600
7	177.8			1036	469.93	40	18.14	MH200- 700
8	203.2			1041.92	472.61	35.2	15.97	MH200- 800
10	254			888	402.8	24	10.89	MH200-1000
12	304.8	994.56	451.13	22.4	10.16	MH200-1200		

# HEAVY DUTY

## 'LONG LIFE' CHROME VANADIUM DIE SPRINGS

**COLOR CODE:**

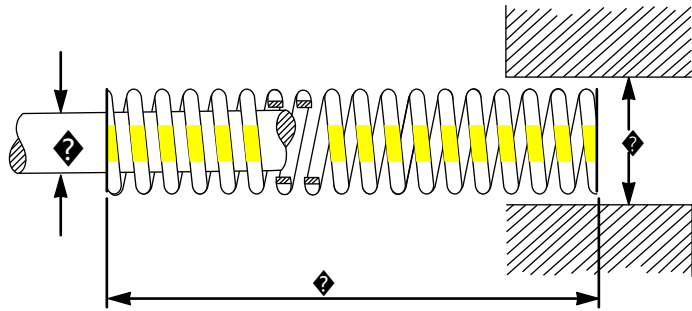
GOLD & WHITE

**MAXIMUM DEFLECTION:**

30% OF 'L'

**EFFICIENT OPERATING RANGE:**

15% TO 20% OF 'L'



D HOLE DIAMETER	d ROD DIAMETER	L FREE LENGTH		LOAD AT 30% DEFLECTION		LOAD AT 1/10" DEFLECTION		CATALOG NUMBER
		IN	MM	LB	KG	LB	KG	
3/8" (9.5 mm)	3/16" (4.7 mm)	1	25.4	37.2	16.87	12.4	5.62	H037- 100
		1 1/4	31.75	36.75	16.67	9.8	4.45	H037- 125
		1 1/2	38.1	43.2	19.6	9.6	4.35	H037- 150
		1 3/4	44.45	44.1	20	8.4	3.81	H037- 175
		2	50.8	43.2	19.6	7.2	3.27	H037- 200
		2 1/2	63.5	45	20.41	6	2.72	H037- 250
		3	76.2	37.8	17.15	4.2	1.91	H037- 300
		12	304.8	43.2	19.6	1.2	0.54	H037-1200
1/2" (13 mm)	9/32" (7 mm)	1	25.4	70.8	32.11	23.6	10.7	H050- 100
		1 1/4	31.75	69.75	31.64	18.6	8.44	H050- 125
		1 1/2	38.1	73.8	33.48	16.4	7.44	H050- 150
		1 3/4	44.45	72.45	32.86	13.8	6.26	H050- 175
		2	50.8	66	29.94	11	4.99	H050- 200
		2 1/2	63.5	63	28.58	8.4	3.81	H050- 250
		3	76.2	66.6	30.21	7.4	3.36	H050- 300
		3 1/2	88.9	67.2	30.48	6.4	2.9	H050- 350
	12	304.8	57.6	26.13	1.6	0.73	H050-1200	
5/8" (16 mm)	11/32" (8.7 mm)	1	25.4	127.2	57.7	42.4	19.23	H062- 100
		1 1/4	31.75	111	50.35	29.6	13.43	H062- 125
		1 1/2	38.1	122.4	55.52	27.2	12.34	H062- 150
		1 3/4	44.45	126	57.15	24	10.89	H062- 175
		2	50.8	124.8	56.61	20.8	9.43	H062- 200
		2 1/2	63.5	127.5	57.83	17	7.71	H062- 250
		3	76.2	129.6	58.79	14.4	6.53	H062- 300
		3 1/2	88.9	128.1	58.11	12.2	5.53	H062- 350
	4	101.6	129.6	58.79	10.8	4.9	H062- 400	
	12	304.8	144	65.32	4	1.81	H062-1200	
3/4" (19.5 mm)	3/8" (9.5 mm)	1	25.4	324	146.97	108	48.99	H075- 100
		1 1/4	31.75	330	149.69	88	39.92	H075- 125
		1 1/2	38.1	295.2	133.9	65.6	29.76	H075- 150
		1 3/4	44.45	315	142.88	60	27.22	H075- 175
		2	50.8	297.6	134.99	49.6	22.5	H075- 200
		2 1/2	63.5	282	127.92	37.6	17.06	H075- 250
		3	76.2	280.8	127.37	31.2	14.15	H075- 300
		3 1/2	88.9	277.2	125.74	26.4	11.98	H075- 350
		4	101.6	278.4	126.28	23.2	10.52	H075- 400
		4 1/2	114.3	270	122.47	20	9.07	H075- 450
		5	127	264	119.75	17.6	7.98	H075- 500
		5 1/2	139.7	264	119.75	16	7.26	H075- 550
6	152.4	259.2	117.57	14.4	6.53	H075- 600		
	12	304.8	259.2	117.57	7.2	3.27	H075-1200	



# HEAVY DUTY

D HOLE DIAMETER	d ROD DIAMETER	L		LOAD AT 30% DEFLECTION		LOAD AT 1/10" DEFLECTION		CATALOG NUMBER
		FREE LENGTH		LB	KG	LB	KG	
		IN	MM					
1" (25.5 mm)	1/2" (13 mm)	1	25.4	624	283.05	208	94.35	H100- 100
		1 1/4	31.75	642	291.21	171.2	77.66	H100- 125
		1 1/2	38.1	532.8	241.68	118.4	53.71	H100- 150
		1 3/4	44.45	546	247.67	104	47.17	H100- 175
		2	50.8	504	228.61	84	38.1	H100- 200
		2 1/2	63.5	510	231.34	68	30.84	H100- 250
		3	76.2	489.6	222.08	54.4	24.68	H100- 300
		3 1/2	88.9	478.8	217.18	45.6	20.68	H100- 350
		4	101.6	480	217.73	40	18.14	H100- 400
		4 1/2	114.3	475.2	215.55	35.2	15.97	H100- 450
		5	127	468	212.28	31.2	14.15	H100- 500
		5 1/2	139.7	475.2	215.55	28.8	13.06	H100- 550
		6	152.4	460.8	209.02	25.6	11.61	H100- 600
		7	177.8	470.4	213.37	22.4	10.16	H100- 700
		8	203.2	460.8	209.02	19.2	8.71	H100- 800
	12	304.8	432	195.96	12	5.44	H100-1200	
1 1/4" (32 mm)	5/8" (16 mm)	1 1/2	38.1	954	432.73	212	96.16	H125- 150
		1 3/4	44.45	953.4	432.46	181.6	82.37	H125- 175
		2	50.8	897.6	407.15	149.6	67.86	H125- 200
		2 1/2	63.5	882	400.08	117.6	53.34	H125- 250
		3	76.2	856.8	388.64	95.2	43.18	H125- 300
		3 1/2	88.9	789.6	358.16	75.2	34.11	H125- 350
		4	101.6	796.8	361.43	66.4	30.12	H125- 400
		4 1/2	114.3	788.4	357.62	58.4	26.49	H125- 450
		5	127	744	337.48	49.6	22.5	H125- 500
		5 1/2	139.7	778.8	353.26	47.2	21.41	H125- 550
		6	152.4	763.2	346.19	42.4	19.23	H125- 600
		7	177.8	772.8	350.54	36.8	16.69	H125- 700
		8	203.2	787.2	357.07	32.8	14.88	H125- 800
		10	254	768	348.36	25.6	11.61	H125-1000
		12	304.8	748.8	339.66	20.8	9.43	H125-1200
1 1/2" (38.5 mm)	3/4" (19.5 mm)	2	50.8	1142.4	518.19	190.4	86.37	H150- 200
		2 1/2	63.5	1116	506.22	148.8	67.5	H150- 250
		3	76.2	1101.6	499.69	122.4	55.52	H150- 300
		3 1/2	88.9	1117.2	506.76	106.4	48.26	H150- 350
		4	101.6	1094.4	496.42	91.2	41.37	H150- 400
		4 1/2	114.3	1058.4	480.09	78.4	35.56	H150- 450
		5	127	1068	484.44	71.2	32.3	H150- 500
		5 1/2	139.7	1056	479	64	29.03	H150- 550
		6	152.4	1051.2	476.82	58.4	26.49	H150- 600
		7	177.8	1041.6	472.47	49.6	22.5	H150- 700
		8	203.2	1036.8	470.29	43.2	19.6	H150- 800
		10	254	1032	468.12	34.4	15.6	H150-1000
		12	304.8	1036.8	470.29	28.8	13.06	H150-1200
2" (51 mm)	1" (25.5 mm)	2 1/2	63.5	1650	748.44	220	99.79	H200- 250
		3	76.2	1670.4	757.69	185.6	84.19	H200- 300
		3 1/2	88.9	1680	762.05	160	72.58	H200- 350
		4	101.6	1603.2	727.21	133.6	60.6	H200- 400
		4 1/2	114.3	1587.6	720.14	117.6	53.34	H200- 450
		5	127	1560	707.62	104	47.17	H200- 500
		5 1/2	139.7	1531.2	694.55	92.8	42.09	H200- 550
		6	152.4	1497.6	679.31	83.2	37.74	H200- 600
		7	177.8	1545.6	701.08	73.6	33.38	H200- 700
		8	203.2	1536	696.73	64	29.03	H200- 800
		10	254	1464	664.07	48.8	22.14	H200-1000
12	304.8	1440	653.18	40	18.14	H200-1200		

# EXTRA-HEAVY DUTY

## 'LONG LIFE' CHROME VANADIUM DIE SPRINGS

**COLOR CODE:**

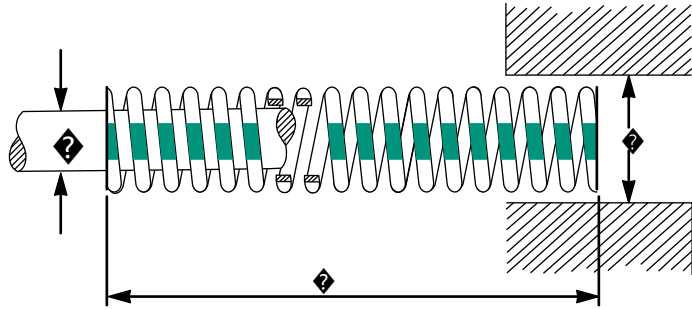
GREEN & WHITE

**MAXIMUM DEFLECTION:**

25% OF 'L'

**EFFICIENT OPERATING RANGE:**

15% TO 20% OF 'L'



D HOLE DIAMETER	d ROD DIAMETER	L FREE LENGTH		LOAD AT 25% DEFLECTION		LOAD AT 1/10" DEFLECTION		CATALOG NUMBER
		IN	MM	LB	KG	LB	KG	
3/8" (9.5 mm)	3/16" (4.7 mm)	1	25.4	55	24.95	22	9.98	EH037- 100
		1 1/4	31.75	53.21	24.14	17	7.71	EH037- 125
		1 1/2	38.1	54.38	24.67	14.5	6.58	EH037- 150
		1 3/4	44.45	50.37	22.85	11.5	5.22	EH037- 175
		2	50.8	50	22.68	10	4.54	EH037- 200
		2 1/2	63.5	50	22.68	8	3.63	EH037- 250
		3	76.2	48.75	22.11	6.5	2.95	EH037- 300
		12	304.8	45	20.41	1.5	0.68	EH037-1200
1/2" (13 mm)	9/32" (7 mm)	1	25.4	80	36.29	32	14.52	EH050- 100
		1 1/4	31.75	75.12	34.07	24	10.89	EH050- 125
		1 1/2	38.1	75	34.02	20	9.07	EH050- 150
		1 3/4	44.45	74.46	33.77	17	7.71	EH050- 175
		2	50.8	70	31.75	14	6.35	EH050- 200
		2 1/2	63.5	71.88	32.6	11.5	5.22	EH050- 250
		3	76.2	67.5	30.62	9	4.08	EH050- 300
		3 1/2	88.9	70	31.75	8	3.63	EH050- 350
5/8" (16 mm)	11/32" (8.7 mm)	1	25.4	157.5	71.44	63	28.58	EH062- 100
		1 1/4	31.75	147.11	66.73	47	21.32	EH062- 125
		1 1/2	38.1	142.5	64.64	38	17.24	EH062- 150
		1 3/4	44.45	140.16	63.58	32	14.52	EH062- 175
		2	50.8	145	65.77	29	13.15	EH062- 200
		2 1/2	63.5	137.5	62.37	22	9.98	EH062- 250
		3	76.2	135	61.24	18	8.16	EH062- 300
		3 1/2	88.9	140	63.5	16	7.26	EH062- 350
3/4" (19.5 mm)	3/8" (9.5 mm)	1	25.4	350	158.76	140	63.5	EH075- 100
		1 1/4	31.75	344.3	156.17	110	49.9	EH075- 125
		1 1/2	38.1	333.75	151.39	89	40.37	EH075- 150
		1 3/4	44.45	328.5	149.01	75	34.02	EH075- 175
		2	50.8	317.5	144.02	63.5	28.8	EH075- 200
		2 1/2	63.5	312.5	141.75	50	22.68	EH075- 250
		3	76.2	303.75	137.78	40.5	18.37	EH075- 300
		3 1/2	88.9	301.88	136.93	34.5	15.65	EH075- 350
		4	101.6	300	136.08	30	13.61	EH075- 400
		4 1/2	114.3	298.13	135.23	26.5	12.02	EH075- 450
		5	127	293.75	133.25	23.5	10.66	EH075- 500
		5 1/2	139.7	295.63	134.1	21.5	9.75	EH075- 550
		6	152.4	292.5	132.68	19.5	8.85	EH075- 600
		12	304.8	285	129.28	9.5	4.31	EH075-1200

# EXTRA-HEAVY DUTY

D HOLE DIAMETER	d ROD DIAMETER	L		LOAD AT 25% DEFLECTION		LOAD AT 1/10" DEFLECTION		CATALOG NUMBER
		FREE LENGTH		LB	KG	LB	KG	
		IN	MM					
1" (25.5 mm)	1/2" (13 mm)	1 1/2	38.1	693	314.34	184.8	83.83	EH100- 150
		2	50.8	580	263.09	116	52.62	EH100- 200
		2 1/2	63.5	560	254.02	89.6	40.64	EH100- 250
		3	76.2	552	250.39	73.6	33.38	EH100- 300
		3 1/2	88.9	546	247.67	62.4	28.3	EH100- 350
		4	101.6	552	250.39	55.2	25.04	EH100- 400
		4 1/2	114.3	549	249.03	48.8	22.14	EH100- 450
		5	127	540	244.94	43.2	19.6	EH100- 500
		6	152.4	540	244.94	36	16.33	EH100- 600
		12	304.8	528	239.5	17.6	7.98	EH100-1200
1 1/4" (32 mm)	5/8" (16 mm)	2	50.8	960	435.46	192	87.09	EH125- 200
		2 1/2	63.5	900	408.24	144	65.32	EH125- 250
		3	76.2	888	402.8	118.4	53.71	EH125- 300
		3 1/2	88.9	882	400.08	100.8	45.72	EH125- 350
		4	101.6	840	381.02	84	38.1	EH125- 400
		4 1/2	114.3	882	400.08	78.4	35.56	EH125- 450
		5	127	850	385.56	68	30.84	EH125- 500
		6	152.4	840	381.02	56	25.4	EH125- 600
		8	203.2	832	377.4	41.6	18.87	EH125- 800
		10	254	840	381.02	33.6	15.24	EH125-1000
12	304.8	792	359.25	26.4	11.98	EH125-1200		
1 1/2" (38.5 mm)	3/4" (19.5 mm)	2	50.8	1880	852.77	376	170.55	EH150- 200
		2 1/2	63.5	1840	834.62	294.4	133.54	EH150- 250
		3	76.2	1734	786.54	231.2	104.87	EH150- 300
		3 1/2	88.9	1715	777.92	196	88.91	EH150- 350
		4	101.6	1712	776.56	171.2	77.66	EH150- 400
		4 1/2	114.3	1665	755.24	148	67.13	EH150- 450
		5	127	1700	711.12	136	61.69	EH150- 500
		6	152.4	1656	751.16	110.4	50.08	EH150- 600
		8	203.2	1616	733.02	80.8	36.65	EH150- 800
		10	254	1680	762.05	67.2	30.48	EH150-1000
12	304.8	1632	740.28	54.4	24.68	EH150-1200		
2" (51 mm)	1" (25.5 mm)	2 1/2	63.5	2385	1081.84	381.6	173.09	EH200- 250
		3	76.2	2340	1061.42	312	141.52	EH200- 300
		3 1/2	88.9	2226	1009.71	254.4	115.4	EH200- 350
		4	101.6	2200	997.92	220	99.79	EH200- 400
		4 1/2	114.3	2124	963.45	188.8	85.64	EH200- 450
		5	127	2160	979.78	172.8	78.38	EH200- 500
		6	152.4	2124	963.45	141.6	64.23	EH200- 600
		8	203.2	2000	907.2	100	45.36	EH200- 800
		10	254	2100	952.56	84	38.1	EH200-1000
		12	304.8	2136	968.89	71.2	32.3	EH200-1200