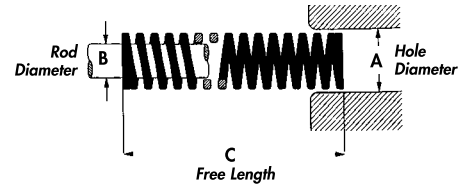




HEAVY LOAD

Vacuum degassed,
valve spring quality alloy steel



Sizes: 3/8" to 1", Rectangular Wire Construction

Color: Red

Hole Dia. in.	Rod Dia. in.	Free Length in.	CATALOG NUMBER	RATE Pounds Required to Deflect 1/10 in.	LOAD - DEFLECTION TABLE							
					Total Deflection Recommended for Long Life (20% of C)		Total Deflection Recommended for Average Life (25% of C)		Maximum Operating Deflection (30% of C)		Total Travel to Solid	
					Load lbs.	Deflection inches	Load lbs.	Deflection inches	Load lbs.	Deflection inches	Load lbs.	Deflection inches
A	B	C										
Rectangular Wire Construction												
3/8	3/16	1	9-0604-HE	12.6	25	0.20	32	0.25	38	0.30	60	0.47
		1 1/4	9-0605-HE	10.0	25	0.25	31	0.31	37	0.38	51	0.51
		1 1/2	9-0606-HE	9.8	29	0.30	37	0.38	44	0.45	58	0.59
		1 3/4	9-0607-HE	8.6	30	0.35	37	0.44	45	0.53	64	0.75
		2	9-0608-HE	7.3	29	0.40	37	0.50	44	0.60	66	0.91
		2 1/2	9-0610-HE	6.1	31	0.50	38	0.63	46	0.75	65	1.06
		3	9-0612-HE	4.3	26	0.60	32	0.75	39	0.90	54	1.26
		12	9-0648-HE	1.2	29	2.40	36	3.00	43	3.60	66	5.51
1/2	9/32	1	9-0804-HE	24.0	48	0.20	60	0.25	72	0.30	114	0.47
		1 1/4	9-0805-HE	18.9	47	0.25	59	0.31	71	0.38	119	0.63
		1 1/2	9-0806-HE	16.7	50	0.30	63	0.38	75	0.45	132	0.79
		1 3/4	9-0807-HE	14.0	49	0.35	61	0.44	74	0.53	122	0.87
		2	9-0808-HE	11.2	45	0.40	56	0.50	67	0.60	110	0.98
		2 1/2	9-0810-HE	8.6	43	0.50	54	0.63	64	0.75	101	1.18
		3	9-0812-HE	7.5	45	0.60	57	0.75	68	0.90	110	1.46
		3 1/2	9-0814-HE	6.5	46	0.70	57	0.88	68	1.05	108	1.65
		12	9-0848-HE	1.6	38	2.40	48	3.00	58	3.60	82	5.12
5/8	11/32	1	9-1004-HE	43.2	86	0.20	108	0.25	130	0.30	170	0.39
		1 1/4	9-1005-HE	30.1	75	0.25	94	0.31	113	0.38	154	0.51
		1 1/2	9-1006-HE	27.7	83	0.30	104	0.38	125	0.45	185	0.67
		1 3/4	9-1007-HE	24.4	85	0.35	107	0.44	128	0.53	202	0.83
		2	9-1008-HE	21.2	85	0.40	106	0.50	127	0.60	192	0.91
		2 1/2	9-1010-HE	17.3	86	0.50	108	0.63	130	0.75	197	1.14
		3	9-1012-HE	14.7	88	0.60	110	0.75	132	0.90	196	1.34
		3 1/2	9-1014-HE	12.4	87	0.70	108	0.88	130	1.05	190	1.54
				4	9-1016-HE	11.0	88	0.80	110	1.00	132	1.20
		12	9-1048-HE	4.1	97	2.40	122	3.00	146	3.60	185	4.57
3/4	3/8	1	9-1204-H	123	247	0.20	308	0.25	370	0.30	388	0.31
		1 1/4	9-1205-H	95.9	240	0.25	300	0.31	360	0.38	377	0.39
		1 1/2	9-1206-H	73.6	221	0.30	276	0.38	331	0.45	348	0.47
		1 3/4	9-1207-H	63.9	224	0.35	280	0.44	336	0.53	352	0.55
		2	9-1208-H	53.6	215	0.40	268	0.50	322	0.60	338	0.63
		2 1/2	9-1210-H	41.2	206	0.50	257	0.63	309	0.75	340	0.83
		3	9-1212-H	34.1	204	0.60	256	0.75	307	0.90	349	1.02
		3 1/2	9-1214-H	28.8	202	0.70	252	0.88	303	1.05	340	1.18
		4	9-1216-H	25.2	202	0.80	252	1.00	303	1.20	348	1.38
		4 1/2	9-1218-H	21.9	197	0.90	247	1.13	296	1.35	345	1.57
		5	9-1220-H	19.5	195	1.00	243	1.25	292	1.50	337	1.73
		5 1/2	9-1222-H	17.7	195	1.10	243	1.38	292	1.65	341	1.93
		6	9-1224-H	16.1	193	1.20	241	1.50	290	1.80	336	2.09
		12	9-1248-H	8.6	205	2.40	257	3.00	308	3.60	364	4.25
1	1/2	1	9-1604-H	217	434	0.20	543	0.25	651	0.30	684	0.31
		1 1/4	9-1605-H	158	394	0.25	493	0.31	591	0.38	621	0.39
		1 1/2	9-1606-H	125	376	0.30	470	0.38	564	0.45	642	0.51
		1 3/4	9-1607-H	105	369	0.35	461	0.44	553	0.53	622	0.59
		2	9-1608-H	89.8	359	0.40	449	0.50	539	0.60	636	0.71
		2 1/2	9-1610-H	69.4	347	0.50	434	0.63	521	0.75	601	0.87
		3	9-1612-H	57.1	343	0.60	428	0.75	514	0.90	607	1.06
		3 1/2	9-1614-H	48.2	337	0.70	421	0.88	506	1.05	626	1.30
		4	9-1616-H	41.9	336	0.80	419	1.00	503	1.20	611	1.46
		4 1/2	9-1618-H	37.2	335	0.90	419	1.13	502	1.35	630	1.69
		5	9-1620-H	32.8	328	1.00	410	1.25	492	1.50	607	1.85
		5 1/2	9-1622-H	29.7	327	1.10	409	1.38	491	1.65	609	2.05
		6	9-1624-H	27.4	329	1.20	411	1.50	493	1.80	615	2.24
7	9-1628-H	23.3	327	1.40	409	1.75	490	2.10	625	2.68		
8	9-1632-H	20.4	326	1.60	408	2.00	489	2.40	618	3.03		
		12	9-1648-H	13.1	314	2.40	392	3.00	471	3.60	592	4.53

Sizes: 1 1/4" to 2", Rectangular Wire Construction

Sizes: 3/8" to 5/8", Round Wire Construction

Color: Red

INCH

Hole Dia. in.	Rod Dia. in.	Free Length in.	CATALOG NUMBER	RATE Pounds Required to Deflect 1/10 in.	LOAD - DEFLECTION TABLE							
					Total Deflection Recommended for Long Life (20% of C)		Total Deflection Recommended for Average Life (25% of C)		Maximum Operating Deflection (30% of C)		Total Travel to Solid	
					Load lbs.	Deflection inches	Load lbs.	Deflection inches	Load lbs.	Deflection inches	Load lbs.	Deflection inches
A	B	C										
1 1/4	5/8	1 1/2	9-2006-H	215	644	0.30	805	0.38	966	0.45	1014	0.47
		1 3/4	9-2007-H	177	618	0.35	773	0.44	928	0.53	974	0.55
		2	9-2008-H	150	601	0.40	751	0.50	902	0.60	947	0.63
		2 1/2	9-2010-H	117	584	0.50	730	0.63	876	0.75	965	0.83
		3	9-2012-H	94.7	568	0.60	711	0.75	853	0.90	970	1.02
		3 1/2	9-2014-H	80.2	561	0.70	701	0.88	842	1.05	947	1.18
		4	9-2016-H	69.1	553	0.80	691	1.00	829	1.20	952	1.38
		4 1/2	9-2018-H	60.8	547	0.90	684	1.13	820	1.35	957	1.57
		5	9-2020-H	54.7	547	1.00	683	1.25	820	1.50	969	1.77
		5 1/2	9-2022-H	49.3	542	1.10	678	1.38	814	1.65	971	1.97
		6	9-2024-H	44.9	539	1.20	674	1.50	809	1.80	955	2.13
		7	9-2028-H	38.1	533	1.40	666	1.75	800	2.10	945	2.48
8	9-2032-H	33.0	529	1.60	661	2.00	793	2.40	937	2.83		
10	9-2040-H	26.4	529	2.00	661	2.50	793	3.00	957	3.62		
12	9-2048-H	21.8	523	2.40	654	3.00	784	3.60	944	4.33		
1 1/2	3/4	2	9-2408-H	201	804	0.40	1006	0.50	1207	0.60	1346	0.67
		2 1/2	9-2410-H	153	766	0.50	957	0.63	1149	0.75	1327	0.87
		3	9-2412-H	125	750	0.60	938	0.75	1125	0.90	1329	1.06
		3 1/2	9-2414-H	105	738	0.70	923	0.88	1107	1.05	1329	1.26
		4	9-2416-H	90.7	726	0.80	907	1.00	1088	1.20	1321	1.46
		4 1/2	9-2418-H	80.4	724	0.90	905	1.13	1086	1.35	1330	1.65
		5	9-2420-H	71.5	715	1.00	893	1.25	1072	1.50	1322	1.85
		5 1/2	9-2422-H	64.3	708	1.10	884	1.38	1061	1.65	1317	2.05
		6	9-2424-H	59.1	709	1.20	886	1.50	1063	1.80	1326	2.24
		7	9-2428-H	50.3	704	1.40	880	1.75	1056	2.10	1326	2.64
		8	9-2432-H	43.8	700	1.60	876	2.00	1051	2.40	1310	2.99
		10	9-2440-H	34.5	691	2.00	863	2.50	1036	3.00	1319	3.82
12	9-2448-H	28.7	688	2.40	860	3.00	1031	3.60	1308	4.57		
2	1	2 1/2	9-3210-H	242	1209	0.50	1512	0.63	1814	0.75	2000	0.83
		3	9-3212-H	193	1158	0.60	1448	0.75	1737	0.90	1976	1.02
		3 1/2	9-3214-H	161	1124	0.70	1405	0.88	1686	1.05	1896	1.18
		4	9-3216-H	140	1119	0.80	1398	1.00	1678	1.20	1927	1.38
		4 1/2	9-3218-H	123	1104	0.90	1380	1.13	1657	1.35	1932	1.57
		5	9-3220-H	108	1080	1.00	1351	1.25	1621	1.50	1914	1.77
		5 1/2	9-3222-H	96.5	1061	1.10	1326	1.38	1592	1.65	1899	1.97
		6	9-3224-H	88.1	1057	1.20	1321	1.50	1585	1.80	1872	2.13
		7	9-3228-H	75.1	1051	1.40	1314	1.75	1576	2.10	1891	2.52
		8	9-3232-H	65.8	1053	1.60	1316	2.00	1579	2.40	1865	2.83
		10	9-3240-H	51.6	1032	2.00	1290	2.50	1548	3.00	1869	3.62
		12	9-3248-H	42.6	1023	2.40	1279	3.00	1535	3.60	1880	4.41
Round Wire Construction												
3/8	3/16	1	9-0604-H	12.2	24	0.20	30	0.25	37	0.30	43	0.35
		1 1/4	9-0605-H	9.4	23	0.25	29	0.31	35	0.38	44	0.47
		1 1/2	9-0606-H	7.6	23	0.30	28	0.38	34	0.45	42	0.55
		1 3/4	9-0607-H	6.7	23	0.35	29	0.44	35	0.53	45	0.67
		2	9-0608-H	5.6	22	0.40	28	0.50	34	0.60	42	0.75
		2 1/2	9-0610-H	4.4	22	0.50	27	0.63	33	0.75	43	0.98
		3	9-0612-H	3.6	22	0.60	27	0.75	32	0.90	41	1.14
		12	9-0648-H	0.9	21	2.40	26	3.00	31	3.60	41	4.72
1/2	9/32	1	9-0804-H	22.5	45	0.20	56	0.25	67	0.30	80	0.35
		1 1/4	9-0805-H	17.2	43	0.25	54	0.31	64	0.38	74	0.43
		1 1/2	9-0806-H	13.8	41	0.30	52	0.38	62	0.45	71	0.51
		1 3/4	9-0807-H	11.5	40	0.35	50	0.44	60	0.53	72	0.63
		2	9-0808-H	10.1	40	0.40	50	0.50	61	0.60	76	0.75
		2 1/2	9-0810-H	7.9	39	0.50	49	0.63	59	0.75	75	0.94
		3	9-0812-H	6.5	39	0.60	49	0.75	58	0.90	74	1.14
		3 1/2	9-0814-H	5.5	38	0.70	48	0.88	58	1.05	71	1.30
12	9-0848-H	1.5	37	2.40	46	3.00	55	3.60	72	4.72		
5/8	11/32	1	9-1004-H	49.6	99	0.20	124	0.25	149	0.30	176	0.35
		1 1/4	9-1005-H	36.4	91	0.25	114	0.31	136	0.38	157	0.43
		1 1/2	9-1006-H	29.5	89	0.30	111	0.38	133	0.45	163	0.55
		1 3/4	9-1007-H	24.0	84	0.35	105	0.44	126	0.53	151	0.63
		2	9-1008-H	20.9	84	0.40	104	0.50	125	0.60	148	0.71
		2 1/2	9-1010-H	16.2	81	0.50	101	0.63	121	0.75	146	0.91
		3	9-1012-H	13.2	79	0.60	99	0.75	119	0.90	151	1.14
		3 1/2	9-1014-H	11.2	79	0.70	98	0.88	118	1.05	151	1.34
		4	9-1016-H	9.8	78	0.80	98	1.00	118	1.20	154	1.57
		12	9-1048-H	3.1	74	2.40	93	3.00	112	3.60	149	4.80