



Variable Springs

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Variable Springs

VARIABLE SPRINGS

Variable springs are used to support piping which is subject to thermal expansion and other factors which cause the pipe support point to move. They are called "Variable" because the force exerted by the "spring" varies through their range of travel. As the supported pipe moves upward, the force exerted by the "spring" decreases. Conversely, during downward travel, the force of the "spring" increases.

RECOMMENDED SERVICE

Generally used to support piping where thermal movements cause the system position and dimensions to change. Also commonly used where the transfer of an uncontrolled load can cause damage to the equipment. A "Variable" spring may not necessarily be recommended in all the above applications, however. As an example, when the variability surpasses 25%, a "Constant" support should be used. Contact your RILCO "Support Team" member for a catalog and information on our "Constant Support" products.

SPECIFICATIONS

All of the RILCO spring units are designed to meet or exceed the requirements of the ASME Code for Pressure Piping, ASME B31.1, B31.3, and MSS SP-58.

STANDARD DESIGN FEATURES

- Load indicators are visible in the travel slots and the loading is easy to read.
- All springs are protected from weather conditions and damage by the spring casing.
- Closure plate operates as a centering unit and a guide sustaining spring alignment.
- Every size has reserve travel (over travel) at both higher and lower boundaries of the operating range of the spring.
- Springs are calibrated for accurate loading.
- Spring and casing are fabricated from steel making them compact and rugged.
- Cold set at the factory to exacting customer requirements.
- The spring coil is epoxy powder-coated to provide protection to the coil, while the unit is hot-dipped galvanized per ASTM A153 protecting the unit from corrosive and climatic conditions.

OPTIONAL DESIGN FEATURES

- "Limit stops" installed in order to accurately limit spring movement.
- Lifting lugs-available on all sizes.
- Optional casing and component finishes.
- Available fabricated entirely from stainless steel, including coil.

INSTALLATION AND ADJUSTMENT

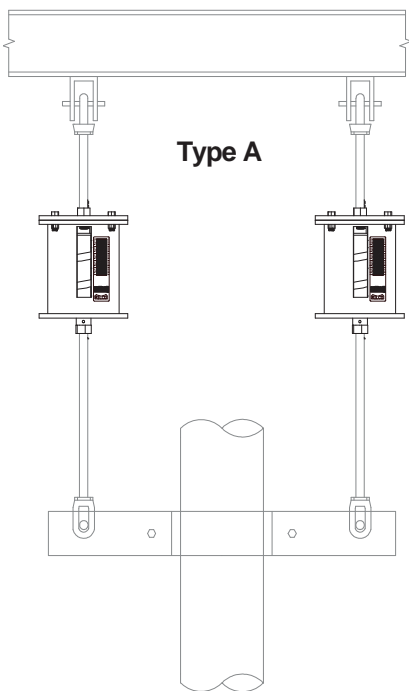
A set of installation instructions can be included with each shipment or contact your RILCO "Support Team" for a copy.

Adjustments are made by rotating the rod coupling, turnbuckle, or load column supplied with the spring.

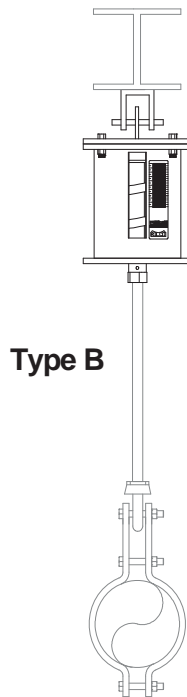
WHEN ORDERING

Please specify the following:

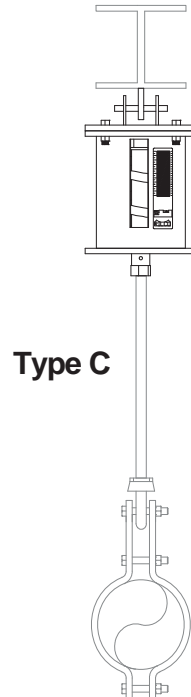
- 1. Figure:** RVS-82, 268, 98, Triple or Quadruple
 - 2. Size:** 0-22 for all figures, RSV-268 also available in 000 and 00
 - 3. Type:** A, *B, *C, D, E, F, or G
 - 4. Movement and direction of movement:** From cold (installed) to hot (operating) position
 - 5. Cold Load:** Installed position
 - 6. Hot Load:** Operating position
 - 7. Customer hanger identification:** Typically the mark number.
 - 8. Rod Spacing:** Required "**Type G**" only. If the dimension exceeds our recommended maximum shown in the table, contact your **RILCO** "Support Team" member for ordering assistance.
 - 9. Type Finish:** Standard galvanized or customer specified
 - 10. Special Features:** Limit stops, Load column guide (Type F), Lifting lugs, or other special features need to be specified at time of inquiry.
- *Connection pins to the structure are not included with the type B or C units and must be ordered separately.** Please refer to the **RILCO** Hardware Catalog for connection options.



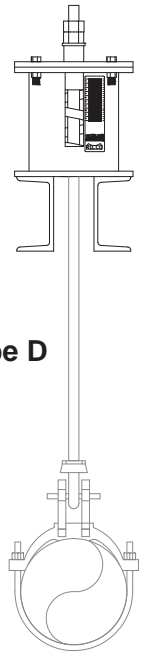
Type A



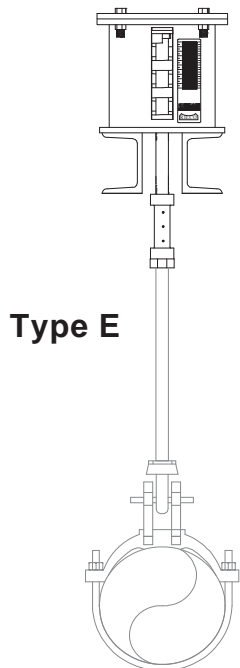
Type B



Type C

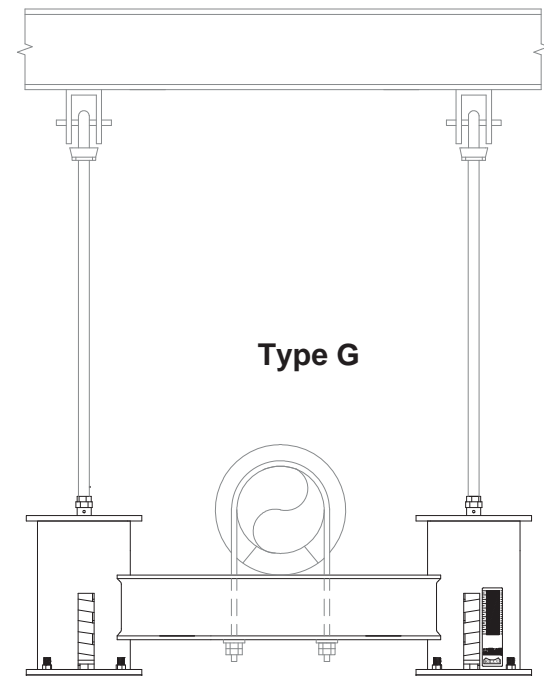
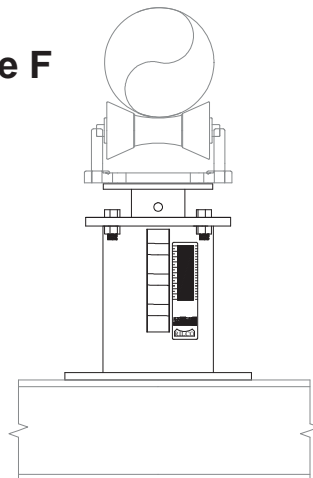


Type D



Type E

Type F



Type G

DETERMINING THE TYPE

The type of "Variable Spring" hanger to be utilized depends upon several variables. Those include the physical characteristics of the hanger attachment, whether it will be supported above or below the spring and the potential of interference from other components.

The "Variable Spring" hangers illustrated above, Types "A" through "G" represent the seven standard types available. They are described as follows:

- **Type A** - Unit is attached to the supporting member by a vertical rod threaded into the top of the case.
- **Type B** - The unit has a single lug for attachment to the structure to permit connection with a bolt or pin to a clevis or welded beam attachment. For use where headroom is limited.
- **Type C** - The unit has two lugs welded to the top of the casing to permit connection with a bolt or pin through a single lug

attachment on the structure. Also designed for limited headroom applications.

- **Type D** - Designed for use where the variable spring is positioned above the supporting structure and the spring adjustment is made from the top.
- **Type E** - Also designed for use where the variable spring is positioned above the supporting structure, but the spring adjustment must be made from below the structure on which the case is supported.
- **Type F** - Designed to support piping from below. Used to support pipe from the floor or where support from overhead is not practical.
- **Type G** - For use where headroom is limited or an obstruction prohibits the use of a single rod type Variable Spring.

Variable Springs

SELECTION PROCEDURE

Variability is the key principle in selecting the figure and size of a variable spring support. Variability is determined by calculating the change in percentage of the supporting force of a variable spring between the hot (operating) and cold (installed) loads using the following formula:

$$\text{Variability} = \frac{\text{Movement} \times \text{Spring rate}}{\text{Hot (operating) load}}$$

If the variability is in question, a lower variability is more desirable. The lower variability does not transfer as much stress to the adjacent equipment at the cold (installed) position than a spring with higher variability. To comply with requirements of MSS SP-58 specifications, variability should not exceed 25%. If the design conditions cause the variability to exceed the recommended maximum, RILCO strongly suggests the use of one of our Constant Supports instead of a variable.

SPRING HANGER FIGURE AND SIZE SELECTION

Once hot (operating) or cold (installed) load and travel have been determined in order to select the correct Spring Hanger Figure and size selection:

1. Select a spring figure (RVS-82, 268, etc.) with a working range which will accommodate the travel.
2. Find a spring size where the load is approximately in the middle of the working range loads.
3. Calculate the missing load (either Hot or Cold) by using the following formulas:

$$\begin{aligned} \text{Hot (operating) load} &= \text{Cold (installed) load} - (\text{Travel} \times \text{Spring rate}) \\ \text{Cold (installed) load} &= \text{Hot (operating) load} + (\text{Travel} \times \text{Spring rate}) \end{aligned}$$

4. Verify that both loads are within the working range,

Variable Spring Load Chart (lbs)

Working Range (in)		Size																											
		RVS-					RVS- 82, 268, 98, Triple & Quadruple Spring																						
Quadruple	Triple	98	268	82	000	00	0	1	2	3	4	5	6	7	8	9													
▶ Overtravel	▶	▶	▶	▶	7	19	43	63	81	105	141	186	252	336	450	600	◀												
																	7	20	44	66	84	109	147	197	263	350	469	625	◀
																	8	22	46	68	88	114	153	206	273	364	488	650	◀
																	9	24	48	71	91	118	159	213	284	378	506	675	◀
▶ Overtravel	▶	▶	▶	▶	10	26	50	74	95	123	165	221	294	392	525	700	◀												
					11	28	52	76	98	127	170	228	305	406	544	725	◀												
					12	30	54	79	101	131	176	236	315	420	563	750	◀												
					12	31	56	81	105	136	182	244	326	434	581	775	◀												
					14	34	58	84	108	140	188	252	336	448	600	800	◀												
					14	35	59	87	111	144	194	260	347	462	619	825	◀												
					15	38	61	89	115	149	200	268	357	476	638	850	◀												
					16	40	63	92	118	153	206	276	368	490	656	875	◀												
					17	41	65	95	122	158	212	284	378	504	675	900	◀												
					18	43	67	97	125	162	217	291	389	518	694	925	◀												
					19	45	69	100	128	166	223	299	399	532	713	950	◀												
					20	47	71	102	132	171	229	307	410	546	731	975	◀												
					21	49	73	105	135	175	235	315	420	560	750	1000	◀												
					21	50	74	108	138	179	241	323	431	574	769	1025	◀												
					22	53	76	110	142	184	247	331	441	588	788	1050	◀												
					23	55	78	113	145	188	253	339	452	602	806	1075	◀												
24	56	80	116	149	193	258	347	462	616	825	1100	◀																	
25	58	82	118	152	197	264	354	473	630	844	1125	◀																	
26	60	84	121	155	201	270	362	483	644	863	1150	◀																	
27	62	86	123	159	206	276	370	494	658	881	1175	◀																	
28	64	88	126	162	210	282	378	504	672	900	1200	◀																	
▶ Overtravel	▶	▶	▶	▶	28	66	89	129	165	214	288	386	515	686	919	1225	◀												
					29	68	91	131	169	219	294	394	525	700	938	1250	◀												
					30	70	93	134	172	223	300	402	536	714	956	1275	◀												
					31	72	95	137	176	228	306	410	546	728	975	1300	◀												
					Spring Rate (lbs/in)																								
					82																								
					268																								
					98																								
					Triple																								
					Quadruple																								
					-	-	30	42	54	70	94	126	168	224	300	400													
					7	15	15	21	27	35	47	63	84	112	150	200													
					-	-	7	10	13	17	23	31	42	56	75	100													
					-	-	5	7	9	12	16	21	28	37	50	67													
					-	-	4	5	7	9	12	16	21	28	38	50													



preferably equidistance from the center of the load chart.

a variability lower than 25%.

5. If the loads are at either extreme, select a new spring size and re-calculate the missing load until both the loads are satisfactory.

NOTE: The lower the variability the better the result.

6. Calculate the variability, which should not exceed 25%.

Your RILCO "Support Team" is always available to assist you with these calculations or to recommend product choices.

When Hot (operating) and Cold (installed) loads are known:

1. Select a spring size where both loads are ideally equidistance from the center of the load chart.

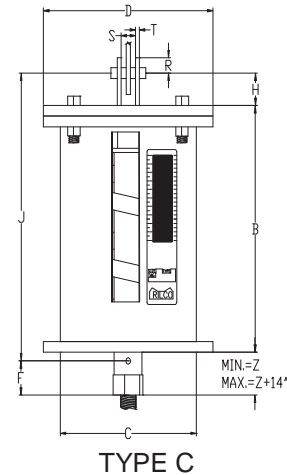
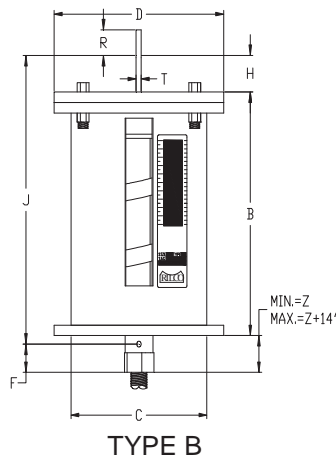
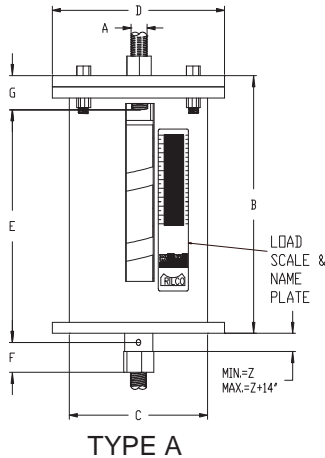
2. Calculate the movement with the following formula:

$$\text{Movement} = \frac{\text{Cold (installed) load} - \text{Hot (operating) load}}{\text{Spring rate}}$$

3. Select a Spring figure (RVS-82, 268 etc.) which will give

Variable Spring Load Chart (lbs)														Working Range (in)				
Size														RVS-				
RVS-82, 268, 98, Triple & Quadruple Spring														82	268	98	Triple	Quad
10	11	12	13	14	15	16	17	18	19	20	21	22	82	268	98	Triple	Quad	
780	1020	1350	1800	2400	3240	4500	6000	7990	10610	14100	18750	25005						
813	1063	1406	1875	2500	3375	4688	6250	8322	11053	14588	19531	26047	1/4	1/2	1	1-1/2	2	
845	1105	1463	1950	2600	3510	4875	6500	8655	11495	15275	20313	27089						
878	1148	1519	2025	2700	3645	5063	6750	8987	11938	15863	21094	28313						
910	1190	1575	2100	2800	3780	5250	7000	9320	12380	16450	21875	29173	0	0	0	0	0	
943	1233	1631	2175	2900	3915	5438	7250	9652	12823	17038	22656	30215						
975	1275	1688	2250	3000	4050	5625	7500	9985	13265	17625	23438	31256						
1008	1318	1744	2325	3100	4185	5813	7750	10317	13708	18213	24219	32298						
1040	1360	1800	2400	3200	4320	6000	8000	10650	14150	18800	25000	3340	1/4	1/2	1	1-1/2	2	
1073	1403	1865	2475	3300	4455	6188	8250	10982	14592	19388	25781	34382						
1105	1445	1913	2550	3400	4590	6375	8500	11315	15035	19975	26563	35424						
1138	1488	1969	2625	3500	4725	6563	8750	11647	15477	20563	27344	36466						
1170	1530	2025	2700	3600	4860	6750	9000	11980	15920	21150	28125	37508	1/2	1	2	3	4	
1203	1573	2081	2775	3700	4995	6938	9250	12312	16362	21738	28906	38549						
1235	1615	2138	2850	3800	5130	7125	9500	12645	16805	22325	29688	39591						
1268	1658	2194	2925	3900	5265	7313	9750	12977	17247	22913	30469	40633						
1300	1700	2250	3000	4000	5400	7500	10000	13310	17690	23500	31250	41675	3/4	1-1/2	3	4-1/2	6	
1333	1743	2306	3075	4100	5535	7688	10250	13642	18132	24088	32031	42717						
1365	1785	2363	3150	4200	5670	7875	10500	13975	18575	24675	32813	43759						
1398	1828	2419	3225	4300	5805	8063	10750	14307	19017	25263	33594	44801						
1430	1870	2475	3300	4400	5940	8250	11000	14640	19460	25850	34375	45843	1	2	4	6	8	
1463	1913	2531	3375	4500	6075	8438	11250	14972	19902	26438	35156	46885						
1495	1955	2588	3450	4600	6210	8625	11500	15305	20345	27025	35938	47926						
1528	1998	2644	3525	4700	6345	8813	11750	15637	20787	27613	36719	48968						
1560	2040	2700	3600	4800	6480	9000	12000	15970	21230	28200	37500	50010	1-1/4	2-1/2	5	7-1/2	10	
1593	2083	2756	3675	4900	6615	9188	12250	16302	21672	28788	38281	51052						
1625	2125	2813	3750	5000	6750	9375	12500	16635	22115	29375	39063	52094	1/4	1/2	1	1-1/2	2	
1658	2168	2869	3825	5100	6885	9563	12750	16967	22557	29963	39844	53136						
1690	2210	2925	3900	5200	7020	9750	13000	17300	23000	30550	40625	54178						
Spring Rate (lbs/in)														82	268	98	TRIPLE	QUADRUPLE
520	680	900	1200	1600	2160	3000	4000	5200	7080	9400	12500	16670						
260	340	450	600	800	1080	1500	2000	2660	3540	4700	6250	8335						
130	170	225	300	400	540	750	1000	1330	1770	2350	3125	4167						
87	113	150	200	267	360	500	667	887	1180	1567	2083	2778						
65	85	113	150	200	270	375	500	665	885	1175	1563	2084						

Part # RVS-268

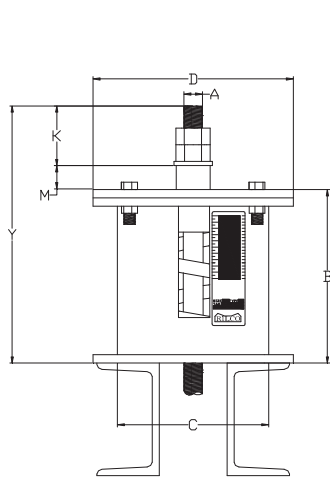


The RILCO RVS-268 is the spring upon which all the other RILCO RVS spring designs are based. The compact design enables this spring to work in a wide range of applications. The interchangeability of parts between spring figures also allows these units to be the most cost effective means of providing support to piping systems and other vertical displacement applications.

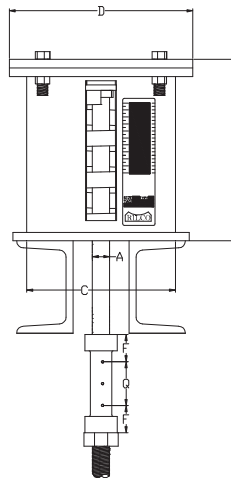
The RVS-268 provides a recommended maximum of 2-1/2" of movement, with a wide range of load carrying capability. On applications which require only a minimal amount of movement or are spaced restricted, the RVS-82 springs might better suit the designers' needs. Refer to the RVS-98, triple, or quadruple for instances which call for increased travel.

Weights (lbs) * Dimensions (inches)

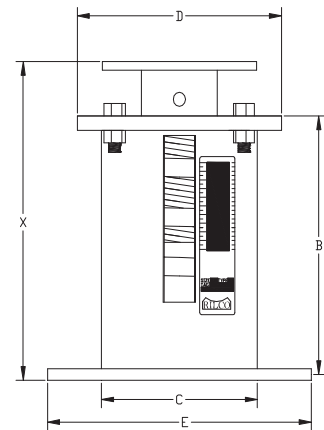
Hanger Size	Rod Size "A"	R.H. Thread Length	Casing		Flange Dia. "D"	Min Thread Engage "F"	"Z"	Rod Take Out By Type				Type A	Types B, C				Type D			
			Length "B"	Dia. "C"				A	B,C	E	G		Lug Hole Size	Pin Height "H"	"R"	Clevis Opening "S"	Thk. "T"	Rod Length "Y"	Nut Allow. "K"	Hgt Spacer "M"
000	1/2	5	5-5/8	4	5-1/8	15/16	13/16	5-1/16	7	6	1-3/8	7/16	11/16	1-1/2	1-1/4	7/8	1/4	10	1-1/4	3-1/8
00	1/2	5	7-9/16	4	5-1/8	15/16	1-3/16	7-3/8	9-1/2	6	1-3/4	7/16	11/16	1-1/2	1-1/4	7/8	1/4	11-3/4	1-1/4	3-1/8
0	1/2	5	6-11/16	4	5-1/8	15/16	3/4	6-1/16	8	6	1-5/16	7/16	11/16	1-1/2	1-1/4	7/8	1/4	11-11/16	1-1/4	3-1/8
1	1/2	5	7-9/16	4	5-1/8	15/16	3/4	6-15/16	8-7/8	6	1-5/16	7/16	11/16	1-1/2	1-1/4	7/8	1/4	11-15/16	1-1/4	3-1/8
2	1/2	5	8-5/16	4	5-1/8	15/16	1	7-15/16	9-7/8	6	1-9/16	7/16	11/16	1-1/2	1-1/4	7/8	1/4	12-11/16	1-1/4	3-1/8
3	1/2	5	7-15/16	5-9/16	6-15/16	15/16	1	7-9/16	9-1/2	6	2-1/16	7/16	11/16	1-1/2	1-1/4	7/8	1/4	11-11/16	1-1/4	3-1/8
4	1/2	5	7-15/16	5-9/16	6-15/16	15/16	1-3/8	7-15/16	9-7/8	6	2-7/16	7/16	11/16	1-1/2	1-1/4	7/8	1/4	12-5/16	1-1/4	3-1/8
5	1/2	5	8-5/8	5-9/16	6-15/16	15/16	11/16	7-15/16	9-7/8	6	1-3/4	7/16	11/16	1-1/2	1-1/4	7/8	1/4	13	1-1/4	3-1/8
6	5/8	5	8-13/16	6-5/8	8-3/8	15/16	9/16	7-13/16	9-15/16	6	1-5/8	5/8	13/16	1-1/2	1-1/4	1-1/16	1/4	13-5/16	1-1/2	3
7	5/8	5	10	6-5/8	8-3/8	15/16	5/8	9-1/16	11-3/16	6	1-11/16	5/8	13/16	1-1/2	1-1/4	1-1/16	1/4	14-1/4	1-1/2	3
8	5/8	5	10	6-5/8	8-3/8	15/16	5/8	9-1/16	11-3/16	6	1-11/16	5/8	13/16	1-1/2	1-1/4	1-1/16	1/4	14-3/4	1-1/2	3
9	3/4	6	10-7/16	8-5/8	10-3/4	1-1/4	3/4	8-15/16	11-7/16	6	2-1/2	1	15/16	1-1/2	1-1/4	1-1/4	3/8	15-5/8	1-3/4	3
10	3/4	6	12-1/8	8-5/8	10-3/4	1-1/4	1-1/2	11-3/8	13-7/8	6	3-1/4	1	15/16	1-1/2	1-1/4	1-1/4	3/8	16-7/8	1-3/4	3
11	3/4	6	10-7/16	8-5/8	10-3/4	1-1/4	1-11/16	9-7/8	12-3/8	6	3-7/16	1	15/16	1-1/2	1-1/4	1-1/4	3/8	14-11/16	1-3/4	3
12	1	6	10-7/16	8-5/8	10-3/4	1-1/4	1-1/16	9-1/2	12-1/2	6	3-13/16	1	1-1/4	2	1-1/2	1-5/8	1/2	15-13/16	2-1/4	3
13	1	7	13-1/8	8-5/8	10-3/4	1-1/4	1/2	11-3/8	14-3/8	6	3-1/4	1	1/4	2	1-1/2	1-5/8	1/2	18-3/8	2-1/4	3
14	1-1/4	7	13-1/4	8-5/8	10-3/4	1-1/4	3/8	11-3/8	15-3/8	6	3-1/8	1	1-1/2	3	2	2	5/8	19-1/4	3	3
15	1-1/4	7	13-1/4	8-5/8	10-3/4	1-1/4	3/8	11-3/8	15-3/8	6	3-15/16	1	1-1/2	3	2	2	5/8	19-3/4	3	3
16	1-1/2	8	16-1/16	8-5/8	11-3/8	1-15/16	2-1/16	14-13/16	19-3/16	6	4-1/8	1-3/8	1-3/4	3	2-1/2	2-3/8	3/4	22-9/16	3-1/2	3
17	1-3/4	8	18-1/8	8-5/8	11-3/8	1-15/16	1-15/16	16-3/4	21-1/8	6	4	1-3/8	2	3	2-1/2	2-5/8	3/4	25-1/8	4	3
18	2	9	18-1/4	12-3/4	15-7/8	2-3/4	2-9/16	16	22-1/8	6	4	2-1/4	2-3/8	4	3	2-7/8	3/4	25-11/16	4-9/16	3
19	2-1/4	9	20-1/2	12-3/4	15-7/8	2-3/4	2-11/16	18-3/8	25	6	4-1/8	2-1/4	2-5/8	4-1/2	3	3-1/8	3/4	28-3/8	5	3
20	2-1/2	10	23-3/4	12-3/4	15-7/8	2-3/4	2-11/16	21-5/8	28-1/4	6	4-1/8	2-1/4	2-7/8	4-1/2	4	3-3/8	1	32-3/16	5-9/16	3
21	2-3/4	10	27-5/16	12-3/4	16-7/8	3-5/8	3-11/16	23-7/8	31-1/8	7	4-5/16	2-3/4	3-1/8	4-1/2	4	3-5/8	1	35-9/16	6-1/4	3
22	3	11	33-3/8	12-3/4	16-7/8	3-5/8	3-3/4	29-3/4	37-3/4	7	4-3/8	3	3-3/8	5	4	3-7/8	1	42	6-5/8	3



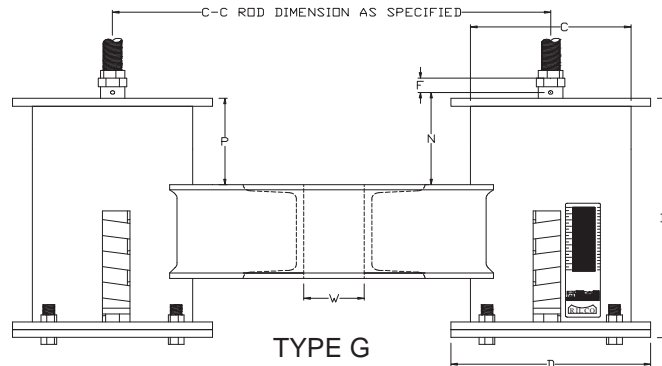
TYPE D



TYPE E



TYPE F



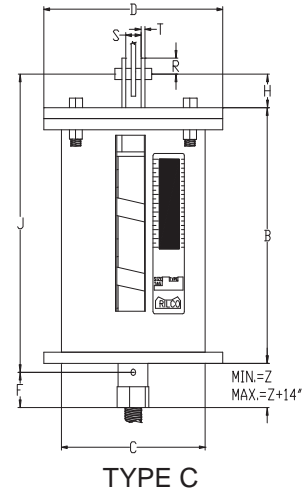
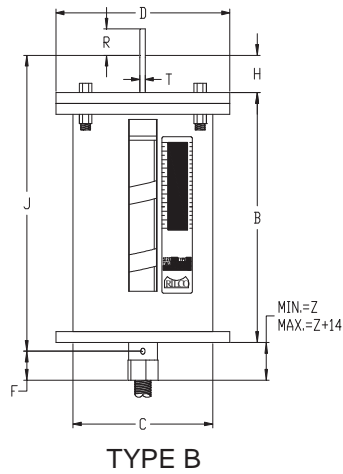
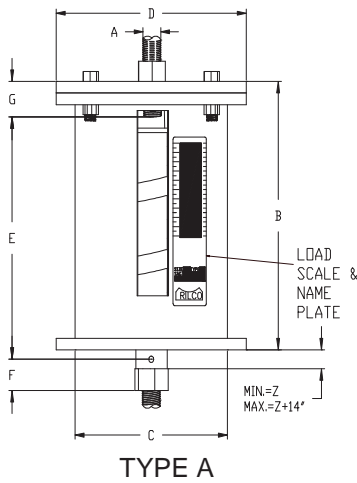
TYPE G

Weights (lbs) * Dimensions (inches)

Hanger Size	Type F										Type G				Weight				
	E' Bottom Flange		Bottom Flange		Load Col. Dia.	Load Flange		Length X		Channel Size	Max C-C	Space Between Channels-W	P	Type					
	Size Sq.	Bolt Circle		Bolts		Thick	Dia.	Thick	Min					Max	A	B,C	D,E	F	G
		Min	Max																
000	7-1/2	7	8-3/4	5/8	1/4	1.900	3-7/8	3/16	7-3/16	9-3/16	C3 x 4.1	24	5/8	1-1/2	5	5	5	11	24
00	7-1/2	7	8-3/4	5/8	1/4	1.900	3-7/8	3/16	9-1/8	11-1/8	C3 x 4.1	24	5/8	1-1/2	6	6	6	12	26
0	7-1/2	7	8-3/4	5/8	1/4	1.900	3-7/8	3/16	8-1/4	10-1/4	C3 x 4.1	24	5/8	1-1/2	8	8	6	12	30
1	7-1/2	7	8-3/4	5/8	1/4	1.900	3-7/8	3/16	9-1/8	11-1/8	C3 x 4.1	24	5/8	1-1/2	8	9	7	14	31
2	7-1/2	7	8-3/4	5/8	1/4	1.900	3-7/8	3/16	9-7/8	11-7/8	C3 x 4.1	24	5/8	1-1/2	9	10	8	15	32
3	7-1/2	7-3/4	8-3/4	3/4	1/4	2.875	5-3/4	3/16	9-9/16	11-9/16	C3 x 4.1	30	3/4	2	14	14	11	23	41
4	7-1/2	7-3/4	8-3/4	3/4	1/4	2.875	5-3/4	3/16	9-9/16	11-9/16	C3 x 4.1	30	3/4	2	15	16	12	25	42
5	7-1/2	7-3/4	8-3/4	3/4	1/4	2.875	5-3/4	3/16	10-1/4	12-1/4	C3 x 4.1	30	3/4	2	16	17	14	26	43
6	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	10-1/2	12-1/2	C3 x 4.1	36	1	2	26	27	22	40	63
7	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	11-11/16	13-11/16	C3 x 4.1	36	1	2	29	30	25	46	69
8	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	11-11/16	13-11/16	C3 x 4.1	36	1	2	31	32	26	47	73
9	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	12-1/8	14-1/8	C4 x 5.4	36	1-1/4	3	65	66	51	91	143
10	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	13-13/16	15-13/16	C4 x 5.4	36	1-1/4	3	71	72	58	98	157
11	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	12-1/8	14-1/8	C4 x 5.4	36	1-1/4	3	65	66	51	90	145
12	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	12-1/8	14-1/8	C5 x 6.7	36	1-1/2	4	71	71	56	95	157
13	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	14-13/16	16-13/16	C5 x 6.7	36	1-1/2	4	89	89	73	115	195
14	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	14-13/16	16-13/16	C5 x 6.7	33	1-1/2	4	93	94	77	119	203
15	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	14-13/16	16-13/16	C6 x 10.5	36	1-1/2	4	111	114	88	130	250
16	13-1/4	10-9/16	16-1/2	3/4	1/2	2.00	8-3/8	1/2	17-15/16	19-15/16	C8 x 11.5	36	2-1/8	4	133	138	107	150	298
17	13-1/4	10-9/16	16-1/2	3/4	1/2	2.00	8-3/8	1/2	20	22	C8 x 11.5	36	2-1/8	4	162	168	133	173	354
18	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	20-5/16	22-5/16	C12 x 20.7	42	2-3/8	4	330	331	262	343	690
19	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	22-9/16	24-9/16	C12 x 20.7	42	2-5/8	4	376	378	300	380	783
20	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	25-13/16	27-13/16	C12 x 20.7	40	2-7/8	4	480	486	370	471	993
21	17-1/4	15-3/4	22	3/4	5/8	3.00	12-1/2	1/2	29-7/16	31-7/16	C15 x 33.9	48	3-1/8	4	556	568	455	496	1197
22	17-1/4	15-3/4	22	3/4	5/8	3.00	12-1/2	1/2	35-1/2	37-1/2	C15 x 33.9	48	3-3/8	4	705	714	505	654	1496

Variable Springs

Part # RVS-82



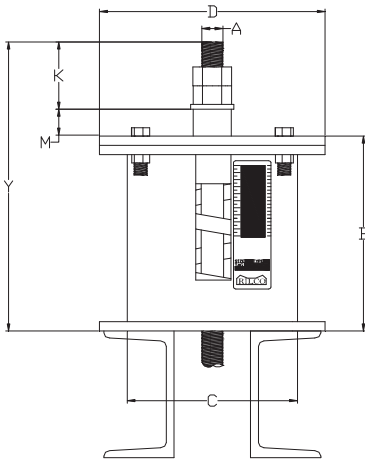
RILCO Variable Short Spring Hanger, the RVS-82, has all of the features of our RVS-268 and is designed to same exacting specifications.

The RVS-82 is best utilized in confined areas where thermal movement of the piping is relatively small.

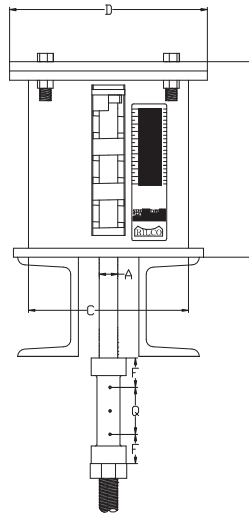
The RVS-82 hanger is offered in seven basic types which are displayed on this and the following page.

The Variable Selection Chart for sizing and instructions are found on pages 8 and 9.

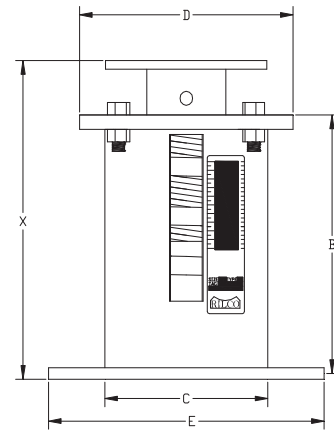
Weights (lbs) * Dimensions (inches)																				
Hanger Size	Rod Size "A"	R.H. Thread Length	Casing		Flange Dia. "D"	Min Thread Engage "F"	"Z"	Rod Take Out By Type				Type A	Types B, C				Type D			
			Length "B"	Dia. "C"				A	B,C	E	G	Thread Depth "G"	Lug Hole Size	Pin Hgt "H"	"R"	Clevis Opening "S"	Thk. "T"	Rod Length "Y"	Nut Allow. "K"	Hgt Spacer "M"
0	1/2	3	4-3/4	4	5-1/8	15/16	15/16	4-5/16	6-1/4	2-1/8	1	7/16	11/16	1-1/2	1-1/4	7/8	1/4	7-1/2	1-1/4	1-3/4
1	1/2	3	4-3/4	4	5-1/8	15/16	11/16	4-1/16	6	2-1/8	3/4	7/16	11/16	1-1/2	1-1/4	7/8	1/4	7-3/4	1-1/4	1-3/4
2	1/2	3	5-3/8	4	5-1/8	15/16	1-1/16	5-1/16	7	2-1/8	1-1/8	7/16	11/16	1-1/2	1-1/4	7/8	1/4	8-3/8	1-1/4	1-3/4
3	1/2	3	5-1/4	5-9/16	6-15/16	15/16	9/16	4-7/16	6-3/8	2-1/8	5/8	7/16	11/16	1-1/2	1-1/4	7/8	1/4	7-7/8	1-1/4	1-3/4
4	1/2	3	5-1/4	5-9/16	6-15/16	15/16	1-3/16	5-1/16	7	2-1/8	1-1/4	7/16	11/16	1-1/2	1-1/4	7/8	1/4	8-1/4	1-1/4	1-3/4
5	1/2	3	5-3/8	5-9/16	6-15/16	15/16	1-1/16	5-1/16	7	2-1/8	1-1/8	7/16	11/16	1-1/2	1-1/4	7/8	1/4	8-5/8	1-1/4	1-3/4
6	5/8	3	5-13/16	6-5/8	8-3/8	15/16	13/16	5-1/16	7-3/16	2-1/8	1-7/8	5/8	13/16	1-1/2	1-1/4	1-1/16	1/4	9-1/16	1-1/2	1-3/4
7	5/8	3	6-11/16	6-5/8	8-3/8	15/16	1-1/16	6-3/16	8-5/16	2-1/8	2-1/8	5/8	13/16	1-1/2	1-1/4	1-1/16	1/4	9-11/16	1-1/2	1-3/4
8	5/8	3	6-11/16	6-5/8	8-3/8	15/16	13/16	5-15/16	8-1/16	2-1/8	1-7/8	5/8	13/16	1-1/2	1-1/4	1-1/16	1/4	9-15/16	1-1/2	1-3/4
9	3/4	4	7-1/4	8-5/8	10-3/4	1-1/4	1-1/8	6-1/8	8-5/8	2	1-7/8	1	15/16	1-1/2	1-1/4	1-1/4	3/8	11-1/4	1-3/4	1-3/4
10	3/4	4	8-1/4	8-5/8	10-3/4	1-1/4	1-3/8	7-3/8	9-7/8	2	2-1/8	1	15/16	1-1/2	1-1/4	1-1/4	3/8	11-3/4	1-3/4	1-3/4
11	3/4	4	7-1/4	8-5/8	10-3/4	1-1/4	1-3/16	6-3/16	8-11/16	2	1-15/16	1	15/16	1-1/2	1-1/4	1-1/4	3/8	10-7/16	1-3/4	1-3/4
12	1	4	7-1/4	8-5/8	10-3/4	1-1/4	7/8	6-3/16	8-11/16	2	1-1/8	1	1-1/4	2	1-1/2	1-5/8	1/2	11-1/4	2-1/4	1-3/4
13	1	4	8-3/4	8-5/8	10-3/4	1-1/4	1	7-3/8	10-3/8	2	2-3/4	1	1/4	2	1-1/2	1-5/8	1/2	12-5/8	2-1/4	1-3/4
14	1-1/4	4	8-7/8	8-5/8	10-3/4	1-1/4	3/4	7-3/8	11-3/8	2	2-1/2	1	1-1/2	3	2	5/8	3	13-5/8	3	1-3/4
15	1-1/4	4	8-7/8	8-5/8	10-3/4	1-1/4	3/4	7-3/8	11-3/8	2	2-1/2	1	1-1/2	3	2	5/8	3	14-1/8	3	1-3/4
16	1-1/2	5	10-5/8	8-5/8	11-3/8	1-15/16	2	9-5/16	13-11/16	6	1-1/16	1-3/8	1-3/4	3	2-1/2	2-3/8	3/4	15-7/8	3-1/2	1-3/4
17	1-3/4	6	11-7/8	8-5/8	11-3/8	1-15/16	2	10-9/16	14-15/16	6	2-1/16	1-3/8	2	3	2-1/2	2-5/8	3/4	17-5/8	4	1-3/4
18	2	7	13	12-3/4	15-7/8	2-3/4	2-1/2	10-11/16	16-13/16	6	7/16	2-1/4	2-3/8	4	3	2-7/8	3/4	19-3/16	4-9/16	1-3/4
19	2-1/4	7	14	12-3/4	15-7/8	2-3/4	2-9/16	11-3/4	18-3/8	6	1	2-1/4	2-5/8	4-1/2	3	3-1/8	3/4	20-5/8	5	1-3/4
20	2-1/2	8	16-1/8	12-3/4	15-7/8	2-3/4	2-11/16	14	20-5/8	6	1-1/8	2-1/4	2-7/8	4-1/2	4	3-3/8	1	23-5/16	5-9/16	1-3/4
21	2-3/4	9	18	12-3/4	16-7/8	3-5/8	2-3/4	13-5/8	20-7/8	7	3/8	2-3/4	3-1/8	4-1/2	4	3-5/8	1	25	6-1/4	1-1/4
22	3	10	22-1/4	12-3/4	16-7/8	3-5/8	2-3/4	17-5/8	25-3/8	7	2-3/8	3	3-3/8	5	4	3-7/8	1	29-5/8	6-5/8	1-1/4



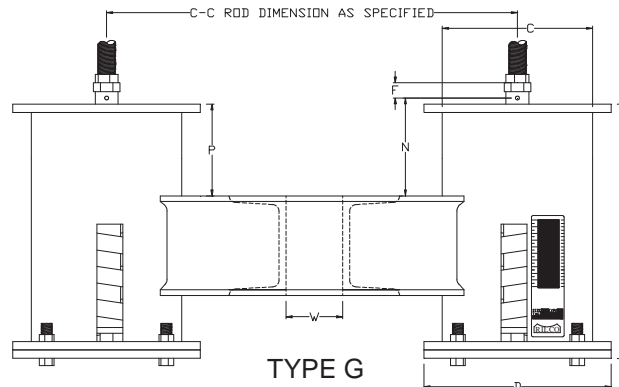
TYPE D



TYPE E



TYPE F

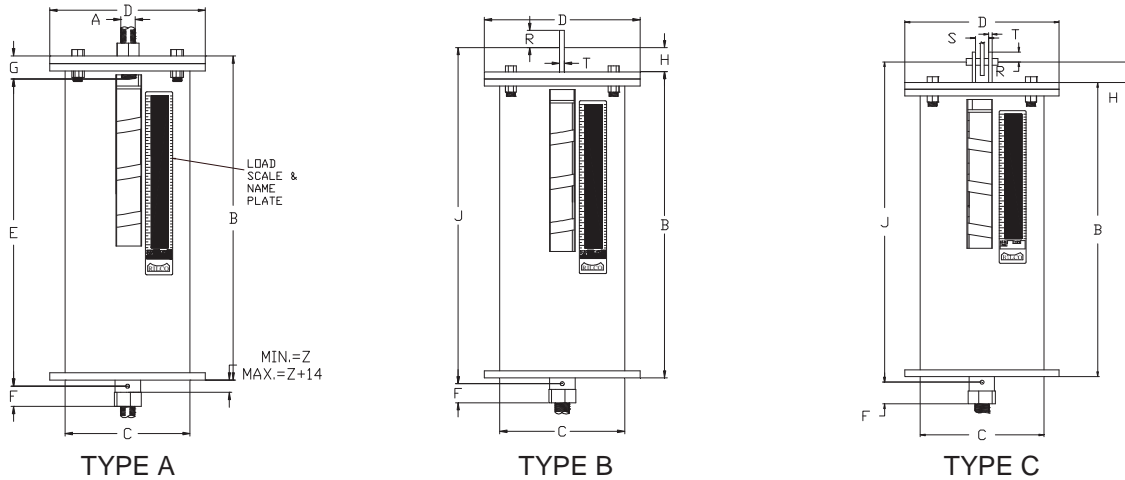


TYPE G

Weights (lbs) * Dimensions (inches)

Hanger Size	Type F										Type G					Weight			
	E' Bottom Flange		Bottom Flange		Load Col. Dia.	Load Flange		Length X		Channel Size	Max C-C	Space Between Channels-W	P	Type					
	Size Sq.	Bolt Circle		Bolts		Thick	Dia.	Thick	Min					Max	Type				
		Min	Max		A,B,C					D,E	F	G							
0	7-1/2	7	8-3/4	5/8	1/4	1.900	3-7/8	3/16	6-5/16	6-13/16	C3 x 4.1	24	5/8	3/4	6	5	11	27	
1	7-1/2	7	8-3/4	5/8	1/4	1.900	3-7/8	3/16	6-5/16	6-13/16	C3 x 4.1	24	5/8	3/4	7	6	11	29	
2	7-1/2	7	8-3/4	5/8	1/4	1.900	3-7/8	3/16	6-15/16	7-7/16	C3 x 4.1	24	5/8	3/4	8	7	12	29	
3	7-1/2	7-3/4	8-3/4	3/4	1/4	2.875	5-3/4	3/16	6-7/8	7-3/8	C3 x 4.1	30	3/4	3/4	11	10	10	33	
4	7-1/2	7-3/4	8-3/4	3/4	1/4	2.875	5-3/4	3/16	6-7/8	7-3/8	C3 x 4.1	30	3/4	3/4	12	11	20	35	
5	7-1/2	7-3/4	8-3/4	3/4	1/4	2.875	5-3/4	3/16	7	7-1/2	C3 x 4.1	30	3/4	3/4	13	12	21	36	
6	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	7-1/2	8	C3 x 4.1	36	1	3/4	20	193	33	51	
7	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	8-3/8	8-7/8	C3 x 4.1	36	1	3/4	23	22	35	57	
8	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	8-3/8	8-7/8	C3 x 4.1	36	1	3/4	24	23	36	59	
9	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	8-15/16	9-15/16	C4 x 5.4	36	1-1/4	1	56	52	78	125	
10	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	9-15/16	10-15/16	C4 x 5.4	36	1-1/4	1	62	58	84	137	
11	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	8-15/16	9-15/16	C4 x 5.4	36	1-1/4	1	55	51	76	121	
12	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	8-15/16	9-15/16	C5 x 6.7	36	1-1/2	1	58	53	78	132	
13	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	10-7/16	11-7/16	C5 x 6.7	36	1-1/2	1	69	63	81	154	
14	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	10-9/16	11-9/16	C5 x 6.7	33	1-1/2	1	72	55	91	159	
15	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	10-9/16	11-9/16	C6 x 10.5	36	1-1/2	1	88	79	100	198	
16	13-1/4	10-9/16	16-1/2	3/4	1/2	2.00	8-3/8	1/2	12-5/8	13-5/8	C8 x 11.5	36	2-1/8	1	102	91	112	230	
17	13-1/4	10-9/16	16-1/2	3/4	1/2	2.00	8-3/8	1/2	13-7/8	14-7/8	C8 x 11.5	36	2-1/8	1	120	105	126	266	
18	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	15-1/6	16-1/16	-	-	-	-	259	226	270	-	
19	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	16-1/6	17-1/16	-	-	-	-	286	246	275	-	
20	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	18-3/16	19-3/16	-	-	-	-	350	302	344	-	
21	17-1/4	15-3/4	22	3/4	5/8	3.00	12-1/2	1/2	20-1/8	21-1/8	-	-	-	-	401	339	348	-	
22	17-1/4	15-3/4	22	3/4	5/8	3.00	12-1/2	1/2	24-3/4	25-3/8	-	-	-	-	490	431	443	-	

Part # RVS-98



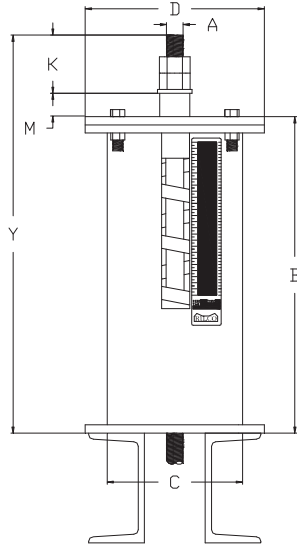
RILCO Variable Double Spring Hanger, the RVS-98, has all of the features of the RVS-268 features and is designed to the same exacting specifications.

Each unit consists of two springs arranged in series within a single casing and a centering guide to assure the permanent alignment of the spring assembly.

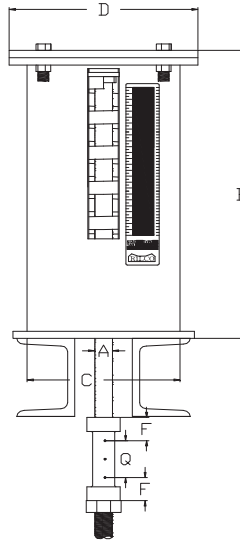
The RVS-98 hanger is offered in seven basic types as shown on this and the following page.

The Variable Selection Chart for sizing and instructions are found on pages 8 and 9.

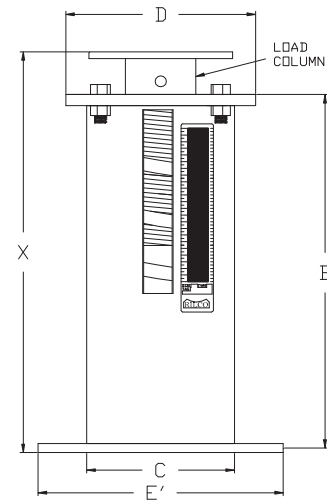
Weights (lbs) * Dimensions (inches)																				
Hanger Size	Rod Size "A"	R.H. Thread Length	Casing		Flange Dia. "D"	Min Thread Engage "F"	"Z"	Rod Take Out By Type				Type A	Types B, C				Type D			
			Length "B"	Dia. "C"				A	B,C	E	G	Thread Depth "G"	Lug Hole Size	Pin Hgt "H"	"R"	Clevis Opening "S"	Thk. "T"	Rod Length "Y"	Nut Allow. "K"	Hgt Spacer "M"
0	1/2	9	12-5/8	4	5-1/8	15/16	15/16	12-3/16	14-1/8	9	1-1/2	7/16	11/16	1-1/2	1-1/4	7/8	1/4	19-3/8	1-1/4	5-1/2
1	1/2	9	14-3/8	4	5-1/8	15/16	11/16	13-15/16	15-7/8	9	1-1/2	7/16	11/16	1-1/2	1-1/4	7/8	1/4	21-1/8	1-1/4	5-1/2
2	1/2	9	15-7/8	4	5-1/8	15/16	1-1/16	15-3/16	17-1/8	9	1-1/4	7/16	11/16	1-1/2	1-1/4	7/8	1/4	22-1/2	1-1/4	5-1/2
3	1/2	9	14	5-9/16	6-15/16	15/16	9/16	13-7/16	15-3/8	9	1-7/8	7/16	11/16	1-1/2	1-1/4	7/8	1/4	20-3/4	1-1/4	5-1/2
4	1/2	9	15-1/4	5-9/16	6-15/16	15/16	1-3/16	15-3/16	17-1/8	9	2-3/8	7/16	11/16	1-1/2	1-1/4	7/8	1/4	22	1-1/4	5-1/2
5	1/2	9	16-5/8	5-9/16	6-15/16	15/16	1-1/16	15-15/16	17-7/8	9	1-3/4	7/16	11/16	1-1/2	1-1/4	7/8	1/4	22-3/8	1-1/4	5-1/2
6	5/8	9	16-11/16	6-5/8	8-3/8	15/16	13/16	15-15/16	18-1/16	9	1-7/8	5/8	13/16	1-1/2	1-1/4	1-1/16	1/4	23-11/16	1-1/2	5-1/2
7	5/8	9	18-5/8	6-5/8	8-3/8	15/16	1-1/16	18-3/16	20-5/16	9	2-3/16	5/8	13/16	1-1/2	1-1/4	1-1/16	1/4	25-5/8	1-1/2	5-1/2
8	5/8	9	19-9/16	6-5/8	8-3/8	15/16	13/16	18-11/16	20-13/16	9	1-3/4	5/8	13/16	1-1/2	1-1/4	1-1/16	1/4	26-9/16	1-1/2	5-1/2
9	3/4	9	20-3/16	8-5/8	10-3/4	1-1/4	1-1/8	18-7/8	21-3/8	9	2-11/16	1	15/16	1-1/2	1-1/4	1-1/4	3/8	27-7/16	1-3/4	5-1/2
10	3/4	9	22-5/8	8-5/8	10-3/4	1-1/4	1-3/8	21-3/8	23-7/8	9	2-3/4	1	15/16	1-1/2	1-1/4	1-1/4	3/8	29-7/8	1-3/4	5-1/2
11	3/4	10	18-1/4	8-5/8	10-3/4	1-1/4	1-3/16	16-7/8	19-3/8	12	2-5/8	1	15/16	1-1/2	1-1/4	1-1/4	3/8	25-1/2	1-3/4	5-1/2
12	1	10	19-1/2	8-5/8	10-3/4	1-1/4	7/8	17-7/8	20-7/8	12	3-3/8	1	1-1/4	2	1-1/2	1-5/8	1/2	27-1/4	2-1/4	5-1/2
13	1	10	24-3/4	8-5/8	10-3/4	1-1/4	1	23-1/4	26-1/4	12	3-1/2	1	1/4	2	1-1/2	1-5/8	1/2	32-3/8	2-1/4	5-1/2
14	1-1/4	10	24-7/8	8-5/8	10-3/4	1-1/4	3/4	22-1/8	27-1/8	12	3-1/4	1	1-1/2	3	2	2	5/8	33-3/8	3	5-1/2
15	1-1/4	10	24-7/8	8-5/8	10-3/4	1-1/4	3/4	23-1/8	27-1/8	12	3-1/4	1	1-1/2	3	2	2	5/8	33-3/4	3	5-1/2
16	1-1/2	11	29-7/8	8-5/8	11-3/8	1-15/16	2	28-9/16	32-15/16	7	4-1/16	1-3/8	1-3/4	3	2-1/2	2-3/8	3/4	38-7/8	3-1/2	5-1/2
17	1-3/4	12	34	8-5/8	11-3/8	1-15/16	2	32-13/16	37-3/16	7	4-3/16	1-3/8	2	3	2-1/2	2-5/8	3/4	43-1/2	4	5-1/2
18	2	12	33-1/4	12-3/4	15-7/8	2-3/4	2-1/2	31-1/8	37-3/16	7	4-1/8	2-1/4	2-3/8	4	3	2-7/8	3/4	43-3/16	4-9/16	5-1/2
19	2-1/4	13	37-3/4	12-3/4	15-7/8	2-3/4	2-9/16	35-1/2	42-1/8	7	4	2-1/4	2-5/8	4-1/2	3	3-1/8	3/4	48-1/8	5	5-1/2
20	2-1/2	14	44-1/4	12-3/4	15-7/8	2-3/4	2-11/16	42-1/8	48-3/4	7	4-1/8	2-1/4	2-7/8	4-1/2	4	3-3/8	1	55-3/16	5-9/16	5-1/2
21	2-3/4	14	49-7/8	12-3/4	16-7/8	3-5/8	2-3/4	5-7/16	52-11/16	7	3-5/16	2-3/4	3-1/8	4-1/2	4	3-5/8	1	50-5/8	6-1/4	5-1/2
22	3	15	62	12-3/4	16-7/8	3-5/8	2-3/4	58-1/8	66-1/8	7	4-1/8	3	3-3/8	5	4	3-7/8	1	73-1/8	6-5/8	5-1/2



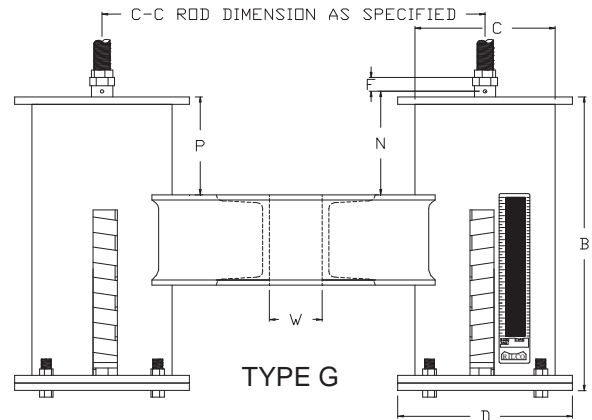
TYPE D



TYPE E



TYPE F

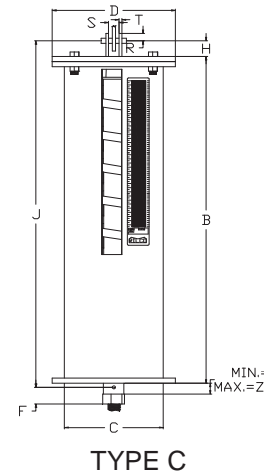
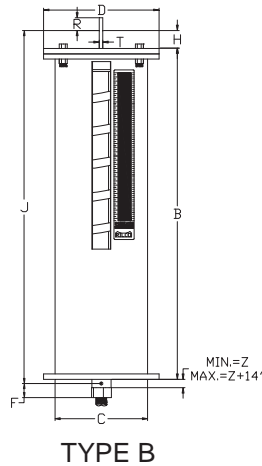
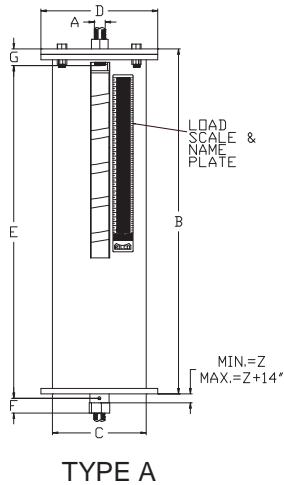


TYPE G

Weights (lbs) * Dimensions (inches)

Hanger Size	Type F										Type G				Weight			
	E' Bottom Flange		Bottom Flange		Load Col. Dia.	Load Flange		Length X		Channel Size	Max C-C	Space Between Channels-W	P	Type				
	Size Sq.	Bolt Circle		Bolts		Thick	Dia.	Thick	Min					Max	A,B,C	D,E	F	G
		Min	Max															
0	7-1/2	7	8-3/4	5/8	1/4	1.90	3-7/8	3/16	14-3/16	16-3/16	C3 x 4.1	24	5/8	1-1/2	12	12	20	37
1	7-1/2	7	8-3/4	5/8	1/4	1.90	3-7/8	3/16	15-15/16	17-15/16	C3 x 4.1	24	5/8	1-1/2	14	14	21	41
2	7-1/2	7	8-3/4	5/8	1/4	1.90	3-7/8	3/16	17-7/16	19-7/16	C3 x 4.1	24	5/8	1-1/2	16	16	23	45
3	7-1/2	7-3/4	8-3/4	5/8	1/4	2.88	5-3/4	3/16	15-5/8	17-5/8	C3 x 4.1	30	3/4	2	22	21	35	55
4	7-1/2	7-3/4	8-3/4	3/4	1/4	2.88	5-3/4	3/16	16-7/8	18-7/8	C3 x 4.1	30	3/4	2	25	24	39	61
5	7-1/2	7-3/4	8-3/4	3/4	1/4	2.88	5-3/4	3/16	18-1/4	20-1/4	C3 x 4.1	30	3/4	2	27	26	41	65
6	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	18-3/8	20-3/8	C3 x 4.1	36	1	2	41	40	62	93
7	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	20-5/16	22-5/16	C3 x 4.1	36	1	2	49	48	72	109
8	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	21-1/4	23-1/4	C3 x 4.1	36	1	2	61	52	75	133
9	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	21-7/8	23-7/8	C4 x 5.4	36	1-1/4	3	97	94	136	207
10	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	24-5/16	26-5/16	C4 x 5.4	36	1-1/4	3	114	108	150	241
11	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	19-15/16	21-15/16	C4 x 5.4	36	1-1/4	3	96	95	134	209
12	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	21-3/16	23-3/16	C5 x 6.7	36	1-1/2	4	108	104	144	223
13	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	26-7/16	28-7/16	C5 x 6.7	36	1-1/2	4	144	139	181	305
14	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	26-9/16	28-9/16	C5 x 6.7	33	1-1/2	4	153	147	188	323
15	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	26-9/16	28-9/16	C6 x 10.5	36	1-1/2	4	172	163	201	368
16	13-1/4	10-9/16	16-1/2	3/4	1/2	2.00	8-3/8	1/2	31-7/8	33-7/8	C8 x 11.5	36	2-1/8	4	218	202	241	462
17	13-1/4	10-9/16	16-1/2	3/4	1/2	2.00	8-3/8	1/2	36	38	C8 x 11.5	36	2-1/8	4	273	247	287	572
18	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	35-5/16	37-5/16	C12 x 20.7	42	2-3/8	4	512	477	550	1056
19	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	39-13/16	41-13/16	C12 x 20.7	42	2-3/8	4	600	548	624	1231
20	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	46-5/16	48-5/16	C12 x 20.7	40	2-3/8	4	802	723	807	1633
21	17-1/4	15-3/4	22	3/4	5/8	3.00	12-1/2	1/2	51-7/8	53-7/8	C15 x 33.9	48	3-1/8	4	940	845	872	1965
22	17-1/4	15-3/4	22	3/4	5/8	3.00	12-1/2	1/2	64	66	C15 x 33.9	48	3-3/8	4	1240	1140	1184	2566

Part # RVS-Triple Spring



RILCO "Variable Triple Spring Hanger" has all of the features of our RSV-268 and is designed to the same exacting specifications.

Each basic unit consists of three springs arranged in series within a single casing and a centering guide to assure the permanent alignment of the spring assembly.

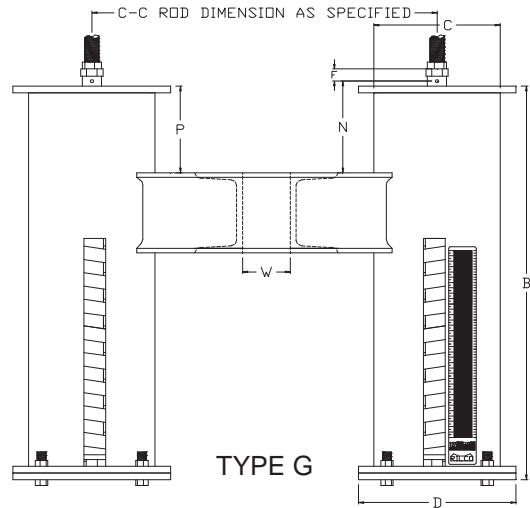
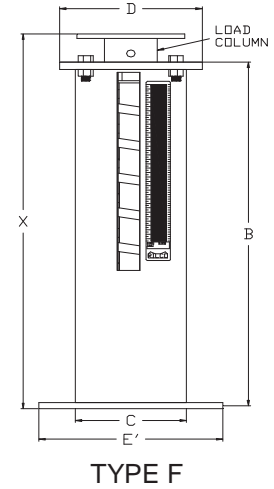
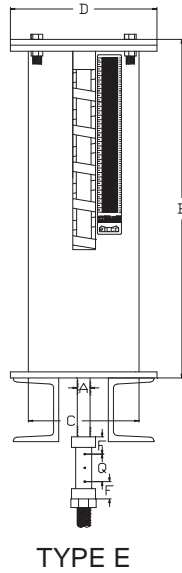
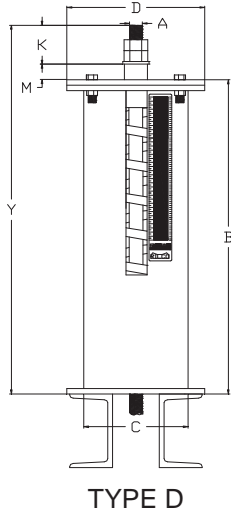
This hanger is offered in the seven basic types shown on this and the following page.

The Variable Selection Chart for sizing instructions are found on pages 8 and 9.

Weights (lbs) * Dimensions (inches)															
Hanger Size	Type F						Type G					Weight			
	E' Bottom Flange		Bottom Flange		Load Col. Dia.	Load Flange		Channel Size	Max C-C	Space Between Channels-W	Type				
	Size Sq.	Bolt Circle	Min	Max		Bolts	Thick				Dia.	Thick	A,B,C	D,E	F
0	7-1/2	7	8-3/4	5/8	1/4	1.90	3-7/8	3/16	C3 x 4.1	24	5/8	17	17	29	53
1	7-1/2	7	8-3/4	5/8	1/4	1.90	3-7/8	3/16	C3 x 4.1	24	5/8	20	20	30	59
2	7-1/2	7	8-3/4	5/8	1/4	1.90	3-7/8	3/16	C3 x 4.1	24	5/8	23	23	33	65
3	7-1/2	7-3/4	8-3/4	3/4	1/4	2.88	5-3/4	3/16	C3 x 4.1	30	3/4	30	29	50	77
4	7-1/2	7-3/4	8-3/4	3/4	1/4	2.88	5-3/4	3/16	C3 x 4.1	30	3/4	35	33	56	86
5	7-1/2	7-3/4	8-3/4	3/4	1/4	2.88	5-3/4	3/16	C3 x 4.1	30	3/4	38	36	59	92
6	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	C3 x 4.1	36	1	57	56	89	131
7	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	C3 x 4.1	36	1	69	68	104	155
8	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	C3 x 4.1	36	1	87	74	108	191
9	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C4 x 5.4	36	1-1/4	131	126	189	281
10	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C4 x 5.4	36	1-1/4	156	147	210	332
11	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C4 x 5.4	36	1-1/4	132	128	186	284
12	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C5 x 6.7	36	1-1/2	147	141	201	320
13	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C5 x 6.7	36	1-1/2	201	194	257	428
14	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C5 x 6.7	33	1-1/2	215	206	267	455
15	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C6 x 10.5	36	1-1/2	237	224	281	513
16	13-1/4	10-9/16	16-1/2	3/4	1/2	2.00	8-3/8	1/2	C8 x 11.5	36	2-1/8	306	282	341	651
17	13-1/4	10-9/16	16-1/2	3/4	1/2	2.00	8-3/8	1/2	C8 x 11.5	36	2-1/8	389	350	410	816
18	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	C12 x 20.7	42	2-3/8	723	671	780	1494
19	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	C12 x 20.7	42	2-3/8	855	777	891	1757
20	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	C12 x 20.7	40	2-3/8	1158	1040	1166	2360
21	17-1/4	15-3/4	22	3/4	5/8	3.00	12-1/2	1/2	C15 x 33.9	48	3-1/8	1365	1223	1263	2858
22	17-1/4	15-3/4	22	3/4	5/8	3.00	12-1/2	1/2	C15 x 33.9	48	3-3/8	1815	1665	1731	3759



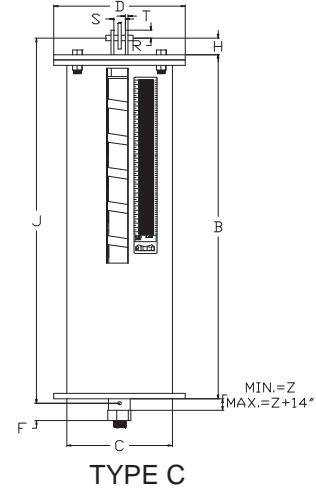
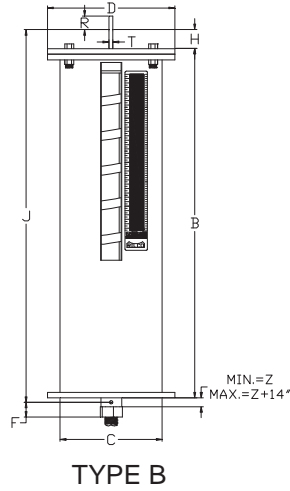
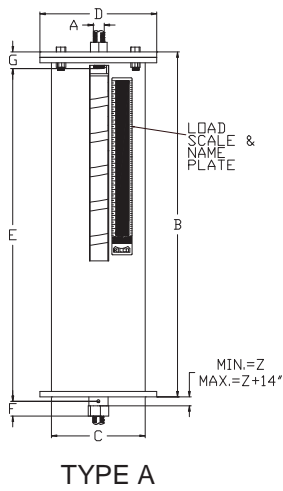
Part # RVS-Triple Spring



Weights (lbs) * Dimensions (inches)

Hanger Size	Rod Size "A"	R.H. Thread Length	Casing		Min Thread Engage "F"	"Z"	Rod Take Out By Type					Type A	Type D		TYPE F		TYPE G
			Length "B"	Dia. "C"			A	B,C	D	E	G	Thread Depth "G"	"K"	"M"	Loaded Length Dim X		
							"E"	"J"	"Y"	"Q"	"N"			Min	Max	Rod Length "P"	
0	1/2	12	19-1/8	4	15/16	15/16	19-1/8	20-5/8	28-1/8	11-1/8	1-1/2	7/16	1-1/4	7-3/4	20-15/16	22-15/16	1-1/2
1	1/2	12	21-3/4	4	15/16	11/16	21-3/4	23-1/4	30-3/4	11-1/8	1-1/2	7/16	1-1/4	7-3/4	23-9/16	25-9/16	1-1/2
2	1/2	12	24	4	15/16	1-1/16	24	25-1/2	33	11-1/8	1-1/2	7/16	1-1/4	7-3/4	25-13/16	27-9/16	1-1/2
3	1/2	12	21-3/16	5-9/16	15/16	9/16	21-3/16	22-11/16	30-3/16	11-1/8	2	7/16	1-1/4	7-3/4	23	25	2
4	1/2	12	23-1/16	5-9/16	15/16	1-3/16	23-1/16	24-9/16	32-1/16	11-1/8	2	7/16	1-1/4	7-3/4	24-7/8	26-7/8	2
5	1/2	12	25-1/8	5-9/16	15/16	1-1/16	25-1/8	26-5/8	34-1/8	11-1/8	2	7/16	1-1/4	7-3/4	26-15/16	28-15/16	2
6	5/8	12	25	6-5/8	15/16	13/16	25	26-1/2	34-3/16	11-1/8	2	5/8	1-1/2	7-11/16	26-15/16	28-15/16	2
7	5/8	13	27-15/16	6-5/8	15/16	1-1/16	27-15/16	29-7/16	37-1/8	11-1/8	2	5/8	1-1/2	7-11/16	29-7/8	31-7/8	2
8	5/8	13	29-5/16	6-5/8	15/16	13/16	29-5/16	30-13/16	38-1/2	11-1/8	2	5/8	1-1/2	7-11/16	31-1/4	33-1/4	2
9	3/4	13	29-9/16	8-5/8	1-1/4	1-1/8	29-9/16	31-1/16	38-7/8	11-1/2	3	1	1-3/4	7-9/16	31-5/8	33-5/8	3
10	3/4	13	33-1/4	8-5/8	1-1/4	1-3/8	33-1/4	34-3/4	42-9/16	11-1/2	3	1	1-3/4	7-9/16	35-5/16	37-5/16	3
11	3/4	13	26-11/16	8-5/8	1-1/4	1-3/16	26-11/16	28-3/16	36	11-1/2	3	1	2	7-9/16	28-3/4	30-3/4	3
12	1	13	28-9/16	8-5/8	1-1/4	7/8	28-9/16	30-9/16	38-3/8	11-1/2	3-7/8	1	2-1/4	7-9/16	30-5/8	32-5/8	4
13	1	14	36-1/4	8-5/8	1-1/4	1	36-1/4	38-1/4	46-1/16	11-1/2	3-7/8	1	2-1/2	7-9/16	38-5/16	40-5/16	4
14	1-1/4	14	36-3/4	8-5/8	1-1/4	3/4	36-3/4	39-5/8	47-5/16	11-1/2	4	1	2-1/2	7-9/16	38-13/16	40-13/16	4
15	1-1/4	14	36-5/8	8-5/8	1-1/4	3/4	36-5/8	39-1/2	47-3/16	10-9/16	4	1	3	7-9/16	38-11/16	40-11/16	4
16	1-1/2	15	44-1/16	8-5/8	1-15/16	2	44-1/16	47-1/16	54-5/8	11-1/16	4	1-3/8	3-1/2	7-11/16	46-1/8	48-1/8	4
17	1-3/4	15	50-1/4	8-5/8	1-15/16	2	50-1/4	53-1/4	61-5/16	11-9/16	4	1-3/8	4	7-11/16	52-5/16	54-5/16	4
18	2	16	49-1/8	12-3/4	2-3/4	2-1/2	49-1/8	53-1/8	60-11/16	10-7/8	4	2-1/4	4-9/16	7	51-5/16	53-5/16	4
19	2-1/4	16	55-7/8	12-3/4	2-3/4	2-9/16	55-7/8	60-3/8	67-7/8	11-7/16	4	2-1/4	5	7	58-1/16	60-1/16	4
20	2-1/2	17	65-5/8	12-3/4	2-3/4	2-11/16	65-5/8	70-1/8	78-3/16	11-15/16	4	2-1/4	5-9/16	7	67-13/16	69-13/16	4
21	2-3/4	17	73-5/16	12-3/4	3-5/8	2-3/4	73-5/16	76-13/16	87-7/8	11	4	2-3/4	6-1/4	9-5/16	75-7/16	77-7/16	4
22	3	18	91-1/2	12-3/4	3-5/8	2-3/4	91-1/2	95-1/2	106-7/16	11-1/2	4	3	6-5/8	9-5/16	93-5/8	95-5/8	4

Part # RVS-Quadruple Spring



RILCO "Variable Quadruple Spring Hanger" has all of the RVS-268 features of our RVS-268 and is designed to the same exacting specifications.

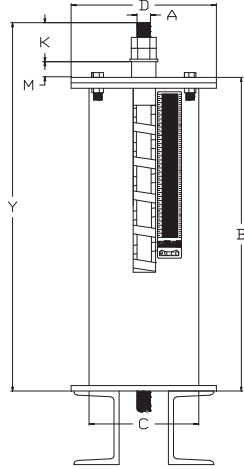
Each basic unit consists of four springs arranged in series within a single casing and a centering guide to assure the permanent alignment of the spring assembly.

This hanger is offered in the seven basic types as shown on this and the following page.

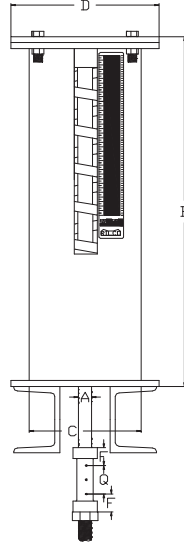
The Variable Selection Chart for sizing and instructions are found on pages 8 and 9.

Weights (lbs) * Dimensions (inches)																
Hanger Size	Type F								Type G				Weight			
	E' Bottom Flange		Bottom Flange		Load Col. Dia.	Load Flange		Channel Size	Max C-C	Space Between Channels-W	Type					
	Size Sq.	Bolt Circle	Min	Max		Bolts	Thick				Dia.	Thick	A,B,C	D,E	F	G
0	7-1/2	7	8-3/4	5/8	1/4	1.90	3-7/8	3/16	C3 x 4.1	24	5/8	22	22	38	70	
1	7-1/2	7	8-3/4	5/8	1/4	1.90	3-7/8	3/16	C3 x 4.1	24	5/8	26	26	40	78	
2	7-1/2	7	8-3/4	5/8	1/4	1.90	3-7/8	3/16	C3 x 4.1	24	5/8	30	30	44	86	
3	7-1/2	7-3/4	8-3/4	3/4	1/4	2.88	5-3/4	3/16	C3 x 4.1	30	3/4	40	38	66	102	
4	7-1/2	7-3/4	8-3/4	3/4	1/4	2.88	5-3/4	3/16	C3 x 4.1	30	3/4	46	44	74	114	
5	7-1/2	7-3/4	8-3/4	3/4	1/4	2.88	5-3/4	3/16	C3 x 4.1	30	3/4	50	48	78	122	
6	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	C3 x 4.1	36	1	76	74	118	174	
7	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	C3 x 4.1	36	1	92	90	138	206	
8	9	8	10-7/8	3/4	3/8	3.50	6-3/8	1/4	C3 x 4.1	36	1	116	98	144	254	
9	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C4 x 5.4	36	1-1/4	174	168	252	374	
10	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C4 x 5.4	36	1-1/4	208	196	280	442	
11	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C4 x 5.4	36	1-1/4	176	170	248	378	
12	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C5 x 6.7	36	1-1/2	196	188	268	426	
13	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C5 x 6.7	36	1-1/2	268	258	342	570	
14	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C5 x 6.7	33	1-1/2	286	274	356	606	
15	13-1/4	10-9/16	16-1/2	3/4	1/2	4.50	8-3/8	1/2	C6 x 10.5	36	1-1/2	316	398	374	684	
16	13-1/4	10-9/16	16-1/2	3/4	1/2	2.00	8-3/8	1/2	C8 x 11.5	36	2-1/8	408	376	454	868	
17	13-1/4	10-9/16	16-1/2	3/4	1/2	2.00	8-3/8	1/2	C8 x 11.5	36	2-1/8	518	466	546	1088	
18	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	C12 x 20.7	42	2-3/8	964	894	1040	1992	
19	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	C12 x 20.7	42	2-3/8	1140	1036	1188	2342	
20	17-1/4	15-3/4	22	3/4	5/8	2.50	12-1/2	1/2	C12 x 20.7	40	2-3/8	1544	1386	1554	3140	
21	17-1/4	15-3/4	22	3/4	5/8	3.00	12-1/2	1/2	C15 x 33.9	48	3-1/8	1820	1630	1684	3810	
22	17-1/4	15-3/4	22	3/4	5/8	3.00	12-1/2	1/2	C15 x 33.9	48	3-3/8	2420	2220	2308	5012	

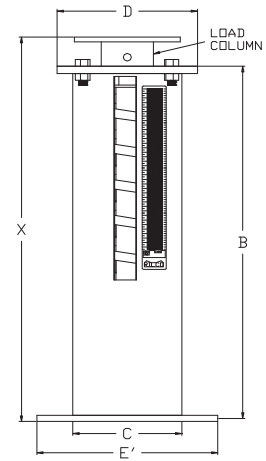
Part # RVS-Quadruple Spring



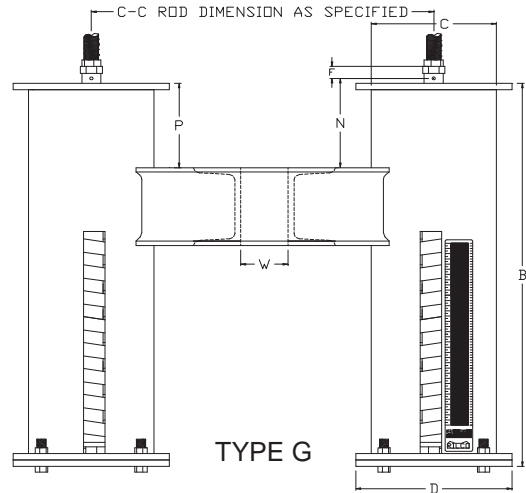
TYPE D



TYPE E



TYPE F



TYPE G

Weights (lbs) * Dimensions (inches)

Hanger Size	Rod Size "A"	R.H. Thread Length	Casing		Min Thread Engage "F"	"Z"	Rod Take Out By Type					Type A	Type D		TYPE F		TYPE G	
			Length "B"	Dia. "C"			A	B,C	D	E	G	Thread Depth "G"	"K"	"M"	Loaded Length Dim X			Rod Length "P"
							"E"	"J"	"Y"	"Q"	"N"	Min	Max					
0	1/2	16	25-1/8	4	15/16	15/16	25-1/8	26-5/8	37-1/8	15-1/8	1-1/2	7/16	1-1/4	7-3/4	26-15/16	28-15/16	1-1/2	
1	1/2	16	28-5/8	4	15/16	11/16	28-5/8	30-1/8	40-5/8	15-1/8	1-1/2	7/16	1-1/4	7-3/4	30-7/16	32-7/16	1-1/2	
2	1/2	16	31-5/8	4	15/16	1-1/16	31-5/8	33-1/8	43-5/8	15-1/8	1-1/2	7/16	1-1/4	7-3/4	33-7/16	35-7/16	1-1/2	
3	1/2	16	27-7/8	5-9/16	15/16	9/16	27-7/8	29-3/8	39-7/8	15-1/8	2	7/16	1-1/4	7-3/4	29-11/16	31-11/16	2	
4	1/2	16	30-3/8	5-9/16	15/16	1-3/16	30-3/8	31-7/8	42-3/8	15-1/8	2	7/16	1-1/4	7-3/4	32-3/16	34-3/16	2	
5	1/2	16	33-1/8	5-9/16	15/16	1-1/16	33-1/8	34-5/8	45-1/8	15-1/8	2	7/16	1-1/4	7-3/4	34-15/16	36-15/16	2	
6	5/8	16	32-15/16	6-5/8	15/16	13/16	32-15/16	34-7/16	45-1/8	15-1/8	2	5/8	1-1/2	7-11/16	34-7/8	36-7/8	2	
7	5/8	16	36-7/8	6-5/8	15/16	1-1/16	36-7/8	38-3/8	49-1/16	15-1/8	2	5/8	1-1/2	7-11/16	38-13/16	40-13/16	2	
8	5/8	16	38-11/16	6-5/8	15/16	13/16	38-11/16	40-3/16	50-7/8	15-1/8	2	5/8	1-1/2	7-11/16	40-5/8	42-5/8	2	
9	3/4	16	38-13/16	8-5/8	1-1/4	1-1/8	38-13/16	40-5/16	51-1/8	15-1/2	3	1	1-3/4	7-9/16	40-7/8	42-7/8	3	
10	3/4	16	43-3/4	8-5/8	1-1/4	1-3/8	43-3/4	45-1/4	56-1/16	15-1/2	3	1	1-3/4	7-9/16	45-13/16	47-13/16	3	
11	3/4	17	35	8-5/8	1-1/4	1-3/16	35	36-1/2	47-5/16	15-1/2	3	1	2	7-9/16	37-1/16	39-1/16	3	
12	1	17	37-1/2	8-5/8	1-1/4	7/8	37-1/2	39-1/2	50-5/16	15-1/2	3-7/8	1	2-1/4	7-9/16	39-9/16	41-9/16	4	
13	1	17	47-3/4	8-5/8	1-1/4	1	47-3/4	49-3/4	60-9/16	15-1/2	3-7/8	1	2-1/2	7-9/16	49-13/16	51-13/16	4	
14	1-1/4	17	48-3/8	8-5/8	1-1/4	3/4	48-3/8	51-1/4	61-15/16	15-1/2	3-7/8	1	2-1/2	7-9/16	50-7/16	52-7/16	4	
15	1-1/4	18	48-1/8	8-5/8	1-1/4	3/4	48-1/8	51	61-15/16	15-1/2	4	1	3	7-9/16	50-3/16	52-3/16	4	
16	1-1/2	18	57-7/8	8-5/8	1-15/16	2	57-7/8	60-7/8	71-7/16	15-1/16	4	1-3/8	3-1/2	7-11/16	59-15/16	61-15/16	4	
17	1-3/4	19	66-1/8	8-5/8	1-15/16	2	66-1/8	69-1/8	80-3/16	15-9/16	4	1-3/8	4	7-11/16	68-3/16	70-3/16	4	
18	2	19	64-1/8	12-3/4	2-3/4	2-1/2	64-1/8	68-1/8	78-11/16	14-7/8	4	2-1/4	4-9/16	7	66-5/16	68-5/16	4	
19	2-1/4	20	73-1/8	12-3/4	2-3/4	2-9/16	73-1/8	77-5/8	88-1/8	15-7/16	4	2-1/4	5	7	75-5/16	77-5/16	4	
20	2-1/2	20	86-1/8	12-3/4	2-3/4	2-11/16	86-1/8	90-5/8	101-11/16	15-15/16	4	2-1/4	5-9/16	7	88-5/16	90-5/16	4	
21	2-3/4	21	95-7/8	12-3/4	3-5/8	2-3/4	95-7/8	99-3/8	113-7/16	15	4	2-3/4	6-1/4	9-5/16	98	100	4	
22	3	21	120-1/8	12-3/4	3-5/8	2-3/4	120-1/8	124-1/8	138-7/16	15-1/2	4	3	6-5/8	9-5/16	122-1/4	124-1/4	4	