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TAYLOR

PIPE SUPPORTS

Product Specifications

ENGINEERED PRODUCTS



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CONSTANT SUPPORTS

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CONSTANT SUPPORTS

Constant springs are used to support piping whose movements and/or loading conditions cause too great a variability or too high of a loading condition for a variable spring. A perfect constant support will exert the same lifting effort as the pipe moves either up or down.

The geometric design of the constant support ensures a constant amount of force exerted throughout the entire range of travel. The force is made constant by a counterbalancing spring assembly. This counterbalancing spring assembly is made up of a spring coil(s) and a set of levers.

As the levers move from the higher to the lower position, or vice versa, a turning moment about the main pivot is created that is both equal and opposite to the turning moment of the load and the load moment arms. As the lever moves from the higher to the lower position, the load spring is compressed and the ensuing increased force causes the turning moment to be created. It is the opposite for the lever moving from the lower to the higher position. When the load spring is relaxed and the ensuing decreased force causes the turning moment to be created.

The formula $F \times A = R \times B$, can be used to illustrate this concept.

F = Spring Force

A = Length of the Moment Arm from the Spring Rod to the Main Pivot.

R = Supporting Force (pipe load)

B = Length of the Moment Arm of the Supporting Force to the Main Pivot.

SPECIFICATIONS

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

STANDARD DESIGN FEATURES

- High load and travel capabilities
- Each hanger is calibrated independently to the customer's specific load prior to shipment
- Designed to provide a more condensed and versatile unit
- Load is adjustable +/- 10% from the "as shipped" load
- Permanently installed rivets represent hot (red) and cold (white) positions
- Hot-dip galvanized finish per ASTM A153 protects the unit from corrosive and climactic conditions. The spring is powder-coated to provide additional protection for the coil.
- The spring cover prevents foreign objects from restricting the action of the coil spring while providing a clean functional appearance.
- Full range of travel, including over-travel stop placement enables blocking of the constant in nearly any position of the travel.
- Stainless steel shafts used in all locations subject to movement, ensures the unit will not seize due to corrosion

OPTIONAL DESIGN FEATURES

- Lifting lugs are available for all sizes
- Optional finishes ranging from zinc-rich primer to powder-coating for casing and components
- Units fabricated entirely from stainless steel, including the coil are available by Special Order

LIMIT AND TRAVEL STOPS

RILCO constant supports have built-in upper and lower limit stops to restrict the travel, avoiding damage to the support. The ends of the travel arc are specifically located to act as the limit stops when the movement causes the stop shaft the contact them.

The travel stops are painted RED “toothed” on both sides with a hole in the center, in order to allow placement in multiple locations along the travel arc. The stops are placed on the stop shaft and retained with either clips or cotter pins. The stops are to (MUST) be removed prior to the line being put into service. Reference the installation instructions for the proper sequencing of events prior to retainer removal.

SELECTION OF TYPE AND FIGURE

The selection of a particular type and figure will be determined by the supporting steel and space conflicts with the surrounding objects.

The figure RCS-81H is a horizontal arrangement which requires less headroom, but increased room horizontally. The RCS-80V is a vertical arrangement which requires more headroom, but less space horizontally.

Types A, B, C, D, E and G are available in the RCS-80V and 81H series.

Type F is available only in the RCS-81H series.

Special constant support configurations can be designed for unique applications.

SELECTION OF SUPPORT SIZE

RILCO manufactures constant supports in sizes with travels ranging from 1-1/2” to 21” and with loads from 25 to 87,500 pounds.

Proper selection requires that the total load; including pipe thermal loads, working fluid, and hanger hardware, as well as the actual travel, or vertical movement of the pipe at the support location, be known. Please refer the accompanying constant support size chart to select a size which will accommodate both the load and the total travel. The total travel is designed to allow for differences between the calculated travel and the actual travel. The total travel is determined by adding 1” or 20% of the actual travel, whichever is greater, to the calculated actual travel.

INSTALLATION AND ADJUSTMENT

A set of installation instructions can be included with each order, or contact RILCO for a copy.

Adjustment of the RILCO “Constant Support” should only be done after consulting your RILCO “Support Team” for the proper procedure and limitations.

Constant Sizing Table

Hanger Size No.	Total Travel (in.)														
	1 ½	2	2 ½	3	3 ½	4	4 ½	5	5 ½	6	6 ½	7	7 ½	8	8 ½
	Loads (lbs.)														
1	144	108	86	72	62	54	48	43	39	36	33	31	29	27	
1	173	130	104	87	74	65	58	52	47	43	40	37	35	33	
2	204	153	122	102	87	77	68	61	56	51	47	44	41	38	
3	233	175	140	117	100	88	78	70	64	58	54	50	47	44	
4	280	210	168	140	120	105	93	84	76	70	65	60	56	53	
5	327	245	196	163	140	123	109	98	89	82	75	70	65	61	
6	373	280	224	187	160	140	124	112	102	93	86	80	75	70	
7	451	338	270	225	193	169	150	135	123	113	104	97	90	85	
8	527	395	316	263	226	198	176	158	144	132	122	113	105	99	
9	600	450	360	300	257	225	200	180	164	150	138	129	120	113	
10	727	545	436	363	311	273	242	218	198	182	168	156	145	136	
11	851	638	510	425	365	319	284	255	232	213	196	182	170	160	
12	977	733	586	489	419	367	326	293	267	244	226	209	195	183	
13	1177	883	706	589	505	442	392	353	321	294	272	252	235	221	
14	1373	1030	824	687	589	515	458	412	375	343	317	294	275	258	
15	1573	1180	944	787	674	590	524	472	429	393	363	337	315	295	
16	1893	1420	1136	947	811	710	631	568	516	473	437	406	379	355	
17	2217	1663	1330	1109	950	832	739	665	605	554	512	475	443	416	
18	2540	1905	1524	1270	1089	953	847	762	693	634	586	544	508	476	
19		2025	1620	1350	1157	1013	900	810	736	675	623	579	540	506	448
20		2145	1716	1430	1226	1073	953	858	780	715	660	613	572	536	476
21		2335	1868	1557	1334	1168	1038	934	849	778	718	667	623	584	505
22		2525	2020	1683	1443	1263	1122	1010	918	842	777	721	673	631	549
23		2710	2168	1807	1549	1355	1204	1080	985	903	834	775	723	678	594
24		2910	2328	1940	1663	1455	1293	1164	1058	970	895	831	776	728	638
25		3110	2488	2073	1777	1555	1382	1244	1131	1037	957	889	829	778	685
26		3310	2648	2207	1891	1655	1471	1324	1204	1103	1018	946	883	828	732
27		3630	2904	2420	2074	1815	1613	1452	1320	1210	1117	1037	968	908	779
28		3950	3160	2633	2257	1975	1756	1580	1436	1317	1215	1129	1053	988	854
29		4270	3416	2847	2440	2135	1898	1708	1553	1423	1314	1220	1139	1068	929
30		4535	3628	3023	2591	2268	2016	1814	1649	1512	1395	1296	1209	1134	1005
31		4795	3836	3197	2740	2398	2131	1918	1744	1598	1475	1370	1279	1199	1067
32		5060	4048	3373	2891	2530	2249	2024	1840	1687	1557	1446	1349	1265	1128
33		5295	4236	3530	3026	2648	2353	2118	1925	1765	1629	1513	1412	1324	1191
34		5525	4420	3683	3157	2763	2456	2210	2009	1842	1700	1579	1473	1381	1246
35			4696	3913	3354	2935	2609	2348	2135	1957	1806	1677	1565	1468	1300
36			4968	4140	3549	3105	2760	2484	2258	2070	1911	1774	1656	1553	1381
37			5240	4367	3743	3275	2911	2620	2382	2183	2015	1871	1747	1638	1461
38			5616	4680	4011	3510	3120	2808	2553	2340	2160	2006	1872	1755	1541
39			5988	4990	4277	3743	3327	2994	2722	2495	2303	2139	1996	1871	1652
40			6360	5300	4543	3975	3533	3180	2891	2650	2446	2271	2120	1988	1761
41			6976	5813	4983	4360	3876	3488	3171	2907	2683	2491	2325	2180	1988
42			7588	6323	5420	4743	4216	3794	3449	3162	2919	2710	2529	2371	2052
43			8200	6833	5857	5125	4556	4100	3727	3417	3154	2929	2733	2563	2232
44			8724	7270	6231	5453	4847	4362	3965	3635	3355	3116	2908	2726	2412
45			9284	7737	6631	5803	5158	4642	4220	3868	3571	3316	3095	2901	2566
46			9760	8133	6971	6100	5422	4880	4436	4067	3754	3486	3253	3050	2731
47			10376	8647	7411	6485	5764	5188	4716	4323	3991	3706	3459	3243	2871
48			10988	9157	7848	6868	6104	5495	4995	4578	4226	3924	3663	3434	3052
49			11600	9667	8286	7250	6444	5800	5273	4833	4462	4143	3867	3625	3232
50				10367	8886	7775	6911	6220	5655	5183	4785	4443	4147	3888	3412
51				11067	9486	8300	7378	6640	6036	5533	5108	4743	4427	4150	3659
52				11847	10154	8885	7898	7108	6462	5923	5468	5077	4739	4443	3906
53				12623	10820	9468	8416	7574	6886	6311	5826	5410	5049	4734	4181
54				13400	11486	10050	8933	8040	7309	6700	6185	5743	5360	5025	4455
55				14713	12611	11035	9809	8828	8026	7356	6791	6306	5885	5518	4730
56				16023	13734	12018	10682	9614	8740	8011	7396	6867	6409	6009	5193
57				17333	14857	13000	11555	10400	9455	8666	8000	7429	6933	6500	5655
58				18423	15791	13818	12282	11054	10049	9211	8503	7896	7369	6809	6118
59				19510	16723	14633	13007	11706	10642	9755	9005	8362	7804	7316	6506
60				20600	17657	15450	13733	12360	11236	10300	9508	8829	8240	7725	6886
61				21890	18763	16418	14593	13134	11940	10945	10103	9382	8756	8209	7271
62				23176	19665	17383	15451	13906	12642	11588	10697	9933	9270	8691	7726
63				24463	20968	18348	16309	14678	13344	12231	11291	10840	9785	9174	8180
"B (avg. in.)"	1 3/8	1 1/8	2 1/4	2 3/4	3 1/4	3 5/8	4 1/8	4 5/8	5 1/8	5 1/2	6	6 1/2	6 3/8	7 1/8	7 1/8



Hanger Size No.	Total Travel (in.)														
	9	9 ½	10	10 ½	11	11 ½	12	12 ½	13	13 ½	14	14 ½	15	15 ½	16
	Loads (lbs.)														
1															
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19	423	401	381												
	450	426	405												
20	477	452	429												
21	519	492	467												
22	561	532	505												
23	602	571	542												
24	647	613	582												
25	691	655	622												
26	736	697	662												
27	807	764	726												
28	878	832	790												
29	949	899	854												
30	1008	955	907												
31	1066	1009	959												
32	1124	1065	1012												
33	1177	1115	1059												
34	1228	1163	1105												
35	1304	1236	1174	1053	1005	962	922	885	851	819	790				
				1118	1067	1021	978	939	903	870	838				
36	1380	1307	1242	1183	1129	1080	1035	994	955	920	887				
37	1456	1379	1310	1248	1191	1139	1092	1048	1008	970	936				
38	1560	1478	1404	1337	1276	1221	1170	1123	1080	1040	1003				
39	1663	1576	1497	1426	1361	1302	1247	1198	1151	1109	1069				
40	1767	1674	1590	1514	1445	1383	1325	1272	1223	1178	1136				
41	1938	1836	1744	1661	1585	1516	1453	1395	1341	1292	1246				
42	2108	1997	1897	1807	1724	1649	1581	1518	1459	1405	1355				
43	2278	2158	2050	1952	1863	1782	1708	1640	1577	1518	1464				
44	2423	2296	2181	2077	1983	1896	1817	1745	1678	1615	1558				
45	2579	2443	2321	2210	2110	2018	1934	1857	1785	1719	1658				
46	2711	2568	2440	2324	2218	2122	2033	1952	1877	1807	1743				
47	2882	2730	2594	2470	2358	2255	2162	2075	1995	1921	1853				
48	3052	2891	2747	2616	2497	2389	2289	2198	2113	2035	1962				
49	3222	3053	2900	2762	2636	2522	2417	2320	2231	2148	2071				
50	3456	3274	3110	2962	2827	2704	2592	2488	2392	2304	2221	2001	1934	1871	1813
												2145	2073	2006	1944
51	3689	3495	3320	3162	3018	2887	2767	2656	2554	2459	2371	2289	2213	2142	2075
52	3949	3741	3554	3384	3231	3090	2962	2843	2734	2632	2538	2451	2369	2293	2221
53	4208	3986	3787	3606	3442	3293	3156	3030	2913	2805	2705	2612	2524	2443	2367
54	4467	4231	4020	3828	3654	3495	3350	3216	3092	2978	2871	2772	2680	2593	2513
55	4904	4646	4414	4203	4012	3838	3678	3531	3395	3269	3152	3044	2942	2847	2759
56	5341	5060	4807	4518	4370	4180	4006	3846	3698	3561	3433	3315	3204	3101	3004
57	5778	5474	5200	4952	4727	4521	4333	4160	4000	3852	3714	3586	3466	3355	3250
58	6141	6818	5527	5263	5024	4806	4606	4422	4251	4094	3947	3811	3684	3565	3454
59	6503	6161	5853	5574	5320	5089	4877	4682	4502	4335	4180	4036	3902	3776	3658
60	6867	6505	6180	5885	5618	5374	5150	4944	4754	4578	4414	4262	4120	3987	3863
61	7297	6912	6567	6254	5969	5710	5472	5254	5051	4864	4690	4529	4378	4236	4104
62	7725	7319	6953	6621	6320	6046	5794	5562	5348	5150	4965	4795	4635	4485	4346
63	8154	7725	7339	6989	6671	6381	6116	5871	5645	5436	5242	5061	4892	4734	4587
"B (avg. in.)	8 ¼	8 ¼	9 ¼	9 ⅝	10 ⅞	10 ⅝	11	11 ½	12	12 ⅞	12 ⅞	13 ⅞	13 ⅞	14 ¼	14 ¾

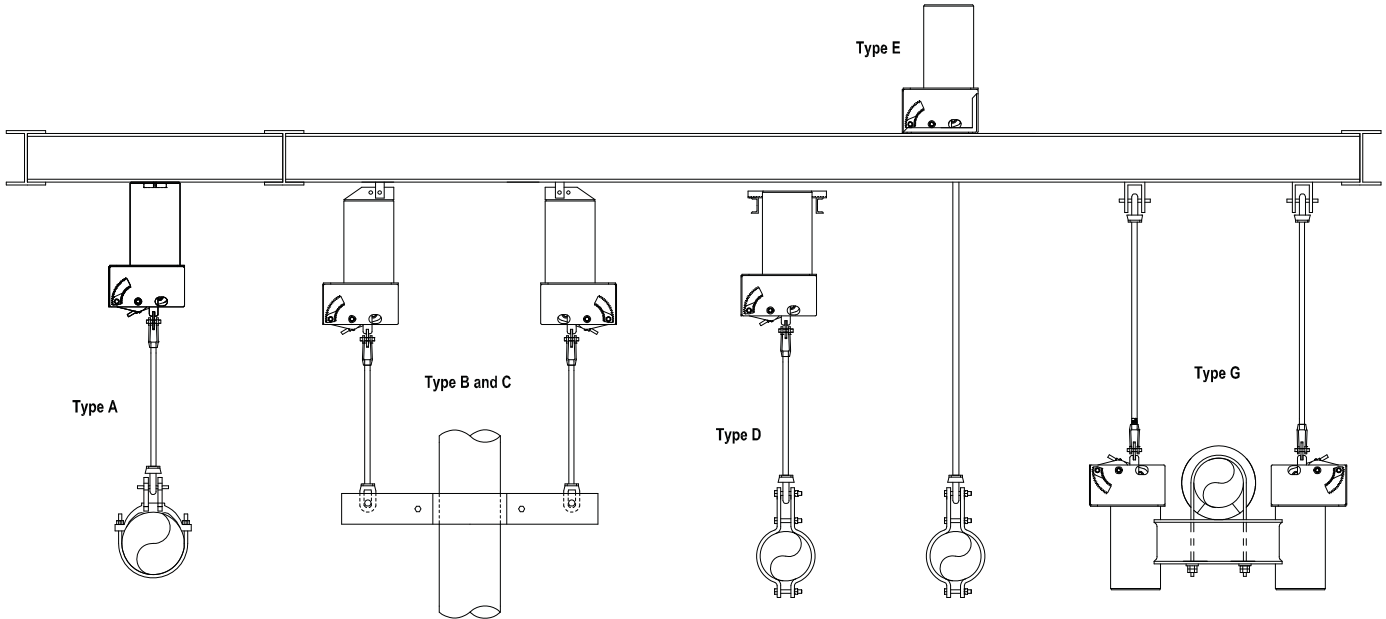
Constant Sizing Table

Hanger Size No.	Total Travel (in.)																
	4	4 ½	5	5 ½	6	6 ½	7	7 ½	8	8 ½	9	9 ½	10	10 ½	11	11 ½	12
	Loads (lbs.)																
64	19225	17089	15380	13982	12816	11831	10986	10253	9613	9047	8544	8094	7690	7323	6990	6686	6408
65	20100	17866	16080	14618	13400	12370	11486	10720	10050	9459	8933	8463	8040	7657	7308	6991	6700
66	22068	19615	17654	16049	14711	13580	12610	11769	11034	10385	9808	9291	8827	8406	8024	7675	7356
67	24033	21362	19226	17478	16021	14790	13733	12817	12016	11310	10681	10119	9613	9154	8738	8359	8011
68	26000	23111	20800	18909	17333	16000	14857	13866	13000	12236	11555	10947	10400	9904	9454	9043	8666
69	27635	24564	22108	20089	18423	17007	15792	14738	13818	13005	12282	11635	11054	10527	10048	9611	9211
70	29268	26015	23414	21286	19511	18011	16725	15609	14632	13773	13008	12323	11707	11149	10642	10179	9755
71	30900	27466	24720	22473	20599	19016	17657	16480	15450	14542	13733	13010	12360	11770	11235	10747	10300
72	32835	29186	26268	23880	21889	20207	18763	17512	16418	15452	14593	13825	13134	12508	11939	11420	10945
73	34768	30904	27814	25286	23177	21396	19868	18542	17384	16362	15452	14639	13907	13244	12641	12092	11589
74	36700	32622	29360	26691	24466	22585	20972	19573	18350	17271	16311	15452	14680	13980	13344	12764	12233
75	38800	34489	31040	28218	25866	23878	22172	20693	19400	18259	17244	16336	15520	14780	14108	13495	12933
76	40900	36355	32720	29746	27266	25170	23372	21813	20450	19248	18178	17221	16360	15580	14871	14225	13633
77	43000	38222	34400	31273	28666	26462	24572	22933	21500	20236	19111	18105	17200	16380	15635	14955	14333
78	45335	40297	36268	32971	30222	27899	25906	24178	22668	21335	20149	19088	18134	17269	16484	15768	15111
79	47668	42371	38134	34668	31779	29335	27239	25422	23834	22432	21185	20070	19067	18158	17332	16579	15889
80	50000	44444	40000	36364	33332	30770	28572	26666	25000	23530	22222	21052	20000	19046	18180	17390	16666
81	52500	46666	42000	38182	35000	32309	30000	27999	26250	24707	23333	22105	21000	19998	19089	18260	17500
82	55000	48888	44000	40000	36665	33847	31429	29333	27500	25883	24444	23157	22000	20951	20000	19129	18333
83	57500	51111	46000	41819	38332	35386	32858	30666	28750	27060	25555	24210	23000	21903	20907	20000	19166
84			49200	44728	40998	37847	35144	32799	30750	28942	27333	25894	24600	23427	22361	21390	20500
85			52400	47637	43665	40309	37429	34932	32750	30824	29111	27578	26200	24950	23816	22781	21832
86			55400	50364	46165	42616	39572	36932	34625	32589	30777	29157	27700	26379	25179	24085	23082
87			58400	53091	48665	44924	41715	38932	36500	34354	32444	30736	29200	27807	26543	25389	24332
88			61400	55819	51165	47232	43858	40932	38375	36119	34111	32315	30700	29236	27906	26694	25582
89			66000	60000	54998	50771	47144	43999	41250	38825	36666	34736	33000	31426	29997	28694	27500
90					61331	56617	52572	49065	46000	43295	40888	38736	36800	35045	33451	31998	30665
91					67164	62002	57573	53732	50375	47413	44777	42420	40300	38378	36633	35041	33582
92					73500	67848	63001	58799	55125	51884	49000	46420	44100	41996	40087	38345	36749
93					80830	74617	69287	64665	60625	57060	53888	51051	48500	46187	44087	42171	40415
94					87500	81540	75716	70665	66250	62355	58888	55788	53000	50472	48177	46084	44165
95							78930	73665	69063	65002	61388	58156	55250	52615	50222	48040	46040
96							82145	76665	71875	67649	63888	60525	57500	54757	52268	50000	47915
97							85360	79665	74688	70296	66388	62893	59750	56900	54313	51953	49790
98							87500	82665	77500	72943	68888	65261	62000	59043	56358	53909	51665
99								85998	80625	75884	71666	67893	64500	61423	58631	56083	53748
100								87500	83750	78826	74444	70524	67000	63804	60903	58257	55831
101									86875	81767	77221	73156	69500	66185	63176	60430	57914
102									87500	84708	80000	75787	72000	68566	65448	62604	60000
103										87500	83610	79210	75250	71661	68402	65430	62706
104											87221	82629	78500	74756	71357	68256	65414
105											87500	86050	81750	77851	74311	71082	68122
106												87500	85000	80946	77265	73908	70831
107													87500	84469	80628	77125	73914
108														87500	83992	80342	77000
109															87446	83646	80163
110															87500	86950	83330
"B" dim Sizes 64 to 83	3 ⁵ / ₈	4 ¹ / ₈	4 ⁵ / ₈	5 ¹ / ₈	5 ¹ / ₂	6	6 ¹ / ₂	6 ⁷ / ₈	7 ³ / ₈	7 ⁷ / ₈	8 ¹ / ₄	8 ³ / ₄	9 ¹ / ₄	9 ⁵ / ₈	10 ¹ / ₈	10 ⁵ / ₈	11
"B" dim Sizes 84 to 110	-	-	4 ³ / ₁₆	4 ⁹ / ₁₆	5	5 ³ / ₈	5 ¹³ / ₁₆	6 ¹ / ₄	6 ⁵ / ₈	7 ¹ / ₁₆	7 ¹ / ₂	7 ⁷ / ₈	8 ⁵ / ₁₆	8 ³ / ₄	9 ¹ / ₈	9 ⁹ / ₁₆	10

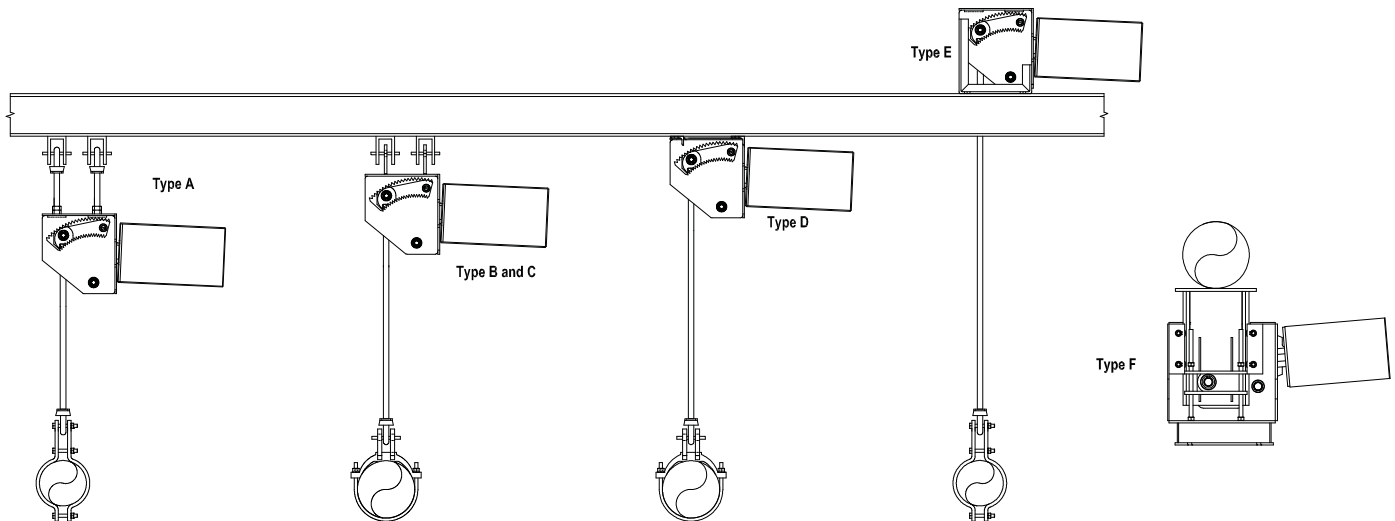


Hanger Size No.	Total Travel (in.)															
	12 ½	13	13 ½	14	14 ½	15	15 ½	16	16 1/2	17	17 1/2	18	18 1/2	19	19 1/2	20
	Loads (lbs.)															
64	6152	5915	5696	5492	5303	5126	4961	4806								
65	6432	6184	5955	5742	5544	5359	5187	5025								
66	7062	6790	6538	6304	6087	5884	5694	5517								
67	7690	7394	7120	6966	6629	6408	6201	6008								
68	8320	8000	7703	7428	7172	6933	6709	6500								
69	8843	8503	8188	7895	7623	7369	7131	6909								
70	9366	9005	8671	8361	8073	7804	7552	7317								
71	9888	9507	9155	8828	8523	8239	7973	7725								
72	10507	10103	9728	9380	9057	8755	8473	8209								
73	11126	10697	10301	9932	9590	9270	8971	8692								
74	11744	11292	10873	10484	10123	9786	9470	9175								
75	12416	11938	11496	11084	10703	10346	10012	9700								
76	13088	12584	12118	11684	11282	10906	10554	10225								
77	13760	13230	12740	12284	11861	11466	11096	10750								
78	14507	13949	13432	12951	12505	12088	11698	11334								
79	15254	14666	14123	13618	13149	12710	12300	11917								
80	16000	15384	14814	14284	13792	13332	12902	12500								
81	16800	16153	15555	14998	14482	14000	13547	13125								
82	17600	16922	16295	15712	15171	14665	14192	13750								
83	18400	17692	17036	16427	15861	15332	14837	14375								
84	19680	18922	18221	17569	16964	16398	15869	15375								
85	20960	20153	19406	18712	18068	17465	16902	16375								
86	22160	21307	20517	19783	19102	18465	17869	17313								
87	23360	22461	21628	20855	20136	19465	18837	18250								
88	24560	23614	22739	21926	21171	20465	19805	19188								
89	26400	25384	24443	23569	22757	21998	21288	20626								
90	29440	28307	27258	26283	25377	24531	23740	23000								
91	32240	31000	29850	28782	27791	26864	25998	25188								
92	35280	33922	32665	31496	30411	29397	28449	27563								
93	38800	37306	35924	34639	33446	32330	31287	30313								
94	42400	40768	39257	37583	36549	35330	34190	33125								
95	44200	42498	40924	39460	38100	36830	35642	34531	32119	31175	30285	29442	28647	27894	27179	26500
96	46000	44230	42590	41067	39652	38330	37093	35938	33482	32498	31570	30691	29863	29078	28332	27625
97	47800	45960	44257	42673	41204	39829	39545	37444	34845	33822	32856	31941	31080	30262	29486	28750
98	49600	47690	45923	44280	42755	41329	40000	38750	36209	35145	34141	33191	32295	31446	30640	29875
99	51600	49613	47775	46066	44479	42996	41609	40313	37572	36468	35427	34441	33511	32631	31794	31000
100	53600	51536	49627	47851	46203	44662	43221	41875	39087	37939	36855	35830	34862	33946	33076	32250
101	55600	53459	51479	49637	47927	46329	44834	43438	40602	39409	38284	37219	36214	35262	34358	33500
102	57600	56382	53330	51422	49651	47995	46447	45000	42117	40880	39712	38607	37565	36578	35640	34750
103	60200	57882	55738	53744	51892	50162	48544	47031	44262	42998	41801	40673	39604	38588	37625	
104	62800	60382	58145	56065	54134	52328	50640	49063	45602	44262	42998	41801	40673	39604	38588	37625
105	65400	62882	60552	58386	56375	54495	52737	51094	47571	46174	44855	43607	42429	41315	40255	39250
106	68000	65382	62960	60707	58616	56661	54834	53125	49541	48085	46712	45412	44186	43025	41921	40875
107	70960	68228	65700	63350	61168	59127	57220	55438	51733	50273	48923	47942	46683	45485	44350	
108	73920	71074	68441	65992	63719	61594	59607	57750	54050	52594	51328	49942	48630	47383	46200	
109	76960	74000	71225	68706	66340	64127	62059	60125	56425	54969	53439	52000	50630	49331	48100	
110	80000	76920	74070	71420	68960	66660	64510	62500	58800	57140	55550	54050	52630	51280	50000	
"B" dim Sizes 64 to 83	11 ½	12	12 ¾	12 7/8	13 ¾	13 7/8	14 ¼	14 ¾	-	-	-	-	-	-	-	-
"B" dim Sizes 84 to 110	10 ¾	10 13/16	11 3/16	11 5/8	12 1/16	12 1/2	12 7/8	13 5/16	13 11/16	14 1/8	14 9/16	14 15/16	15 3/8	15 3/4	16 3/16	16 5/8

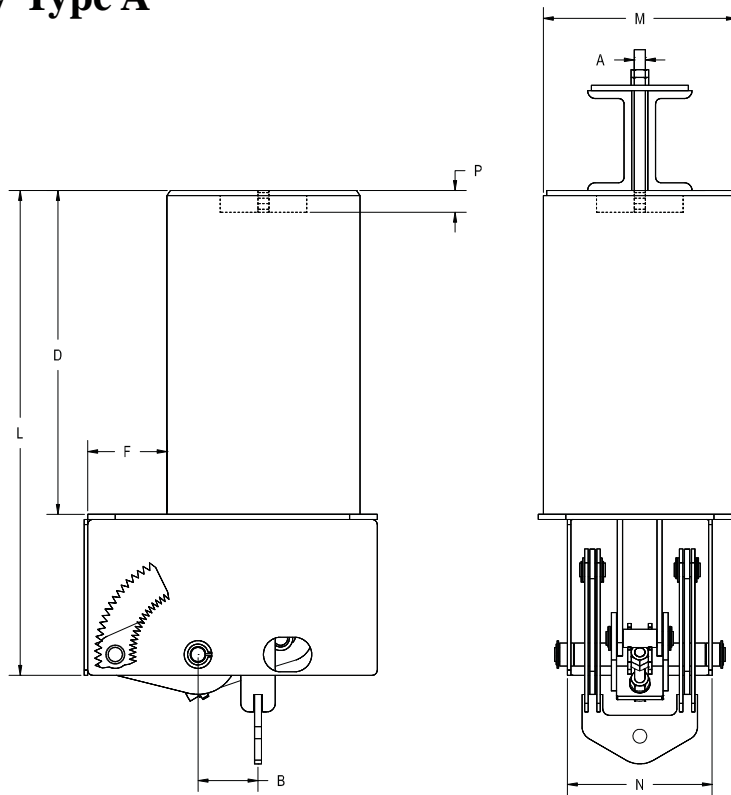
RCS-80V (Vertical)



RCS-81H (Horizontal)



RCS-80V Type A



The RCS-80V "TYPE A" is specially fabricated for mounting on a supporting member by means of attaching a rod into the tapped hole in the constant support's top cap. A distance equal to the "P" dimension plus 3/8". Available in most types of finishes.

Hanger Sizes	L	D	F	I	M	N	P	Q	Total Travel (in.)	Factors	A-rod (max.)
10-18	18 7/8	8 7/8	2	-	8 5/8	6 7/16	7/8	1 3/8	≤ 5	16 15/16	3/4
									>5 1/2	19 1/4	
19-34	28 1/2	16	2 1/8	-	12 3/4	8 9/16	1 1/8	1 5/8	≤ 5	27 15/16	1 1/4
									>5 1/2	30 1/16	
35-49	32 3/4	18 1/4	4 3/4	-	14	9 13/16	1 1/2	2 1/2	≤ 6	32 3/8	1 3/4
									>6 1/2	37	
50-63	46 7/8	28 1/8	8 5/16	-	18	11 1/4	2	3	≤ 11	46 1/2	2 1/4
									>11 1/2	51 3/4	
64-74	67 1/2	44 1/4	1 3/16	25 3/8	22 3/16	11	2 1/2	-	≤10 1/2	77 5/8	2 3/4
									>11	77 3/4	
75-83	69 1/2	46 1/4	1 1/2	25 3/8	27 3/16	11	3	-	≤10 1/2	78 3/16	3 1/4
									>11	78 5/16	

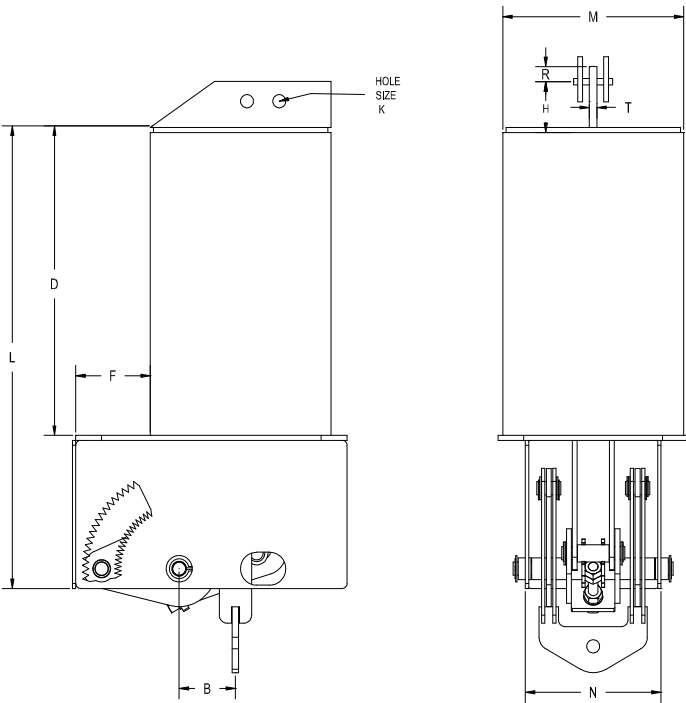
84-110 See Page #22

"Type A"-Rod Selection Chart

Loads (lbs)	0 800	801 1500	1501 2540	2541 4000	4001 6100	6101 9400	9401 13400	13401 18300	18301 24700	24701 31000	31001 39000	39001 48000	48001 58000
A-Rod size	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4*

* 3 3/4" is furnished with 8 UN series thread.

RCS-80V Type B



The RCS-80V "TYPE B" is manufactured with one lug to accommodate attachment to the building structure and allowing for the use of various types of attachments. (Example: RILCO Part# 100, or Part# 290.) Available in most types of finishes.

Hanger Sizes	L	D	F	H	I	M	N	Q	R	T	Total Travel (in.)	Factors	A (max.)
10-18	18 7/8	8 7/8	2	1 1/2	-	8 5/8	6 7/16	1 3/8	1.5	3/8	≤ 5	19 5/16	3/4
											>5 1/2	21 5/8	
19-34	28 1/2	16	2 1/8	2	-	12 3/4	8 9/16	1 5/8	1.5	5/8	≤ 5	31 1/16	1 1/4
											>5 1/2	33 3/16	
35-49	32 3/4	18 1/4	4 3/4	3	-	14	9 13/16	2 1/2	-	3/4	≤ 6	36 7/8	1 3/4
											>6 1/2	41 1/2	
50-63	46 7/8	28 1/8	8 5/16	4	-	18	11 1/4	3	-	1	≤ 11	52 1/2	2 1/4
											>11 1/2	57 3/4	
64-74	60 1/2	37 1/4	1 3/16	4 1/2	25 3/8	22 3/16	11	-	3	2	≤10 1/2	77 1/4	2 3/4
											> 11	77 3/8	
75-83	61 1/4	38	1 1/2	3 5/8	25 3/8	27 3/16	11	-	3.75	2 1/2	≤10 1/2	77 15/16	3 1/4
											> 11	78 1/16	

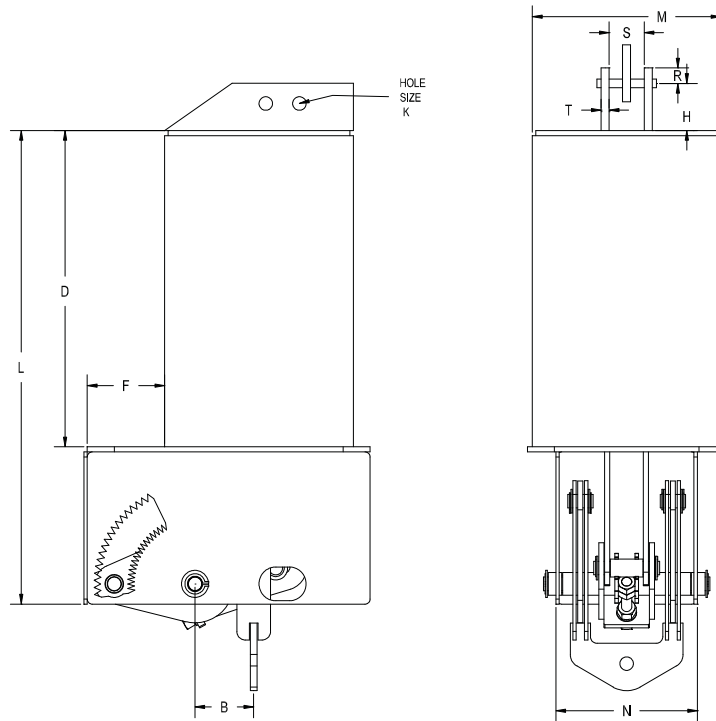
84-110 See Page #22

A-Rod Selection Chart

Loads (lbs)	0 800	801 1500	1501 2540	2541 4000	4001 6100	6101 9400	9401 13400	13401 18300	18301 24700	24701 31000	31001 39000	39001 48000	48001 58000
A-Rod Size	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4*
K-Hole	11/16	13/16	15/16	1 1/4	1 1/2	1 3/4	2	2 3/8	2 5/8	2 7/8	3 1/8	3 3/8	3 5/8

* 3 3/4" is furnished with 8 UN series thread.

RCS-80V Type C



The RCS-80V "TYPE C" is manufactured using two(2) lugs to accommodate attachment to the building structure and allowing for the use of various types of attachments. (Example: RILCO Part# 220). Available in most types of finishes.

Hanger Sizes	L	D	F	H	I	M	N	Q	R	T	Total Travel (in.)	Factors	A (max.)
10-18	18 7/8	8 7/8	2	1 1/2	-	8 5/8	6 7/16	1 3/8	1.5	3/8	≤ 5	19 5/16	3/4
											>5 1/2	21 5/8	
19-34	28 1/2	16	2 1/8	2	-	12 3/4	8 9/16	1 5/8	1.5	5/8	≤ 5	31 1/16	1 1/4
											>5 1/2	33 3/16	
35-49	32 3/4	18 1/4	4 3/4	3	-	14	9 13/16	2 1/2	-	3/4	≤ 6	36 7/8	1 3/4
											>6 1/2	41 1/2	
50-63	46 7/8	28 1/8	8 5/16	4	-	18	11 1/4	3	-	1	≤ 11	52 1/2	2 1/4
											>11 1/2	57 3/4	
64-74	60	36 3/4	1 3/16	5	25 3/8	22 3/16	11	3	3	1/2	≤10 1/2	77 1/4	2 3/4
											> 11	77 3/8	
75-83	60 1/2	37 1/4	1 1/2	4 1/2	25 3/8	27 3/16	11	3	3.75	1	≤10 1/2	77 15/16	3 1/4*
											> 11	78 1/16	

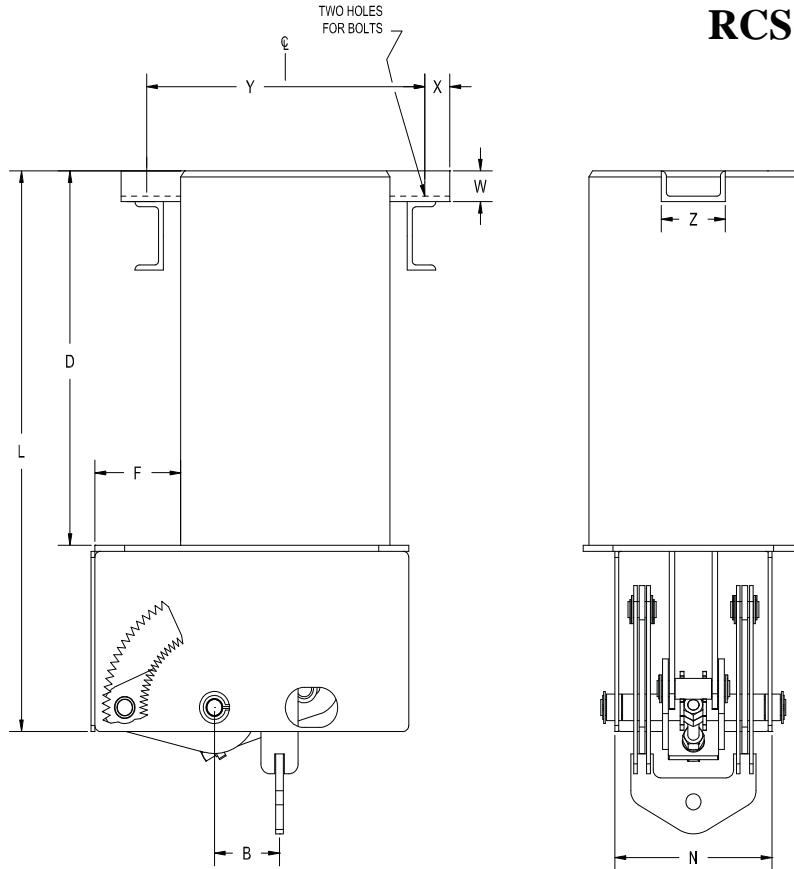
84-110 See Page #22

A-rod Selection Chart

Loads (lbs)	0 800	801 1500	1501 2540	2541 4000	4001 6100	6101 9400	9401 13400	13401 18300	18301 24700	24701 31000	31001 39000	39001 48000	48001 58000
A-Rod Size	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4*
K-Hole	11/16	13/16	15/16	1 1/4	1 1/2	1 3/4	2	2 3/8	2 5/8	2 7/8	3 1/8	3 3/8	3 5/8
S	7/8	1 1/16	1 1/4	1 5/8	2	2 3/8	2 5/8	2 7/8	3 1/8	3 3/8	3 5/8	3 7/8	4 1/8

* 3 3/4" is furnished with 8 UN series thread.

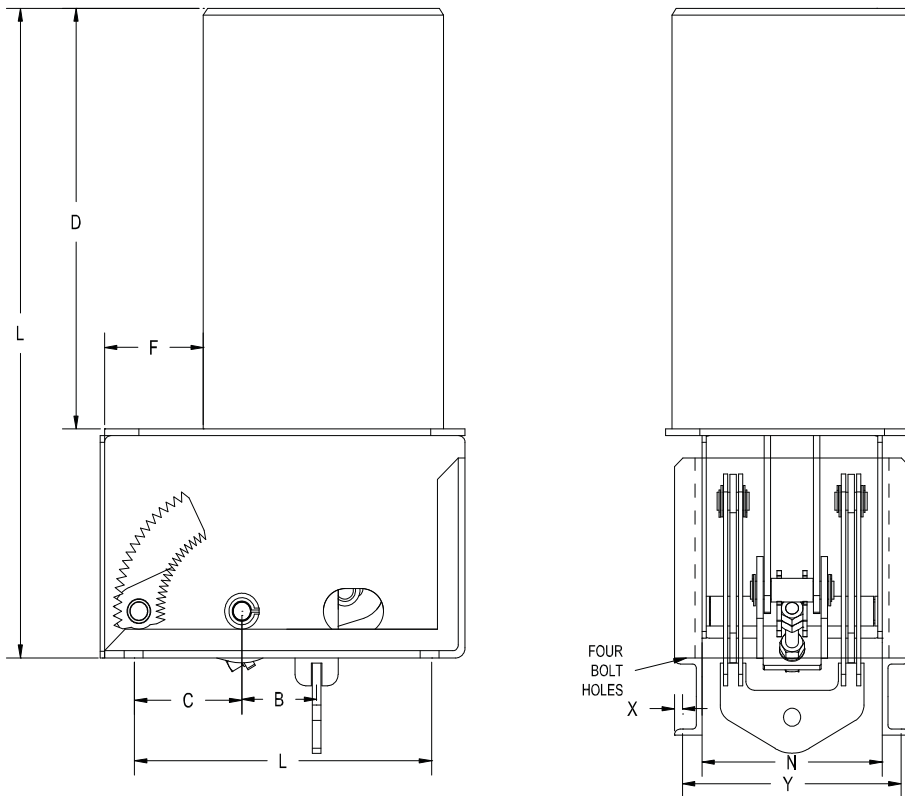
RCS-80V Type D



The RCS-80V "TYPE D" is designed to lay on top of the beams or structural steel rather than attaching to the structures like the other "Constant Supports". Available in most types of finishes.

Hanger Sizes	L	D	F	M	N	Q	P	W	X	Y	Z	Bracket Hole Dia	Total Travel (in.)	Factors	A (max.)
10-18	18 7/8	8 7/8	2	8 5/8	6 7/8	1 3/8	4 15/16	2 3/8	1 1/2	10 3/4	3	3/4	≤ 5	15 1/2	3/4
													>5 1/2	17 3/16	
19-34	28 1/2	16	2 1/8	12 3/4	8 9/16	1 5/8	12 1/2	2 3/8	1 1/2	14 7/8	3	7/8	≤ 5	26 11/16	1 1/4
													>5 1/2	28 13/16	
35-49	32 3/4	18 1/4	4 3/4	14	9 13/16	2 1/2	13 1/4	2 5/8	2	16 3/4	4	1 1/8	≤ 6	31 1/4	1 3/4
													>6 1/2	35 7/8	
50-63	46 7/8	28 1/8	8 5/16	18	11 1/4	3	24 1/2	2 7/8	3	21	6	1 3/8	≤ 11	45 9/16	2 1/4
													>11 1/2	50 7/8	
64-74	Available Fig. 81-H only.														
84-110	Not Available														
A-rod Selection Chart															
Loads (lbs)	0 800	801 1500	1501 2540	2541 4000	4001 6100	6001 9400	9401 13400	13401 18300	18301 24700						
A-Rod Size	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4						

RCS-80V Type E



The RCS-80V "TYPE E" is the same as the RCS 80-V "TYPE D" except the "TYPE E" is designed with two(2) brackets that comprise its frame thereby allowing it to rest on the top flange of the structural member. Available in most types of finishes.

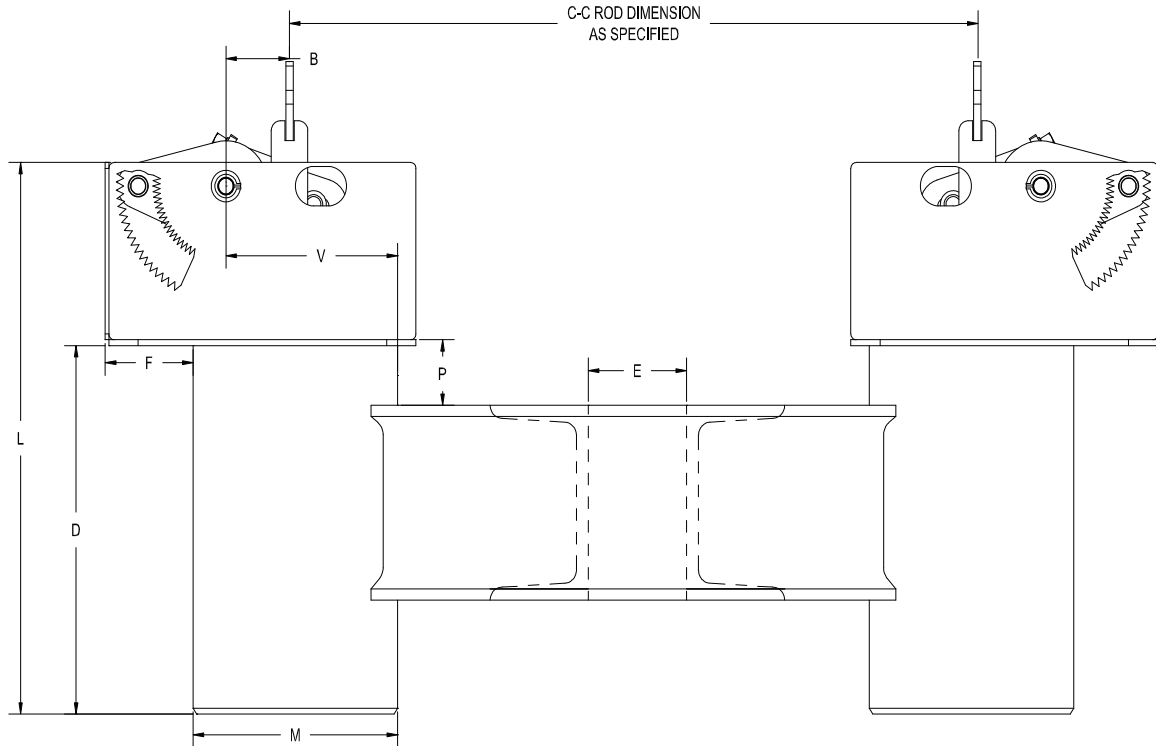
Hanger Sizes	L	C	D	F	I	L	M	X	Y	N	Q	Angle Size	Total Travel (in.)	Factors	A (max.)
10-18	18 7/8	1 1/2	8 7/8	2	-	4 5/16	8 5/8	5/8	8 15/16	6 7/16	1 3/8	1.5 x 1.5 x 1/4	≤ 5	1 7/16	3/4
													>5 1/2	3 3/4	
19-34	28 1/2	13/16	16	2 1/8	-	6 11/16	12 3/4	5/8	11 3/16	8 9/16	1 5/8	1.5 x 1.5 x 1/4	≤ 5	2 13/16	1 1/4
													>5 1/2	4 15/16	
35-49	32 3/4	1 7/8	18 1/4	4 3/4	-	8 5/16	14	13/16	13 5/16	9 13/16	2 1/2	2 x 2 x 3/8	≤ 6	2 1/2	1 3/4
													>6 1/2	7 1/8	
50-63	46 7/8	3 3/4	28 1/8	8 5/16	-	12 13/16	18	1 5/16	14 11/16	11 1/4	3	3 x 3 x 3/8	≤ 11	1 5/8	2 1/4
													>11 1/2	7	
64-74	62	3/8	35 3/4	3/8	25 3/8	15 3/4	22 3/16	1 9/16	14 15/16	11	3	3.5 x 3.5 x 1/2	≤10 1/2	9 1/8	2 3/4
													> 11	9 1/4	
75-83	62 1/2	5 1/4	35 3/4	1 1/2	25 3/8	25 5/8	27 3/16	1 3/4	15 1/2	11	3	4 x 4 x 3/8	≤10 1/2	8 3/4	3 1/4
													> 11	8 7/8	
84-110	Not Available														

A-Rod Selection Chart

Loads (lbs)	0 800	801 1500	1501 2540	2541 4000	4001 6100	6101 9400	9401 13400	13401 18300	18301 24700	24701 31000	31001 39000	39001 48000	48001 58000
A Rod Size	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4

* 3 3/4" is furnished with 8 UN series thread.

RCS-80V Type G



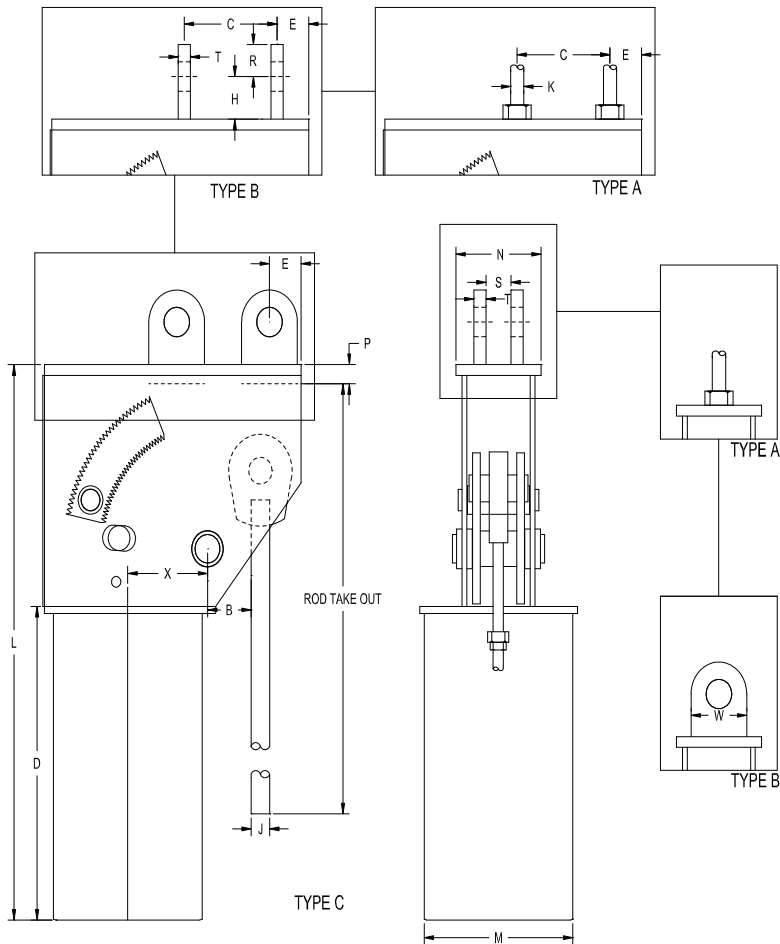
The RCS-80V "TYPE G" is manufactured using opposing constants and a pair of channels welded back to back, to form a trapeze assembly. This RILCO system is designed for use when a pipe is not to be centered on the constant support so that one spring of the trapeze carries a heavier load than the other. Available in most types of finishes.

Hanger Sizes	L	D	E	F	M	N	P	Q	V	Y	Channel	C-C	Total Travel (in.)	Factors	A (max.)
10-18	18 7/8	8 7/8	1	2	8 5/8	6 7/8	2 9/16	3 1/2	5 13/16	4	4 @ 5.4	30	≤ 5	11 11/16	3/4
													>5 1/2	14	
19-34	28 1/2	16	1 1/4	2 1/8	12 3/4	8 9/16	3 9/16	4	9	6 1/8	6 @ 10.5	42	≤ 5	16 13/16	1 1/4
													>5 1/2	18 3/4	
35-49	32 3/4	18 1/4	1 1/2	4 3/4	14	9 13/16	3 7/16	5 1/2	10 3/4	8	10 @ 15.3	48	≤ 6	19 1/4	1 3/4
													>6 1/2	23 7/8	
50-63	46 7/8	28 1/8	2 1/8	8 5/16	18	11 1/4	4	6 1/2	14 3/4	10 15/16	12 @ 20.7	48	≤ 11	24 5/8	2 1/4
													>11 1/2	30	
64-110	Not Available														

A-Rod Selection Chart

Loads (lbs)	0 800	801 1500	1501 2540	2541 4000	4001 6100	6101 9400	9401 13400	13401 18300	18301 24700
A Rod Size	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4

RCS-80V Type A, B and C

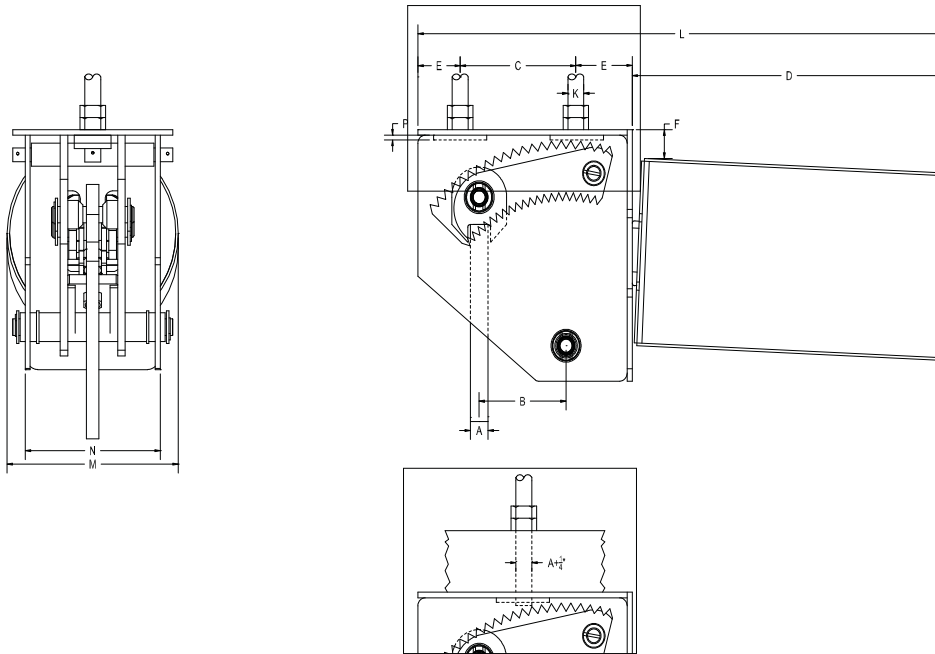


Hanger Sizes	L	C		D	E		H	M	N	P	X	Total Travel (in.)	Factors		A (max.)
		A & B	C		A & B	C							A	B & C	
84-94	78 3/4	16	15	49 3/4	4	4 1/2	6	24	10 1/2	3	12	≤ 9 1/2	45 3/4	54 3/4	3 3/4
												>10	55 1/2	64 1/2	
95-110	100	24	23	64	4	4 1/2	6	24	11 1/2	3 1/2	13 1/2	≤ 14	56 1/2	66	3 3/4
												>14 1/2	65 3/8	74 7/8	

Load (lbs)	14376 18300	18301 24700	24701 31000	31001 39000	39001 48000	48001 58000	58001 69000	69001 87500
A & K Rods	2	2 1/4	2 1/2	2 3/4	3	3 1/4*	3 1/2*	3 3/4*
K-Hole	2 3/8	2 5/8	2 7/8	3 1/8	3 3/8	3 5/8	3 7/8	4 1/8
R	3	3	4	4	4	4 1/2	4 1/2	4 1/2
S	2 7/8	3 1/8	3 3/8	3 5/8	3 7/8	4 1/8	4 3/8	4 5/8
T (Type B)	3/4	3/4	1	1	1	1	1 1/2	1 3/4
T (Type C)							1 1/4	1 1/4
W	6	6	8	8	8	9	9	1

* 3 1/4 and larger are furnished with 8 UN series thread

RCS-81H Type A



The RCS-81H "TYPE A" is specially designed for mounting on a supporting member by means of attaching two(2) rods into the tapped holes in the constant support's top cap. A distance equal to the "P" dimension plus 3/8". Available in most types of finishes.

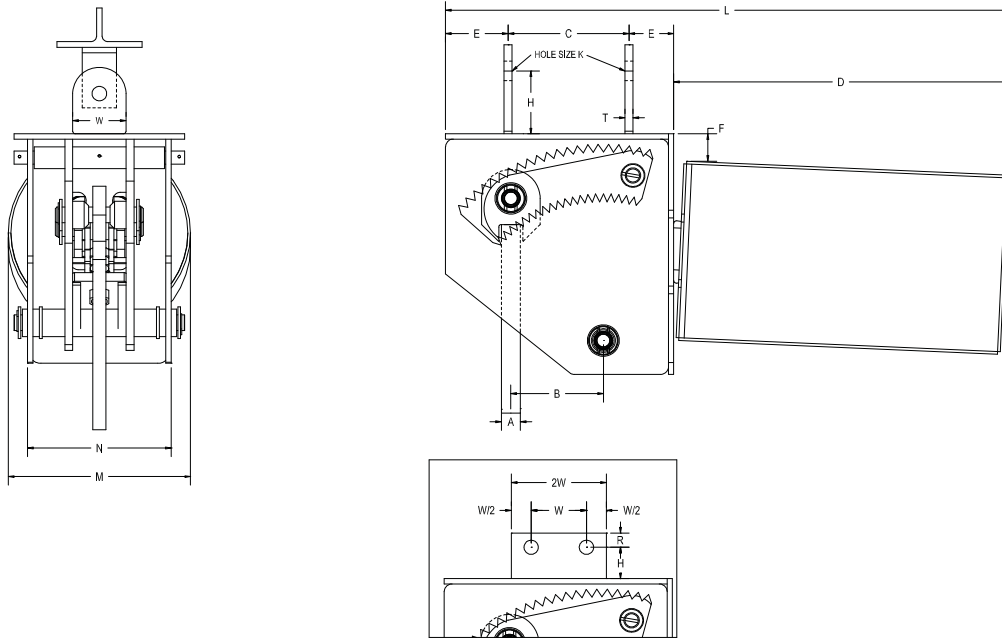
Hanger Sizes	D	E	F	M	N	P	Total Travel (in.)	L	C	Factors	A (max.)
1 - 9	8 7/16	1	7/8	6 1/8	4 1/8	13/16	≤ 4	13 15/16	6	12 3/4	1/2
							>4 1/2	17 15/16	10	15 5/16	
10 - 18	8 7/16	1	1/2	8 5/16	6 7/16	11/16	≤ 5	18 7/16	8	10 7/8	3/4
							>5 1/2	21 7/16	11	13 1/4	
19 - 34	14 7/16	1 1/4	5/8	12 7/16	8 9/16	1 1/8	≤ 5	26 15/16	10	16 3/4	1 1/4
							>5 1/2	31 1/16	14 1/8	18 7/8	
35 - 49	17 7/16	1 3/4	11/16	13 3/4	9 13/16	1 3/8	≤ 6	31 9/16	11	21 1/8	1 3/4
							>6 1/2	39 9/16	19	25 3/4	
50 - 63	26 3/16	1 11/16	15/16	17 11/16	11 1/4	1 3/4	≤ 8	45 9/16	16	24 15/16	2 1/4
							8 1/2 to 11	53 9/16	24	24 15/16	
							>11 1/2	53 9/16	24	30 1/4	
64 - 74	35 3/4	3	3 1/4	22 3/16	11	3 7/16	≤ 10 1/2	57 1/2	15 3/4	34 7/16	2 3/4
							>11	63	21 1/4	34 9/16	
75 - 83	35 3/4	3 1/4	3 5/8	27 3/16	11	4 1/4	≤ 10 1/2	57 1/2	15 1/4	36 1/2	3 1/4
							>11	63	20 3/4	36 5/8	
84-110	See Page #29										

"A"-Rod and "K"-Hole Selection Chart

Loads (lbs)	0 800	801 1500	1501 2540	2541 4000	4001 6100	6101 9400	9401 13400	13401 18300	18301 24700	24701 31000	31001 39000	39001 48000	48001 58000
A Rod Size	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4*

* 3 1/4 and larger are furnished with 8 UN series thread

RCS-81H Type B



The RCS-81H "TYPE B" manufactured with two(2) lugs to accommodate attachment to the building structure and allowing for the use of various types of attachments. (Example: RILCO Part# 100, or Part# 290). Available in most types of finishes.

Hanger Sizes	D	E	F	H	M	N	Total Travel (in.)	L	C	Factors	A (max.)
1 - 9	8 7/16	1 1/4	7/8	1 1/2	6 1/8	4 1/8	≤ 4	13 15/16	5 1/2	14 5/8	1/2
							>4 1/2	17 15/16	9 1/2	17 3/16	
10 - 18	8 7/16	1 1/4	1/2	1 1/2	8 5/16	6 7/16	≤ 5	18 7/16	7 1/2	13 1/16	3/4
							>5 1/2	21 7/16	10 1/2	15 7/16	
19 - 34	14 7/16	1 3/8	5/8	2	12 7/16	8 9/16	≤ 5	26 15/16	9 3/4	19 7/8	1 1/4
							>5 1/2	31 1/16	13 7/8	22	
35 - 49	17 7/16	2	11/16	3	13 3/4	9 13/16	≤ 6	31 9/16	10 1/2	25 5/8	1 3/4
							>6 1/2	39 9/16	18 1/2	30 1/8	
50 - 63	26 3/16	3	15/16	4	17 3/8	11 1/4	≤ 8	45 9/16	13 3/8	30 11/16	2 1/4
							8 1/2 to 11	53 9/16	21 3/8	30 11/16	
							>11 1/2	53 9/16	21 3/8	36	
64 - 74	35 3/4	3 1/4	3 1/4	4 1/2	22 3/16	11	≤ 10 1/2	57 1/2	15 3/4	42 3/8	2 3/4
							>11	63	20 3/4	42 1/2	
75 - 83	35 3/4	3 1/2	3 5/8	5	27 3/16	11	≤ 10 1/2	57 1/2	15 3/4	45 3/4	3 1/4**
							>11	63	20 1/4	45 7/8	
84-110	See Page #29										

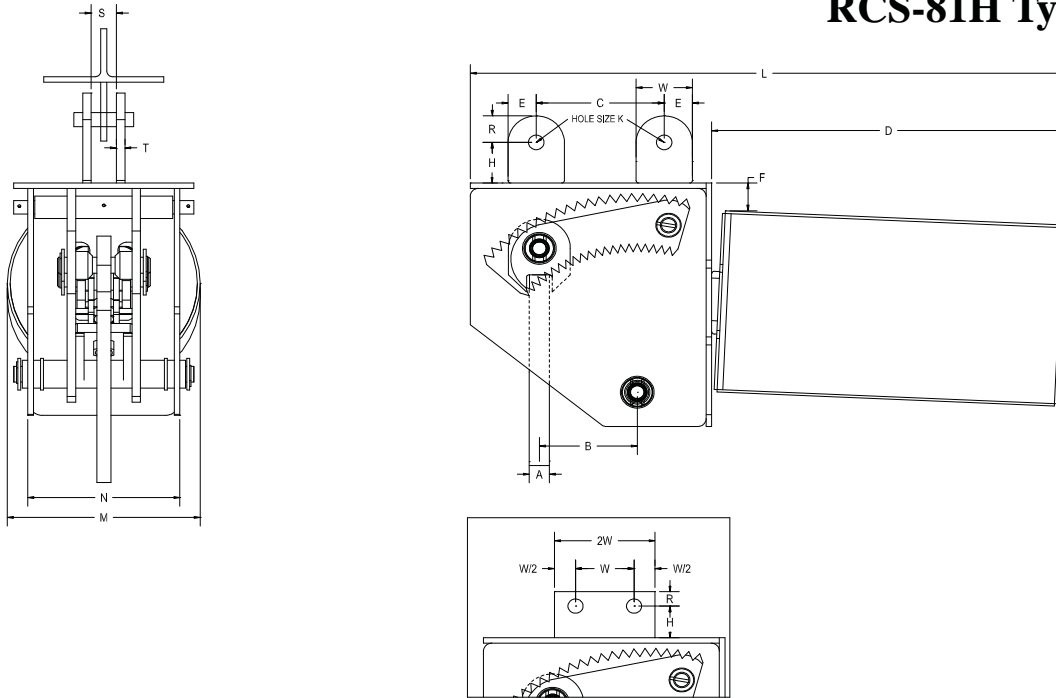
A-Rod and K-Hole Selection Chart

Loads (lbs)	0 800	801 1500	1501 2540	2541 4000	4001 6100	6101 9400	9401 13400	13401 18300	18301 24700	24701 31000	31001 39000	39001 48000	48001 58000
A Rod Size	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4**
K-Hole Size	11/16	13/16	15/16	1 1/4	1 1/2	1 3/4	2	2 3/8	2 5/8	2 7/8	3 1/8	3 3/8	3 5/8
R	1 1/4	1 1/4	1 1/4	1 1/2	2	2 1/2	2 1/2	3	3	4	4	4	4 1/2
T	1/4*	1/4*	3/8	1/2	5/8	3/4	3/4	3/4	3/4	1	1	1	1
W	2 1/2	2 1/2	2 1/2	3	4	5	5	6	6	8	8	8	9

* 3/8 for single rod suspension ** 3 1/4 inch is furnished with 8 UN series thread.



RCS-81H Type C



The RCS-81H "TYPE C" manufactured using two(2) lugs to accommodate attachment to the building structure also allowing for the use of various types of attachments. (Example: RILCO Part# 220). Available in most types of finishes.

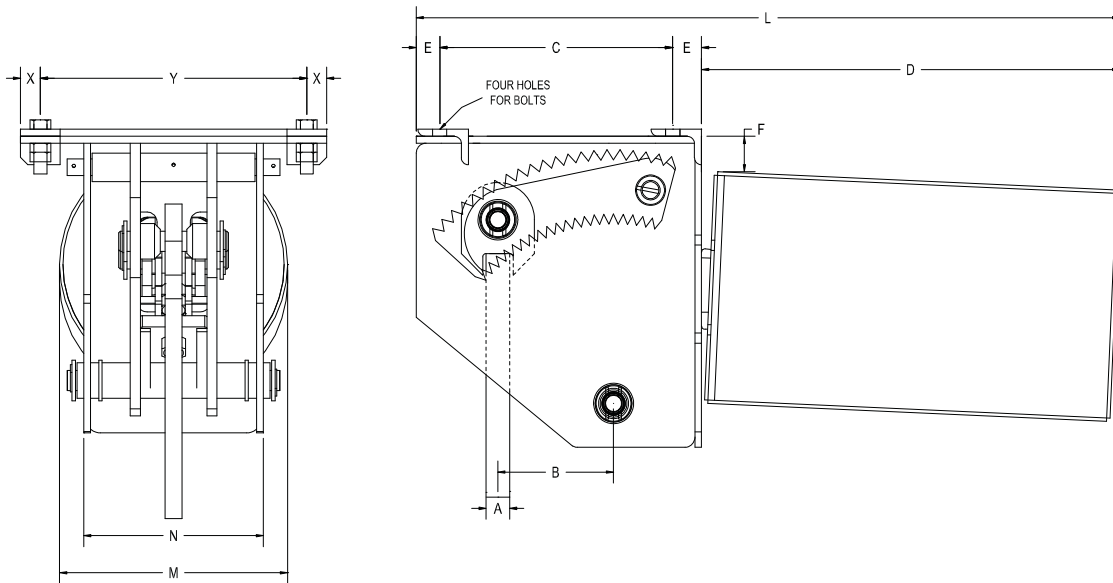
Hanger Sizes	D	E	F	H	M	N	Total Travel (in.)	L	C	Factors	A (max.)
1 - 9	8 7/16	1 1/4	7/8	1 1/2	6 1/8	4 1/8	≤ 4	13 15/16	5 1/2	14 5/8	1/2
							>4 1/2	17 15/16	9 1/2	17 3/16	
10 - 18	8 7/16	1 1/4	1/2	1 1/2	8 5/16	6 7/16	≤ 5	18 7/16	7 1/2	13 1/16	3/4
							>5 1/2	21 7/16	10 1/2	15 7/16	
19 - 34	14 7/16	2	5/8	2	12 7/16	8 9/16	≤ 5	26 15/16	8 1/2	19 7/8	1 1/4
							>5 1/2	31 1/16	12 5/8	22	
35 - 49	17 7/16	2 1/2	11/16	3	13 3/4	9 13/16	≤ 6	31 9/16	9 1/2	25 5/8	1 3/4
							>6 1/2	39 9/16	17 1/2	30 1/8	
50 - 63	26 3/16	3	15/16	4	17 11/16	11 1/4	≤ 8	45 9/16	13 3/8	30 11/16	2 1/4
							8 1/2 to 11	53 9/16	21 3/8	30 11/16	
							>11 1/2	53 9/16	21 3/8	36	
64 - 74	35 3/4	4	3 1/4	4 1/2	22 3/16	11	≤ 10 1/2	57 1/2	13 3/4	42 3/8	2 3/4
							>11	63	19 1/4	42 1/2	
75 - 83	35 3/4	4 1/2	3 5/8	5	27 3/16	11	≤ 10 1/2	57 1/2	12 3/4	45 3/4	3 1/4
							>11	63	18 1/4	45 7/8	
84-110	See Page #29										

"A"-Rod and "K"-Hole Selection Chart

Loads (lbs)	0 800	801 1500	1501 2540	2541 4000	4001 6100	6101 9400	9401 13400	13401 18300	18301 24700	24701 31000	31001 39000	39001 48000	48001 58000
A Rod Size	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4**
K-Hole Size	11/16	13/16	15/16	1 1/4	1 1/2	1 3/4	2	2 3/8	2 5/8	2 7/8	3 1/8	3 3/8	3 5/8
R	1 1/4	1 1/4	1 1/4	1 1/2	2	2 1/2	2 1/2	3	3	4	4	4	4 1/2
S	7/8	1 1/16	1 1/4	1 5/8	2	2 3/8	2 5/8	2 7/8	3 1/8	3 5/8	3 5/8	3 7/8	4 1/8
T	1/4*	1/4*	3/8	1/2	5/8	3/4	3/4		3/4	1	1	1	1
W	2 1/2	2 1/2	2 1/2	3	4	5	5	6	6	8	8	8	9

* 3/8 for single rod suspension ** 3 1/4 inch is furnished with 8 UN series thread.

RCS-81H Type D



The RCS-81H "TYPE D" designed to be attached directly under the steel support member. Available in most types of finishes.

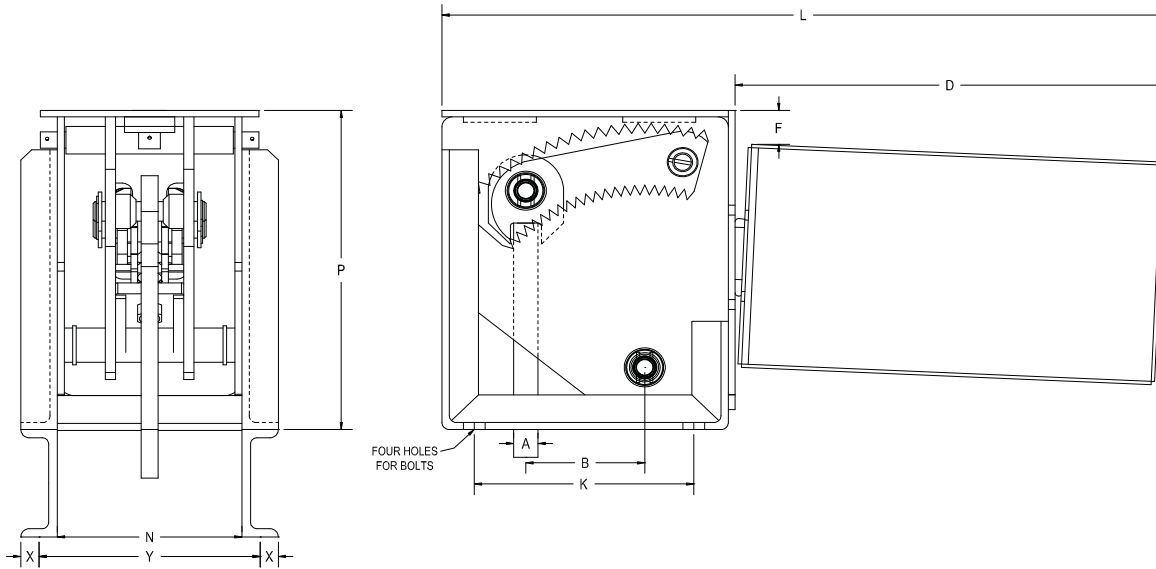
Hanger Sizes	D	E	F	M	N	X	Y	Angle Size	Total Travel (in.)	L	C	Factors	A (max.)
1 - 9	5 15/16	1	7/8	6 1/8	4 1/8	3/4	5 5/8	2 x 2 x 1/4	≤ 4	13 15/16	6	13 3/8	1/2
									>4 1/2	17 15/16	10	15 15/16	
10 - 18	8 7/16	3 1/4	1/2	8 5/16	6 7/16	7/8	8 1/16	1.5 x 1.5 x 1/4	≤ 5	18 7/16	3 1/2	11 13/16	3/4
									>5 1/2	20 15/16	6	14 3/16	
19 - 34	14 7/16	1 1/2	5/8	12 7/16	8 9/16	1 1/8	11 5/16	3 x 3.5 x 1/4	≤ 5	26 15/16	9 1/2	17 3/4	1 1/4
									>5 1/2	31 1/16	13 5/8	19 7/8	
35 - 49	17 1/16	2	11/16	13 3/4	9 13/16	1 3/8	13	3 x 4 x 3/8	≤ 6	31 9/16	10 1/2	20 13/16	1 3/4
									>6 1/2	39 9/16	18 1/2	25 7/16	
50 - 63	26 3/16	2	15/16	17 11/16	11 1/4	1 5/8	14 5/8	4 x 4 x 3/8	≤ 8	45 9/16	15 3/8	27 1/16	2 1/4
									8 1/2 to 11	53 9/16	23 3/8	27 1/16	
									>11 1/2	53 9/16	23 3/8	32 3/8	
64 - 74	35 3/4	3	3 1/4	22 3/16	11	2	15	4 x 6 x 1/2	≤ 10 1/2	57 1/2	15 3/4	38 3/8	2 3/4
									>11	63	21 1/4	38 1/2	
75 - 83	35 3/4	3	3 5/8	27 3/16	11	2	15	4 x 6 x 1/2	≤ 10 1/2	57 1/2	15 3/4	41 1/4	3 1/4
									>11	63	21 1/4	41 3/8	
84-110	Not Available												

"A"-Rod Selection Chart

Loads (lbs)	0 800	801 1500	1501 2540	2541 4000	4001 6100	6101 9400	9401 13400	13401 18300	18301 24700	24701 31000	31001 39000	39001 48000	48001 58000
A Rod Size	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4*

* 3 1/4" is furnished with 8 UN series thread.

RCS-81H Type E



The RCS-81H "TYPE E" is similar to "TYPE D" except that the "TYPE E" is designed using two(2) brackets welded to the support casing forming a frame which allows the unit to be attached to the top of the structural support. Available in most types of finishes.

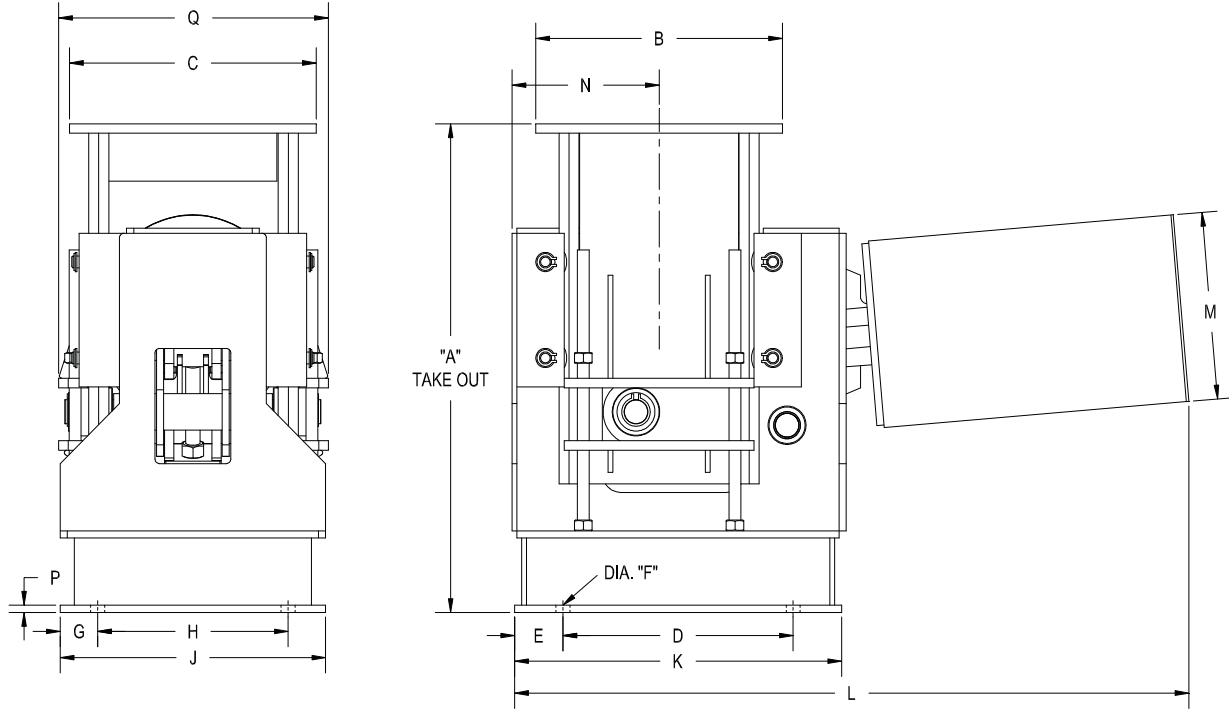
Hanger Sizes	D	F	M	N	P	X	Y	Angle Size	Bracket Hole Dia.	Total Travel (in.)	L	K	Factors	A (max.)
1 - 9	5 15/16	7/8	6 1/8	4 1/8	8 1/16	5/8	5 15/16	1.5 x 1.5 x 1/4	9/16	≤ 4	13 15/16	6	5 1/8	1/2
										>4 1/2	17 15/16	10	49 3/16	
10 - 18	8 7/16	1/2	8 5/16	6 7/16	9 7/8	5/8	8 15/16	1.5 x 1.5 x 1/4	3/4	≤ 5	18 7/16	7 1/2	1 3/4	3/4
										>5 1/2	21 7/16	7 1/2	4 1/16	
19 - 34	14 7/16	5/8	12 7/16	8 9/16	14 1/8	5/8	11 3/16	1.5 x 1.5 x 1/4	3/4	≤ 5	26 15/16	10	3 3/8	1 1/4
										>5 1/2	31 1/16	10	5 1/2	
35 - 49	17 1/16	11/16	13 3/4	9 13/16	15 1/2	13/16	13 5/16	2 x 2 x 3/8	7/8	≤ 6	31 9/16	11 5/8	4 7/8	1 3/4
										>6 1/2	39 9/16	11 5/8	9 1/2	
50 - 63	26 3/16	15/16	17 11/16	11 1/4	19 3/4	1 5/16	14 11/16	3 x 3 x 3/8	1 3/8	≤ 8	45 9/16	15 3/8	6 7/8	2 1/4
										8 1/2 to 11	53 9/16	23 3/8	6 7/8	
										>11 1/2	53 9/16	23 3/8	12 1/4	
64 - 74	35 3/4	3 1/4	22 3/16	11	26 7/8	1 9/16	14 15/16	3.5 x 3.5 x 3/8	1 5/8	≤ 10 1/2	53 1/2	17 1/2	11 1/8	2 3/4
										>11	63	23	11 1/4	
75 - 83	35 3/4	3 5/8	27 3/16	11	31 7/8	1 9/16	14 15/16	3.5 x 3.5 x 3/8	1 5/8	≤ 10 1/2	57 1/2	17 1/2	9	3 1/4
										>11	63	23	9 1/8	
84-110	Not Available													

"A"-Rod Selection Chart

Loads (lbs)	0 800	801 1500	1501 2540	2541 4000	4001 6100	6101 9400	9401 13400	13401 18300	18301 24700	24701 31000	31001 39000	39001 48000	48001 58000
A Rod Size	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4

** 3 1/4" is furnished with 8 UN series thread.

RCS-81H Type F Upthrust



The RCS-81H "TYPE F UPTHURST" is specifically designed to support pipes or equipment from below and is supplied with a base to anchor it to the floor. Available in most types of finishes.

*For down travel:
 Take-out= "A" + (1/2) actual travel

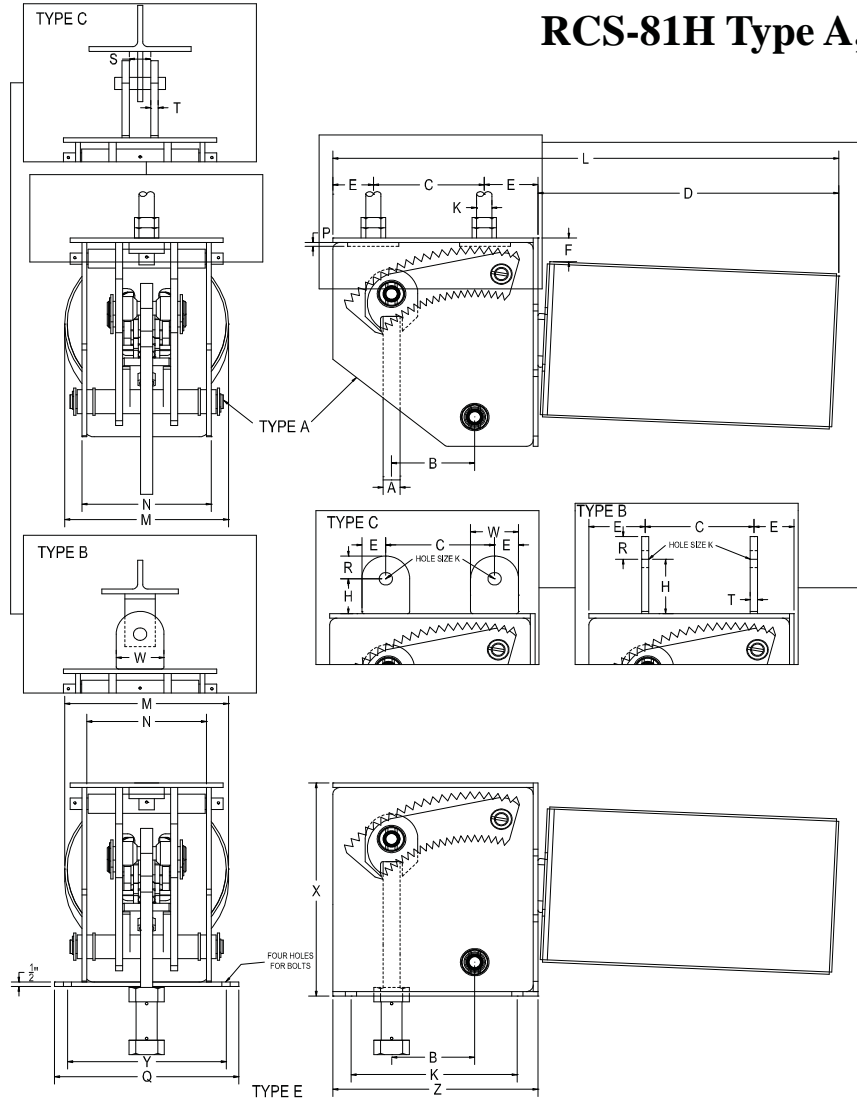
For up travel:
 Take-out= "A" - (1/2) actual travel

Take-Out Factor "A"				
T.T.	Sizes			
	10 - 18	19 - 34	35 - 49	50 - 63
2			-	-
2.5	16 1/8	23 1/8	25 3/4	28 1/2
3				
3.5				
4	19 7/8	27 1/2	31 5/8	34
4.5				
5				
5.5				
6				
6.5	-			
7	-			
7.5	-			
8	-			
8.5	-	-		
9	-	-		
9.5	-	-		
10	-	-		

*For down Travel: Take-Out = "A" + (1/2) Actual Travel
 For Up Travel: Take-Out = "A" - (1/2) Actual Travel

Hanger Sizes	Total Travel TT	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
10 - 18	2 - 6	See Take Out	10 7/8	11 7/8	9	2 1/2	3/4	2	8	12	14	22 7/16	8 1/4	5	1/2	13 7/8
19 - 34	2 - 8		13 3/4	13 3/4	13	2 1/8	3/4	2	10	14	17 1/4	31 5/8	12 1/2	8	5/8	16 3/8
35 - 49	2.5 - 10		17 7/8	16 1/4	17	2	7/8	2	13	17	21	38 1/4	13 5/8	8	3/4	19 3/4
50 - 63	3 - 10		21 5/8	19 1/4	16 1/2	4 5/8	7/8	3 5/8	11 3/4	19	25 3/4	52	17 3/8	10	3/4	23 1/4

RCS-81H Type A, B, C and E



Hanger Sizes	L	C		D	E		F	H	K	M	N	P	Q	X	Y	Z	Total Travel (in.)	Factors			A max	
		A & B	C		A & B	C												A	B & C	E		
84 - 94	76 3/4	28	27 1/2	49 3/4	4	4 1/2	1 1/8	6	21	24	10 1/2	3	16	34	13	27	≤ 9 1/2	45 3/4	54 3/4	21 5/8	3 3/4	
																	>10	55 1/2	64 1/2	31 3/8		
95 - 110	100	49	48 1/2	64	4	4 1/2	1 3/8	6	30	24	11 1/2	3 1/2	17	37	14 1/2	36	≤ 14	56 1/2	66	17 5/8	3 3/4	
																	>14 1/2	65 3/8	74 7/8	26 5/8		
Load (lbs)	14376 18300	18301 24700	24701 31000	31001 39000	39001 48000	48001 58000	58001 69000	69001 87500														
A & K Rods		2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4	4	4 1/2	4 3/8	4 1/2	4 5/8	5 1/8	5 1/2	1 1/2	1 3/4	1 1/2	1 1/4	1 1/4	
K-Hole		2 3/8	2 5/8	2 7/8	3 1/8	3 3/8	3 5/8	3 7/8	4 1/8	4 1/2	4 3/4	4 5/8	4 7/8	5 1/8	5 1/2	5 3/4	1 1/2	1 3/4	1 1/2	1 1/4	1 1/4	
R		3	3	4	4	4	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	
S		2 7/8	3 1/8	3 3/8	3 5/8	3 7/8	4 1/8	4 1/8	4 1/8	4 1/8	4 1/8	4 1/8	4 1/8	4 1/8	4 1/8	4 1/8	4 1/8	4 1/8	4 1/8	4 1/8	4 1/8	
T (Type B)		3/4	3/4	1	1	1	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
T (Type C)		3/4	3/4	1	1	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	
W		6	6	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	

Weight Chart

Hanger Sizes	FIG 80-V			FIG 81-H			
	Types A, B, C, D, & E		Type G■	Types A, B, C, D, & E		Type F	
	Net	Shipping	net	Net	Shipping	Net	Shipping
1 - 3	-	-	-	18	20	-	-
4 - 6	-	-	-	21	23	-	-
7 - 9	-	-	-	23	25	-	-
10 - 12	62	67	160	52	57	174	179
13 - 15	65	70	166	55	60	177	182
16 - 18	70	75	176	60	65	182	187
19 - 20	163	171	371	150	158	415	423
21 - 23	165	173	375	152	160	417	425
24 - 26	172	180	389	159	167	424	432
27 - 29	180	188	405	167	175	432	440
30 - 32	187	195	419	174	182	439	447
33 - 34	195	203	435	182	190	447	455
35 - 37	300	312	676	280	292	640	652
38 - 40	315	327	706	295	307	655	667
41 - 43	332	344	740	312	325	672	684
44 - 46	343	355	762	323	335	683	695
47 - 49	360	372	796	340	362	700	712
50 - 51	601	661	1278	511	571	1181	1241
52 - 54	626	686	1328	536	596	1206	1266
55 - 57	665	725	1406	575	635	1245	1305
58 - 60	706	766	1488	616	676	1286	1346
61 - 63	745	805	1566	655	715	1325	1385
64 - 65	1468	1568	-	1225	1325	-	-
66 - 68	1568	1668	-	1325	1425	-	-
69 - 71	1653	1753	-	1410	1510	-	-
72 - 74	1753	1853	-	1520	1620	-	-
75 - 77	2360	2460	-	1970	2070	-	-
78 - 80	2430	2530	-	2020	2120	-	-
81 - 83	2570	2670	-	2180	2280	-	-
84 - 85	2725	2845	-	2310	2430	-	-
86 - 88	2870	2990	-	2455	2575	-	-
89 - 90	3070	3190	-	2655	2775	-	-
91 - 92	3155	3275	-	2740	2860	-	-
93 - 94	3255	3375	-	2840	2960	-	-
95 - 98	4350	4500	-	3925	4075	-	-
99 - 102	4675	4825	-	4250	4400	-	-
103 - 106	5300	5450	-	4875	5025	-	-
107 - 110	5800	5950	-	5350	5500	-	-

■ Based on 3'-0" C-C rod dimension and 8" total travel



Variable Springs

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RVS-268, Type B	9-5/6	RVS-3X, Type A	9-11/12
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RVS-268, Type D	9-5/6	RVS-3X, Type C	9-11/12
RVS-268, Type E	9-5/6	RVS-3X, Type D	9-11/12
RVS-268, Type F	9-5/6	RVS-3X, Type E	9-11/12
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RVS-82, Type D	9-7/8	RVS-4X, Type C	9-13/14
RVS-82, Type E	9-7/8	RVS-4X, Type D	9-13/14
RVS-82, Type F	9-7/8	RVS-4X, Type E	9-13/14
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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

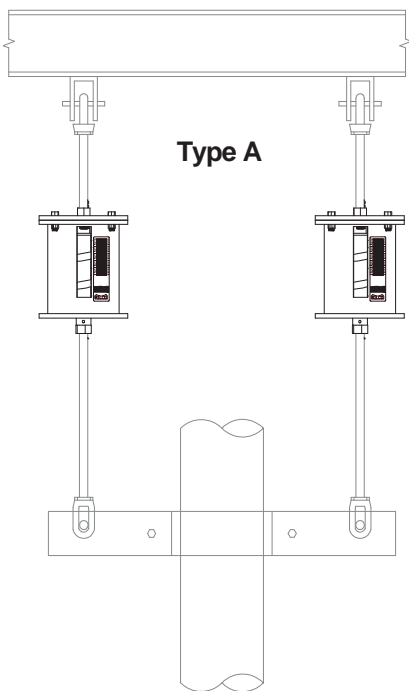
A set of installation instructions can be included with each shipment or contact your RILCO "Support Team" for a copy.

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

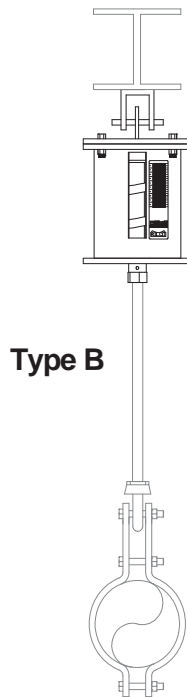
WHEN ORDERING

Please specify the following:

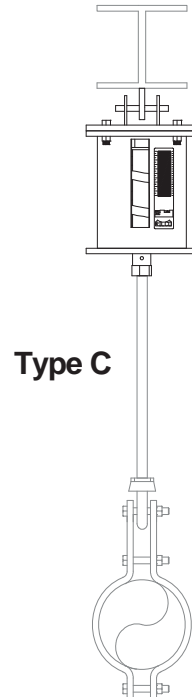
- 1. Figure:** RVS-82, 268, 98, Triple or Quadruple
 - 2. Size:** 0-22 for all figures, RSV-268 also available in 000 and 00
 - 3. Type:** A, *B, *C, D, E, F, or G
 - 4. Movement and direction of movement:** From cold (installed) to hot (operating) position
 - 5. Cold Load:** Installed position
 - 6. 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.



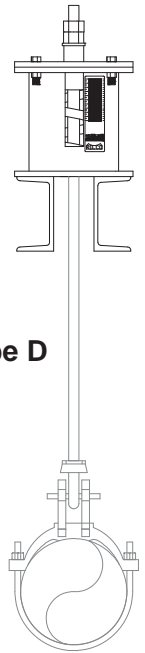
Type A



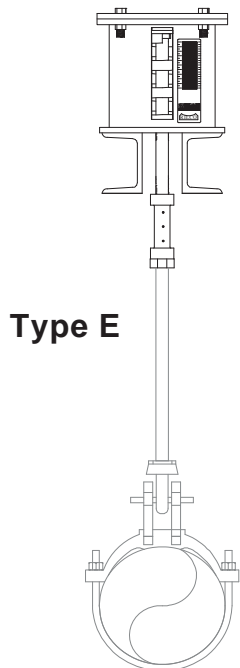
Type B



Type C

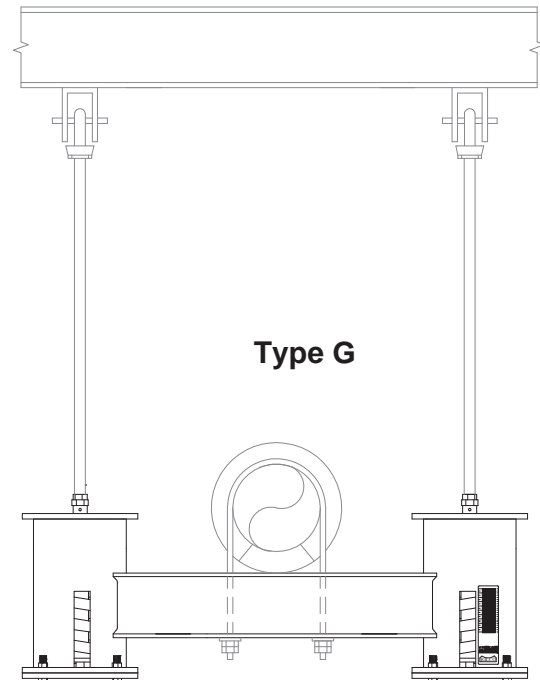
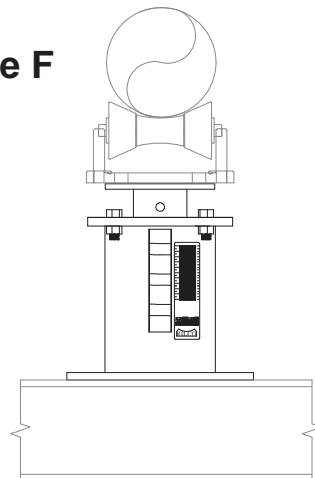


Type D



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.

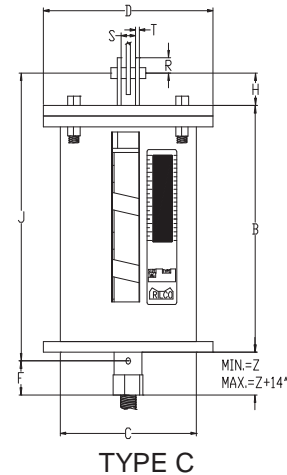
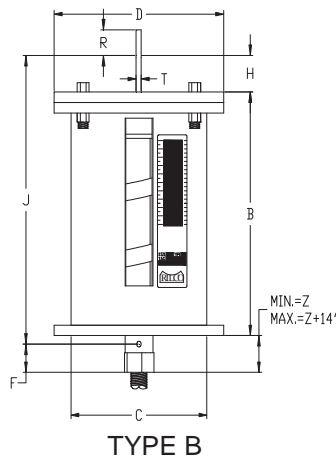
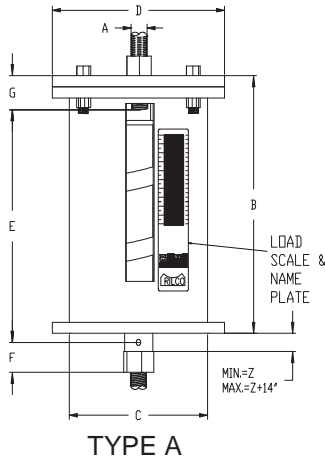
2. Calculate the movement with the following formula:

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

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

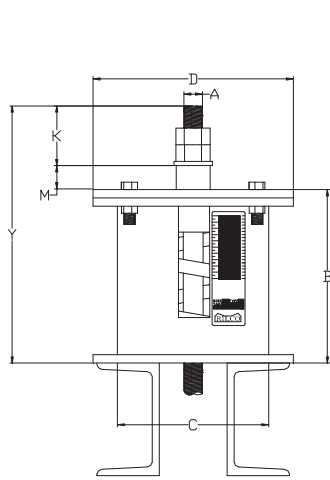


The RILCO RVS-268 is the spring upon which all the other RILCO RVS spring designs are based. The compact design enables this spring to work in a wide range of applications. The interchangeability of parts between spring figures also allows these units to be the most cost effective means of providing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

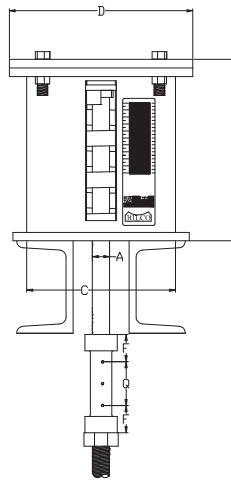
The RVS-268 provides a recommended maximum of 2-1/2" of movement, with a wide range of load carrying capability. On applications which require only a minimal amount of movement or are spaced restricted, the RVS-82 springs might better suit the designers' needs. Refer to the RVS-98, triple, or quadruple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

Weights (lbs) * Dimensions (inches)

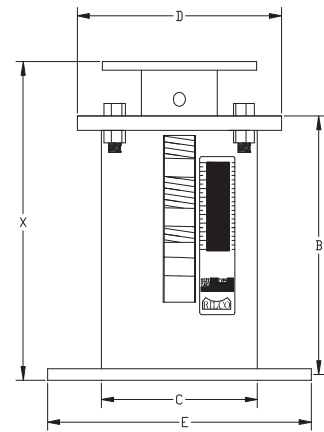
Hanger Size	Rod Size "A"	R.H. Thread Length	Casing		Flange Dia. "D"	Min Thread Engage "F"	"Z"	Rod Take Out By Type				Type A	Types B, C				Type D				
			Length "B"	Dia. "C"				A	B,C	E	G		Thread Depth "G"	Lug Hole Size	Pin Height "H"	"R"	Clevis Opening "S"	Thk. "T"	Rod Length "Y"	Nut Allow. "K"	Hgt Spacer "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	



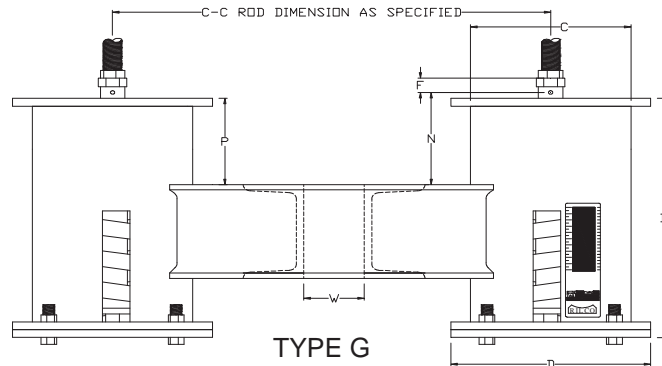
TYPE D



TYPE E



TYPE F



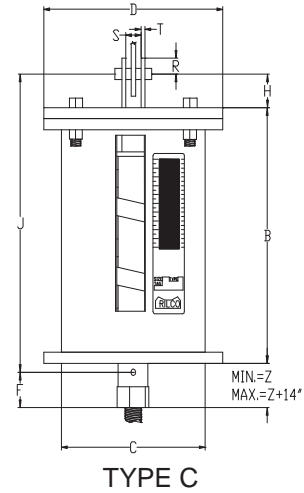
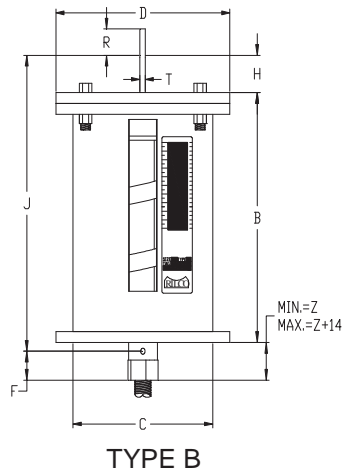
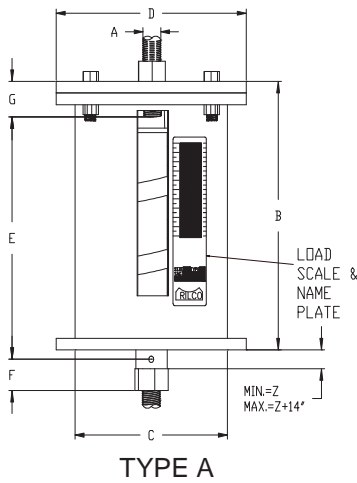
TYPE G

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



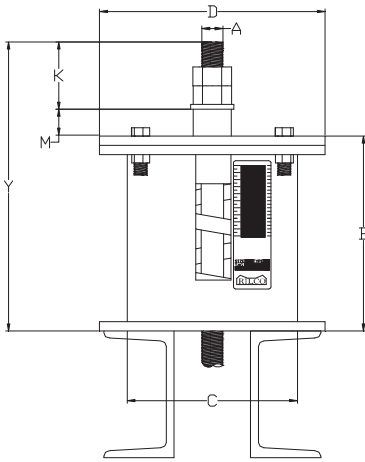
RILCO Variable Short Spring Hanger, the RVS-82, has all of the features of our RVS-268 and is designed to same exacting specifications.

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

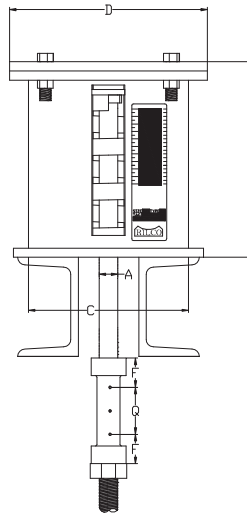
The RVS-82 hanger is offered in seven basic types which are displayed on this and the following page.

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

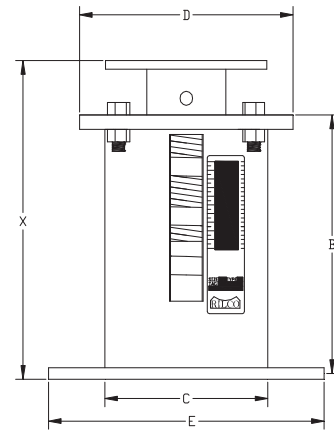
Weights (lbs) * Dimensions (inches)																				
Hanger Size	Rod Size "A"	R.H. Thread Length	Casing		Flange Dia. "D"	Min Thread Engage "F"	"Z"	Rod Take Out By Type				Type A	Types B, C				Type D			
			Length "B"	Dia. "C"				A	B,C	E	G	Thread Depth "G"	Lug Hole Size	Pin Hgt "H"	"R"	Clevis Opening "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	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	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



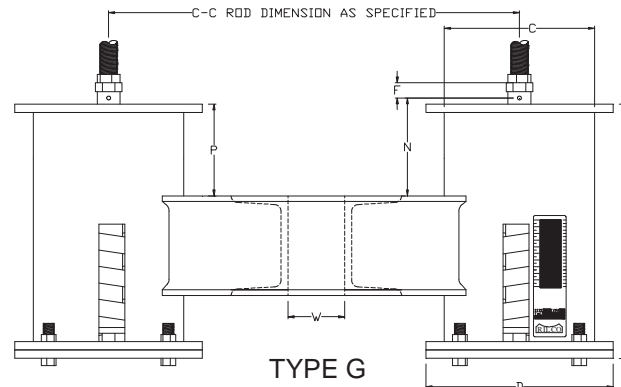
TYPE D



TYPE E



TYPE F

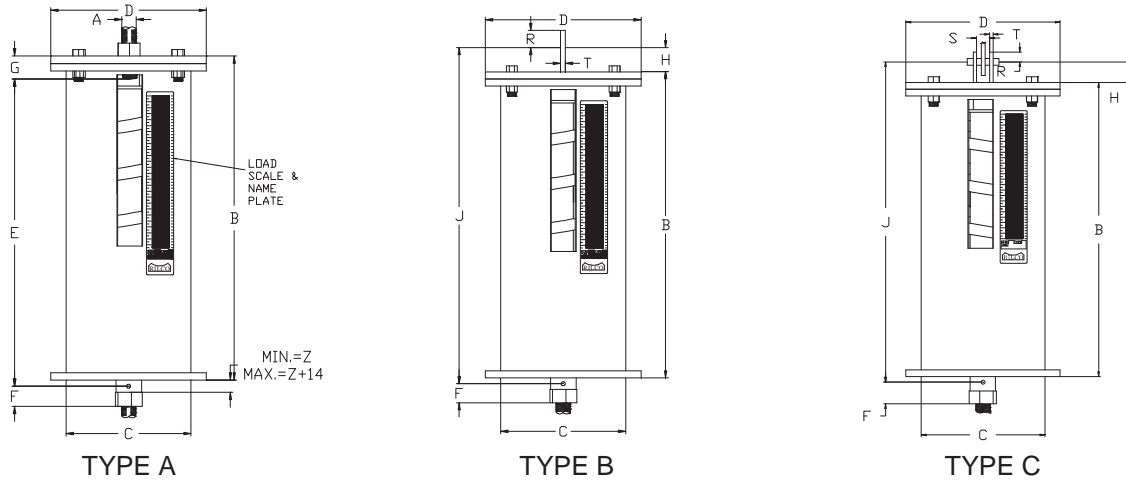


TYPE G

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



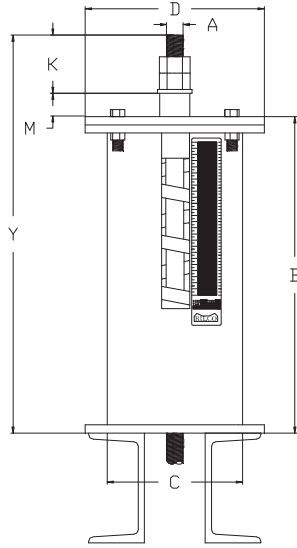
RILCO Variable Double Spring Hanger, the RVS-98, has all of the features of the RVS-268 features and is designed to the same exacting specifications.

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.

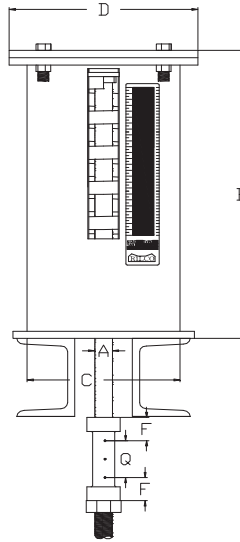
The RVS-98 hanger is offered in seven basic types as shown on this and the following page.

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

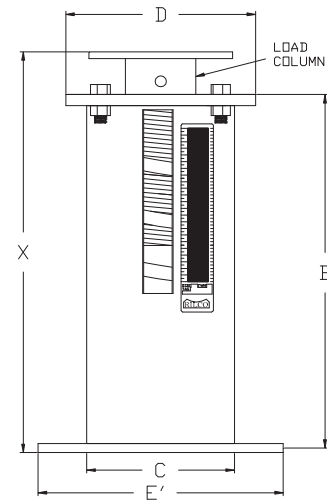
Weights (lbs) * Dimensions (inches)																				
Hanger Size	Rod Size "A"	R.H. Thread Length	Casing		Flange Dia. "D"	Min Thread Engage "F"	"Z"	Rod Take Out By Type				Type A Thread Depth "G"	Types B, C					Type D		
			Length "B"	Dia. "C"				A	B,C	E	G		Lug Hole Size	Pin Hgt "H"	"R"	Clevis Opening "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



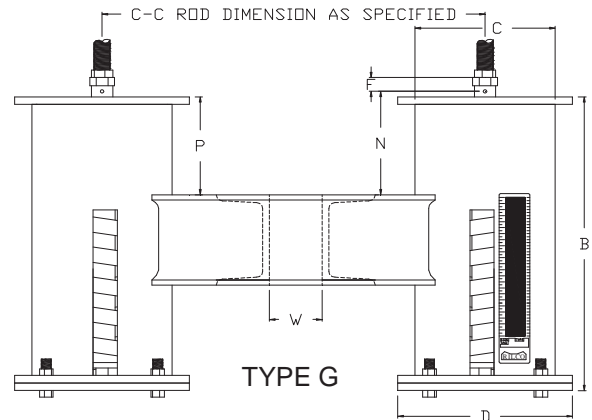
TYPE D



TYPE E



TYPE F

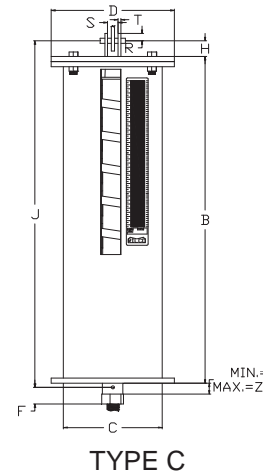
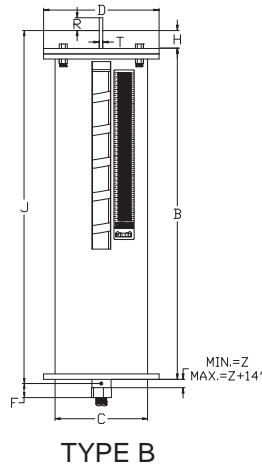
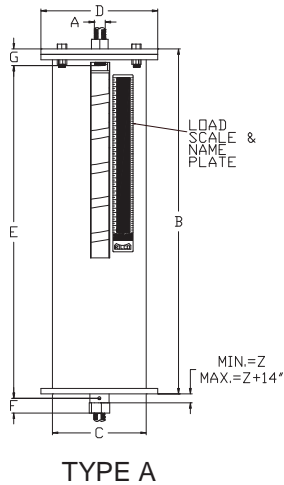


TYPE G

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.

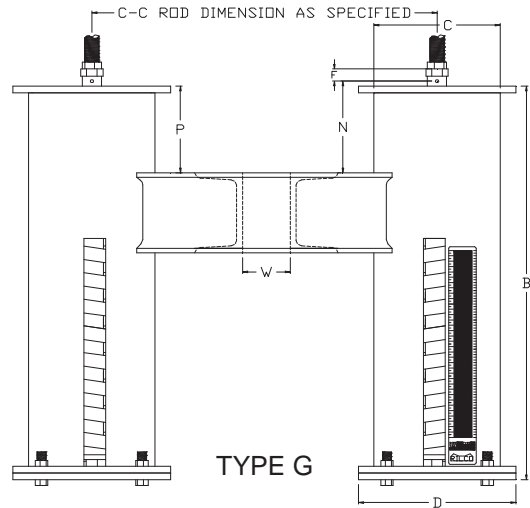
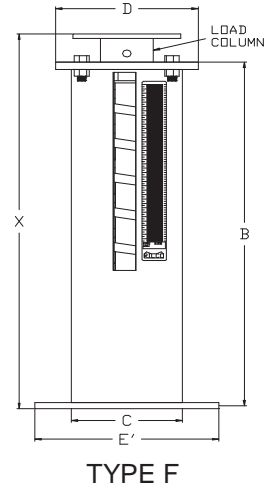
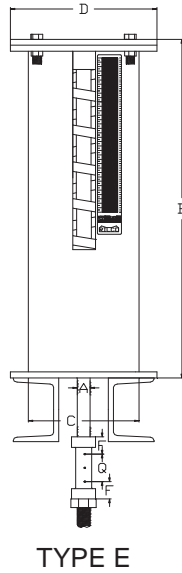
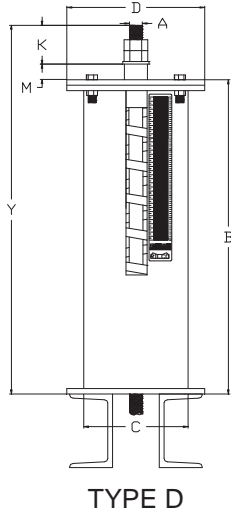
This hanger is offered in the seven basic types shown on this and the following page.

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



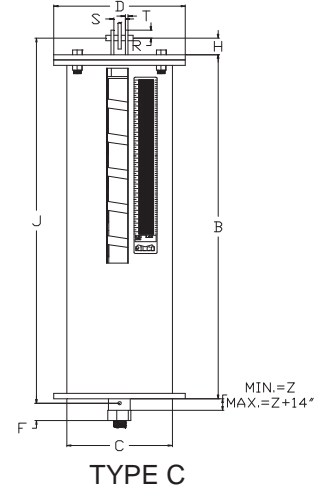
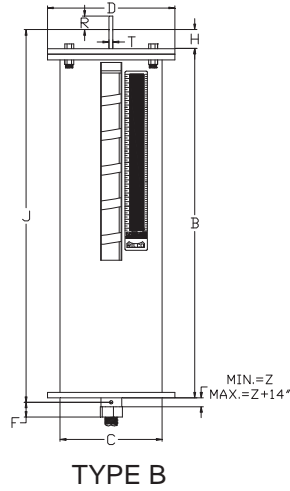
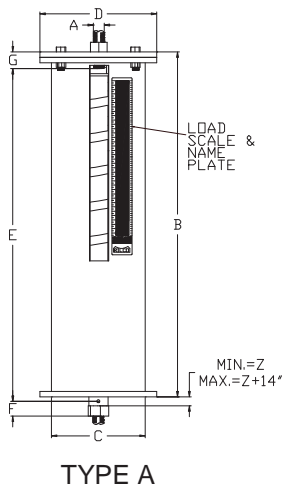
Part # RVS-Triple Spring



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		Rod Length "P"
							"E"	"J"	"Y"	"Q"	"N"	Min	Max				
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.

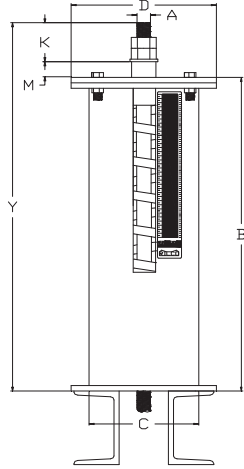
Each basic unit consists of four springs arranged in series within a single casing and a centering guide to assure the permanent alignment of the spring assembly.

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

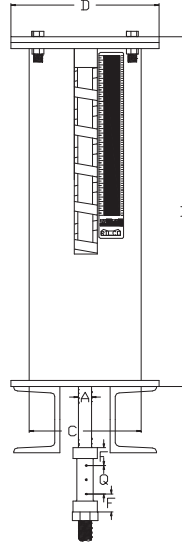
The Variable Selection Chart for sizing and instructions are found on pages 8 and 9.

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	

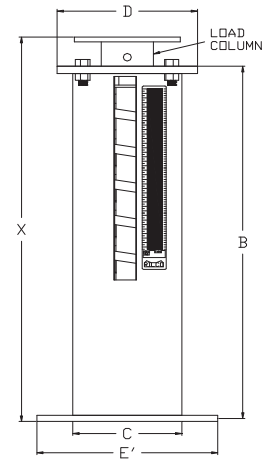
Part # RVS-Quadruple Spring



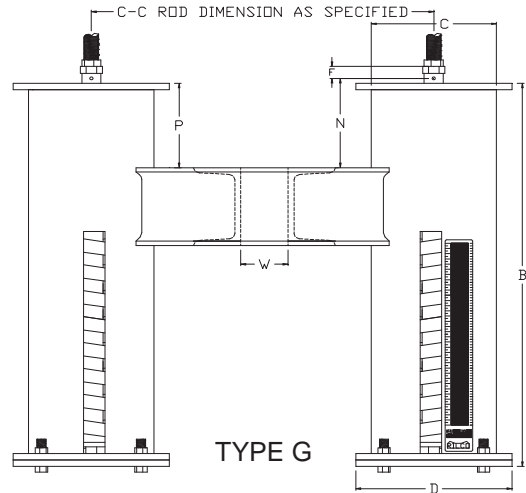
TYPE D



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	



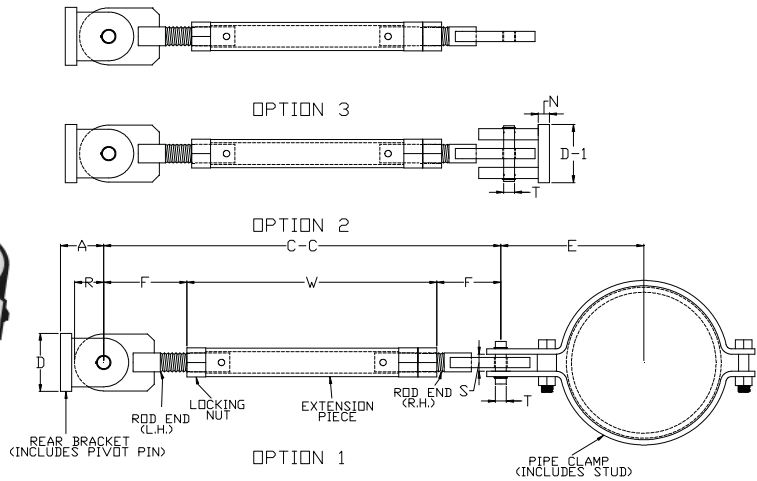
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PART# 800/801

Sway Strut Assembly



FINISH: Black, Galvanized, or coated to customer specifications.

APPLICATIONS: Used to restrain movement of piping while allowing for movement in the other two directions.

FEATURES:

- Effective under either tensile or compressive force.
- Self-aligning bushings permits a plus or minus 5-degree misalignment or angular motion. Bushings are coated with dry lubricant.

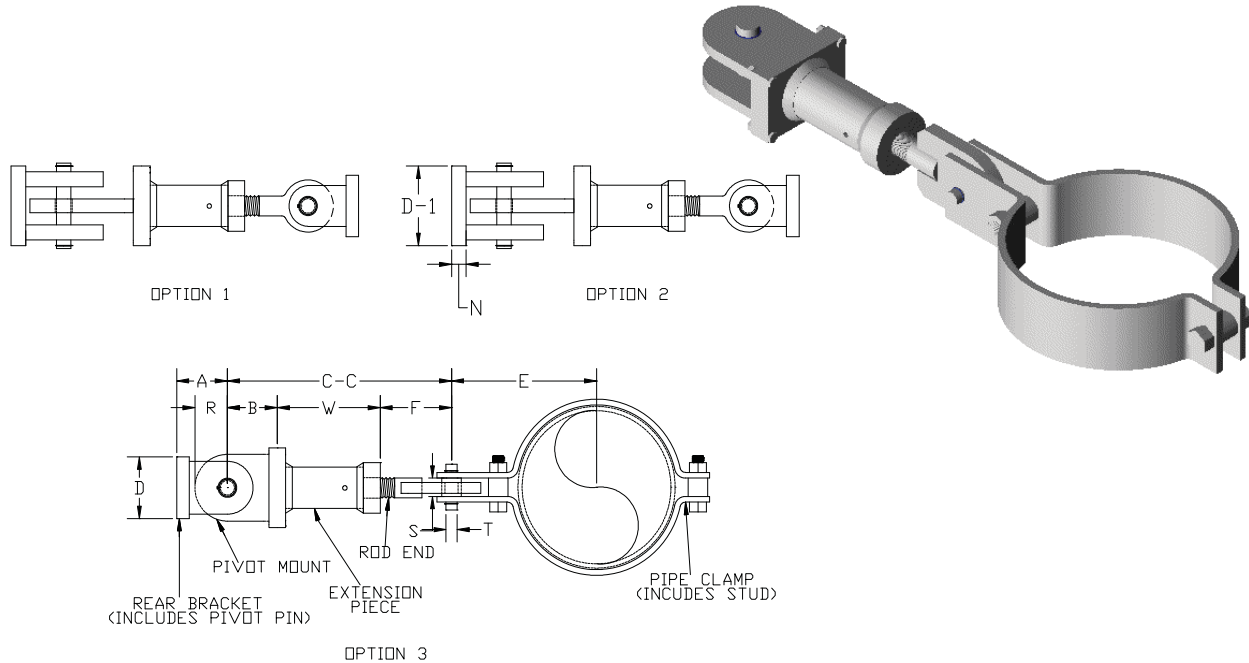
ORDERING: Specify assembly size, part number, name, option number, normal pipe or special O.D. and "W" dimensions. Alloy pipe clamps are available as a special order. The rear bracket assembly may be ordered separately. For restraint parallel to the pipe axis using two sway strut assemblies, a riser clamp is available. If a riser clamp is required, contact your RILCO "Support Team" member for assistance and information about this clamp.

Load (lbs) • Weight (lbs) • Dimensions (inches)

Size	Part# 800/ Part# 801											Part# 800				Part# 801				
	Load	Ext. Piece	Rod End	A	F	D	D1	N	R	S	T	C-C		W		F	Weld Z	C-C		F
												Max	Min	Max	Min			Max	Min	
A	650	1	3/4	1	3 ⁷ / ₁₆	2	1 ¹ / ₄	1 ¹ / ₄	5 ⁸ / ₈	5 ⁸ / ₈	0.374 0.372	60	15 ¹ / ₂	53 ³ / ₈	9 ⁵ / ₈	3 ⁷ / ₁₆	3 ¹⁶ / ₁₆	60	12 ¹ / ₈	2 ¹¹ / ₁₆
B	1500	1 ¹ / ₂	1	2 ¹ / ₂	4 ⁷ / ₁₆		2 ³ / ₈	5 ⁸ / ₈	1 ³ / ₈	1 ³ / ₈	0.749 0.747	108	19	99 ¹ / ₈	10 ¹ / ₈	4 ⁷ / ₁₆		14 ⁷ / ₁₆	3 ¹¹ / ₁₆	
C	4500	2	1		4 ¹³ / ₁₆	2 ⁷ / ₈	3 ³ / ₄	1 ³ / ₈			1 ³ / ₈			0.749 0.747	111 ¹ / ₈		10 ¹ / ₈			4 ¹³ / ₁₆
1	8000		1 ¹ / ₄	4 ¹³ / ₁₆	3				3 ³ / ₁₆	3 ³ / ₄		1 ¹ / ₂	1 ¹¹ / ₁₆	0.999 0.997	21	110 ³ / ₈	4 ¹³ / ₁₆	16 ⁷ / ₈	4 ¹ / ₄	
2	11630	2 ¹ / ₂	1 ¹ / ₂	5		3	3 ³ / ₁₆	3 ³ / ₄			1 ¹ / ₂			1 ¹¹ / ₁₆	0.999 0.997	21 ³ / ₈				110
3	15700		1 ³ / ₄	5 ³ / ₄	3				3 ³ / ₁₆	3 ³ / ₄		1 ¹ / ₂	1 ¹¹ / ₁₆		1.249 1.247	22 ⁷ / ₈	108 ¹ / ₂	5 ³ / ₄	20 ¹ / ₂	5 ¹ / ₄
4	20700	3	2	6		3	3 ³ / ₁₆	3 ³ / ₄			1 ¹ / ₂			1 ¹¹ / ₁₆	1.249 1.247	25	108			
5	27200		2 ¹ / ₄	7 ³ / ₄	6 ¹ / ₈				4 ¹ / ₄	1 ¹ / ₄		2 ¹ / ₂	2		1.499 1.497	26 ¹ / ₂	106 ¹ / ₂	13	6 ³ / ₄	23 ³ / ₄
6	33500	4	2 ¹ / ₂	7 ⁵ / ₈	7 ⁷ / ₈	5 ³ / ₈	1 ³ / ₄	3	2 ³ / ₈	1.749 1.747	28 ¹ / ₄	104 ³ / ₄	7 ⁵ / ₈	28	8					
7	68200		3	5 ³ / ₄	8 ³ / ₄	9 ¹ / ₈	6 ¹ / ₄	2	3 ¹ / ₂	3	1.999 1.997	32 ¹ / ₂				102 ¹ / ₂	15	8 ³ / ₄	34 ³ / ₄	10 ¹ / ₄
8	120000	6	4	7 ¹ / ₄	11	14	8 ³ / ₄	2 ¹ / ₄	4 ³ / ₄	3 ³ / ₈	2.499 2.497	31 ¹ / ₄	98	17 ¹ / ₄	11	3 ⁴ / ₄				

Mini Sway Strut

PART# 802



FINISH: Black, Galvanized, or coated to customer specifications.

APPLICATIONS: Used to restrain movement of piping in one direction while providing for movement due to thermal expansion or contraction in another direction.

FEATURES:

- Assembly provides a shorter C to C dimension.
- Effective under either tensile or compressive force.
- Self-aligning bushings permits a plus or minus 5-degree misalignment or angular motion. Bushings are coated with dry lubricant.

ORDERING: Specify assembly size, part number, name, O.D. or option number, if other than standard, and load.

Ex: Size A-1, Part #802 Mini Sway Strut 10³/₄ O.D. pipe, 650#. Alloy pipe clamps are available as a special order.

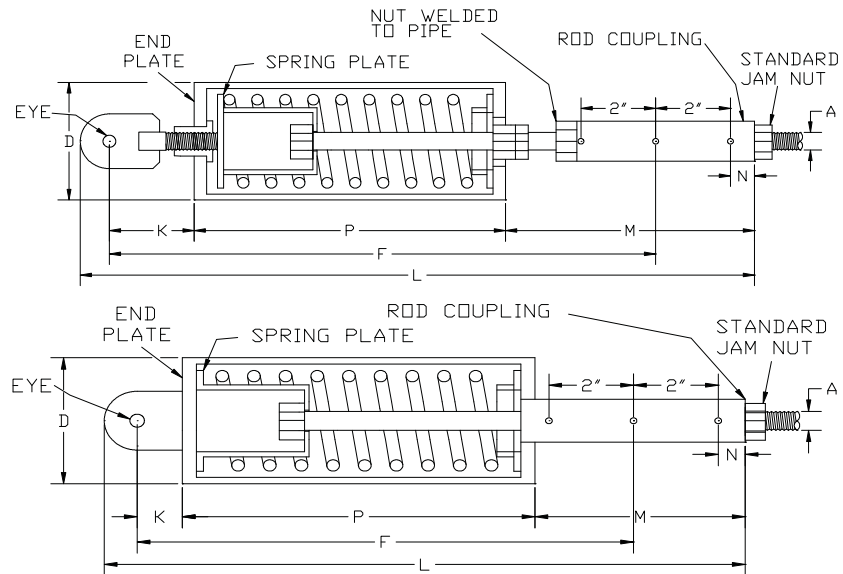
For restraint parallel to the pipe axis using two sway strut assemblies, a riser clamp is available. If a riser clamp is required, consult the nearest RILCO "Support Team" member for assistance and information about this clamp.

Load (lbs) • Weight (lbs) • Dimensions (inches)

Assembly Size	Load	C-C		F		W	Rod End	A	D	D1	N	R	S	T Nom.	B
		Max	Min	Max	Min										
A	A-1	6 ⁵ / ₈	5 ³ / ₈	2 ¹³ / ₁₆	1 ⁹ / ₁₆	2 ⁵ / ₈	3/4	1	2	1 ¹ / ₄	1/4	5/8	5/8	3/8	1 ³ / ₁₆
	A-2	8 ¹ / ₂	6 ¹ / ₂	4 ¹ / ₄	2 ¹ / ₄	3 ¹ / ₁₆									
	A-3	13 ¹ / ₄	8 ¹ / ₂	6 ¹ / ₄	1 ¹ / ₂	5 ¹³ / ₁₆									
B & C	BC-1	6 ¹ / ₂	6	2 ⁷ / ₈	2 ³ / ₈	1 ¹ / ₂	1 ³ / ₈	2 ¹ / ₂	2	2 ³ / ₈	5/8	1 ³ / ₈	1 ³ / ₈	3/4	2 ¹ / ₈
	BC-2	7 ³ / ₄	6 ⁵ / ₈	3 ¹ / ₂	2 ³ / ₈	2 ¹ / ₈									
	BC-3	8 ¹¹ / ₁₆	7 ⁹ / ₁₆	3 ¹³ / ₁₆	2 ¹¹ / ₁₆	2 ³ / ₄									
	BC-4	10 ¹⁵ / ₁₆	8 ¹¹ / ₁₆	4 ¹⁵ / ₁₆	2 ¹¹ / ₁₆	3 ⁷ / ₈									
	BC-5	15 ⁷ / ₁₆	10 ¹⁵ / ₁₆	7 ³ / ₁₆	2 ¹¹ / ₁₆	6 ¹ / ₈									
	BC-6	19 ⁹ / ₁₆	15 ⁷ / ₁₆	9 ¹ / ₄	5 ¹ / ₈	8 ³ / ₁₆									
1	1-1	8 ⁷ / ₈	8	3 ¹¹ / ₁₆	2 ¹³ / ₁₆	2 ¹⁵ / ₁₆	1 ¹ / ₄	2 ¹ / ₂	2	2 ⁷ / ₈	3/4	1 ⁹ / ₁₆	1 ³ / ₈	1	2 ¹ / ₄
	1-2	10 ⁵ / ₈	8 ⁷ / ₈	4 ⁹ / ₁₆	2 ¹³ / ₁₆	3 ¹³ / ₁₆									
	1-3	11 ⁷ / ₈	10 ¹ / ₄	4 ¹³ / ₁₆	3 ³ / ₁₆	4 ¹³ / ₁₆									
	1-4	15 ¹ / ₈	11 ⁷ / ₈	6 ¹ / ₁₆	3 ³ / ₁₆	6 ⁷ / ₁₆									
	1-5	21 ⁵ / ₈	15 ¹ / ₈	9 ¹¹ / ₁₆	3 ³ / ₁₆	9 ¹¹ / ₁₆									

PART# 830/831

Vibration Control & Sway Brace



SIZE RANGE: Preload from 50 lbs to 1800 lbs and maximum forces 200 lbs to 7200 lbs.

FINISH: Black, Galvanized, or coated to customer specifications.

APPLICATIONS: Recommended for controlling vibration; absorbing shock, loading; guiding or restraining the movement of pipe resulting from thermal expansion and bracing a pipe line against sway.

SPECIFICATIONS: Fulfills the requirements of the ASME code for Pressure Piping as to fabrication details and materials.

ADJUSTMENT: The sway brace should be in the neutral position when the system is hot and operating, at which time both

Spring plates should be in contact with the end plates. If they are not, the sway brace should adjusted to the neutral position by use of the load coupling.

PRELOAD ADJUSTMENT PART # 831: Turn the preload adjustment nut until desired preload is indicated. Turn thrust nut until it is in contact with the spring plate. Lock in position. Indicated deflection must be greater then thermal movement.

FEATURES:

- Vibration is opposed with an instantaneous counter force bringing the pipe back to normal position.
- A single pre-loaded spring provides two-way action.
- One spring valve saves space and simplifies design.
- Spring has 3"-inch travel in either direction.
- Accurate neutral adjustment assured.

APPROVALS: Complies with Manufacturers Standardization Society SP-69 (Type 50)

ORDERING: Specify part number, name, sway brace size and finish. The RILCO part # 830 and part # 831 consists of the sway brace

Load (lbs) • Weight (lbs) • Dimensions (inches)

Sway Brace Size	Pipe Size	Preload And Spring Scale	Max Force	Weight	Rod Size A	Eye Dia. Hole	D	Length F 830 / 831	K 830 / 831	L 830 / 831	M 830 / 831	N	P 830 / 831	R
1	1 1/2 - 24	50	200	22	3/4	1	4 1/2	13 5/8 / 20	1 5/8 / 5 15/16	17 7/8 / 20	6 1/8 / 7 7/8	1	8 7/8 / 9 3/16	1 1/4
2		150	600	25	1			14 3/8 / 20 3/4		18 5/8 / 20 3/4			9 5/8 / 9 15/16	
3		450	1800	36	1 1/4			17 3/4 / 24 1/8		22 / 24 1/8			13 / 13 5/16	
4	6 - 30	900	3600	64	1 1/4	1 1/2	6 5/8	17 / 24 5/16	2 1/4 / 6 9/16	22 5/16 / 24 5/16	6 3/4 / 9 1/4	1 1/2	11 1/2 / 12	1 13/16
5		1350	5400	79	1 1/2			18 1/2 / 25 13/16		23 13/16 / 25 13/16			13 / 13 1/2	
6		1800	7200	95	1 1/2			20 1/2 / 27 13/16		25 13/16 / 27 13/16			15 / 15 1/2	