



VARIABLE SPRING SUPPORTS: LOAD AND TRAVEL TABLE (U.S.)

WITH LOAD IN POUNDS AND TRAVEL IN INCHES

WORKING RANGE, INCHES					HANGER SIZE																				SPRING DEFLECTION, INCHES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
PTP 8	PTP 6	PTP 4	PTP 2	PTP 1	ROD SIZE																				PTP 1	PTP 2	PTP 4	PTP 6	PTP 8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
					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"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
0	0	0	0	0	43	63	81	105	141	189	252	336	450	600	780	1,020	1,350	1,800	2,400	3,240	4,500	6,000	7,990	10,610	14,100	18,750	25,005	0	0	0	0	0	44	66	84	109	147	197	263	350	469	625	813	1,063	1,406	1,875	2,500	3,375	4,688	6,250	8,322	11,053	14,688	19,531	26,074	1/4	1/2	1	1 1/2	2	46	68	88	114	153	206	273	364	488	650	845	1,105	1,463	1,950	2,600	3,510	4,875	6,500	8,655	11,495	15,275	20,313	27,089	1/2	1	2	3	4	48	71	91	118	159	213	284	378	506	675	878	1,148	1,519	2,025	2,700	3,645	5,063	6,750	8,987	11,938	15,863	21,094	28,131	3/4	1 1/2	3	4 1/2	6	50	74	95	123	165	221	294	392	525	700	910	1,190	1,575	2,100	2,800	3,780	5,250	7,000	9,320	12,380	16,450	21,875	29,173	1	2	4	6	8	52	76	98	127	170	228	305	406	544	725	943	1,233	1,631	2,175	2,900	3,915	5,438	7,250	9,652	12,823	17,038	22,656	30,215	1 1/4	2 1/2	5	7 1/2	10	54	79	101	131	176	236	315	420	563	750	975	1,275	1,688	2,250	3,000	4,050	5,625	7,500	9,985	13,265	17,625	23,438	31,256	2	3	6	9	12	56	81	105	136	182	244	326	434	581	775	1,008	1,318	1,744	2,325	3,100	4,185	5,813	7,750	10,317	13,708	18,213	24,219	32,298	3	4	8	11	14	58	84	108	140	188	252	336	448	600	800	1,040	1,360	1,800	2,400	3,200	4,320	6,000	8,000	10,650	14,150	18,800	25,000	33,340	4	5	10	13	16	59	87	111	144	194	260	347	462	619	825	1,073	1,403	1,856	2,475	3,300	4,455	6,188	8,250	10,982	14,592	19,388	25,781	34,382	5	6	12	15	18	61	89	115	149	200	268	357	476	638	850	1,105	1,445	1,913	2,550	3,400	4,590	6,375	8,500	11,315	15,035	19,975	26,563	35,424	6	7	14	17	20	63	92	118	153	206	276	368	490	656	875	1,138	1,488	1,969	2,625	3,500	4,725	6,563	8,750	11,647	15,477	20,563	27,344	36,466	7	8	16	19	22	65	95	122	158	212	284	378	504	675	900	1,170	1,530	2,025	2,700	3,600	4,860	6,750	9,000	11,980	15,920	21,150	28,125	37,508	8	9	18	21	24	67	97	125	162	217	291	389	518	694	925	1,203	1,573	2,081	2,775	3,700	4,995	6,938	9,250	12,312	16,362	21,738	28,906	38,549	9	10	20	23	26	69	100	128	166	223	299	399	532	713	950	1,235	1,615	2,138	2,850	3,800	5,130	7,125	9,500	12,645	16,805	22,325	29,688	39,591	10	11	22	25	28	71	102	132	171	229	307	410	546	731	975	1,268	1,658	2,194	2,925	3,900	5,265	7,313	9,750	12,977	17,247	22,913	30,469	40,633	11	12	24	27	30	73	105	135	175	235	315	420	560	750	1,000	1,300	1,700	2,250	3,000	4,000	5,400	7,500	10,000	13,310	17,690	23,500	31,250	41,675	12	13	26	29	32	74	108	138	179	241	323	431	574	769	1,025	1,333	1,743	2,306	3,075	4,100	5,535	7,688	10,250	13,642	18,132	24,088	32,031	42,717	13	14	28	31	34	76	110	142	184	247	331	441	588	788	1,050	1,365	1,785	2,363	3,150	4,200	5,670	7,875	10,500	13,975	18,575	24,675	32,813	43,759	14	15	30	33	36	78	113	145	188	253	339	452	602	806	1,075	1,398	1,828	2,419	3,225	4,300	5,805	8,063	10,750	14,307	19,017	25,263	33,594	44,801	15	16	32	35	38	80	116	149	193	258	347	462	616	825	1,100	1,430	1,870	2,475	3,300	4,400	5,940	8,250	11,000	14,640	19,460	25,850	34,375	45,843	16	17	34	37	40	82	118	152	197	264	354	473	630	844	1,125	1,463	1,913	2,531	3,375	4,500	6,075	8,438	11,250	14,972	19,902	26,438	35,156	46,885	17	18	36	39	42	84	121	155	201	270	362	483	644	863	1,150	1,495	1,955	2,588	3,450	4,600	6,210	8,625	11,500	15,305	20,345	27,025	35,938	47,926	18	19	38	41	44	86	123	159	206	276	370	494	658	881	1,175	1,528	1,998	2,644	3,525	4,700	6,345	8,813	11,750	15,637	20,787	27,613	36,719	48,968	19	20	40	43	46	88	126	162	210	282	378	504	672	900	1,200	1,560	2,040	2,700	3,600	4,800	6,480	9,000	12,000	15,970	21,230	28,200	37,500	50,010	20	21	42	45	48	89	129	165	214	288	386	515	686	919	1,225	1,593	2,083	2,756	3,675	4,900	6,615	9,188	12,250	16,302	21,672	28,788	38,281	51,052	21	22	44	47	50	91	131	169	219	294	394	525	700	938	1,250	1,625	2,125	2,713	3,750	5,000	6,750	9,375	12,500	16,635	22,115	29,375	39,063	52,094	22	23	46	49	52	93	134	172	223	300	402	536	714	956	1,275	1,658	2,168	2,869	3,825	5,100	6,885	9,563	12,750	16,967	22,557	29,963	39,844	53,136	23	24	48	51	54	95	137	176	228	306	410	546	728	975	1,300	1,690	2,210	2,925	3,900	5,200	7,020	9,750	13,000	17,300	23,000	30,550	40,625	54,178	24	25	50	53	56	SPRING SCALE LB. / INCH																				25	26	52	55	58	30	42	54	70	94	126	168	224	300	400	520	680	900	1,200	1,600	2,160	3,000	4,000	5,320	7,080	9,400	12,500	16,670	26	27	54	57	60	15	21	27	35	47	63	84	112	150	200	260	340	450	600	800	1,080	1,500	2,000	2,660	3,540	4,700	6,250	8,335	27	28	58	61	64	7	10	13	17	23	31	42	56	75	100	130	170	225	300	400	540	750	1,000	1,330	1,770	2,350	3,125	4,167	28	29	62	65	68	5	7	9	12	16	21	28	37	50	67	87	113	150	200	267	360	500	667	887	1,180	1,567	2,083	2,778	29	30	66	69	72	4	5	7	9	12	16	21	28	38	50	65	85	113	150	200	270	375	500	665	885	1,175	1,563	2,034



VARIABLE SPRING SUPPORTS: LOAD AND TRAVEL TABLE (METRIC)

WITH LOAD IN KILOGRAMS AND TRAVEL IN MILLIMETERS

WORKING RANGE, MILLIMETERS					HANGER SIZE																						SPRING DEFLECTION, MILLIMETERS																																					
PTP 8	PTP 6	PTP 4	PTP 2	PTP 1	00	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	PTP 1	PTP 2	PTP 4	PTP 6	PTP 8																																
					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"				
					NOMINAL ROD SIZE																																																											
0.0	0.0	0.0	0.0	0.0	20	29	37	48	64	86	114	152	204	272	354	463	612	816	1,089	1,470	2,041	2,722	3,620	4,817	6,396	8,505	11,342	0.0	0.0	0.0	0.0	0.0																																
					21	30	38	50	67	89	119	159	213	284	369	482	638	851	1,134	1,531	2,126	2,835	3,771	5,018	6,662	8,859	11,815																																					
					22	31	40	52	69	93	124	165	221	295	383	501	663	885	1,179	1,592	2,211	2,948	3,921	5,219	6,929	9,214	12,287																																					
					23	32	41	54	72	97	129	172	230	306	398	521	689	919	1,225	1,653	2,296	3,062	4,072	5,419	7,195	9,568	12,760																																					
50.8	38.1	25.4	12.7	6.4	24	33	43	56	75	100	133	178	238	318	413	540	714	953	1,270	1,715	2,381	3,175	4,223	5,620	7,462	9,923	13,233	6.4	12.7	25.4	38.1	50.8																																
					25	35	44	58	77	104	138	184	247	329	428	559	740	987	1,315	1,776	2,466	3,289	4,374	5,821	7,728	10,277	13,705																																					
					26	36	46	60	80	107	143	191	255	340	442	578	765	1,021	1,361	1,837	2,552	3,402	4,525	6,022	7,995	10,631	14,178																																					
					26	37	48	62	83	111	148	197	264	352	457	598	791	1,055	1,406	1,898	2,637	3,515	4,675	6,222	8,261	10,986	14,650																																					
101.6	76.2	50.8	25.4	12.7	27	38	49	64	85	114	152	203	272	363	472	617	816	1,089	1,452	1,960	2,722	3,629	4,826	6,423	8,528	11,340	15,123	12.7	25.4	50.8	76.2	101.6																																
					28	39	51	66	88	118	157	210	281	374	486	636	842	1,123	1,497	2,021	2,807	3,742	4,977	6,624	8,794	11,694	15,596																																					
					29	41	52	68	91	122	162	216	289	386	501	655	868	1,157	1,542	2,082	2,892	3,856	5,128	6,824	9,061	12,049	16,068																																					
					30	42	54	70	93	125	167	222	298	397	516	675	893	1,191	1,588	2,143	2,977	3,969	5,279	7,025	9,327	12,403	16,541																																					
152.4	114.0	76.2	38.1	19.1	31	43	55	71	96	129	172	229	306	408	531	694	919	1,225	1,633	2,205	3,062	4,082	5,430	7,226	9,594	12,758	17,013	19.1	38.1	76.2	114.0	152.4																																
					32	44	57	73	99	132	176	235	315	420	545	713	944	1,259	1,678	2,266	3,147	4,196	5,580	7,427	9,860	13,112	17,486																																					
					32	45	58	75	101	136	181	241	323	431	560	733	970	1,293	1,724	2,327	3,232	4,309	5,731	7,627	10,127	13,466	17,959																																					
					33	46	60	77	104	139	186	248	332	442	575	752	995	1,327	1,769	2,388	3,317	4,423	5,882	7,828	10,393	13,821	18,431																																					
203.2	152.0	102.0	50.8	25.4	34	48	61	79	107	143	191	254	340	454	590	771	1,021	1,361	1,814	2,449	3,402	4,536	6,033	8,029	10,660	14,175	18,904	25.4	50.8	102.0	152.0	203.2																																
					35	49	63	81	109	147	195	260	349	465	604	790	1,046	1,395	1,860	2,511	3,487	4,649	6,184	8,229	10,926	14,529	19,376																																					
					36	50	64	83	112	150	200	267	357	476	619	810	1,072	1,429	1,905	2,572	3,572	4,763	6,335	8,430	11,193	14,884	19,849																																					
					37	51	66	85	115	154	205	273	366	488	634	829	1,097	1,463	1,950	2,633	3,657	4,876	6,485	8,631	11,459	15,238	20,322																																					
254.0	191.0	127.0	63.5	31.7	37	52	67	87	117	157	210	279	374	499	649	848	1,123	1,497	1,996	2,694	3,742	4,990	6,636	8,832	11,726	15,593	20,794	31.7	63.5	127.0	191.0	254.0																																
					38	54	69	89	120	161	214	286	383	510	663	868	1,148	1,531	2,041	2,756	3,827	5,103	6,787	9,032	11,992	15,947	21,267																																					
					39	55	70	91	123	164	219	292	391	522	678	887	1,174	1,565	2,087	2,817	3,912	5,216	6,938	9,233	12,299	16,301	21,739																																					
					40	56	72	93	125	168	224	299	400	533	693	906	1,199	1,599	2,132	2,878	3,997	5,330	7,089	9,434	12,525	16,656	22,212																																					
					41	57	74	95	128	172	229	305	408	544	708	925	1,225	1,633	2,177	2,939	4,082	5,443	7,239	9,634	12,792	17,010	22,685	38.1	76.2	152.0	229.0	304.8																																
					42	58	75	97	131	175	233	311	417	556	722	945	1,250	1,667	2,223	3,001	4,167	5,557	7,390	9,835	13,058	17,364	23,157																																					
					43	60	77	99	133	179	238	318	425	567	737	964	1,276	1,701	2,268	3,062	4,253	5,670	7,541	10,036	13,325	17,719	23,630																																					
					44	61	78	101	136	182	243	324	434	578	752	983	1,301	1,735	2,313	3,123	4,338	5,783	7,692	10,237	13,591	18,073	24,102																																					
					44	62	80	103	139	186	248	330	442	590	767	1,002	1,327	1,769	2,359	3,184	4,423	5,897	7,843	10,437	13,857	18,428	24,575	44.5	88.9	178.0	267.0	355.6																																
					SPRING SCALE KG / MM																																																											
					0.54	0.75	0.97	1.25	1.68	2.25	3.00	4.00	5.36	7.14	9.29	12.14	16.07	21.43	28.57	38.57	53.57	71.43	95.00	126.44	167.87	223.23	297.70																																					
					0.27	0.38	0.48	0.63	0.84	1.13	1.50	2.00	2.68	3.57	4.64	6.07	8.04	10.72	14.29	19.29	26.79	35.72	47.50	63.22	83.94	111.61	148.80																																					
					0.13	0.19	0.24	0.31	0.42	0.50	0.75	1.00	1.34	1.79	2.32	3.04	4.02	5.36	7.14	9.64	13.39	17.86	23.75	31.61	41.97	55.81	74.42																																					
					0.09	0.13	0.16	0.21	0.28	0.38	0.50	0.67	0.89	1.19	1.55	2.02	2.68	3.57	4.76	6.43	8.93	11.90	15.83	21.07	27.98	37.20	49.62																																					
					0.07	0.09	0.13	0.16	0.21	0.29	0.38	0.50	0.68	0.89	1.16	1.52	2.02	2.68	3.57	4.82	6.70	8.93	11.88	15.81	20.99	27.92	36.33																																					



VARIABLE SPRING SUPPORTS: LOAD AND TRAVEL TABLE (METRIC)

WITH LOAD IN NEWTONS AND TRAVEL IN MILLIMETERS

WORKING RANGE, MILLIMETERS					HANGER SIZE																							SPRING DEFLECTION, MILLIMETERS							
PTP 8	PTP 6	PTP 4	PTP 2	PTP 1	00	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	PTP 1	PTP 2	PTP 4	PTP 6	PTP 8			
					NOMINAL 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"							
0.0	0.0	0.0	0.0	0.0	191	280	360	467	627	841	1,121	1,495	2,002	2,669	3,469	4,537	6,005	8,006	10,675	14,412	20,016	26,688	35,540	47,193	62,717	83,400	111,222	0.0	0.0	0.0	0.0	0.0			
					196	294	374	485	654	876	1,170	1,557	2,086	2,780	3,616	4,728	6,254	8,340	11,120	15,012	20,852	27,800	37,016	49,164	65,332	86,874	115,977								
					205	302	391	507	681	916	1,214	1,619	2,171	2,891	3,759	4,915	6,507	8,674	11,565	15,612	21,684	28,912	38,497	51,130	67,943	90,352	120,492								
					214	316	405	525	707	947	1,263	1,681	2,251	3,002	3,905	5,106	6,757	9,007	12,010	16,213	22,520	30,024	39,974	53,100	70,559	93,826	125,127								
50.8	38.1	25.4	12.7	6.4	222	329	423	547	734	983	1,308	1,744	2,335	3,114	4,048	5,293	7,006	9,341	12,454	16,813	23,352	31,136	41,455	55,066	73,170	97,300	129,762	6.4	12.7	25.4	38.1	50.8			
					231	338	436	565	756	1,014	1,357	1,806	2,420	3,225	4,194	5,484	7,255	9,674	12,899	17,414	24,188	32,248	42,932	57,037	75,785	100,774	134,396								
					240	351	449	583	783	1,050	1,401	1,868	2,504	3,336	4,337	5,671	7,508	10,008	13,344	18,014	25,020	33,360	44,413	59,003	78,396	104,252	143,662								
					249	360	467	605	810	1,085	1,450	1,930	2,584	3,447	4,484	5,862	7,757	10,342	13,789	18,615	25,856	34,472	45,890	60,973	81,011	107,726	143,662								
101.6	76.2	50.8	25.4	12.7	258	374	480	623	836	1,121	1,495	1,993	2,669	3,558	4,626	6,049	8,006	10,675	14,234	19,215	26,688	35,584	47,371	62,939	83,622	111,200	148,296	12.7	25.4	50.8	76.2	101.6			
					262	387	494	641	863	1,156	1,543	2,055	2,753	3,670	4,773	6,241	8,255	11,009	14,678	19,816	27,524	36,696	48,848	64,905	86,238	114,674	152,931								
					271	396	512	663	890	1,192	1,588	2,117	2,838	3,781	4,915	6,427	8,509	11,342	15,123	20,416	28,356	37,808	50,329	66,876	88,849	118,152	157,566								
					280	409	525	681	916	1,228	1,637	2,180	2,918	3,892	5,062	6,619	8,758	11,676	15,568	21,017	29,192	38,920	51,806	68,842	91,464	121,626	162,201								
152.4	114.0	76.2	38.1	19.1	289	423	543	703	943	1,263	1,681	2,242	3,002	4,003	5,204	6,805	9,007	12,010	16,013	21,617	30,024	40,032	53,287	70,812	94,075	125,100	166,836	19.1	38.1	76.2	114.3	152.4			
					298	431	556	721	965	1,294	1,730	2,304	3,087	4,114	5,351	6,997	9,256	12,343	16,458	22,218	30,860	41,144	54,764	72,778	96,691	128,574	171,466								
					307	445	569	738	992	1,330	1,775	2,366	3,171	4,226	5,493	7,184	9,510	12,677	16,902	22,818	31,692	42,256	56,245	74,749	99,302	132,052	176,101								
					316	454	587	761	1,019	1,366	1,824	2,429	3,251	4,337	5,640	7,375	9,759	13,010	17,347	23,419	32,528	43,368	57,722	76,715	101,917	135,526	180,736								
203.2	152.0	102.0	50.8	25.4	325	467	600	778	1,045	1,401	1,868	2,491	3,336	4,448	5,782	7,562	10,008	13,344	17,792	24,019	33,360	44,480	59,203	78,685	104,528	139,000	185,370	25.4	50.8	101.6	152.4	203.2			
					329	480	614	796	1,072	1,437	1,917	2,553	3,421	4,559	5,929	7,753	10,257	13,678	18,237	24,620	34,196	45,592	60,680	80,651	107,143	142,474	190,005								
					338	489	632	818	1,099	1,472	1,962	2,615	3,505	4,670	6,072	7,940	10,511	14,011	18,682	25,220	35,028	46,704	62,161	82,622	109,754	145,952	194,640								
					347	503	645	836	1,125	1,508	2,010	2,678	3,585	4,782	6,218	8,131	10,760	14,345	19,126	25,821	35,864	47,816	63,638	84,588	112,370	149,426	199,275								
254.0	191.0	127.0	63.5	31.7	356	516	663	858	1,148	1,543	2,055	2,740	3,670	4,893	6,361	8,318	11,009	14,678	19,571	26,421	36,696	48,928	65,119	86,558	114,981	152,900	203,910	31.7	63.5	127.0	190.5	254.0			
					365	525	676	876	1,174	1,575	2,104	2,802	3,754	5,004	6,507	8,509	11,258	15,012	20,016	27,022	37,532	50,040	66,595	88,524	117,596	156,374	208,544								
					374	538	689	894	1,201	1,610	2,148	2,865	3,839	5,115	6,650	8,696	11,511	15,346	20,461	27,622	38,364	51,152	68,077	90,495	120,207	159,852	213,175								
					383	547	707	916	1,228	1,646	2,197	2,927	3,919	5,226	6,797	8,887	11,761	15,679	20,906	28,223	39,200	52,264	69,553	92,461	122,823	163,326	217,810								
					391	560	721	934	1,254	1,681	2,242	2,989	4,003	5,338	6,939	9,074	12,010	16,013	21,350	28,823	40,032	53,376	71,035	94,431	125,434	166,800	222,444	38.1	76.2	152.4	228.6	304.8			
					396	574	734	952	1,281	1,717	2,291	3,051	4,088	5,449	7,086	9,265	12,259	16,346	21,795	29,424	40,868	54,488	72,511	96,397	128,049	170,274	227,079								
					405	583	752	974	1,308	1,753	2,335	3,114	4,172	5,560	7,228	9,452	12,067	16,680	22,240	30,024	41,700	55,600	73,992	98,368	130,660	173,752	231,714								
					414	596	765	992	1,334	1,788	2,384	3,176	4,252	5,671	7,375	9,643	12,761	17,014	22,685	30,624	42,536	56,712	75,469	100,334	133,275	177,226	236,349								
					423	609	783	1,014	1,361	1,824	2,429	3,238	4,337	5,782	7,517	9,830	13,010	17,347	23,130	31,225	43,368	57,824	76,950	102,304	135,886	180,700	240,984	44.5	88.9	177.8	266.7	355.6			
					SPRING SCALE N / MM													SPRING SCALE N / MM																	
					5.26	7.36	9.48	12.26	16.50	22.07	29.43	39.24	53.55	70.07	91.10	119.08	157.61	210.15	280.21	378.28	525.39	700.52	931.69	1,239.93	1,646.23	2,189.44	2,919.44								
					2.63	3.68	4.73	6.18	8.25	11.04	14.72	19.62	26.28	35.04	45.55	59.55	78.81	105.07	140.11	189.14	262.69	350.26	465.85	619.97	823.12	1,094.57	1,459.72								
					1.23	1.75	2.28	3.00	4.02	5.42	7.36	9.81	13.14	17.52	22.76	29.78	39.42	52.53	70.04	94.57	131.36	175.13	232.92	309.99	411.56	547.29	729.77								
					0.87	1.23	1.58	2.03	2.76	3.68	4.91	6.47	8.75	11.67	15.18	19.78	26.26	35.03	46.70	63.08	87.56	116.74	155.29	206.66	274.43	364.80	486.51								
					0.70	0.87	1.23	1.58	2.10	2.81	3.68	4.91	6.66	8.75	11.39	14.88	19.78	26.26	35.02	47.28	65.67	87.56	116.46	154.99	205.78	273.73	356.22								