YOUR GAS PRESSURE REGULATOR PEOPLE

MAXITROL Company manufactures a complete line of gas appliance regulators for domestic, commercial, and industrial needs. Models for both low & intermediate pressure applications are included —

. . . the poppet model RV SERIES is designed primarily for main burner and pilot load applications.

. . . the straight-thru-flow RV SERIES, size for size, has the highest pressure drop capacity of any regulator design available. They are best used when supply pressure is low enough to cause concern about capacity.

. . . the balanced valve R & RS and 210 SERIES are designed for use with intermediate pressure. The balancing diaphragm virtually eliminates inlet pressure effect, which makes them ideal for applications where supply pressure fluctuates.

. . . the lever acting 325 SERIES is a pounds to inches regulator, ideally used to reduce intermediate pressure to a level usable by standard low pressure controls.

. . . and Maxitrol accessories, designed for universal acceptance among gas utilities —

Small gas appliance pressure regulators and Selectra® electronic gas flame modulation systems are manufactured by Maxitrol's Colmer Division in Colon, Michigan, strategically located between Detroit and Chicago.

Large regulators for industrial furnaces, boilers and processing equipment are manufactured in Maxitrol's Blissfield, Michigan facility, 60 miles southwest of Detroit.

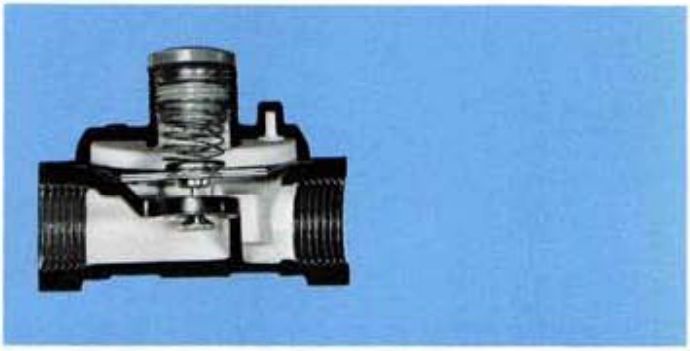
At Maxitrol mbH in Senden, Germany gas pressure regulators and gas filters are manufactured and sold overseas along with several other products.

Maxitrol's COMPLETE LINE offers the appliance manufacturer and user the ultimate in design features and performance capabilities. ONE COMPLETE LINE WITH YOU IN MIND!

For additional information on spring selection or regulator capacity, send for Bulletins MP2012 or MI2051 respectively.

Rubber Seat Poppet Design — *main burner and pilot applications*

RV12, RV20, RV47 & CV47 and RV48
Bulletin: MS2032



RV12

Pipe Sizes: 1/8"
Capacities to ..... 25 CFH (.7 m³/h)
Inlet Pressures to .... 1/2 psi (35 mbar)
Outlet Pressures ..... 1.0" to 12" w.c. (2.5 to 30 mbar)

RV20

Pipe Sizes: 1/4" & 3/8"
Capacities to ..... 65 CFH (1.8 m³/h)
Inlet Pressures to .... 2 psi (140 mbar)
Outlet Pressures ..... 1.0" to 12" w.c. (2.5 to 30 mbar)

RV47 & CV47

Pipe Sizes: 3/8" & 1/2"
Capacities to ..... 125 CFH (3.5 m³/h)
Inlet Pressures to .... 1/2 psi (35 mbar)
Outlet Pressures ..... 1.0" to 12" w.c. (2.5 to 30 mbar)

RV48

Pipe Sizes: 1/2" & 3/4"
Capacities to ..... 250 CFH (7 m³/h)
Inlet Pressures to .... 1/2 psi (35 mbar)
Outlet Pressures ..... 1.0" to 12" w.c. (2.5 to 30 mbar)

Straight-Thru-Flow Design — *main burner only*

RV52, RV53, RV61, RV81, RV91, RV111 & RV131
Bulletin: MS2056

RV52

Pipe Sizes: 1/2" & 3/4"
Capacities to ..... 900 CFH (25 m³/h)
Inlet Pressures to .... 1/2 psi (35 mbar)
Outlet Pressures ..... 1.0" to 12" w.c. (2.5 to 30 mbar)

RV53

Pipe Sizes: 3/4" & 1"
Capacities to ..... 1300 CFH (36 m³/h)
Inlet Pressures to .... 1/2 psi (35 mbar)
Outlet Pressures ..... 1.0" to 12" w.c. (2.5 to 30 mbar)

RV61

Pipe Sizes: 1" & 1-1/4"
Capacities to ..... 2500 CFH (70 m³/h)
Inlet Pressures to ..... 1 psi (70 mbar)
Outlet Pressures ..... 1.0" to 22" w.c. (2.5 to 55 mbar)

RV81 & RV91*

Pipe Sizes: 1-1/4", 1-1/2", 2" & 2-1/2"
Capacities to:
RV81 ..... 4500 CFH (127 m³/h)
RV91 ..... 7500 CFH (212 m³/h)
Inlet Pressures to ..... 1 psi (70 mbar)
Outlet Pressures ..... 1.0" to 22" w.c. (2.5 to 55 mbar)

RV111

Pipe Sizes: 2-1/2" & 3"
Capacities to .... 17000 CFH (481 m³/h)
Inlet Pressures to ..... 1 psi (70 mbar)
Outlet Pressures ..... 1.0" to 22" w.c. (2.5 to 55 mbar)

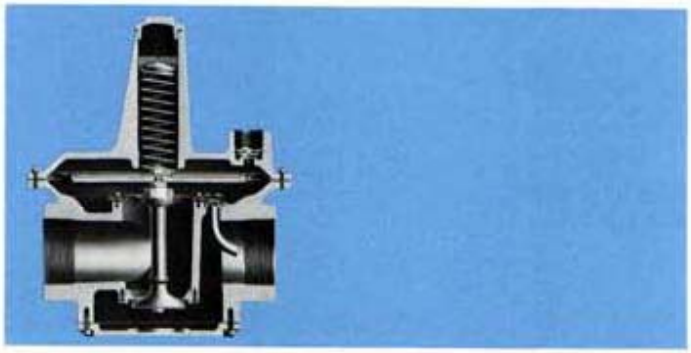
RV131

Pipe Sizes: 4" Flanged
Capacities to .... 30000 CFH (850 m³/h)
Inlet Pressures to .... 2 psi (140 mbar)
Outlet Pressures ..... 3.0" to 42" w.c. (7.5 to 105 mbar)

Balance Valve Design — *main burner and pilot applications*

R & RS, 210D, E, G & J and 220D, E, G & J

Bulletin: MS2013, 2041
MS2043 for zero governor applications



R & RS

Pipe Sizes: 3/8", 1/2", 3/4" & 1"
Capacities to:
(R & RS 400) ... 300 CFH (8.5 m³/h)
(R & RS 500) .... 800 CFH (22 m³/h)
(R & RS 600) ... 1400 CFH (39 m³/h)
Inlet Pressures to:
(R Series) ..... 1 psi (70 mbar)
(RS Series) ..... 5 psi (350 mbar)
Outlet Pressures ..... 1.0" to 30" w.c. (2.5 to 75 mbar)
(Zero governor models – Bulletin MS2043)

210D, E & G*

Pipe Sizes: 1", 1-1/4", 1-1/2", 2", 2-1/2" & 3"
Capacities to:
(210D) ..... 6500 CFH (184 m³/h)
(210E) ..... 12000 CFH (340 m³/h)
(210G) ..... 26000 CFH (736 m³/h)
Inlet Pressures to ... 10 psi (700 mbar)
Outlet Pressures ..... 1.0" to 42" w.c. (2.5 to 105 mbar)
(Zero governor models – Bulletin MS2043)

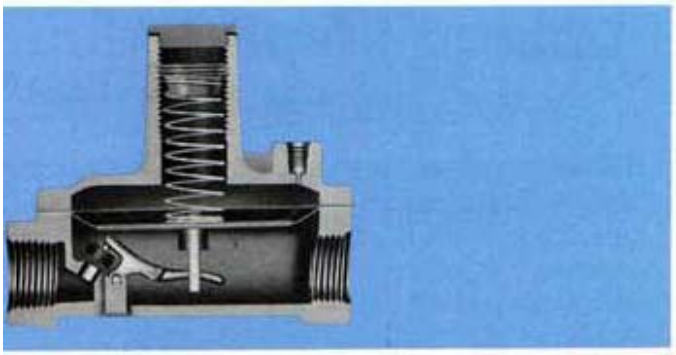
210J

Pipe Sizes: 4" Flanged
Capacities to ... 50000 CFH (1416 m³/h)
Inlet Pressures to ... 10 psi (700 mbar)
Outlet Pressures ..... 2.0" to 42" w.c. (5 to 105 mbar)
(Zero governor models – Bulletin MS2043)

220D, E, G & J*

Pipe Sizes: 1", 1-1/4", 1-1/2", 2", 2-1/2", 3" & 4" Flanged
Capacities to:
(220D) ..... 6500 CFH (184 m³/h)
(220E) ..... 12000 CFH (340 m³/h)
(220G) ..... 26000 CFH (736 m³/h)
(220J) ..... 50000 CFH (1416 m³/h)
Inlet Pressures to ... 10 psi (700 mbar)
Outlet Pressures ..... 1" w.c. to 5 psi (70 to 350 mbar)

*See specific Sales Bulletin for pipe sizes available for each regulator shown.



Lever Acting Design — *main burner and pilot applications*

325-3, 325-5A & 325-7

Bulletin: MS2055

325-3

Pipe Sizes: 3/8" & 1/2"
Capacities to ..... 289 CFH (8.1 m³/h)
Inlet Pressures to ... 10 psi (700 mbar)
Outlet Pressures ..... 2" w.c. to 2 psi (5 to 140 mbar)

325-5A

Pipe Sizes: 1/2", 3/4" & 1"
Capacities to: ..... 675 CFH (19.1 m³/h)
Inlet Pressures to ... 10 psi (700 mbar)
Outlet Pressures ..... 2" w.c. to 2 psi (5 to 140 mbar)

325-7

Pipe Sizes: 1-1/4" & 1-1/2"
Capacities to ..... 1800 CFH (51 m³/h)
Inlet Pressures to ... 10 psi (700 mbar)
Outlet Pressures .. 2" w.c. to 42" w.c. (2.5 to 105 mbar)

Accessories

Bulletin: MP2037

Vent Tube Connectors — Compression threaded sleeve where the nut is tightened into an adaptor fitting or regulator vent — three piece assembly where nut and sleeve are slipped over tubing and tightened into fitting body.

Vent Limiting Means — Ball check permits free inhalation for fast regulator diaphragm response on opening cycle, but limits gas escapement to within ANSI standards should a diaphragm rupture.

Vent Limiting Orifice — Satisfies ANSI standards for both natural and LP gas. Fixed orifice equally limits inhalation and escapement.

Surge Arrestor — Induces soft lighting, controls flame rollout, and maintains pilot stability.

Dust Cap — Use on vent opening to prevent blockage at breather hole from dust or other foreign particles.

Vent Screen — Prevents ignition of gas air mixture which might be present in upper diaphragm chamber.

MAXITROL

Capacity Charts for Gas Pressure Regulators

The capacity of any regulator is not an absolute value, but will vary with the application depending on the prevailing differential. We hope the following charts will help you in your selection of a properly sized regulator.
Maxitrol gas appliances regulators should be installed and operated in accordance with our "Safety Warning Bulletin" — no untrained person should attempt to install, maintain, or service a gas pressure regulator.

POPPET MODELS — capacities expressed in Btu/h. — 0.64 sp gr gas
Maxitrol recommended maximum inlet pressure..... 1/2 psi

Model	Pipe Size	Pressure Drop @ 0.3" w.c.	Range of Regulation		Individual Load	
			Main Burner	M.B. and Pilot	Fixed Orifices	Ball Check Devices
RV12	1/8" x 1/8" 3/16" x 3/16"	14,800 8,800	30,000	25,000 15,000	20,000 15,000	—
RV20	1/4" x 1/4" 3/8" x 3/8"	30,000	65,000	50,000	30,000	—
RV20C	1/4" X 1/4" 3/8" X 3/8"	30,000	75,000	50,000	15,000	—
CV47 RV47	3/8" X 3/8" 1/2" X 1/2"	55,000 60,000	125,000	90,000	40,000	125,000
CV47A & C RV47A & C	3/8" X 3/8" 1/2" x 1/2"	55,000 60,000	125,000	125,000	40,000	125,000
RV48	1/2" X 1/2" 3/4" X 3/4"	130,000 150,000	230,000 250,000	230,000 250,000	40,000	160,000
RV48C	1/2" x 1/2" 3/4" x 3/4"	130,000 150,000	400,000	275,000 Nat 250,000 LP	40,000	160,000

NOTE: Minimum main burner regulation capacity for all models (except "N") is 150 Btu/h

STRAIGHT-THRU-FLOW — capacities expressed in CFH — 0.64 sp gr gas
Maxitrol recommended maximum inlet pressure: RV52 & 53.....1/2 psi
RV61, 81, 91 & 111..... 1 psi
R131..... 2 psi

Model Number and Pipe Size		CSA MAX	Pressure Drop (inches w.c.)												
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	2.0	3.0	4.0
RV52	1/2 x 1/2 3/4 x 3/4	450 450	151 151	214 214	262 262	302 302	338 338	370 370	400 400	427 427	453 453	478 478	676 676	828 828	956 956
RV53	3/4 x 3/4 1 x 1	710 710	217 217	306 306	375 375	433 433	484 484	530 530	573 573	612 612	650 650	684 684	968 968	1185 1185	1369 1369
RV61	1 x 1 1-1/4 x 1-1/4	1100 1100	379 379	536 536	675 675	759 759	848 848	929 929	1004 1004	1073 1073	1138 1138	1200 1200	1742 1742	2134 2134	2464 2464
RV81	1-1/4 x 1-1/4 1-1/2 x 1-1/2	2500 2500	780 780	1102 1102	1350 1350	1559 1559	1743 1743	1909 1909	2062 2062	2204 2204	2339 2339	2465 2465	3485 3485	4269 4269	4929 4929
RV91	2 x 2 2-1/2 x 2-1/2	3275 3275	1212 1212	1714 1714	2100 2100	2424 2424	2711 2711	2969 2969	3208 3208	3429 3429	3637 3637	3834 3834	5422 5422	6640 6640	7668 7668
RV111	2-1/2 x 2-1/2 3 x 3	7500 7500	2742 2742	3878 3878	4750 4750	5485 5485	6132 6132	6718 6718	7256 7256	7757 7757	8227 8227	8572 8572	12134 12134	14862 14862	17161 17161
RV131	4 x 4	—	4734	6695	8200	9468	10586	11596	12525	13390	14202	14971	21172	25930	29942

325 SERIES — capacities expressed in CFH — 0.64 sp gr gas

325 Appliance Regulators

Maximum inlet pressure.....10 psi (2 or 5 psi CSA)

Model Number and Pipe Size (Inlet & Outlet)		CSA Max. Capacity	CSA Max. Ind. Load	Pressure Drop										
				0.3"	0.5"	1.0"	3.0"	5.0"	7.0"	1/2 psi	3/4 psi	1 psi	1.5 psi	1.75 psi
325-3	3/8", 1/2"	150	100	30	39	55	95	123	146	205	251	287	355	383
325-5A	1/2", 3/4", 1"	300	250	68	88	125	217	280	331	465	570	658	806	870
325-7	1-1/4" 1-1/2"	900 -	1000 -	142	184	260	450	581	690	972	1191	1375	1685	1820

325 2 psi Line Regulators

Maximum inlet pressure.....2 psi (CSA)

Model Number and Pipe Size (Inlet & Outlet)		CSA Max. Capacity	CSA Max. Ind. Load	Pressure Drop								
				1.0"	3.0"	5.0"	7.0"	1/2 psi	3/4 psi	1 psi	1.5 psi	1.75 psi
325-3L	3/8", 1/2"	250	140	55	95	123	146	205	-	-	-	-
325-5AL	1/2"	425	300	125	217	280	331	-	-	-	-	-
	3/4", 1"	550	300	125	217	280	331	465	-	-	-	-
325-7L	1-1/4", 1-1/2"	1000	900	260	450	581	690	972	-	-	-	-

325 5 psi Line Regulators

Maximum inlet pressure.....5 psi (CSA)

Model Number and Pipe Size (Inlet & Outlet)		CSA Max. Capacity	CSA Max. Ind. Load	Pressure Drop								
				1.0"	3.0"	5.0"	7.0"	1/2 psi	3/4 psi	1 psi	1.5 psi	1.75 psi
325-3L47	3/8", 1/2"	125	125	50	87	112	132	-	-	-	-	-
325-3L48	1/2"	200	200	61	106	136	161	-	-	-	-	-
325-5AL48	1/2"	235	235	120	208	-	-	-	-	-	-	-
	3/4"	320	320	124	215	277	-	-	-	-	-	-
325-5AL600	3/4"	425	425	131	227	293	347	-	-	-	-	-
	1"	465	465	143	248	320	378	-	-	-	-	-
325-7L210D	1-1/4" 1-1/2"	900	900	250	433	559	661	-	-	-	-	-

[-] : Non-CSA Certified

210 SERIES — capacities expressed in CFH — 0.64 sp gr gas
Maxitrol recommended maximum inlet pressure.....10 psi

Model Number and Pipe Size		Pressure Drop (inches w.c.)										
		0.1	0.3	0.5	1.0	3.0	5.0	7.0	1/2 psi	3/4 psi	1 psi	1.5 psi
210D	1 x 1	—	—	—	900	1600	2000	2400	3300	4100	4750	5800
	1-1/4 x 1-1/4	—	—	—	1100	1900	2500	2900	4100	5000	5850	7150
	1-1/2 x 1-1/2	—	—	—	1200	2100	2700	3200	4500	5500	6350	7750
210E	1-1/2 x 1-1/2	—	1050	1350	1915	3315	4280	5065	7125	8725	10075	12340
	2 x 2	—	1210	1560	2210	3825	4940	5845	8225	10070	11630	14245
210G	2-1/2 x 2-1/2	1410	2450	3160	4470	7740	9995	11825	16635	20375	23525	28810
	3 x 3	1555	2695	3475	4920	8520	11000	13020	18310	22425	25890	31710
210J	4 x 4	2700	4700	6000	8600	15000	19000	23000	32000	40000	45500	55700

R/RS SERIES — capacities expressed in CFH — 0.64
Maxitrol recommended maximum inlet pressure: R Model.....1 psi
RS Model..... 5 psi

Model Number and Pipe Size		Pressure Drop (inches w.c.)										
		0.2	0.4	0.6	0.8	1.0	1.5	2.0	2.5	3.0	3.5	4.0
R400 &	3/8 x 3/8	77	110	134	155	174	212	245	274	—	—	—
R400S	1/2 x 1/2	86	121	148	172	192	235	271	303	—	—	—
R500 &	1/2 x 1/2	163	231	283	327	366	447	516	577	635	685	730
R500S	3/4 x 3/4	196	277	340	392	438	537	620	693	760	820	876
R600 &	3/4 x 3/4	298	421	516	595	666	816	942	1054	1150	1245	1335
R600S	1 x 1	330	468	572	661	739	906	1046	1169	1280	1380	1480

MAXITROL REGULATOR SIZING INSTRUCTIONS

For special applications beyond these limits, please consult with Maxitrol Company.

PRESSURE DROP — inches w.c.

RATE OF FLOW — cfh (0.64 sp gr gas)

RATE OF FLOW — cfh (0.64 sp gr gas)	RV52 1/2" & 3/4"	RV53 3/4" & 1"	RV61 1" & 1 1/4"	RV81 1 1/4" & 1 1/2"	RV91 2" & 2 1/2"	RV111 2 1/2" & 3"	RV131 4"
30,000							4.03
25,000							2.81
22,000							2.17
20,000							1.80
18,000							1.46
17,000						3.85	1.30
16,000						3.42	1.15
15,000						3.01	1.01
14,000						2.62	.88
13,000						2.25	.75
12,000						1.92	.65
11,000						1.61	.55
10,000						1.33	.45
9,500						1.21	.41
9,000						1.08	.37
8,500						.96	.33
8,000						.85	.29
7,500					3.85	.75	.25
7,000					3.35	.65	.22
6,500					2.90	.56	.19
6,000					2.46	.48	.16
5,500					2.07	.40	.14
5,000					1.71	.33	.11
4,500				3.33	1.39	.27	
4,000				2.63	1.09	.21	
3,500				2.02	.84	.16	
3,000				1.40	.62	.12	
2,500			4.11	1.03	.43		
2,000			2.64	.66	.27		
1,900			2.38	.59	.25		
1,800			2.13	.53	.22		
1,700			1.90	.48	.20		
1,600			1.69	.42	.18		
1,500			1.48	.37	.15		
1,400			1.29	.32	.14		
1,300		3.61	1.11	.28	.12		
1,200		3.08	.95	.24			
1,100		2.59	.80	.20			
1,000		2.14	.66	.16			
900	3.55	1.73	.53	.13			
800	2.82	1.37	.42	.11			
700	2.16	1.05	.32				
600	1.58	.77	.24				
500	1.10	.53	.16				
400	.70	.34					
300	.39	.19					
200	.18						
100							

In order to select the proper size regulator, one must know the available inlet pressure, desired outlet pressure, and required maximum flow rate. In most cases, the manifold pipe size has already been selected on the basis of good engineering practice, and the regulator pipe size should conform to this size.

The capacity of any regulator is not an absolute value but will vary with the application depending on the prevailing differential pressure.

Differential pressure – This is simply the difference between inlet pressure to the regulator and outlet pressure from the regulator. To obtain differential pressure, just subtract the desired outlet pressure from available inlet pressure.

Pressure Drop – This is the natural loss of pressure which occurs in the regulator (or in valves and piping) due to friction which impedes fluid motion, and without regard to artificial losses deliberately created by diaphragm action.

To correctly size a Straight-Thru-Flow regulator for any selected flow rate, it is recommended that the differential pressure across the regulator be at least twice the regulator pressure drop as charted above.

Example No. 1 – To select regulator of ample capacity to handle flow.
Known: Pipe size 2 1/2", flow rate 7,500 cfh, inlet pressure 9" w.c., outlet pressure 5" w.c.

Solution:

1. Determine differential pressure available.

Inlet pressure	9" w.c.
Subtract outlet pressure	– 5" w.c.
Available differential pressure:	4" w.c.

2. Determine maximum recommended pressure drop (one half of available differential pressure) 1/2 of 4" = 2".
3. Follow 7,500 cfh flow line to column for smallest 2 1/2" regulator having less than 2" pressure drop at 7,500.
4. RV91 has a pressure drop of 3.85" and should not be used because allowable pressure drop exceeds recommended 2" limit. RV111 has a pressure drop of .75" and is within limit established and is therefore the correct selection.

Example No. 2 – To determine maximum recommended operating outlet pressure.
Known: Pipe size 4", flow rate 22,000 cfh, inlet pressure 10" w.c.
Solution:

1. Read across chart from 22,000 cfh to vertical bar representing 4" regulator, RV131.
2. Note pressure drop is 2.17".
3. Multiply by two to obtain recommended differential pressure (4.3").
4. Subtract 4.3" differential pressure from 10" inlet pressure to obtain maximum recommended outlet pressure setting of 5.7" w.c.

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MAXITROL® company

spring selection chart

NOTE: Approx. I.D. = Inner diameter

NOTE: Spring free length is given as an aid to identification only. Variations of ±1/2", although unlikely, can occur. This variation will not effect the spring range.

Model Number	Part Number	Color Code	Outlet Pressure	Approx I.D.	Approx Length
ADJUSTABLE MODELS:			INCHES W.C.	INCHES	INCHES
RV12L	R1210T-13 R1210T-35* R1210T-48 R1210T-610 R1210T-812	Brown Plated Orange Red Blue	1.0 to 3.5 2.8 to 5.2 4.0 to 8.0 6.0 to 10 8.0 to 12	3/8	9/16 3/4 3/4 7/8 1
RV20L	R2010-13 R2010-35* R2010-48 R2010-610 R2010-812 R2010-912	Brown Plated Orange Red Blue Plated	1.0 to 3.5 2.8 to 5.2 4.0 to 8 6.0 to 10 8.0 to 12 9.0 to 12	7/16	13/16 1-1/16 15/16 1 1/1/8 1-9/16
RV20LT	R2010T-35* R2010T-48 R2010T-610 R2010T-812	Plated Orange Red Blue	2.8 to 5.2 4.0 to 8.0 6.0 to 10 8.0 to 12	7/16	1-1/16 15/16 1 1-1/8
RV47AD RV47AL	R4710-4 R4710-5 R4710-6 R4710-10	Black Green Red Blue	3.8 to 4.3 4.7 to 5.3 5.6 to 6.4 9.7 to 11.3	9/16	1-3/4 1-13/16 1-13/16 1-11/16
RV47D RV47L	R4710-13 R4710-35* R4710-48 R4710-412 R4710-610 R4710-812	Brown Plated Orange Violet Red Blue	1.0 to 3.5 2.8 to 5.2 4.0 to 8.0 4.0 to 12 6.0 to 10 8.0 to 12	9/16	7/8 1-1/4 1-5/16 1-1/16 1-7/16 1-1/2
RV48	R4810-13 R4810-36* R4810-48 R4810-610 R4810-512	Brown Plated Orange Red Blue	1.0 to 3.5 3.0 to 6.0 4.0 to 8.0 6.0 to 10 5.0 to 12	9/16	15/16 1-3/16 1-1/8 1-1/2 1-3/16
RV48T	R4810T-36* R4810T-48 R4810T-512 R4810T-610	S Steel Orange Blue Red	3.0 to 6.0 4.0 to 8.0 5.0 to 12 6.0 to 10	9/16	1-3/16 1-1/8 1-3/16 1-1/2
R400 R400S	R400B10-13 R400B10-25 R400B10-36* R400B10-38 R400B10-412 R400B10-512 R400B10-1022	Brown Plated Plated Pink Violet Blue Red	1.0 to 3.5 2.0 to 5.0 3.0 to 6.0 3.0 to 8.0 4.0 to 12 5.0 to 12 10 to 22	3/8	1-1/4 1-9/16 2 1-9/16 1-1/2 1-7/8 1-3/4

*Standard Spring

Model Number	Part Number	Color Code	Outlet Pressure	Approx I.D.	Approx. Length
ADJUSTABLE MODELS:			INCHES W.C.	INCHES	INCHES
RV52 R500 R500S	R5210-13 R5210-25 R5210-36* R5210-38 R5210-48 R5210-412 R5210-512	Brown Plated Plated Pink Orange Violet Blue	1.0 to 3.5 2.0 to 5.0 3.0 to 6.0 3.0 to 8.0 4.0 to 8.0 4.0 to 12 5.0 to 12	9/16	2 2-9/16 2-7/8 2-9/16 3-1/8 2-1/2 2-15/16
R500 R500S	R5210-1022	Red	10 to 22	9/16	2-13/16
RV53 R600 R600S	R5310-13 R5310-25 R5310-36* R5310-38 R5310-48 R5310-412 R5310-512	Brown Plated Plated Pink Orange Violet Blue	1.0 to 3.5 2.0 to 5.0 3.0 to 6.0 3.0 to 8.0 4.0 to 8.0 4.0 to 12 5.0 to 12	5/8	2-5/8 2-15/16 3-3/8 3-1/16 3-5/8 3-1/6 3-7/16
RV600 R600S	R5310-1022 R5310-1530	Red Yellow	10 to 22 15 to 30	5/8	3-1/4 3-1/2
RV61	R6110-13 R6110-25 R6110-36* R6110-38 R6110-48 R6110-512 R6100-1022	Brown Plated Plated Pink Orange Blue Red	1.0 to 3.5 2.0 to 5.0 3.0 to 6.0 3.0 to 8.0 4.0 to 8.0 5.0 to 12 10 to 22	3/4	2-5/8 3-1/4 3-1/2 3-1/8 3-9/16 3-9/16 3-1/2
RV81 210D	R8110-13 R8110-25 R8110-36* R8110-38 R8110-48 R8110-412 R8110-512 R8110-515 R8110-1022	Brown Plated Plated Pink Orange Violet Blue Green Red	1.0 to 3.5 2.0 to 5.0 3.0 to 6.0 3.0 to 8.0 4.0 to 8.0 4.0 to 12 5.0 to 12 5.0 to 15 10 to 22	7/8	3-1/8 3-13/16 4-5/16 3-7/8 4-1/2 3-3/4 4-1/16 3-3/4 4-5/16
210D	R8110-1530 R8110-2042	Yellow Black	15 to 30 20 to 42	7/8	4-1/2 4-5/16
RV91 210E	R9110-13 R9110-25 R9110-36* R9110-38 R9110-48 R9110-412 R9110-512 R9110-515 R9110-1022	Brown Plated Plated Pink Orange Violet Blue Green Red	1.0 to 3.5 2.0 to 5.0 3.0 to 6.0 3.0 to 8.0 4.0 to 8.0 4.0 to 12 5.0 to 12 5.0 to 15 10 to 22	1-1/8	4 4-15/16 5-3/4 5-1/16 5-15/16 5-1/16 5-1/2 5-1/8 5-5/8
210E	R9110-1530 R9110-2042	Yellow Black	15 to 30 20 to 42	1-1/8	5-7/8 5-3/4

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Model Number	Part Number	Color Code	Outlet Pressure	Approx I.D.	Approx Length
ADJUSTABLE MODELS:			INCHES W.C.	INCHES	INCHES
RV111 210G	R11110-13 R11110-25 R11110-36* R11110-38 R11110-48 R11110-412 R11110-512 R11110-515 R11110-1022	Brown Plated Plated Pink Orange Violet Blue Green Red	1.0 to 3.5 2.0 to 5.0 3.0 to 6.0 3.0 to 8.0 4.0 to 8.0 4.0 to 12 5.0 to 12 5.0 to 15 10 to 22	1-1/2	6-1/8 7-1/6 8-5/16 7-3/8 8-3/8 7-3/8 8-1/8 7-1/16 8-1/8
210G	R11110-1530 R11110-2042	Yellow Black	15 to 30 20 to 42	1-1/2	8-7/16 8-1/4
RV131 210J	R13110-25 R13110-36* R13110-38 R13110-412 R13110-512 R13110-1022 R13110-1530 R13110-2042	Plated Plated Pink Violet Blue Red Yellow Black	2.0 to 5.0 3.0 to 6.0 3.0 to 8.0 4.0 to 12 5.0 to 12 10 to 22 15 to 30 20 to 42	2-1/8	9-1/6 11-3/4 10-1/8 9-7/8 11-5/8 11-1/2 11-11/16 11-1/4
220D, E, G & J	R325C10-1022 R325C10-1530	Tagged Tagged	1 psi-3 psi 2 psi-5 psi	5/8	2-1/8 2-5/16
325-3	R325C10-26 R325C10-59 R325C10-412* R325C10-711 R325C10-1022 R325C10-1530 R325C10-P12	Plated Plated Violet White Red Yellow Tagged	2.0 to 6.0 5.0 to 9.0 4.0 to 12 7.0 to 11 10 to 22 15 to 30 20 to 42	5/8	1-3/4 2-5/16 1-3/4 2-5/8 2-1/8 2-5/16 2-5/16
325-5A	R325E10-26A R325E10-59A R325E10-412A* R325E10-711A R325E10-1022A R325E10-1530A R325E10-P12A	Plated Plated Violet White Red Yellow Tagged	2.0 to 6.0 5.0 to 9.0 4.0 to 12 7.0 to 11 10 to 22 15 to 30 1 psi-2 psi	3/4	2-7/8 4-3/16 3-1/8 4 3-9/16 3-5/8 3-3/4
325-7	R8110-25 R8110-412* R8110-1022 R8110-1530 R8110-2042	Plated Violet Red Yellow Black	2.0 to 5.0 4.0 to 12 10 to 22 15 to 30 20 to 42	7/8	3-13/16 3-3/4 4-5/16 4-1/2 4-5/16

*Standard Spring

Model Number	Part Number	How Used	Color Code	Approx I.D.	Approx Length
ZERO GOVERNOR MODELS				INCHES	INCHES
R400SZ	R400B10-13 R400B10Z	Regulate Counter	Brown Plated	3/8 1/2	1-1/4 3/4
R500SZ	R5210-13 R500B10Z	Regulate Counter	Brown Plated	9/16 7/16	2 2
R600SZ	R5310-13 R600B10Z	Regulate Counter	Brown Plated	5/8 5/8	2-5/8 2-5/8
210DZ	R8110-13 R210D10Z	Regulate Counter	Brown Plated	7/8 1	3-1/8 3-3/8
210EZ	R9110-13 R210E10Z	Regulate Counter	Brown Plated	1-1/8 1-7/16	4 4-3/4
210GZ	R11110-13 R210G10Z	Regulate Counter	Brown Plated	1-1/2 2-1/16	6-1/8 6-3/4
210JZ	R13110-25 R210J10Z	Regulate Counter	Brown Plated	2-1/8 2-7/8	9-1/16 9-1/4

Model Number	Part Number	Max Min	Color Code	Outlet Pressure	Approx. I.D.	Approx. Length
ADJUSTABLE MODELS:				INCHES W.C.	INCHES	INCHES
MR410 SR400	SR400B10H MR410B10L	Max Min	S Steel Plated	3.0 to 5.0 0.3 to 1.2	5/16 1-1/16	1-5/16 7/8
	SR400B10H-1 MR410B10L	Max Min	White Plated	2.5 to 3.5 0.3 to 1.2		1 7/8
	SR400B10H MR410B10L-1	Max Min	S Steel Blue	4.0 to 6.0 1.0 to 2.8		1-5/16 1-1/16
	SR400B10H-1 MR410B10L-1	Max Min	White Blue	3.0 to 5.0 1.0 to 2.8		1 1-1/16
	SR400B10L-4	Min	Black	2.5 to 4.0		1-3/16
SR400-2**	SR400B10H-2	Max	Blue	7.5 to 12.0	5/16	1-1/2
M450	SR400B10L-4	Min	Black	2.5 to 4.0	1-1/16	1-3/16
MR510 SR500	SR500B10H MR510B10L	Max Min	S Steel Plated	3.0 to 5.0 0.3 to 1.2	7/16 1-5/8	1-9/16 1-1/16
	SR500B10H-1 MR510B10L	Max Min	White Plated	1.5 to 3.5 0.3 to 1.2		1-1/16 1-1/16
	SR500B10H MR510B10L-1	Max Min	S Steel Plated	3.5 to 6.0 1.0 to 2.8		1-9/16 1-1/4
	SR500B10H-1 MR510B10L-1	Max Min	White Blue	2.0 to 4.5 1.0 to 2.8		1-1/16 1-1/4
SR500-2**	SR500B10L-2	Max	Black	7.5 to 12.0	7/16	2-1/4
M550	MR510B10L MR510B10L-1	Min Min	S Steel Blue	0.3 to 7.2 1.0 to 2.8	7/16	1-1/16 1-1/4
MR610 SR600	SR600B10H MR610B10L	Max Min	S Steel Plated	3.0 to 5.0 0.3 to 1.2	5/8 2-1/8	2 1-9/16
	SR600B10H-1 MR610B10L	Max Min	White Plated	2.5 to 4.0 0.3 to 1.2		1-1/2 1-9/16
	SR600B10H MR610B10L-1	Max Min	S Steel Plated	4.0 to 6.0 1.0 to 2.8		2 1-13/16
	SR600B10H-1 MR610B10L-1	Max Min	White Blue	3.0 to 5.5 1.0 to 2.8		1-1/2 1-13/16
M650	MR610B10L MR610B10L-1	Min Min	Plated Blue	0.3 to 1.2 0.2 to 2.0	2-1/8 2-1/8	1-9/16 1-13/16

** L.P. - May be used with any minimum spring

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ring S l i Chart — inches w.c. unless noted

Other Ranges Available

MODEL NUMBER AND STANDARD SPRING RANGES		1.0-3.5	2.0-5.0	2.0-6.0	2.8-5.2	3.0-6.0	3.0-8.0	3.8-4.3	4.0-8.0	4.0-12	4.7-5.3	5.0-9.0	5.0-12	5.0-15	5.6-6.4	6.0-10	7.0-11	8.0-12	9.0-12	9.7-11.3	10-22	15-30	20-42	1-2 p.s.i.	1-3 p.s.i.	2-5 p.s.i.
RV12	2. - 2	✓			✓				✓							✓		✓								
RV20	2.8-5.2	✓			✓				✓							✓		✓	✓							
R 47/CV47	2.8-5.2	✓			✓			✓	✓		✓				✓	✓		✓		✓						
V4	3.0-6.	✓				✓			✓				✓			✓										
52	3. -6.0	✓	✓			✓			✓	✓			✓													
RV53	3.0-6.0	✓	✓			✓	✓		✓	✓			✓													
RV6	3.0-6.0	✓					✓						✓								✓					
RV81	3.0-6.0	✓	✓				✓		✓				✓	✓							✓					
RV91	3.0-6.0		✓			✓	✓		✓				✓	✓							✓					
RV111	3.0-6.0	✓	✓			✓	✓		✓	✓			✓								✓					
R 3	3.0 6.0		✓			✓	✓			✓			✓									✓	✓			
R RS 00	3.0 6.0	✓	✓			✓	✓			✓			✓								✓					
R RS500	3.0 -6.0	✓	✓				✓		✓				✓								✓					
R RS6	3.0- .0		✓			✓	✓		✓				✓								✓	✓				
1	0- 0	✓	✓			✓	✓			✓				✓								✓	✓			
21 E	3.0-6.0	✓	✓			✓	✓		✓	✓			✓	✓							✓		✓			
210G	3.0-6.0	✓	✓			✓							✓	✓							✓	✓	✓			
2 0J	3. -6.		✓			✓				✓			✓								✓	✓				
220D	N.A.																								✓	✓
5-3	2			✓						✓		✓					✓					✓		✓		
3 5A	4.0-12			✓						✓							✓				✓	✓		✓		
325-7	4.		✓																			✓	✓			

NOTE: To convert inches w.c. to mbar multiply by 2.5

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