

Capacity in SCFH, 0.64 s.g. Natural Gas, with Inlet Pressure as per Table:

Model	Stock Orifice	MOIP of Orifice (PSIG)	Stock Spring	Stock Spring Range	Stock Vent Size	OPP Over Pressure Protection Method	Stock Connection Sizes													
							1/2" x 1/2"	3/4" x 3/4"	3/4" x 1"	1" x 1"	1 1/4" x 1 1/4"	1 1/2" x 1 1/2"	2" x 2" NPT	2" x 2" FL	3" x 3" NPT	3" x 3" FL				
B42R	1/4"	60	Dk Gr (31)	6 - 16" w.c.	3/4"	Int. Relief	X													
	1/2"	10	Dk Gr (31)	6 - 16" w.c.	3/4"	Int. Relief		X	X	X										
	1/2"	10	Dk Gr (31)	6 - 16" w.c.	3/4"	Int. Relief					X									
	1/2" x 9/16	10	Dk Gr (31)	6 - 16" w.c.	3/4"	Int. Relief		X		X										
B31R	1/4"	125	Lt Grn	5.5 - 8" w.c.	3/4"	Int. Relief	X													
	1/2"	40	Lt Grn	5.5 - 8" w.c.	3/4"	Int. Relief		X		X										
	1/2"	40	Lt Grn	5.5 - 8" w.c.	3/4"	Int. Relief					X									
B34SR	3/8"	50	Blk	6 - 9" w.c.	3/4"	Int. Relief					X									
	5/8" x 3/4"	15	Blk	6 - 9" w.c.	3/4"	Int. Relief						X								
	7/8" x 1"	10	Blk	6 - 9" w.c.	3/4"	Int. Relief				X	X	X								
B34R	1/2"	75	Blk	6.5 - 13" w.c.	1"	Int. Relief					X	X								
	1/2" x 5/8"	60	Blk	6.5 - 13" w.c.	1"	Int. Relief				X										
	5/8" x 3/4"	60	Blk	6.5 - 13" w.c.	1"	Int. Relief					X									
	3/4" x 7/8"	60	Blk	6.5 - 13" w.c.	1"	Int. Relief						X								
	7/8" x 1"	25	Blk	6.5 - 13" w.c.	1"	Int. Relief			X	X	X	X	X							
B38N	1 3/8"	25	Grn	6 - 8" w.c.	1"	None						X								
RB1710	1 1/8"	230	Yel	6.8 - 9.2" w.c.	1/4"	None					X									
122-12	2"	15	Green	6" -14" w.c.	1"	None						X								

Z21.80 Ventless Fiorentini Regulators - single reg for 2 PSIG or less, DC version with OPD for 2+ to 5 PSIG						
Model	Stock Orifice	MOIP (PSIG)	Color	Stock Spring Range	Stock Vent Size	OPP Over Pressure Protection Method
30051-B	1/2"	2	Black	6" -14" w.c.	1/4" VL	None or DC
30052-B	3/4"	2	Black	6" -14" w.c.	1/4" VL	None or DC
30053-B	1"	2	Black	6" -14" w.c.	1/4" VL	None or DC
30151-B	3/4"	2	Black	6" -14" w.c.	1/4" VL	None or DC
30152-B	1"	2	Black	6" -14" w.c.	1/4" VL	None or DC
30153-B	1 1/4"	2	Black	6" -14" w.c.	1/2" VL	None or DC
30154-B	1 1/2"	2	Black	6" -14" w.c.	1/2" VL	None or DC
30155-B	2"	2	Black	6" -14" w.c.	1/2" VL	None or DC
30157F-B	3"	2	Black	6" -14" w.c.	1/2" VL	None or DC
30158F-B	4"	2	Black	6" -14" w.c.	1/2" VL	None or DC

VL denotes Vent Limiter Avail.

**Note for Outlet Pressures Below 1 PSIG:**

- Max Capacity for 3/4" Outlet Pipe is 600 SCFH
- Max Capacity for 1" Outlet Pipe is 1200 SCFH
- Max Capacity for 1 1/4" Outlet Pipe is 2500 SCFH
- Max Capacity for 1 1/2" Outlet Pipe is 7500 SCFH
- Max Capacity for 2" Outlet Pipe is 10000 SCFH

Note: "X" denotes Stock configuration for immediate delivery  
Gray denotes available size - regs can be reconfigured but it may add time and \$

\* Note: price varies for 2" and 3" Flanged versions, special springs and other options

**Quick Pick Chart**

Outlet Pressure: 7" w.c. (0.25 PSIG) Pressure Drop = 1" w.c. from set point					
Max Capacity in SCFH					
Inlet Pressure					
14" w.c.	1 PSIG	2 PSIG	5 PSIG	10 PSIG	Price
90	140	250	500	850	
270	400	600	1100	1550	
270	400	600	1100	1550	
280	450	700	1230	1720	
280	450	700	1230	1720	
170	270	450	830	1470	
440	640	1120	1750	2400	
440	640	1120	1750	2400	
418	720	1080	1960	3280	
685	1180	1830	3820	6600	
895	1540	2300	5150	>7500	
750	1300	1900	2400	3500	
900	1500	2000	4000	5700	
1200	2200	3300	5700	9000	
1525	2400	4000	7000	10000	
1900	3200	4700	8000	10000	
2600	3500	5850	10800	17700	
3700	6000	9000	15000	26000	
8000	12000	18000	32000	38000	

14" w.c.	1 PSIG	2 PSIG	5 PSIG (DC)	10 PSIG
386	635	928	928	
386	848	1155	1155	
386	1059	1501	1501	
1125	2084	2785	2785	
1337	2437	3308	3308	
3189	5297	7891	7891	
3330	5650	8240	8240	
6097	10947	15087	15087	
9676	16810	23202	23202	
16951	29452	40612	40612	

Shaded areas denote regulator is at its maximum operating pressure for that orifice - consider going to a regulator with a higher MOIP (Maximum Operating Inlet Pressure)

**Example:**

Requirement: 2 PSIG Inlet, 7" w.c. outlet, 1000 SCFH, 2" x 2" NPT, Outside install (vented), Immediate Delivery

- Go to the 2 PSIG Inlet Column and read down until you find a capacity that is equal to or exceeds your requirement
- Read to the left to see the model and configurations
  - In this case the first option is a B31R, 1/2" orifice, but it is only available in 3/4" or 1" or 1 1/4" not 2" NPT as required.
  - The next option is a B34SR, 3/8" orifice, but it is only stocked in 1 1/2" NPT  
Note: You can see if the customer will accept 1 1/2" or call us to see if we can reconfigure quickly
  - The next option is a B34SR, 5/8" x 3/4" orifice, stocked in 2" NPT.  
Note: This reg is the same price as the previous, it has more capacity, but this will not effect performance

C. Specify: B34SR, 2" x 2" NPT, 5/8" x 3/4" Orifice for 2 PSIG Inlet, 7" Outlet, 1000 SCFH, Immediate Delivery

Capacity in SCFH, 0.64 s.g. Natural Gas, with Inlet Pressure as per Table:

Model	Stock Orifice	MOIP of Orifice (PSIG)	Stock Spring	Stock Spring Range	Stock Vent Size	OPP Over Pressure Protection Method	Stock Connection Sizes													
							1/2" x 1/2"	3/4" x 3/4"	3/4" x 1"	1" x 1"	1 1/4" x 1 1/4"	1 1/2" x 1 1/2"	2" x 2" NPT	2" x 2" FL	3" x 3" NPT	3" x 3" FL				
B42R	1/4"	60	Dk Gr (31)	6 - 16" w.c.	3/4"	Int. Relief	X													
	1/2"	10	Dk Gr (31)	6 - 16" w.c.	3/4"	Int. Relief		X	X	X										
	1/2"	10	Dk Gr (31)	6 - 16" w.c.	3/4"	Int. Relief					X									
	1/2" x 9/16	10	Dk Gr (31)	6 - 16" w.c.	3/4"	Int. Relief		X		X										
	1/2" x 9/16	10	Dk Gr (31)	6 - 16" w.c.	3/4"	Int. Relief					X									
B31R	1/4"	125	Silver	11 - 16" w.c.	3/4"	Int. Relief	X													
	1/2"	40	Silver	11 - 16" w.c.	3/4"	Int. Relief		X		X										
	1/2"	40	Silver	11 - 16" w.c.	3/4"	Int. Relief					X									
B34SR	3/8"	50	Silver	11 - 17" w.c.	3/4"	Int. Relief						X								
	5/8" x 3/4"	15	Silver	11 - 17" w.c.	3/4"	Int. Relief							X							
	7/8" x 1"	10	Silver	11 - 17" w.c.	3/4"	Int. Relief					X	X	X							
B34R	1/2"	75	Purple	9.1-20.8" w.c.	1"	Int. Relief					X	X								
	1/2" x 5/8"	60	Purple	9.1-20.8" w.c.	1"	Int. Relief					X									
	5/8" x 3/4"	60	Purple	9.1-20.8" w.c.	1"	Int. Relief							X							
	3/4" x 7/8"	60	Purple	9.1-20.8" w.c.	1"	Int. Relief								X						
	7/8" x 1"	25	Purple	9.1-20.8" w.c.	1"	Int. Relief					X	X	X	X						
B38N	1 3/8"	25	Purple	13.5-21" w.c.	1"	None							X							
RB1710	1 1/8"	230	White	10.9-21.2" w.c.	1/4"	None							X							
122-12	2"	15	Orange	12 - 28" w.c.	1"	None								X						

Z21.80 Ventless Fiorentini Regulators - single reg for 2 PSIG or less, DC version with OPD for 2+ to 5 PSIG							1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	3" FL	4" FL
30051-B	1/2"	2	Black	6" -14" w.c.	1/4" VL	None or DC	X							
30052-B	3/4"	2	Black	6" -14" w.c.	1/4" VL	None or DC		X						
30053-B	1"	2	Black	6" -14" w.c.	1/4" VL	None or DC			X					
30151-B	3/4"	2	Black	6" -14" w.c.	1/4" VL	None or DC		X						
30152-B	1"	2	Black	6" -14" w.c.	1/4" VL	None or DC			X					
30153-B	1 1/4"	2	Black	6" -14" w.c.	1/2" VL	None or DC				X				
30154-B	1 1/2"	2	Black	6" -14" w.c.	1/2" VL	None or DC					X			
30155-B	2"	2	Black	6" -14" w.c.	1/2" VL	None or DC						X		
30157F-B	3"	2	Black	6" -14" w.c.	1/2" VL	None or DC							X	
30158F-B	4"	2	Black	6" -14" w.c.	1/2" VL	None or DC								X

VL denotes Vent Limiter Avail.

Note for Outlet Pressures Below 1 PSIG:

- Max Capacity for 3/4" Outlet Pipe is 600 SCFH
- Max Capacity for 1" Outlet Pipe is 1200 SCFH
- Max Capacity for 1 1/4" Outlet Pipe is 2500 SCFH
- Max Capacity for 1 1/2" Outlet Pipe is 7500 SCFH
- Max Capacity for 2" Outlet Pipe is 10000 SCFH

Note: "X" denotes Stock configuration for immediate delivery  
Gray denotes available size - regs can be reconfigured but it may add time and \$

\* Note: price varies for 2" and 3" Flanged versions, special springs and other options

**Quick Pick Chart**

Outlet Pressure: **14" w.c.** (0.5 PSIG)  
Pressure Drop = 2" w.c. from set point

Max Capacity in SCFH						Price
Inlet Pressure						
1 PSIG	2 PSIG	3 PSIG	5 PSIG	10 PSIG		
190	300	380	550	820		
550	820	1030	1230	1605		
550	820	1030	1230	1605		
575	860	1080	1310	1680		
575	860	1080	1310	1680		
200	300	375	560	820		
410	630	820	1100	1500		
410	630	820	1100	1500		
625	1010	1240	1740	3000		
830	1500	1800	2940	6000		
1100	1880	2600	4300	>7500		
900	1700	2400	2500	4700		
1200	1900	3000	4000	6000		
1450	2800	3600	5000	7600		
1650	3200	3900	6000	9000		
2150	4400	5200	6500	10000		
2300	5000	7000	9000	13500		
5300	9200	11500	15300	23600		
11150	17000	23250	29150	33800		

  

1 PSIG	2 PSIG	3 PSIG (DC)	5 PSIG (DC)	10 PSIG
635	928	928	928	
848	1155	1155	1155	
1059	1501	1501	1501	
2084	2785	2785	2785	
2437	3308	3308	3308	
5297	7891	7891	7891	
5650	8240	8240	8240	
10947	15087	15087	15087	
16810	23202	23202	23202	
29452	40612	40612	40612	

Shaded areas denote regulator is at its maximum operating pressure for that orifice - consider going to a regulator with a higher MOIP (Maximum Operating Inlet Pressure)

**Example:**

Requirement : 2 PSIG Inlet, 14" w.c. outlet, 3000 SCFH, 2" x 2" NPT, Immediate Delivery

A. Go to the 2 PSIG Inlet Column and read down until you find a capacity that is equal to or exceeds your requirement

B. Read to the left to see the model and configurations

1. In this case the first option that exceeds the 3000 SCFH Requirement is a B34R, 3/4"x7/8" orifice, and it is available in 2" NPT as required.

Note: if you are concerned that the inlet pressure may drop at some point or the customer will add more load, you can choose a larger orifice

With inlet pressures below 5 PSIG, the size orifice has little effect on performance, so going with a larger orifice will protect against pressure drop

C. Specify: B34R, 2" x 2" NPT, 3/4" x 7/8" Orifice (or larger) for 2 PSIG Inlet, 14" Outlet, 3000 SCFH, Immediate Delivery

Capacity in SCFH, 0.64 s.g.Natural Gas, with Inlet Pressure as per Table:

Model	Stock Orifice	MOIP of Orifice (PSIG)	Stock Spring	Stock Spring Range	Stock Vent Size	OPP Over Pressure Protection Method	Stock Connection Sizes													
							1/2" x 1/2"	3/4" x 3/4"	3/4" x 1"	1" x 1"	1 1/4" x 1 1/4"	1 1/2" x 1 1/2"	2" x 2" NPT	2" x 2" FL	3" x 3" NPT	3" x 3" FL				
B42RHP	1/4"	60	Yel/Blk	1.1-2.1 PSIG	3/4"	Int. Relief	X													
	1/2"	10	Yel/Blk	1.1-2.1 PSIG	3/4"	Int. Relief		X	X	X										
	1/2"	10	Yel/Blk	1.1-2.1 PSIG	3/4"	Int. Relief					X									
	1/2" x 9/16	10	Yel/Blk	1.1-2.1 PSIG	3/4"	Int. Relief		X		X										
	1/2" x 9/16	10	Yel/Blk	1.1-2.1 PSIG	3/4"	Int. Relief					X									
B31RHP	1/4"	125	White	1.75-2.5 PSIG	3/4"	Int. Relief	X													
	1/2"	40	White	1.75-2.5 PSIG	3/4"	Int. Relief		X		X										
	1/2"	40	White	1.75-2.5 PSIG	3/4"	Int. Relief					X									
B34SRHP	3/8"	50	White	1.75-2.5 PSIG	3/4"	Int. Relief					X									
	5/8" x 3/4"	15	White	1.75-2.5 PSIG	3/4"	Int. Relief						X								
	7/8" x 1"	10	White	1.75-2.5 PSIG	3/4"	Int. Relief				X	X	X								
B34R	1/2"	75	Silv/Red	0.8-2.2 PSIG	1"	Int. Relief					X	X								
	1/2" x 5/8"	60	Silv/Red	0.8-2.2 PSIG	1"	Int. Relief				X										
	5/8" x 3/4"	60	Silv/Red	0.8-2.2 PSIG	1"	Int. Relief						X								
	3/4" x 7/8"	60	Silv/Red	0.8-2.2 PSIG	1"	Int. Relief							X							
	7/8" x 1"	25	Silv/Red	0.8-2.2 PSIG	1"	Int. Relief				X	X	X	X	X						
B38N	1 3/8"	25	Silv/Red	0.8-2.2 PSIG	1"	None						X								
RB1710	1 1/8"	230	Orange	1.2-3.0 PSIG	1/4"	None					X									
122-12	2"	15	Cadmium	0.5-2.0 PSIG	1"	None						X								
30153-V	1 1/4"	7	Violet	0.9-2.1 PSIG	1/2"	None					X									
30154-V	1 1/2"	7	Violet	0.9-2.1 PSIG	1/2"	None						X								
30155-V	2"	7	Violet	0.9-2.1 PSIG	1/2"	None							X							
30157-V	3"	7	Violet	0.9-2.1 PSIG	1/2"	None														X
NORVAL	2"	275	Yellow	1.7-2.4 PSIG	1/4"	None									X					
NORVAL	3"	275	Blue/Silv	1.8-2.4 PSIG	1/4"	None														X

Note: "X" denotes Stock configuration for immediate delivery  
Gray denotes available size - regs can be reconfigured but it may add time and \$

Outlet Pressure: <b>2 PSIG</b> Pres. Drop = 2%abs. Droop (.33 PSIG) from set point				
Max Capacity in SCFH				
Inlet Pressure				
3 PSIG	5 PSIG	10 PSIG	15 PSIG	20 PSIG
320	460	850	1150	1420
560	925	1540		
560	925	1540		
645	1085	1710		
645	1085	1710		
320	500	800	1050	1300
530	850	1320	1660	2000
530	850	1320	1660	2000
800	1200	1920	2700	3275
1120	1690	2760	3270	3780
1480	2300	4200		
	2800	4500	6500	8500
	3100	5800	7400	9000
2500	3600	7000	9500	12000
3500	5000	9500	11750	14000
4000	6000	12000	15500	19000
3975	6350	11500	16400	18500
5500	10500	15500	21250	27000
18000	27400	30000	36000	
6957	8400			
7260	8770			
13300	16050			
20400	24700			
17800	28600	47500	57500	67000
31400	48000	81200	87300	104600

Shaded areas denote regulator is at its maximum operating pressure for that orifice - consider going to a regulator with a higher MOIP (Maximum Operating Inlet Pressure)

\* Note: price varies for 2" and 3" Flanged versions, special springs and other options

**Example:**  
Requirement: 10 PSIG Inlet, 2 PSIG. outlet, 10000 SCFH, 2" x 2" NPT, Immediate Delivery

A. Go to the 10 PSIG Inlet Column and read down until you find a capacity that is equal to or exceeds your requirement

B. Read to the left to see the model and configurations

1. In this case the first option that exceeds the 10000 SCFH Requirement is a B34R, 7/8x1" orifice, and it is available in 2" NPT as required.

Note: if you are concerned that the inlet pressure may drop at some point or the customer will add more load, you can choose a larger reg with a larger orifice  
With inlet pressures above 10 PSIG, the internal relief valve may not be able to fully protect the downstream piping. Refer to Bulletins for build-up by orifice size  
Consider using an operator/monitor set-up or relief valve if overpressure protection is required.

C. Specify: B34R, 2" x 2" NPT, 3/4" x 7/8" Orifice (or larger) for 2 PSIG Inlet, 14" Outlet, 3000 SCFH, Immediate Delivery