









INTEGRAL TWO-STAGE REGULATORS

EXCELA-FLO™ APPLICATION GUIDE



Free tech support call: 269 789 6700

LOAD BTU/HR.	DISTANCE maximum distance from regulator outlet to furthest appliance	PIPE TO APPLIANCE	MEC REGULATOR	MEC PIGTAILS												
100,000	10 feet	1/2" CTS Iron Pipe or copper tubing @ 11" water column regulator set pressure	 MEGR-1232-HBF F. POL X 1/2" MEGR-1232-HFF F. POL X 3/4" MEGR-1232-BBF 1/4" X 1/2"	<table><tr><th>POL X POL</th><th>Length</th><th>Part. No.</th></tr><tr><td>3/8" tube OD</td><td>12"</td><td>ME1680-12</td></tr><tr><td>1/4" tube OD</td><td>12"</td><td>ME1664-12</td></tr><tr><td>3/8" tube OD</td><td>6"</td><td>ME1680-06</td></tr></table> 	POL X POL	Length	Part. No.	3/8" tube OD	12"	ME1680-12	1/4" tube OD	12"	ME1664-12	3/8" tube OD	6"	ME1680-06
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	3/8" tube OD	12"		ME1680-12												
1/4" tube OD	12"	ME1664-12														
3/8" tube OD	6"	ME1680-06														
35 feet	5/8" copper tubing @ 11" water column regulator set pressure															
100 feet	3/4" IPS Iron pipe @ 11" water column regulator set pressure															
200,000	10 Feet	5/8" copper tubing @ 11" water column regulator set pressure	 MEGR-1232-HBF F. POL X 1/2" MEGR-1232-HFF F. POL X 3/4" MEGR-1232-BBF 1/4" X 1/2"	<table><tr><th>1/4" X POL</th><th>Length</th><th>Part. No.</th></tr><tr><td>3/8" tube OD</td><td>12"</td><td>ME1689-12</td></tr><tr><td>1/4" tube OD</td><td>12"</td><td>ME1669-12</td></tr><tr><td>1/4" tube OD</td><td>6"</td><td>ME1669-06</td></tr></table> 	1/4" X POL	Length	Part. No.	3/8" tube OD	12"	ME1689-12	1/4" tube OD	12"	ME1669-12	1/4" tube OD	6"	ME1669-06
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3/8" tube OD	12"	ME1689-12														
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50 Feet	3/4" IPS Iron pipe @ 11" water column regulator set pressure															
300,000	30 Feet	3/4" IPS Iron pipe @ 11" water column regulator set pressure	 MEGR-1232-HFF F. POL X 3/4" MEGR-1632-HCF F. POL X 1/2" MEGR-1632-BCF 1/4" X 1/2"	<table><tr><th>POL X POL</th><th>Length</th><th>Part. No.</th></tr><tr><td>3/8" tube OD</td><td>12"</td><td>ME1680-12</td></tr><tr><td>1/4" tube OD</td><td>12"</td><td>ME1664-12</td></tr><tr><td>3/8" tube OD</td><td>6"</td><td>ME1680-06</td></tr></table> 	POL X POL	Length	Part. No.	3/8" tube OD	12"	ME1680-12	1/4" tube OD	12"	ME1664-12	3/8" tube OD	6"	ME1680-06
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3/8" tube OD	12"	ME1680-12														
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3/8" tube OD	6"	ME1680-06														
70 Feet	1" IPS Iron pipe @ 11" water column regulator set pressure															
400,000	20 Feet	3/4" IPS Iron pipe @ 11" water column regulator set pressure	 MEGR-1232-HFF F. POL X 3/4" MEGR-1632-JFF F. POL X 3/4" MEGR-1632-CFF 1/4" X 3/4"	<table><tr><th>1/4" X POL</th><th>Length</th><th>Part. No.</th></tr><tr><td>3/8" tube OD</td><td>12"</td><td>ME1689-12</td></tr><tr><td>1/4" tube OD</td><td>12"</td><td>ME1669-12</td></tr><tr><td>1/4" tube OD</td><td>6"</td><td>ME1669-06</td></tr></table> 	1/4" X POL	Length	Part. No.	3/8" tube OD	12"	ME1689-12	1/4" tube OD	12"	ME1669-12	1/4" tube OD	6"	ME1669-06
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3/8" tube OD	12"	ME1689-12														
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60 Feet	1" IPS Iron pipe @ 11" water column regulator set pressure															

Instructions:

1. Determine the total gas demand for the system by adding up the BTU/hr input from the appliance nameplates and adding demand as appropriate for future appliances.
2. For second stage or integral twin stage piping:

A. Measure length of piping required from outlet of regulator to the appliance furthest away. No other length is necessary to do the sizing.

B. Make a simple sketch of the piping, as shown.

C. Determine the capacity to be handled by each section of piping. For example, the capacity of the line between a and b must handle the total demand of appliances A, B, and C; the capacity of the line from c to d must handle only appliance B, etc.

D. Using one of the above Tables, select proper size of tubing or pipe for each section of piping, using values in BTU/hr for the length determined from step #2-A. If exact length is not on chart, use next longer length. Do not use any other length for this purpose! Simply select the size that shows at least as much capacity as needed for each piping section.
3. For piping between first and second stage regulators

A. For a simple system with only one second stage regulator, merely measure length of piping required between outlet of first stage regulator and inlet of second stage regulator. Select piping or tubing required from one of the Tables.

B. For systems with multiple second stage regulators, measure length of piping required to reach the second stage regulator that is furthest away. Make a simple sketch, and size each leg of piping using Table 1, 2, or 3 using values shown in column corresponding to the length as measured above, same as when handling second stage piping.

