



# Basic Regulator Selection Chart

Regulator Family	Model Series	Gas Service	Stages	Max. Inlet (psig)	Outlet Range (psig) <sup>1</sup>	Design Features	Applications	Page No.
<b>General Purpose</b>	18	Non-corrosive	1	3000	0-500	<ul style="list-style-type: none"> <li>• Low cost forged brass bodies and neoprene diaphragms</li> <li>• Rugged construction</li> <li>• Large diaphragms provide good pressure control</li> </ul>	<ul style="list-style-type: none"> <li>• Calibration of pressure gauges, rotameters, and mass flow controllers</li> <li>• Applications with high duty cycle/demanding operating conditions</li> </ul>	292
	18A	Acetylene	1	400	0-15			292
	81	Non-corrosive	2	3000	2-250			293
	81-F (with flowmeter)	Non-corrosive	2	3000	2-50			295
<b>Economical High Purity Brass</b>	1250	Non-corrosive	2	3000	2-250	<ul style="list-style-type: none"> <li>• Low cost forged brass body with high purity stainless steel diaphragm</li> <li>• PTFE seals</li> <li>• Rugged construction</li> <li>• 320, 350, 580, 590 CGA's only</li> </ul>	<ul style="list-style-type: none"> <li>• Supply of carrier gas or detector support gas for gas chromatography and other applications where low cost is the most important factor. The models 3120 (brass) and 3810 (stainless steel) should be used for the highest purity demanding applications as these models use barstock bodies and metal to metal seals.</li> </ul>	296
<b>High Purity Brass</b>	3530	Non-corrosive	1	3000	2-250	<ul style="list-style-type: none"> <li>• Nickel plated brass barstock bodies</li> <li>• 316 stainless steel diaphragms</li> <li>• Metal to metal seals</li> </ul>	<ul style="list-style-type: none"> <li>• Supply of carrier gas/detector support gas for a variety of gas chromatography applications (see chart on regulators for chromatography applications in 3530/3120 section)</li> <li>• Supply of calibration standards to on-line process analyzers, emission monitoring standards, etc.</li> </ul>	313
	3120	Non-corrosive	2	3000	2-350			299
<b>High Purity Stainless Steel</b>	3510	Semi- & non-corrosive	1	3000	2-500	<ul style="list-style-type: none"> <li>• 316 stainless steel barstock bodies</li> <li>• 316 stainless steel diaphragms</li> <li>• Metal to metal seals</li> <li>• Tied diaphragm (3610) for safety</li> </ul>	<ul style="list-style-type: none"> <li>• Supply of carrier gas/detector support gas for a variety of gas chromatography applications (see chart on regulators for gas chromatography applications in 3510/3810 section)</li> <li>• Supply of calibration standards to on-line process analyzers, emission monitoring standards, etc.</li> </ul>	312
	3610A Tied Seat	Corrosive, toxic, and pyrophoric	1	3000	2-100			316
	3810	Semi- & non-corrosive	2	3000	2-350			318
<b>High Purity Miniature</b>	3550 Brass	Non-corrosive	1	3000	0-100	<ul style="list-style-type: none"> <li>• Brass or 316 stainless steel barstock bodies</li> <li>• 316 stainless steel diaphragms</li> <li>• Compact size</li> </ul>	<ul style="list-style-type: none"> <li>• Applications requiring high purity gases and a compact regulator due to space limitations</li> </ul>	314
	3570 Stainless Steel	Corrosive	1	3000	0-100			314
	3850 Brass	Non-corrosive	2	3000	0-100			314
	3870 Stainless Steel	Corrosive	2	3000	0-100			314



## Basic Regulator Selection Chart *(continued)*

Regulator Family	Model Series	Gas Service	Stages	Max. Inlet (psig)	Outlet Range (psig) <sup>1</sup>	Design Features	Applications	Page No.	
<b>ULTRA-LINE® Ultra High Purity</b>	9300	Semiconductor	1	3000	0-100	<ul style="list-style-type: none"> <li>• 316L stainless steel or Hastelloy C-22 internals</li> <li>• Autogeneous butt-welded connections</li> <li>• 10-15 Ra surface finish</li> <li>• Assembled in class 100 clean room</li> </ul>	<ul style="list-style-type: none"> <li>• All semiconductor industry gas applications</li> </ul>	321	
	9360	Semiconductor	1	3000	0-100			323	
	Tied Seat	corrosive, toxic, and pyrophoric							
	9370	Semiconductor	1	3000	0-100			323	
	Tied Seat	corrosive, toxic, and pyrophoric							
9460	Semiconductor	2	3000	0-100	324				
Tied Seat	corrosive, toxic, and pyrophoric								
9470	Semiconductor	2	3000	0-100	324				
Tied Seat	corrosive, toxic, and pyrophoric								
<b>Basic Line Regulators</b>	3470	Non-corrosive	1	350	2-200	<ul style="list-style-type: none"> <li>• Cast zinc (3470), brass barstock (3420), 316 stainless steel (3430), or 316L stainless steel (9330) bodies</li> <li>• Neoprene (3470) or stainless steel diaphragms</li> <li>• Tied diaphragm (9330) for safety</li> </ul>	<ul style="list-style-type: none"> <li>• 3470: Point of use regulation of inert gases</li> <li>• 3420 &amp; 3430: Point of use regulation of high purity gases used in chromatography or other analytical applications (<i>see chart on regulators for gas chromatography applications in 3420/3430 sections</i>)</li> <li>• 9330: Point of use regulation in semiconductor applications</li> </ul>	310	
	General Purpose								
	3420	Non-corrosive	1	400	2-250			307	
	High Purity Brass								
	3430	Semi- & non-corrosive	1	400	2-200			308	
High Purity Stainless Steel									
9330	Semiconductor, corrosive, toxic, or pyrophoric	1	3000	0-100	322				
Ultra Line Tied Seat									

<sup>1</sup>The outlet pressure ranges shown above include the minimum and maximum pressures available with respect to the entire model series. For delivery pressure ranges of individual regulator models, refer to appropriate catalog sections.