



# Basic Regulator Selection Chart

Regulator Family	Model Series	Gas Service	Stages	Max. Inlet (psig)	Outlet Range (psig) <sup>1</sup>	Design Features	Applications
<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>
	18A	Acetylene	1	400	0-15		
	81	Non-corrosive	2	3000	2-250		
	81-F (with flowmeter)	Non-corrosive	2	3000	2-50		
<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>
<b>High Purity Brass</b>	3530A	Non-corrosive	1	3000	0-500	<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>
	3120A	Non-corrosive	2	3000	0-500		
<b>High Purity Stainless Steel</b>	3510A	Semi- & non-corrosive	1	3000	0-500	<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>
	3610A Tied Seat	Corrosive, toxic, and pyrophoric	1	3000	2-100		
	3810A	Semi- & non-corrosive	2	3000	0-500		
<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>
	3570 Stainless Steel	Corrosive	1	3000	0-100		
	3850 Brass	Non-corrosive	2	3000	0-100		
	3870 Stainless Steel	Corrosive	2	3000	0-100		



## Basic Regulator Selection Chart *(continued)*

Regulator Family	Model Series	Gas Service	Stages	Max. Inlet (psig)	Outlet Range (psig) <sup>1</sup>	Design Features	Applications
<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>
	9360	Semiconductor	1	3000	0-100		
	Tied Seat	corrosive, toxic, and pyrophoric					
	9370	Semiconductor	1	3000	0-100		
	Tied Seat	corrosive, toxic, and pyrophoric					
9460	Semiconductor	2	3000	0-100			
Tied Seat	corrosive, toxic, and pyrophoric						
9470	Semiconductor	2	3000	0-100			
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>• 3420A &amp; 3430A: 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 3420A/3430A sections</i>)</li> <li>• 9330: Point of use regulation in semiconductor applications</li> </ul>
	General Purpose						
	3420A	Non-corrosive	1	400	0-250		
	High Purity Brass						
3430A	Semi- & non-corrosive	1	400	0-250			
High Purity Stainless Steel							
9330	Semiconductor, corrosive, toxic, or pyrophoric	1	3000	0-100			
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.