

Medical Drug/Device Gas Mixtures

Medical Laser Gases

Carbon dioxide lasers provide a highly efficient means of performing many surgical procedures, particularly those where significant blood loss is anticipated or where highly sterile conditions are required.

Carbon dioxide lasers produce intensive infrared radiation that can be focused to vaporize areas of tissue smaller than a millimeter. The flow-through CO₂ laser produces this radiation by exciting the gas molecules of a mixture of carbon dioxide, nitrogen and helium inside a discharge tube, which converts electrical energy to optical energy. This laser beam is optically transmitted to either a hand piece

or a microscope. Several manufacturers use a second gas, such as Puritan Medical Products Laser Nitrogen, to cool the laser head and help remove surgical debris.

Puritan Medical Products produces a complete line of laser mixtures to support all of the major brands of surgical carbon dioxide lasers. Because many of the lasers on the market today house the gas mixture inside the laser cabinet, a full selection of cylinder sizes is available. All mixtures are made with U.S.P./N.F. components.

Medical Laser Gas Mixtures

MIXTURE COMPOSITION	CYLINDER SIZE	CGA** CONNECTION	CONTENTS		PRESSURE PSIG @ 70° F	PART NUMBER	
			Cu Ft	Liters		Certified	Precision
37% Carbon Dioxide, Balance Nitrogen	200	500	62	1765	600	Z02 NI636200X061	Z02 NI636200Y161
	ME	973/500	7	195	600	Z02 NI636MEX063	Z02 NI636MEY163
	ED	973/500	5	155	600	Z02 NI636EDX062	Z02 NI636EDY162
4.5% Carbon Dioxide, 13.5% Nitrogen, Balance Helium	200	500	220	6230	2200	Z03 HE826200X146	Z03 HE826200Y169
	40*	500	28	805	1800	Z03 HE82640X129	Z03 HE82640Y172
	ME	973/500	22	630	2015	Z03 HE826MEX148	Z03 HE826MEY171
	ED	973/500	18	530	2200	Z03 HE826EDX147	Z03 HE826EDY170
7% Carbon Dioxide, 14% Nitrogen, Balance Helium	200	500	220	6230	2200	Z03 HE796200X141	Z03 HE796200Y126
	40*	500	28	805	1800	Z03 HE79640X142	Z03 HE79640Y143
	ME	973/500	22	630	2015	Z03 HE796MEX144	Z03 HE796MEY166
	ED	973/500	18	530	2200	Z03 HE796EDX143	Z03 HE796EDY165
9% Carbon Dioxide, 15% Nitrogen, Balance Helium	200	500	220	6230	2200	Z03 HE766200X137	Z03 HE766200Y150
	ME	973/500	22	630	2015	Z03 HE766MEX139	Z03 HE766MEY160
	ED	973/500	18	530	2200	Z03 HE766EDX138	Z03 HE766EDY159
9.4% Carbon Dioxide, 19.2% Nitrogen, Balance Helium	200	500	220	6230	2200	Z03 HE716200X133	Z03 HE716200Y167
	ME	973/500	22	630	2015	Z03 HE716MEX132	Z03 HE716MEY153
	ED	973/500	18	530	2200	Z03 HE716EDX134	Z03 HE716EDY155

i Recommended regulator: Model 40, page 55

Custom Medical Laser Gas Mixtures

MIXTURE COMPOSITION	CYLINDER SIZE	CGA** CONNECTION	CONTENTS***		PRESSURE PSIG @ 70° F	PART NUMBER	
			Cu Ft	Liters		Precision Blend	Precision Blend Plus
2% - 16% Carbon Dioxide, 6% - 20% Nitrogen Balance Helium	200	500	220	6230	2200	CONTACT YOUR LOCAL PURITAN MEDICAL PRODUCTS GAS BRANCH FOR PART NUMBERS	
	ME	973/500	22	630	2015		
	ED	973/500	18	530	2200		

Laser Nitrogen

PURITY	CYLINDER SIZE	CGA CONNECTION	CONTENTS		PRESSURE PSIG @ 70° F	PART NUMBER
			Cu Ft	Liters		
Laser Nitrogen, Nitrogen 99.95% (Pure Gas)	ME	580/960	23	655	2015	NI ME
	ED	580/960	19	550	2200	NI NFED

i Recommended regulator: Model 40, page 55

* Aluminum cylinder

** For laser equipment that has not been converted to the new recommended CGA connections, the above mixtures may be ordered with either a CGA 320 or 580 connection.

*** Contents will vary depending on the mixture requested.