

SPECIFICATIONS



Red Ball Technical Gas Services offers a full line of high purity gases for different analytical applications. Our typical product grades includes:

Zero Grade, Ultra High Purity and Instrument Purity Grade. We also offer Super Critical CO₂, Zero Ambient Air and Zero Ambient Nitrogen. Our Zero Ambient Grades meet the EPA's purity specifications for CEMS zero material.

FEATURES AND BENEFITS

- All Red Ball cylinders are barcoded for accurate cylinder tracking, and maintaining cylinder history.
- Red Ball cylinders are kept in the same product service to prevent cross contamination
- Red Ball cylinders are pre-treated prior to the initial product fill, and are fully vented and purged prior to future product fills
- Our products are analyzed to confirm quality
- Specifications are met prior to shipping

CARBON DIOXIDE PURITY LEVELS

GAS	PURITY	CYLINDER	MOISTURE	HYDROCARBONS	OXYGEN	EXTRACTABLE HYDROCARBONS	EXTRACTABLE HALOCARBONS
Laser Star 5.0 Grade CO ₂	99.9993%	60lb	< 3 ppm	< 1 ppm	< 5 ppm		
Super Critical CO ₂ - SFC	99.998%	50lb	< 1 ppm	< 2 ppm	< 5 ppm	< 50 ppb	

ARGON PURITY LEVELS

GAS	PURITY	CYLINDER (LB)	MOISTURE	HYDROCARBONS	OXYGEN	CARBON MONOXIDE	CARBON DIOXIDE	NITROGEN
Inst. Purity Grade Argon	99.999%	200; 300	< 0.5 ppm	< 0.3 ppm	< 5 ppm	< 1 ppm	< 1 ppm	< 5 ppm
UHP Argon	99.999%	200; 300	< 1 ppm	< 0.5 ppm	< 1 ppm			
Zero Grade Argon	99.998%	152; 200; 300	N/A	< 0.5 ppm	N/A			

HELIUM PURITY LEVELS

GAS	PURITY	CYLINDER (LB)	MOISTURE	HYDROCARBONS	OXYGEN	CARBON MONOXIDE	CARBON DIOXIDE	NITROGEN
Inst. Purity Grade Helium	99.9995%	200; 300	< 1 ppm	< 0.5 ppm	< 1 ppm	< 1 ppm	< 1 ppm	< 3 ppm
UHP Helium	99.999%	152; 200; 300	< 1 ppm	< 0.5 ppm	< 1.5 ppm			
Zero Grade Helium	99.997%	152; 200; 300	N/A	< 0.5 ppm	N/A			
Laser Grade Helium	99.985%	200; 300	< 2 ppm	< 1 ppm	N/A			

HYDROGEN PURITY LEVELS

GAS	PURITY	CYLINDER (LB)	MOISTURE	HYDROCARBONS	OXYGEN	CARBON MONOXIDE	CARBON DIOXIDE	NITROGEN
Inst. Purity Grade Hydrogen	99.9995%	200; 300	< 1 ppm	< 0.5 ppm	< 1 ppm	< 1 ppm	< 1 ppm	< 3 ppm
UHP Hydrogen	99.999%	152; 200; 300	< 3 ppm	< 0.5 ppm	< 1 ppm			
Zero Grade Hydrogen	99.995%	152; 200; 300	N/A	< 0.5 ppm	N/A			

AIR PURITY LEVELS

GAS	PURITY	CYLINDER (LB)	MOISTURE	HYDROCARBONS	CARBON MONOXIDE
Inst. Purity Grade Air		200; 300	< 2 ppm	< 0.1 ppm	< 1 ppm
Zero Grade Air		152; 200; 300	N/A	< 0.5 ppm	
Zero Ambient Air - CEMS		152; 200; 300	N/A	< 0.1 ppm	< 0.5 ppm

GAS (CONT.)	OXYGEN	CARBON DIOXIDE	SULFUR DIOXIDE	TOTAL OXIDES OF NITROGEN
Inst. Purity Grade Air	20% - 22%	< 1 ppm		
Zero Grade Air	20% - 22%			
Zero Ambient Air - CEMS	20% - 22%	< 0.5 ppm	< 0.1 ppm	< 0.1 ppm

NITROGEN PURITY LEVELS

GAS	PURITY	CYLINDER (LB)	MOISTURE	HYDROCARBONS	CARBON MONOXIDE
Inst. Purity Grade Nitrogen	99.9993%	200; 300	< 1 ppm	< 0.5 ppm	< 1 ppm
UHP Nitrogen	99.999%	152; 200; 300	< 1 ppm	< 0.5 ppm	< 1.5 ppm
Zero Grade Nitrogen	99.997%	200; 300	N/A	< 0.5 ppm	N/A
Laser Grade Nitrogen	99.985%	200; 300	< 2 ppm	< 1 ppm	N/A
Zero Ambient Nitrogen - CEMS	99.9993%	152; 200	N/A	< 0.1 ppm	< 1 ppm

GAS (CONT.)	OXYGEN	CARBON DIOXIDE	SULFUR DIOXIDE	TOTAL OXIDES OF NITROGEN
Inst. Purity Grade Nitrogen	< 1 ppm	< 1 ppm		
UHP Nitrogen				
Zero Grade Nitrogen				
Laser Grade Nitrogen				
Zero Ambient Nitrogen - CEMS	< 0.5 ppm	< 0.5 ppm	< 0.1 ppm	< 0.1 ppm

OXYGEN PURITY LEVELS

GAS	PURITY	CYLINDER (LB)	MOISTURE	HYDROCARBONS	CARBON MONOXIDE
Research Oxygen	99.999%	200; 300	< 1 ppm	< 0.5 ppm	< 1 ppm
UHP Oxygen	99.993%	200; 300	< 3 ppm	< 0.5 ppm	< 20 ppm

GAS (CONT.)	CARBON DIOXIDE	ARGON	NITROGEN
Research Oxygen	< 1 ppm	< 5 ppm	< 5 ppm
UHP Oxygen		< 40 ppm	< 10 ppm