

GAS DISTRIBUTION • PRESSURE CONTROL • OXYFUEL

INDUSTRIAL GAS EQUIPMENT

GAS BLENDING • CUTTING • WELDING • FLOW CONTROL



Authorized Distributor
MONILEK OILFIELD



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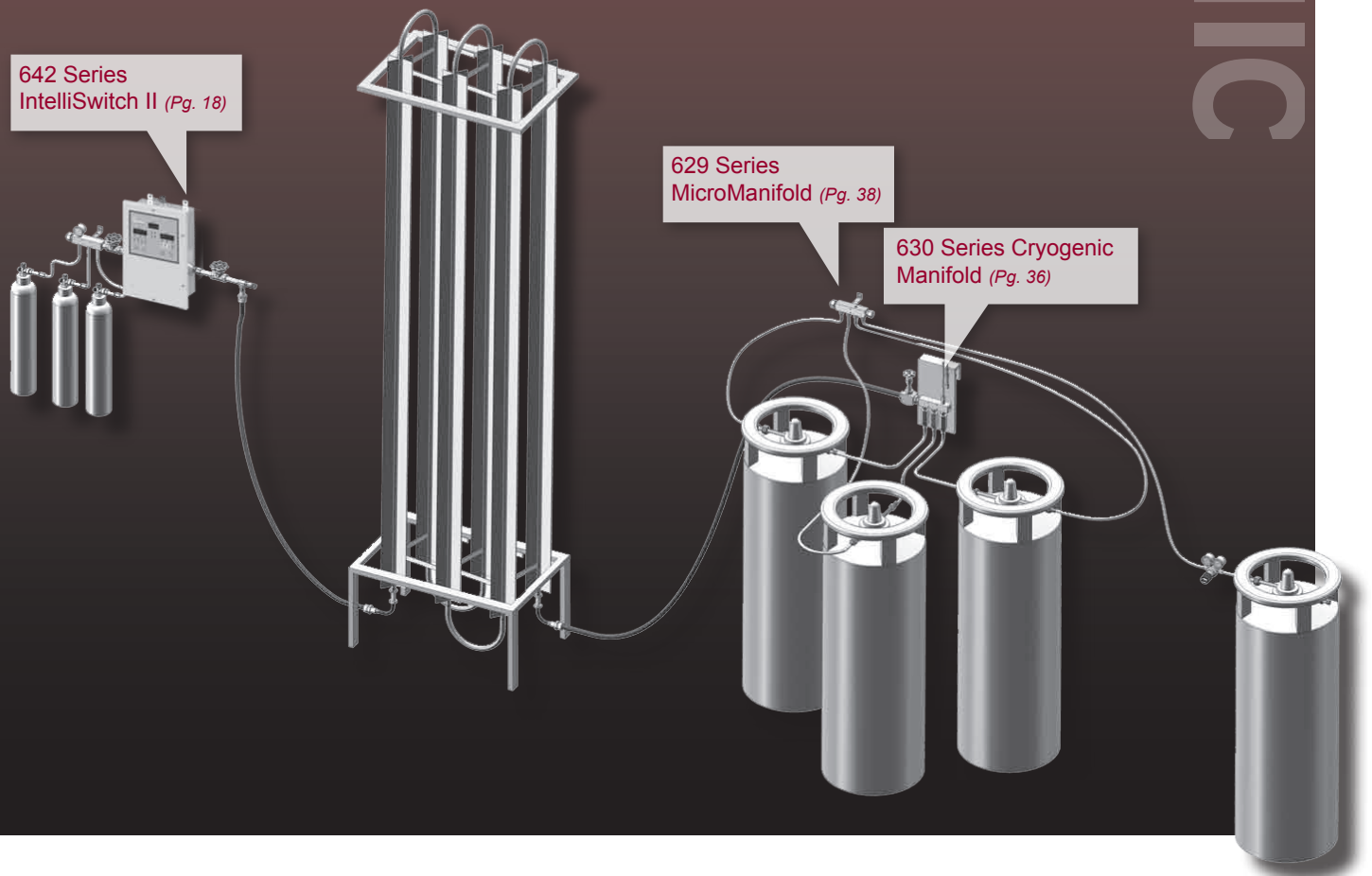
DESIGNING A CRYOGENIC SYSTEM



CONCOA cryogenic systems are designed to maintain the pressure and flow of demanding applications. Cryogenic liquid cylinder performance is often misunderstood. The liquid cylinder's specifications typically list gas phase withdrawal directly from the cylinder in the range of 350-400 SCFH. In practice, however, the maximum sustainable flow rate without pressure drop is only 200-250 SCFH. The limiting factor is often the cylinder's pressure-building coil circuit.

To overcome this condition, the user may use the liquid withdrawal valve connected to an external vaporizer. Flow rates of 700-800 SCFH are achievable for a couple of hours before the liquid cylinder's pressure-building circuit is saturated and pressure falls. As illustrated below, CONCOA has packaged the 630 series cryogenic manifold, 629 series vent kit and an auxiliary pressure-building circuit to extend the liquid cylinders' performance to over 4,000 SCFH. This is achievable by using the regulated gas phase from an additional cylinder to push liquid out of each supply can connected to the 630 manifold. Regardless of the volume of liquid pushed out of the cryogenic manifold, the vaporizer must be sized 1.5 times the desired flow capacity. Ambient temperature is vital to the vaporizer's performance, so location and geography must be considered. A continuous operation is achievable when coupled with CONCOA's IntelliSwitch™ series automatic switchovers.

CRYOGENIC



DESIGNING A GAS BLENDING DELIVERY SYSTEM



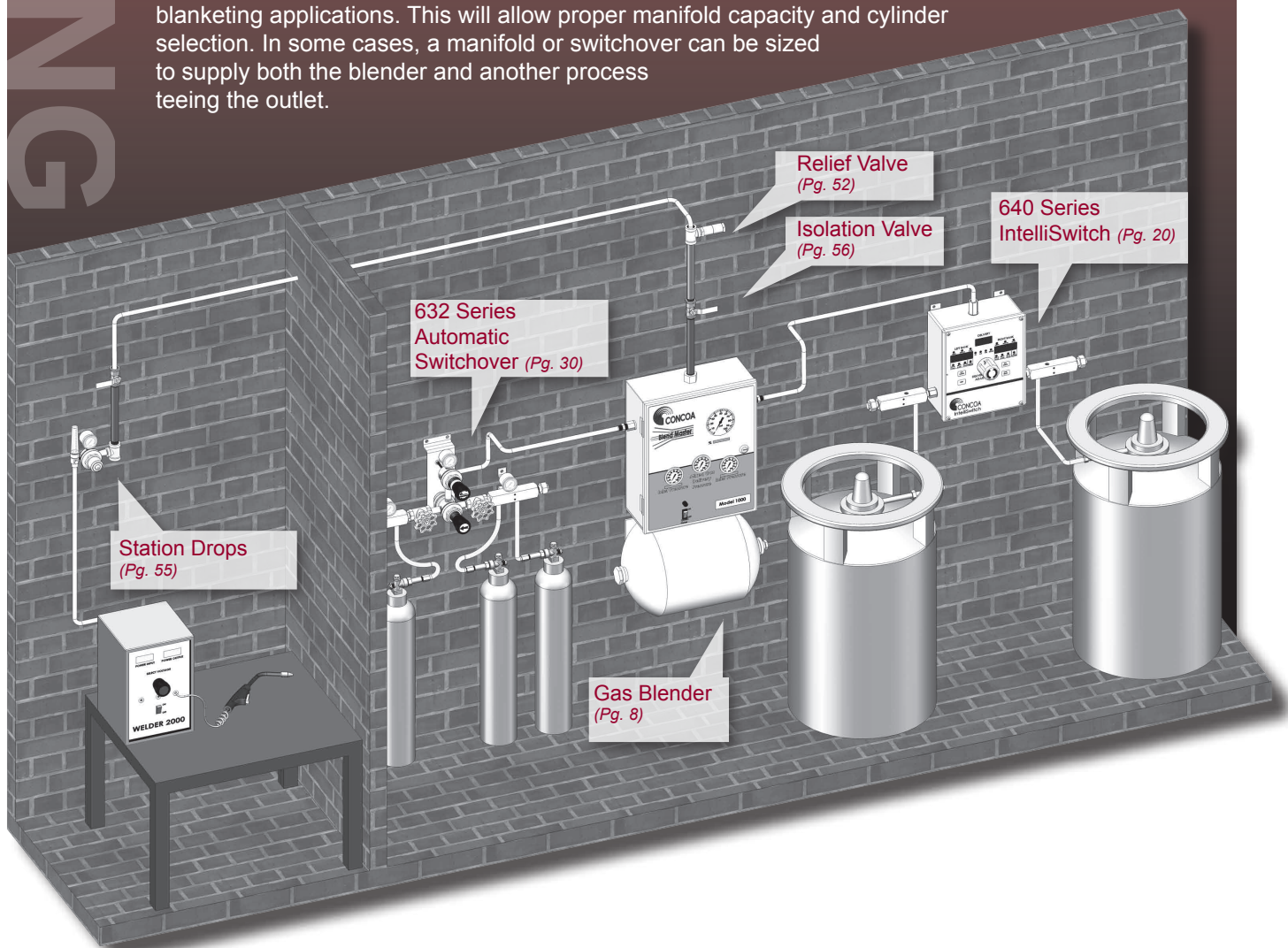
BLENDING

CONCOA gas blending systems are designed to provide precise gas blends with repeatable accuracy. Each component of the CONCOA blending system is designed to optimize the performance of the overall system. As illustrated below, supply switchovers like the 632 and 640 are designed to exceed the BlendMaster's flow demand during the surge tank fill cycle. This is imperative to maintain a constant pressure drop across the BlendMaster's mixing valve assembly. When designing the system, it is important to understand the end user's usage patterns, plant layout, and processes.

To determine the usage pattern, take into consideration factors such as number of stations, duty cycle, number of shifts, number of days and weld type. Each factor plays an important role in determining both average and peak requirements.

Plant layout is an important consideration when sizing the piping system from the mixer. Length of run, looped or terminal configurations, valve type, number of elbows, pipe diameter, and point of use equipment are key plant layout factors.

Determine the entire factory's gas requirements by considering all cutting, welding, and blanketing applications. This will allow proper manifold capacity and cylinder selection. In some cases, a manifold or switchover can be sized to supply both the blender and another process teeing the outlet.



DESIGNING AN NFPA 51 GAS DELIVERY SOLUTION

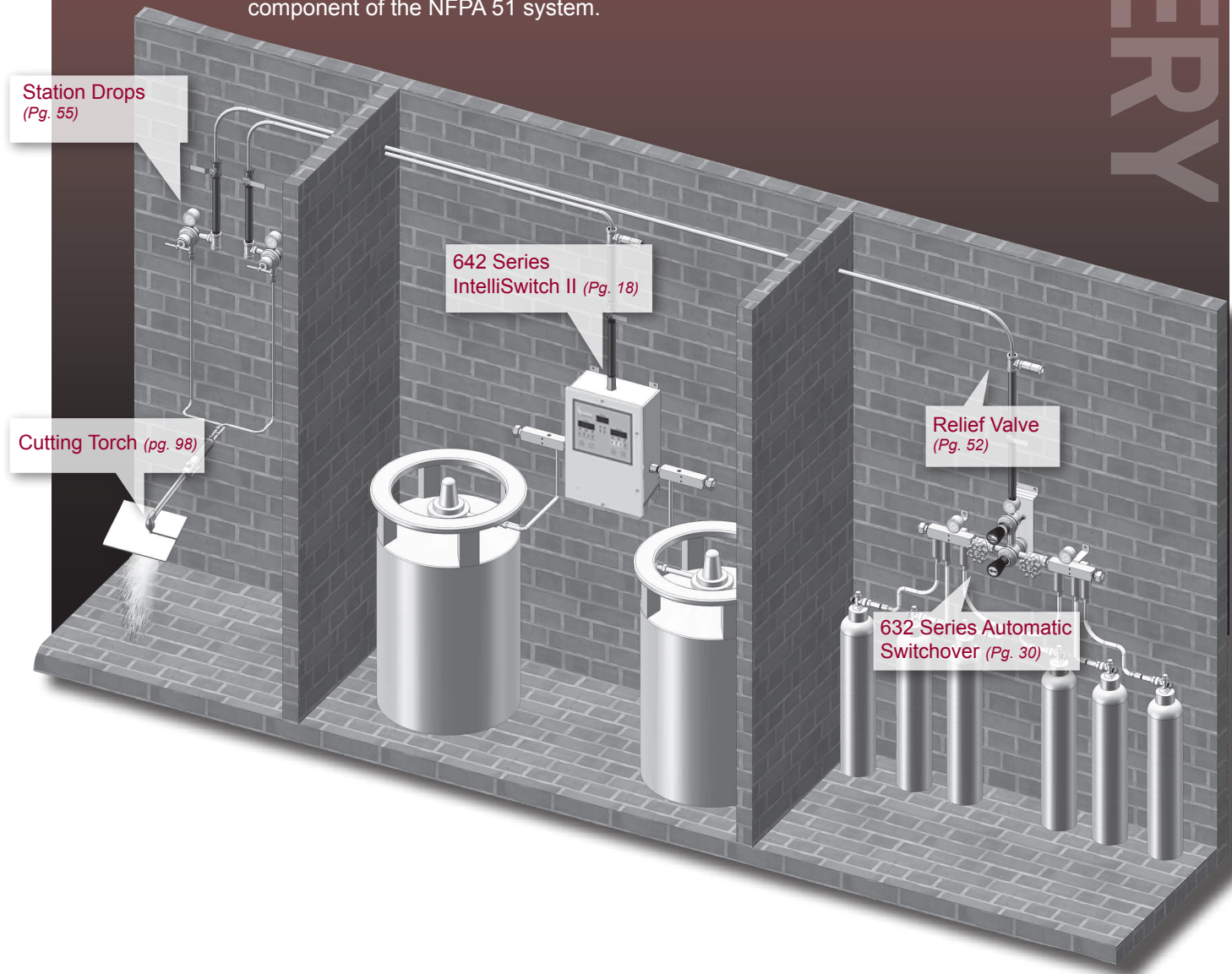


CONCOA NFPA 51 gas delivery systems are designed for both safety and performance. Our philosophy begins with utilizing tip-mix gas apparatus in the hand of the user. When pressures are adjusted properly at the torch, CONCOA'S tip-mix design delivers the industry's most stable and robust operation.

A NFPA 51 compliant Acetylene-Oxygen system will then locate a non-return valve, an isolation valve, and a regulator at the drop station. Depending on preference, the facility may locate a flashback arrestor at the station drop, each branch line, or on the main house line. The system will also have a relief valve on the main line to protect the pipe from over-pressurization.

The 632 Series Pressure Differential manifold delivers the industry's highest Acetylene flow rate while maintaining stable pressure control. The 632 incorporates a master shutoff valve and non-return flash arrestors on each cylinder hose. Oxygen can be delivered from high-pressure or liquid cylinders cost effectively with the 642 series IntelliSwitch II. Last but not least, every company should have an active preventative maintenance program with annual inspections of each component of the NFPA 51 system.

DELIVERY



REGULATOR SELECTION GUIDE



CONCOA has decades of experience providing solutions for challenging gas control processes in industrial applications. CONCOA's robust, innovative devices are manufactured in accordance with ISO 9001 specifications and rigorously tested to the highest standards in the industry. Combined with a wide range of customizable solutions, CONCOA's broad line of flexible equipment will meet the rigorous environmental and process demands in any welding, cutting, or industrial gas distribution system worldwide. With all the options CONCOA offers, listing part numbers for each regulator series would be impossible. Therefore, we have created a Regulator Selection Guide to serve as a reference for selecting an application-specific solution.

Gas Source	Series	Applications	Stages of Regulation	Delivery Range	Pg.
Pipeline	6590	Medium/Heavy Duty Heating & Cutting	Single	0-120 PSIG	57
Pipeline	6790	High-flow Heavy Duty Heating & Cutting	Single	0-200 PSIG	59
Pipeline	6690	Medium/Heavy Duty Welding, Heating, & Cutting	Single	0-250 PSIG	60
Pipeline	5690	Medium/Heavy Duty Heating & Cutting at Point of Use	Single	0-250 PSIG	61
Pipeline	9940	Heavy Duty Heating & Cutting at Point of Use	Single	0-400 PSIG	62
Cylinder	6700	High-flow Heavy Duty Heating & Cutting	Single	0-200 PSIG	66
Cylinder	6600	Medium/Heavy Duty Welding, Heating, & Cutting	Single	0-250 PSIG	67
Cylinder	6500	Heavy Duty Welding, Heating, & Cutting	Single	0-200 PSIG	68
Cylinder	5600	Medium Duty Welding, Heating, & Cutting	Single	0-250 PSIG	69
Cylinder	5500	Medium Duty Welding, Heating & Cutting	Single	0-125 PSIG	70
Cylinder	56H	Medium/Heavy Duty Welding, Heating & Cutting	Single	0-250 PSIG	71
Cylinder	8400/9400	Heavy Duty Welding, Heating, & Cutting	Dual	0-100 PSIG	72
Cylinder	6800	High-flow Heavy Duty Heating & Cutting	Dual	0-250 PSIG	73
Cylinder	6520	Medium/Heavy Duty Welding, Heating, & Cutting	Dual	0-200 PSIG	74
Cylinder	9470	Heavy Duty MIG and TIG Welding & Blanketing (Flow Control)	Dual	0-200 SCFH	75
Cylinder	6500	Medium/Heavy Duty MIG and TIG Welding & Blanketing (Flow Control)	Single	0-200 SCFH	76
Cylinder	5500	Medium Duty MIG and TIG Welding & Blanketing (Flow Control)	Single	0-200 SCFH	77
Liquid Cylinder	6530	Medium/Heavy Duty Welding, Heating, & Cutting	Single	0-125 PSIG	78
Cylinder	8000	Medium Duty MIG and TIG Welding & Blanketing w/ CO ₂ mixtures	Single	0-125 PSIG	79
Cylinder	1400	Ultra High Delivery Pressure	Single	0-6000 PSIG	80
Cylinder	1100	High-pressure Delivery	Single	0-1000 PSIG	81
Pipeline	6200	High-pressure, High-flow Dome Loaded	Single	0-3000 PSIG	82
Pipeline	6200	High-pressure, High-flow Dome Loaded	Single	0-4500 PSIG	82
Cylinder	2500	Helium Balloon Filling	Single	0-50 PSIG	84

GAS BLENDING SYSTEMS



657 SERIES BLENDMASTER 1750

The BlendMaster 1750 Series mixer precisely blends shielding gas for GMAW (MIG) and GTAW (TIG) welding. Argon-Carbon Dioxide mixes are consistently delivered to those industrial applications requiring repeatability and control. Available in wall or floor mount and 120 volt or 220 volt configuration, the BlendMaster 1750 delivers the flexibility that yields a low cost of ownership.

Advanced Features

Pressure Equalization Technology

Maintains mix accuracy under fluctuating supply conditions

0-25% Ratio Adjustment

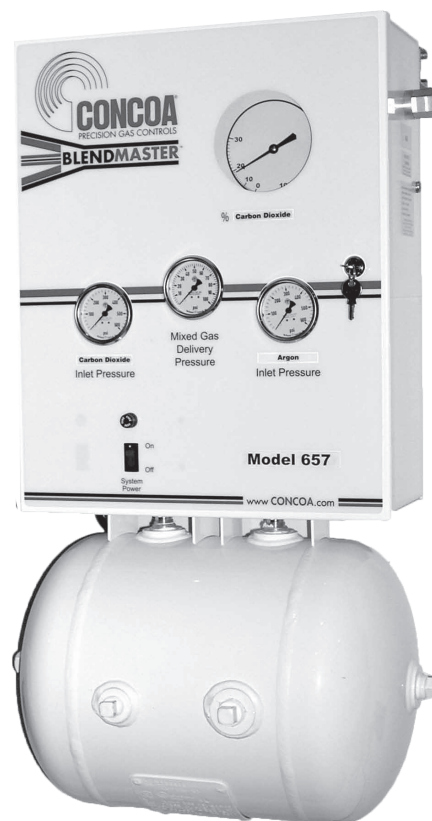
Ensures 1,750 SCFH for all mixes

Gas Piloted Dual-Dome Technology

Maintains mix accuracy by eliminating pressure decay at high-flows

6700 Series Line Regulator

Delivers stable pressure control at high-flows

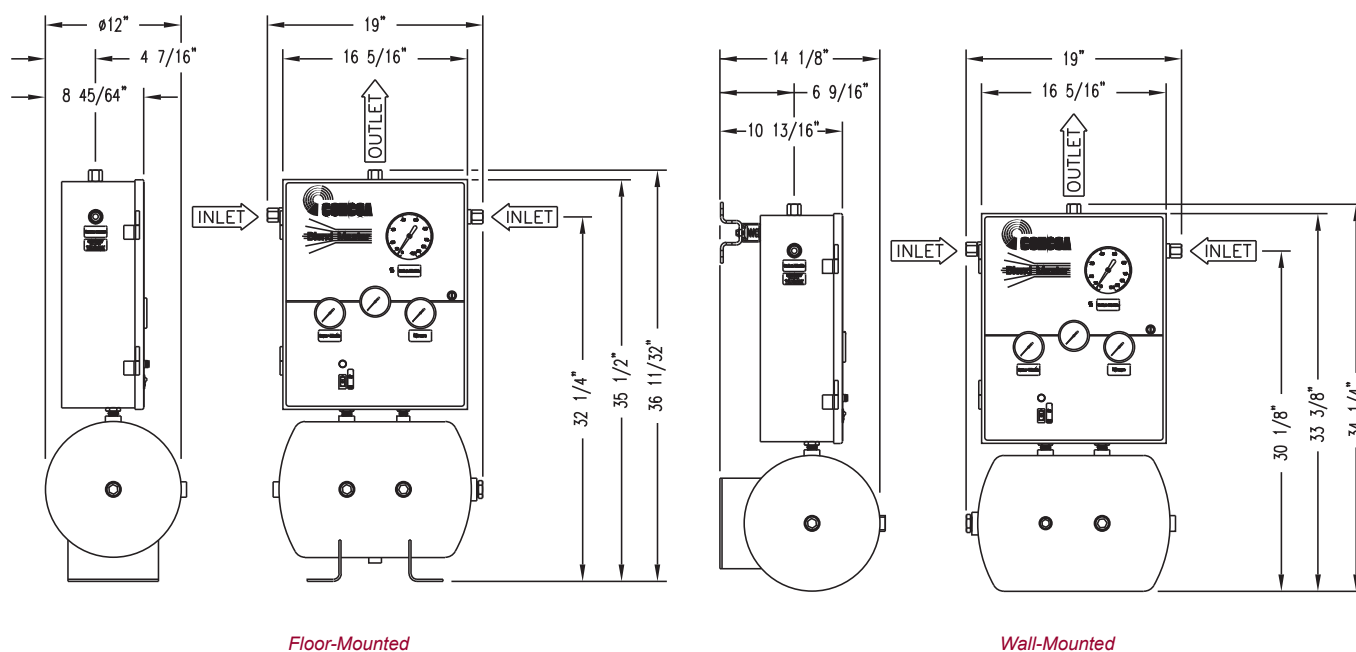


Applications	Materials	Specifications
GMAW (MIG) Welding 0-10% Carbon Dioxide Mild Steel Deep penetrating spray transfer 15-25% Carbon Dioxide Mild Steel Spatter-free short arc transfer	Case Powder-coated steel Surge Tank Powder-coated steel Regulator Brass barstock Seals Neoprene 40-Micron Inlet Filter 316L stainless steel Inlet and Outlet Fittings Brass	Flow Capacity 1750 SCFH (50.0 M ³ /H) Inlet Supply Pressure Requirements 100 - 125 PSIG (7 - 8.6 BAR) Mixed Gas Outlet Pressure 10 - 50 PSIG (.7 - 3.5 BAR) Power Requirements 110 or 220 VAC (50 - 60 Hz) Temperature Range 32°F to 100°F (0°C to 38°C) Accuracy ± 1.5% Weight 102 lbs. (46 kg) Surge Tank 7 gallon (26.5 Liters)

GAS BLENDING SYSTEMS



Installation Dimensions



Ordering Information

Series	Major Gas	Minor Gas	Monitoring*	Assembly
657	1: Argon	2: Carbon Dioxide	0: No Alarm	1: 110V Floor Mount
			7: Low Pressure Alarm Capable*	2: 110V Wall Mount
				5: 220V Floor Mount
				6: 220V Wall Mount
			* Remote alarm not included.	

Related Options

Part Number	Option	Description
575 0025-01-000	Altos 2 Alarm	Provides real-time cylinder pressure, audible and visual notification of a depleted supply bank to a remote location. (See page 46 for full list of options)

GAS BLENDING SYSTEMS



655 SERIES OXYGEN BLENDMASTER

The 655 Series BlendMaster is designed to supply Argon-Oxygen shielding gas mixtures on-site for mild and stainless steel MIG (GMAW) welding. The blender provides up to 850 SCFH over the range of 0-10% Oxygen, balance Argon. CONCOA 6700 Series inlet regulators maintain mix accuracy by eliminating pressure fluctuation effects encountered while filling micro-bulk and bulk supply sources.

Advanced Features

Lockable Enclosure

Process control

0-10% Ratio Adjustability

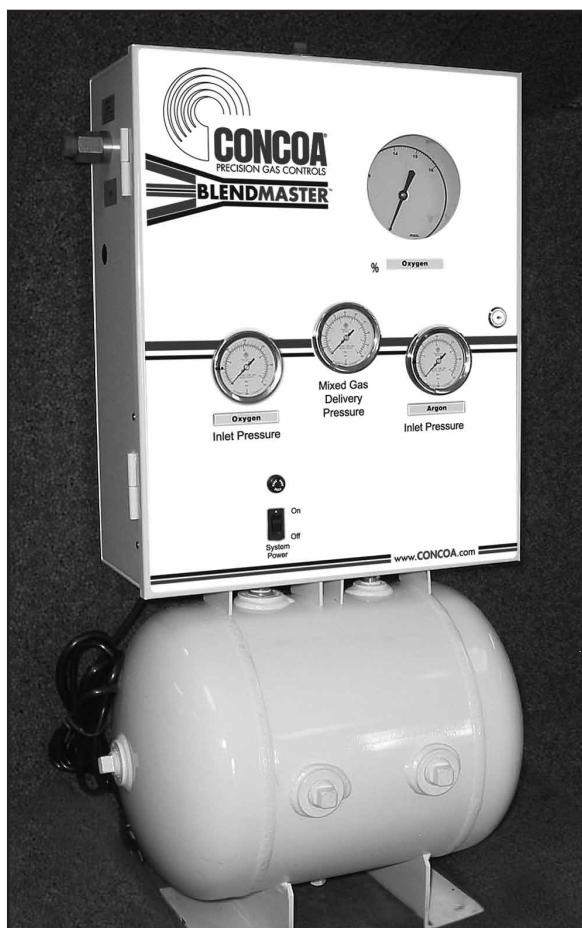
Process flexibility

Wall or Bench Mountable

Installation flexibility

Integral Line Regulator

Supports flowmeter and regulator/flowmeter installations

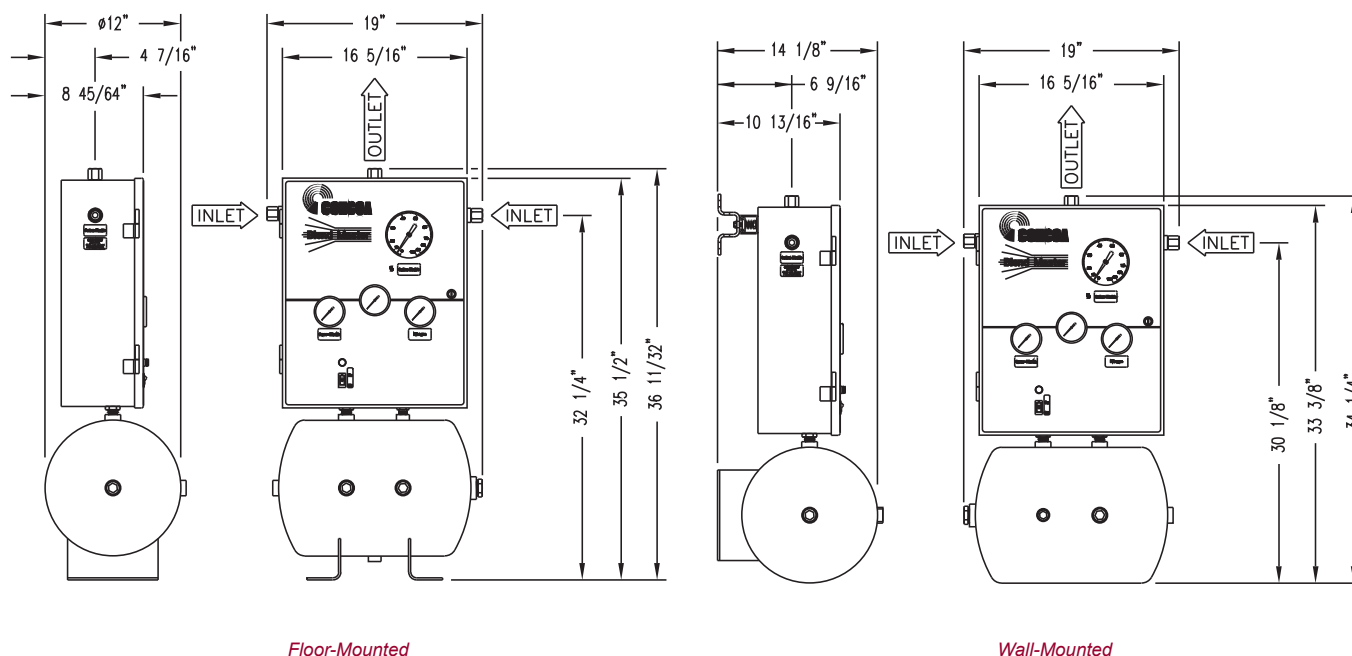


Applications	Materials	Specifications
Stainless Steel 0-1% Oxygen Stabilized spray transfer 1-2% Oxygen Spray transfer with enhanced wetting action	Case Powder-coated steel Surge Tank Powder-coated steel Regulator Brass barstock	Flow Capacity 850 SCFH (24.1 M ³ /H) Inlet Supply Pressure Requirements 100 - 125 PSIG (7 - 8.6 BAR) Mixed Gas Outlet Pressure 10 - 50 PSIG (.7 - 3.5 BAR)
Mild Steel 2-3% Oxygen Spray transfer with enhanced wetting action 3-5% Oxygen High travel speeds with fluid weld puddle	Seals Neoprene 40-Micron Inlet Filter 316L stainless steel Inlet and Outlet Fittings Brass	Power Requirements 110 or 220 VAC (50 - 60 Hz) Temperature Range 32°F to 100°F (0°C to 38°C) Accuracy ± 0.5% Weight 102 lbs. (46 kg) Surge Tank 7 gallon (26.5 liters)

GAS BLENDING SYSTEMS



Installation Dimensions



Ordering Information

Series	Major Gas	Minor Gas	Monitoring*	Assembly
655	1: Argon	1: Oxygen	0: No Alarm	1: 110V Floor Mount
			7: Low Pressure Alarm Capability*	2: 110V Wall Mount
				5: 220V Floor Mount
				6: 220V Wall Mount
			* Remote alarm not included	

Related Options

Part Number	Option	Description
575 0025-01-000	Altos 2 Alarm	Provides real-time cylinder pressure, audible and visual notification of a depleted supply bank to a remote location. (See page 46 for full list of options)

GAS BLENDING SYSTEMS



652 SERIES BLENDMASTER 1000

The BlendMaster 1000 Series mixer precisely blends binary mixtures for the metal fabrication industry. Carbon Dioxide and Helium minor component mixes are consistently delivered to those industrial applications requiring repeatability and control. Available in wall or floor mount and 120 volt or 220 volt configuration, the BlendMaster 1000 delivers the flexibility that yields a low cost of ownership.

Advanced Features

Pressure Equalization Technology

Maintains mix accuracy under fluctuating supply conditions

0-100% Ratio Adjustment

Ensures 1,000 SCFH for all mixes

Gas Piloted Dual-Dome Technology

Maintains mix accuracy by eliminating pressure decay at high-flows

6700 Series Line Regulator

Delivers stable pressure control at high-flows

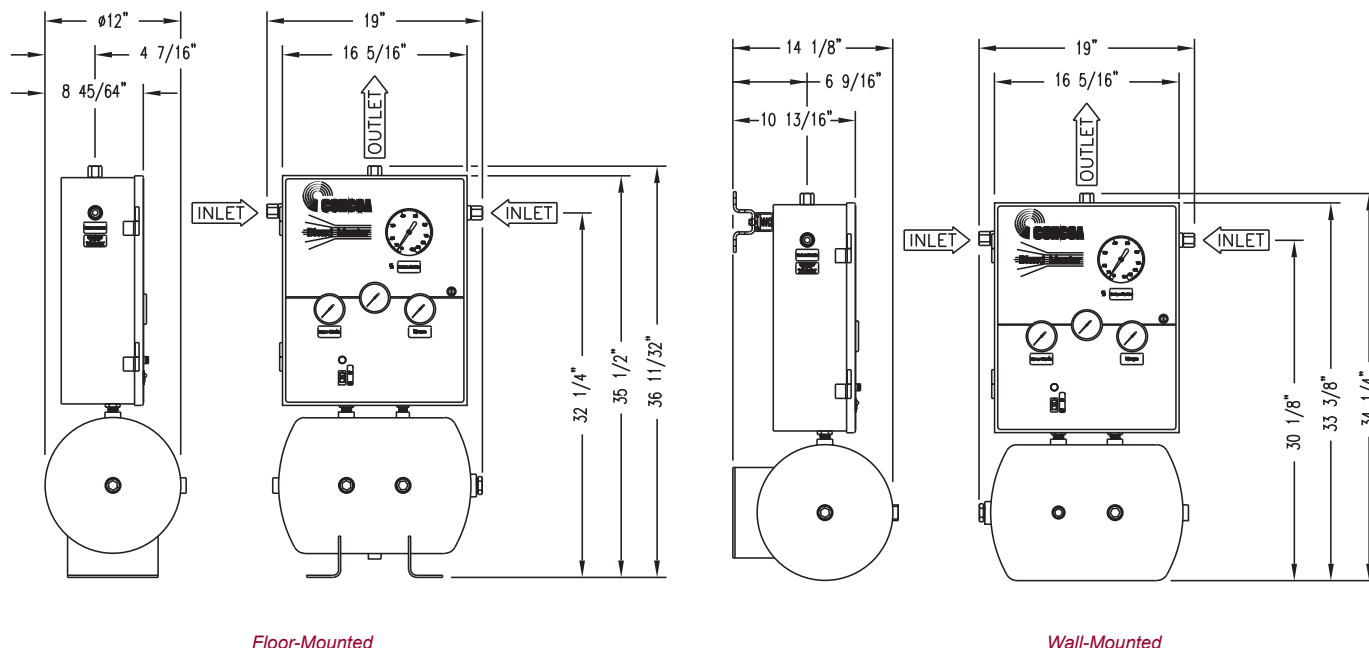


Applications	Materials	Specifications
Laser Welding 25-50% Argon, balance Helium Enables higher travel speeds	Case Powder-coated steel	Flow Capacity 1000 SCFH (28.3 M ³ /H)
GMAW (MIG) Welding 0-10% Carbon Dioxide Mild Steel Deep penetrating spray transfer 15-25% Carbon Dioxide Mild Steel Spatter-free short arc transfer	Surge Tank Powder-coated steel	Inlet Supply Pressure Requirements 100 - 125 PSIG (7 - 8.6 BAR)
	Regulator Brass barstock	Mixed Gas Outlet Pressure 10 - 50 PSIG (.7 - 3.5 BAR)
	Seals Neoprene	Power Requirements 110 or 220 VAC (50 - 60 Hz)
	40-Micron Inlet Filter 316L stainless steel	Temperature Range 32°F to 100°F (0°C to 38°C)
	Inlet and Outlet Fittings Brass	Accuracy ± 1.5%
		Weight 102 lbs. (46 kg)
		Surge Tank 7 gallon (26.5 liters)

GAS BLENDING SYSTEMS



Installation Dimensions



Ordering Information

Series	Major Gas	Minor Gas	Monitoring*	Assembly	Secondary Scale Major Gas	Secondary Scale Minor Gas
652	1: Argon	1: Argon	0: No Alarm	1: 110V Floor Mount	0: None	0: None
	5: Nitrogen	2: Carbon Dioxide	7: Low Pressure Alarm Capable*	2: 110V Wall Mount	1: Argon	1: Argon
		3: Helium		5: 220V Floor Mount	5: Nitrogen	2: Carbon Dioxide
		5: Nitrogen		6: 220V Wall Mount		3: Helium
			* Remote alarm not included			5: Nitrogen

Related Options

Part Number	Option	Description
575 0025-01-000	Altos 2 Alarm	Provides real-time cylinder pressure, audible and visual notification of a depleted supply bank to a remote location. (See page 46 for full list of options)

GAS BLENDING SYSTEMS



650 SERIES AUTOBLEND

The 650 Series AutoBlend allows the end-user to select from seven preset gas blends for welding applications. The blender provides 600 SCFH regardless of the selected blend. The low inlet pressure range maintains accurate mixing tolerances even during the filling of a bulk or micro-bulk supply source.



Advanced Features

Pressure Equalization System

Reduces effects of inlet pressure fluctuations

Seven Gas Blend Choices

Process flexibility

Tamper Resistant Enclosure

Process control

100 - 125 PSIG (7 - 8.5 Bar) Inlet Range

Compatible with a variety of cryogenic sources
(liquid cylinder, microbulk, bulk)

MAGNEFLOW™ Technology

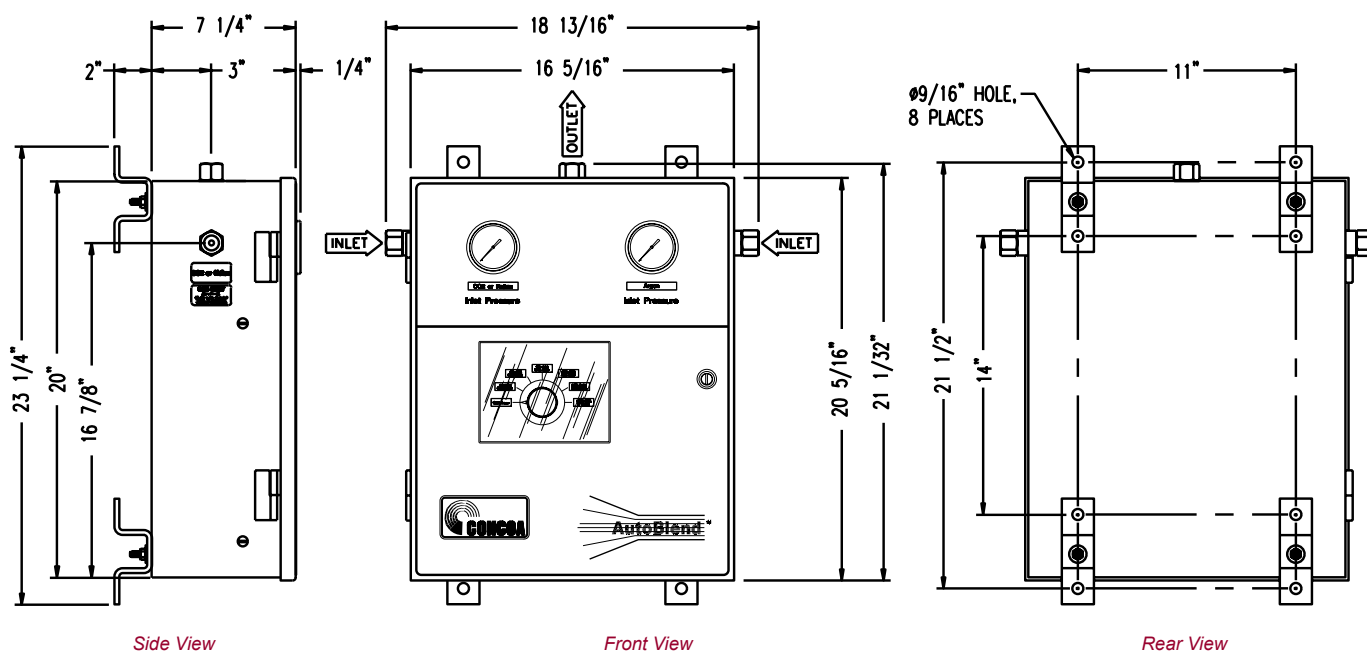
Non-electric cycling valve
Gas mix stability under all flow conditions
Low maintenance/simple installation

Applications	Materials	Specifications
Stainless Steel 100% Carbon Dioxide fluxcore wire	Case Powder-coated steel	Flow Capacity 600 SCFH (17.0 M ³ /H)
Mild Steel 98/2% Carbon Dioxide spray arc thin gauge 92/8% Carbon Dioxide short arc thin gauge 75/15% Carbon Dioxide all position short arc welding	Regulator Bodies Brass barstock	Inlet Supply Pressure Requirements 100 - 125 PSIG (7 - 8.6 BAR)
Aluminum 75% Helium/25% Argon high speed welding	Regulator Seats PTFE seat	Mixed Gas Outlet Pressure 10 - 50 PSIG (.7 - 3.5 BAR)
	Inlet and Outlet Fittings Stainless steel	Inlet/Outlet Connections ½" FNPT
		Temperature Range 32°F to 100°F (0°C to 38°C)
		Accuracy ±2.5% Carbon Dioxide (under typical conditions)
		Weight Net 102 lbs. (46 kg)

GAS BLENDING SYSTEMS



Installation Dimensions



Ordering Information

Series	Gas Combination	Monitoring*	Assembly	-000
650	1: Selectable • 100% Argon • 98% Argon/2% Carbon Dioxide • 92% Argon/8% Carbon Dioxide • 85% Argon/15% Carbon Dioxide • 75% Argon/25% Carbon Dioxide • 25% Argon/75% Helium • 100% Minor Gas	0: N/A 0: No Alarm 7: Low Pressure Alarm Capable* <i>* Remote alarm not included</i>	1: Wall Mount	

Related Options

Part Number	Option	Description
575 0025-01-000	Altos 2 Alarm	Provides real-time cylinder pressure, audible and visual notification of a depleted supply bank to a remote location. (See page 46 for full list of options)

GAS BLENDING SYSTEMS



9600 SERIES CONTINUOUS CO₂ ANALYZER

CONCOA's Guardian Series analyzers are designed to monitor Carbon Dioxide in Argon or Nitrogen from a fixed point. This makes Guardian a perfect choice for metal fabrication, landfill, horticulture, brewing, and food processing applications. Coupled with the innovative AutoBlend or BlendMaster gas mixers, CONCOA offers a complete system that ensures long-term quality.



Advanced Features

Single Source Dual Wavelength NDIR

- (Nondispersive Infrared Detector)
- No moving parts
- Highly gas specific

Local Hi/Low Alarm

- Visual
- Audible

Output Capability

- 4-20 mA or 0-20 mA
- Dry relay contact
- RS232 (Optional)

Applications	Specifications	
Shielding Gas	Accuracy ± 2% of full scale	Operating Temperature 0 to 104° F (-18 to 40° C)
Food Processing	Power Requirement 110 or 220 VAC (50-60 Hz)	Warm-up Time 1 minute (operational) 30 minutes (full specification)
Brewing	Maximum Inlet Pressure 15 PSIG (1 BAR)	Enclosure Rating IP54 (NEMA 3.8)
Horticulture	Sample Pump Rate 0.04 SCFM (1.0 LPM)	
	Response Time < 30 seconds to 90% step change	

Ordering Information

Part Number	Description
830 9600	0-30% Carbon Dioxide in Argon, 110V Wall Mountable Continuous Analyzer
830 9601	0-100% Carbon Dioxide in Argon, 110V Wall Mountable Continuous Analyzer

**Other Configurations Available*

GAS BLENDING SYSTEMS



9300 SERIES MULTI-GAS ANALYZER

CONCOA's Multi-Gas Analyzer is designed to monitor almost any binary gas mixture. This is ideal for a wide range of applications, such as metal fabrication, landfill, horticulture, brewing, and food processing applications. Coupled with the BlendMaster gas mixer, CONCOA offers a complete system that ensures long-term quality.

Advanced Features

Thermal Conductivity Detector
No moving parts

Digital Readout
Enhanced visibility

Internal Sample Pump
Fast response



Applications	Specifications
Shielding Gases Heat Treating Atmosphere Leak Detection SF₆ Blanketing	Accuracy ± 1% of full scale Power Requirement 110 or 220 VAC (50-60 Hz) Maximum Inlet Pressure 125 PSIG (9 BAR) Sample Pump Rate 0.02 to 0.03 SCFM (.5 to .9 LPM) Method of Detection RTD-based TC cell Drift Less than 1% of full scale Resolution .1% of gas to be measured Response Time 10-15 seconds to 90% step change Operating Temperature 32 to 122° F (0 to 50° C) Calibration Air or Nitrogen for zero Analyzed calibration gas for span Linearity ± 1% of full scale

Ordering Information

Part Number	Description
830 9383	0 - 100% range, Multi-Gas Analyzer

GAS SWITCHOVER SYSTEMS



642 SERIES INTELLISWITCH™ II

The web-enabled IntelliSwitch II gas switchover is CONCOA's solution for integrated gas management systems. Intelliswitch II offers continuous pressure and flow control from liquid or high-pressure cylinder sources, selectable by a simple push of a button or remotely via the on-board web server. CONCOA's proven software logic lowers yearly gas costs by eliminating liquid cylinder vent loss and excess residual return.

Advanced Features

Integral Web Server

Enables remote access

Integrated Ethernet Connectivity

Seamless network integration

Integral Email Notification

24/7 system monitoring

Low Loss Technology

Reduces residual return

Electronic Economizer

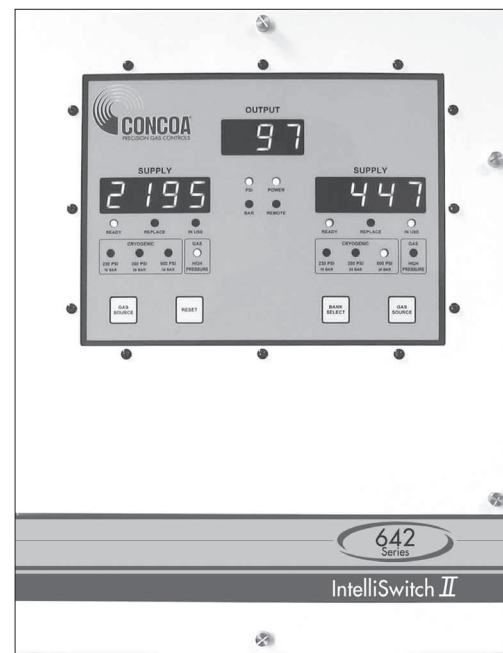
Eliminates liquid cylinder vent loss

NEMA-4 Cabinet

Simple installation

Internal Balance Stem Line Regulator

Ensures total process control



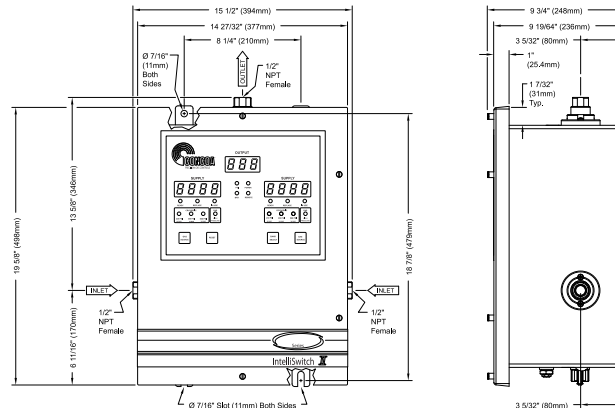
Applications	Materials	Specifications
Primary Steel Industry Argon, Nitrogen, and Oxygen Metal Fabrication Argon, Carbon Dioxide, Nitrogen, and Oxygen Chemical and Refining Industry Air, Nitrogen, and Oxygen Defense and Aerospace Air, Argon, Carbon Dioxide, Nitrogen, or Helium	Regulator and Valve Bodies Brass barstock Valve Seats Viton® and PCTFE Seals PTFE, PCTFE and Neoprene Enclosure (NEMA 4) Powder-coated steel Hose Core PTFE Hose Fittings Brass Hose Casing Stainless steel armor-cased	Maximum Inlet Pressure 3,000 PSIG (210 BAR) Temperature Range 0 to 100°F (-18 to 40°C) Filter 40-Micron Mechanical Connections ½" FNPT inlet and outlet Communication Connectivity Two channel NO/NC output relay alarm contacts Ethernet port Weight 67 Lbs. (30 kg) Cv 1.0 Power Requirements 110 or 240 VAC (terminal block with ½" conduit hole)

CRN 0H17950.5 (0H17255.52 in Alberta)

GAS SWITCHOVER SYSTEMS



Installation Dimensions



DISTRIBUTION SYSTEMS

Ordering Information

Series	Outlet Pressure	Hose Cylinder Connection	Pressure Settings	Assembly	-Left Bank Inlet Connection	Left Bank No. of Stations	Right Bank Inlet Connection	Right Bank No. of Stations
642	3: 0-100 PSIG (0-7 BAR)	0: No Inlet Connection	0: Factory Default	7: 3000 PSIG Inlet	1: 1/2" FNPT Port*	0: 1/2" FNPT Port	1: 1/2" FNPT Port*	0: 1/2" FNPT Port
	4: 0-150 PSIG (0-10 BAR)	1: CGA 580 (Inert Gas)	1: 100 PSIG (7 BAR)		2: Single 72" Hose	1: One Station	2: Single 72" Hoses	1: One Station
	5: 0-200 PSIG (0-15 BAR)	2: CGA 320 (Carbon Dioxide)	2: 150 PSIG (10 BAR)		3: Master Valve with Single 72" Hose	2: Two Stations	3: Master Valve with Single 72" Hoses	2: Two Stations
		3: CGA 540 (Oxygen)	3: 200 PSIG (15 BAR)		4: MicroManifold with 72" Hoses	3: Three Stations	4: MicroManifold with 72" Hoses	3: Three Stations
		4: CGA 346 (Air)	4: 250 PSIG (17 BAR)		5: Master Valve with MicroManifold and 72" Hoses	4: Four Stations	5: Master Valve with MicroManifold and 72" Hoses	4: Four Stations
		5: CGA 590 (Industrial Air)	5: 300 PSIG (20 BAR)		6: 628 Manifold with 36" Hoses	5: Five Stations	6: 628 Manifold with 36" Hoses	5: Five Stations
		6: DIN 6 (Inert, Helium, & Carbon Dioxide)	6: 350 PSIG (25 BAR)			6: Six Stations		6: Six Stations
		7: DIN 9 (Oxygen)	7: 400 PSIG (28 BAR)			7: Seven Stations		7: Seven Stations
		8: DIN 10 (Nitrogen)	8: 425 PSIG (30 BAR)			8: Eight Stations		8: Eight Stations
		9: BS 3 (Air, Argon, Helium & Oxygen)						
		A: BS 8 (Carbon Dioxide)						
		C: No Inlet Connection with Tethered Hose			* Valid with Left Bank No. of Stations = 0 Only		* Valid with Right Bank No. of Stations = 0 Only	

Related Options

Part Number	Option	Description
575 0025-01-000	Altos 2 Alarm	Provides audible and visible notification of a depleted supply bank to a remote location (See page 46)
629 Series	Vent Manifold Kit	Wall-mounted manifold designed to equalize liquid cylinder head pressure.
518 1625	Switchover Station	Safely mount and secure any switchover
830 7439	AutoSwitch Floor Stand	Support AutoSwitch enclosure
830 7437	Manifold Floor Stand	Supports two standard length (12") manifold extensions installed consecutively

GAS SWITCHOVER SYSTEMS



640 SERIES INTELLISWITCH™

The fully-automatic IntelliSwitch gas switchover offers continuous pressure and flow control from liquid cylinder or high-pressure cylinder sources which enables the operator to select the ideal mode of supply by a simple push of a button. Proprietary software logic lowers yearly gas costs by eliminating liquid cylinder vent loss and excess residual return.

Advanced Features

Micro-Processor Control

Fully automatic priority assignment

Field Adjustable Software

Enables process flexibility

On-Site Source Selection

Liquid cylinder or high-pressure service

Low Loss Technology

Reduces residual return

Electronic Economizer

Eliminates liquid cylinder vent loss

Process Gas or Air Actuated Pilot Valve

Simple installation



Applications

Primary Steel Industry

Argon, Nitrogen, and Oxygen

Metal Fabrication

Argon, Carbon Dioxide, Nitrogen, and Oxygen

Chemical and Refining Industry

Nitrogen and Oxygen

Defense and Aerospace

Air, Argon, Carbon Dioxide, Nitrogen, or Helium

Materials

Regulator and Valve Bodies

Brass barstock

Valve Seats

PCTFE

Seals

PTFE, PCTFE, and Neoprene

Enclosure

Powder-coated steel

Hose Core

PTFE

Hose Fittings

Brass

Hose Casing

Stainless steel braid

Specifications

Maximum Inlet Pressure

3,000 PSIG (210 BAR)

Temperature Range

0 to 100°F (-18° to 40°C)

Filter

40-Micron

Mechanical Connections

½" FNPT inlet and outlet

Weight

67 lbs. (30.4 kg)

Cv

1.0

Power Requirements

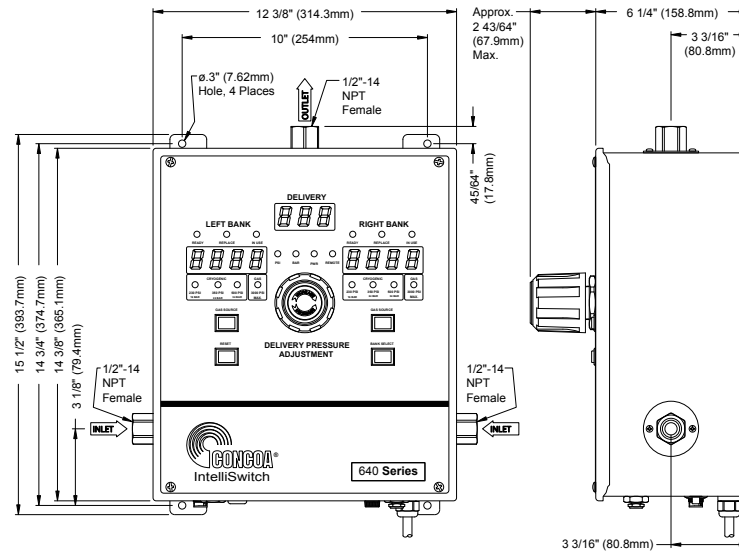
110 or 220 VAC

CRN 0H17950.5 (0H17255.52 in Alberta)

GAS SWITCHOVER SYSTEMS



Installation Dimensions



DISTRIBUTION SYSTEMS

Ordering Information

Series	Outlet Pressure	Hose Cylinder Connection	Pressure Settings	Assembly	-Left Bank Inlet Connection	Left Bank No. of Stations	Right Bank Inlet Connection	Right Bank No. of Stations
640	2: 0-50 PSIG (0-3 BAR)	0: No Inlet Connection	0: Factory Default	0: 110 VAC External Pilot*	1: 1/2" FNPT Port*	0: 1/2" FNPT Port	1: 1/2" FNPT Port*	0: 1/2" FNPT Port
	3: 0-100 PSIG (0-7 BAR)	1: CGA 580 (Inert Gas)		1: 220 VAC External Pilot*	2: Single 72" Hose	1: One Station	2: Single 72" Hose	1: One Station
	4: 0-150 PSIG (0-10 BAR)	2: CGA 320 (Carbon Dioxide)		2: 110 VAC Internal Pilot	3: Master Valve with Single 72" Hose	2: Two Stations	3: Master Valve with Single 72" Hose	2: Two Stations
	5: 200 PSIG (0-15 BAR)	3: CGA 540 (Oxygen)		3: 220 VAC Internal Pilot	4: MicroManifold with 72" Hoses	3: Three Stations	4: MicroManifold with 72" Hoses	3: Three Stations
		4: CGA 346 (Air)			5: Master Valve with MicroManifold and 72" Hoses	4: Four Stations	5: Master Valve with MicroManifold and 72" Hoses	4: Four Stations
		5: CGA 590 (Industrial Air)			6: 628 Manifold with 36" Hoses	5: Five Stations	6: 628 Manifold with 36" Hoses	5: Five Stations
		6: DIN 6 (Inert, Helium & Carbon Dioxide)				6: Six Stations		6: Six Stations
		7: DIN 9 (Oxygen)				7: Seven Stations		7: Seven Stations
		9: BS3 (Air, Argon, Helium & Oxygen)				8: Eight Stations		8: Eight Stations
		A: BS 8 (Carbon Dioxide)						
		C: No Inlet Connection with Tethered Hose		* Regulator for external source not included	* Valid with Left Bank No. of Stations = 0 Only		* Valid with Right Bank No. of Stations = 0 Only	

Related Options

Part Number	Option	Description
575 0025-01-000	Altos 2 Alarm	Provides real-time cylinder pressure, audible and visual notification of a depleted supply bank to a remote location. (See page 46 for full list of options)
629 Series	Vent Manifold Kit	Wall-mounted manifold designed to equalize liquid cylinder head pressure (See Page 38)

GAS SWITCHOVER SYSTEMS



637 SERIES AutoSwitch GL

The 637 Series AutoSwitch system permits a high-pressure reserve for a primary liquid cylinder or bank of liquid cylinders. Visible alarms on the enclosure or an optional remote alarm signal the need to replenish the liquid cylinder.

Advanced Features

350 PSIG Liquid Cylinder Primary with High-pressure Reserve
Lowers operating cost

Balanced Main Valve
High-flow capacity

Integral Line Regulator
Stable line pressure during changeover

Integral Manifold System
Easy installation

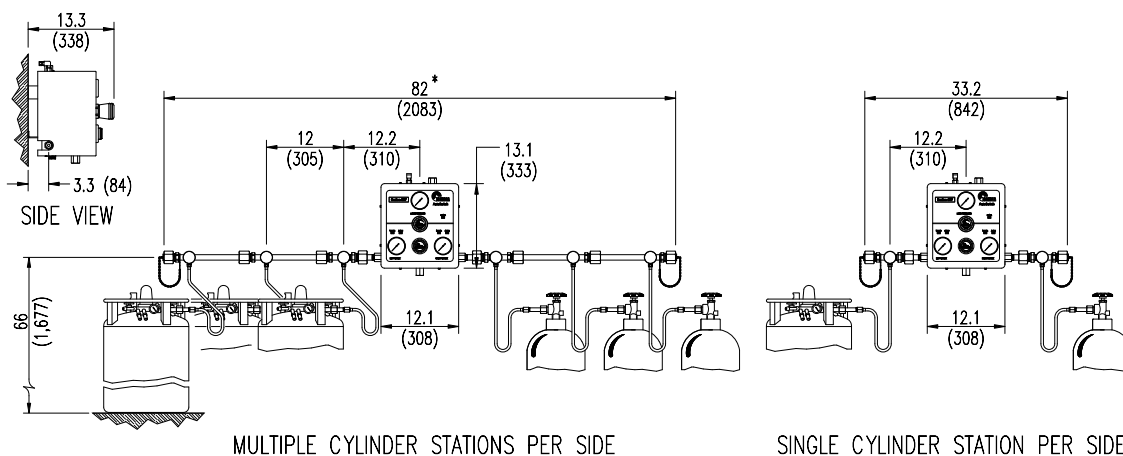


Applications	Materials	Specifications
MIG and TIG Hybrid Welding Continuous supply of Argon or Argon mixtures used as shielding gases	Switchover Valve and Line Regulator Brass barstock	Maximum Inlet Pressure 3000 PSIG (210 BAR)
Blanketing Applications Constant pressure and flow in Nitrogen control of atmospheres	Diaphragms Fabric-reinforced neoprene	Temperature Range -40 to 140°F (-40 to 60°C)
Oxy-Fuel Applications Supply Oxygen to multiple torches for cutting or heating	Enclosure Acrylic powder-coated steel	Maximum Flow* 1500 - 5000 SCFH (2360 LPM)
Argon Shielding Gas Liquid primary/High-pressure reserve	Tubing and Fittings 316 stainless steel, brass, and copper	Mechanical Connections ½" FNPT inlet and outlet
	Internal Seals PTFE and Neoprene	Weight 54 lbs. (25 kg)
	Seats Neoprene, PTFE, and Viton®	<i>*Limited by supply source</i>
	Pressure Gauges and Switches Brass, bronze, stainless steel, and copper	
	Check Valves Brass with Buna-N or Neoprene seals	
	Hose Core PTFE	
	Hose Fittings Brass	
	Hose Casing Stainless steel braid	

GAS SWITCHOVER SYSTEMS



Installation Dimensions



* ADD OR SUBTRACT 12" (305 mm) FOR EACH CYLINDER STATION ADDED TO OR SUBTRACTED FROM THE TYPICAL 3 CYLINDERS PER SIDE ASSEMBLY SHOWN.

Ordering Information

Series	Outlet Pressure (Minimum Inlet Pressure)	Liquid Cylinders (Primary)	High-pressure Cylinders (Reserve)	Manifold Mounting Options	-Gas Service
637	2: 0-40 PSIG (0-2 BAR) 145 PSIG (10 BAR)	0: No Cylinders	1: One Cylinder	1: Wall Mount	320: Carbon dioxide 540: Oxygen 580: Inert PTFE-lined hoses for Oxygen service include accumulator extensions to prevent ignition from adiabatic compression.
	3: 0-100 PSIG (0-7 BAR) 145 PSIG (10 BAR)	1: One Cylinder	2: Two Cylinders	2: Floor Stands	
	7: 0-150 PSIG (0-10 BAR) 240 PSIG (17 BAR)	2: Two Cylinders	3: Three Cylinders		
		3: Three Cylinders	4: Four Cylinders		
		4: Four Cylinders	5: Five Cylinders		
			6: Six Cylinders		
			7: Seven Cylinders		
			8: Eight Cylinders		
			9: Nine Cylinders		

Related Options

Part Number	Option	Description
575 0025-01-000	Altos 2 Alarm	Provides audible and visible notification of a depleted supply bank to a remote location (See page 46)

GAS SWITCHOVER SYSTEMS



636 SERIES AUTO SWITCH HF

The 636 Series AutoSwitch provides a continuous supply of nonflammable industrial gases at a constant delivery pressure from two high-pressure banks. Pressure switches enable visual alarms and an optional remote alarm to notify the user of the need to replenish a depleted bank.

Advanced Features

Alarm Capable

Alert remote users of low pressure conditions

High-flow Capacity

Suitable in a wide variety of industrial applications

Automatic Pressure Differential

Fail-safe operation

Integral Line Regulator

Stable line pressure during changeover

User-Friendly Priority Valve

One knob switches cylinder priority

Integral Manifold System

Easy installation

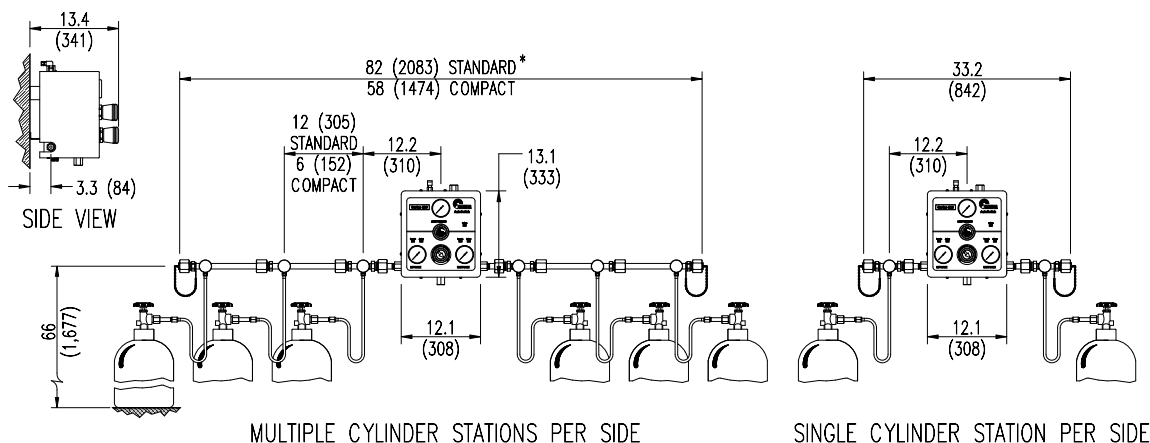


Applications	Materials	Specifications
Purging Systems Large capacity flow to remove contaminants	Priority Valve and Line Regulator Brass barstock	Maximum Inlet Pressure 3000 PSIG (210 BAR)
Argon or Helium Shielding Gas High-pressure source	Diaphragms Fabric-reinforced neoprene	Temperature Range -40 to 140°F (-40 to 60°C)
	Enclosure Powder-coated steel	Maximum Flow 6000 SCFH (2830 LPM)
	Tubing and Fittings 316 stainless steel, brass, and copper	Mechanical Connections 1/2" FNPT inlet and outlet
	Internal Seals Neoprene, PTFE, and Viton®	Weight 54 lbs. (25 kg)
	Seats Neoprene, PTFE, and Viton®	
	Pressure Gauges and Switches Brass, bronze, stainless steel, and copper	
	Check Valves Brass with Buna-N or Neoprene seals	
	Hose Core Stainless steel PTFE Rigid copper	
	Hose Fittings Brass	
	Hose Casing Armored stainless steel Stainless steel braid	

GAS SWITCHOVER SYSTEMS



Installation Dimensions



DISTRIBUTION SYSTEMS

Ordering Information

Series	Outlet Pressure	Manifold Style	Hose Style	Stations/Side	-Cylinder Connection	Options
636	1: 0-15 PSIG (0-1 BAR)	1: Standard Length (12" between stations) with One Cylinder/Station	2: 24" Rigid Copper	0: Zero	Please specify inlet connection (if applicable.)	H: 120V Heater
	2: 0-40 PSIG (0-3 BAR)	3: Standard Length (12" between stations) with Two Cylinders/Station	3: 72" Flexible Stainless Steel Armor Case with Stainless Steel Core	1: One Station	PTFE-lined hoses for Oxygen service include accumulator extensions to prevent ignition from adiabatic compression.	C: Foreign Inlets Carbon Dioxide & Inert
	3: 0-120 PSIG (0-9 BAR)	4: Compact Length (6" between stations) with One Cylinder/Station	4: 24" Flexible Stainless Steel Braided with PTFE Core	2: Two Stations		R: Foreign Inlets Air, Hydrogen, Oxygen, Oxygen Mix
		6: Compact Length (6" between stations) with Two Cylinders/Station	5: 36" Flexible Stainless Steel Armor Case with Stainless Steel Core	3: Three Stations		
			6: 36" Flexible Stainless Steel Braided with PTFE Core	4: Four Stations	PTFE-lined hoses not for use with Helium or Hydrogen.	
			7: 24" Flexible Stainless Steel Armor Case with Stainless Steel Core	5: Five Stations		
			9: 72" Flexible Stainless Steel Braided with PTFE Core	6: Six Stations	Intrinsic Safety Barrier included with CGA 350.	
				7: Seven Stations		
				8: Eight Stations		
				9: Nine Stations		

Related Options

Part Number	Option	Description
575 0025-01-000	Altos 2 Alarm	Provides real-time cylinder pressure, audible and visual notification of a depleted supply bank to a remote location. (See page 46 for full list of options)
830 7437	Manifold Floor Stand	Supports two standard length (12") manifold extensions installed consecutively
830 7439	AutoSwitch Floor Stand	Supports AutoSwitch enclosure
529 5296	Intrinsic Safety	Must be added if alarm is used with flammable gases

GAS SWITCHOVER SYSTEMS



635 SERIES AUTO SWITCH HF

The 635 Series pressure differential switchover assures an uninterrupted supply of process gas from the primary and reserve banks. The ultra high-flow system maintains a constant delivery pressure via the integral line regulator. The 635 has ½" FNPT ports to ensure maximum flow capacity. The non-electric design makes the 635 a good value for industrial applications.

Advanced Features

High-pressure Primary & Reserve Cylinders

Excellent flow capacity

Automatic Pressure Differential

Fail-safe operation

Balanced Main Valve

High-flow capacity

Integral Line Regulator

Stable line pressure during changeover

User-Friendly Priority Valve

One knob switches cylinder priority

Integral Manifold System

Easy installation

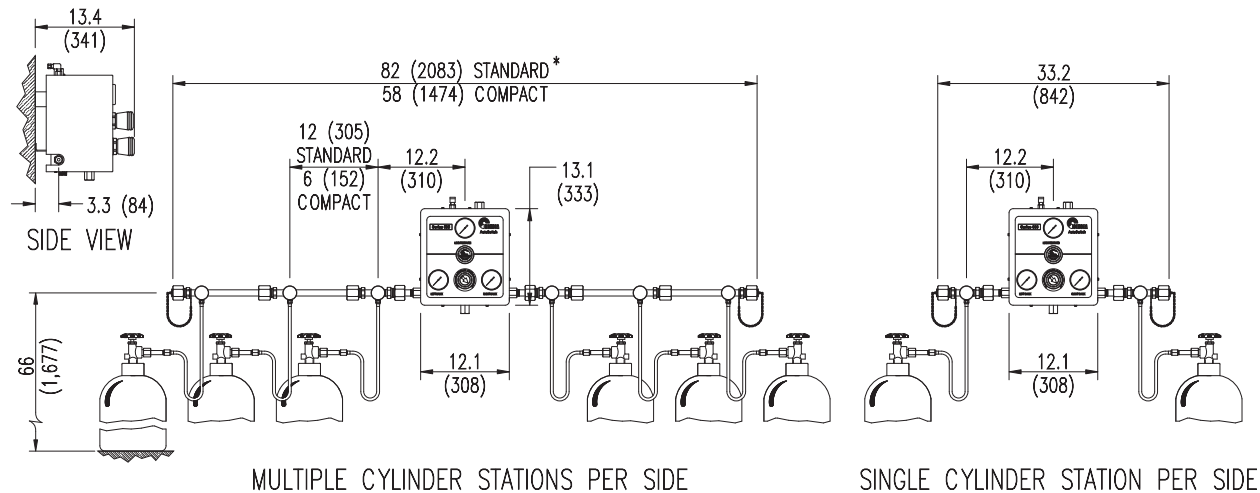


Applications	Materials	Specifications
Ceramic Polishing Uninterrupted supply of Hydrogen	Priority Valve and Line Regulator Brass barstock	Maximum Inlet Pressure 3000 PSIG (210 BAR)
Annealing Large capacity flow for Nitrogen, Hydrogen, and mixtures	Diaphragms Fabric-reinforced neoprene	Temperature Range -40 to 140°F (-40 to 60°C)
Fuel Gases Safely supply fuel gases for cutting, heating or welding with OSHA regulation-compliant manifold systems	Enclosure Acrylic powder-coated steel	Maximum Flow 6000 SCFH (2830 LPM)
	Tubing and Fittings 316 stainless steel, brass, and copper	Mechanical Connections ½" FNPT inlet and outlet
	Internal Seals Neoprene, PTFE, and Viton®	Weight 54 lbs. (25 kg)
	Seats Neoprene, PTFE, and Viton®	
	Check Valves Brass with Buna-N or Viton seals	
	Hose Core Stainless steel PTFE Rigid Copper	
	Hose Fittings Brass	
	Hose Casing Armored stainless steel Stainless steel braid	

GAS SWITCHOVER SYSTEMS



Installation Dimensions



DISTRIBUTION SYSTEMS

Ordering Information

Series	Outlet Pressure	Manifold Style	Hose Style	Stations/Side	-Cylinder Connection	Options
635	1: 0-15 PSIG (0-1 BAR)	0: ½" FNPT	2: 24" Rigid Copper	0: Zero	Please specify inlet connection (if applicable)	H: 120V Heater
	2: 0-40 PSIG (0-3 BAR)	1: Standard Length (12" between stations) with One Cylinder/Station)	3: 72" Flexible Stainless Steel Armor Case with Stainless Steel Core	1: One Station	PTFE-lined hoses for Oxygen service include accumulator extensions to prevent ignition from adiabatic compression.	C: Foreign Inlets Carbon Dioxide & Inert
	3: 0-120 PSIG (0-9 BAR)	3: Standard Length (12" between stations) with Two Cylinders/Station	4: 24" Flexible Stainless Steel Braided with PTFE Core	2: Two Stations		R: Foreign Inlets Air, Hydrogen, Oxygen, Oxygen Mix
		4: Compact Length (6" between stations) with One Cylinder/Station	5: 36" Flexible Stainless Steel Armor Case with Stainless Steel Core	3: Three Stations		
		6: Compact Length (6" between stations) with Two Cylinders/Station	6: 36" Flexible Stainless Steel Braided with PTFE Core	4: Four Stations		
			7: 24" Flexible Stainless Steel Armor Case with Stainless Steel Core	5: Five Stations	PTFE-lined hoses not for use with Helium or Hydrogen.	
			9: 72" Flexible Stainless Steel Braided with PTFE Core	6: Six Stations		
				7: Seven Stations		
				8: Eight Stations		
				9: Nine Stations		

Related Options

Part Number	Option	Description
830 7437	Manifold Floor Stand	Supports 2 standard length (12") manifold extensions installed consecutively
830 7439	AutoSwitch Floor Stand	Supports AutoSwitch enclosure

GAS SWITCHOVER SYSTEMS



634 SERIES SEMI-AUTO SWITCH HF

The 634 Series Switchover provides a continuous supply of gas through two extra heavy-duty 6700 Series regulators. Line or station regulators should be installed at the point of use to ensure constant delivery pressure.

Advanced Features

Semi-Automatic Pressure Differential Switchover
Continuous supply

Integral 6700 Regulators
High-flow capacity

Pressure Ranges 0-15 to 0-200 PSIG
Broad range of applications

Integral Maniflex Manifold System
Easy installation and expansion

Left and Right Banks
Maintain reserve supply

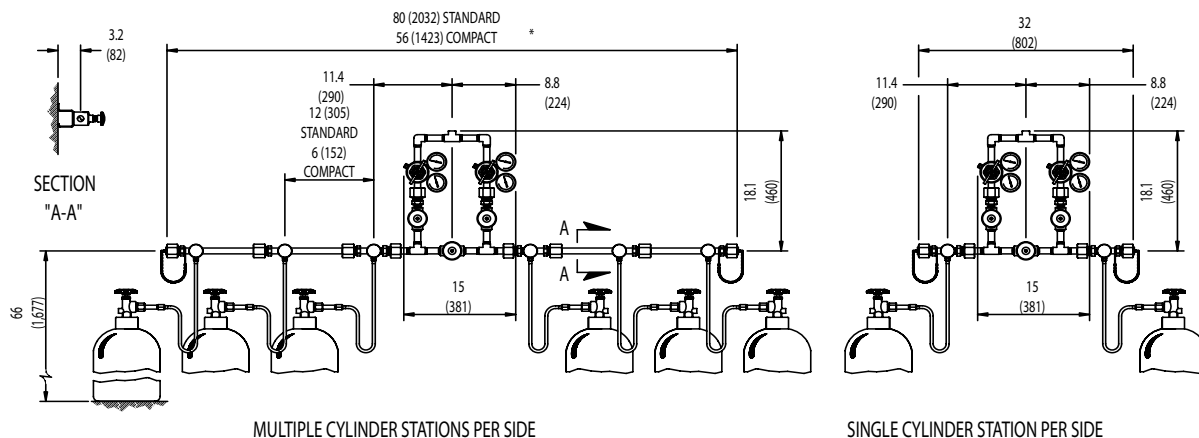


Applications	Materials	Specifications
Pipeline Supply Source 200 PSIG delivery pressure meets NFPA guidelines without compromising flow capacity (15 PSIG maximum for Acetylene)	Delivery Regulator Bodies Brass barstock	Maximum Inlet Pressure 3000 PSIG (210 BAR)
Fuel Gases Safely supply Acetylene and other fuel gases for cutting, heating or welding with OSHA regulation compliant manifold systems. Use of Acetylene requires flashback arrestor on hoses.	Delivery Regulator Bonnets Forged brass	Temperature Range -40 to 140°F (-40 to 60°C)
	Master Valves Forged brass	Maximum Flow 6000 SCFH (2830 LPM)
	Diaphragms Fabric-reinforced neoprene	Outlet Connection ½" FNPT
	Internal Seals PTFE and Neoprene	Weight 23 lbs. (10.4 kg)
	Seats Neoprene and Viton®	
	Piping Forged brass	
	Hose Core Stainless steel PTFE Rigid copper	
	Hose Fittings Brass	
	Hose Casing Armored stainless steel Stainless steel braid	

GAS SWITCHOVER SYSTEMS



Installation Dimensions



DISTRIBUTION SYSTEMS

Ordering Information

Series	Outlet Pressure	Manifold Style	Hose Style	Stations/Side	-Cylinder Connection	Options
634	2: 0-40 PSIG (0-3 BAR)	1: Standard Length (12" between stations) with One Cylinder/Station	2: 24" Rigid Copper	1: One Station	Inlet connection (if applicable)	C: Foreign Inlets Carbon Dioxide & Inert
	3: 0-120 PSIG (0-10 BAR)	3: Standard Length (12" between stations) with Two Cylinders/Station	3: 72" Flexible Stainless Steel Armor Case with Stainless Steel Core	2: Two Stations	PTFE-lined hoses for Oxygen service include accumulator extensions to prevent ignition from adiabatic compression.	F: Arrestor for 300, 410, 510
	4: 0-200 PSIG (0-15 BAR)	4: Compact Length (6" between stations) with One Cylinder/Station	4: 24" Flexible Stainless Steel Braided with PTFE Core	3: Three Stations		
	5: 0-15 PSIG* (0-1 BAR)	6: Compact Length (6" between stations) with Two Cylinders/Station	5: 36" Flexible Stainless Steel Armor Case with Stainless Steel Core	4: Four Stations		
			6: 36" Flexible Stainless Steel Braided with PTFE Core	5: Five Stations		
			7: 24" Flexible Stainless Steel Armor Case with Stainless Steel Core	6: Six Stations	PTFE-lined hoses not for use with Helium or Hydrogen.	
			8: 36" Rigid Brass with Flash Arrestor (CGA 300 and 510 Acetylene only)	7: Seven Stations		
			9: 72" Flexible Stainless Steel Braided with PTFE Core	8: Eight Stations		
	*Outlet gauge redline for Acetylene service			9: Nine Stations		

Related Options

Part Number	Option	Description
830 7437	Manifold Floor Stand	Supports 2 standard length (12") manifold extensions installed consecutively
See page 55	Station Regulators	Precise pressure delivery at the point of use
801 7011 801 7015	Flashback Arrestors	Ensure safe pipeline design per OSHA and NFPA 51 requirements

GAS SWITCHOVER SYSTEMS



632 SERIES PRESSURE DIFFERENTIAL

The 632 Series pressure differential switchover has been designed as a cost effective solution for high-flow applications. With simple priority valve operation, the 632 delivers 15, 50, 120, or 150 PSIG output at flow rates exceeding 5,000 SCFH. The robust design exceeds the stringent requirements for Oxygen-Acetylene NFPA 51 standards. Options include 1000-watt heaters for Carbon Dioxide, Advantium alarms and intrinsic safety barriers for Hydrogen service.

Advanced Features

Automatic Pressure Differential Switchover
Uninterrupted gas supply

6700 Regulator
High-flow capacity

Pressure Ranges 0-15 to 0-150 PSIG
Broad range of applications

Integral Maniflex Manifold System
Easy installation and expansion

Left and Right Banks
Maintain reserve supply



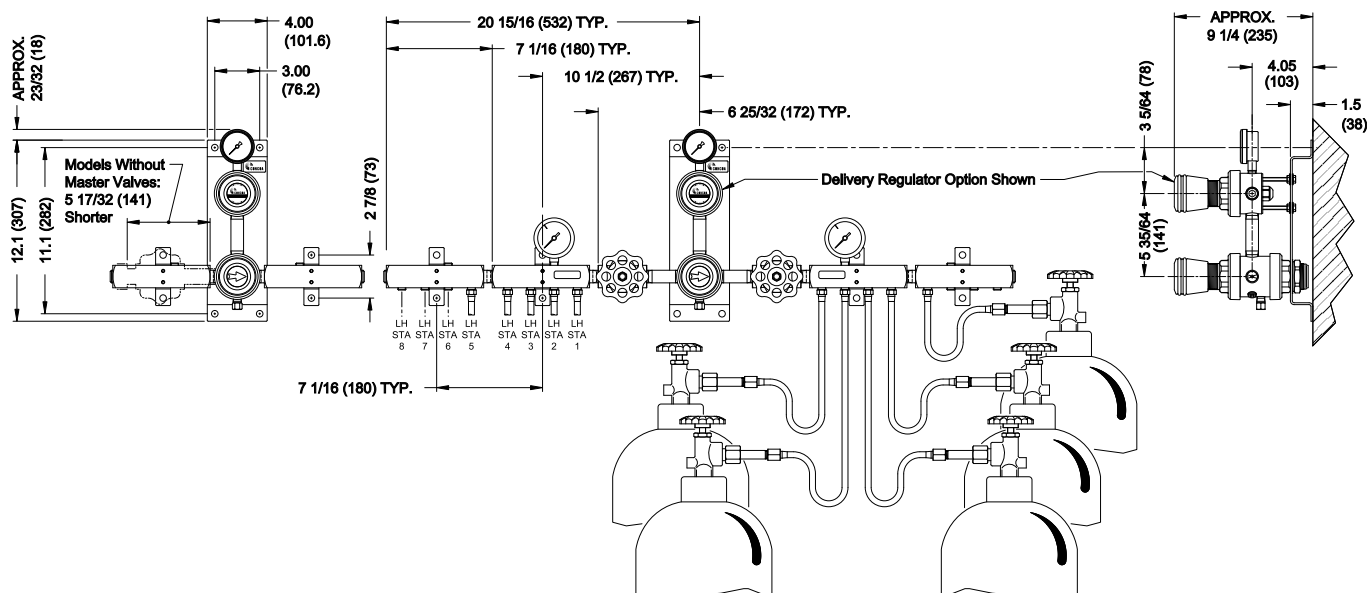
Applications	Materials	Specifications
Hydrogen Blanketing Continuous supply Oxy-Acetylene Heating, Brazing or Cutting NFPA compliant design Welding/Shielding/Pipe Line Gases Supply up to 100 drops Beverage Dispensing Systems Liquid or high-pressure compatible	Priority Valve and Line Regulator Brass barstock Diaphragms Fabric-reinforced neoprene Tubing and Fittings Brass Internal Seals Neoprene, PTFE, and Viton® Seats Neoprene, PTFE, Viton®, and PCTFE Check Valves Brass with Viton seals Hose Core and Casing PTFE core with stainless steel braid Stainless steel core with stainless steel braid and armor casing (CGA 350 only) PTFE core with armor casing (liquid primary-high-pressure reserve models) Hose Fittings Brass	Maximum Inlet Pressure Neoprene, PTFE, Viton seats 3000 PSIG (210 BAR) PCTFE seats 4500 PSIG (310 BAR) Temperature Range -40 to 140°F (-40 to 60°C) Maximum Flow 5000 SCFH (2360 LPM) Inlet Connection ½" FNPT Outlet Connection ½" FNPT Weight 54 lbs. (25 kg)

CRN 0H15806.5

GAS SWITCHOVER SYSTEMS



Mounting and Dimensional Information for the 632 Series



DISTRIBUTION SYSTEMS

Ordering Information

Series	Outlet Pressure/Orientation	Inlet and Gauge Configuration	Hoses/Side	Maximum Inlet Pressure	-Cylinder Connection	Options
632	1: 0-15 PSIG* (0-1 BAR) left side outlet	0: 1/2" FNPT (PSIG/kPa)	0: None	1: 3000 PSIG (210 BAR) no alarm capability†	CGA, DIN 477, BS 341 and others available.	F: Flashback Arrestors on each Hoses
	2: 0-50 PSIG (0-3 BAR) left side outlet	1: Master Valve (PSIG/kPa)	1: One 36"	2: 3000 PSIG (210 BAR) with alarm capability*†	Use -001 without hoses and -000 for hoses without cylinder connections.	H: 120 V Heater
	3: 0-120 PSIG (0-8 BAR) left side outlet	2: Micromanifold (PSIG/kPa)	2: Two 36"	3: 300 PSIG (20 BAR) no alarm capability	PTFE-lined hoses for Oxygen service include accumulator extensions to prevent ignition from adiabatic compression.	J: 220 V Heater
	7: 0-150 PSIG (0-10 BAR) left side outlet	3: Master Valves with Micromanifold (PSIG/kPa)	3: Three 36"	4: 300 PSIG (20 BAR) with alarm capability*		
	A: 0-15 PSIG* (0-1 BAR) right side outlet	4: 1/2" FNPT (PSIG/BAR)	4: Four 36"	5: 4500 PSIG (310 BAR) no alarm capability†	PTFE-lined hoses not for use with Helium or Hydrogen.	
	B: 0-50 PSIG (0-3 BAR) right side outlet	5: Master Valve (PSIG/BAR)	A: One 24"	6: 4500 PSIG (310 BAR) with alarm capability)*†		
	C: 0-120 PSIG (0-8 BAR) right side outlet	6: Micromanifold (PSIG/BAR)	B: Two 24"	7: 3000 PSIG (210 BAR) no alarm capability‡		
	G: 0-150 PSIG (0-10 BAR) right side outlet	7: Master Valves with Micromanifold (PSIG/BAR)	C: Three 24"	8: 3000 PSIG (210 BAR) with alarm capability)*‡		
			D: Four 24"			
			J: One 72"			
			K: Two 72"			
			L: Three 72"			
	*Outlet gauge redline for Acetylene service		M: Four 72"	†High-pressure only ‡Liquid cylinder primary with high-pressure reserve *Requires inlet configuration option 6 or 7. Alarm not included. See below for options		

Related Options

Part Number	Option	Description
575 0025-01-000	Altos 2 Alarm	Provides audible and visible notification of a depleted supply bank to a remote location (See page 46)

MANIFOLDS



633 SERIES DUPLEX HF

The 633 Series Duplex high-flow switchover supports two banks of high-pressure cylinders for applications where manual control of gas supply is preferred. A heavy-duty valve manually controls the bank priority, and line or station regulators should be installed at the point of use to ensure constant delivery pressure. Use of Acetylene requires flashback arrestor on hoses.

Advanced Features

6700 Line Regulator

High-flow capacity

Pressure Ranges 0-15 to 0-200 PSIG

Broad range of applications

Integral Maniflex Manifold System

Easy installation and expansion

Left and Right Banks

Maintain reserve supply



Applications	Materials	Specifications
Pipeline Supply Source 200 PSIG delivery pressure meets NFPA guidelines without compromising flow capacity (15 PSIG maximum for Acetylene)	Delivery Regulator Body Brass barstock	Maximum Inlet Pressure 3000 PSIG (210 BAR)
	Delivery Regulator Bonnet Forged brass	Temperature Range -40 to 140°F (-40 to 60°C)
Fuel Gases Safely supply Acetylene and other fuel gases for cutting, heating or welding with OSHA regulation compliant manifold systems. Use of fuel gases require flashback arrestor on hoses.	Master Valve Forged brass	Maximum Flow 6000 SCFH (2830 LPM)
	Diaphragm Fabric-reinforced neoprene	Outlet Connection ½" FNPT
	Internal Seals PTFE and Neoprene	Weight 23 lbs. (10.4 kg)
	Seat Neoprene and Viton®	
	Piping Brass	
	Hose Core Stainless steel PTFE Rigid copper	
	Hose Fittings Brass	
	Hose Casing Armored stainless steel Stainless steel braid	

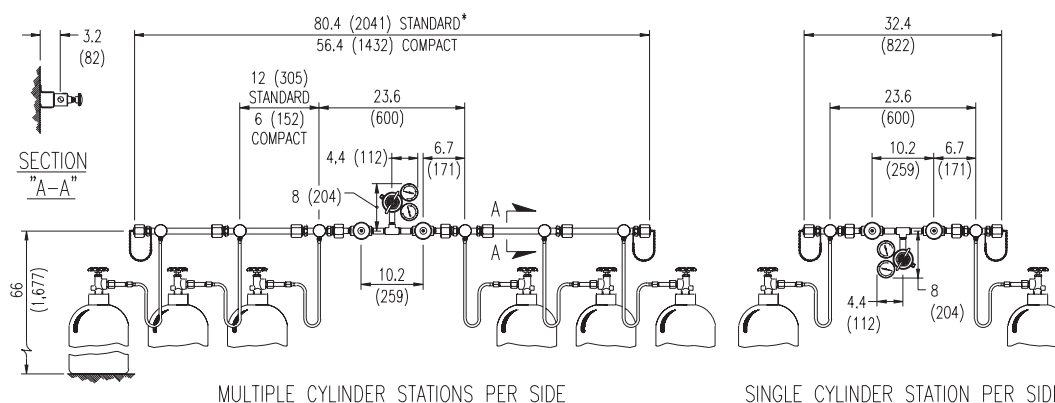
CRN 0H15806.5

MANIFOLDS



Mounting and Dimensional Information for the 633 Series Duplex HF

DISTRIBUTION SYSTEMS



Ordering Information

Series	Outlet Pressure	Manifold Style	Hose Style	Stations/Side	-Cylinder Connection	Options
633	2: 0-40 PSIG (0-3 BAR)	1: Standard Length (12" between stations) with One Cylinder/Station	2: 24" Rigid Copper	1: One Station	Inlet connection (if applicable)	C: Foreign Inlets Carbon Dioxide & Inert
	3: 0-120 PSIG (0-8 BAR)	3: Standard Length (12" between stations) with Two Cylinder/Station	3: 72" Flexible Stainless Steel Armor Case with Stainless Steel Core	2: Two Stations	PTFE-lined hoses for Oxygen service include accumulator extensions to prevent ignition from adiabatic compression.	F: Arrestor for 300, 410, 510
	4: 0-200 PSIG (0-13 BAR)	4: Compact Length (6" between stations) with One Cylinder/Station	4: 24" Flexible Stainless Steel Braided with PTFE Core	3: Three Stations		R: Foreign Inlets Air, Hydrogen, Oxygen, Oxygen Mix
	5: 0-15 PSIG* (0-1 BAR)	6: Compact Length (6" between stations) with Two Cylinders/Station	5: 36" Flexible Stainless Steel Armor Case with Stainless Steel Core	4: Four Stations		
			6: 36" Flexible Stainless Steel Braided with PTFE Core	5: Five Stations		
			7: 24" Flexible Stainless Steel Armor Case with Stainless Steel Core	6: Six Stations		
			8: 36" Rigid Brass with Flash Arrestor (CGA 300 & 510 Acetylene only)	7: Seven Stations	PTFE-lined hoses not for use with Helium or Hydrogen.	
			9: 72" Flexible Stainless Steel Braided with PTFE Core	8: Eight Stations		
	* Outlet gauge redline for Acetylene service			9: Nine Stations		

Related Options

Part Number	Option	Description
830 7437	Manifold Floor Stand	Supports two standard length (12") manifold extensions installed consecutively
See page 55	Station Regulators	Precise pressure delivery at the point of use
801 7011 801 7015	Flashback Arrestors	Use of Acetylene requires flashback arrestors on hoses. Meets OSHA and NFPA Std. 51 requirements and complies with ISO 5175 (heavy class) DIN 8521, and BS 6158. (See page 54)

MANIFOLDS



631 SERIES SIMPLEX HF

The 631 Series Simplex combines a modular manifold system with the extra heavy-duty 6700 Series regulator. Line or station regulators should be installed at the point of use to ensure constant delivery pressure. Use of Acetylene requires flashback arrestor on hoses.

Advanced Features

6700 Regulator

High-flow capacity

Pressure Ranges 0-15 to 0-200 PSIG

Broad range of applications

Integral Maniflex Manifold System

Easy installation and expansion

Left and Right Banks

Sizes to fit cylinders on either side

Standard or Compact Lengths

12" or 6" lengths for easy installation

Hose Style Variety

Copper, brass, or flexible stainless steel



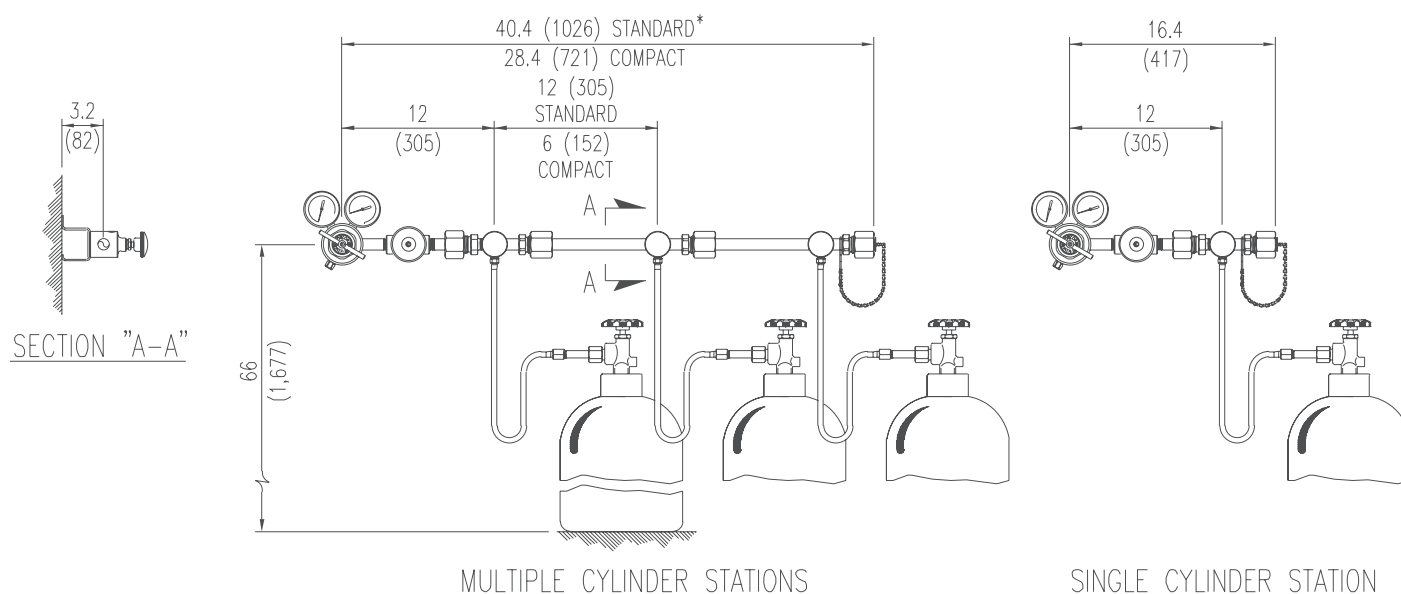
Applications	Materials	Specifications
Pipeline Supply Source 200 PSIG delivery pressure meets NFPA guidelines without compromising flow capacity (15 PSIG maximum for Acetylene)	Delivery Regulator Body Brass barstock	Maximum Inlet Pressure 3000 PSIG (210 BAR)
Fuel Gases Safely supply Acetylene and other fuel gases for cutting, heating or welding with OSHA regulation compliant manifold systems. Use of fuel gas requires flashback arrestor on hoses.	Delivery Regulator Bonnet Forged brass	Temperature Range -40 to 140°F (-40 to 60°C)
	Master Valve Forged brass	Maximum Flow 6000 SCFH (2830 LPM)
	Diaphragm Fabric-reinforced neoprene	Outlet Connection ½" FNPT
	Internal Seals PTFE and Neoprene	Weight 23 lbs. (10.4 kg)
	Seat Neoprene and Viton®	
	Piping Forged brass	
	Hose Core Stainless steel PTFE Rigid copper	
	Hose Fittings Brass	
	Hose Casing Armored stainless steel Stainless steel braid	

CRN 0H15806.5

MANIFOLDS



Mounting and Dimensional Information for the 631 Series Simplex HF



DISTRIBUTION SYSTEMS

Ordering Information

Series	Outlet Pressure	Manifold Style	Hose Style	Stations/Side	-Cylinder Connection	Options
631	1: 0-15 PSIG (0-1 BAR)	1: Standard Length (12" between stations) Right Side with One Cylinder/Station	2: 24" Rigid Copper	1: One Station	Inlet connection (if applicable)	C: Foreign Inlets Carbon Dioxide & Inert
	2: 0-40 PSIG (0-3 BAR)	2: Standard Length (12" between stations) Left Side with One Cylinder/Station	3: 72" Flexible Stainless Steel Armor Case with Stainless Steel Core	2: Two Stations	PTFE-lined hoses for Oxygen service include accumulator extensions to prevent ignition from adiabatic compression.	F: Arrestor for 300, 410, 510
	3: 0-120 PSIG (0-9 BAR)	3: Standard Length (12" between stations) Right Side with Two Cylinders/Station	4: 24" Flexible Stainless Steel Braided with PTFE Core	3: Three Stations		R: Foreign Inlets Air, Hydrogen, Oxygen, Oxygen Mix
	4: 0-200 PSIG (0-15 BAR)	4: Compact Length (6" between stations) Right Side with One Cylinder/Station	5: 36" Flexible Stainless Steel Armor Case with Stainless Steel Core	4: Four Stations		
	5: 0-15 PSIG* (0-1 BAR)	5: Compact Length (6" between stations) Left Side with One Cylinder/Station	6: 36" Flexible Stainless Steel Braided with PTFE Core	5: Five Stations	PTFE-lined hoses not for use with Helium or Hydrogen.	
		6: Compact Length (6" between stations) Right Side with Two Cylinders/Station	7: 24" Flexible Stainless Steel Armor Case with Stainless Steel Core	6: Six Stations		
		7: Standard Length (12" between stations) Left Side with Two Cylinders/Station	8: 36" Rigid Brass with Flash Arrestor (CGA 300 & 510 Acetylene)	7: Seven Stations		
		8: Compact Length (6" between stations) Left Side with Two Cylinders/Station	9: 72" Flexible Stainless Steel Braided with PTFE Core	8: Eight Stations		
	*Outlet gauge redline for Acetylene service			9: Nine Stations		

MANIFOLDS



630 SERIES CRYOGENIC MANIFOLD

The 630 series manifold, when coupled with the 629 vent kit, enables the user to extend the flow range of common liquid cylinders up to four times the rated gaseous flow capacity. Available with a wall or cylinder mount panel, the 630 cryogenic manifold allows the user to respond quickly to the ever-changing job shop environment. Rated up to 600 PSIG MWP, the 630 has the flexibility to optimize 230, 350, and 500 PSIG-rated liquid cylinders. This solution is ideal for laser, furnace blanketing, and other high-flow applications.

Advanced Features

Optional Pipe Away Relief

Prevents over-pressurization

Extended Stem Isolation Valve

Positive shut-off under extreme temperatures

Spring-Loaded Check Valves

Prevents excess flash loss

Modular Design

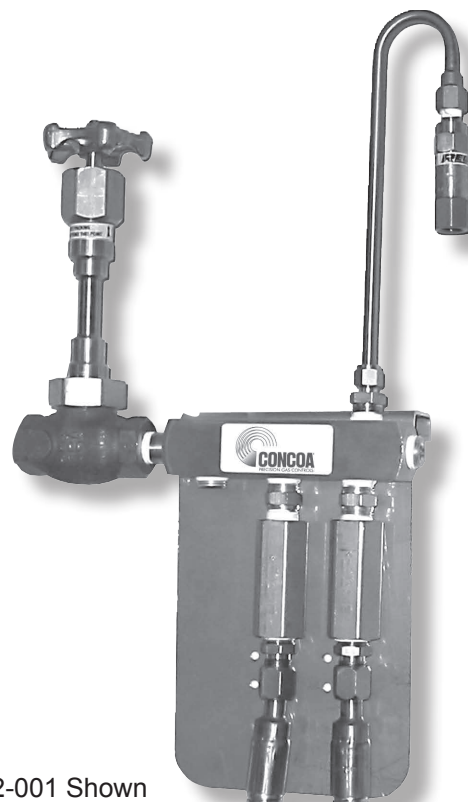
Offers simple field expandability

Stainless Panel Mount

Enables wall or portable mounting

Optional Auxiliary Pressure Building Kit

Maintains 450 PSIG in excess of 4000 SCFH



630 1122-02-001 Shown

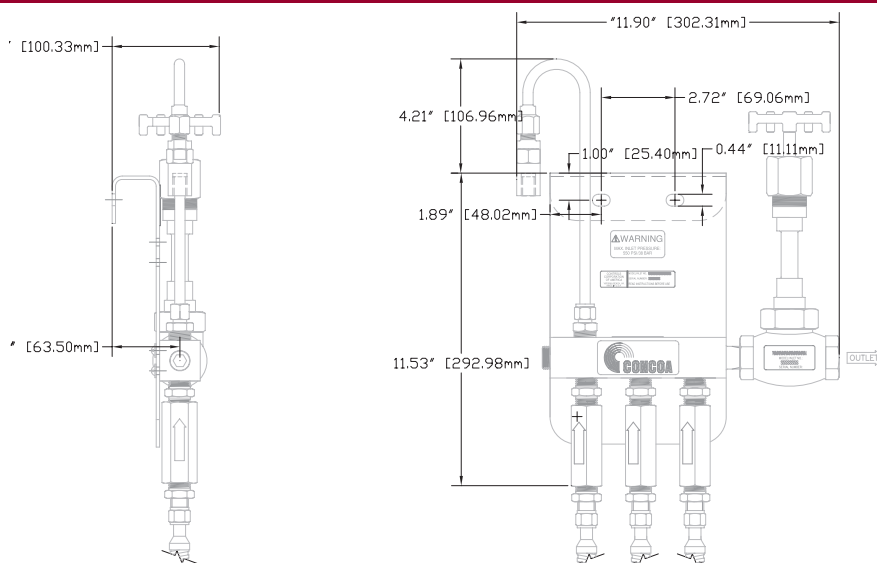
Applications	Materials	Specifications
Cryogenic Laser Assist Nitrogen Oxygen High-flow Blanketing Carbon Dioxide Inert gases Gas Blending Argon primary supply	Manifold Block Brass barstock Check Valve Brass Cryogenic Globe Valve Body Bronze Cryogenic Globe Valve Seat PCTFE Pipe Away Relief Valve Assembly Brass barstock Hose Core Stainless steel Hose Fittings Brass or stainless steel Hose Casing Armored stainless steel	Maximum Inlet Pressure 550 PSIG (38 BAR) Temperature Range -320°F to 165°F (-195°C to 75°C) Inlet Connections CGA 295 CGA 320 CGA 440 CGA 622 Outlet Connections 1/2" FNPT Weight (Manifold & Bracket) 14.5 lbs. (6.58kg.)

CRN 0H5216.5R1

MANIFOLDS



Mounting and Dimensional Information for the 630 Series Cryogenic Manifold



DISTRIBUTION SYSTEMS

Ordering Information

Series	Manifold Type	Orientation	Hose Style and Adapter	Number of Stations	Mounting Style	-001	Options
630	1: Liquid Manifold	0: Right-hand outlet	0: No Hoses	0: Zero Hoses (three station)*	01: Wall Mounting Bracket		P: Pipe Away Option
		1: Left-hand outlet	1: 48" Stainless Steel CGA 295	1: One	02: Tank Mounting Bracket		
		2: Two systems (One right-hand and one left-hand outlet)	2: 48" Stainless Steel CGA 440	2: Two			
			4: 72" Stainless Steel CGA 295	3: Three			
			5: 72" Stainless Steel CGA 440	4: Four			
			6: 48" Stainless Steel CGA 320	5: Five			
			7: 72" Stainless Steel CGA 320	6: Six			
			8: 48" Stainless Steel CGA 622	7: Zero Hoses (six station)*			
			9: 72" Stainless Steel CGA 622	<i>Includes check valve only</i>			

Related Options

Part Number	Option	Description
See page 50	Cryogenic Liquid Hoses	Liquid Cylinder Hoses
550 0760	Brass CGA Adapter for Inerts	1/2" MNPT and CGA 295, Brass
835 0046	Stainless Steel CGA Adapter for Oxygen	1/2" MNPT and CGA 440, Stainless Steel
529 0002-320	Stainless Steel CGA Adapter for Carbon Dioxide	1/2" MNPT and CGA 320, Stainless Steel
529 0268	Brass CGA Adapter for Carbon Dioxide	1/2" MNPT and CGA 622, Brass
830 6475	Stainless Steel Nipple	1/2" MNPT by 1-11/16" Nipple, Stainless Steel
830 6435	Brass Nipple	1/2" MNPT by 1-11/16" Nipple, Brass
835 0034	Cryogenic Check Valve	1/2" FNPT, Brass

MANIFOLDS



629 SERIES MICROMANIFOLD

The 629 Series MicroManifold is a flexible gas distribution system that can be configured as a gas or vent manifold. Configured as a gas manifold, the 629 offers excellent gaseous flow capacity from either liquid or high-pressure cylinders to a CONCOA pressure control device. Configured as a vent manifold, the 629 equalizes the head space pressure of each liquid cylinder manifolded together. This allows each cylinder to withdraw equally and operate at maximum flow capacity with minimal losses.

Advanced Features

Vent Manifold Excess Flow Orifices

Prevents hoses from whipping

Safety Disk

Protects manifold from over pressurization

Compact Modular Design

Provides simple field expandability

Multiple Cylinder Hose Options

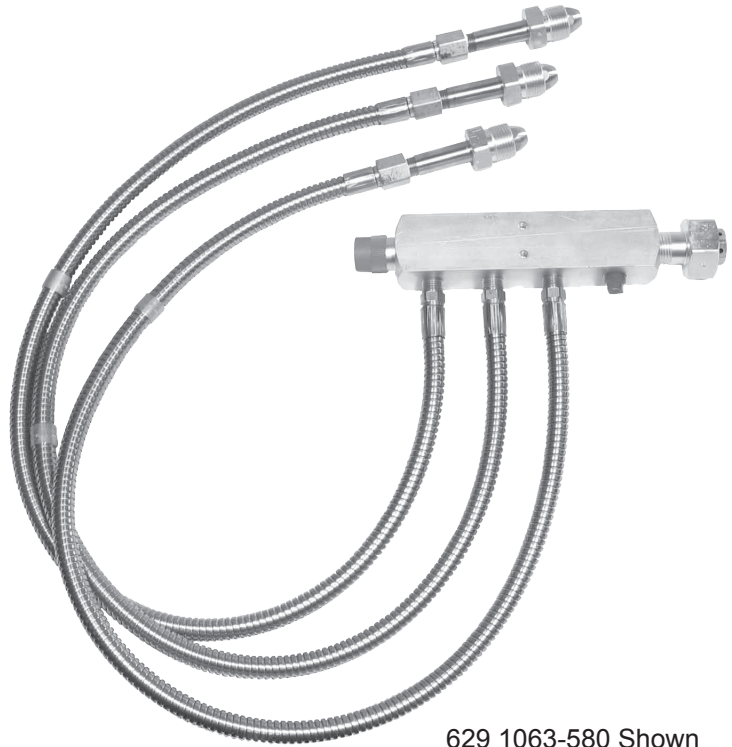
Universal gas compatibility

Integrated 1/2" MNPT Connector

Reduces potential leak sites

Flexible Design

Can be used with a 600 Series switchover or a 623 Series delivery system



629 1063-580 Shown

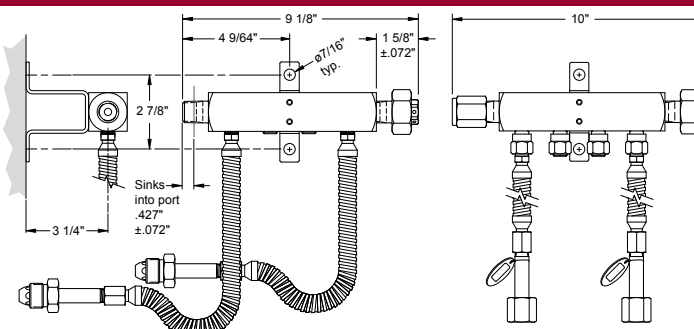
Applications	Materials	Specifications
Cryogenic Laser Assist Nitrogen Oxygen	Manifold Block Brass barstock	Maximum Inlet Pressure 4500 PSIG (310 BAR)
High-flow Blanketing Carbon Dioxide Inert gases	Flexible Hose Rigid brass Rigid copper Stainless steel	Temperature Range -320°F to 165°F (-195°C to 75°C)
Gas Blending Argon primary supply	Flexible Hose Core Brass, copper, stainless steel, PTFE	Inlet Connections 1/4" FNPT
		Outlet Connections 1/2" MNPT
		Weight (manifold & bracket) 14.5 lbs. (6.58kg.)

CRN 0H15806.5

MANIFOLDS



System Diagram



DISTRIBUTION SYSTEMS

Ordering Information

Series	Manifold Type (Gauge)	Orientation	Hose Style	Stations/Side	-Cylinder Connection	Options
629	1: Gas MicroManifold (No Gauges)	0: Simplex right bank	0: No hoses	1: One	Please specify inlet connection	F: Flashback Arrestor
	2: Vent MicroManifold (No Gauges)	1: Simplex left bank	1: 36" Rigid Brass*	2: Two	Use -.001 for hose style 0.	
	3: Gas MicroManifold (0-400 PSIG/0-2500 kPa gauges)	2: Duplex right and left bank	2: 24" Rigid Copper*	3: Three	CGA DIN 477 BS 341 and others available	
	4: Gas MicroManifold (0-600 PSIG/0-40 BAR gauges)	3: Simplex right bank with pressure switch gauge*	3: 72" Flexible Stainless Steel Core and Armor Cased*	4: Four	Use CGA 295, 440, or 622 for hose style A	
	5: Gas MicroManifold (0-4000 PSIG/0-2500 kPa gauges)	4: Simplex left bank with pressure switch gauge*	4: 24" Flexible Stainless Steel-Braided with PTFE Core*	5: Five		
	6: Gas MicroManifold (0-4000 PSIG/0-280 BAR gauges)	5: Duplex right and left bank with pressure switch gauge*	5: 36" Flexible Stainless Steel Core and Armor Cased*	6: Six	PTFE-lined hoses for Oxygen service include accumulator extensions to prevent ignition from adiabatic compression.	
	7: Gas MicroManifold (0-6000 PSIG/0-40,000 kPa gauges)		6: 36" Flexible Stainless Steel-Braided with PTFE Core*	7: Seven		
	8: Gas MicroManifold (0-6000 PSIG/0-420 BAR)		7: 24" Flexible Stainless Steel Core and Armor Cased*	8: Eight		
			9: 72" Flexible Stainless Steel-Braided with PTFE Core*		PTFE-lined hoses not for use with Helium or Hydrogen.	
			A: 72" Flexible Stainless Steel-Braided with PTFE Core†			
			C: 24" Flexible Stainless Steel-Braided with PTFE Core*			
			D: 36" Flexible Stainless Steel-Braided with PTFE Core*			
			E: 72" Flexible Stainless Steel-Braided with PTFE Core*			
			K: 72" Flexible Stainless Steel Core and Armor Cased 4,500 PSI**			
			L: 36" Flexible Stainless Steel Core and Armor Cased 4,500 PSI**			
		*Valid with Manifold Type 4, 6, and 8	*Valid with Manifold Type 1, 3, 4, 5, and 6 †Valid with Manifold Type 2 **Valid with Manifold Type 7 or 8			

Related Options

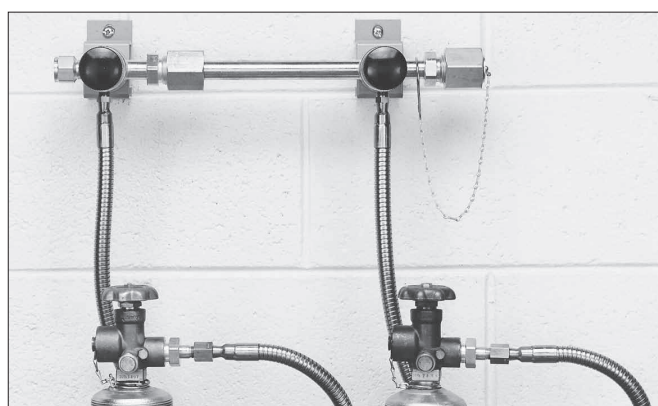
Part Number	Option	Description
829 9960	Burst Disk Kit	½" MNPT replacement burst disk kit
829 9961	Gas Extension Kit	Four cylinder manifold extension block with mounting hardware
829 9962	Vent Extension Kit	Four cylinder vent manifold extension block with mounting hardware
830 7437	Floor Stand	Single manifold floor stand provides support for up to two consecutive manifold extensions
92250008	Plug	¼" MNPT brass hex head plug

MANIFOLDS



628 SERIES MANIFLEX HF

The 628 Series Maniflex Modular Gas Distribution System is a flexible, modular system designed for centralized gas distribution, regardless of facility constraints. The modules contained in the header are available in standard, compact, or double-row versions, allowing many combinations which will adapt to any physical environment. For Acetylene, hoses with integral flashback arrestors are available to conform to OSHA requirements for manifolds. For other fuel gases, arrestors are required downstream to conform to OSHA requirements for manifolds.



Features	Materials	Specifications
Modular Design Flexible field installation	Starter Block Brass barstock	Maximum Inlet Pressure 3000 PSIG (210 BAR)
Integral Diaphragm Valves Leak-tight integrity, no gas contamination	Diaphragm Valve Body Brass barstock Seat PCTFE Stems 316L stainless steel Diaphragms Stainless steel	Temperature Range -40°F to 140°F (-40°C to 60°C)
Brass or Chrome-Plated Brass No possibility of gas contamination		Inlet Connections 1/4" FNPT
Metal to Metal Field-Assembled Joints Easy leak tight field assembly, ease of transportation		Outlet Connections 1/2" FNPT
Silver-Brazed Modules Contamination-free installation	Hose Core Stainless steel PTFE Rigid copper Rigid brass	Header 0.875 OD x 0.188 wall (Brass)
	Hose Fittings Brass	
	Hose Casing Armored stainless steel Stainless steel braid	

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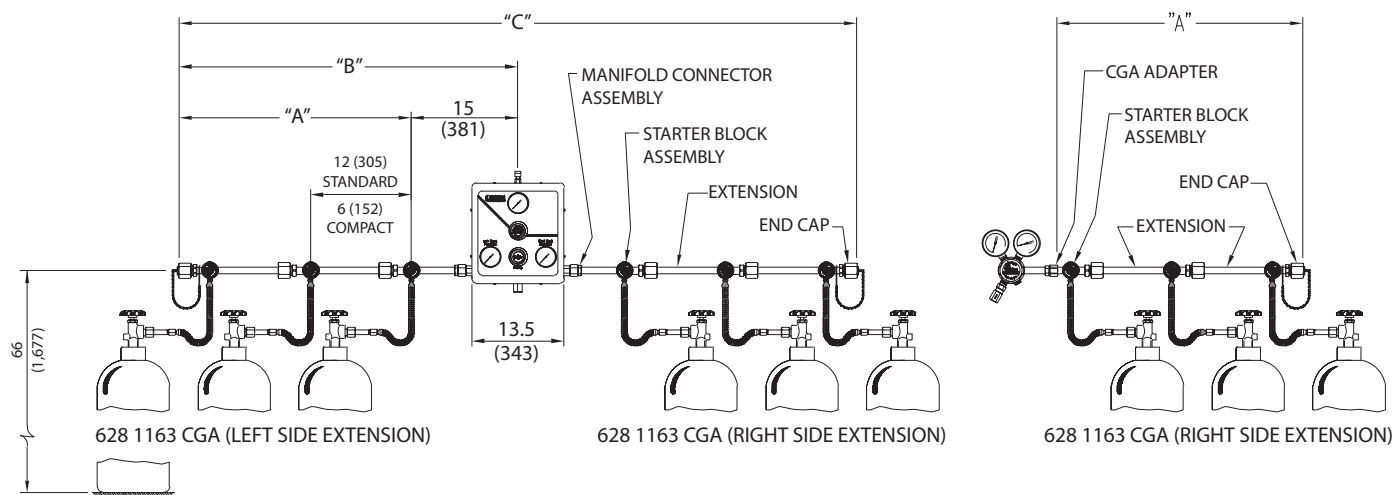
Dimensions ("A", "B", and "C" refer to the lengths specified on following page)

Cylinders Per Extension	1	2	3	4	5	6	7	8	9	10
"A" Standard (Single Row)	6"	18"	30"	42"	54"	66"	78"	90"	102"	114"
"B" Standard (Single Row)	15"	27"	39"	51"	63"	75"	87"	99"	111"	123"
"C" Standard (Single Row)	30"	54"	78"	102"	126"	150"	174"	198"	222"	246"
Weight Standard (Single Row)	5.7 lbs	11.8 lbs	17.9 lbs	24.0 lbs	31.1 lbs	36.2 lbs	42.3 lbs	48.4 lbs	54.5 lbs	60.6 lbs
"A" Compact (Single Row)	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"
"B" Compact (Single Row)	15"	21"	27"	33"	39"	45"	51"	57"	63"	69"
"C" Compact (Single Row)	30"	42"	54"	66"	78"	90"	102"	114"	126"	138"
Weight Compact (Single Row)	5.7 lbs	11.2 lbs	16.7 lbs	22.2 lbs	27.7 lbs	33.2 lbs	38.7 lbs	44.2 lbs	49.7 lbs	55.2 lbs

MANIFOLDS



System Diagram



DISTRIBUTION SYSTEMS

Ordering Information

Series	Material	Orientation	Hose Style	Number of Stations	-Cylinder Connection	Options
628	1: Brass	1: Standard Single Row	0: None	1: One Station	Please specify inlet connection PTFE-lined hoses for Oxygen service include accumulator extensions to prevent ignition from adiabatic compression. PTFE-lined hoses not for use with Helium or Hydrogen.	F: Integral Hose Flash Arrestor
		3: Standard Double Row	2: 24" Rigid Copper	2: Two Stations		
		4: Compact Single Row	3: 72" Flexible Stainless Steel Core and Armor Cased	3: Three Stations		
		6: Compact Double Row	4: 24" Flexible Stainless Steel Braided with PTFE Core	4: Four Stations		
			5: 36" Flexible Stainless Steel Core and Armor Cased	5: Five Stations		
			6: 36" Flexible Stainless Steel Braided with PTFE Core	6: Six Stations		
			7: 24" Flexible Stainless Steel Core and Armor Cased	7: Seven Stations		
			8: 36" Rigid Brass with Flash Arrestor (CGA 300 and 510 Acetylene)	8: Eight Stations		
			9: 72" Flexible Stainless Steel Braided with PTFE Core	9: Nine Stations		
			A: 36" Flexible Stainless Steel Armor with PTFE Core	0: Ten Stations		
				A: Eleven Stations		
				B: Twelve Stations		
				C: Thirteen Stations		
				D: Fourteen Stations		
				E: Fifteen Stations		

Maniflex Options

Part Number	Option	Description
830 7437	Manifold Floor Stand	Supports two standard length (12") manifold extensions installed consecutively
529 0008 CGA	CGA Adapter for Regulators	Brass (1/2") MNPT x CGA cylinder connection outlet)
801 7011 801 7015	Flashback Arrestors	Ensure safe pipeline design per OSHA and NFPA 51 requirements
829 9998	12" Extension Kit	Mounting hardware with brass valve
829 9997	Starter Kit	Mounting hardware with brass valve
829 9999	6" Extension Kit	Mounting hardware with brass valve
829 1830	End Cap	End cap with chain

MANIFOLD REGULATORS



6700 SERIES

Manifold Regulators

The 6700 Series High-flow Heavy Duty Heating and Cutting regulator provides steady and reliable pressure control in industrial gas manifold applications requiring high-flow rates. The balanced stem seat design mitigates fluctuations in outlet pressure caused by variable inlet pressures while the large orifice seat and ½" ports provide high-flow capacity. Combined with robust materials of construction and a wide range of delivery pressures, the 6700 is an ideal choice for rugged heating and cutting manifold applications.



806 6725 Shown

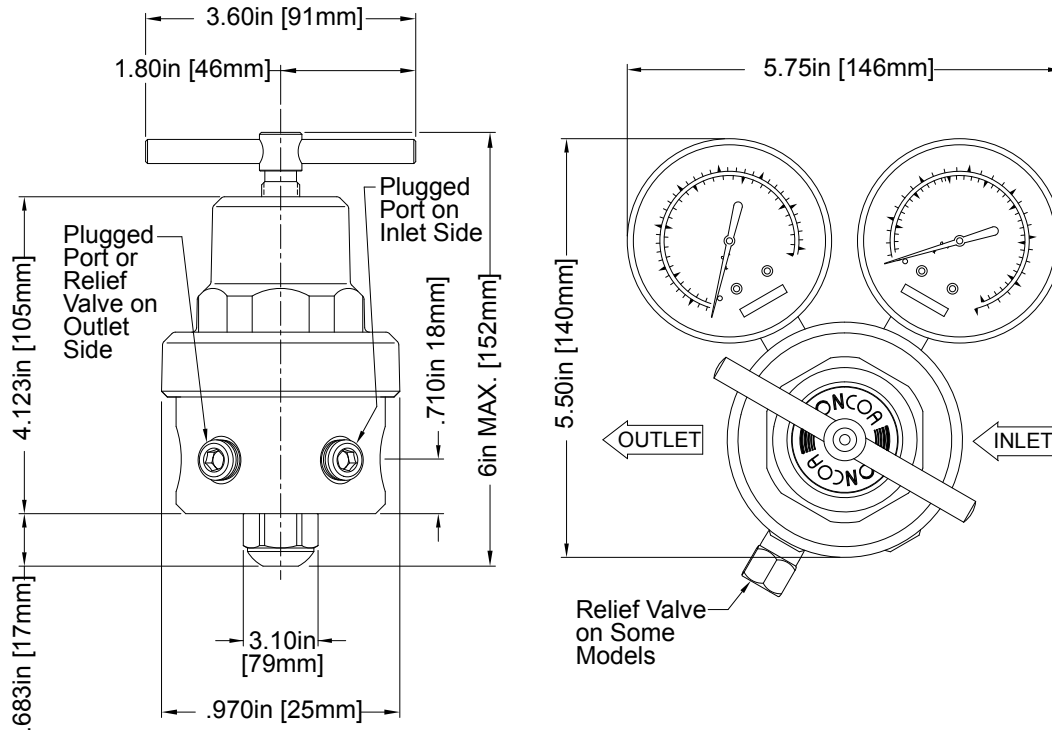
Features	Materials of Construction	Specifications
ISOFLOW Technology Constant delivery pressure regardless of inlet pressure fluctuations	Body Brass barstock	Max Inlet Pressure 3000 PSIG (210 BAR)
½" Inlet and Outlet Ports High-flow capacity	Bonnet Forged brass	Temperature Range -40 to 140°F (-40 to 60°C)
Machined Brass Barstock Body Multiple configurations possible	Seat Viton® or Chloroprene	Gauges 2-½" manufactured to ANSI/ASME B40.1
Pressure Ranges 0-15 to 0-200 PSIG Broad range of applications	Diaphragm Neoprene	Ports ½" FNPT (inlet and outlet) ¼" FNPT (gauge and relief ports)
	40-Micron Inlet Filter 316L stainless steel	Cv 2.0
		Weight 5.9 lbs. (2.7 kg)
		Conformances CGA E-4

CRN 0F11806.2

MANIFOLD REGULATORS



Installation Dimensions



DISTRIBUTION SYSTEMS

Ordering Information

Part Number	Gas Service	Outlet Pressure	Inlet Gauge	Outlet Gauge	Inlet Position
806 6700-01-1	Acetylene	0-15 PSIG (0-100 kPa)	0-400 PSIG (0-2800 kPa)	0-30 PSIG* (0-200 kPa)	Right Hand
806 6715-01-1	Inert Gas/Carbon Dioxide	0-15 PSIG (0-100 kPa)	0-400 PSIG (0-2800 kPa)	0-30 PSIG (0-200 kPa)	Right Hand
806 6740-01-1	Fuel Gas	0-40 PSIG (0-280 kPa)	0-400 PSIG (0-2800 kPa)	0-60 PSIG (0-400 kPa)	Right Hand
806 6725-01-1	Inert Gas	0-120 PSIG (0-830 kPa)	0-4000 PSIG (0-28000 kPa)	0-200 PSIG (0-1400 kPa)	Right Hand
806 6745-01-1	Inert Gas	0-200 PSIG (0-1400 kPa)	0-4000 PSIG (0-28000 kPa)	0-400 PSIG (0-2800 kPa)	Right Hand
806 6753-01-1	Inert Gas/Carbon Dioxide	0-125 PSIG (0-830 kPa)	0-4000 PSIG (0-28000 kPa)	0-200 PSIG (0-1400 kPa)	Right Hand
806 6754-01-1	Inert Gas/Carbon Dioxide	0-200 PSIG (0-1400 kPa)	0-4000 PSIG (0-28000 kPa)	0-400 PSIG (0-2800 kPa)	Right Hand
806 6770-01-1	Acetylene	0-15 PSIG (0-100 kPa)	0-400 PSIG (0-2800 kPa)	0-30 PSIG* (0-200 kPa)	Left Hand
806 6771-01-1	Inert Gas/Carbon Dioxide	0-15 PSIG (0-100 kPa)	0-400 PSIG (0-2800 kPa)	0-30 PSIG (0-200 kPa)	Left Hand
806 6772-01-1	Fuel Gas	0-40 PSIG (0-280 kPa)	0-400 PSIG (0-2800 kPa)	0-60 PSIG (0-400 kPa)	Left Hand
806 6773-01-1	Inert Gas	0-125 PSIG (0-830 kPa)	0-4000 PSIG (0-28000 kPa)	0-200 PSIG (0-1400 kPa)	Left Hand
806 6774-01-1	Inert Gas	0-200 PSIG (0-1400 kPa)	0-4000 PSIG (0-28000 kPa)	0-400 PSIG (0-2800 kPa)	Left Hand
806 6775-01-1	Inert Gas/Carbon Dioxide	0-125 PSIG (0-830 kPa)	0-4000 PSIG (0-28000 kPa)	0-200 PSIG (0-1400 kPa)	Left Hand
806 6776-01-1	Inert Gas/Carbon Dioxide	0-200 PSIG (0-1400 kPa)	0-4000 PSIG (0-28000 kPa)	0-400 PSIG (0-2800 kPa)	Left Hand
* Not recommended for Carbon Dioxide or Nitrous Oxide service				*Outlet gauge redline for Acetylene service	

Related Options

Part Number	Description
830 6479	Front Panel Mount Kit
835 0205	Rear Panel Mount Kit

SYSTEM MONITORS



ADVANTIUM 16 SYSTEM MONITOR

The CONCOA Advantium 16 system monitor reports and records the status of up to 16 individual points of observation. Ideal for monitoring automatic switchovers and other fail-safe gas delivery installations, inputs to the Advantium 16 may be grouped by sub-system for display and notification. The status of all inputs are displayed locally with high visibility, multicolor LEDs, turning red when an input exits its normal condition and blinking when all inputs in a user-defined system exit. Additionally, status may be accessed through user-programmable dry contact outputs, an integral web server, or e-mails sent by an on-board mail server based on user-defined triggers. Though capable of supporting any device with contact closure output relays, the highly configurable Advantium 16 is specifically designed for complex gas systems.



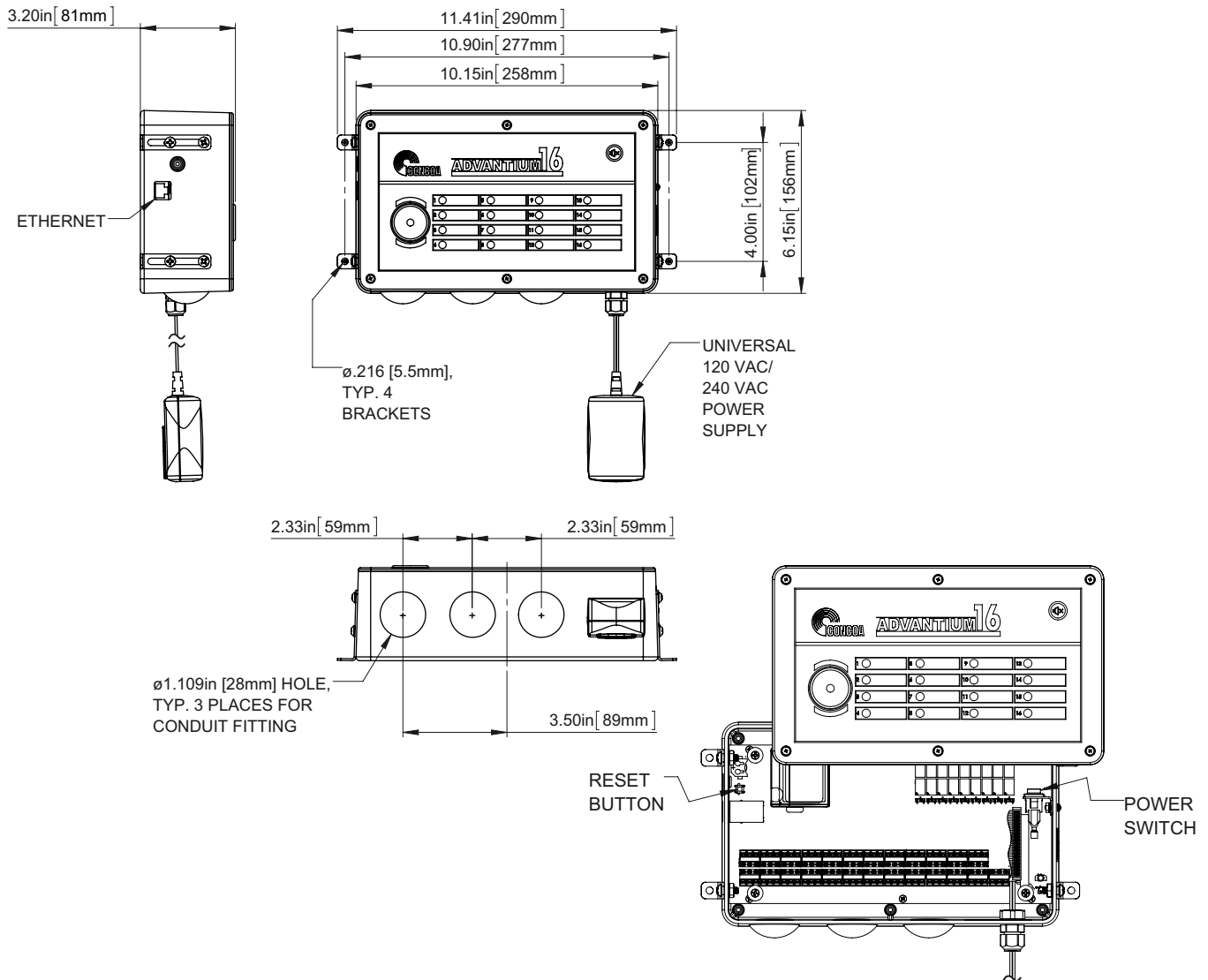
Features	Materials	Specifications
Highly Programmable Monitor Customize for specific installations	Enclosure Flame retardant ABS	Sound 93 dB audible alarm
User-Definable Input Groups Support switchovers and third-leg reserves	Cover Assembly Screw closure	Power Input 90-264 VAC external power supply (US, UK, European, Australian, and Chinese adapters included)
Reversible Mounting Brackets Mount flush with or on surfaces	Mounting Assembly Steel brackets	Dry Contact Outputs (18) NO or NC (field adjustable)
Onboard Web and Mail Server Enables remote monitoring and notification		Relay Inputs (16) NO or NC (field adjustable)
Eighteen Output Relays Flexible system integration		Ethernet RJ-45
Event Log Auditable trail of uptime and failure		Weight 4.5 lbs. (2.04 kg)

SYSTEM MONITORS



Installation Dimensions

DISTRIBUTION SYSTEMS



Ordering Information

Part Number	Description
575 0164-01-000	Advantium 16 system monitor

Options

Part Number	Description
575 9901	Flush mount kit for Advantium 16 including trim and hardware
529 5340-XX	Input cable assembly for all switchovers except AutoSwitch available in 3', 10', 25', 50' and 100' lengths. "XX" in Part Number denotes length
529 5341-XX	Input cable assembly for regulators and backup panels available in 3', 10', 25', 50' and 100' lengths. "XX" in Part Number denotes length
529 5342-XX	Input cable assembly for AutoSwitch systems available in 3', 10', 25', 50' and 100' lengths. "XX" in Part Number denotes length
529 5343-XX	4-wire cables for intrinsic safety barriers available in 3', 10', 25', 50' and 100' lengths. "XX" in Part Number denotes length
529 5344-XX	6-wire cables for intrinsic safety barriers available in 3', 10', 25', 50' and 100' lengths. "XX" in Part Number denotes length
529 5312	Intrinsic safety barriers for all switchovers, regulators, and backup panels except AutoSwitch
529 5296	Intrinsic safety barriers for AutoSwitch systems

SYSTEM MONITORS



ALTOS 2 CYLINDER PRESSURE ALARM

The CONCOA Altos 2 system monitor is designed to report the status of up to 2 individual points of observation in automatic switchover and fail-safe gas delivery applications. Universal input capability allows the 2.5" LCD screen to display real-time system pressure and configuration for up to 2 channels using 4-20mA pressure transducers or pressure switches. The status of all inputs is displayed locally with high visibility, multicolor LEDs turning red when an input exits its normal condition. Three dry contact relay outputs allow the user to access status for each channel and a master alarm, making the Altos 2 an ideal fit for gas delivery installations requiring pressure switch or transducer pressure monitoring capability.



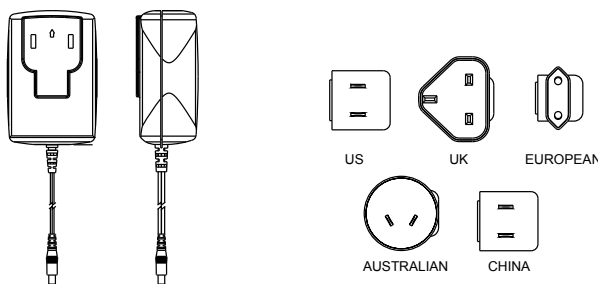
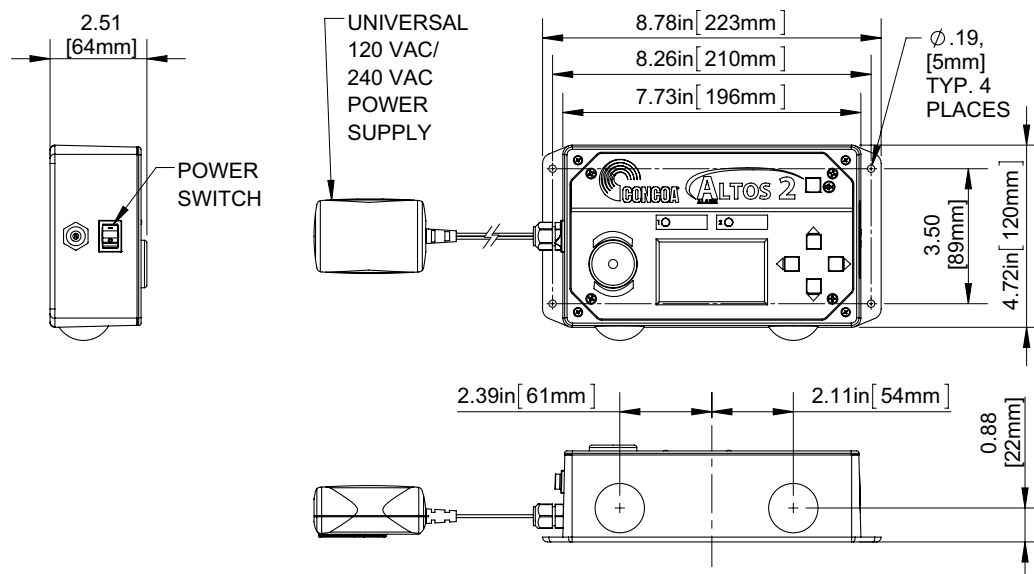
Features	Materials	Specifications
Two Input Channels Monitors multiple sources	Enclosure Flame retardant ABS	Audio 93dB audible alarm
2.5" LCD Display Shows system pressure and configuration	Cover Assembly Screw closure	Power Input 90-264 VAC, 50-60 Hz (US, UK, European, Australian, and Chinese adapters included)
Customizable System Configuration Application flexibility	Mounting Assembly ABS flange	Outputs (3) Dry contacts Normally open/normally closed (selectable)
4-20 mA Pressure Transducer and Pressure Switch Inputs Universal input capability		Output contact rating .5A 24V
Dry Contact Relay Outputs Connects to building or auxiliary systems		Relay Inputs (2) Dry contacts Normally open/normally closed (selectable)
Highly Visible Lighted Status Notification Easy to tell status from a distance		Dimensions 4.72" x 8.7" x 2.5" (119.88mm x 221.98mm x 63.5mm)
Auto-rest on Cylinder Replenishment No button to push		
Adjustable Alarm Delay up to 40-Minutes Allow for transient events		

SYSTEM MONITORS



DISTRIBUTION SYSTEMS

Installation Dimensions



Ordering Information

Part Number	Description
575 0025-01-000	Altos 2 remote alarm (universal input)

Options

Part Number	Description
529 5340-XX	Input cable assembly for all switchovers using pressure switch gauges except AutoSwitch available in 3', 10', 25', 50', and 100' lengths. "XX" in order number denotes length.
529 5341-XX	Input cable assembly for protocol stations using pressure switch gauges available in 3', 10', 25', 50', and 100' lengths. "XX" in order number denotes length.
529 5342-XX	Input cable assembly for AutoSwitch systems available in 3', 10', 25', 50', and 100' lengths. "XX" in order number denotes length.
529 5343-XX	Intrinsic safety barrier cables for all switchovers except Auto Switch using pressure switch gauges available in 3', 10', 25', 50', and 100' lengths. "XX" in order number denotes length.
529 5344-XX	Intrinsic safety barrier cables for AutoSwitch systems available in 3', 10', 25', 50', and 100' lengths. "XX" in order number denotes length.
529 5345-XX	Intrinsic safety barrier cables for all switchovers and regulators except AutoSwitch using pressure transducers available in 3', 10', 25', 50', and 100' lengths. "XX" in order number denotes length.
529 5346-XX	Intrinsic safety barrier cables for regulators using pressure switch gauges available in 3', 10', 25', 50', and 100' lengths. "XX" in order number denotes length.
529 5312	Intrinsic safety barriers for all switchovers and regulators except AutoSwitch using pressure switches
529 5296	Intrinsic safety barrier for AutoSwitch systems using pressure switches
529 5361	Intrinsic safety barrier for regulators using pressure transducers
529 5362	Intrinsic safety barrier for switchovers using pressure transducers

DISTRIBUTION ACCESSORIES



MANIFOLD HEATER

Manifold heaters ensure gaseous withdrawal from liquid sources and counteract the cooling effects of high-flow rates by heating the gas stream directly. The thermostatically-controlled 1000 watt heater provides steady vaporization 170°F (77°C) while the insulated cabinet remains cool.

Specifications

Maximum Flow Rate

1000 SCFH at 0°F (475 LPM at -18°C)

Vaporization

22 lbs/hr at 0°F (10 kg/hr at -18°C)

Weight

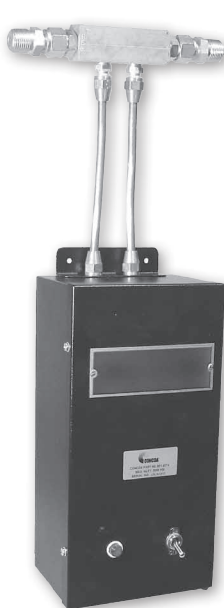
11 lbs (5kg)

Voltage Tolerance

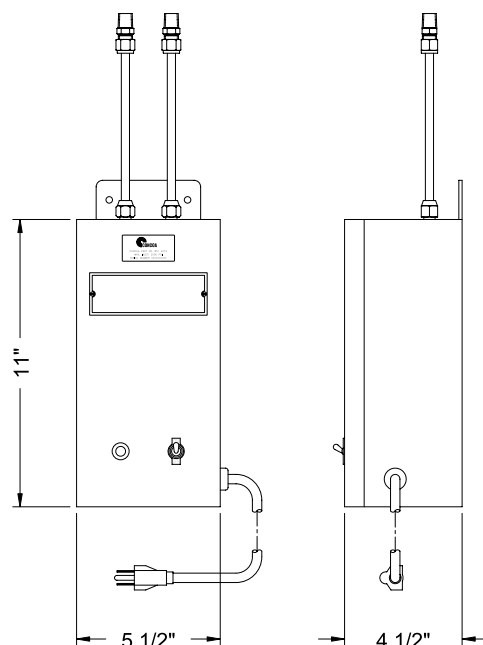
± 5% (50/60 Hz)

Cord Length

6 feet (180 cm)



851 4274 Shown

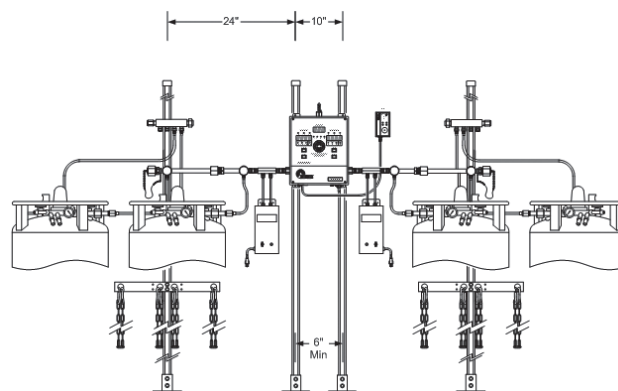


Ordering Information

Part Number	Material	Max Inlet	Description
851 4274	Copper	2500 PSIG (170 BAR)	120 Volts (8.3amps) 1000 Watt heater with 1/2" MNPT manifold connector
851 4275	Copper	2500 PSIG (170 BAR)	240 Volts (4.2 amps) 1000 Watt heater with 1/2" MNPT manifold connector
851 4278	Stainless Steel	4600 PSIG (315 BAR)	120 Volts (8.3 amps) 1000 Watt heater with 1/2" MNPT manifold connector
851 4280	Stainless Steel	4600 PSIG (315 BAR)	240 Volts (4.2 amps) 1000 Watt heater with 1/2" MNPT manifold connector

MANIFOLD FLOOR STANDS

CONCOA floor stands provide a convenient method to mount switchovers and manifolds where a permanent structure is unavailable. Each model comes with the necessary hardware to safely secure cylinders that otherwise are unable to support themselves. Models 518 1625 and 518 1725 offer a unique header plate to mount single cylinder per side switchover configurations.



Ordering Information

Part Number	Description	Dimensions (LxWxH)
518 1625	Single Switchover Floor Stand with storage for two 12" cylinders	28" x 12" x 72"
518 1725	Multiple Switchover Floor Stand with storage for six 12" Cylinders	24" x 48" x 72"
830 7437	Manifold Extension Floor Stand designed to provide support every 24"	Base 6" x 6", Height 84"
830 7439	Switchover Floor Stand designed to provide support with dual vertical posts	Base 12" x 12" minimum, Height 84"

DISTRIBUTION ACCESSORIES



TUBE TRAILER HOSES

Specifically designed for use in tube trailer discharge or as a flexible line to cylinder manifolds, these zero permeation hoses meet the purity requirements of laser gases. The close-packed corrugated stainless steel inner core offers extreme flexibility, while a single piece extended braid ring and heavy duty 316L end fittings provide durable service and a long life. All hoses are encased in stainless steel armor to protect the hose from kinking, braid abrasion, and stress at the ends.



Materials and Specifications

Maximum Working Pressure
3,700 PSIG (255 BAR)

Diameter
.500 inches inner diameter
1.25 inches outer diameter

Minimum Bend Radius
8.0"

Temperature Range
-450°F to 1500°F (-265°C to 815°C)

Oxygen Service
Cleaned to CGA G4.1 specifications

Ordering Information

Part Number	Connections	Length (ft.)	Weight (lbs)	Core	Casing
529 0260	1/2" MNPT x 1/2" FNPT	12	11.5	Stainless Steel	Stainless Steel Armor
529 0261	1/2" MNPT x 1/2" FNPT	18	23	Stainless Steel	Stainless Steel Armor
529 0262	1/2" MNPT x 1/2" FNPT	24	34.5	Stainless Steel	Stainless Steel Armor

FLEXIBLE HOSES

CONCOA offers a variety of flexible hoses to meet the requirements of any cylinder application. For traditional industrial applications, PTFE core hoses with stainless steel braiding offer rugged durability. For vent connections to cryogenic liquid cylinders, PTFE core hoses come with armor casing. For helium and hydrogen applications, stainless steel core hoses are available.



Materials and Specifications

Maximum Working Pressure
3,000 PSIG (210 BAR)

Diameter
.250 inches inner diameter
.72 inches outer diameter

Minimum Bend Radius
3.0 - 4.0"

Temperature Range
-450°F to 1500°F (-265°C to 815°C)

Oxygen Service
Cleaned to CGA G4.1 specifications

Ordering Information

Part Number	Connections	Length (in.)	Weight (lbs.)	Core	Casing
529 0031-CON	1/4" MNPT x CON*	36	0.9	Stainless Steel	Stainless Steel Armor
529 0044-CON	1/4" MNPT x CON*	36	0.9	PTFE	Stainless Steel Braid
529 0055-CON	1/4" MNPT x CON*	72	1.8	Stainless Steel	Stainless Steel Armor
529 0088-CON	1/4" MNPT x CON*	36	0.9	PTFE	Stainless Steel Armor
529 0089-CON	1/4" MNPT x CON*	72	1.8	PTFE	Stainless Steel Armor
529 0094-CON	1/4" MNPT x CON*	72	1.8	PTFE	Stainless Steel Armor
529 0240-295	1/4" MNPT x 295 (Vent Hose)	72	1.3	PTFE	Stainless Steel Braid
529 0241-440	1/4" MNPT x 440 (Vent Hose)	72	1.3	PTFE	Stainless Steel Braid
529 0242-622	1/4" MNPT x 622 (Vent Hose)	72	1.3	PTFE	Stainless Steel Braid
529 0256-CON	1/4" MNPT x CON*	144	3.6	Stainless Steel	Stainless Steel Armor
529 0272-CON	1/4" MNPT x CON*	72	1.8	PTFE	Stainless Steel Braid

*Please specify cylinder connection

DISTRIBUTION ACCESSORIES



HIGH-PRESSURE FLEXIBLE HOSES

These all-metal hoses are ideal for high-pressure industrial applications. Custom-machined end fittings with stainless steel locking collars and a 304 stainless steel reinforcing braid provide a highly durable assembly with excellent flexibility. All hoses are encased in stainless steel armor to protect the hose from kinking, braid abrasion, and stress at the ends.



Materials and Specifications

Maximum Working Pressure
4,500 PSIG (310 BAR)

Diameter
.229 inches inner diameter
.560 inches outer diameter

Minimum Bend Radius
3.0"

Temperature Range
-100°F to 450°F (-73°C to 232°C)

Oxygen Service
Cleaned to CGA G4.1 specifications

Ordering Information

Part Number	Connections	Length (in.)	Weight (lbs.)	Core	Casing
529 0058-CON	1/4" MNPT x CON*	36"	0.24	Stainless Steel	Stainless Steel Armor
529 0258-CON	1/4" MNPT x CON*	72"	0.48	Stainless Steel	Stainless Steel Armor
529 0259-CON	1/4" MNPT x CON*	144"	0.96	Stainless Steel	Stainless Steel Armor
529 0058-001	1/4" MNPT x 1/4" FNPT	36"	0.24	Stainless Steel	Stainless Steel Armor
529 0258-001	1/4" MNPT x 1/4" FNPT	72"	0.48	Stainless Steel	Stainless Steel Armor
529 0259-CON	1/4" MNPT x 1/4" FNPT	144"	0.96	Stainless Steel	Stainless Steel Armor

* Please specify cylinder connection

LIQUID CYLINDER HOSES

Specifically designed to connect a liquid cylinder to an external vaporizer, these all stainless hoses offer complete flexibility, durability, and fast cool-down. Machined end connections and a long collar extend the hose life, and low profile corrugations provide faster filling, lower pressure drop, and less product loss. Full armor casing protects the hose from abrasion and damage.



Materials and Specifications

Maximum Working Pressure
1,000 PSIG (70 BAR)

Diameter
.500 inches inner diameter
1.00 inches outside diameter

Minimum Bend Radius
6.0"

Temperature Range
-450°F to 1500°F (-265°C to 815°C)

Oxygen Service
Cleaned to CGA G4.1 specifications

Ordering Information

Part Number	Connections	Length (in.)	Weight (lbs.)	Core	Casing
529 0245	CGA 440 (5/8" Flare) Liquid Oxygen	48"	2.2	Stainless Steel	Stainless Steel Armor
529 0246	CGA 440 (5/8" Flare) Liquid Oxygen	60"	2.8	Stainless Steel	Stainless Steel Armor
529 0247	CGA 440 (5/8" Flare) Liquid Oxygen	72"	3.4	Stainless Steel	Stainless Steel Armor
529 0248	CGA 440 (5/8" Flare) Liquid Oxygen	120"	5.8	Stainless Steel	Stainless Steel Armor
529 0249	CGA 440 (5/8" Flare) Liquid Oxygen	144"	7.0	Stainless Steel	Stainless Steel Armor
529 0250	CGA 295 (1/2" Flare) Liquid Nitrogen and Argon	48"	2.2	Stainless Steel	Stainless Steel Armor
529 0251	CGA 295 (1/2" Flare) Liquid Nitrogen and Argon	60"	2.8	Stainless Steel	Stainless Steel Armor
529 0252	CGA 295 (1/2" Flare) Liquid Nitrogen and Argon	72"	3.4	Stainless Steel	Stainless Steel Armor
529 0253	CGA 295 (1/2" Flare) Liquid Nitrogen and Argon	120"	5.8	Stainless Steel	Stainless Steel Armor
529 0254	CGA 295 (1/2" Flare) Liquid Nitrogen and Argon	144"	7.0	Stainless Steel	Stainless Steel Armor

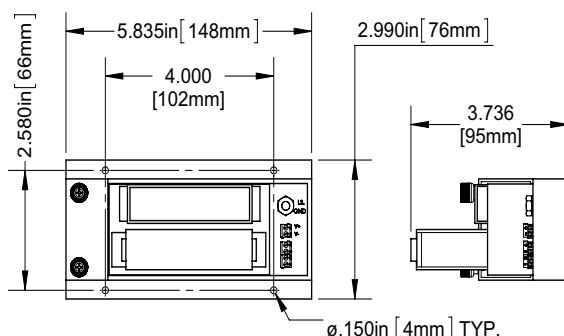
DISTRIBUTION ACCESSORIES



INTRINSIC SAFETY BARRIER

For Products Using 4-20 mA Transducers

Intrinsic safety barriers enable the use of the Altos alarm with CONCOA's automatic switchover or protocol stations with flammable gases or in hazardous locations. IntrinSafe utilizes intrinsic safety barriers that keep electrical circuit energy below the minimum ignition levels published by such standards as ANSI/UL 913 AND FM3610. By eliminating the source of ignition, CONCOA's IntrinSafe system offers a simple, reliable, low cost alternative to explosion-proof containment devices. This makes CONCOA the perfect choice for laboratory, chemical processing, heat-treating and plasma welding and cutting applications.



Specifications

Dimensions

2.990" x 5.835" x 3.736"
(76mm x 148mm x 95mm)

Temperature Range

-4°F to 122°F (-20°C to 50°C)

Mounting Location

Non-hazardous or Class I, Div. 2 location

Grounding Method

Designated ground electrode with #12
AWG size conductor or larger
Ground path resistance not to exceed 1 ohm

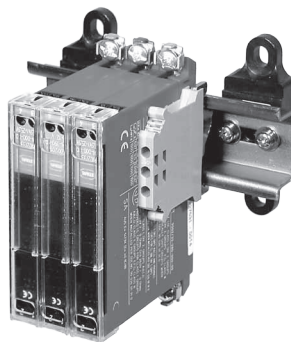
Ordering Information

Part Number	Description
529 5361	Single Barrier (For transducer products)
529 5362	Dual Barrier (For transducer products)

INTRINSIC SAFETY BARRIER

For Products Using Pressure Switches

IntrinSafe enables the use of the Advantium alarm with CONCOA's automatic switchover, Protocol stations or Gas Blending systems with flammable gases or in hazardous locations. IntrinSafe utilizes intrinsic safety barriers that keep electrical circuit energy below the minimum ignition levels published by such standards as ANSI/UL 913 AND FM3610. By eliminating the source of ignition, CONCOA's IntrinSafe system offers a simple, reliable, low cost alternative to explosion-proof containment devices. This makes CONCOA the perfect choice for laboratory, chemical processing, heat-treating and plasma welding and cutting applications.



Specifications

Current Limitation

Resistive
Replaceable fuse protection for each channel

Dimensions

5" W x 4" L x 3.531" D
(127mm x 102mm x 90mm)

Temperature Range

-4°F to 122°F (-20°C to 50°C)

Mounting Location

Non-hazardous or Class I, Div. 2 location

Grounding Method

Designated ground electrode with #12
AWG size conductor or larger
Ground path resistance not to exceed 1 ohm

Ordering Information

Part Number	Description
529 5296	For use with 529 5310 and 529 5311 remote alarm
529 5312	For use with 575 0023 or 575 0025 remote alarm
529 5313	For use with 575 0012 or 575 0025 remote alarm

DISTRIBUTION ACCESSORIES



9400 SERIES RELIEF VALVES

The 9400 Series Gas Phase Relief Valves offer excellent discharge capacity and field adjustability. The captive seat design minimizes the wetted surface area, reducing possible contamination. The unique design also provides an accurate cracking pressure with zero leakage up to 98% of the nominal set pressure. Models 2039 and 2040 are designed for cryogenic in-line application and offer a gooseneck design that enables a safe discharge.



Materials of Construction

Body

Brass

Seat

Viton® or Neoprene

Specifications

Max Relief Pressure

600 PSIG (40 BAR)

Working Pressure

3700 PSIG (255 BAR)

Temperature Range

Brass, Neoprene seat: -40 to 300° F (-30 to 205° C)

Brass, Viton seat: -20 to 400° F (-30 to 205° C)

Cryogenic: -320 to 165° F (-196 to 74° C)

Ordering Information

Part Number	Description	Connections	Material
830 9412-01-1	Preset at 220 PSIG (15 BAR)	½" MNPT x ½" FNPT	Viton Seat
830 9413-01-1	Preset at 500 PSIG (34 BAR)	½" MNPT x ½" FNPT	Viton Seat
830 9414-01-1	Preset at 100 PSIG (7 BAR)	¼" MNPT x ¼" FNPT	Neoprene Seat
830 9415-01-1	Preset at 20 PSIG (1.4 BAR)	½" MNPT x ½" FNPT	Neoprene Seat
580 2039	750 PSIG Cryogenic Relief	Male x Female CGA 440 (⅝" Flare)	Stainless steel gooseneck and fittings
580 2040	750 PSIG Cryogenic Relief	Male x Female CGA 295 (½" Flare)	Stainless steel gooseneck and fittings

DISTRIBUTION ACCESSORIES



HYDRAULIC FLASH ARRESTORS

CONCOA Hydraulic Flash Arrestors are designed to provide flashback control in fuel gas piping systems. Equipped with floor stands and flashback fluid, the equipment protects against common accidents such as reverse flow, flashback, and hose burn. Multiple line size and flow rate options combined with robust materials of construction provide the reliability and safety required in industrial fuel gas systems.



836 0037 Shown



836 0038 Shown

DISTRIBUTION SYSTEMS

Features	Materials of Construction	Specifications
1" or 1-1/2" Connections Excellent flow capacity	Tank Carbon Steel Inlet/Outlet Connections Carbon Steel	Maximum Flow at 15 PSIG 300 SCFH (141.6 LPM) 1000 SCFH (471.9 LPM)
300 or 1000 SCFH max flow rate Application flexibility		Inlet/Outlet Connections 1" MNPT (300 SCFH version) 1-1/2" MNPT (1000 SCFH version)
20 PSIG Relief Pressure Safe and reliable control		Relief Pressure 20 PSIG Weight 55 lbs (300 SCFH version) 123 lbs (1000 SCFH version)

Ordering Information

Part Number	Gas Service	Inlet/Outlet	Relief Pressure
836 0037	Acetylene	1" MNPT	20 PSIG
836 0038	Acetylene	1-1/2" MNPT	20 PSIG

POINT OF USE EQUIPMENT



FLASHBACK ARRESTORS



801 7011



801 7012



801 7015



801 7016

Flashback Arrestors can be easily installed on the outlet fitting of most regulators, gas supply points or inline. They help meet ANSI Z49.1:2005, OSHA, and NFPA safety requirements and help protect against the most common causes of accidents such as reverse flow, flashback, and hose burn backs. Each CONCOA flashback arrestor is 100% tested with actual flashbacks and have built in 100-Micron inlet filters, reverse flow check valves (non-return valves), flame barriers, and thermal cut off valves.

Materials & Specifications

UL Listed

Complies with ISO 5175, BAM/DIN 730, BS 6158

Thermal Shut Off

Brass/Temperature sensitive stainless silver solder

Valve Spring

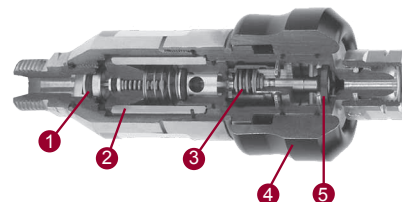
316 stainless steel

Maximum Operating Pressure

143 PSIG (10 BAR)

Features

1. Thermal Shut Off
2. Flame Barrier
3. Check Valve
4. Re-settable Pressure Control
5. Inlet Filter



Ordering Information

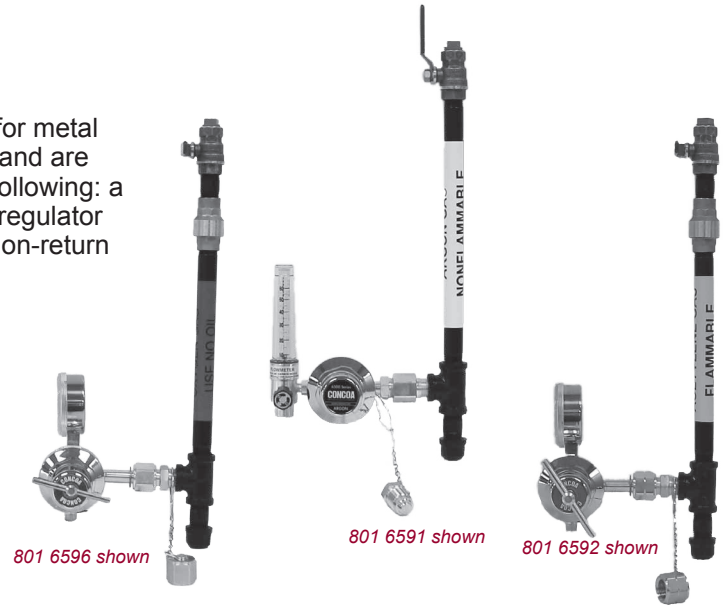
Part Number	Service	Regulator End	Hose Connection	Max Pressure	Max Flow	Weight
801 7011	Acetylene Hydrogen LPG	3/8" FNPT	3/8" FNPT	15 PSIG 50 PSIG 71.5 PSIG	505 SCFH (At 15 PSIG) 5052 SCFH (At 50 PSIG) 1525 SCFH (At 71.5 PSIG)	1.2 lbs. (.54 kg)
801 7012	Oxygen	3/8" FNPT	3/8" FNPT	143 PSIG	3612 SCFH (At 143 PSIG)	1.2 lbs. (.54 kg)
801 7015	Acetylene Hydrogen LPG	1" FNPT	1" FNPT	15 PSIG 57 PSIG 71.5 PSIG	1370 SCFH (At 15 PSIG) 15390 SCFH (At 57 PSIG) 4075 SCFH (At 71.5 PSIG)	7.8 lbs. (3.5 kg)
801 7016	Oxygen	1" FNPT	1" FNPT	143 PSIG	5250 SCFH (at 143 PSIG)	7.8 lbs. (3.5 kg)

POINT OF USE EQUIPMENT



STATION DROPS

CONCOA station drops provide the perfect point of use for metal fabrication pipelines. They come completely assembled and are ready to install out of the box. Drops include one of the following: a high-flow 6590 series regulator, a high-flow 9940 series regulator or flowmeters. Additionally, station valves have built in non-return valves to meet NFPA 51 and OSHA requirements.



DISTRIBUTION SYSTEMS

Applications	Materials of Construction	Specifications
Welding, Cutting & Heating MIG/TIG Welding	Regulator Body Forged brass - For 801 65XX Brass Barstock - For 801 99XX Regulator Bonnet Chrome-plated brass Seat PTFE - For 801 65XX Nitrile - For 801 99XX Isolation Valve Brass barstock Station Drop Tube Black iron	Max Inlet Pressure 200 PSIG Temperature Range -40 to 140° F (-40 to 66° C)
		CRN 0H15806.5

Ordering Information

Part Number	Gas Service	Style	Equipment	Outlet Connection
801 6590-01-1	Inerts (Nitrogen, Helium, Argon)	Gas Saver Regulator	806 6590	"B" 5/8"-18 RH Int.
801 6591-01-1	Inerts (Nitrogen, Helium, Argon)	Flowmeter Regulator	806 6591	"B" 5/8"-18 RH Int..
801 6592-01-1	Acetylene	Regulator	806 6592	"B" 9/16"-18 LH Ext.
801 6594-01-1	Inerts (Nitrogen, Helium, Argon)	Dual Flowmeter Regulator	806 6594	"B" 5/8"-18 RH Int.
801 6595-01-1	Inerts (Nitrogen, Helium, Argon)	Regulator	806 6595	"B" 5/8"-18 RH Int.
801 6596-01-1	Oxygen	Regulator	806 6596	"B" 9/16"-18 RH Ext.
801 6597-01-1	Inerts (Nitrogen, Helium, Argon)	Flowmeter Regulator	806 6597	"B" 5/8"-18 RH Int..
801 6599-01-1	Fuel Gases (Propylene, Propane, Natural Gas)	Regulator	806 6599	"B" 9/16"-18 LH Ext.
801 9720-01-1	Argon/Carbon Dioxide	Flowmeter	805 0720	"B" 5/8"-18 RH Ext.
801 9721-01-1	Argon/Helium	Flowmeter	805 0721	"B" 5/8"-18 RH Ext.
801 9722-01-1	Argon/Carbon Dioxide	Dual Flowmeter	805 0722	"B" 5/8"-18 RH Ext.
801 9723-01-1	Argon/Helium	Dual Flowmeter	805 0723	"B" 5/8"-18 RH Ext.
801 9940-01-1	Oxygen	Regulator	806 9940	"B" 9/16"-18 RH Ext.
801 9943-01-1	Acetylene	Regulator	806 9943	"B" 9/16"-18 LH Ext.
801 9945-01-1	Inerts (Nitrogen, Helium, Argon)	Regulator	806 9945	"B" 5/8"-18 RH Ext.
801 9949-01-1	Fuel Gases (Propylene, Propane, Natural Gas)	Regulator	806 9949	"B" 9/16"-18 LH Ext.

POINT OF USE EQUIPMENT



STATION VALVES

CONCOA station valves eliminate the need for a separate check valve by adding a non-return feature to the typical shut-off valve. With a high-flow capacity and a 200 PSIG maximum operating pressure, these valves are suitable for heavy-duty pipeline use. Station valves have built in non-return valves to meet NFPA 51 and OSHA requirements.



Applications		Materials of Construction	Specifications
Welding, Cutting & Heating MIG/TIG Welding		Body Forged brass body	Max Inlet Pressure 200 PSIG
		Bonnet Forged brass	Temperature Range 0 to 140° F (-18 to 60° C)
		Seat Chloroprene	Inlet Connections ½" MNPT
		Diaphragm Chloroprene	
		Seat Holder Brass	
Ordering Information			
Part Number	Gas Service	Outlet Fitting	Plug and Chain Assembly
801 0034	Oil-Free Inerts	"C" ⅞-14 RH Int. (CGA 034)	801 0734
801 0233	Oxygen	"C" ⅞-14 RH Ext. (CGA 024)	801 0237
801 0601	Fuel Gases	"C" ⅞-14 LH Ext. (CGA 025)	801 0236
801 8001	General Purpose	½" FNPT	--

HALF-INCH VALVES

CONCOA high pressure master valves are used on tube trailers, high pressure manifolds and piping systems. These valves exhibit a very low operating torque under pressure for ease of use.



Materials of Construction		Specifications
Body Brass		Max Working Pressure 5600 PSIG
Bonnet Brass		Temperature Range -40 to 165° F (-40 to 74° C)
Seat Material CTFE		Inlet/Outlet Connections ½" FNPT
Seals PCTFE		Cv 2.6
Ordering Information		
Part Number	Description	
529 0098	½" High-Flow Brass Valve	

PIPELINE REGULATORS



6590 SERIES

Medium-Heavy Duty Heating and Cutting

The 6590 Series Medium-Heavy Duty Heating and Cutting regulator provides steady and reliable pressure control in point-of-use applications such as MIG and TIG shielding gas control. The encapsulated seat design provides accurate pressure control and extended component lifecycle. Combined with robust materials of construction and a wide range of delivery pressures, the 6590 is an ideal choice for point of use applications.



DISTRIBUTION SYSTEMS

Features		Materials of Construction		Specifications	
2.5" (63mm) Convuluted Neoprene Diaphragm Steady pressure control		Body Brass barstock		Max Inlet Pressure 200 PSIG	
Medium-Large Seat Displacement Good flow capacity		Bonnet Chrome-plated brass		Temperature Range -40 to 140° F (-40 to 66° C)	
Capsule® Seat Assembly High cycle life		Seat PTFE		Cv .1	
		Diaphragm Neoprene		Gauges 2-½" manufactured to ANSI/ASME B40.1	
		35-Micron Inlet Filter Bronze		Conformances CGA E-4	
CRN 0C15806.5					
Ordering Information					
Part Number	Gas Service	CON	Outlet Pressure	Outlet Fittings	Fits Station Valve*
806 6596-01-1	Oxygen	024	0-120 PSIG	⅞"-18 "B" RH Ext.	801 0233
806 6592-01-1	Acetylene	025	0-15* PSIG	⅞"-18 "B" LH Ext.	801 0601
806 6599-01-1	Fuel Gas	025	0-40 PSIG	⅞"-18 "B" LH Ext.	801 0601
806 6595-01-1	Oil Free Inert, Argon-Nitrogen, Helium-Carbon Dioxide	034	0-120 PSIG	⅝"-18 "B" RH Int.	801 0034
			<i>*Acetylene should not be used over 15 PSIG</i>		<i>*Not Included. See page 56</i>

PIPELINE REGULATORS



6590 SERIES

Medium-Heavy Duty MIG and TIG Shielding Gas Control

The 6590 Series Medium-Heavy Duty Heating and Cutting regulator provides steady and reliable flow control in point-of-use applications such as MIG and TIG shielding gas control. The encapsulated seat design provides accurate pressure control and extended component lifecycle. Combined with robust materials of construction and a wide range of delivery pressures, the 6590 is an ideal choice for point of use applications.



806 6574 Shown



Features	Materials of Construction	Specifications
2.5" (63mm) Neoprene Diaphragm Steady pressure control Medium-Large Seat Displacement Good flow capacity Capsule® Seat Assembly High cycle life	Body Brass barstock Bonnet Chrome-plated brass Seat PTFE Diaphragm Neoprene 35-Micron Inlet Filter Bronze	Max Inlet Pressure 200 PSIG Temperature Range -40 to 140° F (-40 to 66° C) Cv .1 Conformances CGA E-4 CRN 0C15806.5

Ordering Information

Part Number	Gas Service	CON	Flowrate (CFH)	Outlet Fittings	Fits Station Valve*
806 6591-01-1	Argon/Carbon Dioxide	034	Argon: 10-60 Carbon Dioxide: 10-55	5/8"-18 "B" RH Int.	801 0034
806 6597-01-1	Argon/Helium	034	Argon: 10-60 Helium: 30-200	5/8"-18 "B" RH Int.	801 0034
806 6590-01-1 (Gas Saver)	Argon/Helium	034	Argon: 10-60 Helium: 30-200	5/8"-18 "B" RH Int.	801 0034
806 6594-01-1 (Dual Flowmeter)	Argon/Carbon Dioxide	034	Argon: 10-60 Carbon Dioxide: 10-55	5/8"-18 "B" RH Int.	801 0034
806 6574-01-1 (Tamper Proof)	Argon/Helium	034	Argon: 10-60 Helium: 30-200	5/8"-18 "B" RH Int.	801 0034 * Not included

PIPELINE REGULATORS



6790 SERIES

High-flow Heavy Duty Rugged Heating and Cutting

The 6790 Series High-flow Heavy Duty Rugged Heating and Cutting regulator provides steady and reliable pressure control in industrial gas pipeline applications requiring high-flow rates. The balanced stem seat designed mitigates fluctuations in outlet pressure caused by variable inlet pressures while the large orifice seat and $\frac{1}{2}$ " ports provide high-flow capacity. Combined with robust materials of construction and a wide range of delivery pressures, the 6790 is an ideal choice for rugged heating and cutting applications.



806 6791 Shown

DISTRIBUTION SYSTEMS

Features	Materials of Construction	Specifications
$\frac{1}{2}$" Seat and Ports Ultra high-flow Heavy Forged Brass Bonnet High durability	Body Brass barstock Bonnet Forged brass Seat Viton® or Neoprene Diaphragm Neoprene 40-Micron Inlet Filter 316L stainless steel	Max Inlet Pressure 3000 PSIG 400 PSIG (with Acetylene) Temperature Range -40 to 140° F (-40 to 66° C) Cv 2.0 Gauges 2- $\frac{1}{2}$ " manufactured to ANSI/ASME B40.1 Conformances CGA E-4

CRN 0F11806.2

Ordering Information			
Part Number	Outlet Pressure	Outlet Gauge	Maximum Flow
806 6790-01-1 (400 PSIG Max Inlet)	0-15 PSIG	0-30 PSIG (Red-Line Gauge)	900 SCFH
806 6791-01-1	0-15 PSIG	0-30 PSIG	900 SCFH
806 6792-01-1 (400 PSIG Max Inlet)	0-40 PSIG	0-60 PSIG	1500 SCFH
806 6793-01-1	0-120 PSIG	0-200 PSIG	9000 SCFH
806 6794-01-1	0-200 PSIG	0-400 PSIG	9000 SCFH
806 6797-01-1 (For Nitrous Oxide and Carbon Dioxide)	0-120 PSIG	0-200 PSIG	4000 SCFH
806 6798-01-1 (For Nitrous Oxide and Carbon Dioxide)	0-200 PSIG	0-400 PSIG	4000 SCFH
Part Number	Description		
830 6479	Panel Mount Kit (includes bonnet with panel-mount threads)		
835 0205	Wall Mount Kit (includes wall bracket)		

PIPELINE REGULATORS



6690 SERIES

Medium-Heavy Duty Rugged Welding, Heating and Cutting

The 6690 Series Medium-Heavy Duty Welding Heating and Cutting regulator provides steady and reliable pressure control in industrial gas pipeline applications requiring moderate flow rates. The encapsulated seat design provides accurate pressure control and extended component lifecycle while the large orifice seat enables low to medium flow rates. Combined with robust materials of construction and a wide range of delivery pressures, the 6690 is an ideal choice for medium duty welding, heating, and cutting applications.



806-6691 Shown



Features	Materials of Construction	Specifications
Heavy Forged Brass Bonnet High durability Medium-Large Seat Displacement High-flow capacity Capsule® Seat Assembly High cycle life	Body Forged Brass Bonnet Forged Brass Seat PTFE Diaphragm Neoprene 40-Micron Inlet Filter Sintered Bronze	Max Inlet Pressure 3000 PSIG 400 PSIG (with Acetylene) Temperature Range -40 to 140°F (-40 to 66° C) Cv .2 Inlet Connection 1/4" FNPT Gauges 2-1/2" manufactured to ANSI/ASME B40.1 Conformances CGA E-4

Ordering Information

Part Number	Gas Service	Outlet Pressure	Outlet Fittings	Outlet Gauge
806 6691-01-1	Non-corrosive	0-15 PSIG	1/4" FNPT	0-30 PSIG
806 6692-01-1	Non-corrosive	0-40 PSIG	1/4" FNPT	0-60 PSIG
806 6693-01-1	Non-corrosive	0-120 PSIG	1/4" FNPT	0-200 PSIG
806 6694-01-1	Non-corrosive	0-250 PSIG	1/4" FNPT	0-400 PSIG
806 6690-01-1	Acetylene	0-15 PSIG*	1/4" FNPT	0-30 PSIG (15 PSIG Red Line)

* Acetylene should not be used over 15 PSIG

Part Number	Description
830 8163	Panel Mount Kit

PIPELINE REGULATORS



5690 SERIES

Medium-Heavy Duty Heating and Cutting at Point of Use

The 5690 Series Medium-Heavy Duty Heating and Cutting regulator provides steady pressure control and durability in general industrial pipeline applications. The rugged, forged brass construction enables high durability while the encapsulated seat design provides accurate pressure control and extended component lifecycle. Combined with a wide range of delivery pressures and mounting options for installation flexibility, the 5690 Series is an ideal choice for general industrial applications.



806 5693-01-1 Shown

DISTRIBUTION SYSTEMS

Features	Materials of Construction	Specifications
Heavy Machined Brass Bonnet High durability Capsule® Seat Assembly High cycle life	Body Brass barstock Bonnet Brass barstock Seat PTFE Diaphragm Neoprene 35-Micron Inlet Filter Bronze	Max Inlet Pressure 3000 PSIG 400 PSIG (with Acetylene) Temperature Range -40 to 140° F (-40 to 66° C) Cv .1 Inlet Connection 1/4" FNPT Gauges 2" manufactured to ANSI/ASME B40.1 Conformances CGA E-4

Ordering Information				
Part Number	Gas Service	Outlet Pressure	Outlet Fittings	Outlet Gauges
806 5691-01-1	Non-corrosive	0-15 PSIG	1/4" FNPT	0-30 PSIG
806 5692-01-1	Non-corrosive	0-40 PSIG	1/4" FNPT	0-60 PSIG
806 5693-01-1	Non-corrosive	0-125 PSIG	1/4" FNPT	0-200 PSIG
806 5694-01-1	Non-corrosive	0-250 PSIG	1/4" FNPT	0-400 PSIG
806 5690-01-1	Acetylene	0-15* PSIG	1/4" FNPT	0-30 PSIG* (15 PSIG Red Line)
		*Acetylene should not be used over 15 PSIG		*Acetylene model 806-5690 does not have relief valve

Part Number	Description
830 8162	Panel Mount Kit

PIPELINE REGULATORS



9940 SERIES PIPELINE REGULATOR

Heavy Duty Heating and Cutting at Point of Use

The 9940 Series Heavy Duty Heating and Cutting regulator provides steady pressure control and durability in general industrial pipeline applications requiring outlet pressures up to 200 PSIG. The rugged, brass barstock construction enables high durability while the neoprene diaphragm provides steady and reliable pressure control. Combined with a wide range of delivery pressures and gas compatibility, the 9940 is an ideal choice for general industrial applications.



806 9945 Shown

Features	Materials of Construction	Specifications			
Rear Entry Excellent visibility	Body Brass barstock	Max Inlet Pressure 450 PSIG			
Flat Seat Displacement High-flow capacity	Bonnet Chrome-plated brass	Temperature Range -40 to 140° F (-40 to 66° C)			
2.5" (63mm) Neoprene Diaphragm Steady pressure control	Seat Nitrile	Cv .34			
	Diaphragm Neoprene	Gauges 2-½" Manufactured to ANSI/ASME B40.1			
	55-Micron Inlet Filter Bronze	Conformances CGA E-4			
Ordering Information					
Part Number	Gas Service	Outlet Pressure	Outlet Gauge	Inlet	Outlet Fittings
806 9940-01-1	Oxygen	0-200 PSIG	0-400 PSIG	CGA 024 RH	'B' ⅛"-18 (RH Ext.)
806 9941-01-1	Oxygen	0-40 PSIG	0-60 PSIG	CGA 024 RH	'B' ⅛"-18 (RH Ext.)
806 9943-01-1	Fuel Gases (Acetylene, Propane, Natural Gas)	0-15 PSIG*	0-30 PSIG	CGA 025 LH	'B' ⅛"-18 (LH Ext.)
806 9944-01-1	General	0-40 PSIG	None (plugged)	1/4" FNPT	¼" FNPT
806 9945-01-1	Inerts (Nitrogen, Helium, Argon)	0-200 PSIG	0-400 PSIG	CGA 034 RH	'B' ⅝"-18 (RH Int.)
806 9949-01-1	Fuel Gases (Not for Acetylene)	0-40 PSIG	0-60 PSIG	CGA 025 LH	'B' ⅛"-18 (LH Ext.)
		<i>*Acetylene should not be used over 15 PSIG</i>			

*Acetylene should not be used over 15 PSIG

FLOWMETERS



DISTRIBUTION SYSTEMS

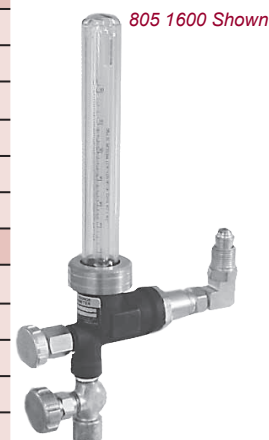
1600 SERIES FLOWMETER High Flow Welding and Blanketing

Features	Materials of Construction	Specifications
Dual Range Flow Adjustment* Enables precise gas metering Gas Specific Scale* Delivers greater accuracy Articulating Inlet Connection Installation flexibility	Body Forged aluminum Outlet Valve Brass 50-Micron Inlet Filter Bronze Inlet Connection Brass Seals Buna-N	Temperature Range -40 to 140° F (-40 to 66° C) Compensation 30 PSIG

* Except for 805 1606

Ordering Information

Part Number	Gas Service	Low Flow Scale (SCFH)	High-flow Scale (SCFH)	Inlet Connection	Outlet Connection
805 1600-01-1	Helium	0.5-37	30-200	5/8"-18 "B" RH Ext.	5/8"-18 RH Int.
805 1601-01-1	Argon	1.0-24	22-198	5/8"-18 "B" RH Ext.	5/8"-18 RH Int.
805 1602-01-1	Oxygen	0.1-4.0	3.5-20	9/16"-18 RH Int.	9/16"-18 RH Ext.
805 1603-01-1	Nitrogen	1.0-29	27-245	5/8"-18 "B" RH Ext.	5/8"-18 RH Int.
805 1604-01-1	Hydrogen	2.0-52	40-300	9/16"-18"18-LH Int.	9/16"-18 LH Ext.
805 1605-01-1	Carbon Dioxide	1.0-24	23-150	5/8"-18 "B" RH Ext.	5/8"-18 "B" RH Ext.
General Purpose Dual Range Flowmeter					
805-1606-01-1	Hydrogen	3.0-23	32-192	5/8"-18 "B" RH Ext.	5/8"-18 "B" RH Ext.
805-1606-01-1	Helium	2.5-70	65-525	5/8"-18 "B" RH Ext.	5/8"-18 "B" RH Ext.
805-1606-01-1	Nitrogen	2.0-28	35-220	5/8"-18 "B" RH Ext.	5/8"-18 "B" RH Ext.
805-1606-01-1	Carbon Dioxide	2.0-24	26-176	5/8"-18 "B" RH Ext.	5/8"-18 "B" RH Ext.
805-1606-01-1	AG-75	1.5-37	45-290	5/8"-18 "B" RH Ext.	5/8"-18 "B" RH Ext.



805 1600 Shown

700 SERIES FLOWMETER Medium Flow Welding and Blanketing

Features	Materials of Construction	Specifications
Dual Scale Flow Tube Enables process flexibility Non-Compensated Flowmeter Model Eliminates gas surge Resettable Relief Mechanism Lowers maintenance costs	Body Brass 50-Micron Inlet Filter Bronze Inlet/Outlet Connection Brass Seals Neoprene	Temperature Range -40 to 140° F (-40 to 60° C) Max Inlet Pressure 50 PSIG CRN 0F11806.5

Ordering Information

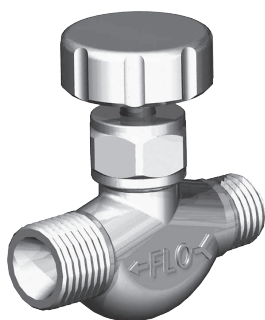
Part Number	Gas Service	Inlet Connection	Flow Range (SCFH)	Outlet Connection	Compensated PSIG
805 0720-01-1	Argon/Carbon Dioxide	5/8"-18 RH Ext.	10-60 Argon/10-55 Carbon Dioxide	5/8"-18 RH Int.	30 (Straight Inlet)
805 0721-01-1	Argon/Helium	5/8"-18 RH Ext.	10-60 Argon/30-200 Helium	5/8"-18 RH Int.	30 (Straight Inlet)
805 0725-01-1	Argon/Helium**	5/8"-18 RH Ext.	10-60 Argon/30-200 Helium	5/8"-18 RH Int.	0 (Elbow Model)
805 0727-01-1	Argon/Carbon Dioxide	1/4" MNPT	10-60 Argon/10-55 Carbon Dioxide	5/8"-18 RH Int.	30 (Dual Flowmeters)
805 0728-01-1	Argon/Helium	1/4" MNPT	10-60/30-200 Helium	5/8"-18 RH Int.	30 (Dual Flowmeters)

** Gas saver model must be used with an adjustable pressure regulator



805 0725 Shown

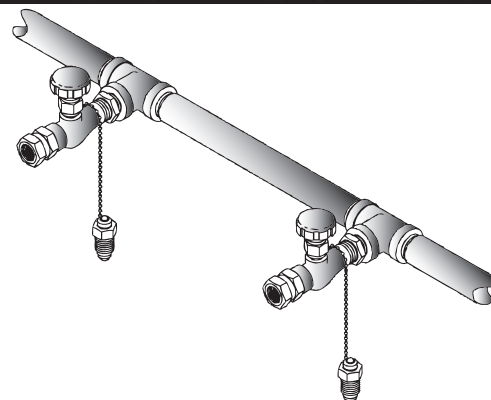
PIPELINE REGULATOR ACCESSORIES



801-0257 Shown

Station Outlet Valves

Used in low pressure distribution systems to insure line pressure is maintained. These valves have 1/4" MNPT inlets for universal mounting. They have high-flow capacity, up to 200 SCFH Argon at 30 PSIG.



Flow adapters and plug and chain assemblies shown are not included.

Ordering Information

Part Number	Gas Service	Inlet	Outlet	Max Pressure (PSIG)	Plug and Chain (To Cap Valve)
801 0257	Oxygen	1/4" NPT Ext.	3/16" -18 RH Ext.	200	801 0265
801 0258	Fuel Gas	1/4" NPT Ext.	3/16" -18 LH Ext.	200	801 0266
801 0259	Inert Gas	1/4" NPT Ext.	5/8" -18 RH Int.	200	801 0267
801 0379	General	1/4" NPT Ext.	1/4" NPT Int.	3000	--



Flow Adapters

Used for pipeline and fixed-pressure regulators, these flow adapters eliminate the need for flowmeters. The 1/4" MNPT inlets enable them to be used with station valves or in regulator outlets. Flow Adapters come in a wide range of orifice sizes assuring maximum adaptability of flows.

Ordering Information

Part Number	Orifice Size	Argon Flow* (SCFH)	Helium Flow* (SCFH)	Carbon Dioxide Flow* (SCFH)	AG-75** Flow* (SCFH)	Nitrogen Flow* (SCFH)
830 1977	0.010	4	12	3.5	6.6	4.5
830 1978	0.014	6.3	20	6	11	7.6
830 1979	0.016	8	25	7.5	14	9.5
830 1971	0.018	10	31.5	9.5	17.5	12
830 1984	0.020	11.4	36	10.5	20	13.5
830 1972	0.021	15	47.5	14.3	26	18
830 1973	0.025	20	63.2	19	35	24
830 1985	0.028	22.5	72	21	40	27
830 1974	0.031	30	95	28	52.5	36
830 1975	0.035	40	126.5	38	60	47.5
830 1976	0.040	50	158	47.5	88	60

* Pressure compensated at 30 PSIG
 ** AG-75 = 75% HE 25% AR

PIPELINE REGULATOR ACCESSORIES



FLASHBACK ARRESTORS



801 7002



801 7003



801 7005



801 7001

Flashback Arrestors can be easily installed on the outlet fitting of most regulators, gas supply points or inline. They help meet ANSI Z49.1:2005, OSHA, and NFPA safety requirements and help protect against the most common causes of accidents such as reverse flow, flashback, and hose burn backs. Each CONCOA flashback arrestor is 100% tested with actual flashbacks and have built in 100-Micron inlet filters, reverse flow check valves (non-return valves), flame barriers, and thermal cut off valves.

Materials & Specifications

UL Listed

Complies with ISO 5175, BAM/DIN 730, BS 6158

Thermal Shut Off

Brass/Temperature sensitive stainless silver solder

Valve Spring

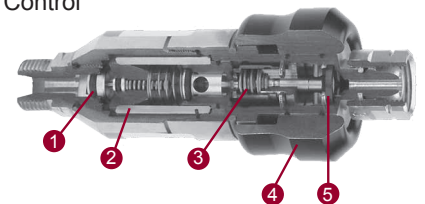
316 stainless steel

Maximum Operating Pressure

143 PSIG (10 BAR)

Features

1. Thermal Shut Off
2. Flame Barrier
3. Check Valve
4. Re-settable Pressure Control
5. Inlet Filter



Ordering Information

Part Number	Service	Regulator End	Hose Connection	Max Pressure	Max Flow	Weight
801 7004	Oxygen	1/16" -18 RH Female	1/16" -18 RH Male	143 PSIG	2073 SCFH (At 143 PSIG)	5.25 oz. (.15 kg)
801 7003	Acetylene	1/16" -18 LH Female	1/16" -18 LH Male	15 PSIG	290 SCFH (At 15 PSIG)	5.25 oz. (.15 kg)
801 7003	Hydrogen	1/16" -18 LH Female	1/16" -18 LH Male	50 PSIG	3005 SCFH (At 50 PSIG)	5.25 oz. (.15 kg)
801 7003	LPG	1/16" -18 LH Female	1/16" -18 LH Male	71.5 PSIG	907 SCFH (At 71.5 PSIG)	5.25 oz. (.15 kg)
801 7002	Oxygen	1/16" -18 RH Female	1/16" -18 RH Male	143 PSIG	2073 SCFH (At 143 PSIG)	1.1 lbs. (.5 kg)
801 7001	Acetylene	1/16" -18 LH Female	1/16" -18 LH Male	15 PSIG	505 SCFH (At 15 PSIG)	1.1 lbs. (.5 kg)
801 7001	Hydrogen	1/16" -18 LH Female	1/16" -18 LH Male	50 PSIG	5052 SCFH (At 50 PSIG)	1.1 lbs. (.5 kg)
801 7001	LPG	1/16" -18 LH Female	1/16" -18 LH Male	71.5 PSIG	1525 SCFH (At 71.5 PSIG)	1.1 lbs. (.5 kg)
801 7006	Oxygen	1/16" -18 RH Female	1/16" -18 RH Male	143 PSIG	3612 SCFH (At 143 PSIG)	12 oz. (.34 kg)
801 7005	Acetylene	1/16" -18 LH Female	1/16" -18 LH Male	15 PSIG	505 SCFH (At 15 PSIG)	12 oz. (.34 kg)
801 7005	Hydrogen	1/16" -18 LH Female	1/16" -18 LH Male	50 PSIG	5052 SCFH (At 50 PSIG)	12 oz. (.34 kg)
801 7005	LPG	1/16" -18 LH Female	1/16" -18 LH Male	71.5 PSIG	1525 SCFH (At 71.5 PSIG)	12 oz. (.34 kg)

CYLINDER REGULATORS



6700 SERIES

High-flow Heavy Duty Heating and Cutting

The 6700 Series High-flow Heavy Duty Heating and Cutting regulator provides steady and reliable pressure control in industrial gas cylinder applications requiring high-flow rates. The balanced stem seat designed mitigates fluctuations in outlet pressure caused by variable inlet pressures while the large orifice seat and 1/2" ports provide high-flow capacity. Combined with robust materials of construction and a wide range of delivery pressures, the 6700 is an ideal choice for rugged heating and cutting applications being supplied by gas cylinders.



806 6706 Shown

Features	Materials of Construction	Specifications
1/2" Seat and Ports Ultra high-flow Balance Stem Seat Steady pressure control with decaying inlet conditions Heavy Forged Brass Bonnet High durability	Body Brass barstock Bonnet Forged brass Seat Viton, Neoprene Diaphragm Neoprene 40-Micron Inlet Filter 316L stainless steel	Max Inlet Pressure 3000 PSIG Temperature Range -40 to 140° F (-40 to 66° C) Cv 2.0 Gauges 2-1/2" manufactured to ANSI/ASME B40.1 Conformances CGA E-4

CRN 0F11806.2

Ordering Information

Part Number	Gas Service	Inlet	Outlet Pressure	Outlet Fittings	Pressure Gauges
806 6706-01-1	Oxygen	CGA 540	0-120 PSIG	"C" RH Ext.	200 & 4000 PSIG
806 6716-01-1	Oxygen	CGA 540	0-200 PSIG	"C" RH Ext.	400 & 4000 PSIG
806 6717-01-1	Oxygen	CGA 540	0-200 PSIG	"B" RH Ext.	400 & 4000 PSIG
806 6702-01-1	Acetylene (max inlet 400 PSIG)	CGA 300	0-15* PSIG	"C" LH Ext.	30 & 400 PSIG
806 6709-01-1	Acetylene (max inlet 400 PSIG)	CGA 510	0-15* PSIG	"C" LH Ext.	30 & 400 PSIG
806 6710-01-1	Acetylene (max inlet 400 PSIG)	CGA 410	0-15* PSIG	"B" LH Ext.	30 & 400 PSIG
806 6732-01-1	Fuel Gas (max inlet 400 PSIG)	CGA 510	0-40 PSIG	"C" LH Ext.	60 & 400 PSIG
806 6733-01-1	Fuel Gas (max inlet 400 PSIG)	CGA 510	0-40 PSIG	"B" LH Ext.	60 & 400 PSIG
806 6703-01-1	Argon, Nitrogen, Helium & Carbon Dioxide Mixtures	CGA 580	0-200 PSIG	"C" RH Int.	400 & 4000 PSIG
806 6705-01-1	Argon, Nitrogen, Helium & Carbon Dioxide Mixtures	CGA 580	0-120 PSIG	"C" RH Int.	200 & 4000 PSIG
806 6707-01-1	Hydrogen/Methane	CGA 350	0-120 PSIG	"C" LH Ext.	200 & 4000 PSIG
806 6708-01-1	Compressed Air	CGA 346	0-120 PSIG	"C" RH Ext.	200 & 4000 PSIG
806 6718-01-1	Compressed Air	CGA 346	0-200 PSIG	"C" RH Ext.	400 & 4000 PSIG
806 6787-01-1	Carbon Dioxide	CGA 320	0-120 PSIG	"C" RH Int.	200 & 4000 PSIG
806 6788-01-1	Carbon Dioxide	CGA 320	0-200 PSIG	"C" RH Int.	400 & 4000 PSIG

* Acetylene should not be used over 15 PSIG

CYLINDER REGULATORS



6600 SERIES

Medium-Heavy Duty Rugged Welding, Heating and Cutting

The 6600 Series Medium-Heavy Duty Welding, Heating, and Cutting regulator provides primary pressure control of industrial gas cylinders in applications requiring outlet pressures up to 250 PSIG. The rugged forged brass construction provides high durability while the encapsulated seat design provides accurate pressure control and extended component lifecycle. Combined with heavy-duty internals to enable high delivery pressure and a wide range of delivery options, the 6600 is an ideal choice for high-pressure welding, heating, and cutting applications.



Features	Materials of Construction	Specifications
Heavy Forged Brass Bonnet High durability Medium-Large Seat Displacement Good flow capacity Capsule® Seat Assembly High cycle life	Body Brass barstock Bonnet Forged brass Seat PTFE Diaphragm Neoprene 25-Micron Inlet Filter Bronze	Max Inlet Pressure 3000 PSIG Temperature Range -40 to 140° F (-40 to 66° C) Cv .2 Gauges 2-1/2" manufactured to ANSI/ASME B40.1 Conformances CGA E-4

Ordering Information					
Part Number	Gas Service	Inlet	Outlet Pressure	Outlet Fittings	Pressure Gauges
806 6606-01-1	Oxygen	CGA 540	0-120 PSIG (0-8 BAR)	3/16"-18 "B" RH Ext.	200 & 4000 PSIG
806 6686-01-1	Oxygen	CGA 540	0-250 PSIG (0-17 BAR)	1/4" MNPT	400 & 4000 PSIG
806 6602-01-1	Acetylene (max inlet 400 PSIG)	CGA 300	0-15* PSIG (0-1 BAR)	3/16"-18 "B" LH Ext.	30 & 400 PSIG
806 6609-01-1	Acetylene (max inlet 400 PSIG)	CGA 510	0-15* PSIG (0-1 BAR)	3/16"-18 "B" LH Ext.	30 & 400 PSIG
806 6632-01-1	Fuel Gas (max inlet 400 PSIG)	CGA 510	0-40* PSIG (0-3 BAR)	3/16"-18 "B" LH Ext.	60 & 400 PSIG
806 6601-01-1	Argon, Nitrogen, Helium	CGA 580	0-120 PSIG (0-8 BAR)	3/8"-18 "B" RH Int.	200 & 4000 PSIG
806 6611-01-1	Argon, Nitrogen, Helium	CGA 580	0-250 PSIG (0-17 BAR)	1/4" MNPT	400 & 4000 PSIG
806 6681-01-1	Hydrogen/Methane (Fuel Gas)	CGA 350	0-40 PSIG (0-3 BAR)	3/16"-18 "B" LH Ext.	60 & 400 PSIG
806 6603-01-1	Industrial Air	CGA 590	0-120 PSIG (0-8 BAR)	1/4" MNPT	200 & 4000 PSIG
806 6613-01-1	Industrial Air	CGA 590	0-250 PSIG (0-17 BAR)	1/4" MNPT	400 & 4000 PSIG
806 6608-01-1	Breathing Air	CGA 346	0-120 PSIG (0-8 BAR)	1/4" MNPT	200 & 4000 PSIG
806 6618-01-1	Breathing Air	CGA 346	0-250 PSIG (0-17 BAR)	1/4" MNPT	400 & 4000 PSIG
806 6643-01-1	Air	CGA 347	0-250 PSIG (0-17 BAR)	1/4" MNPT	400 & 6000 PSIG

* Acetylene should not be used over 15 PSIG

Related Options	
Part Number	Description
830 6479	Panel Mount Kit

CYLINDER REGULATORS



6500 SERIES

Heavy Duty Welding, Heating and Cutting

The 6500 Series Medium-Heavy Duty welding, heating, and cutting regulator provides primary control of industrial gas cylinders in applications requiring outlet pressures up to 200 PSIG. The rugged forged brass construction provides high durability while the encapsulated seat design provides accurate pressure control and extended component lifecycle. Combined with heavy-duty internals to enable high delivery pressure and a wide range of delivery options, the 6500 is an ideal choice for high-pressure welding, heating, and cutting applications.



806 6506 Shown

Features	Materials of Construction	Specifications
2.5" (63mm) Neoprene Diaphragm Steady pressure control Medium-Large Seat Displacement High-flow capacity Capsule® Seat Assembly High cycle life	Body Brass barstock Bonnet Chrome-plated brass Seat PTFE, PCTFE Diaphragm Neoprene 25-Micron Inlet Filter Bronze	Max Inlet Pressure PTFE 3000 PSIG PCTFE 5500 PSIG Temperature Range PTFE -40 to 140° F (-40 to 66° C) PCTFE -40 to 150° F (-40 to 66° C) Cv .2 Gauges 2-1/2" manufactured to ANSI/ASME B40.1 Conformances CGA E-4 CRN 0H5216.5R1

Ordering Information

Part Number	Gas Service	Inlet	Outlet Pressure	Outlet Fittings	Pressure Gauges
806 6506-01-1	Oxygen	CGA 540	0-125 PSIG (0-9 BAR)	9/16"-18 "B" RH Ext.	200 & 4000 PSIG
806 6586-01-1	Oxygen	CGA 540	0-40 PSIG (0-2 BAR)	9/16"-18 "B" RH Ext.	60 & 4000 PSIG
806 6564-01-1	Oxygen	CGA 540	0-200 PSIG (0-14 BAR)	9/16"-18 "B" RH Ext.	400 & 4000 PSIG
806 6502-01-1	Acetylene (max inlet 400 PSIG)	CGA 300	0-15* PSIG (0-1 BAR)	9/16"-18 "B" LH Ext.	30 & 400 PSIG
806 6509-01-1	Acetylene (max inlet 400 PSIG)	CGA 510	0-15* PSIG (0-1 BAR)	9/16"-18 "B" LH Ext.	30 & 400 PSIG
806 6532-01-1	Fuel Gas (max inlet 400 PSIG)	CGA 510	0-40* PSIG (0-2 BAR)	9/16"-18 "B" LH Ext.	60 & 400 PSIG
806 6505-01-1	Argon, Nitrogen, Helium	CGA 580	0-125 PSIG (0-9 BAR)	5/8"-18 "B" RH Int.	200 & 4000 PSIG
806 6585-01-1	Argon, Nitrogen, Helium	CGA 580	0-40 PSIG (0-2 BAR)	5/8"-18 "B" RH Int.	60 & 4000 PSIG
806 6568-01-1	Argon, Nitrogen, Helium	CGA 580	0-200 PSIG (0-14 BAR)	5/8"-18 "B" RH Int.	400 & 4000 PSIG
806 6581-01-1	Hydrogen Methane	CGA 350	0-40 PSIG (0-2 BAR)	9/16"-18 "B" LH Ext.	60 & 4000 PSIG
806 6587-01-1	Carbon Dioxide	CGA 320	0-40 PSIG (0-2 BAR)	5/8"-18 "B" RH Int.	60 & 4000 PSIG
806 6503-01-1	Industrial Air	CGA 590	0-125 PSIG (0-9 BAR)	1/4" MNPT	200 & 4000 PSIG
806 6583-01-1	Industrial Air	CGA 590	0-40 PSIG (0-2 BAR)	1/4" MNPT	60 & 4000 PSIG
806 6508-01-1	Breathing Air	CGA 346	0-125 PSIG (0-8 BAR)	1/4" MNPT	200 & 4000 PSIG
806 6588-01-1	Breathing Air	CGA 346	0-40 PSIG (0-2 BAR)	1/4" MNPT	60 & 4000 PSIG
High-pressure Regulators					
806 6546-01-1	Oxygen (max inlet 4000 PSIG)	CGA 577	0-125 PSIG (0-9 BAR)	9/16"-18 "B" RH Ext.	200 & 6000 PSIG
806 6543-01-1	Compressed Air (max inlet 5500 PSIG)	CGA 347	0-125 PSIG (0-9 BAR)	5/8"-18 "B" RH Int.	200 & 6000 PSIG
806 6544-01-1	Inert (max inlet 5500 PSIG)	CGA 680	0-125 PSIG (0-9 BAR)	5/8"-18 "B" RH Int.	200 & 6000 PSIG

* Acetylene should not be used over 15 PSIG

CYLINDER REGULATORS



5600 SERIES

Medium Duty Rugged Welding, Heating and Cutting

The 5600 Series Medium-Heavy Duty welding, heating, and cutting regulator provides primary pressure control of industrial gas cylinders in applications requiring outlet pressures up to 250 PSIG. The rugged forged brass construction provides high durability while the encapsulated seat design provides accurate pressure control and extended component lifecycle. Combined with heavy-duty internals to enable high delivery pressure and a wide range of delivery options, the 5600 is an ideal choice for high-pressure welding, heating, and cutting applications.



806 5606 Shown



Features		Materials of Construction		Specifications	
Heavy Forged Brass Bonnet High durability		Body Brass barstock		Max Inlet Pressure 3000 PSIG	
Medium Seat Displacement High-flow capacity		Bonnet Brass barstock		Temperature Range -40 to 140° F (-40 to 66° C)	
Capsule® Seat Assembly High cycle life		Seat PTFE		Cv .15	
		Diaphragm Neoprene		Gauges 2" manufactured to ANSI/ASME B40.1	
		25-Micron Inlet Filter Bronze		Conformances CGA E-4	
Ordering Information					
Part Number	Gas Service	Inlet	Outlet Pressure	Outlet Fittings	Pressure Gauges
806 5606-01-1	Oxygen	CGA 540	0-125 PSIG (0-9 BAR)	9/16"-18"B" RH Ext.	200 & 4000 PSIG
806 5616-01-1	Oxygen	CGA 540	0-250 PSIG (0-17 BAR)	1/4" MNPT	400 & 4000 PSIG
806 5602-01-1	Acetylene	CGA 300	0-15* PSIG (0-1 BAR)	9/16"-18"B" RH Ext.	30 & 400 PSIG
806 5609-01-1	Acetylene	CGA 510	0-15* PSIG (0-1 BAR)	9/16"-18"B" LH Ext.	30 & 400 PSIG
806 5632 -01-1	Fuel Gas	CGA 510	0-40 PSIG (0-3 BAR)	9/16"-18"B" RH Ext.	60 & 400 PSIG
806 5601-01-1	Argon, Nitrogen, Helium (Inert Gas)	CGA 580	0-125 PSIG (0-9 BAR)	5/8"-18"B" RH Int.	200 & 4000 PSIG
806 5611-01-1	Argon, Nitrogen, Helium (Inert Gas)	CGA 580	0-250 PSIG (0-17 BAR)	1/4" MNPT	400 & 4000 PSIG
806 5681-01-1	Hydrogen, Methane	CGA 350	0-40 PSIG (0-3 BAR)	9/16"-18"B" LH Ext.	60 & 4000 PSIG
806 5603-01-1	Industrial Air	CGA 590	0-125 PSIG (0-9 BAR)	1/4" MNPT	200 & 4000 PSIG
806 5613-01-1	Industrial Air	CGA 590	0-250 PSIG (0-17 BAR)	1/4" MNPT	400 & 4000 PSIG
806 5608-01-1	Breathing Air	CGA 346	0-125 PSIG (0-9 BAR)	1/4" MNPT	200 & 4000 PSIG
806 5618-01-1	Breathing Air	CGA 346	0-250 PSIG (0-17 BAR) <i>*Acetylene should not be used over 15 PSIG.</i>	1/4" MNPT	400 & 4000 PSIG

*Acetylene should not be used over 15 PSIG.

CYLINDER REGULATORS



5500 SERIES

Medium Duty Rugged Welding, Heating and Cutting

The 5500 Series Medium-Heavy Duty welding, heating, and cutting regulator provides primary pressure control of industrial gas cylinders in applications requiring inlet pressures up to 4500 PSIG and outlet pressures up to 125 PSIG. The rugged brass barstock construction provides high durability while the encapsulated seat design provides accurate pressure control and extended component lifecycle. Combined with a wide range of delivery options, the 5500 is an ideal choice for medium duty welding, heating, and cutting applications.



806 5506 Shown

Features	Materials of Construction		Specifications		
2" Diaphragm with Integral Self Seating Relief Valve Tamper proof safety	Body Brass barstock	Bonnet Chrome-plated brass	Max Inlet Pressure PTFE 3000 PSIG PCTFE 5500 PSIG		
Medium Seat Displacement High-flow capacity	Seat PTFE, PCTFE		Temperature Range PTFE -40 to 140° F (-40 to 66° C) PCTFE -40 to 150° F (-40 to 66° C)		
Capsule® Seat Assembly High cycle life	Diaphragm Neoprene		Cv .15 (3000 PSIG Max Inlet) .1 (4500 PSIG Max Inlet)		
	25-Micron Inlet Filter Bronze		Gauges 2" manufactured to ANSI/ASME B40.1		
			Conformances CGA E-4		
Ordering Information					
Part Number	Gas Service	Inlet	Outlet Pressure	Outlet Fittings	Pressure Gauges
806 5506-01-1	Oxygen	CGA 540	0- 125 PSIG (0-9 BAR)	9/16"-18 "B" RH Ext.	200 & 4000 PSIG
806 5502-01-1	Acetylene	CGA 300	0-15* PSIG (0-1 BAR)	9/16"-18 "B" LH Ext.	30 & 400 PSIG
806 5509-01-1	Acetylene	CGA 510	0-15* PSIG (0-1 BAR)	9/16"-18 "B" LH Ext.	30 & 400 PSIG
806 5532-01-1	Fuel Gas	CGA 510	0-40* PSIG (0-2 BAR)	9/16"-18 "B" LH Ext.	60 & 400 PSIG
806 5521-01-1	Argon, Nitrogen, Helium (Inert Gas)	CGA 580	0-125 PSIG (0-9 BAR)	5/8"-18 "B" RH Int.	200 & 4000 PSIG
806 5522-01-1	Nitrogen (O.P.)	CGA 555	0-125 PSIG (0-9 BAR)	9/16"-18 "B" LH Ext.	200 & 4000 PSIG
806 5587-01-1	Carbon Dioxide	CGA 320	0-125 PSIG (0-9 BAR)	5/8"-18 "B" RH Int.	200 & 4000 PSIG
Special Purpose 5500 Series Regulators					
806 5546-01-1	Oxygen (Max Inlet 4000 PSIG)	CGA 577	0-125 PSIG <i>* Acetylene should not be used over 15 PSIG</i>	9/16"-18 "B" RH Ext.	200 PSIG & 6000 PSIG

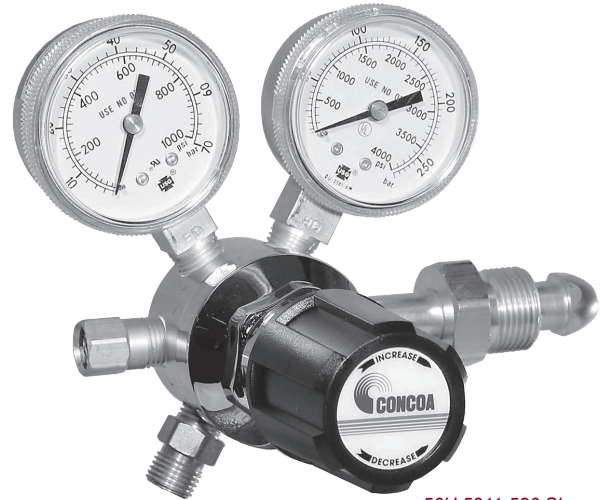
CYLINDER REGULATORS



56H SERIES

Medium-Heavy Duty Welding, Heating and Cutting

The 56H Series Medium-Heavy Duty welding, heating, and cutting regulator provides primary pressure control of industrial gas cylinders with inlet pressures up to 4500 PSIG and outlet pressures up to 250 PSIG. The heavy-duty brass barstock body provides high durability while the encapsulated seat design provides steady and reliable pressure control with extended component lifecycle. Combined with a wide range of delivery pressures and configurations, the 56H is a flexible and durable choice for cylinder and pipeline applications.



56H 5311-580 Shown

REGULATORS

Features	Materials of Construction	Specifications
1.5" (38mm) 316L Stainless Diaphragm Cold climate performance High Leak Integrity Critical environment performance Capsule® Seat Assembly High cycle life	Body Brass barstock Bonnet Chrome-plated die-cast zinc Seat PTFE, PCTFE Diaphragm 316L stainless steel 25-Micron Inlet Filter Bronze	Max Inlet Pressure PTFE 3000 PSIG PCTFE 5500 PSIG Temperature Range PTFE -40 to 140° F (-40 to 66° C) PCTFE -40 to 150° F (-40 to 66° C) Cv .2 Gauges 2" manufactured to ANSI/ASME B40.1 Conformances CGA E-4 CRN 0H5216.5R1

Ordering Information

Part Number*	Gas Service	Inlet	Outlet Pressure	Outlet Fittings	Pressure Gauges
56H13C1-01-510	Acetylene	CGA 510	0-15* PSIG (0-1 BAR)	"B" LH Ext	30 & 4000 PSIG (2 & 275 BAR)
56H13C1-01-300	Acetylene	CGA 300	0-15* PSIG (0-1 BAR)	"B" LH Ext	30 & 4000 PSIG (2 & 275 BAR)
56H33B1-01-540	Oxygen	CGA 540	0-100 PSIG (0-7 BAR)	"B" RH Ext	200 & 4000 PSIG (14 & 275 BAR)
56H43B1-01-540	Oxygen	CGA 540	0-250 PSIG (0-17 BAR)	"B" RH Ext	400 & 4000 PSIG (27 & 275 BAR)
56H33D1-01-580	Argon, Nitrogen, Helium	CGA 580	0-100 PSIG (0-7 BAR)	"B" RH Int	200 & 4000 PSIG (14 & 275 BAR)
56H43D1-01-580	Argon, Nitrogen, Helium	CGA 580	0-250 PSIG (0-17 BAR)	"B" RH Int	400 & 4000 PSIG (27 & 275 BAR)
56H23D1-01-320	Carbon Dioxide	CGA 320	0-50 PSIG (0-3 BAR)	"B" RH Int	100 & 4000 PSIG (7 & 275 BAR)
56H73D1-01-320	Carbon Dioxide	CGA 320	0-150 PSIG (0-10 BAR)	"B" RH Int	200 & 4000 PSIG (14 & 275 BAR)
56H23C1-01-350	Hydrogen	CGA 350	0-50 PSIG (0-3 BAR)	"B" LH Ext	100 & 4000 PSIG (7 & 275 BAR)
56H73C1-01-350	Hydrogen	CGA 350	0-150 PSIG (0-10 BAR)	"B" LH Ext	200 & 4000 PSIG (14 & 275 BAR)

*Additional configurations available

*Acetylene should not be used over 15 PSIG

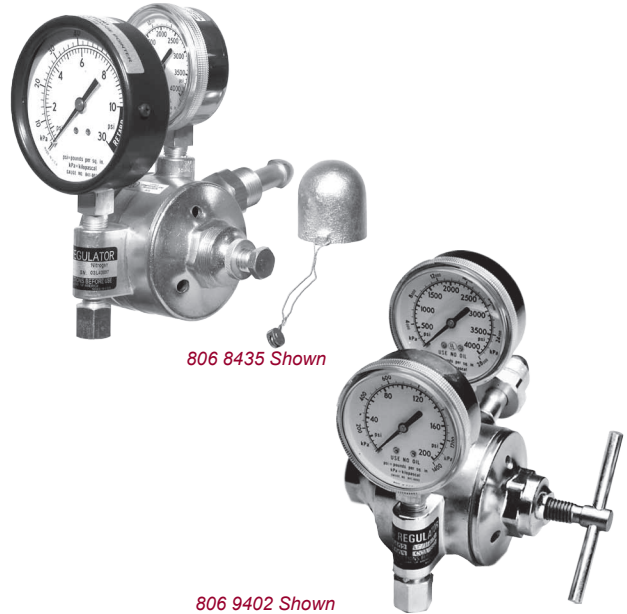
CYLINDER REGULATORS



8400/9400 SERIES

Heavy Duty Rugged Welding, Heating and Cutting

The 8400/9400 Series Heavy Duty welding, heating, and cutting regulator provides primary pressure control of industrial gas cylinders in applications requiring inlet pressures up to 3000 PSIG and outlet pressures up to 100 PSIG. The direct seat design enables high precision operation while the rugged materials of construction enable high durability to extend the lifecycle of system components. Combined with a wide range of delivery pressures and gas compatibility, the 8400/9400 Series is an ideal choice for high precision, high durability welding, heating, and cutting applications.



Features

- Direct First Stage Seat**
Allows complete use of cylinder
- Dead End Flow Passage**
Eliminates seat ignition
- Heavy Forged Brass Bonnet**
High durability

Materials of Construction

- Body**
Forged brass
- Bonnet**
Forged brass
- Seat**
PCTFE, Neoprene
- Diaphragm**
Brass, Neoprene
- 25-Micron Inlet Filter**
Glass wool with sintered Monel® screens

Specifications

- Max Inlet Pressure**
3000 PSIG
- Temperature Range**
-40 to 140° F (-40 to 66° C)
- Cv**
.2 (40 PSIG Max Outlet)
.1 (250 PSIG Max Outlet)
- Gauges**
2-1/2" manufactured to ANSI/ASME B40.1
- Conformances**
CGA E-4

Ordering Information

Part Number	Gas Service	Inlet	Outlet Pressure	Outlet Fittings	Pressure Gauges
806 8401-01-1	Oxygen	CGA 540	0-40 PSIG (0-3 BAR)	9/16"-18 "B" RH Ext.	60 & 4000 PSIG
806 8456-01-1	Oxygen	CGA 540	0-100 PSIG (0-7 BAR)	9/16"-18 "B" RH Ext.	200 & 4000 PSIG
806 8402-01-1	Acetylene	CGA 300	0-15* PSIG (0-1 BAR)	9/16"-18 "B" LH Ext.	30 & 400 PSIG
806 8409-01-1	Acetylene	CGA 510	0-15* PSIG (0-1 BAR)	9/16"-18 "B" LH Ext.	30 & 400 PSIG
806 8462-01-1	Fuel Gas	CGA 510	0-40 PSIG (0-3 BAR)	9/16"-18 "B" LH Ext.	60 & 400 PSIG
806 8403-01-1	Hydrogen Methane	CGA 350	0-40 PSIG (0-3 BAR)	9/16"-18 "B" LH Ext.	60 & 4000 PSIG
806 9453-01-1	Hydrogen Methane	CGA 350	0-100 PSIG (0-7 BAR)	9/16"-18 "B" LH Ext.	200 & 4000 PSIG
806 9402-01-1	Argon, Nitrogen, Helium (Inert Gas)	CGA 580	0-100 PSIG (0-7 BAR)	5/8"-18 "B" RH Int.	200 & 4000 PSIG
806 9403-01-1	Argon, Nitrogen, Helium (Inert Gas)	CGA 580	0-40 PSIG (0-3 BAR)	5/8"-18 "B" RH Int.	60 & 4000 PSIG
806 8435-01-1*	Argon, Nitrogen, Helium (Inert Gas)	CGA 580	0-6 PSIG (0-1 BAR)	5/8"-18 "B" RH Int.	10 & 4000 PSIG
806 9451-01-1	Carbon Dioxide	CGA 320	0-15 PSIG (0-1 BAR)	5/8"-18 "B" RH Int.	30 & 4000 PSIG
806 9489-01-1	Industrial Air	CGA 590	0-40 PSIG (0-3 BAR)	1/4" MNPT	60 & 4000 PSIG
806 9490-01-1	Industrial Air	CGA 590	0-100 PSIG (0-7 BAR)	1/4" MNPT	200 & 4000 PSIG
806 9491-01-1	Breathing Air	CGA 346	0-40 PSIG (0-3 BAR)	1/4" MNPT	60 & 4000 PSIG
806 9492-01-1	Breathing Air	CGA 346	0-100 PSIG (0-7 BAR)	1/4" MNPT	200 & 4000 PSIG

* Tamper proof model with 3 1/2" 0-10 PSIG Retard Gauge

* Acetylene should not be used over 15 PSIG

CYLINDER REGULATORS



6800 SERIES

High-flow Heavy Duty Heating and Cutting

The 6800 Series High-flow Heavy Duty heating and cutting regulator provides primary pressure control of industrial gas cylinders in applications requiring high-flow rates with delivery pressures up to 250 PSIG. The stainless steel diaphragm provides sensitive pressure control and reliable performance in cold climates while the large orifice seat and $\frac{1}{2}$ " process ports enable ultra-high-flow rates. Combined with robust materials of construction and a wide range of delivery pressures, the 6800 series is an ideal choice for heavy duty, high-flow heating and cutting applications.



806 6800 Shown

REGULATORS

Features	Materials of Construction	Specifications
$\frac{1}{2}$" Seat and Outlet Port Ultra high-flow	Body Forged brass	Max Inlet Pressure PTFE 3000 PSIG PCTFE 5500 PSIG
Stainless Diaphragm Model Cold climate performance	Bonnet Chrome-plated die-cast zinc	Temperature Range PTFE -40 to 140° F (-40 to 66° C) PCTFE -40 to 150° F (-40 to 66° C)
2 $\frac{1}{2}$" PSIG/kPa Pressure Gauges Excellent visibility	Seat PTFE, PCTFE	Cv .28
	Diaphragm Stainless steel	Gauges 2- $\frac{1}{2}$ " manufactured to ANSI/ASME B40.1
	25-Micron Inlet Filter Bronze	Conformances CGA E-4

Ordering Information

Part Number	Gas Service	Inlet	Outlet Pressure	Outlet Fittings	Pressure Gauges
806 6800-01-1	Oxygen	CGA 540	0-250 PSIG (0-17 BAR)	$\frac{7}{8}$ " -14 "C" RH Ext.	400 & 4000 PSIG
806 6866-01-1*	Oxygen	CGA 540	0-250 PSIG (0-17 BAR)	$\frac{1}{2}$ " stainless tube	400 & 4000 PSIG
806 6806-01-1	Oxygen	CGA 540	0-125 PSIG (0-9 BAR)	$\frac{7}{8}$ " -14 "C" RH Ext.	200 & 4000 PSIG
806 6802-01-1	Acetylene	CGA 300	0-15* PSIG (0-1 BAR)	$\frac{7}{8}$ " -14 "C" LH Ext.	30 & 400 PSIG
806 6809-01-1	Acetylene	CGA 510	0-15* PSIG (0-1 BAR)	$\frac{7}{8}$ " -14 "C" LH Ext.	30 & 400 PSIG
806 6832-01-1	Fuel Gas	CGA 510	0-40* PSIG (0-3 BAR)	$\frac{7}{8}$ " -14 "C" LH Ext.	60 & 400 PSIG
806 6807-01-1	Hydrogen, Methane	CGA 350	0-250 PSIG (0-17 BAR)	$\frac{7}{8}$ " -14 "C" LH Ext.	400 & 4000 PSIG
806 6813-01-1	Hydrogen, Methane	CGA 350	0-125 PSIG (0-9 BAR)	$\frac{7}{8}$ " -14 "C" RH Ext.	200 & 4000 PSIG
806 6805-01-1	Argon, Nitrogen, Helium	CGA 580	0-250 PSIG (0-17 BAR)	$\frac{7}{8}$ " -14 "C" RH Int.	400 & 4000 PSIG
806 6803-01-1	Argon, Nitrogen, Helium	CGA 580	0-125 PSIG (0-9 BAR)	$\frac{7}{8}$ " -14 "C" RH Int.	200 & 4000 PSIG
806 6865-01-1*	Argon, Nitrogen, Helium	CGA 580	0-250 PSIG (0-17 BAR)	$\frac{1}{2}$ " stainless tube	400 & 6000 PSIG
806 6808-01-1	Air	CGA 346	0-250 PSIG (0-17 BAR)	$\frac{7}{8}$ " -14 "C" RH Ext.	400 & 4000 PSIG
806 6818-01-1	Air	CGA 346	0-125 PSIG (0-9 BAR)	$\frac{7}{8}$ " -14 "C" RH Ext.	200 & 4000 PSIG
806 6868-01-1*	Argon, Nitrogen, Helium	CGA 680	0-250 PSIG (0-17 BAR)	$\frac{1}{2}$ " stainless tube	400 & 6000 PSIG
806 6867-01-1	Air	CGA 347	0-250 PSIG (0-17 BAR)	$\frac{1}{2}$ " FNPT	400 & 6000 PSIG

* Stainless steel diaphragm

* Acetylene should not be used over 15 PSIG

CYLINDER REGULATORS



6520 SERIES

Medium-Heavy Duty Welding, Heating and Cutting

The 6520 Series Medium Duty welding, heating, and cutting regulator provides primary pressure control of industrial gas cylinders in applications requiring moderate flow rates with delivery pressures up to 200 PSIG. The encapsulated seat designed increases pressure control accuracy and provides extended component lifecycle while the neoprene diaphragm provides steady and reliable pressure control. Combined with robust materials of construction and a wide range of delivery pressures, the 6520 is an ideal choice for medium duty welding, heating, and cutting applications.



806 6520 Shown

5 YEAR WARRANTY

The CONCOA Capsule® is warranted for five years to be free of defects in materials and workmanship.



Features	Materials of Construction	Specifications
Neoprene Diaphragm Steady pressure control	Body Forged brass	Max Inlet Pressure PTFE 3000 PSIG PCTFE 5500 PSIG
Medium-Large Seat Displacement Good flow capacity	Bonnet Chrome-plated die-cast zinc	Temperature Range PTFE -40 to 140°F (-40 to 66°C) PCTFE -40 to 150°F (-40 to 66°C)
2 1/2" PSIG/kPa Pressure Gauges Excellent visibility	Seat PTFE, PCTFE	Cv .2
	Diaphragm Neoprene	Gauges 2-1/2" manufactured to ANSI/ASME B40.1
	25-Micron Inlet Filter Bronze	Conformances CGA E-4
		CRN 0H5216.5R1

Ordering Information

Part Number	Gas Service	Inlet	Outlet Pressure	Outlet Fittings	Pressure Gauges
806 6520-01-1	Oxygen	CGA 540	0-200 PSIG (0-14 BAR)	9/16"-18 "B" RH Ext.	400 & 4000 PSIG
806 6526-01-1	Oxygen	CGA 540	0-125 PSIG (0-9 BAR)	9/16"-18 "B" RH Ext.	200 & 4000 PSIG
806 6522-01-1	Acetylene, Fuel Gas	CGA 300	0-15* PSIG (0-1 BAR)	9/16"-18 "B" LH Ext.	30 & 400 PSIG
806 6529-01-1	Acetylene, Fuel Gas	CGA 510	0-15* PSIG (0-1 BAR)	9/16"-18 "B" LH Ext.	30 & 400 PSIG
806 6523-01-1	Argon, Nitrogen, Helium	CGA 580	0-200 PSIG (0-14 BAR)	5/8"-18 "B" RH Int.	400 & 4000 PSIG
806 6525-01-1	Argon, Nitrogen, Helium	CGA 580	0-125 PSIG (0-9 BAR)	5/8"-18 "B" RH Int.	200 & 4000 PSIG
806 6528-01-1	Argon, Nitrogen, Helium	CGA 680	0-125 PSIG (0-9 BAR)	5/8"-18 "B" RH Int.	200 & 6000 PSIG
806 6527-01-1	Air	CGA 347	0-125 PSIG (0-9 BAR)	1/4" MNPT	200 & 6000 PSIG
* Acetylene can not be used over 15 PSIG					

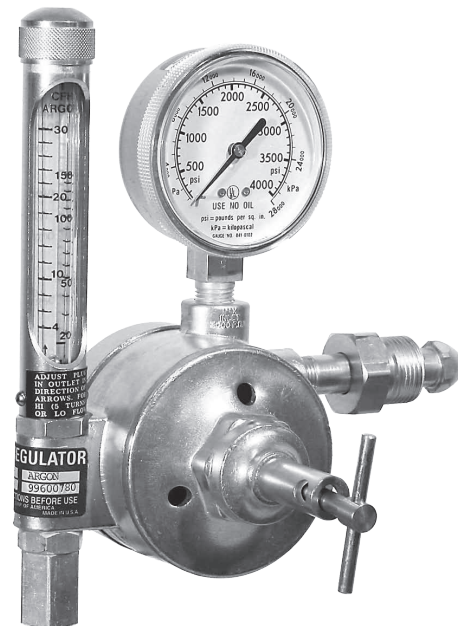
FLOW CONTROL REGULATORS



9400 SERIES

Heavy Duty MIG and TIG Welding and Blanketing

The 9400 Series Heavy Duty welding and blanketing regulator provides primary flow control of industrial gas cylinders in applications requiring inlet pressures up to 3000 PSIG and flow rates up to 200 SCFH. The direct seat design enables high precision operation while the rugged materials of construction enable high durability to extend the lifecycle of system components. Combined with a wide range of delivery pressures and gas compatibility, the 9400 Series is an ideal choice for high precision, high durability welding and blanketing applications.



806 9475 Shown

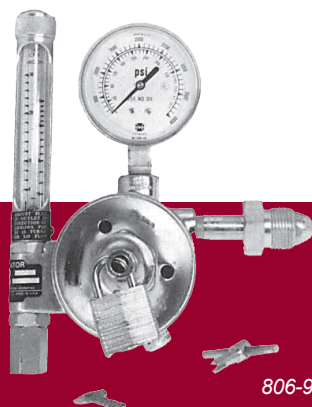
REGULATORS

Features	Materials of Construction	Specifications
Non-Compensated Flowmeter Eliminates gas surge Dual Range Flowmeter Enables precise gas metering Dual-Stage Configuration Allows complete use of cylinder	Body Forged brass Bonnet Forged brass Seat Neoprene & PCTFE Diaphragm Neoprene 25-Micron Inlet Filter Bronze	Max Inlet Pressure 3000 PSIG Temperature Range -40 to 140°F (-40 to 66°C) Gauges 2-1/2" manufactured to ANSI/ASME B40.1 Conformances CGA E-4

Ordering Information					
Part Number	Gas Service	Inlet	Flow Capacity (SCFH)	Outlet Fittings	Pressure Gauges
806 9470-01-1	Helium	CGA 580	Lower 4-40/Upper 20-200	1/8" -18 "B" RH Int.	4000 PSIG
806 9474-01-1	Argon	CGA 580	Lower 4-30/Upper 20-150	1/8" -18 "B" RH Int.	4000 PSIG
806 9475-01-1 (See Below)	Argon	CGA 580	Lower 4-30/Upper 20-150	1/8" -18 "B" RH Int.	4000 PSIG

Tamper-Proof Model

* Same as the 806 9474 except with tamper proof spring case and special adjusting key as shown. Padlock not included.



806-9475 Shown

FLOW CONTROL REGULATORS



6500 SERIES

Medium-Heavy Duty MIG and TIG Welding and Blanketing

The 6500 Series Medium-Heavy Duty welding and blanketing regulator provides primary flow control of industrial gas cylinders in applications requiring flow rates up to 200 SCFH. The rugged forged brass construction provides high durability while the encapsulated seat design provides accurate pressure control and extended component lifecycle. Combined with rugged materials of construction and compatibility with a wide range of gasses, the 6500 is an ideal choice for MIG and TIG welding and blanketing applications.



Features	Materials of Construction	Specifications
Gas Saver Flowmeter Model Eliminates gas surge Dual Scale Flow Tube Enables process flexibility Interchangeable Flowmeter Design Lowers maintenance costs	Body Forged brass Bonnet Chrome-plated die-cast zinc Seat PTFE, PCTFE Diaphragm Neoprene 25-Micron Inlet Filter Bronze	Max Inlet Pressure PTFE 3000 PSIG PCTFE 5500 PSIG Temperature Range PTFE -40 to 140° F (-40 to 66° C) PCTFE -40 to 150° F (-40 to 66° C) Gauges 2" manufactures to ANSI/ASME B40.1 Conformances CGA E-4 CRN 0H5216.5R1

Ordering Information

Part Number	Inlet	Type	Scale
806 6538-01-1	CGA 580	Liquid Cylinder	Argon/Helium
806 6540-01-1	CGA 680	Gas Saver, Very High-pressure	Argon/Helium
806 6541-01-1	CGA 680	Tamper-proof, Very High-pressure	Argon/Helium
806 6547-01-1	CGA 680	Very High-pressure	Argon/Helium
806 6570-01-1	CGA 580	Gas Saver, High-pressure	Argon/Helium
806 6572-01-1	CGA 580	Liquid Cylinder, Tamper-proof	Argon/Helium (no inlet gauge)
806 6573-01-1	CGA 580	Tamper-proof, High-pressure	Argon/Helium
806 6574-01-1 (Max inlet 200 PSIG)	CGA 034	Tamper-proof, Gas Saver	Argon/Helium (no inlet gauge)
806 6575-01-1	CGA 580	High-pressure	Argon/Carbon Dioxide
806 6577-01-1	CGA 320	High-pressure	Argon/Carbon Dioxide
806 6579-01-1	CGA 580	Dual Flowmeter, High-pressure	Argon/Carbon Dioxide
806 6571-01-1	CGA 320	Dual Flowmeter, High-pressure	Carbon Dioxide

FLOW CONTROL REGULATORS



5500 SERIES

Medium Duty MIG and TIG Welding and Blanketing

The 5500 Series Medium-Heavy welding and blanketing regulator provides primary flow control of industrial gas cylinders in applications requiring inlet pressures up to 5500 PSIG and flow rates up to 200 SCFH. The rugged brass barstock construction provides high durability while the encapsulated seat design provides accurate pressure control and extended component lifecycle. Combined with compatibility of a wide range of gasses, the 5500 is an ideal choice for medium duty MIG and TIG welding and blanketing applications.



806-5517 Shown



Features	Materials of Construction	Specifications
Neoprene Diaphragm Steady pressure control Medium-Large Seat Displacement Good flow capacity 2" PSIG/kPa Pressure Gauges Excellent visibility	Body Brass barstock Bonnet Chrome-plated brass Seat PTFE, PCTFE Diaphragm Neoprene 25-Micron Inlet Filter Bronze	Max Inlet Pressure PTFE 3000 PSIG PCTFE 5500 PSIG Temperature Range PTFE -40 to 140° F (-40 to 66° C) PCTFE -40 to 150° F (-40 to 66° C) Gauges 2" manufactured to ANSI/ASME B40.1 Conformances CGA E-4

Ordering Information					
Part Number	Gas Service	Inlet	Flow Gauge Range	Outlet Fittings	Pressure Gauges
806 5517-01-1	Argon	CGA 580	20-60 SCFH Argon*	5/8"-18 "B" RH Int.	4000 PSIG
806 5580-01-1	Argon MIG Kit*	CGA 580	20-30 SCFH Carbon Dioxide*	5/8"-18 "B" RH Int.	4000 PSIG
806 5505-01-1	Carbon Dioxide	CGA 320	15-50 SCFH Carbon Dioxide	5/8"-18 "B" RH Int.	4000 PSIG
806 5547-01-1	Argon/Carbon Dioxide	CGA 680 (5500 PSIG Max)	20-60 SCFH Argon/6000 PSIG Carbon Dioxide (20-30 Carbon Dioxide)	5/8"-18 "B" RH Int.	6000 PSIG
Part Number	Gas Service	CON	Flow Meter Range	Outlet Fittings	Pressure Gauges
806 5577-01-1	Carbon Dioxide	CGA 320	5-55 SCFH Carbon Dioxide	5/8"-18 "B" RH Int.	4000 PSIG
806 5525-01-1	Carbon Dioxide MIG Kit*	CGA 320	5-55 SCFH Carbon Dioxide	5/8"-18 "B" RH Int.	4000 PSIG
806 5575-01-1	Argon/Helium	CGA 580	10-60 SCFH Argon/30-200 SCFH Helium	5/8"-18 "B" RH Int.	4000 PSIG
806 5519-01-1	Argon/Helium MIG Kit*	CGA 580	10-60 SCFH Argon/30-200 SCFH Helium	5/8"-18 "B" RH Int.	4000 PSIG
806 5570-01-1	Argon/Helium Gas Saver	CGA 580	10-60 SCFH Argon/30-200 SCFH Helium	5/8"-18 "B" RH Int.	4000 PSIG
806 5578-01-1	Argon/Helium Gas Saver MIG Kit*	CGA 580	10-60 SCFH Argon/30-200 SCFH Helium	5/8"-18 "B" RH Int.	4000 PSIG
806 5535-01-1	Argon-Hydrogen, Mixtures	CGA 350	10-60 SCFH Argon/30-200 SCFH Helium	5/8"-18 "B" RH Int.	4000 PSIG
806 5560-01-1	Argon/Helium Gas Saver	CGA 680 (5500 PSIG Max)	10-60 SCFH Argon/30-200 SCFH Helium	5/8"-18 "B" RH Int.	6000 PSIG
806 5568-01-1	Argon/Helium	CGA 680 (5500 PSIG Max)	10-60 SCFH Argon/30-200 SCFH Helium	5/8"-18 "B" RH Int.	6000 PSIG
*MIG Kits include 5 feet of hose			* Dual Scale Flow Gauge Argon & Carbon Dioxide		

LIQUID CYLINDER REGULATOR



6530 SERIES

Medium-Heavy Duty Welding, Heating and Cooling

The 6530 Series Medium-Heavy Duty welding, heating, and cutting regulator provides primary control of liquid industrial gas cylinders in applications requiring outlet pressures up to 200 PSIG. The stainless steel diaphragm provides sensitive pressure control and reliable performance in cold climates while the encapsulated seat design increases pressure control accuracy and extends component lifecycle. Combined with rugged materials of construction and compatibility with a wide range of gases, the 6530 Series is an ideal choice for liquid cylinder welding, heating, and cutting applications.

5 YEAR WARRANTY

The CONCOA Capsule® is warranted for five years to be free of defects in materials and workmanship.



806 6530 Shown

806 6537 Shown

Features	Materials of Construction	Specifications
2.5" (63mm) 316L Stainless Diaphragm Cold climate performance	Body Chrome-plated forged brass	Max Inlet Pressure 3000 PSIG
Self Seating Relief Valve Protects against liquid flash	Bonnet Chrome-plated die-cast zinc	Temperature Range -40 to 140° F (-40 to 66° C)
Capsule® Seat Assembly High cycle life	Seat PTFE	Cv .28
	Diaphragm 316L stainless steel	Gauges 2-1/2" manufactured to ANSI/ASME B40.1
	35-Micron Inlet Filter Bronze	Conformances CGA E-4 CRN 0H5216.5R1

Ordering Information

Part Number	Gas Service	Inlet	Outlet Pressure	Outlet Fittings	Pressure Gauges
806 6530-01-1	Oxygen	CGA 540	0-200 PSIG	1/16"-18"B" RH Ext.	400 PSIG
806 6536-01-1	Oxygen	CGA 540	0-120 PSIG	1/16"-18 "B" RH Ext.	200 PSIG
806 6535-01-1	Argon, Nitrogen, Helium	CGA 580	0-120 PSIG	5/8"-18 "B" RH Int.	200 PSIG
806 6531-01-1	Carbon Dioxide	CGA 320	0-120 PSIG	5/8"-18 "B" RH Int.	200 PSIG
806 6537-01-1	Argon/Carbon Dioxide	CGA 580	Argon 10-55 PSIG CO ₂ 10-55 PSIG	5/8"-18 "B" RH Int.	No pressure gauge
806 6538-01-1 (Gas Saver)	Argon/Helium	CGA 580	Argon 10-60 PSIG Helium 30-200 PSIG	5/8"-18 "B" RH Int.	No pressure gauge
806 6534-01-1 (Dual Flowmeter)	Argon/Carbon Dioxide	CGA 580	Argon 10-55 PSIG CO ₂ 10-55 PSIG	5/8"-18 "B" RH Int.	No pressure gauge

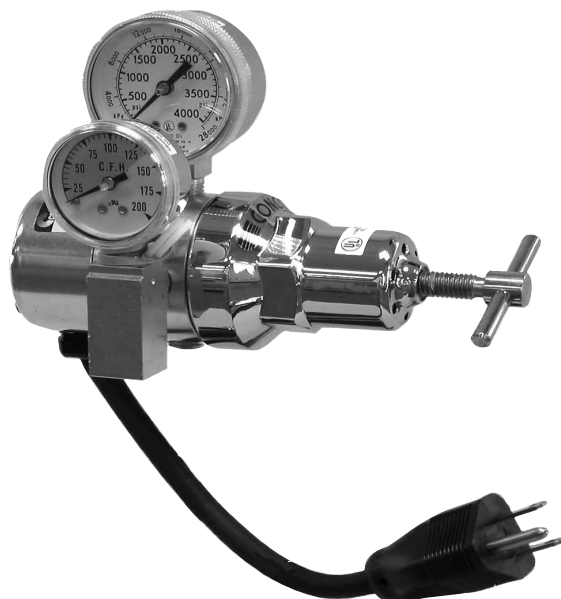
SPECIAL PURPOSE REGULATOR



8000 SERIES

Medium Duty MIG and TIG Welding and Blanketing

The 8000 Series Medium Duty welding and blanketing regulator provides primary control of condensable industrial gases like Carbon Dioxide and Nitrous Oxide requiring outlet pressures up to 135 PSIG. The thermostatically controlled heater provides steady and reliable heat to maintain vapor phase of the gas stream while the neoprene diaphragm provides accurate pressure control. Combined with rugged materials of construction and a wide range of flow and pressure regulation configurations, the 8000 series is an ideal choice for MIG and TIG welding and blanketing applications.



REGULATORS

Features	Materials of Construction	Specifications
Thermostatically Controlled 95-120°F Prevents regulator freeze up Pressure and Flow Gauge Models Process flexibility 2" (50mm) Diaphragm with Integral Self Seating Relief Valve Tamper proof safety	Body Brass barstock Bonnet Brass barstock Seat PTFE, PCTFE Diaphragm Neoprene 35-Micron Inlet Filter Bronze	Max Inlet Pressure PTFE 3000 PSIG PCTFE 5500 PSIG Temperature Range PTFE -40 to 140° F (-40 to 66° C) PCTFE -40 to 150° F (-40 to 66° C) Cv .15 Gauges 1-1/2", 2-1/2" manufactured to ANSI/ASME B40.1 Conformances CGA E-4

CRN 0H5216.5R1

Ordering Information					
Part Number	Gas Service	Inlet	Outlet Pressure/Flowrate	Outlet Fittings	Gauges
806 8005-01-1 (110V)	Carbon Dioxide	CGA 320	0-135 SCFH	5/8"-18 RH Int.	200 SCFH & 4000 PSIG
806 8008-01-1 (220V)	Carbon Dioxide	CGA 320	0-135 SCFH	5/8"-18 RH Int.	200 SCFH & 4000 PSIG
806 8010-01-1 (110V)	Argon, Nitrogen, Helium, AG-25	CGA 580	0-125 PSIG	5/8"-18 RH Int.	200 PSIG & 4000 PSIG
806 8020-01-1 (220V)	Argon, Nitrogen, Helium, AG-25	CGA 580	0-125 PSIG	5/8"-18 RH Int.	200 PSIG & 4000 PSIG
806 8039-01-1 (110V)	Nitrous Oxide	CGA 326	0-125 PSIG	1/4" FNPT	200 PSIG & 4000 PSIG
806 8040-01-1 (220V)	Nitrous Oxide	CGA 326	0-125 PSIG	1/4" FNPT	200 PSIG & 4000 PSIG
806 8075-01-1 (110V)	Argon/Carbon Dioxide	CGA 580	10-55 SCFH Argon 10-55 SCFH Carbon Dioxide	5/8"-18 RH Int.	55 SCFH & 4000 PSIG
High-pressure Regulators					
806 8061-01-1 (110V)	Argon, Nitrogen, Helium (Inert Gas)	680 (5500 PSIG Max)	0-125 PSIG	1/4" FNPT	200 PSIG & 6000 PSIG
806 8062-01-1 (220V)	Argon, Nitrogen, Helium (Inert Gas)	680 (5500 PSIG Max)	0-125 PSIG	1/4" FNPT	200 PSIG & 6000 PSIG
806 8077-01-1 (110V)	Argon, Nitrogen, Helium (Inert Gas)	580	0-135 SCFH	5/8"-18 RH Int.	200 SCFH & 6000 PSIG

SPECIAL PURPOSE REGULATOR



1400 SERIES Ultra High-pressure Delivery

The 1400 Series Ultra-High-pressure regulator provides primary control of high-pressure gas sources requiring outlet pressures up to 6000 PSIG with inlet pressures up to 6000 PSIG. The heavy duty internals enable high delivery pressures while the brass piston design provides steady and reliable pressure control. Combined with robust materials of construction and a wide range of compatible gases, the 1400 series is an ideal choice for industrial gas applications requiring ultra-high delivery pressures.



Features	Materials of Construction	Specifications
Positive Seat Stop Prevents seat deformation High Cycle Life Installation flexibility Viton Piston O-Ring Seals Accurate pressure control	Body Brass barstock Seat PTFE, PCTFE, PEEK Piston Brass 25-Micron Inlet Filter Bronze 1/4" Outlet Tube Fitting 316L Stainless Steel	Temperature Range PTFE -40 to 140° F (-40 to 66° C) PCTFE -40 to 150° F (-40 to 66° C) PEEK -40 to 275° F (-40 to 135° C) Cv .15 Gauges 2-1/2" manufactured to ANSI/ASME B40.1 Conformances CGA E-4 CRN 0H5216.5R1

Ordering Information

Part Number (Seat)	Gas Service	Outlet Pressure/Gauge	Max Inlet Pressure/Gauge	Inlet
806 1413-01-1 PTFE	Oxygen	0-750 PSIG/1500 PSIG	3000 PSIG/4000 PSIG	CGA 540
806 1416-01-1 PTFE	Oxygen	0-1500 PSIG/4000 PSIG	3000 PSIG/4000 PSIG	CGA 540
806 1436-01-1 PTFE	Oxygen	0-2500 PSIG/4000 PSIG	3000 PSIG/4000 PSIG	CGA 540
806 1426-01-1 PCTFE	Oxygen	0-1500 PSIG/4000 PSIG	4000 PSIG/6000 PSIG	CGA 577
806 1446-01-1 PCTFE	Oxygen	0-2500 PSIG/4000 PSIG	4000 PSIG/6000 PSIG	CGA 577
806 1414-01-1 PTFE	Inert	0-750 PSIG/1500 PSIG	3000 PSIG/4000 PSIG	CGA 580
806 1415-01-1 PTFE	Inert	0-1500 PSIG/4000 PSIG	3000 PSIG/4000 PSIG	CGA 580
806 1435-01-1 PTFE	Inert	0-2500 PSIG/4000 PSIG	3000 PSIG/4000 PSIG	CGA 580
806 1424-01-1 PCTFE	Inert	0-750 PSIG/1500 PSIG	5500 PSIG/6000 PSIG	CGA 680
806 1425-01-1 PCTFE	Inert	0-1500 PSIG/4000 PSIG	5500 PSIG/6000 PSIG	CGA 680
806 1445-01-1 PCTFE	Inert	0-4500 PSIG/6000 PSIG	5500 PSIG/6000 PSIG	CGA 680
806 1455-01-1 PCTFE	Inert	0-2500 PSIG/4000 PSIG	5500 PSIG/6000 PSIG	CGA 680
806 1461-01-1 PEEK	Inert	0-1500 PSIG/4000 PSIG	6000 PSIG/10000 PSIG	CGA 677
806 1462-01-1 PEEK	Inert	0-2500 PSIG/4000 PSIG	6000 PSIG/10000 PSIG	CGA 677
806 1465-01-1 PEEK	Inert	0-4500 PSIG/6000 PSIG	6000 PSIG/10000 PSIG	CGA 677
806 1466-01-1 PEEK	Inert	0-6000 PSIG/10000 PSIG	6000 PSIG/10000 PSIG	CGA 677
806 1418-01-1 PTFE	Air	0-1500 PSIG/4000 PSIG	3000 PSIG/4000 PSIG	CGA 346
806 1438-01-1 PTFE	Air	0-2500 PSIG/4000 PSIG	3000 PSIG/4000 PSIG	CGA 346
806 1419-01-1 PTFE	Air	0-1500 PSIG/4000 PSIG	3000 PSIG/4000 PSIG	CGA 590
806 1439-01-1 PTFE	Air	0-2500 PSIG/4000 PSIG	3000 PSIG/4000 PSIG	CGA 590
806 1428-01-1 PCTFE	Air	0-1500 PSIG/4000 PSIG	5500 PSIG/6000 PSIG	CGA 347
806 1448-01-1 PCTFE	Air	0-4500 PSIG/6000 PSIG	5500 PSIG/6000 PSIG	CGA 347
806 1458-01-1 PCTFE	Air	0-2500 PSIG/4000 PSIG	5500 PSIG/6000 PSIG	CGA 347
806 1411-01-1 PTFE	Hydrogen or Methane	0-1500 PSIG/4000 PSIG	3000 PSIG/4000 PSIG	CGA 350
806 1431-01-1 PTFE	Hydrogen or Methane	0-2500 PSIG/4000 PSIG	3000 PSIG/4000 PSIG	CGA 350
806 1421-01-1 PCTFE	Hydrogen or Methane	0-1500 PSIG/4000 PSIG	5500 PSIG/6000 PSIG	CGA 695
806 1441-01-1 PCTFE	Hydrogen or Methane	0-4500 PSIG/6000 PSIG	5500 PSIG/6000 PSIG	CGA 695
806 1451-01-1 PCTFE	Hydrogen or Methane	0-2500 PSIG/4000 PSIG	5500 PSIG/6000 PSIG	CGA 695

Related Options

Part Number	Description
830 6483	Panel Mount Kit

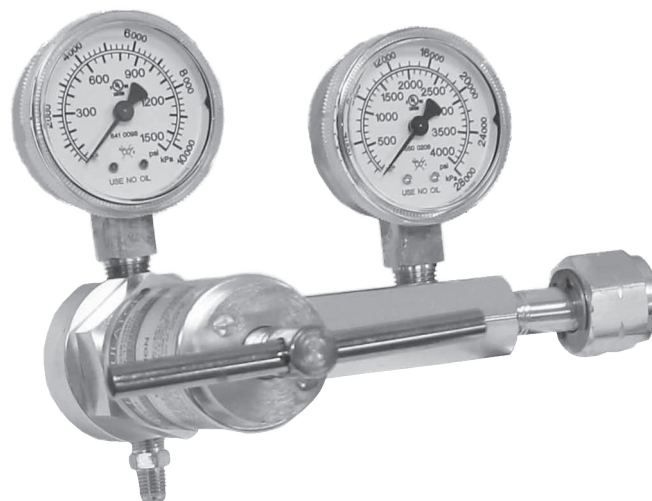
SPECIAL PURPOSE REGULATOR



1100 SERIES

High-pressure Delivery

The 1100 Series High-pressure regulator provides primary control of high-pressure gas sources requiring outlet pressures up to 1000 PSIG with inlet pressures up to 3000 PSIG. The heavy duty internals enable high delivery pressures while the neoprene diaphragm provides steady and reliable pressure control. Combined with robust materials of construction and a wide range of compatible gases, the 1100 series is an ideal choice for industrial gas applications requiring high delivery pressures.



806-1143 Shown

REGULATORS

Features			Materials of Construction		Specifications
Indirect Gas Flow Path Precise flow control 36" Copper Tubing with 1/8" MNPT Outlet Installation flexibility 2" PSIG/kPa Pressure Gauges Economical package			Body Brass barstock		Max Inlet Pressure 3000 PSIG
			Bonnet Brass barstock		Temperature Range -40 to 140° F (-40 to 66° C)
			Inlet Tee Assembly Brass barstock		Cv .1
			Seat PTFE		Gauges 2" manufactured to ANSI/ASME B40.1
			Diaphragm Neoprene		Conformances CGA E-4
			Inlet Filter Monel® and glass wool		
			Ordering Information		
Part Number	Gas Service	Inlet	Outlet Pressure	Outlet Fittings	Pressure Gauges
806 1130-01-1	Oxygen	CGA 540	0-1000 PSIG (0-70 BAR)	36" Flexible Copper Tubing (1/8" MNPT, 3/16" diameter)	1500 & 4000 PSIG
806 1143-01-1	Hydrogen	CGA 350	0-1000 PSIG (0-70 BAR)	36" Flexible Copper Tubing (1/8" MNPT, 3/16" diameter)	1500 & 4000 PSIG
806 1135-01-1	Argon, WP Nitrogen, Helium	CGA 580	0-1000 PSIG (0-70 BAR)	36" Flexible Copper Tubing (1/8" MNPT, 3/16" diameter)	1500 & 4000 PSIG
806 1136-01-1	Nitrogen OP	CGA 555	0-1000 PSIG (0-70 BAR)	36" Flexible Copper Tubing (1/8" MNPT, 3/16" diameter)	1500 & 4000 PSIG
806 1189-01-1	Industrial Air	CGA 590	0-1000 PSIG (0-70 BAR)	36" Flexible Copper Tubing (1/8" MNPT, 3/16" diameter)	1500 & 4000 PSIG

SPECIAL PURPOSE REGULATOR



6200 SERIES

Ultra High-flow Dome Load

The 6200 Series ultra-high-flow, high-pressure dome loaded regulator is designed to provide adjustable control of industrial gases delivered from cryogenic sources or in applications requiring outlet pressures up to 2000 PSIG. The dome-loaded, balanced stem seat design enables flow rates up to 10,000 SCFH while also providing constant delivery flow and pressure regardless of supply source inlet pressure fluctuations. Combined with CONCOA's broad line of industrial pilot regulators, the 6200 Series is the ideal choice for high-flow, high-pressure, or cryogenic source applications.

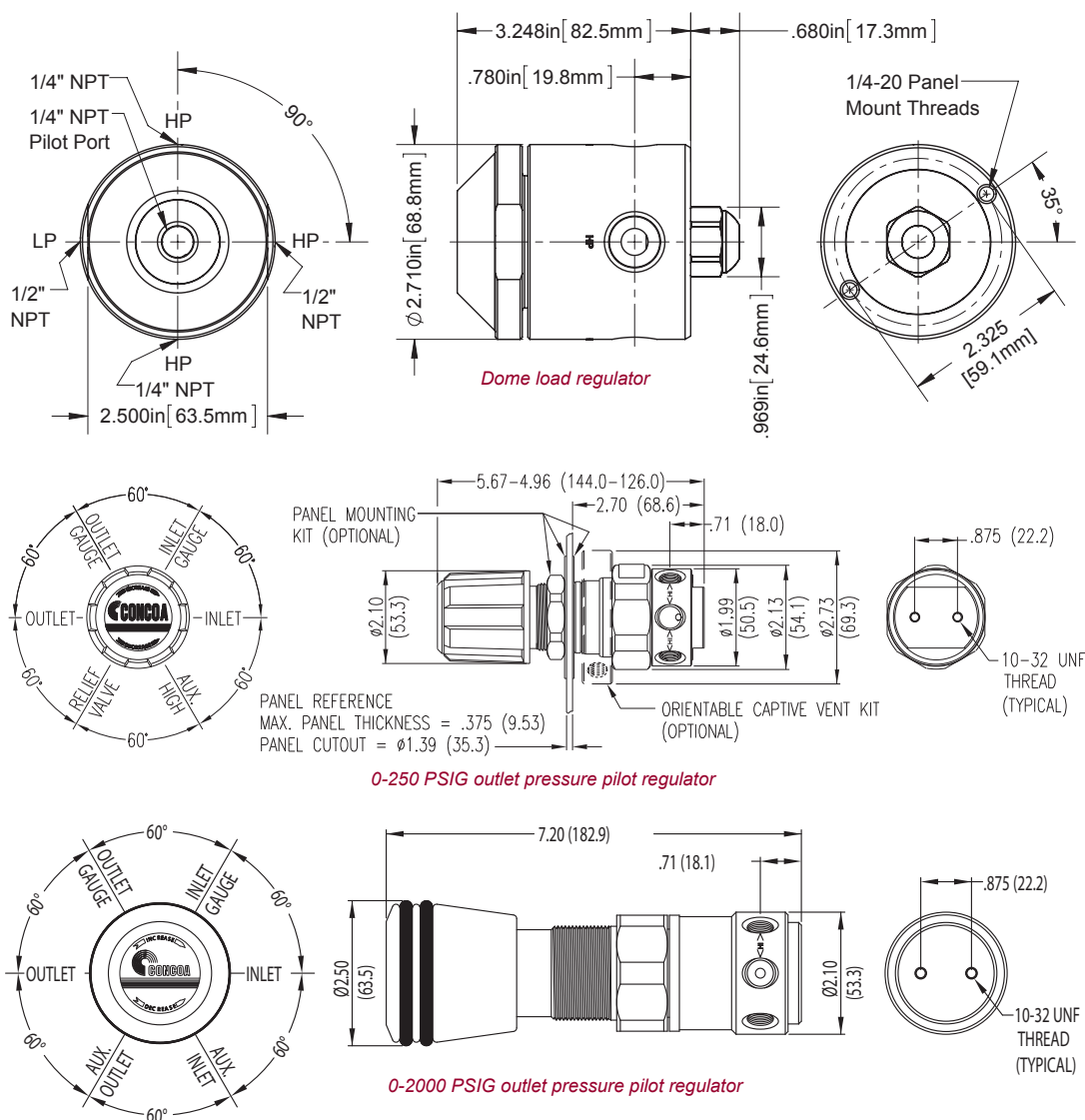


Features	Materials of Construction	Specifications
Delivery Options up to 2000 PSIG Liquid or high-pressure use	Dome Load Regulator Body Brass barstock	Max Inlet Pressure Chloroprene 3000 PSIG (210 BAR) Viton 3000 PSIG (210 BAR) PCTFE 5500 PSIG (310 BAR)
40-Micron Filtration Extended lifecycle	Dome Load Regulator Bonnet Brass barstock	Temperature Range Chloroprene -40 to 140°F (-40 to 60°C) Viton -40 to 140°F (-40 to 60°C) PCTFE -40 to 150°F (-40 to 66°C)
Panel Mountable Flexible installation	Dome Load Regulator Seat Chloroprene (3000 PSIG inlet diaphragm) Viton® (3000 PSIG inlet cartridge) PCTFE (4500 PSIG inlet cartridge)	Cv .2
Low Static Design Improves performance with cryogenics	Dome Load Regulator 40-Micron Inlet Filter 316L stainless steel	Conformances CGA E-4
Diaphragm and Cartridge Sensed Versions Application flexibility	Pilot Regulator Body Brass barstock	
	Pilot Regulator Bonnet Brass barstock	
	Pilot Regulator Seat PCTFE (4500 PSIG inlet version) PTFE (3000 PSIG inlet version)	
	Pilot Regulator 25-Micron Inlet Filter Bronze	

SPECIAL PURPOSE REGULATOR



Installation Dimensions



REGULATORS

Ordering Information

Part Number	Description	Seat Material	Max Inlet Pressure	Outlet Pressure
806 6200-01-1	Dome Load Regulator Only	Viton*	3000 PSIG	0-3000 PSIG
806 6201-01-1	Dome Load Regulator Only	Chloroprene	3000 PSIG	0-3000 PSIG
806 6208-01-1	Dome Load Regulator Only	PCTFE	4500 PSIG	0-4500 PSIG
806 6260-01-1	Dome Load and Pilot Regulator	Viton*	3000 PSIG	0-2000 PSIG
806 6261-01-1	Dome Load and Pilot Regulator	Chloroprene	3000 PSIG	0-2000 PSIG
806 6268-01-1	Dome Load and Pilot Regulator	PCTFE	4500 PSIG	0-2000 PSIG
806 6270-01-1	Dome Load and Pilot Regulator	Viton*	3000 PSIG	0-500 PSIG
806 6271-01-1	Dome Load and Pilot Regulator	Chloroprene	3000 PSIG	0-500 PSIG
806 6278-01-1	Dome Load and Pilot Regulator	PCTFE	4500 PSIG	0-500 PSIG
806 6280-01-1	Dome Load and Pilot Regulator	Viton*	3000 PSIG	0-250 PSIG
806 6281-01-1	Dome Load and Pilot Regulator	Chloroprene	3000 PSIG	0-250 PSIG

*Not for use with Carbon Dioxide or Nitrous Oxide

SPECIAL PURPOSE REGULATOR



2500 SERIES

Helium Balloon Filling

The 2500 Series Helium Balloon Filling regulator provides steady and reliable control of high-pressure helium using inlet pressures up to 3000 PSIG. The rubber tilt valve enables a rapid and safe filling process while the over pressure relief port mitigates damage to the regulator. Combined with robust materials of construction and a wide range of equipment configurations, the 2500 Series is an ideal choice for helium balloon filling applications.



806 2521 Shown

Features	Materials of Construction	Specifications
Rubber Tilt Valve Quick & safe fill	Body Brass barstock	Max Inlet Pressure 3000 PSIG
Over Pressure Relief Port Prevents regulator damage	Inlet Connection Brass	Temperature Range -40 to 140° F (-40 to 66° C)
Tie Hook Ready Prevents accidental discharge	Seat PTFE	Cv .1
	10-Micron Inlet Filter Bronze	Conformances CGA E-4
	Filling Nozzle Rubber tilt	

CRN 0C17947.5

Ordering Information

Part Number	Description
806 2521-01-1	Regulator for Helium balloon filling with wrench-tight CGA 580 cylinder connection and without cylinder pressure gauge
806 2522-01-1	Regulator for Helium balloon filling with hand-tight CGA 580 cylinder connection and without cylinder pressure gauge
806 2523-01-1	Regulator for Helium balloon filling with wrench-tight CGA 580 Cylinder connections and cylinder pressure gauge
806 2524-01-1	Regulator for Helium balloon filling with hand-tight CGA 580 cylinder connection and cylinder pressure gauge

ACCESSORIES



GUARDS AND WRENCHES



Part Number

830 3120

8400/9400 Hard Hat Regulator Guard
The Hard Hat Regulator Guard protects the 8400/9400 Series regulator and its gauges from possible damage when installed in a hazardous location.



Part Number Color

830 7761	Green
830 7762	Red
830 6100	Pair (1-Red, 1 Green)

Gauge Guards for 5500 & 5600 Series Regulators
Molded specifically to fit the 5500 and 5600 Series, gauge guards come in red and green, and protect the regulator and gauges when located in hazardous locations.



Part Number

809 0028

Forged Universal Wrench
Designed to fit sizes for most welding applications, this universal wrench has close tolerance openings to prevent damage to brass nuts, and a forged acetylene key.

GAUGES



CONCOA gauges are designed to provide steady and reliable pressure display in any processing environment worldwide. A wide variety of gauge sizes and outlet ranges combined with high-durability materials deliver the flexibility and reliability users demand in industrial gas applications.

Part Number	Size	Range (PSIG unless noted otherwise)	Increments (PSIG)
841 0223	1 1/2" Diameter Gauges, 1/8" MNPT	0-60	2
841 0124	1 1/2" Diameter Gauges, 1/8" MNPT	0-200	5
841 0126	1 1/2" Diameter Gauges, 1/8" MNPT	0-2000	100
841 0158	1 1/2" Diameter Gauges, 1/8" MNPT	0-200 CFH	5
841 0207	1 1/2" Diameter Gauges, 1/8" MNPT	0-4000 (back-mount)	--
841 0223	1 1/2" Diameter Gauges, 1/8" MNPT	0-60	2
841 0224	1 1/2" Diameter Gauges, 1/8" MNPT	0-400	10
550 0208	2" Diameter Gauges, 1/4" MNPT	0-4000	100
841 0098	2" Diameter Gauges, 1/4" MNPT	0-1500	50
841 4437	2" Diameter Gauges, 1/4" MNPT	20-60 CFH Argon / 20-50 CFH Carbon Dioxide	--
841 4438	2" Diameter Gauges, 1/4" MNPT	20-60 CFH Argon / 20-30 CFH Carbon Dioxide	--
841 0056	2" Diameter Gauges, 1/4" MNPT	0-400	10
841 0057	2" Diameter Gauges, 1/4" MNPT	0-30 (red line)	1
841 0076	2" Diameter Gauges, 1/4" MNPT	0-60	2
841 0003	2 1/2" Diameter Gauges 1/4" MNPT	0-30 (red line)	1
841 0004	2 1/2" Diameter Gauges 1/4" MNPT	0-50	1
841 0005	2 1/2" Diameter Gauges 1/4" MNPT	0-200	4
841 0007	2 1/2" Diameter Gauges 1/4" MNPT	0-400	10
841 0014	2 1/2" Diameter Gauges 1/4" MNPT	0-100	2
841 0077	2 1/2" Diameter Gauges 1/4" MNPT	0-60	2
841 0102	2 1/2" Diameter Gauges 1/4" MNPT	0-4000	100
841 0225	2 1/2" Diameter Gauges 1/4" MNPT	0-30	1
841 6000	2 1/2" Diameter Gauges 1/4" MNPT	0-6000	200

TORCH HANDLES & CUTTING ATTACHMENTS



TIP MIX CUTTING EQUIPMENT GENERAL INFORMATION

Internal threads prevent unnecessary repairs.

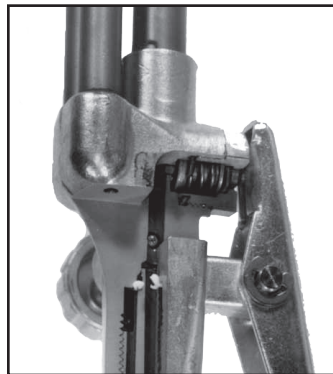
Gases are mixed in the tip not in the tubes, which eliminates costly mixer repairs.

Silver brazed joints add rigidity and strength.

Tip mix design ensures you get the right mixer for the job.

Tapered cutting Oxygen valve for ease-on control.

Forged brass body for durability and long life.

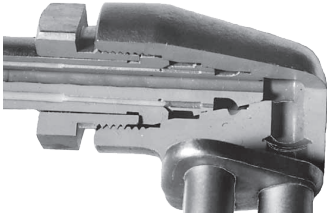


Tapered Neoprene seal rings create hand-tight leakproof connections without rolling or tearing.

CUTTING TORCHES



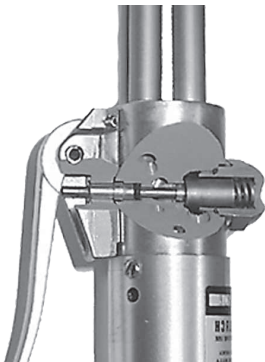
KEY FEATURES



Tip mix system assures safe mixing, allows operation with any fuel gas and requires less maintenance.

Die Forged brass or optional stainless steel head reduces heat distortion and increases durability.

Internal tip nut threads minimizes head damage



All silver brazed tube joints provides added rigidity and strength.

Tapered cutting Oxygen valve gives excellent ease-on for piercing.

Contoured Oxygen cutting lever designed to minimize operator fatigue.



CONCOA's Corn Cob® handle design provides balance and sure grip.

Shrouded valves provide maximum stem durability and protection.

Fuel valve is spring loaded to provide smooth torque and anti-backlash for precise flame control.



TORCHES

TORCH HANDLES & CUTTING ATTACHMENTS



800 TORCH HANDLE & ATTACHMENTS

The 800 Series handle is a heavy duty torch suitable for the most demanding heating, welding, and cutting applications. With a superior flow for heavy heating, the torch can provide up to 1.35 million BTUs per hour with an appropriate tip. The torch can also be combined with 4800-5800 Style attachments for cutting up to 8" (20 cm).

Specifications

Length

10" (25 cm)

Weight (without tip)

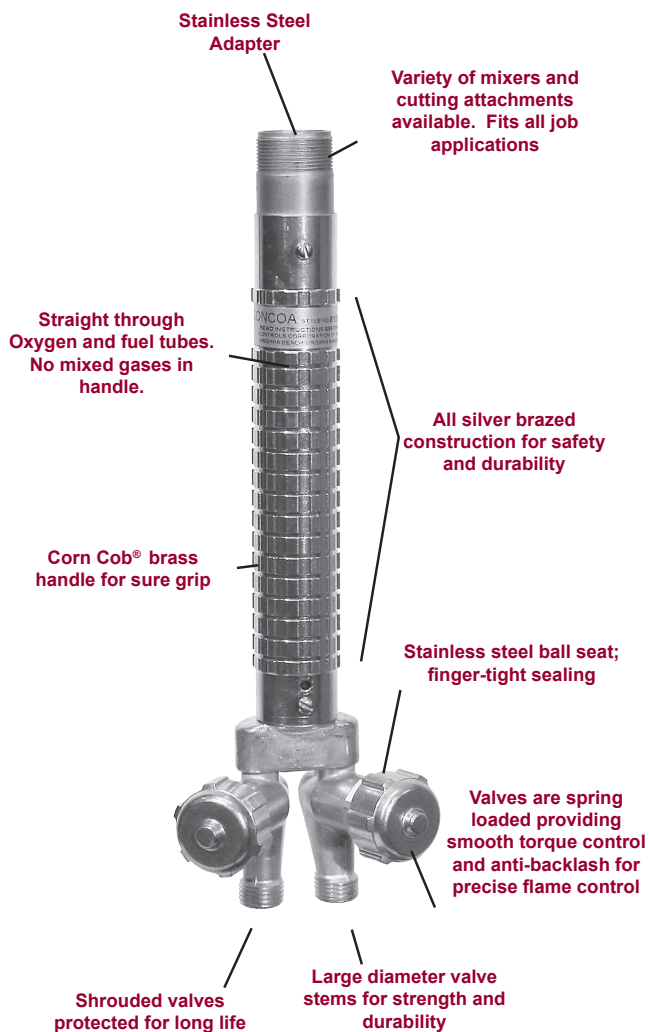
1.3 lbs. (0.6 kg)

Fittings

$\frac{9}{16}$ " - 18 B Ext.

Hose Sizes

$\frac{1}{4}$ " or $\frac{5}{16}$ " (6.3 mm or 7.9mm)



Ordering Information

Part Number	Details
819 0800-01-1	800 Series torch handle

4800-5800 STYLE CUTTING ATTACHMENTS

Ordering Information

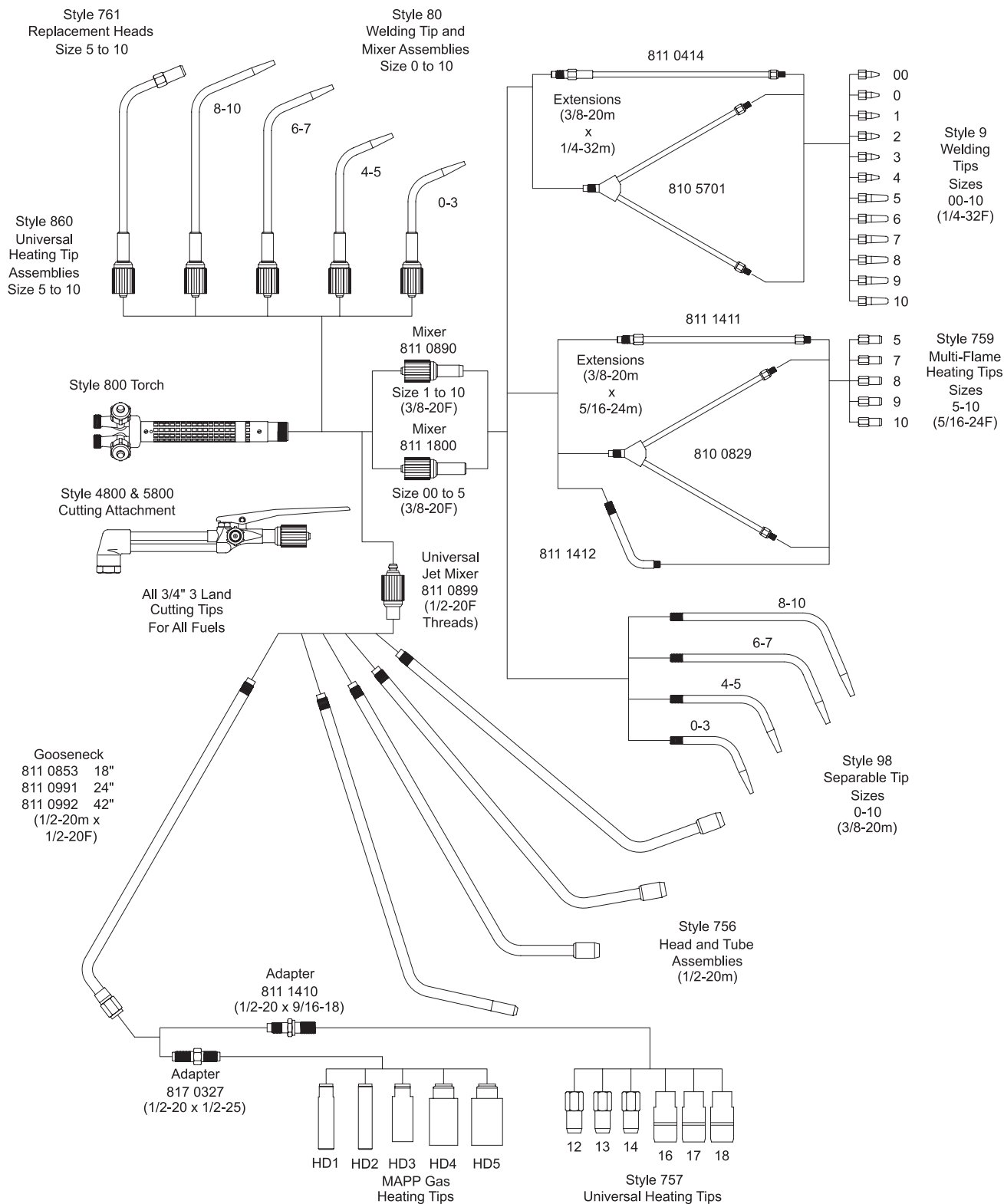
Part Number	Series	Head Angle	Head	Tubes	Length	Weight
822 4875-01-1	4800	75°	Stainless Steel	Nickel Alloy	12" (30.5 cm)	1.8 lbs. (.82 kg.)
822 4890-01-1	4800	90°	Stainless Steel	Nickel Alloy	12" (30.5 cm)	1.8 lbs. (.82 kg.)
822 5875-01-1	5800	75°	Bronze	Nickel Alloy	12" (30.5 cm)	1.8 lbs. (.82 kg.)
822 5890-01-1	5800	90°	Bronze	Nickel Alloy	12" (30.5 cm)	1.8 lbs. (.82 kg.)
822 5810-01-1	5800	180°	Brass	Nickel Alloy	12" (30.5 cm)	1.8 lbs. (.82 kg.)



TORCH HANDLES & CUTTING ATTACHMENTS



800 TORCH HANDLE & ATTACHMENTS



TORCHES

TORCH HANDLES & CUTTING ATTACHMENTS



750 TORCH HANDLE & ATTACHMENTS

The 750 Series handle is a versatile torch usable with all fuel gases. Its excellent flow capacity supports heating and welding in a wide variety of medium-duty applications. The torch can also be combined with 4700-5700 Style attachments for cutting up to 6" (15 cm).

Specifications

Length

8 3/4" (22 cm)

Weight (without tip)

1.0 lbs. (0.5 kg)

Fittings

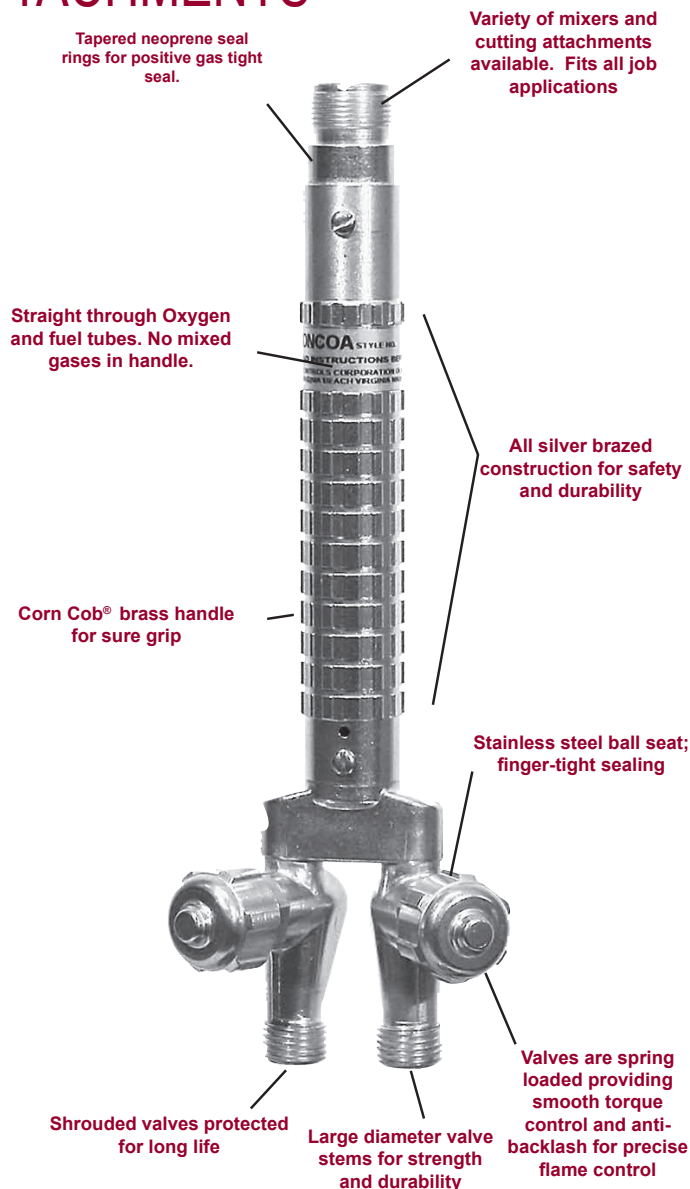
3/16"-18 B Ext.

Hose Sizes

1/4" or 5/16" (6.3 mm or 7.9mm)

Ordering Information

Part Number	Details
818 0750-01-1	750 Series torch handle



4700-5700 STYLE CUTTING ATTACHMENTS

Ordering Information

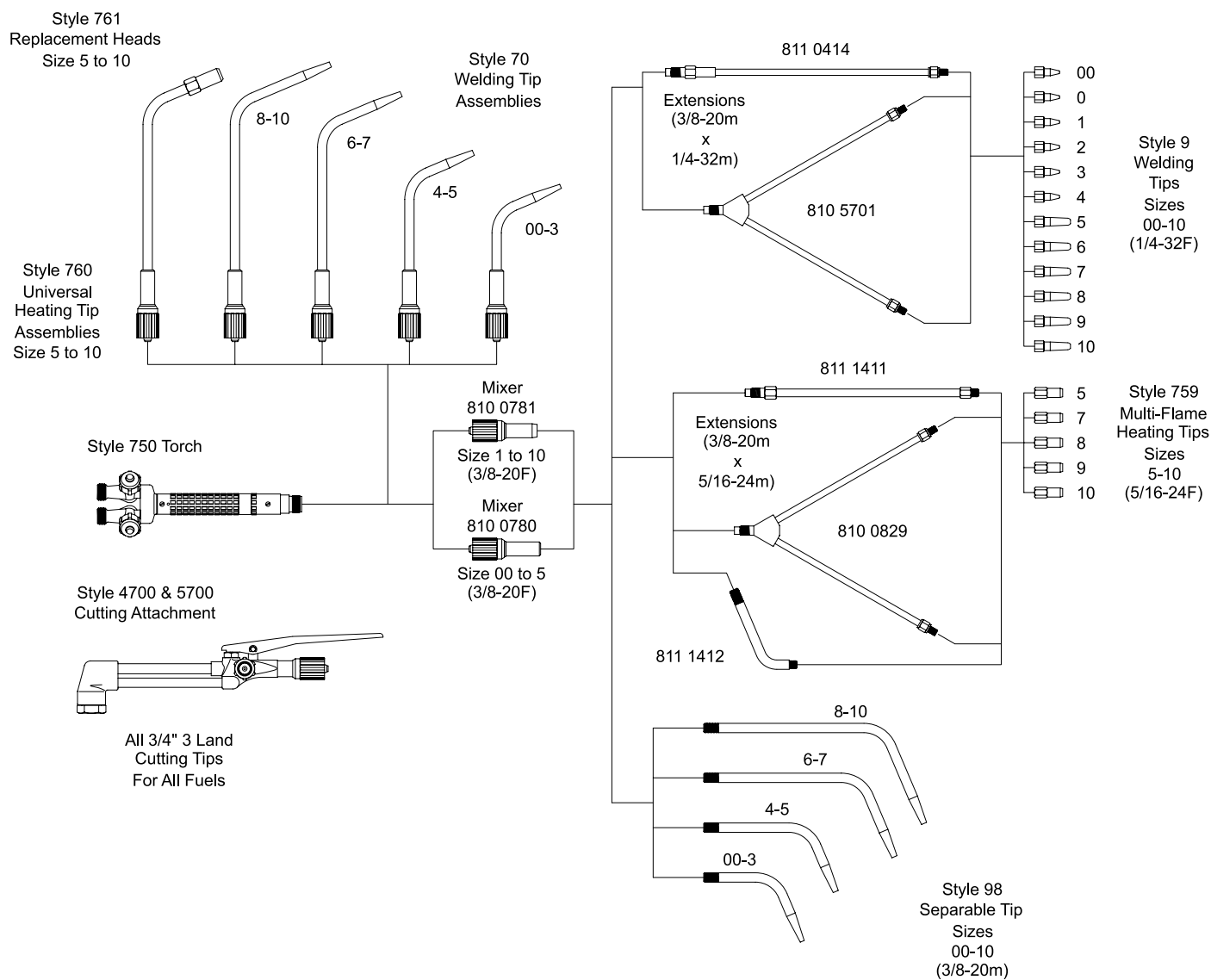
Part Number	Series	Head Angle	Head	Tubes	Length	Weight
822 4775-01-1	4700	75°	Stainless Steel	Nickel Alloy	12" (30.5 cm)	1.6 lbs. (.73 kg)
822 4790-01-1	4700	90°	Stainless Steel	Nickel Alloy	12" (30.5 cm)	1.6 lbs. (.73 kg)
822 5775-01-1	5700	75°	Bronze	Nickel Alloy	12" (30.5 cm)	1.6 lbs. (.73 kg)
822 5790-01-1	5700	90°	Bronze	Nickel Alloy	12" (30.5 cm)	1.6 lbs. (.73 kg)
822 5710-01-1	5700	180°	Brass	Nickel Alloy	12" (30.5 cm)	1.6 lbs. (.73 kg)



TORCH HANDLES & CUTTING ATTACHMENTS



750 TORCH HANDLE & ATTACHMENTS



TORCHES

Welding Tips



Style 70

Long-flame Tip-mixer Assemblies for 750 Series handles

These assemblies include a welding tip, a matched mixer, neoprene gas sealing rings and a tip nut. The matched mixer assures full range flame.

Ordering Information

Part Number	Tip Style 98	Mixer	Tip Size	Drill Size No.	Inch	Welding Thickness	Acetylene		Oxygen		Propylene	
							PSIG	SCFH	PSIG	SCFH	PSIG	PSIG
810 7020-00-1	811 9820-00-1	810 0780	00	76	0.020	1/64 ga	2	1.4	2	1.5	--	--
810 7000-00-1	811 9800-00-1	810 0780	0	72	0.025	1/32 ga	2	2.1	2	2.3	1	2-3
810 7001-00-1	811 9801-00-1	810 0780	1	68	0.031	1/16 ga	2	2.5	2	2.75	1-2	3-4
810 7002-00-1	811 9802-00-1	810 0780	2	62	0.038	3/32 ga	2	4	2	4.4	1-2	3-4
810 7003-00-1	811 9803-00-1	810 0780	3	56	0.047	1/8	2	5.5	2	6	1-2	3-4
810 7004-00-1	811 9804-00-1	810 0780	4	54	0.055	3/16	2	7.5	2	8.25	1-2	3-5
810 7005-00-1	811 9805-00-1	810 0780	5	51	0.067	1/4	2	10	3	11	1-3	3-5
810 7006-00-1	811 9806-00-1	810 0781	6	48	0.076	5/16	2	15	3	16.5	1-3	3-5
810 7007-00-1	811 9807-00-1	810 0781	7	44	0.086	3/8	3	22	4	24	2-4	3-6
810 7008-00-1	811 9808-00-1	810 0781	8	40	0.098	1/2	4	32	5	32.2	3-5	5-9
810 7009-00-1	811 9809-00-1	810 0781	9	35	0.110	5/8	5	44	6	48.4	3-5	5-9
810 7010-00-1	811 9810-00-1	810 0781	10	30	0.129	3/4 - up	7	60	10	66	3-5	5-9



Style 80

Long-flame Tip-mixer Assemblies for 800 Series handles

These assemblies include a welding tip, a matched mixer, neoprene gas sealing rings and a tip nut. The matched mixer assures full range flame.

Ordering Information

Part Number	Tip Style 98	Mixer	Tip Size	Drill Size No.	Inch	Welding Thickness	Acetylene		Oxygen		Propylene	
							PSIG	SCFH	PSIG	SCFH	PSIG	PSIG
811 8000-00-1	811 9800-00-1	811 1800	0	72	0.025	1/32 -20 ga	2	2.1	2	2.3	1	2-3
811 8001-00-1	811 9801-00-1	811 1800	1	68	0.031	1/16 -16 ga	2	2.5	2	2.75	1-2	3-4
811 8002-00-1	811 9802-00-1	811 1800	2	62	0.038	3/32 - 12 ga	2	4	2	4.4	1-2	3-4
811 8003-00-1	811 9803-00-1	811 1800	3	56	0.047	1/8	2	5.5	2	6	1-2	3-4
811 8004-00-1	811 9804-00-1	811 1800	4	54	0.055	3/16	2	7.5	2	8.25	1-2	3-5
811 8005-00-1	811 9805-00-1	811 1800	5	51	0.067	1/4	2	10	3	11	1-3	3-5
811 8006-00-1	811 9806-00-1	811 0890	6	48	0.076	5/16	2	15	3	16.5	1-3	3-5
811 8007-00-1	811 9807-00-1	811 0890	7	44	0.086	3/8	3	22	4	24	2-4	3-6
811 8008-00-1	811 9808-00-1	811 0890	8	40	0.098	1/2	4	32	5	32.2	3-5	5-9
811 8009-00-1	811 9809-00-1	811 0890	9	35	0.110	5/8	5	44	6	48.4	3-5	5-9
811 8010-00-1	811 9810-00-1	811 0890	10	30	0.129	3/4 - up	7	60	10	66	3-5	5-9

Interchangeable Welding Tips



Style 9

Interchangeable Style Bulbous Flame Tips for 750 and 800 Series handles

These tips have a bulbous type of flame and are perfect for silver brazing hard-to-reach joints. They are ideal for applying heat to hard-to-reach locations.

Ordering Information

Part Number	Size	Drill Size No.	Inch.	With 800 Series Torch use mixer*	With 750 Series Torch use mixer*
811 0900-00-1	00	76	0.020	811 1800	810 0780
811 0920-00-1	0	72	0.025	811 1800	810 0780
811 0901-00-1	1	68	0.031	811 1800/811 0890	810 0780/810 0781
811 0902-00-1	2	62	0.038	811 1800/811 0890	810 0780/810 0781
811 0903-00-1	3	56	0.047	811 1800/811 0890	810 0780/810 0781
811 0904-00-1	4	54	0.055	811 1800/811 0890	810 0780/810 0781
811 0905-00-1	5	51	0.067	811 1800/811 0890	810 0780/810 0781
811 0906-00-1	6	48	0.076	811 0890	810 0781
811 0907-00-1	7	44	0.086	811 0890	810 0781
811 0908-00-1	8	40	0.098	811 0890	810 0781
811 0909-00-1	9	35	0.110	811 0890	810 0781
811 0910-00-1	10	30	0.129	811 0890	810 0781
				*Requires 810 5701 or 811 0414 extension	



Style 756

Universal Single-tube Multi-flame Heating Tip for 800 Series Handles

Medium to heavy heating tip designed for bronze brazing heavy sections, flame-heating, flame-hardening, these tips effectively provide concentrated heat which permits fast, efficient work.

Ordering Information

Part Number	Size	With 800 Series torch use mixer
811 1910-00-1	10	811 0899
811 1912-00-1	12	811 0899
811 1913-00-1	13	811 0899
811 1914-00-1	14	811 0899

TIPS



Style 759

Multi-flame Heating Tip for 800 Series Handles

These heating tips are useful in light range heating and brazing operations, and efficiently concentrate heat using seven flames.

Ordering Information

Part Number	Size	With 800 Series torch use mixer*	With 750 Series torch use mixer*
810 0975-00-1	5	811 0890	810 0781
810 0977-00-1	7	811 0890	810 0781
810 0978-00-1	8	811 0890	810 0781
810 0979-00-1	9	811 0890	810 0781
810 0980-00-1	10	811 0890	810 0781

*Requires 810 0829, 811 1411, or 811 1412 extension



Style 757

Interchangeable Universal Multi-flame Heating Tip for 800 Series Handles

These tips are useful for medium to very heavy bronze brazing, flame-heating, hardening, and are characterized by flame stability and heating efficiency.

Ordering Information

Part Number	Size	With 800 Series torch use mixer*
811 2032-00-1	12	811 0899
811 2033-00-1	13	811 0899
811 2034-00-1	14	811 0899
811 2036-00-1	16 (not for use with acetylene)	811 0899
811 2037-00-1	17 (not for use with acetylene)	811 0899
811 2038-00-1	18 (not for use with acetylene)	811 0899

*Requires 811 0853, 811 0991 or 811 0992 extension and 811 1410 adapter



Style 760

Universal Heating Tip and Mixer Assembly for 750 Series Handles

Compatible with all fuels, flame ends are removable (Style 761) for replacement or for changing to other flame head sizes.

Ordering Information

Part Number	Tip (Style 761)	Size	Includes Mixer	Includes Tube
810 2705-00-1	810 1075-00-1	5	810 2015	810 2016-00-1
810 2707-00-1	810 1077-00-1	7	810 2015	810 2016-00-1
810 2708-00-1	810 1078-00-1	8	810 2015	810 2016-00-1
810 2709-00-1	810 1079-00-1	9	810 2015	810 2016-00-1
810 2710-00-1	810 1080-00-1	10	810 2015	810 2016-00-1

TIPS



Style 860

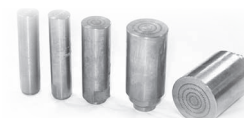
Universal Heating Tip and Mixer Assembly for 800 Series Handles
Compatible with all fuels, flame ends are removable (Style 761) for replacement or for changing to other flame head sizes.

Ordering Information

Part Number	Tip (Style 761)	Size	Includes mixer	Includes tube
810 3805-00-1	810 1075-00-1	5	811 2017	810 2016-00-1
810 3807-00-1	810 1077-00-1	7	811 2017	810 2016-00-1
810 3808-00-1	810 1078-00-1	8	811 2017	810 2016-00-1
810 3809-00-1	810 1079-00-1	9	811 2017	810 2016-00-1
810 3810-00-1	810 1080-00-1	10	811 2017	810 2016-00-1

PROPYLENE HEATING HEADS

For Use with 800 Series Handles



Ordering Information

Part Number	Internal Thread Size*	With 800 Series Torch Use Adapter*	Style
817 0500-01-1	1/2"-25 F	811 0899	MPH-HD1
817 0501-01-1	1/2"-25 F	811 0899	MPH-HD2
817 0502-01-1	1/2"-25 F	811 0899	MPH-HD3
817 0503-01-1	1/2"-25 F	811 0899	MPH-HD4
817 0504-01-1	1/2"-25 F	811 0899	MPH-HD5

*Requires 811 0853, 811 0991 or 811 0992 gooseneck and 817 0327 adapter

TORCHES

GOOSENECKS AND ADAPTERS FOR HEATING TIPS



Shown 811-0853

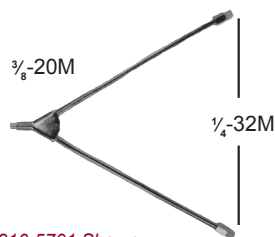
Ordering Information

Part Number	External Thread Size	Internal Thread Size	Description
811 0853	1/2"-20 M	1/2"-20 F	18" Gooseneck
811 0991	1/2"-20 M	1/2"-20 F	24" Gooseneck
811 0992	1/2"-20 M	1/2"-20 F	42" Gooseneck
811 1410	1/2"-20 M	9/16"-18 M	Adapter
817 0327	1/2"-20 M	1/2"-25 M	Adapter

ACCESSORIES



EXTENSIONS



810-5701 Shown



811-0414 Shown

Ordering Information

Part Number	For Tip Style	For Tip Sizes	For Torch	Description
811 0414	9	00-10	750/800	10" (25.4cm) Flexible
810 5701	9	00-10	750/800	8" (20.3cm) Dual Flexible



811-0992 Shown



811-0991 Shown



811-0853 Shown

Ordering Information

Part Number	For Tip Style	For Tip Sizes	For Torch	Description
811 0992	HD (requires 817 0327)	1-5	800	42" (106.7cm) Rigid
811 0991	757 (requires 811 1410)	12-18	800	24" (61.0cm) Rigid
811 0853	757 (requires 811 1410)	12-18	800	18" (45.7cm) Rigid



811-1412 Shown



811-1411 Shown



810-0829 Shown

Ordering Information

Part Number	For Tip Style	For Tip Sizes	For Torch	Description
810 0829	759	5-10	750/800	8" (20.3cm) Dual Flexible
811 1411	759	5-10	750/800	9" (22.9cm) Flexible
811 1412	759	5-10	750/800	4" (10.2cm) Rigid



811-0434 Shown

Ordering Information

Part Number	For Tip Style	For Tip Sizes	For Torch	Mixer	Description
811 0434	9	00-10	750/800	810 1700	10" (25.4cm) Flexible

ACCESSORIES



MIXERS

CONCOA gas mixers are used to mix oxy-fuel mixtures in welding and heating applications. These mixers can be used in all oxy-fuel mixes. Mixers are sized for the tip ranges detailed in the table below.



Ordering Information

Part Number	Use w/ Torch	Tip Range	Internal Thread
810 0780	750	00-5	3/8"-20
810 0781	750	0-10	3/8"-20
810 1700	750	0-10	7/16"-20
811 1800	800	00-5	3/8"-20
811 0890	800	0-10	3/8"-20
811 0891	800	11-13	3/8"-20
811 0899 (Jet Mixer)	800	Heating	1/2"-20

HOSES

CONCOA Twin Hoses - Grade T

CONCOA twin line hoses are constructed of high quality, cord-reinforced hose, molded side-by-side into a single, light and flexible unit. They come in 3/16, 1/4, and 5/16 sizes and meet RMA-CGA specifications. End fittings are 9/16-18 RH B on green (Oxygen hose) both ends, and 9/16-18 LH B on Red (Fuel Gas hose) both ends.



Ordering Information

Part Number	Length	Inside Diameter
908 0365-01	25 ft	3/16"
908 0425-01	25 ft	1/4"
908 0575-01	25 ft	5/16"
908 1362-01	12.5 ft	3/16"

CUTTING TORCHES




9700 Series
Heavy Duty Cutting

822 9706-01-1 Shown

Features

- **Bronze Head**
Low Maintenance
- **Nickel alloy triangular tubes**
Rigid and durable

Ordering Information

Part Number	Inches	Centimeters	Lbs.	Kgs.	Head Angle	Max. Cutting Capacity
822 9705-01-1	21	53	3.1	1.4	75°	12" (30.5 cm)
822 9706-01-1	21	53	3.1	1.4	90°	12" (30.5 cm)
822 9710-01-1	21	53	3.1	1.4	180°	12" (30.5 cm)
822 9740-01-1	36	91	3.5	1.6	180°	12" (30.5 cm)
822 9755-01-1	36	91	3.5	1.6	75°	12" (30.5 cm)
822 9756-01-1	36	91	3.5	1.6	90°	12" (30.5 cm)
822 9760-01-1	48	122	6.5	2.9	180°	12" (30.5 cm)
822 9785-01-1	48	122	6.5	2.9	75°	12" (30.5 cm)
822 9786-01-1	48	122	6.5	2.9	90°	12" (30.5 cm)
822 9795-01-1	72	183	9.0	4.1	75°	12" (30.5 cm)
822 9796-01-1	72	183	9.0	4.1	90°	12" (30.5 cm)

**Additional lengths available*



9500 Series
Heavy Duty Cutting in Rugged Environments

822 9516-01-1 Shown

Features

- **Stainless Steel**
Low Maintenance
- **Stainless steel triangular tubes**
Rigid and durable

Ordering Information

Part Number	Inches	Centimeters	Lbs.	Kgs.	Head Angle	Max. Cutting Capacity
822 9510-01-1	21	53	3.1	1.4	180°	12" (30.5 cm)
822 9515-01-1	21	53	3.1	1.4	75°	12" (30.5 cm)
822 9516-01-1	21	53	3.1	1.4	90°	12" (30.5 cm)
822 9540-01-1	36	91	3.5	1.6	180°	12" (30.5 cm)
822 9555-01-1	36	91	3.5	1.6	75°	12" (30.5 cm)
822 9556-01-1	36	91	3.5	1.6	90°	12" (30.5 cm)
822 9560-01-1	48	122	6.5	2.9	180°	12" (30.5 cm)
822 9585-01-1	48	122	6.5	2.9	75°	12" (30.5 cm)
822 9586-01-1	48	122	6.5	2.9	90°	12" (30.5 cm)
822 9590-01-1	72	183	9.0	4.1	180°	12" (30.5 cm)
822 9595-01-1	72	183	9.0	4.1	75°	12" (30.5 cm)
822 9596-01-1	72	183	9.0	4.1	90°	12" (30.5 cm)

**Additional lengths available*



9000 Series
Heavy Duty Cutting in Rugged Environments

822 9086-01-1 Shown

Features

- **Stainless Head**
Low Maintenance
- **Stainless Steel in-line tubes**
Rigid and durable

Ordering Information

Part Number	Inches	Centimeters	Lbs.	Kgs.	Head Angle	Head Type	Trigger
822 9085-01-1	21	53	3.06	1.38	75°	Stainless	Yes
822 9086-01-1	21	53	3.06	1.38	90°	Stainless	Yes

Additional Features

Tip mix for safety and versatility.

Corn Cob® handle for maximum operator control

In-line nickel alloy tubes provide strength and excellent view of cutting path.

Spring loaded fuel valve provides smooth torque control and anti-backlash for precise flame control.

CUTTING TORCHES



3000 SERIES CUTTING TORCH



822-3086 Shown

Features

- **Stainless Head**
Low Maintenance
- **Stainless Steel triangular tubes**
Rigid and inline

3000 Series

Ordering Information

Part Number	Inches	Centimeters	Lbs.	Kgs.	Head Angle	Head Type	Trigger/Lever
822 3085-01-1	21	53	2.4	1.1	75°	Stainless	Trigger
822 3086-01-1	21	53	2.4	1.1	90°	Stainless	Trigger
822 3185-01-1	21	53	2.8	1.3	75°	Stainless	Lever
822 3186-01-1	21	53	2.8	1.3	90°	Stainless	Lever

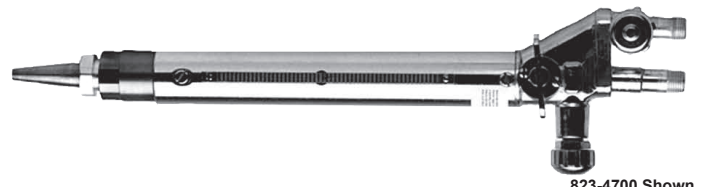
Additional Features

General purpose cutting of sheet metal to 12" (30.5 cm) steel.
Tip Mix for safety and versatility.
Ease on cutting Oxygen lever for better control in piercing.
Locking trigger assures better control.
Spring loaded fuel valve for smooth torque control and anti-backlash for precise flame control.

4700 SERIES MACHINE CUTTING TORCHES

Stainless steel ball valves assure positive seating and control. Stainless steel torch heads provide better tip seating, longer life. Spring loaded lift type cutting Oxygen valve allows fast on-off. 32 pitch rack and 1 3/8" diameter barrel.

** To balance multiple machine torch cutting applications use flow orifice part number 831-3022 on each Oxygen valve so you only have balance fuel valve.



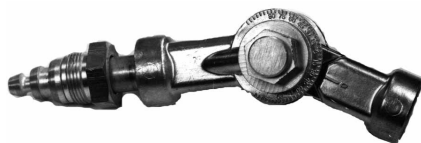
823-4700 Shown

TORCHES

Ordering Information

Part Number	Overall Torch Length		Max. Reach (Bottom to Tip End)		Effective Racking Length		Lbs.	Hose "B" Size	Barrel (In.)	Rack	Valve
	In.	Cm.	In.	Cm.	In.	Cm.					
823 4700-01-1	14.250	36.2	8.25	20.96	5	12.702	4	2	1 3/8	Yes	Yes
823 4701-01-1	19.250	48.902	13.25	33.66	10	25.404	4.13	2	1 3/8	Yes	Yes
823 4702-01-1	13.750	34.93	8.3	21.0	5	12.702	4.2	3	1 3/8	Yes	Yes
823 4781-01-1	19.250	48.902	19.3	48.9	10	25.404	4.5	3	1 3/8	Yes	Yes
823 4783-01-1	25.125	63.826	19.3	48.9	16	40.646	6.13	3	1 3/8	Yes	Yes
823 4792-01-1	6.500	16.512	4.5	11.4	3.5	8.891	3.75	3.	1 1/4	No	No
823 4708-01-1	8.000	20.320	4.5	11.4	2.5	6.350	3.75	3	1 3/8	No	Yes
823 4795-01-1	5.750	14.605	3.75	9.525	2.75	6.985	3.75	3	1 1/4	Yes	No
823 4796-01-1	5.750	14.605	3.75	9.525	2.75	6.985	3.75	3	1 1/4	No	No

ACCESSORIES



Adjustable Angular Torch Heads

Adjustable Angular Torch Heads permit bevel and straight line cutting without the need to angle the torch. Total angular adjustment on either side of the vertical plane is 125°. The additional 35° from the horizontal enables cutting from below work level when necessary. Indexing marks of 5° increments are forged in the face of the Adapter body to facilitate adjustment at any required degree. Tip sizes up to number 6 can be used with this attachment.

Ordering Information

Part Number	Torch
831 2100	4700 Series



Duplex Tip Holders

The Adjustable Duplex Tip Holder permits 2 parallel cuts to be made simultaneously with one CONCOA cutting torch. Easily adjusted to cut metal strips between 1 1/4" and 12" wide (3.2 and 305. cum). It can be used for work to 3" (7.6 cm) plate thickness.

Ordering Information

Part Number	Torch	Fuel Gas
831 2925	4700 Series	Propylene, Acetylene, Propane and Natural Gas



Circle Cutting Attachment

Precise circle cutting with hand torches or machine torches is easily accomplished with a Circle Cutting Attachment. It cuts circles 1" through 26" in diameter.

Ordering Information

Part Number	Torch
831 3100	3000, 9000, 9500 & 9700 Series



Guide Roller Attachment

Guide your torch steadily over larger plates and forgings with a Guide Roller Attachment. The guide roller attachment can accommodate either 75° or 90° heads. It consists of two small wheels, each drilled with six holes for venting and to prevent warping.

Ordering Information

Part Number	Torch
831 0667	3000, 7000, 9000, 9500, 9700 Series Hand Cutting Torches

ACCESSORIES



Torch Mounted Flashback Arrestors

Designed to attach at inlets of oxy-fuel torches. Prevents reverse flow of gases. Torch Arrestor Pac consists of matched set of one Oxygen and one fuel arrestor. UL listed and complies with ISO 5175, DIN 8521 and BS 6158. See Page 65 for more flashback arrestors.

Ordering Information

Part Number	Service	Torch End	Hose End	PSIG
801 7008	Oxygen	9/16"-18 RH Int.	9/16"-18 LH Ext.	150
801 7007	Fuel	9/16"-18 LH Int.	9/16"-18 LH Ext.	75*

* Acetylene is limited to 15 PSIG maximum working pressure.

Related Options

Part Number	Description
801 1460	Torch Arrestor Pack (Set of Oxygen and Fuel)



Gas Mizer

A Gas Mizer can save you up to 50% on Oxygen and fuel gas consumption in operations where torches are used intermittently. Installed between the regulator and the torch, a Gas Mizer will close off the Oxygen and fuel gas supply whenever the torch is hung from the handy arm hook. When the torch is picked up, the Gas Mizer starts the flow of Oxygen and fuel gas. The torch can be ignited by passing it across the pilot light. Drilled for bench mounting, the Gas Mizer may be mounted right at the work area for maximum convenience. The inlet and outlet have "B" connections.

Pilot burner sold separately according to appropriate gas.

Ordering Information

Part Number	Description
803 0480	Basic Gas Mizer
803 0477	Pilot Light Burner, Acetylene
817 0834	Pilot Light Burner, Propylene
803 0478	Pilot Light Burner, Propane
803 0225	Heliweld® Gas Mizer (No Pilot Light)
817 0835	Pilot Valve
817 0836	Pilot Adapter
832 4597	Tip Cleaner Set (Hole Sizes 49-77)
832 4598	Tip Cleaner Set (Hole Sizes 30-48)
833 1163	Tip Cleaner Set (Hole Sizes 30-77)

TORCHES

CONCOA SEAT ACETYLENE GENERAL PURPOSE



Style 124 - 1 Piece

Light preheat, for clean surfaces; straight line and shape cutting. Four preheat flames.

Part Number	Material Thickness	Tip Size	Drill Size	Oxygen		Fuel		Cutting Speed Range (IPM)
				PSIG	SCFH	PSIG	SCFH	
854 2499-00-1	1/8"	00	69 (.029)	30	32	3	6	18-20
854 2400-00-1	1/4"	0	64 (.036)	30	51	3	9	16-18
854 2401-00-1	3/8"	1	57 (.043)	30	73	3	12	15-17
854 2402-00-1	3/4"	2	55 (.052)	40	113	3	14	11-13 1/2
854 2403-00-1	1 1/4"	3	53 (.059)	40	166	3	16	10-12
854 2403-00-1	1 1/2"	3	53 (.059)	45	180	3	16	9-11
854 2403-00-1	2"	3	53 (.059)	50	195	3	16	7-9



Style 138 - 1 Piece

Light preheat tip designed for fine contour cutting with hand cutting torches and is recommended for machine cutting applications. Six preheat flames.

Part Number	Material Thickness	Tip Size	Drill Size	Oxygen		Fuel		Cutting Speed Range (IPM)
				PSIG	SCFH	PSIG	SCFH	
854 3899-01-1	1/8"	00	69 (.029)	30	30	1 1/2	11	21-24
854 3800-01-1	1/4"	0	64 (.036)	30	54	3	11	18-22
854 3801-01-1	3/8"	1	57 (.043)	30	76	3	13	18-21
854 3802-01-1	3/4"	2	55 (.052)	40	127	3	15	14-16
854 3803-01-1	1 1/2"	3	53 (.059)	45	183	3	16	11-14
854 3804-01-1	2 1/2"	4	50 (.070)	50	257	3	20	8-10



(Shown Actual Size)

Styles 124, 138, 144 & 164

The physical dimensions and appearance of these four styles are similar. The variations are in size and number of preheat orifices and the cutting Oxygen bore size. All are made of high quality tellurium copper and have a 3/4" (19 mm) diameter.

Hand Cutting Torches Series

3000, 7000, 9000, 9500 & 9700

Cutting Attachments Series

3500, 4700, 4800, 5700 & 5800

Machine Torch Series

4700 Series

CONCOA SEAT ACETYLENE GENERAL PURPOSE



Style 164 - 1 Piece

Very heavy preheat. It is well suited for work requiring heavy preheat such as rusted or heavily painted plate. Six preheat flames.

Part Number	Material Thickness	Tip Size	Drill Size	Oxygen		Fuel		Cutting Speed Range (IPM)
				PSIG	SCFH	PSIG	SCFH	
854 6499-01-1	1/8"	00	69 (.029)	25	33	1 1/2	13	22-26
854 6400-01-1	5/16"	0	64 (.036)	30	60	2	17	20-24
854 6401-01-1	1/2"	1	57 (.043)	40	105	3	25	17-20
854 6402-01-1	1"	2	55 (.052)	50	160	3	27	14-16
854 6403-01-1	1 3/4"	3	53 (.059)	50	210	3	29	11-15
854 6404-01-1	2 1/2"	4	50 (.070)	50	275	3	31	9-13
854 6405-01-1	4"	5	47 (.078)	60	400	4	45	7-10
854 6406-01-1	6"	6	42 (.093)	55	505	5	52	5-8
854 6407-01-1	8"	7	36 (.106)	60	680	6	70	4-6
854 6408-01-1	10"	8	1/8 (.125)	55	760	6	70	3 1/2-5
854 6411-01-1	14"	11	10 (.193)	90	1260	8	85	2 1/2-4
854 6412-01-1	16"	12	2 (.221)	105	1450	7	125	2 1/2-3 1/2



Style 144 - 1 Piece

Designed for general purpose hand cutting applications over wide range of plate surface conditions. For material over 7' use style 164. Four preheat flames.

Part Number	Material Thickness	Tip Size	Drill Size	Oxygen		Fuel		Cutting Speed Range (IPM)
				PSIG	SCFH	PSIG	SCFH	
854 4499-01-1	1/8"	00	69 (.029)	30	33	1 1/2	11	21-24
854 4400-01-1	1/4"	0	64 (.036)	30	57	2	14	20-23
854 4401-01-1	3/8"	1	57 (.043)	30	84	3	20	18-21
854 4402-01-1	3/4"	2	55 (.052)	40	134	3	22	14-17
854 4403-01-1	1 1/2"	3	53 (.059)	45	190	3	23	11-14
854 4404-01-1	2 1/2"	4	50 (.070)	50	263	3	25	8-11
854 4405-01-1	3"	5	47 (.078)	45	313	4	31	7-10
854 4406-01-1	5"	6	42 (.093)	50	457	5	43	5-7
854 4406-01-1	6"	6	42 (.093)	55	492	5	43	5-6
854 4406-01-1	7"	6	42 (.093)	65	552	5	43	4-5

TIPS



Style 45 - 1 Piece Brass

Acetylene Machine Cutting Tips with Divergent Bore. This tip has medium preheat ideal for shape cutting. Six preheat flames.

Part Number	Material Thickness	Tip Size	Drill Size	Oxygen		Fuel		Cutting Speed Range (IPM)
				PSIG	SCFH	PSIG	SCFH	
813 4500-00-1	1/4"	0	74 (.022)	120	70	3	14	24-28
813 4501-00-1	3/8"	1	69 (.029)	85	87	3	18	23-26
813 4501-00-1	1/2"	1	69 (.029)	100	98	3	18	18-22
813 4502-00-1	3/4"	2	65 (.035)	100	122	3	18	17-21
813 4502-00-1	1"	2	65 (.035)	110	130	3	18	16-20
813 4503-00-1	1 1/4"	3	58 (.042)	85	153	4	25	16-19
813 4503-00-1	1 1/2"	3	58 (.042)	100	171	4	25	14-17
813 4504-00-1	2"	4	56 (.046)	100	228	4	25	11-15
813 4504-00-1	2 1/2"	4	56 (.046)	110	244	4	25	9-13



Style 119 - 1 Piece

Light-preheat tip, milled on 2 sides for sheet metal cutting and restricted areas. (Two preheat flames)

Part Number	Materials Thickness (Inches)	Tip Size	Preheat Flames
854 1900-00-1	1/4"	0	2
854 1901-00-1	3/8"	1	2
854 1902-00-1	1/2"	2	2
854 1903-00-1	3/4"	3	2



Style 183 - 1 Piece

Medium-preheat tip, with 2 sides milled flat. It has a flared cutting orifice that provides large low velocity Oxygen stream for grooving, gouging and removing imperfect welds. The tip is angled 20°. (Six preheat flames)

Gas Pressure Settings				
Part Number	Depth	Acetylene	Oxygen	Tip Size
854 8306-01-1	1/8"-1/4"	3	50-65	6
854 8308-01-1	1/4"-3/8"	5	65-85	8
854 8310-01-1	3/8"-1/2"	6	85-100	10
854 8312-01-1	> 1/2"	6	85-100	12



Style 185 - 1 Piece

Medium-preheat tip, with 2 sides milled flat for grooving, gouging, and removing imperfect welds. (Six preheat flames)

Gas Pressure Settings			
Part Number	Acetylene	Oxygen	Tip Size
854 8506-00-1	5-9	35-60	6
854 8508-00-1	9-12	35-60	8
854 8510-00-1	9-12	35-60	10



Style 195 - 1 Piece

Medium preheat tip. It has a flared cutting orifice that provides a large, low velocity Oxygen stream with one side milled flat. It can be used for hand-cutting rivet heads and bulkheads. Tip is angled 45°. (Three preheat flames)

Part Number	Materials Thickness	Tip Size	Preheat Flames
854 9501	$\frac{3}{8}$ "	1	3
854 9502	$\frac{1}{2}$ "	2	3
854 9503	$\frac{3}{4}$ "	3	3
854 9504	1	4	3
854 9505	2	5	3



Style 196 - 1 Piece

Flared cutting orifice that provides a large, low velocity Oxygen stream for rivet washing. It has a heavy preheat. (Six preheat flames)

Part Number	Tip Size	Cutting Attachment or Hand Cutting Torch
854 9608-00-1	8	4700, 4800, 5800, 3000, 9000, 9500, 9700
854 9610-00-1	10	
854 9612-00-1	12	
854 9614-00-1	14	

Stinger® Natural Gas and Propane Tips

Stinger tips incorporate a new, more efficient design. These new cutting tips are made using state-of-the-art techniques and equipment. The result is a cutting tip that gives sharp, defined preheat flames for uniform heat transfer and a perfect Oxygen cutting stream for smooth face cuts every time.



Style 275 - 2 Piece



Suitable for hand- or machine-cutting, this precision-made two-piece tip features excellent preheat flames and a cutting Oxygen stream or "Stinger" which is significantly better than with conventional cutting tips. Sizes 00 through 5 feature a 22° "V" spline design that provides maximum heat transfer and flame stability. Sizes 6, 7 and 8 employ a 36° "V" spline design to provide increased gas flows and extra secondary flame length required on thicker plate.

Part Number	Material Thickness	Tip Size	Drill Size	Oxygen		Natural Gas		Propane		Cutting Speed Range (IPM)
				PSIG	SCFH	PSIG	SCFH	PSIG	SCFH	
813 2799-00-1	3/16"	00	72 (.025)	25	55	2-4	18	2	8	20-24
813 2750-00-1	1/4"	0	68 (.031)	35	65	2-4	18	2	8	20-24
813 2750-00-1	3/8"	0	68 (.031)	40	86	3-5	25	3	11	19-23
813 2751-00-1	1/2"	1	62 (.038)	45	115	3-5	28	3	12	19-23
813 2752-00-1	1"	2	56 (.046)	55	177	3-5	28	3	12	14-19
813 2753-00-1	1 1/2"	3	54 (.055)	55	235	4-7	30	4	14	12-16
813 2754-00-1	2 1/2"	4	52 (.063)	55	300	4-7	30	4	14	9-13
813 2755-00-1	3"	5	49 (.073)	50	365	5-8	35	5	16	8-11
813 2756-00-1	6"	6	39 (.128)	60	610	5-8	35	5	16	5-8
813 2756-00-1	8"	6	39 (.128)	65	635	5-8	35	5	16	4-6
813 2757-00-1	10"	7	30 (.169)	65	900	5-8	50	6	18	3-5
813 2757-00-1	12"	7	30 (.169)	70	975	5-8	50	6	18	3-5
813 2758-00-1	14"	8	18 (.169)	70	1290	5-8	50	6	18	2-4



Style 375 - 2 Piece

The 375 is identical to the 275, except the cutting Oxygen bore is diverged to allow higher cutting Oxygen pressure for increased speed in machine cutting operation. For plates over 4" use Style 275.

Part Number	Material Thickness	Tip Size	Drill Size	Oxygen		Natural Gas		Propane		Cutting Speed Range (IPM)
				PSIG	SCFH	PSIG	SCFH	PSIG	SCFH	
813 3750-00-1	3/8"	0	68 (.031)	70	62	2-4	25-33	2-3	11-14	20-22
813 3751-00-1	1/2"	1	62 (.038)	80	115	3-5	30-40	3-4	12-16	18-22
813 3751-00-1	5/8"	1	62 (.038)	85	121	3-5	30-40	3-4	12-16	18-21
813 3752-00-1	1"	2	56 (.046)	95	133	3-5	30-40	3-4	12-16	18
813 3753-00-1	1 1/2"	3	54 (.055)	90	186	4-6	35-45	4-5	14-18	16
813 3754-00-1	2 1/2"	4	52 (.063)	90	270	4-6	35-45	4-5	14-18	12
813 3755-00-1	3"	5	49 (.073)	90	380	5-7	40-50	5-6	16-20	11
813 3755-00-1	4"	5	49 (.073)	90	380	5-7	40-50	5-6	16-20	10

Natural Gas and Propane Tips



Heavy Shell Style 219 - 2 Piece

This precision made two-piece hand or machine cutting tip features excellent preheat flames and a cutting Oxygen stream or "Stinger" which is significantly better than with conventional cutting tips. Sizes 00 through 5 feature a 22° "V" spline design that provides maximum heat transfer and flame stability. Sizes 6, 7 and 8 employ a 36° "V" spline design to provide increased gas flows and extra secondary flame length required on thicker plate.

Part Number	Material Thickness	Tip Size	Drill Size	Oxygen		Natural Gas		Propane		Cutting Speed Range (IPM)
				PSIG	SCFH	PSIG	SCFH	PSIG	SCFH	
813 2189-00-1	1/4"	00	72 (.025)	35	65	2-4	18	2	8	20-24
813 2190-00-1	3/8"	0	68 (.031)	40-45	86-115	3-5	25	3	11	19-23
813 2191-00-1	1/2 - 5/8"	1	62 (.038)	45-55	115-137	3-5	28	3	12	19-23
813 2192-00-1	3/4 - 1"	2	56 (.046)	50-55	177	3-5	28	3	12	14-19
813 2193-00-1	1 1/2"	3	54 (.055)	50-55	235	4-7	30	4	14	12-16
813 2194-00-1	2-2 1/2"	4	52 (.064)	50-55	300	4-7	30	4	14	9-13
813 2195-00-1	3-4"	5	49 (.073)	50-55	365-392	5-8	35	5	16	8-11
813 2196-00-1	6"	6	39 (.099)	60	610	5-8	35	5	16	5-8
813 2196-00-1	8"	6	39 (.099)	65	635	5-8	35	5	16	4-6
813 2197-00-1	10"	7	30 (.129)	65	900	5-8	50	6	18	3-5
813 2197-00-1	12"	7	30 (.129)	70	975	5-8	50	6	18	3-5
813 2198-00-1	14"	8	18 (.169)	70	1290	5-8	50	6	18	2-4



Heavy Shell Style 319 - 2 Piece

The 319 is identical to the 219, except the cutting Oxygen bore is diverged to allow higher cutting Oxygen pressure for increased speed in machine cutting operation. For plates over 4" use Style 219.

Part Number	Material Thickness	Tip Size	Drill Size	Oxygen		Natural Gas		Propane		Cutting Speed Range (IPM)
				PSIG	SCFH	PSIG	SCFH	PSIG	SCFH	
813 3190-00-1	3/8"	0	68 (.031)	70	62	2-4	25-33	2-3	11-14	20-22
813 3191-00-1	1/2"	1	62 (.038)	80	115	3-5	30-40	3-4	12-16	18-22
813 3191-00-1	5/8"	1	62 (.038)	85	121	3-5	30-40	3-4	12-16	18-21
813 3192-00-1	1"	2	56 (.046)	95	133	3-5	30-40	3-4	12-16	18
813 3193-00-1	1 1/2"	3	54 (.055)	90	186	4-8	35-45	4-5	14-18	16
813 3194-00-1	2 1/2"	4	52 (.063)	90	270	4-8	35-45	4-5	14-18	12
813 3195-00-1	3"	5	49 (.073)	90	380	5-7	40-50	5-6	16-20	11
813 3195-00-1	4"	5	49 (.073)	90	380	5-7	40-50	5-6	16-20	10

CONCOA Seat Natural Gas and Propane Tips



CHT Cutting Tips

CHT Cutting Tips (concentrated heat tip) are a series of tips designed to bevel cut with propane or natural gas without the use of auxiliary preheat devices. For bevels up to 75°. NOTE: Intended for beveling only. CHT tips require special use procedure.

Part Number	Materials Thickness (Inches)	Tip Size	Drill Size
813 2813-00-1	1"	3	56 (.046)
813 2814-00-1	1 1/2"	4	54 (.055)
813 2815-00-1	2 1/2"	5	52 (.063)
813 2816-00-1	4"	6	49 (.073)
813 2817-00-1	6"	7	39 (.099)
813 2818-00-1	8"	8	30 (.128)
813 2819-00-1	10"	9	18 (.169)



Style 297 - 2 Piece

Rivet washing tip with heavy preheat and low velocity Oxygen stream. It is also used for gouging.

Part Number	Tip Size
813 1928-00-1	8
813 1930-00-1	10
813 1932-00-1	12



Style 287 - 2 Piece

Heavy preheat with low velocity Oxygen stream. For grooving, gouging and removing imperfect welds. The tip is angled at 15°.

Part Number	Tip Size
813 1876-00-1	6
813 1878-00-1	8
813 1880-00-1	10
813 1882-00-1	12



Style 244 - 2 Piece

Tips are heavy preheat, 2 piece tips without a center Oxygen hole. Especially used as heating tips in standard cutting torches.

Part Number	BTU's	Use For	PSIG Fuel	PSIG Oxygen
813 2441-00-1	50000	Propylene	8	50
813 2443-00-1	50000	Natural Gas/Propane	8	50

Propylene Tips



Style A-SP - 1 Piece

One piece, solid copper, standard speed and have a straight bore Oxygen orifice. They are most commonly used for hand cutting operations.

Part Number	Materials Thickness (Inches)	Drill Size
856 0072-00-1	$\frac{3}{16}$ "	72 (.025)
856 0068-00-1	$\frac{1}{4}$ "	68 (.031)
856 0065-00-1	$\frac{3}{8}$ "	65 (.035)
856 0060-00-1	$\frac{1}{2}$ "	60 (.040)
856 0056-00-1	$\frac{3}{4}$ "	56 (.046)
856 0054-00-1	1 $\frac{1}{4}$ "	54 (.055)
856 0052-00-1	2"	52 (.063)
856 0049-00-1	3"	49 (.073)
856 0044-00-1	4"	44 (.086)
856 0038-00-1	8"	38 (.102)
856 0031-00-1	10"	31 (.120)
856 0028-00-1	12"	28 (.140)
856 0019-00-1	14"	19 (.166)
856 0015-00-1	15"	19 (.166)



Style 245 - 2 Piece

General purpose (straight bore) cutting tips for use with propylene. These tips feature thin rectangular spline (fine spline) design. This design provides uniform preheat flames with maximum heat transfer. These tips are superior performers for both hand or machine cutting operations.

Part Number	Materials Thickness (Inches)	Tip Size	Drill Size
813 2499-00-1	$\frac{3}{16}$ "	00	72 (.025)
813 2450-00-1	$\frac{1}{4}$ " - $\frac{3}{8}$ "	0	68 (.031)
813 2451-00-1	$\frac{1}{2}$ "	1	62 (.038)
813 2452-00-1	1"	2	56 (.046)
813 2453-00-1	1 $\frac{1}{2}$ "	3	54 (.055)
813 2454-00-1	2 $\frac{1}{2}$ "	4	52 (.063)
813 2455-00-1	3"	5	49 (.073)
813 2456-00-1	6-8"	6	39 (.099)
813 2457-00-1	10-12"	7	30 (.128)
813 2458-00-1	14"	8	18 (.169)



Style 345 - 2 Piece

Identical to the Style 245 except that the cutting Oxygen bore is diverged to allow use of higher cutting Oxygen pressures for increased speed in machine cutting operations. For plate over 4" use 245.

Part Number	Materials Thickness	Tip Size	Oxygen Pressure	Oxygen Flow	Fuel Pressure	Fuel Flow	Drill Size
813 3450-00-1	$\frac{3}{8}$ "	0	80 PSIG	65 SCFH	2-6 PSIG	4-10 SCFH	68 (.031)
813 3451-00-1	$\frac{1}{2}$ - $\frac{5}{8}$ "	1	90 PSIG	105 SCFH	2-6 PSIG	5-10 SCFH	62 (.038)
813 3452-00-1	1"	2	90 PSIG	150 SCFH	2-6 PSIG	8-12 SCFH	56 (.046)
813 3453-00-1	1 $\frac{1}{2}$ "	3	90 PSIG	210 SCFH	2-8 PSIG	8-15 SCFH	54 (.055)
813 3454-00-1	2 $\frac{1}{2}$ "	4	90 PSIG	290 SCFH	4-10 PSIG	8-15 SCFH	52 (.063)
813 3455-00-1	2 $\frac{3}{4}$ "	5	80 PSIG	340 SCFH	2-6 PSIG	8-15 SCFH	49 (.073)

TIPS



Style A-RW - 1 Piece

Tips are one piece, solid copper, high preheat. Used for rivet washing with a large Oxygen stream with Propylene.

Part Number	Size
856 6401-00-1	147
856 6402-00-1	191

CONCOA Seat Propylene Tips



Style A-B45 - 1 Piece

Tips are one piece, solid copper, standard speed. They are milled flat on both sides, have four (4) preheat holes and are angled 45°. Especially useful for cutting close to bulkheads and cutting rivet heads.

Part Number	Size
856 5256-00-1	56



Style A-G1 - 1 Piece

Tips are one piece, solid copper. They have a complete circle of preheat holes and are angled 30°. Used for deep gouging and de-seaming.

Part Number	Size
856 7207-00-1	8
856 7208-00-1	10



Style A-GW30 - 1 Piece

Tips are one piece, solid copper, angled 30°. Used for gouge-washing operations with propylene, especially for removal of defective weld sections.

Part Number	Size
856 7902-00-1	147
856 7903-00-1	191

OUTFITS



CONCOA MASTER

Welding, Cutting & Heating Outfits

CONCOA® Master Series
CONCOA Master Series II & II
Super CONCOA Master Series
SuperMaster Series



CONCOA Master III (840-5646) Shown

CONCOA MASTER SERIES

The outfit is designed for heavy-duty welding and cutting. It is particularly suited for use in sheet metal work, auto repairs, and maintenance work on farms, in industrial plants, and in the air conditioning and refrigeration fields. The complete outfit includes all equipment necessary to perform quality welding and cutting. The components supplied will weld steel up to 1/4" thick and cut metal up to 1" thick. With optional equipment, the torch can weld up to 3/4" and cut up to 6". The outfit consists of a welding torch, two single stage regulators with gauges, three welding tip mixer assemblies, one cutting attachment and tip, one heating tip mixer assembly, safety goggles, sparklighter, hose and booklets.

Complete Outfit	840 0066-01-1	840 0099-01-1
Style 750 Welding Torch	818 0750	818 0750
Style 5500 Regulator Oxygen (CGA 540)	806 5506	806 5506
Style 5500 Regulator Standard Acetylene (CGA 300)	806 5502	--
Style 5500 Regulator Fuel Gas (CGA 510) POL	--	806 5509
Style 5790 Cutting Attachment	822 5790	822 5790
Style 138 No. 1 Acetylene Cutting Tip	854 3801	854 3801
Style 70 Welding Tip, Size No. 1	810 7001	810 7001
Style 70 Welding Tip, Size No. 3	810 7003	810 7003
Style 70 Welding Tip, Size No. 5	810 7005	810 7005
Style 760 Heating Tip Assembly, Size 7	810 2707	810 2707
Hose - 25 ft., 1/4" Twin (Grade "T")	908 0425	908 0425
Goggles	906 2255	906 2255
Sparklighter	915 0200	915 0200

OUTFITS

OUTFITS



CONCOA Master Series I

The Master outfit is an all-purpose outfit at an attractive price for medium-to-heavy-duty work. The equipment as supplied can weld materials up to ¼" (6.4 mm) thick, cut steel plate up to 1½" (38.1 mm) thick, and produce up to 74,000 BTUs of heat. Using larger, optionally available, cutting and welding tips, work range can be increased to weld up to 1" (25.4 mm), cut up to 6" (152.4 mm), and produce 163,000 BTUs of heat.

Complete Outfit	840 5602-01-1	840 5609-01-1	840 5632-01-1*	840 5637-01-1**
Style 750 Welding Torch	818 0750	818 0750	818 0750	818 0750
Style 5600 Regulator, Oxygen (CGA 540)	806 5606	806 5606	806 5606	806 5606
Style 5600 Regulator, Acetylene (CGA 300)	806 5602	--	--	--
Style 5600 Regulator, Fuel Gas (CGA 510)	--	806 5609	806 5632	806 5632
Style 5790 Cutting Attachments	822 5790	822 5790	822 5790	822 5790
Style 144 Cutting Tip Size No. 1 (Acetylene)	854 4401	854 4401	--	--
Style 144 Cutting Tip Size No. 3 (Acetylene)	854 4403	854 4403	--	--
Style 245 Cutting Tip Size No. 1 (Propylene)	--	--	813 2451	--
Style 245 Cutting Tip Size No. 3 (Propylene)	--	--	813 2453	--
Style 275 Cutting Tip Size No. 1 (Propane)	--	--	--	813 2751
Style 275 Cutting Tip Size No. 3 (Propane)	--	--	--	813 2753
Style 98 Welding Tip Size No. 3	811 9803	811 9803	811 9803	811 9803
Style 761 No. 7 Heating Tip	810 1077	810 1077	810 1077	810 1077
Extension Tube	810 2016	810 2016	810 2016	810 2016
Mixer	810 0781	810 0781	810 0781	810 0781
Goggles	906 2205	906 2205	906 2205	906 2205
Sparklighter	915 0200	915 0200	915 0200	915 0200

CONCOA Master Series II & III

These sturdy heavy-duty outfits are complete packages providing quality and versatility for welding, heating and cutting operations. The components supplied weld steel up to ¼" thick and cut metal up to 1½" thick. With optional equipment it will weld up to ¾" thick and cut up to 6" thick. Applications include maintenance work in industrial plants and on farms; automotive repairs; sheet metal work; air conditioning and refrigeration maintenance; pipe welding; and heating. The outfits include two high performance single stage regulators, welding torch, cutting attachment, welding tips, heating tip mixer assembly, hose, goggles, sparklighter and booklets.

	CONCOA Master II		CONCOA Master III	
Complete Outfit	840 5626-01-1	840 5636-01-1	840-5646-01-1	840 5656-01-1
Style 750 Welding Torch	818 0750	818 0750	818 0750	818 0750
Welding Tip, Size No. 1	810 7001	810 7001	811 9801	811 9801
Welding Tip, Size No. 3	810 7003	810 7003	811 9803	811 9803
Welding Tip, Size No. 5	810 7005	810 7005	811 9805	811 9805
Mixer	--	--	810 0780	810 0780
Style 760 #7 Universal Heating Tip Assembly	810 2707	810 2707	810 2707	810 2707
Style 5790 Cutting Attach. w/90° Head	822 5790	822 5790	822 5790	822 5790
Style 144 No. 2 Acetylene Cutting Tip*	854 4402	854 4402	854 4402	854 4402
Regulator, Oxygen (CGA 540)	806 6516	806 6516	806 6516	806 6516
Regulator, Standard Acetylene (CGA 300)	806 6512	--	806 6512	--
Regulator, Fuel Gas (CGA 510)	--	806 6519	--	806 6519
Hose 25 ft., ¼" Twin (Grade 'T')	908 0425	908 0425	908 0425	908 0425
Goggles	906 2255	906 2255	906 2255	906 2255
Sparklighter	915 0200	915 0200	915 0200	915 0200

* For cutting with propane, propylene, or natural gas under pressure, refer to section on cutting tips.

OUTFITS



Super CONCOA Master Series

The Super CONCOA® Master Series is well-suited for extra heavy-duty oxy-acetylene welding, heating and brazing. These heavy-duty outfits provide top quality and versatility for the most demanding welding, heating and cutting operations. The components supplied will weld steel up to ¼" thick and cut metal up to 2" thick. With optional equipment it will weld up to ¾" thick and cut up to 8". Applications include heavy construction, maintenance in industrial plants and heavy equipment repair. The outfit includes top-of-the-line 8400 Series two-stage regulators with CONCOA's highest capacity torch and cutting attachment, three welding tip mixer assemblies, two cutting tips, heating tip mixer assembly, safety goggles, hose, sparklighter and booklets.

Complete Outfit	840 0926-01-1	840 0925-01-1	840 0936-01-1
Style 800 Welding Torch	819 0800	819 0800	819 0800
Welding Tip Assembly, Size No. 1	811 8001	811 8001	811 8001
Welding Tip Assembly, Size No. 3	811 8003	811 8003	811 8003
Welding Tip Assembly, Size No. 5	811 8005	811 8005	811 8005
Style 860 No. 8 Universal heating Tip Assembly	811 3808	811 3808	811 3808
Style 5800 Cutting Attachment, w/ 75° Head	--	822 5875	--
Style 5800 Cutting Attachment, w/ 90° Head	822 5890	--	822 5890
Style 144 No. 1 Acetylene Cutting Tip	854 4401	854 4401	854 4401
Style 144 No. 3 Acetylene Cutting Tip	854 4403	854 4403	854 4403
Regulator, Oxygen (CGA 540)	806 8456	806 8456	806 8456
Regulator, Acetylene (CGA 300)	806 8402	806 8402	--
Regulator, Fuel Gas (CGA 510)	--	--	806 8409
Hose - 25 ft. x 5/16" (Grade "T")	908 0575	908 0575	908 0575
Goggles	906 2255	906 2255	906 2255
Sparklighter	915 0200	915 0200	915 0200

SuperMaster Series

The Super Master outfit is an all-purpose outfit at an attractive price for heavy-to-extra heavy-duty work. The equipment as supplied can weld materials up to ¼" inch (6.4 mm) thick, cut steel plate up to 1½" (38.1 mm) thick and produce up to 74,000 BTUs of heat. Using larger, optionally available, cutting and welding tips, work range can be increased to weld up to 1" (25.4 mm), cut up to 8" (203.2 mm) and produce 1,350,000 BTUs of heat.

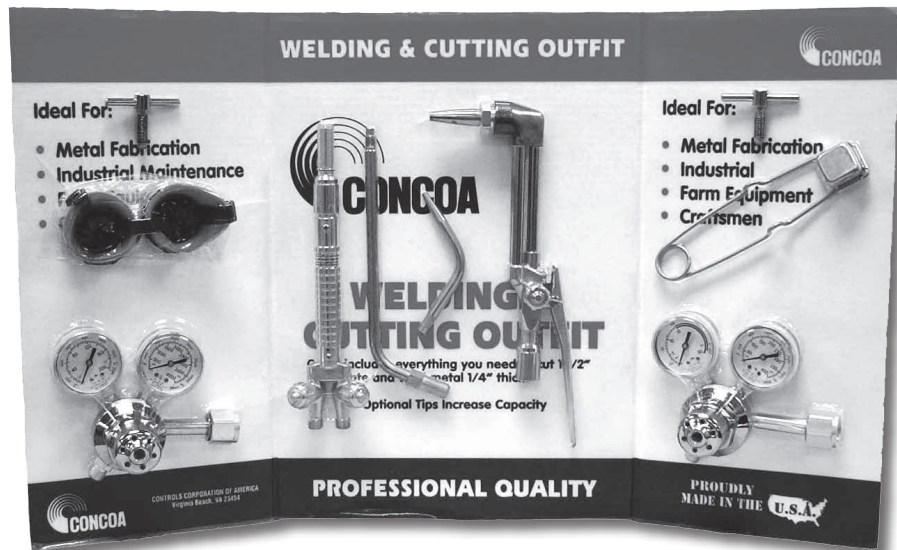
Complete Outfit	840 6602-01-1	840 6609-01-1	840 6632-01-1	840 6637-01-1
Style 800 Welding Torch	819 0800	819 0800	819 0800	819 0800
Style 6600 Regulators	Acetylene	Acetylene	Propylene	Propane
Oxygen (CGA 540)	806 6606	806 6606	806 6606	806 6606
Standard Acetylene (CGA 300)	806 6602	--	--	--
Fuel Gas (CGA 510)	--	806 6609	806 6632	806 6632
Style 5890 Cutting Attachment	822 5890	822 5890	822 5890	822 5890
Style 144 Cutting Tip Size No. 1 (Acetylene)	854 4401	854 4401	--	--
Style 144 Cutting Tip Size No. 3 (Acetylene)	854 4403	854 4403	--	--
Style 245 Cutting Tip Size No. 1 (Propylene)	--	--	813 2451	--
Style 245 Cutting Tip Size No. 3 (Propylene)	--	--	813 2453	--
Style 275 Cutting Tip Size No. 1 (Propane)	--	--	--	813 2751
Style 275 Cutting Tip Size No. 3 (Propane)	--	--	--	813 2753
Style 98 Welding Tip Size No. 3	811 9803	811 9803	811 9803	811 9803
Style 761 No. 7 Heating Tip	810 1077	810 1077	810 1077	810 1077
Extension Tube	810 2016	810 2016	810 2016	810 2016
Mixer	810 0890	810 0890	810 0890	810 0890
Goggles	906 2255	906 2255	906 2255	906 2255
Sparklighter	915 0200	915 0200	915 0200	915 0200

OUTFITS



CONCOA KITS

The outfit is an all-purpose outfit at an attractive price for medium duty work. The equipment as supplied can weld materials up to 1/4" (6.4 mm) thick, and cut steel plate up to 1 1/2" (38.1 mm) thick. Using larger, optionally available cutting and welding tips, work range can be increased to weld up to 1" (25.4 mm) and cut up to 6" (152.4 mm).



Complete Outfit	840 0026-01-1*	840 0036-01-1*	840 0046-01-1*	840 0056-01-1*	840 0029-01-1*	840 0039-01-1*	840 0049-01-1*	840 0059-01-1*	840 2266-01-1**	840 2276-01-1**	840 2289-01-1**	840 2299-01-1**
Welding Torch	818 0750	818 0750	818 0750	818 0750	818 0750	818 0750	818 0750	818 0750	818 0750	818 0750	818 0750	818 0750
Regulator, Oxygen (CGA 540)	806 5506	806 5506	806 5506	806 5506	806 5506	806 5506	806 5506	806 5506	806 5506	806 5506	806 5506	806 5506
Standard Acetylene (CGA 300)	806 5502	806 5502	806 5502	806 5502	--	--	--	--	806 5502	806 5502	--	--
Fuel Gas (CGA 510) POL	--	--	--	--	806 5509	806 5509	806 5509	806 5509	--	--	806 5509	806 5509
Cutting Attachment	822 5790	822 5790	822 5790	822 5790	822 5790	822 5790	822 5790	822 5790	822 5790	822 5790	822 5790	822 5790
Style 144 No. 2 Acetylene Cutting Tip	854 4402	854 4402	854 4402	854 4402	854 4402	854 4402	854 4402	854 4402	854 4402	854 4402	854 4402	854 4402
Style 98 Welding Tip Size No. 3	811 9803	811 9803	811 9803	811 9803	811 9803	811 9803	811 9803	811 9803	811 9803	811 9803	811 9803	811 9803
Style 761 No. 7 heating Tip H.D.	--	810 1077	810 1077	--	--	810 1077	810 1077	--	--	810 1077	810 1077	--
Extension Tube	--	810 2016	810 2016	--	--	810 2016	810 2016	--	--	810 2016	810 2016	--
Mixer No. 00-5 Only	810 0780	--	--	810 0780	810 0780	--	--	810-0780	810 0780	--	--	810 0780
Mixer No. 0-10 General Purpose	--	810 0781	810 0781	0906 2205	--	810 0781	810 0781	--	--	810 0781	810 0781	--
Goggles	906 2205	906 2205	906 2205	915 2205	906 2205	906 2205	906 2205	906 2205	906 2205	906 2205	906 2205	906 2205
Sparklighter	915 0200	915 0200	915 0200	915 0200	915 0200	915 0200	915 0200	915 0200	915 0200	915 0200	915 0200	915 0200
12 1/2' Hose Grade "R"	908 1362	908 1362	--	--	908 1362	908 1362	--	--	--	--	--	--

* Tray Packed
**Skin Packed

APPENDIX



PIPE SIZE - INCHES

Pressure Drop per 100 Feet of Pipe

10% of Applied Pressure (Air)

5% of Applied Pressure (Air)

Pipe Size - Inches

1/8, 1/4, 3/8, 1/2

3/4, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3

Applied Pressure (PSIG)	Maximum Air Flow (SCFH)										
	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
5	30	72	162	294	396	780	1,620	2,400	4,800	8,100	14,400
10	48	102	234	462	660	1,260	2,640	3,840	7,500	12,000	22,200
20	78	180	396	780	1,110	2,100	4,500	6,600	12,900	21,000	36,000
40	150	330	720	1,380	2,040	3,720	8,100	12,000	23,100	38,400	66,000
60	210	480	1,080	2,040	3,000	5,580	11,700	17,400	33,600	54,000	96,000
80	282	630	1,380	2,640	3,900	7,200	15,300	23,400	43,200	72,000	126,000
100	348	780	1,740	3,240	4,800	9,000	18,900	28,200	54,000	87,000	156,000
150	516	1,200	2,460	4,800	6,900	13,200	27,600	40,800	81,000	132,000	234,000
200	690	1,560	3,480	6,480	9,300	17,400	37,200	54,600	105,000	168,000	300,000
250	870	1,980	4,380	8,100	12,000	22,200	46,200	69,000	132,000	210,000	366,000

ACETYLENE AND OXYGEN PRESSURE VS. TEMPERATURE

Temp (°F)	Acetylene (PSIG)	Oxygen (PSIG)
0	85	1782
10	100	1840
20	125	1900
30	150	1960
40	170	2010
50	190	2080
60	225	2140
70	250	2216
80	285	2256
90	320	2317
100	355	2375

Acetylene withdrawal rate is 1/7th-1/10th of cylinder contents for intermittent use.

Acetylene withdrawal rate is 1/15th of cylinder contents for continuous use.

MAXIMUM WITHDRAWAL RATE SCFH 100 LB PROPANE CYLINDER

LBS In Cyl.	0°F	20°F	40°F	60°F	70°F
100	44	65	84	108	117
90	41	59	78	96	108
80	37	54	70	84	92
70	32	48	63	78	84
60	29	43	55	69	75
50	25	37	49	60	65
40	21	31	41	51	55
30	18	26	33	42	46
20	14	20	27	32	36
10	11	15	19	23	26

APPENDIX



CONVERSION TABLES AND FACTORS

Length	A	CM	FT	IN	M	MICRON	MM	YD
Multiply By								
A	-----	1×10^{-8}	3.28×10^{-10}	3.93×10^{-9}	1×10^{-10}	1×10^{-4}	1×10^{-7}	1.09×10^{-10}
CM	1×10^8	-----	3.28×10^{-2}	3.94×10^{-1}	1×10^{-2}	1×10^4	10	1.09×10^{-2}
FT	3.05×10^9	3.048×10^1	-----	1.2×10^1	3.05×10^{-1}	3.05×10^5	3.05×10^2	3.33×10^{-1}
IN	2.54×10^8	2.54	8.33×10^{-2}	-----	2.54×10^{-2}	2.54×10^4	2.54×10^1	2.78×10^2
M	1×10^{10}	1×10^2	3.281	3.94×10^1	-----	1×10^6	1×10^3	1.09×10^0
MICRON	1×10^4	1×10^{-4}	3.28×10^{-6}	3.94×10^{-5}	1×10^{-6}	-----	1×10^{-3}	1.09×10^{-6}
MM	1×10^7	1×10^{-3}	3.28×10^{-3}	3.94×10^{-2}	1×10^{-2}	1×10^3	-----	1.09×10^{-3}
YD	9.14×10^9	9.14×10^1	3	3.6×10^1	9.14×10^{-1}	9.14×10^5	9.14×10^2	-----

Flow	CM ³ /MIN	CM ³ /SEC	FT ³ /HR	FT ³ /MIN	M ³ /HR	M ³ /MIN	L/HR	L/MIN
Multiply By								
CM ³ /MIN	-----	1.66×10^{-2}	2.12×10^{-3}	3.53×10^{-5}	6×10^{-5}	1×10^{-6}	6.0×10^{-2}	1×10^{-3}
CM ³ /SEC	6×10^1	-----	1.27×10^{-1}	2.12×10^{-3}	3.6×10^{-3}	6×10^{-5}	3.6×10^0	6×10^{-2}
FT ³ /HR	4.72×10^2	7.87	-----	1.67×10^{-2}	2.83×10^{-2}	4.72×10^{-4}	2.83×10^1	4.72×10^{-1}
FT ³ /MIN	2.83×10^4	4.72×10^2	6.0×10^1	-----	1.7	2.83×10^{-2}	1.7×10^{-3}	2.83×10^1
M ³ /HR	1.67×10^4	2.78×10^2	3.53×10^1	5.89×10^{-1}	-----	1.67×10^{-2}	1×10^3	1.67×10^1
M ³ /MIN	1×10^6	1.67×10^4	2.12×10^3	3.53×10^1	6.0×10^1	-----	6.0×10^4	1×10^3
L/HR	1.67×10^1	2.78×10^{-1}	3.53×10^{-2}	5.89×10^{-4}	1×10^{-3}	1.67×10^{-5}	-----	1.67×10^{-2}
L/MIN	1×10^3	1.67×10^1	2.12	3.53×10^{-2}	6.0×10^{-2}	1×10^{-3}	6.0×10^1	-----

Pressure	ATM	BAR	FT OF H ₂ O	IN OF HG	IN OF H ₂ O	KG/CM ²	KPA	MM OF HG	PSI
Multiply By									
ATM	-----	1.013	33.932	29.921	407.183	1.033	101.317	760	14.696
BAR	0.987	-----	33.488	29.53	401.859	1.019	100	750.062	14.504
FT. OF H ₂ O	0.029	0.029	-----	0.883	12	0.03	2.989	22.419	0.433
IN OF HG	0.033	0.034	1.134	-----	13.6	0.035	3.377	25.4	0.491
IN OF H ₂ O	0.002	0.002	0.083	0.074	-----	0.003	0.025	1.868	0.036
KG/CM ²	0.968	0.981	32.808	28.959	393.701	-----	98.039	735.559	14.223
KPA	0.010	0.01	0.335	0.296	4.015	.001	-----	7.501	0.145
MM OF HG	0.001	0.001	0.045	0.039	0.535	0.001	0.133	-----	0.019
PSIG	0.06805	0.06895	2.3089	2.036	27.7085	0.70307	6.89465	51.175	-----

Weight	GM	KG	MG	OZ	LBS	TON
Multiply By						
GM	-----	0.001	1000	0.035	0.002	1.1×10^{-6}
KG	1000	-----	1×10^6	3.53×10^1	2.205	0.001
mG	0.001	1×10^{-6}	-----	3.53×10^{-5}	2.205×10^{-6}	1.1×10^{-9}
OZ	2.84×10^1	2.84×10^{-2}	2.84×10^4	-----	6.25×10^{-2}	3.13×10^{-5}
LBS	4.54×10^2	4.54×10^1	4.54×10^5	16	-----	5.0×10^{-4}
TON	9.07×10^5	9.07×10^2	9.07×10^8	3.2×10^4	2.0×10^3	-----

APPENDIX



Volume	CM ³ (ML)	FT ³	IN ³	M ³	US GAL.	L
Multiply By						
CM ³ (ML)	-----	3.53×10^{-5}	6.10×10^{-2}	1×10^{-6}	2.64×10^{-4}	1×10^{-3}
FT ³	2.83×10^4	-----	1.73×10^3	2.83×10^{-2}	7.48	28.32
IN ³	16.4	5.79×10^{-4}	-----	1.64×10^{-5}	4.33×10^{-3}	1.64×10^{-2}
M ³	1×10^6	35.3	6.10×10^4	-----	2.64×10^2	1×10^3
US GAL.	3.79×10^3	1.34×10^{-1}	2.31×10^2	3.79×10^{-3}	-----	3.79
L	1×10^3	3.53×10^{-2}	6.10×10^1	1×10^{-3}	2.64×10^{-1}	-----

Temperature	°C	°F	°K	°R
Multiply By				
°C + 17.78	-----	1.8	-----	-----
°C + 273.16	-----	-----	1	-----
°F - 32	0.55556	-----	-----	-----
°F + 459.72	-----	-----	-----	1
°K + 273.16	1	-----	-----	-----
°R - 459.72	-----	1	-----	-----

Density	GMS/CM ³	KG/CM ³	LBS/FT ³	LBS/IN ³	LBS/US GAL.
Multiply By					
GMS/CM ³	-----	.001	6.24×10^1	3.61×10^{-2}	8.35
KG/CM ³	1×10^{-3}	-----	62428	36.13	8345
LBS/FT ³	1.60×10^{-2}	1.60×10^{-5}	-----	5.8×10^{-4}	1.33×10^{-1}
LBS/IN ³	2.77×10^1	.0278	1.73×10^3	-----	2.31×10^2
LBS/US GAL.	1.2×10^{-1}	1.2×10^{-4}	7.48	4.33×10^{-3}	-----

Concentration

Concentration	Equivalent
1,000,000 ppm	100%
100,000 ppm	10%
10,000 ppm	1%
1,000 ppm	0.10%
100 ppm	0.01%
10 ppm	0.001%
1 ppm	0.0001%
1,000 ppb	1 ppm
100 ppb	0.1 ppm
10 ppb	0.001 ppm

Scientific Notation

Notation	Equivalent	Notation	Equivalent
1×10^{10}	10,000,000,000	1×10^{-1}	0.1
1×10^9	1,000,000,000	1×10^{-2}	0.01
1×10^8	100,000,000	1×10^{-3}	0.001
1×10^7	10,000,000	1×10^{-4}	0.0001
1×10^6	1,000,000	1×10^{-5}	0.00001
1×10^5	100,000	1×10^{-6}	0.000001
1×10^4	10,000	1×10^{-7}	0.0000001
1×10^3	1,000	1×10^{-8}	0.00000001
1×10^2	100	1×10^{-9}	0.000000001
1×10^1	10	1×10^{-10}	0.0000000001

Physical Constants

	Value	Units
Avagadro's Number	6.022×10^{23}	molecules/gm-mole
Gas Law Constant	1.98719	cal/(gm-mol)(°K)
Gas Law Constant	1.98719	Btu/(lbs-mole)(°R)
Gas Law Constant	82.0568	(cm ³)(atm)/(gm-mole)(°K)
Gas Law Constant	0.0820568	(L)(atm)/(gm-mole)(°K)
Gas Law Constant	10.7314	(ft ³)(lb)/(in ²)(lbs-mole)(°R)
Gas Law Constant	0.730228	(ft ³)(atm)/(lbs-mole)(°R)

APPENDIX

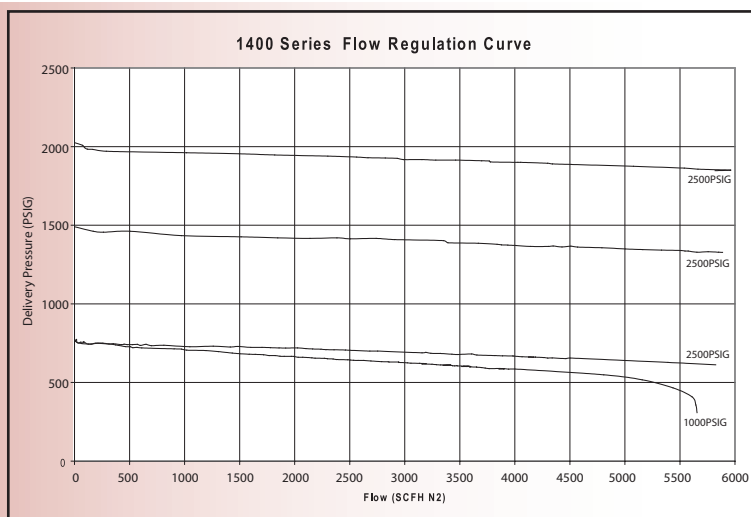


HEATING TIP OXYGEN TO FUEL CONSUMPTION RATIO

Style No.	Tip Size No.	No. of Holes	Drill Size No.	1.1-to 1 Acetylene SCFH	BTU	4-to-1 Propylene SCFH	BTU	4-to-1 Propane SCFH	BTU	2-to-1 Natural Gas SCFH	BTU
759	5	7	71	30	44,000	15	35,500	10	24,660	10	10,460
759	7	7	67	50	74,000	25	59,200	15	37,000	15	15,700
759	8	7	63	70	104,000	35	82,900	25	63,000	30	31,400
759	9	7	56	110	163,000	55	130,400	40	100,000	60	63,000
759	10	7	55	140	207,000	70	166,000	50	123,000	80	83,700
756	12	12	56	175	260,000	100	237,100	70	175,000	140	146,000
757	12	12	56	175	260,000	100	237,100	70	175,000	140	146,000
756	13	12	54	230	340,000	150	355,600	110	276,000	210	220,000
757	14	19	55	275	400,000	200	474,200	150	376,000	280	293,000
757	16	27	54	Sizes 16, 17 and 18 are too large for use with acetylene.		300	711,300	250	630,000	475	496,000
757	17	27	53	Sizes 16, 17 and 18 are too large for use with acetylene.		370	877,270	300	750,000	575	600,000
757	18	27	1/16	Sizes 16, 17 and 18 are too large for use with acetylene.		550	1,304,000	350	880,000	675	700,000
FLAME TEMP WITH OXYGEN				5589°F		5193°F		4579°F		4600°F	
BTU/CU. FT.				1480		2371		2466		1046	

FLOW CURVES

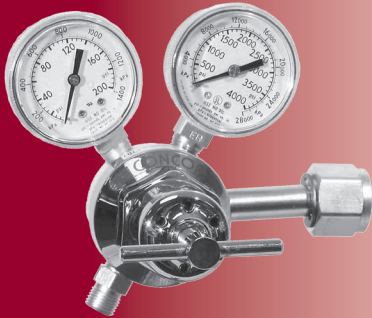
1400 SERIES



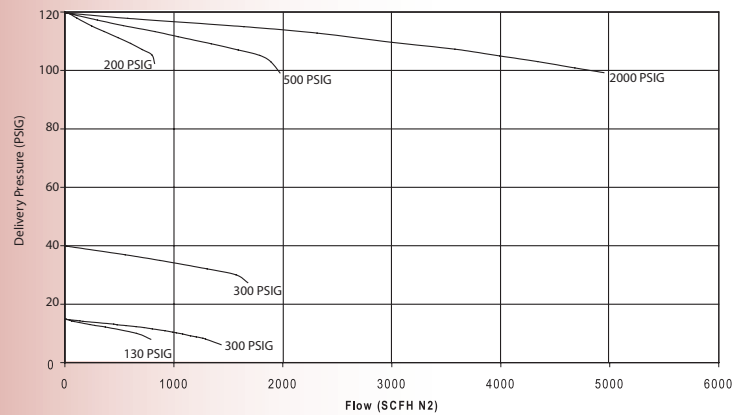
APPENDIX



5500-5600 SERIES



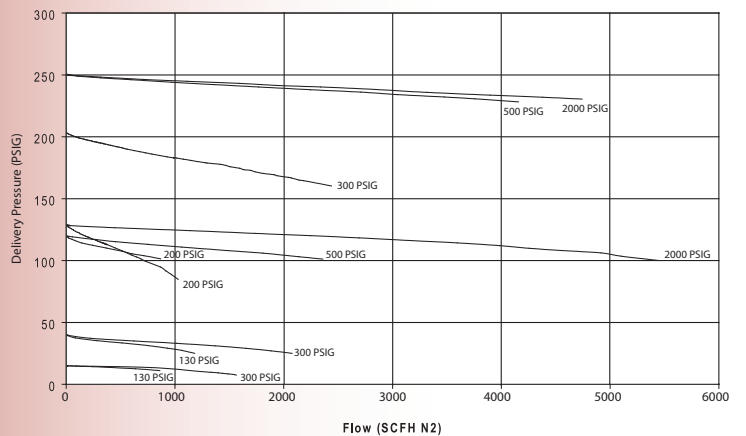
5500 & 5600 Series Flow Regulation Curves



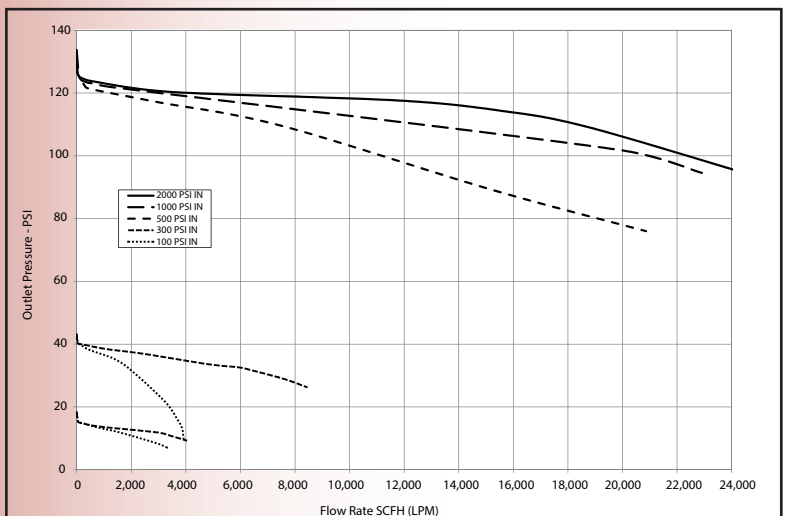
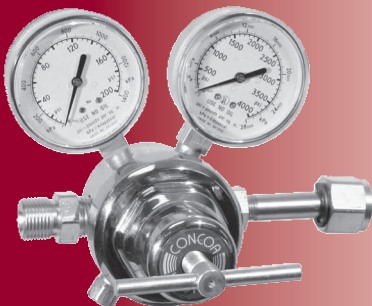
6500-6600 SERIES



6500 & 6600 Series Flow Regulation Curves



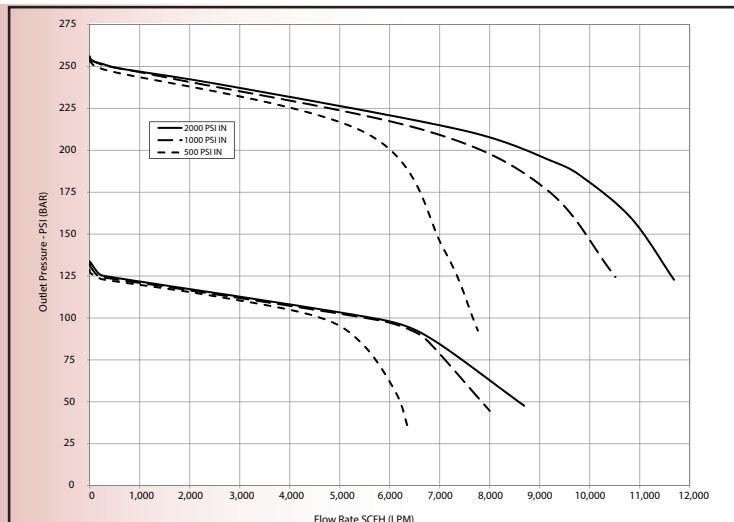
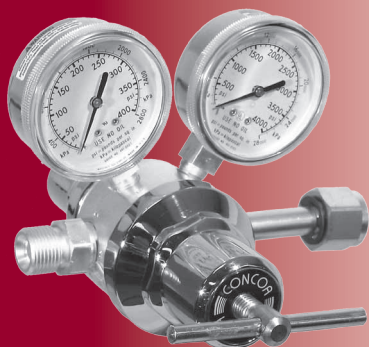
6700 SERIES



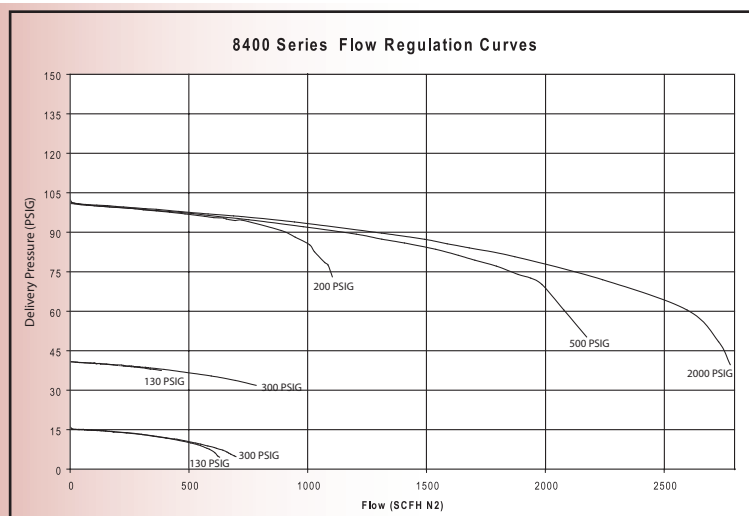
APPENDIX



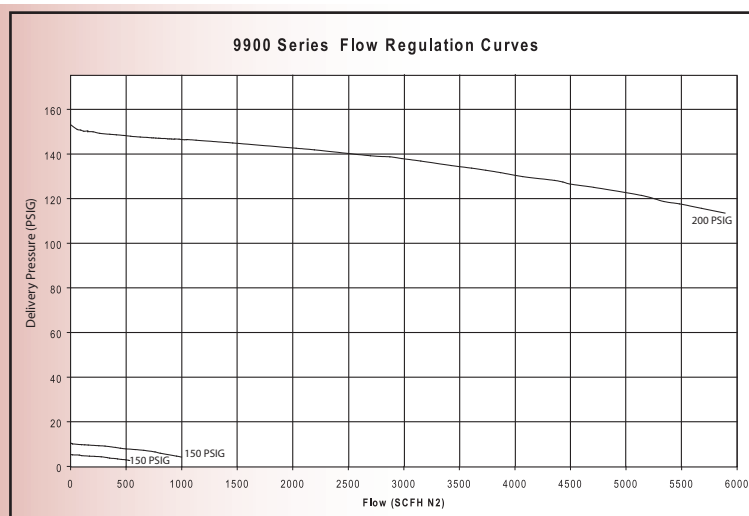
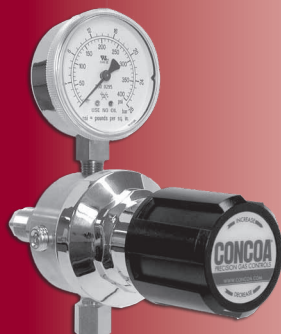
6800 SERIES



8400 SERIES



9900 SERIES



CONCOA's PHILOSOPHY

CONCOA has focused on manufacturing high quality gas apparatus from day one. CONCOA's ISO 9000-2001 quality system encourages open communication between its manufacturing facilities and its customers.

CONCOA's quality system values this communication to continuously improve its product, process and delivery. Exceeding customer's expectations is the common thread that coordinates R&D, procurement, manufacturing and support efforts. From technical support to order fulfillment, CONCOA strives to deliver each solution on time every time.

For example, CONCOA's Gas Saver Technology continues to deliver 20% in gas cost savings with industry-proven technology. CONCOA's Gas Saver regulators are designed to reduce shielding gas peak surge and duration in both cylinder and pipe line applications. The tamper-proof option enables users to put the savings in the bank.

CONCOA continues to refine the gas apparatus manufacturing process so it can offer customers the safest product in the industry. Over the years, CONCOA customers have benefited from the reliability and performance of CONCOA's desire to find a better way.



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