

# Heavy-Duty Flowmeters and Flowmeter Regulators

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Gas Equipment 

## Quick Specs

### Applications

Welding services  
Heavy fabrication  
Manufacturing  
Shipbuilding

### Processes

MIG (GMAW)  
TIG (GTAW)

**Gas Service** Argon, argon/CO<sub>2</sub> mix, CO<sub>2</sub> and helium

**Flow Range** 10–160 scfh (5–76 lpm)

### Preset Delivery Pressure

22-30 and 35-30 models: 30 psig (2 bar)

22-80 models: 80 psig (6 bar)

### Max. Inlet Pressure (Flowmeter Regulators)

3,000 psig (207 bar)

### Recommended Inlet Pressure (Flowmeters)

Up to 80 psig (6 bar)

### Outlet Connection

5/8"-18 RH internal

### CGA Inlet Connection

580 or 320

### Temperature Range

-20°–+140°F (-29°–+60°C)

**Country of Origin** USA

Accurate shielding for best weld quality and gas savings.

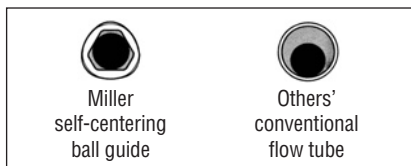
**SMITH** EQUIPMENT

Extra-long flow tube with high-visibility green background eases readings from a distance and in low-light conditions.

Rugged aluminum housing protects flow tubes from damage while offering unobstructed view of flow reading.

Expanded multi-scale flow tube made of shatter-resistant polycarbonate resin. Easy to read and accurate within five percent of full reading for inert gases.

Easy-to-read 2-inch gauge with shatter-resistant polycarbonate lens cover.



Exclusive **self-centering ball guide** provides accurate reading even if tipped. Others use conventional guide where the ball floats off center causing the actual gas flow to be two times greater than indicated.

**External pressure relief valve** protects regulator from damage due to inadvertent high-pressure surge. Relief valve will release excessive pressure and **automatically** reset.

**Dual filters including Sure Seat™** protect high-pressure seat from debris for reliable operation and long service life.

**TRUE BLUE**  
3YR. WARRANTY

Warrantied for three years, parts and labor.



Underwriters Laboratories (UL) Listed



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# Materials of Construction



22-30-580



35-30-320

The heat exchanger reduces high-flow CO<sub>2</sub> freeze-up.



16530



16531

### Heavy-duty single-stage flowmeter regulators

- Body: aluminum
- Bonnet: nylon
- Diaphragm: neoprene
- Tailpiece filter: 35-micron bronze
- Springs: stainless steel, music wire
- Safety seat: EPDM
- Seat: PTFE
- Seat filter: 25-micron nickel-plated bronze
- Seat retainer o-ring: FKM
- Other wetted components: brass
- See third column for flowmeter components
- Net weight: 2.15 lb. (0.98 kg)

### Heavy-duty two-stage flowmeter regulator

- Body: brass
- Bonnet: nickel-plated zinc diecast
- Diaphragm: neoprene
- Springs: stainless steel, music wire
- Safety seat: EPDM
- Seat: PTFE
- Seat filter: 25-micron nickel-plated bronze
- Seat retainer o-ring: FKM
- Heat exchanger tube: copper
- Other wetted components: brass
- See third column for flowmeter components
- Net weight: 5.2 lb. (2.36 kg)

### Heavy-duty flowmeters

- Housing: aluminum
- Seals and o-rings: Buna-N
- Flow tube: polycarbonate
- Ball float: stainless steel
- Other wetted components: brass
- Net weight: 0.75 lb. (0.34 kg)



Install flowmeter to regulator or pipeline. **Do not connect directly to gas cylinder.**

# Ordering Information

Stock No.	Gas Service	Flow Range	Preset Delivery Pressure	Max. Inlet Pressure	Recommended Inlet Pressure	Outlet Connection	Inlet Connection
<b>Heavy-Duty Single-Stage Flowmeter Regulators</b>							
22-80-580 22-80-580-6*	Argon/CO <sub>2</sub>	10–80 scfh (5–38 lpm)	80 psig (6 bar)	3,000 psig (207 bar)	—	5/8"-18 RH internal	CGA 580
22-80-320 22-80-320-6*	CO <sub>2</sub>	10–80 scfh (5–38 lpm)	80 psig (6 bar)	3,000 psig (207 bar)	—	5/8"-18 RH internal	CGA 320
22-30-580 22-30-580-6*	Argon/CO <sub>2</sub> Helium	10–55 scfh (5–26 lpm) 10–160 scfh (5–76 lpm)	30 psig (2 bar)	3,000 psig (207 bar)	—	5/8"-18 RH internal	CGA 580
<b>Heavy-Duty Two-Stage Flowmeter Regulator</b>							
35-30-320	CO <sub>2</sub>	10–55 scfh (5–26 lpm)	30 psig (2 bar)	3,000 psig (207 bar)	—	5/8"-18 RH internal	CGA 320
<b>Heavy-Duty Flowmeters</b>							
16530	Argon/CO <sub>2</sub>	10–80 scfh (5–38 lpm)	—	—	80 psig (6 bar)	5/8"-18 RH internal	1/4" NPT female
16531	Argon/CO <sub>2</sub> Helium	10–55 scfh (5–26 lpm) 10–160 scfh (5–76 lpm)	—	—	30 psig (2 bar)	5/8"-18 RH internal	1/4" NPT female

\*Includes 6-foot x 1/4-inch inert hose and fittings.

Note: When using argon/CO<sub>2</sub> mix, read argon scale.

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