

# 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.

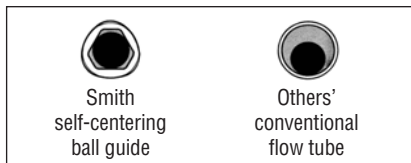
**SMITH**  
EQUIPMENT

**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.

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

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



**TRUE BLUE**  
3YR. WARRANTY

Warrantied for three years, parts and labor.



Underwriters Laboratories (UL) Listed



### Miller Electric Mfg. LLC

An ITW Welding Company  
1635 West Spencer Street  
P.O. Box 1079  
Appleton, WI 54912-1079 USA

### Equipment Sales US and Canada

Phone: 866-931-9730  
FAX: 800-637-2315  
International Phone: 920-735-4554  
International FAX: 920-735-4125

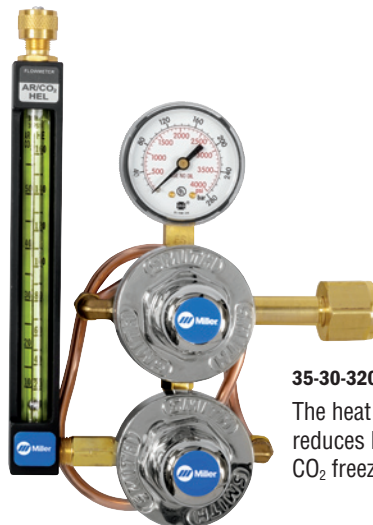
### MillerWelds.com



# 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<br>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<br>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<br>22-30-580-6*                           | Argon/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 580          |
|                                                     | Helium                | 10–160 scfh (5–76 lpm) |                          |                      |                            |                     |                  |
| <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> | 10–55 scfh (5–26 lpm)  | —                        | —                    | 30 psig (2 bar)            | 5/8"-18 RH internal | 1/4" NPT female  |
|                                                     | Helium                | 10–160 scfh (5–76 lpm) |                          |                      |                            |                     |                  |

\*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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