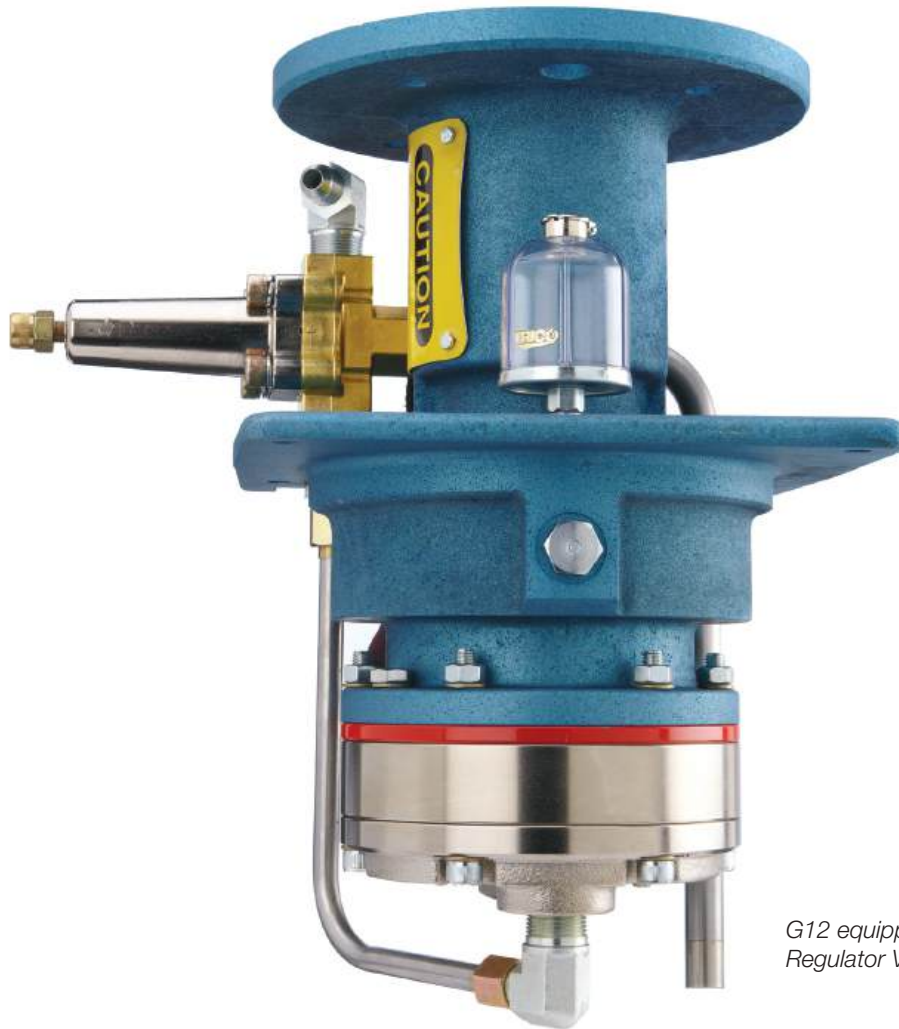


# G12 PRO SERIES

Maximum Flow Rate: 33.4 l/min (8.8 USgpm)

Maximum Pressure: 69 bar (1000 psi) for Metallic Pump Heads

## **WANNER™ HYDRA-CELL® PRO** SEAL-LESS PUMP TECHNOLOGIES



UK CA CE

*G12 equipped with Model C62 Pressure Regulator Valve and Tube Accessory*

### **A higher standard of pump performance and energy efficiency.**

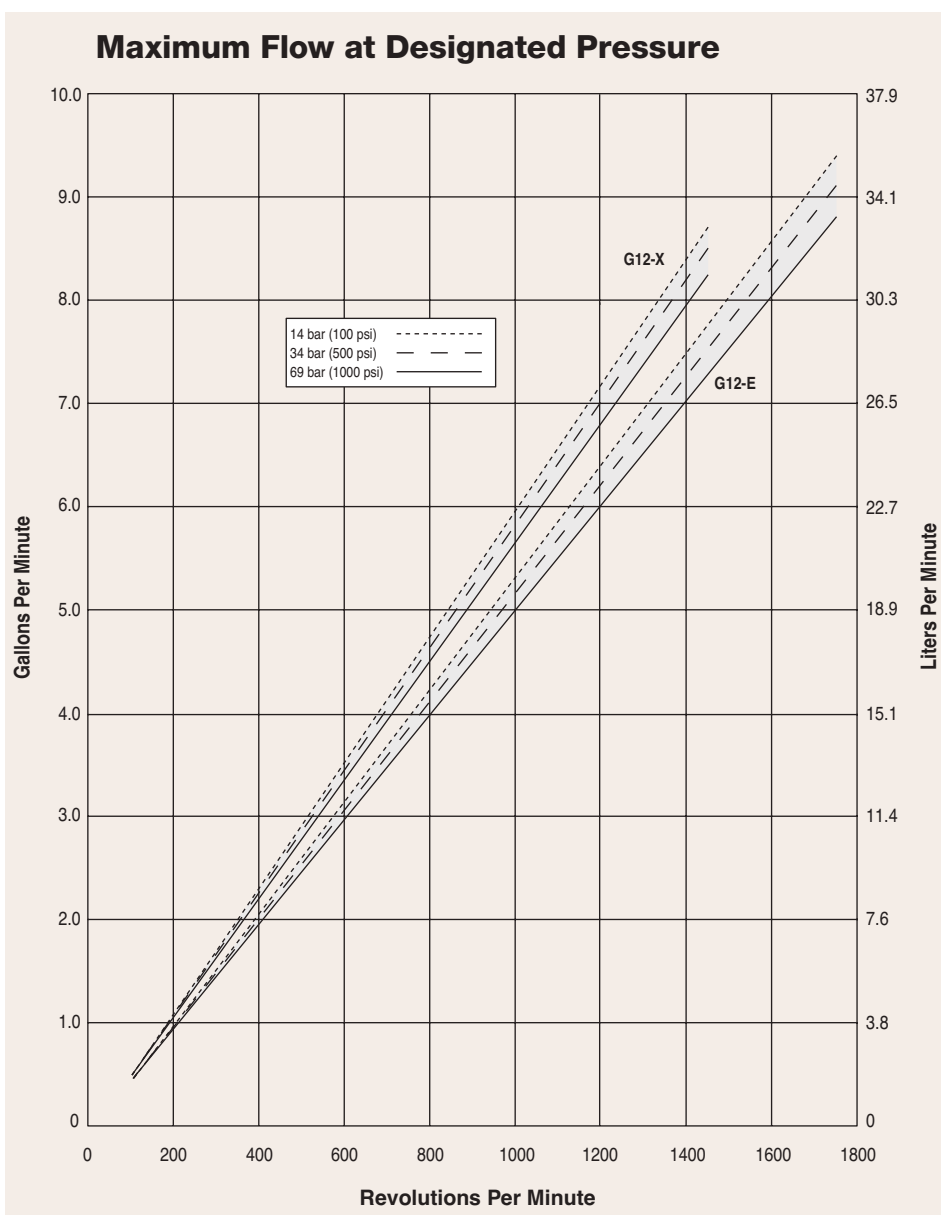
- Integrates **Wanner Hydra-Cell® Pro** seal-less pump technologies for the highest levels of volumetric and energy efficiencies, up to 90% across the full rpm range.
- Reliably handles a wide range of viscosities and shear sensitivities, corrosive liquids, abrasives, slurries and suspended solids.
- No mechanical dynamic seals, packing, or cups to leak, wear or replace – reduces maintenance, costs and downtime.
- Can run dry indefinitely without damage to the pump.
- Seal-less design API 674 pumps that also exceed API 675 standards for accuracy, linearity and repeatability.
- Pumped media is 100% contained – prevents degradation, contamination and environmental risks.
- Patented ADPC (Advanced Diaphragm Position Control) and hydraulic oil management system protect diaphragms under closed or restricted inlet conditions.
- Reduced ownership costs – acquisition, operation, service, maintenance, and energy use.

# G12 Pro Series | Performance

## Capacities

Model	Max. Input rpm	Max. Flow Capacities @69 bar (1000 psi)		Max. Inlet Pressure		Max. Discharge Pressure	
		l/min	USgpm	bar	psi	bar	psi
G12-X	1450	30.6	8.1	17	250	69	1000
G12-E	1750	33.4	8.8	17	250	69	1000

Performance and specification ratings apply to G12 configurations unless specifically noted otherwise.



- True positive displacement pumping action achieves overall efficiency of >90%, targeting improvements at lower speeds and higher pressures.

Due to the Wanner Engineering Continuous Improvement Program, specifications and other data are subject to change.

# G12 Pro Series | Specifications

## Flow Capacities @ 69 bar (1000 psi) 4-pole Motor @ 50 Hz

Model	rpm	l/min	USgpm
G12-X	1450	30.6	8.12
G12-E	1450	27.7	7.39

## Flow Capacities @ 69 bar (1000 psi) 6-pole Motor @ 50 Hz

Model	rpm	l/min	USgpm
G12-X	960	20.2	5.37
G12-E	960	18.3	4.89

## Delivery @ 69 bar (1000 psi)

Model	gal/rev	litres/rev
G12-X	0.0056	0.0211
G12-E	0.0051	0.0191

## Maximum Discharge Pressure

Metallic Heads: 69 bar (1000 psi)

## Maximum Inlet Pressure

17 bar (250 psi)

## Maximum Operating Temperature

Metallic Heads: 121°C (250°F) - Consult factory for correct component selection for temperatures from 71°C (160°F) to 121°C (250°F).

Non-metallic Heads: 60°C (140°F)

## Maximum Solids Size

500 microns

## Inlet Port

1 inch BSPT

1 inch NPT

## Discharge Port

3/4 inch BSPT

3/4 inch NPT

## Calculating Required Power

$$\frac{15 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}$$

$$\frac{15 \times \text{rpm}}{84,428} + \frac{\text{l/min} \times \text{bar}}{511} = \text{electric motor kW}$$

## Attention!

When using a variable frequency drive (VFD) controller, calculate the hp or kW at minimum and maximum pump speed to ensure the correct hp or kW motor is selected. Note that motor manufacturers typically de-rate the service factor to 1.0 when operating with a VFD.

## Calculating Pulley Size

$$\frac{\text{motor pulley OD}}{\text{pump rpm}} = \frac{\text{pump pulley OD}}{\text{motor rpm}}$$

**Shaft Diameter** 22.2 mm (7/8 inch)

**Shaft Rotation** Reverse (bi-directional)

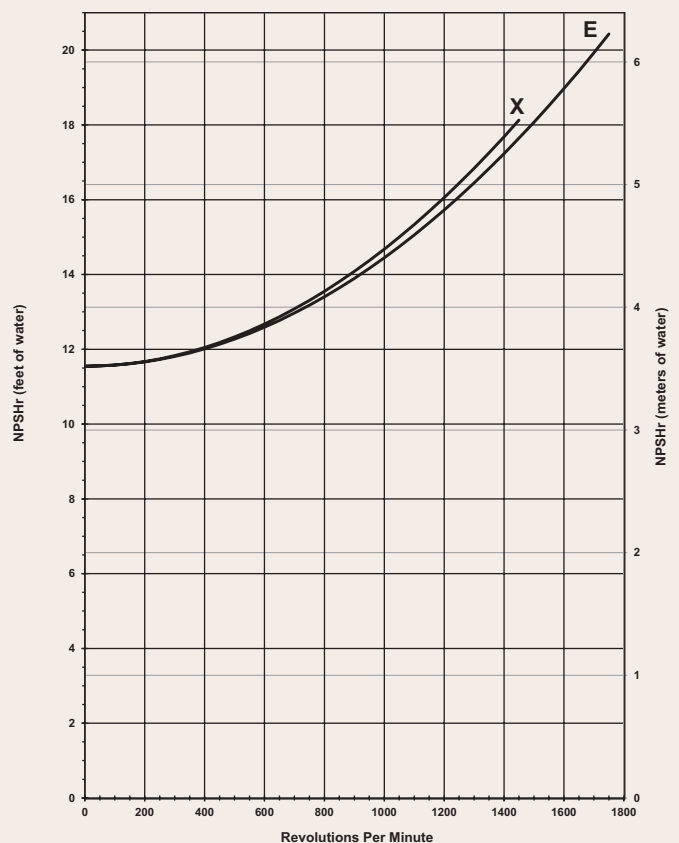
**Bearings** Tapered roller bearings

**Oil Capacity** 1.4 litres (1.5 US quarts)

## Weight

Metallic Heads: 28.6 kg (63 lbs.)

## Net Positive Suction Head (NPSHr)



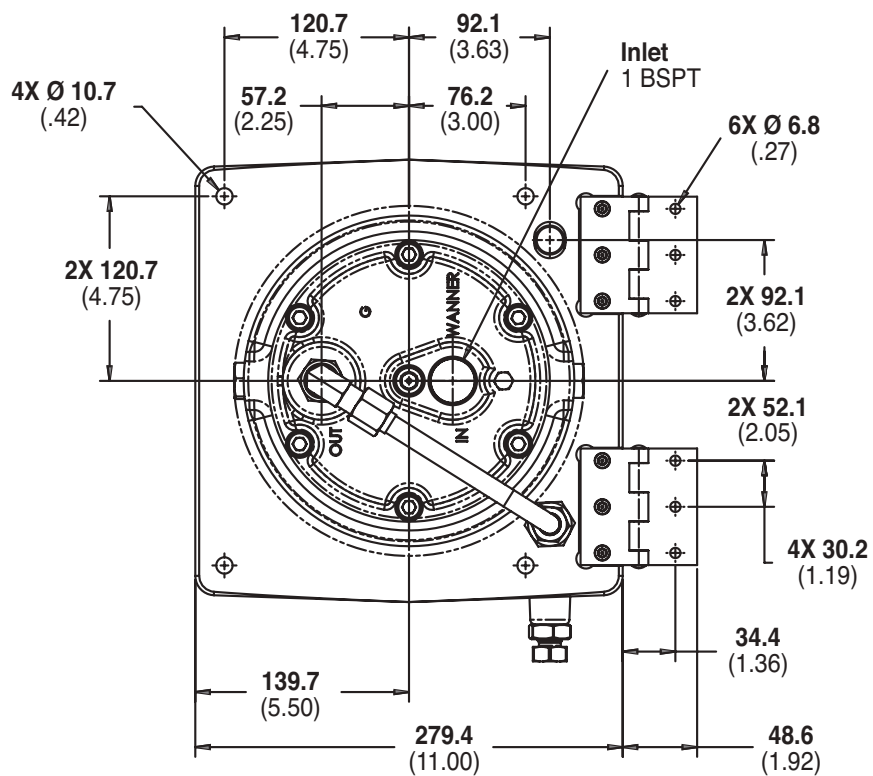
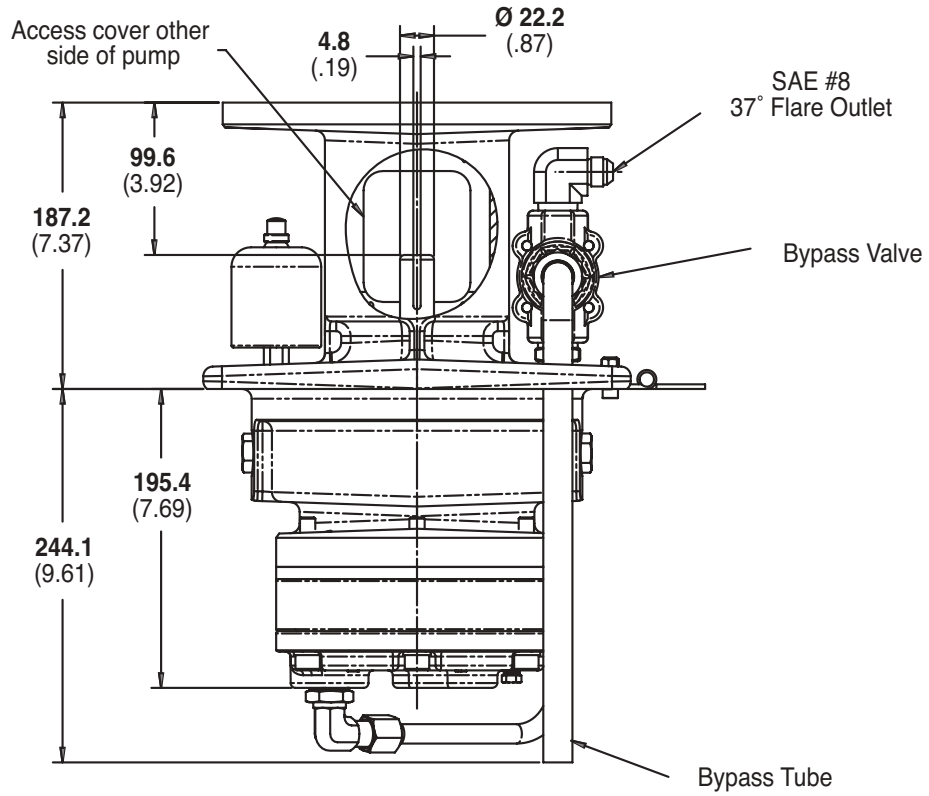
## Suction Lift

Each Hydra-Cell pump has different lift capability depending on model size, cam angle, speed, and fluid characteristics. To ensure that your specific lift characteristics are met, refer to the inlet calculations regarding friction, and acceleration head losses in your Hydra-Cell Product Manual. Compare those calculations to the NPSHr curves above.

Due to the Wanner Engineering Continuous Improvement Program, specifications and other data are subject to change.

# G12 Pro Series | Representative Drawings

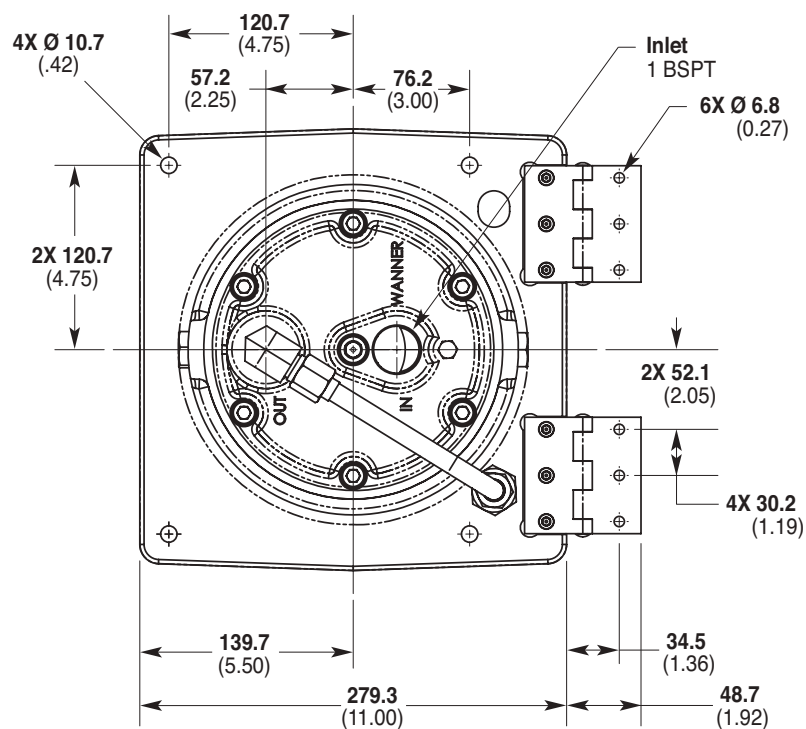
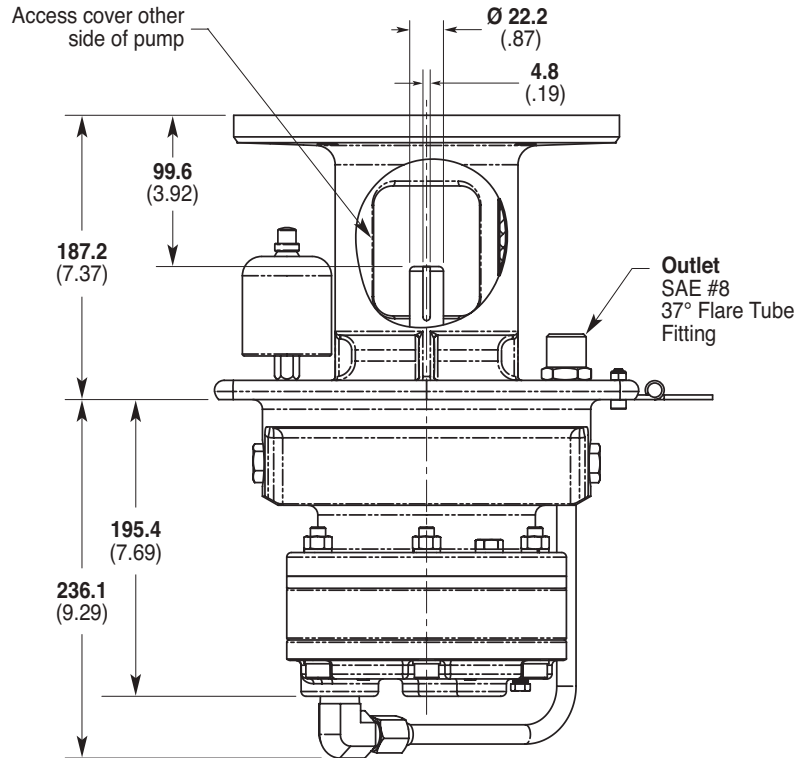
## G12 Standard Configuration (Metallic Pump Heads) mm (Inches)



**Note:** Dimensions are for reference only. Contact factory for certified drawings.

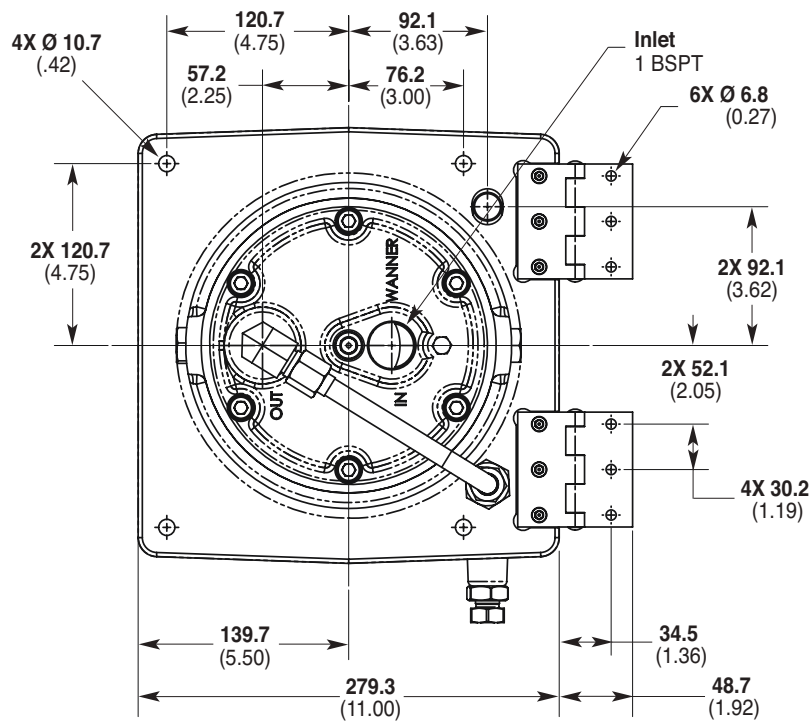
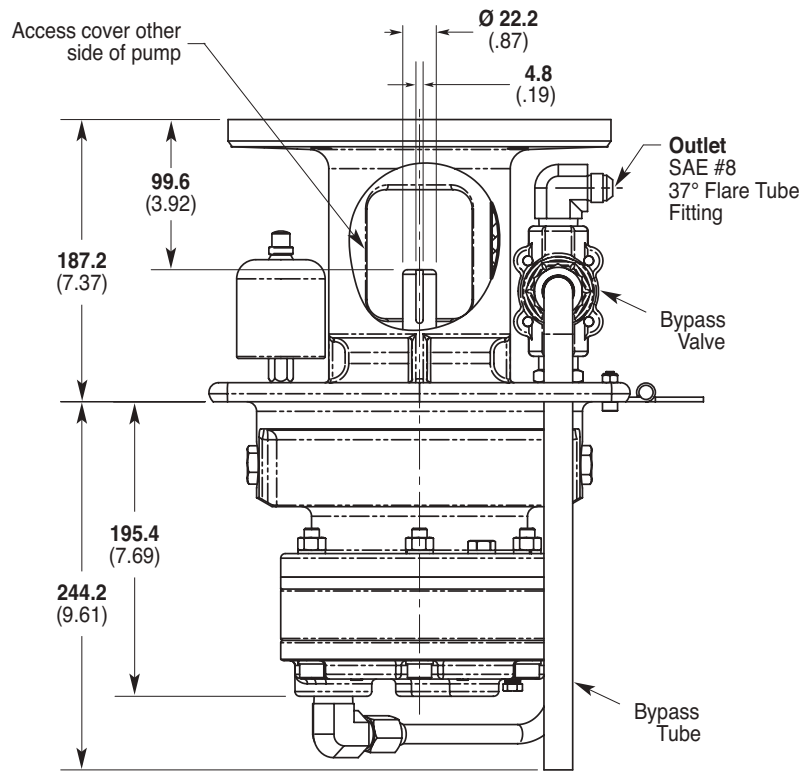
# G12 Pro Series | Representative Drawings

## G12 with Tube Accessory mm (Inches)



**Note:** Dimensions are for reference only. Contact factory for certified drawings.

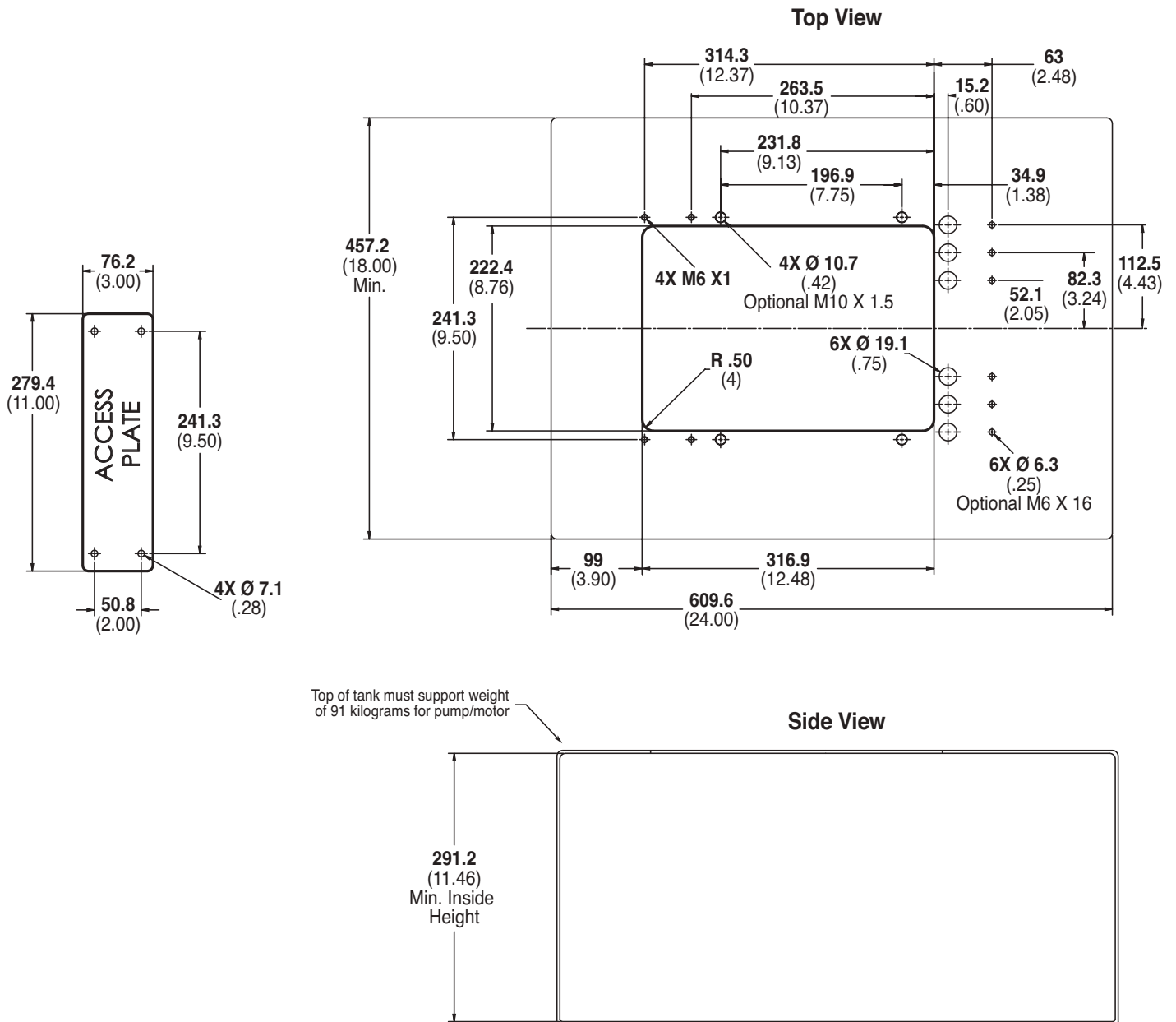
## G12 with Valve/Tube Accessory mm (Inches)



**Note:** Dimensions are for reference only. Contact factory for certified drawings.

# G12 Pro Series | Representative Drawings

## G12 Models with Minimum Tank Size and Critical Installation Dimensions mm (Inches)



**Note:** Dimensions are for reference only. Contact factory for certified drawings. Contact factory for internal tank design.

## Valve / Tube Accessories

The Hydra-Cell G12 Tube and Valve/Tube Accessories provide a pre-fabricated plumbing package for simplified installation.

*(See page 5 for dimensions.)*

### Ordering Information

Tube Accessory Part Number:

A04-009-1200

Valve/Tube Accessory Part Number:

A04-010-1200



## Valve Selection

A seal-less **C62 Pressure Regulating Valve** is recommended for Hydra-Cell G12 pumping systems, especially for high-pressure requirements or when handling dirty fluids.



A **C22 Pressure Regulating Valve** provides a capable, lower-cost alternative to C62 valves for Hydra-Cell G12 pumping systems.





# G12 Pro Series | How to Order

## Ordering Information

A complete G12 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G12XKCGHFCEA.

1	2	3	4	5	6	7	8	9	10	11	12
G	1	2		P					E		

Digit	Order Code	Description
<b>1-3</b>		<b>Pump Configuration</b>
	<b>G12</b>	Flanged for IEC 100/112 B5 (BSPT Ports)* *Tube Accessory Kits ordered separately. See page 8. IEC 100/112 to 132 Motor Adaptor (Part No. A04-030-1012)
<b>4</b>		<b>Hydraulic End Cam</b>
	<b>X</b>	Max 30.6 l/min (7.7 USgpm) @ 1450 rpm
	<b>E</b>	Max 27.7w l/min (6.6 USgpm) @ 1450 rpm
<b>5</b>		<b>Pump Head Version</b>
	<b>P</b>	Hydra-Cell Pro <i>See lower right for ATEX Certification Kit Options.</i>
<b>6</b>		<b>Pump Head Material</b>
	<b>B</b>	Brass
	<b>C</b>	Cast Iron (Nickel-plated)
	<b>S</b>	316L Stainless Steel
<b>7</b>		<b>Diaphragm &amp; O-ring Material</b>
	<b>E</b>	EPDM (requires EPDM-compatible oil - Digit 12 oil code C)
	<b>G</b>	FKM
	<b>J</b>	PTFE (available with E and S cams only; 1200 rpm max.)
	<b>K</b>	FFKM diaphragm / PTFE o-ring
	<b>P</b>	Neoprene
	<b>T</b>	Buna-N
<b>8</b>		<b>Valve Seat Material</b>
	<b>C</b>	Ceramic
	<b>D</b>	Tungsten Carbide
	<b>H</b>	17-4 Stainless Steel
	<b>S</b>	316L Stainless Steel
<b>9</b>		<b>Valve Material</b>
	<b>C</b>	Ceramic
	<b>D</b>	Tungsten Carbide
	<b>F</b>	17-4 Stainless Steel
	<b>N</b>	Nitronic 50
<b>10</b>		<b>Valve Springs</b>
	<b>E</b>	Elgiloy

Digit	Order Code	Description
<b>11</b>		<b>Valve Spring Retainers</b>
	<b>C</b>	Celcon
	<b>H</b>	17-7 Stainless Steel
	<b>M</b>	PVDF
	<b>P</b>	Polypropylene
	<b>Y</b>	Nylon
<b>12</b>		<b>Hydra-Oil</b>
	<b>A</b>	10W30 standard-duty oil
	<b>B</b>	40-wt for continuous-duty (use with 316L SST pump head - standard)
	<b>C</b>	30-wt EPDM-compatible oil
	<b>E</b>	Food-contact oil
	<b>G</b>	5W30 cold-temp severe-duty synthetic oil
	<b>H</b>	15W50 high-temp severe-duty synthetic oil



### ATEX Certification Kit Options

As a separate line on your order, please add the required ATEX Certification Kit Option.

- ATEX 2014/34/EU Certified, Category 2, Zone 1
- ATEX 2014/34/EU Certified, Category 3, Zone 2

- All options include Certificate, Oil Level Monitor or Sight Glass, Earth Stud & Secondary ATEX Label.
- Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oil is not included and must be ordered separately.

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