G20 PRO SERIES

3.8 l/min (1.0 USgpm) 103 bar (1500 psi) for Metallic Pump Heads 24 bar (350 psi) for Non-metallic Pump Heads

WANNER HYDRA-CELL PRO

SEAL-LESS PUMP TECHNOLOGIES



G20 Close-coupled with Brass pump head

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.
- Reduced ownership costs acquisition, operation, service, maintenance, and energy use.
- Valve set design and material options reliably handle a wide range of viscosities and shear sensitivities, plus corrosive liquids, abrasives, slurries and particulates.



G20 Pro Series | Performance

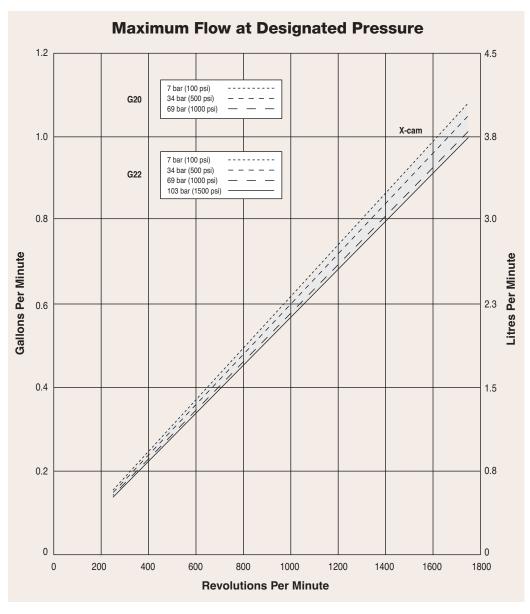
Capacities

	Max.	Max. Flow Capacities		Max	. Inlet	Max. Discharge Pressure					
	Input	@69 bar ((1000 psi)	Pres	sure	Metallio	c Heads	Polypropy	lene Heads	PVDF	Heads
Model	rpm	l/min	USgpm	bar	psi	bar	psi	bar	psi	bar	psi
G20-X	1750	3.82	1.01	17	250	69	1000	17	250	24	350
G22	1750	3.82	1.01	17	250	103	1500	17	250	24	350

Performance and specification ratings apply to G20 and G22 configurations unless specifically noted otherwise.

Metering & Dosing

API 675 Performance Characteristics of Steady State Accuracy \pm 1%, Linearity \pm 3% and Repeatability \pm 3% can be achieved at speeds up to 1050 rpm and pressures up to 24 bar (non-metallic pump heads) or up to 103 bar (metallic pump heads) for X-cam pumps only.

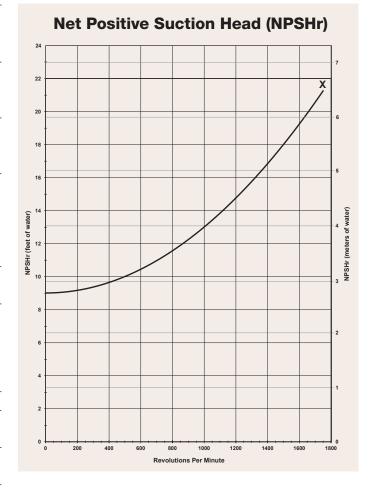


 True positive displacement pumping action achieves overall efficiency of >90%, targeting improvements at lower speeds and higher pressures.

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

G20 Pro Series | Specifications

Flow Capacities @ 69) bar (1000 psi	i) 4-pole M	otor @ 50 Hz)				
Model	rpm	USgpm					
G20-X	1450	3.19	0.87				
Flow Capacities @ 69	bar (1000 psi	i) 6-pole M	otor @ 50 Hz				
Model	rpm	l/min	USgpm				
G20-X	960	2.11	0.57				
Delivery @ 69 bar (100	00 psi)						
Model	litres/r	ev	gal/rev				
G20-X	0.0022	2	0.0006				
Maximum Discharge	Pressure						
Metallic Heads:	G20 to 69 ba	ar (1000 ps	si)				
	G22 to 103 E	3ar (1500 _l	osi)				
Non-metallic Heads:	17 bar (250 psi) Polypropylene						
	24 bar (350 psi) PVDF						
Maximum Inlet Press	ure						
	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							
Inlet Port	1/2 inch BSF	-					
	1/2 inch NPT						
Discharge Port	3/8 inch BSF						
	3/8 inch NPT						
Shaft Diameter		. ,	hollow shaft				
	G22: 19 mm	· ,					
Shaft Rotation	Reverse (bi-						
Bearings	Precision ba						
Oil Capacity	0.12 litres (0).125 US q	uart)				



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.

Calculating Required Power

Non-metallic Heads: 4.1 kg (9 lbs.)

$$\frac{\text{rpm} + 1000}{7000} + \frac{\text{gpm x psi}}{1,460} = \text{electric motor hp}$$

$$\frac{\text{rpm} + 1000}{9383} + \frac{\text{l/min x bar}}{511} = \text{electric motor kW}$$

5.5 kg (12 lbs.)

Attention!

Weight

Metallic Heads:

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

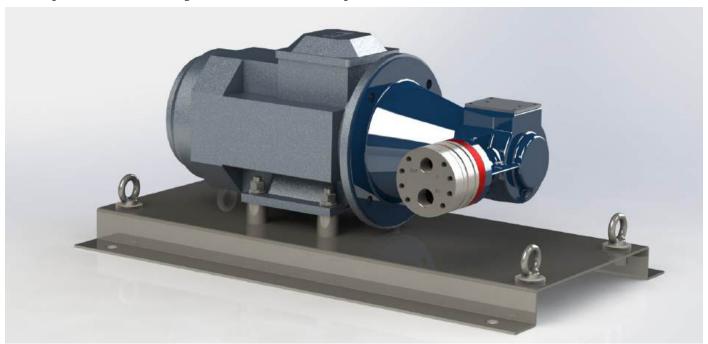


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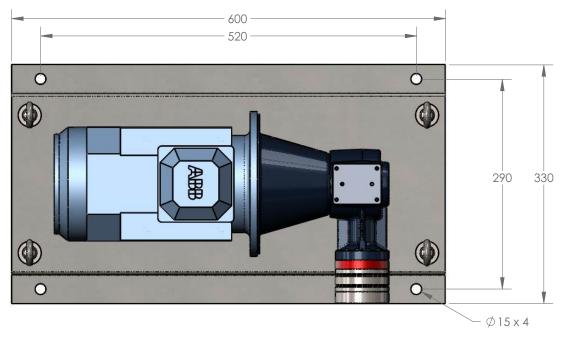


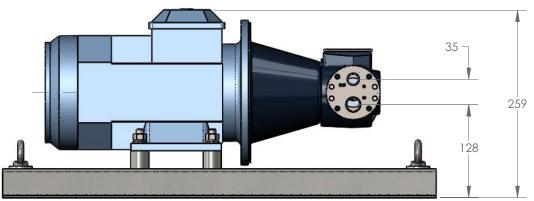
G20 Pro Series | General Assemblies

Baseplate Assembly with Motor Adaptor for IEC 80 Motor Frame



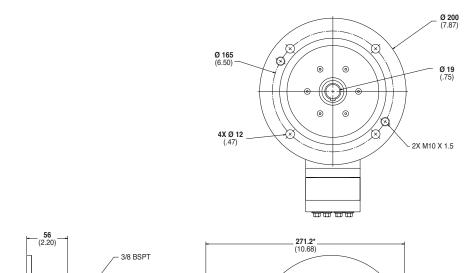
Dimensions in mm G22 pump shown

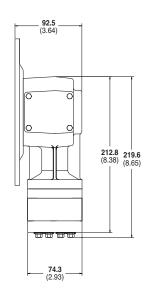


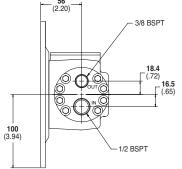


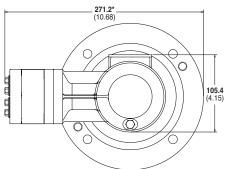
G20 Pro Series | Representative Drawings

G20 Models with Metallic Pump Head mm (Inches)

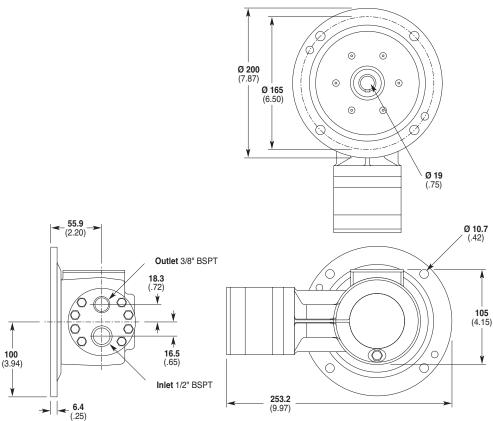


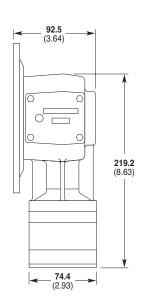






G20 Models with Non-Metallic Pump Head mm (Inches)

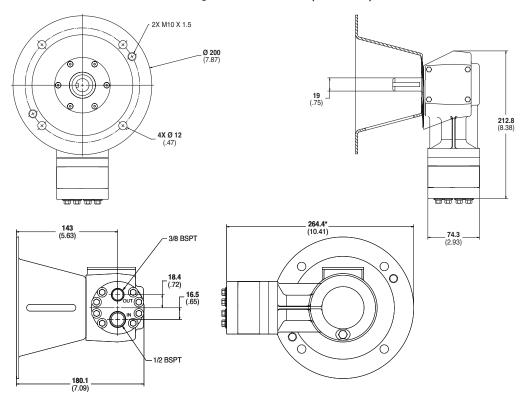




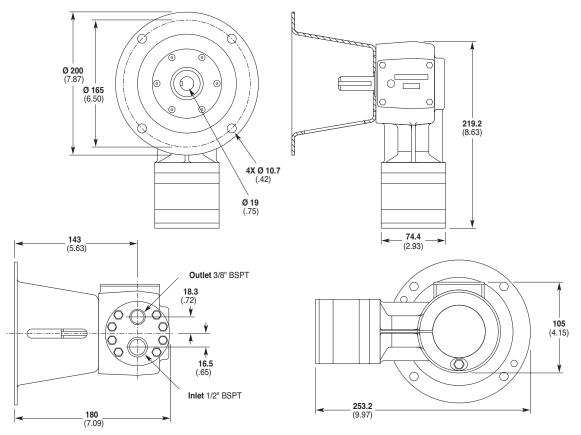
Note: Dimensions are for reference only. Contact factory for certified drawings.

G20 Pro Series | Representative Drawings

G22 Models with Metallic Pump Head mm (Inches)



G22 Models with Non-Metallic Pump Head mm (Inches)



Drawings shows assembly with motor adapter A04-006-1200

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



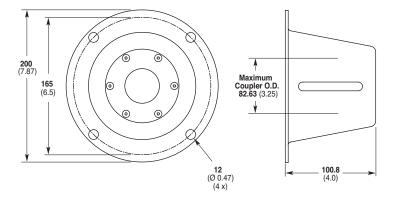
G20 Pro Series | Adapters / Valves

Pump/Motor Adapter mm (Inches)

Part Number: A04-006-1200

Must be ordered separately for G22 models (optional for G21 models) for use with IEC 80 and 90 frame motors, B5 flange.

NEMA adaptor available - consult factory.



Valve Selection

A Hydra-Cell G20, G21 or G22 pumping system uses a **C46 Pressure Regulating Valve**.





G20 Pro Series | Options

Contact Wanner International for:

- Motors, bases, couplings and other pump accessories
- Hydra-Oil selection and specification information
- Design considerations, installation guidelines, and other technical assistance in pump selection
- Process liquid end built with NACE and 3.1 traceable material certification



G20 Close-coupled with Polypropylene pump head



G22 Flexible-coupled with Stainless Steel pump head



G20 Pro Series | How to Order

Ordering Information

A complete G20 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G20GAPGHFECG.

1	2	3	4	5	6	7	8	9	10	11	12
G	2		X	D							

Digit	Order Code	Description					
1-3		Pump Configuration					
	G20	Suitable for close coupling to IEC 80 motor (BSPT Ports)					
	G22	For use with pump/motor adaptor (BSPT Ports)*					
		*Pump/motor adaptors ordered separately. See previous page.					
4		Hydraulic End Cam					
	X	Max 3.19 I/min (0.87 USgpm) @ 1450 rpm					
5		Pump Head Version					
	D	BSPT Ports (for all G20 & G22 pumps)					
		See lower right for ATEX Certification Kit Options.					
6	В	Pump Head Material Brass					
	M	PVDF					
	P	Polypropylene					
	S	316L Stainless Steel					
	T	Hastelloy C					
7		Diaphragm & O-ring Material					
	Α	Aflas diaphragm / PTFE o-ring					
	E	EPDM (requires EPDM-compatible oil - Digit 12 oil code J)					
	G	FKM					
	J	PTFE					
	P	Neoprene					
	T	Buna-N					
8		Valve Seat Material					
	C	Ceramic					
	D	Tungsten Carbide					
	Н	17-4 Stainless Steel					
	S	316L Stainless Steel					
	T	Hastelloy C					

Digit	Order Code	Description
9		Valve Material
	C	Ceramic
	D	Tungsten Carbide
	F	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
10		Valve Springs
	E	Elgiloy
	T	Hastelloy C
11		Valve Spring Retainers
	C	Celcon
	Н	17-7 Stainless Steel
	M	PVDF
	P	Polypropylene
	T	Hastelloy C
	Υ	Nylon
12		Hydra-Oil
	G	5W30 cold-temp severe-duty synthetic oil
	J	20-wt EPDM-compatible oil
	K	Food-contact 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.
- ATEX is not available with non-metallic pump heads.





SEAL-LESS PUMP TECHNOLOGIES

Partners in over 70 countries



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