

# G03 Mono-Block Series

Maximum Flow Rate: 11.7 l/min (3.1 gpm)

Maximum Pressure: 103 bar (1500 psi) for Metallic Pump Heads



**WANNER**  
*Hydra-Cell*<sup>®</sup>  
Seal-less Pump Technology



*Mono-Block (G03) Shaft-driven with Stainless Steel pump head*



*Mono-Block (G03) Shaft-driven with Brass pump head*

The Mono-Block pump head combines the valve plate and manifold into one component for servicing without disassembly or removal of plumbing.

# G03 Mono-Block Series Performance

## Capacities

### Flow

Model	Max. Input rpm	Max. Flow @ 69 bar (1000 psi)	
		gpm	l/min
G03-X	1750	3.1	11.7
G03-E	1750	2.2	8.3

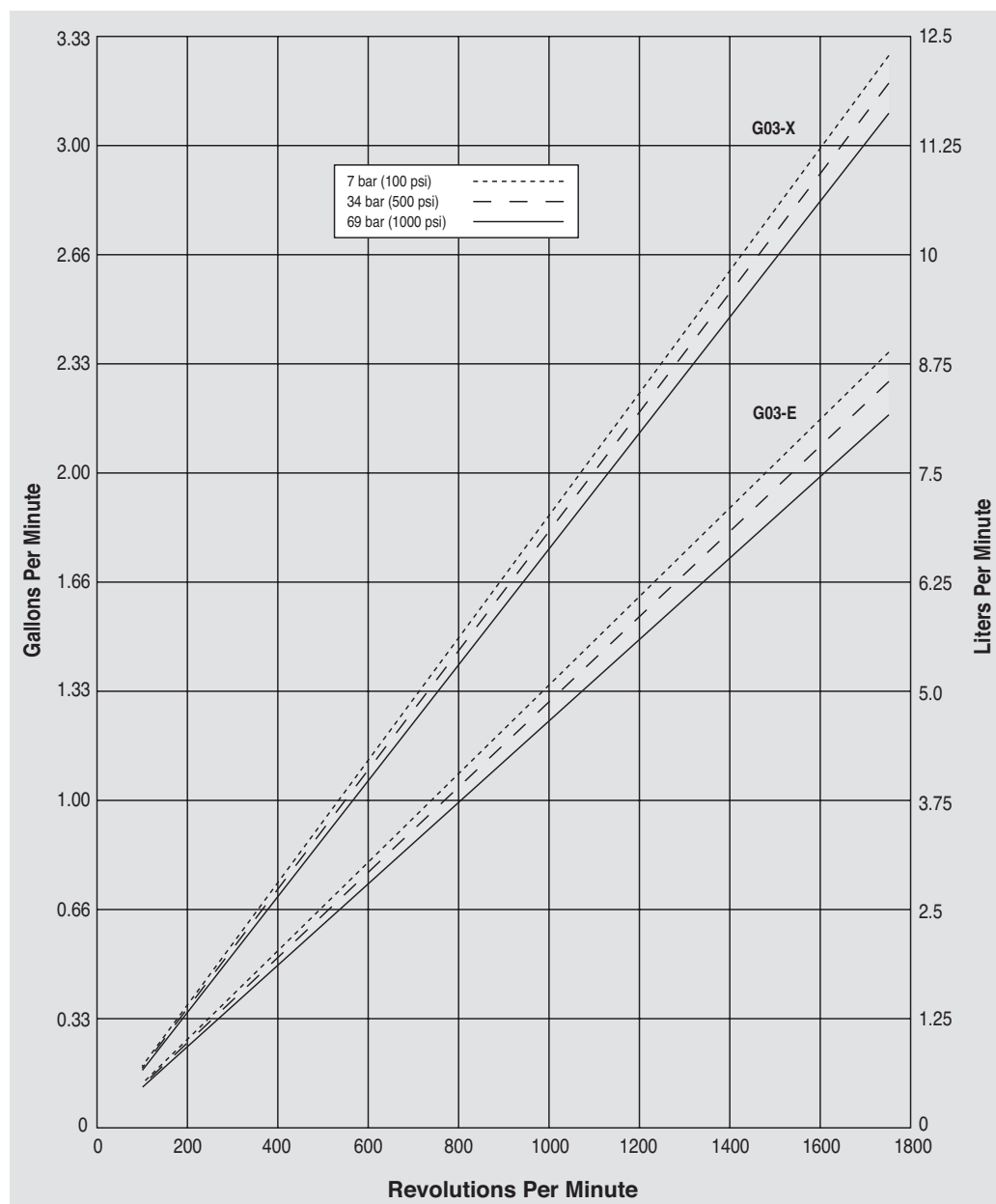
### Pressure

**Maximum Inlet Pressure**  
17 bar (250 psi)

**Maximum Discharge Pressure**  
103 bar (1500 psi)

Performance and specification ratings apply to G03 Mono-Block configurations unless specifically noted otherwise.

## Maximum Flow at Designated Pressure



# G03 Mono-Block Series Specifications

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

Model	rpm	gpm	l/min
G03-X	1450	2.45	9.3
G03-E	1450	1.80	6.8

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

Model	rpm	gpm	l/min
G03-X	960	1.64	6.2
G03-E	960	1.18	4.5

## Delivery @ 69 bar (1000 psi)

Model	gal/rev	liters/rev
G03-X	0.0018	0.0067
G03-E	0.0013	0.0047

## Maximum Discharge Pressure

Metallic Heads: G03-X, E to 103 bar (1500 psi)  
G13-X, E, S, B, G to 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).

## Maximum Solids Size 200 microns

## Inlet Port 1/2 inch BSPT

1/2 inch NPT

## Discharge Port 1/2 inch BSPT

1/2 inch NPT

## Shaft Diameter G03: 22.22 mm (7/8 inch)

G13: 24mm (0.945 inch) hollow shaft

## Shaft Rotation Reverse (bi-directional)

## Bearings Precision ball bearings

## Oil Capacity 0.95 liters (1.0 US quart)

## Weight

Metallic Heads: 12.7 kg (28 lbs.)

## Calculating Required Power

$$\frac{6 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}$$

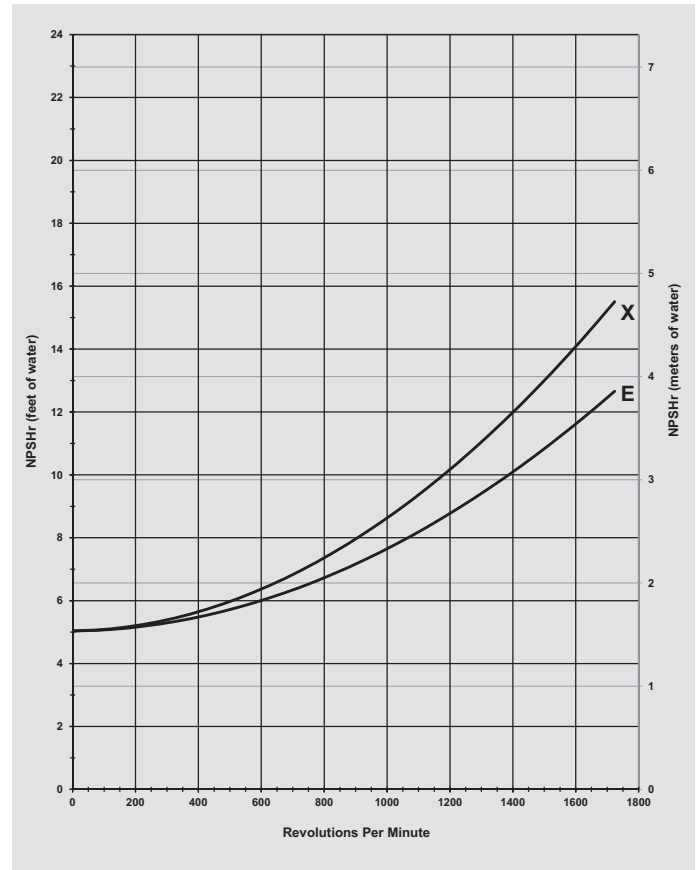
$$\frac{6 \times \text{rpm}}{84,428} + \frac{\text{l/min} \times \text{bar}}{511} = \text{electric motor kW}$$

## Calculating Pulley Size

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

When using a variable frequency controller (VFD) 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.

## Net Positive Suction Head (NPSHr)

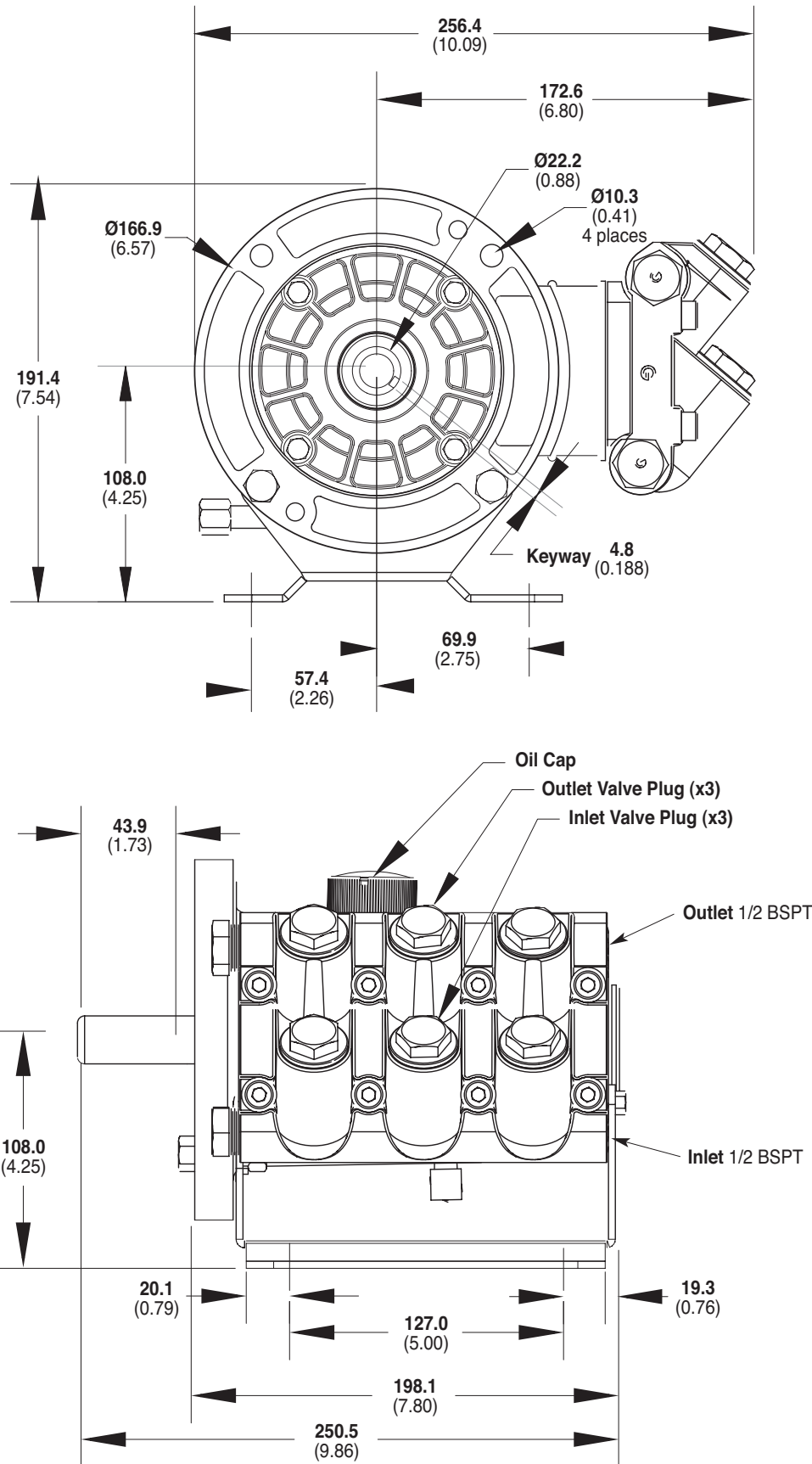


## Self-priming:

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 Installation & Service Manual. Compare those calculations to the NPSHr curves above.

# G03 Mono-Block Series Representative Drawings

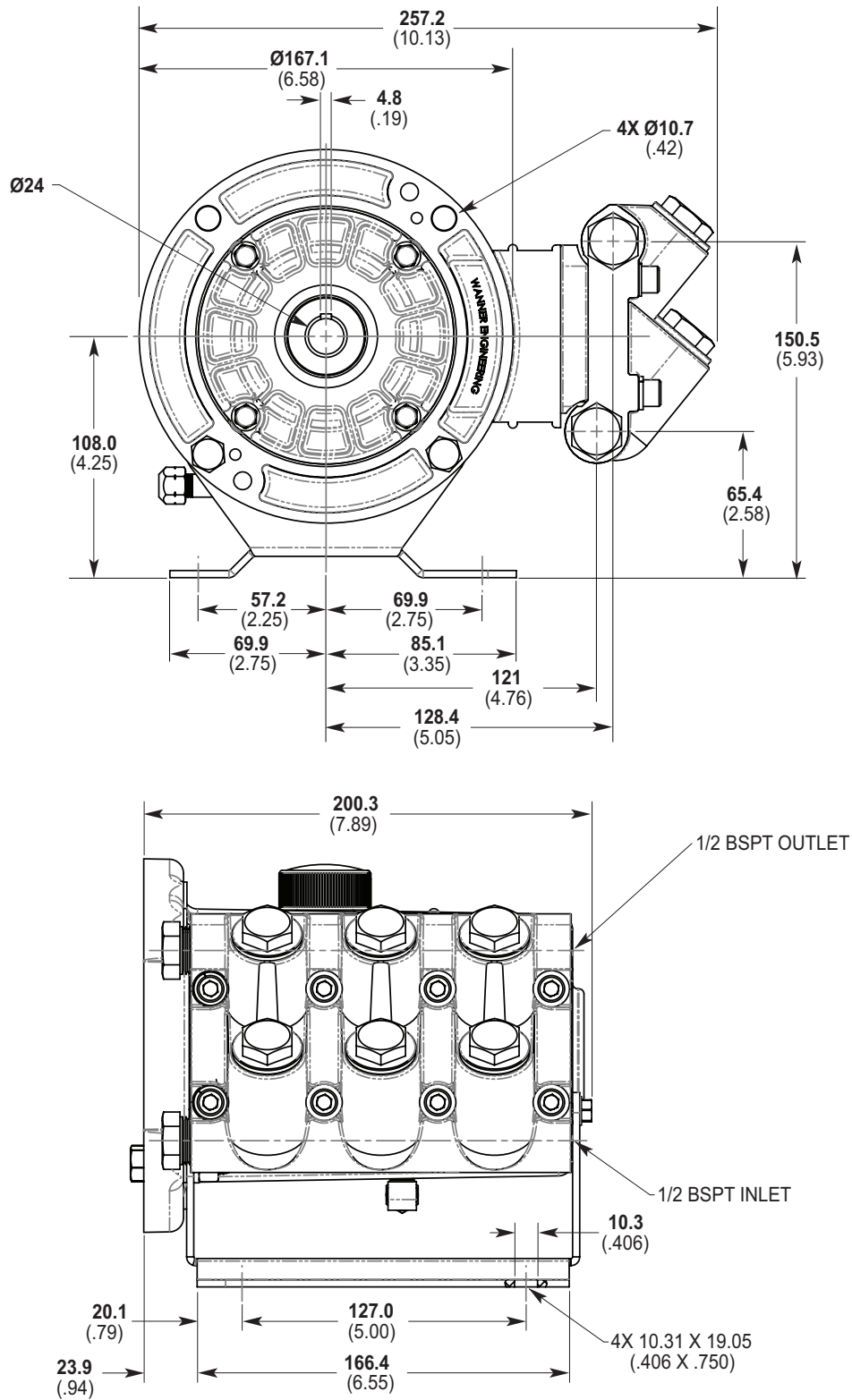
## G03 Models with Metallic Pump Head mm (Inches)



**Note:** Contact factory for additional drawings of specific models and configurations.

# GI3 Mono-Block Series Representative Drawings

## GI3 Models with Metallic Pump Head mm (Inches)



**Note:** Contact factory for additional drawings of specific models and configurations.



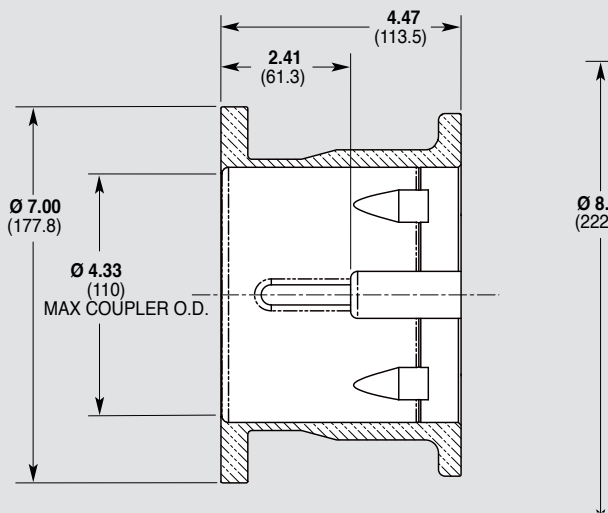
# G03 Mono-Block Series Adaptors/Valves/Baseplates

## Pump/Motor Adaptor mm (Inches)

### Part Number: A04-003-I202

Must be ordered separately for G03 Mono-Block models for use with IEC 80 - 90 frame motors, B5 flange.

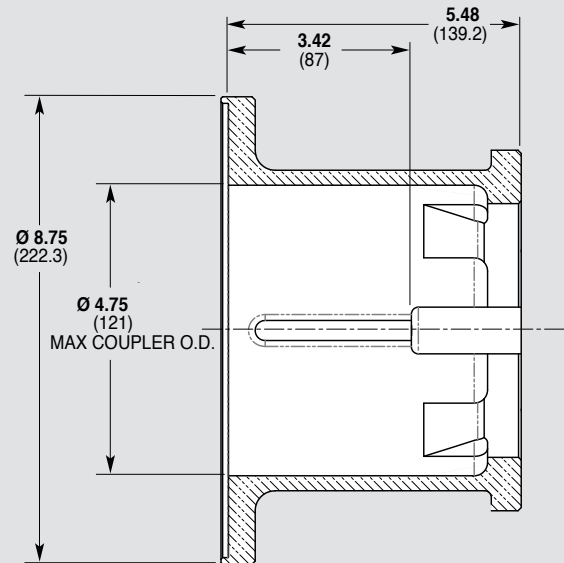
*NEMA adaptor available - consult factory.*



### Part Number: A04-004-I202

Must be ordered separately for G03 Mono-Block models for use with IEC 100 - 112 frame motors, B5 flange.

*NEMA adaptor available - consult factory.*



## Valve Selection

A Hydra-Cell G03 Mono-Block Series pumping system uses a C46 Pressure Regulating Valve.



## IEC Baseplates

Complete assembly (excluding pump and motor) for IEC 80, 90, 100 and 112 frame motors in 304 Stainless Steel.



# G03 Mono-Block Series How to Order

## Ordering Information

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

A complete G03 Mono-Block Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G03EMBPSFEPG.

Digit	Order Code	Description
1-3		<b>Pump Configuration</b>
	G03	Shaft-driven (BSPT Ports)*
	G13	Close-coupled to IEC 90 motor (BSPT Ports)
	-	G13 Option for IEC 80 motor connection (BSPT Ports)
		*Pump/motor adaptors ordered separately. See previous page.
4		<b>Hydraulic End Cam</b>
	X	Max 9.9 l/min (2.6 gpm) @ 1450 rpm
	E	Max 6.8 l/min (1.8 gpm) @ 1450 rpm
5		<b>Pump Head Version</b>
	M	Mono-Block, Kel-Cell BSPT Ports
	-	ATEX (Note: ATEX 94/9/EC Certified, Category 2, Zone 1. Includes certificate and oil level monitor.)
6		<b>Pump Head Material</b>
	B	Brass
	S	316L Stainless Steel
	-	316L Stainless Steel with ANSI RF flange class 300lb x 600lb
7		<b>Diaphragm &amp; O-ring Material</b>
	E	EPDM (requires EPDM-compatible oil - Digit 12 oil code J)
	G	FKM
	J	PTFE
	P	Neoprene
	T	Buna-N
8		<b>Valve Seat Material</b>
	H	17-4 Stainless Steel
	S	316L Stainless Steel
9		<b>Valve Material</b>
	F	17-4 Stainless Steel
	N	Nitronic 50
10		<b>Valve Springs</b>
	D	Titanium
	E	Elgiloy (Exceeds SST grade 316L)

Digit	Order Code	Description
11		<b>Valve Spring Retainers</b>
	M	PVDF
	P	Polypropylene
12		<b>Hydra-Oil</b>
	A	10W30 standard-duty oil
	G	5W30 cold-temp severe-duty synthetic oil
	J	20-wt EPDM-compatible oil
	K	Food-contact oil





**WANNER ENGINEERING - WORLD HEADQUARTERS & MANUFACTURING**  
Minneapolis USA  
t: (612) 332-5681  
e: sales@wannereng.com

**WANNER PUMPS**  
Kowloon HONG KONG  
t: +852 3428 6534  
e: sales@wannerpumps.com

**WANNER INTERNATIONAL**  
Hampshire UK  
t: +44 (0) 1252 816847  
e: sales@wannerint.com

**WANNER ENGINEERING**  
Latin American Office  
t: +55 (11) 4081-7098  
e: sales@wannereng.com

**WANNER PUMPS**  
Shanghai CHINA  
t: +86-21-6876 3700  
e: sales@wannerpumps.com