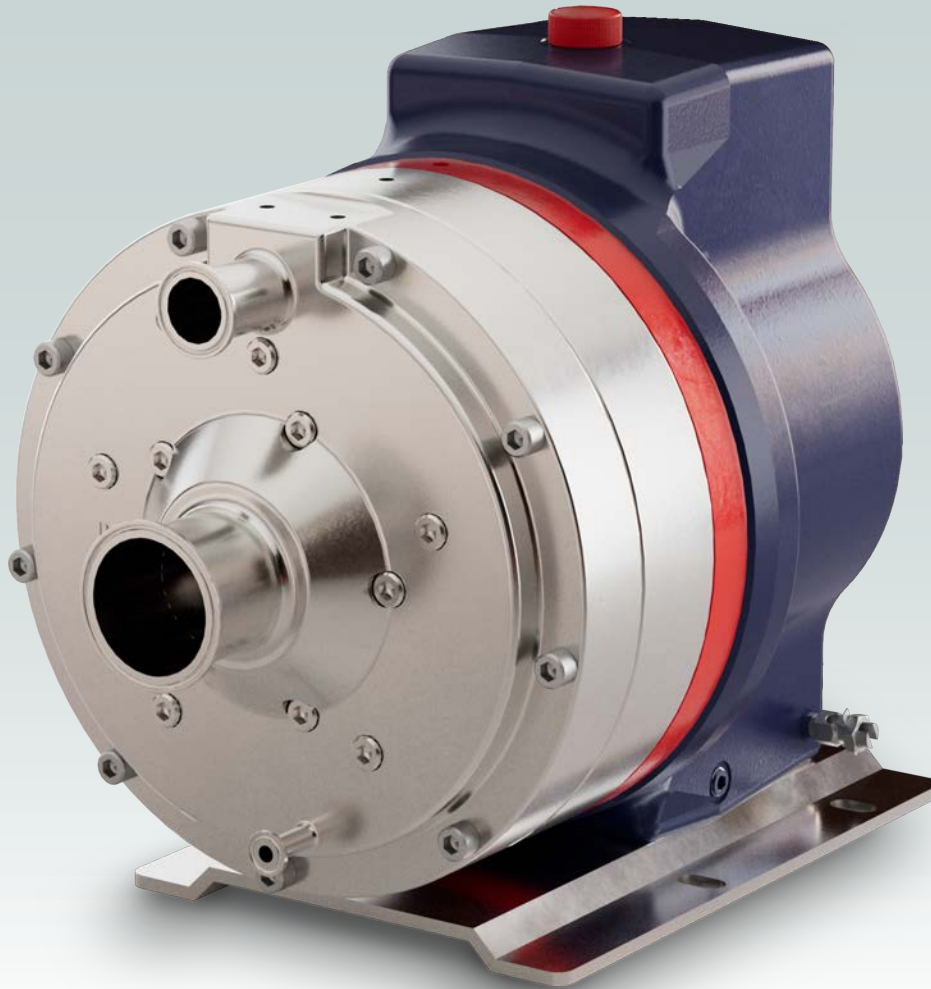


# PH80 SERIES PHARMACEUTICAL

Maximum Flow rate: 246 l/min (65 US gpm)  
Maximum Pressure: 40 bar (580 psi) for Metallic Pump Heads

**WANNER™ PHARMA-PRO™**  
LEADING INNOVATION IN SEAL-LESS PUMP TECHNOLOGIES™



*PH80A Shaft-driven with  
Stainless Steel pump head  
with ASME BPE flanges*

## Low pulse flow. Control and reliability for continuous processes.

- Low pulse flow; no pulsation dampeners needed in most applications
- Unique multiple diaphragm arrangement results in compact design, saving on installation space
- Extremely accurate wide adjustable flow range for ultimate controllability
- Low shear pumping action
- Reliably handles challenging liquids and slurries including abrasives, corrosives, non-lubricating, and liquids with micron-sized particles
- Patented ADPC (Advanced Diaphragm Position Control) technology protects diaphragms under closed or restricted inlet conditions
- ASME BPE flange connections as standard
- Wetted surfaces polished to  $\leq 0.8$  Ra
- Diaphragm options to FDA compliance
- ATEX certification
- TSE / BSE-free materials
- Multipurpose: CIP and main process pump
- Full material traceability

# PH80A Pharma-Pro™ | Performance

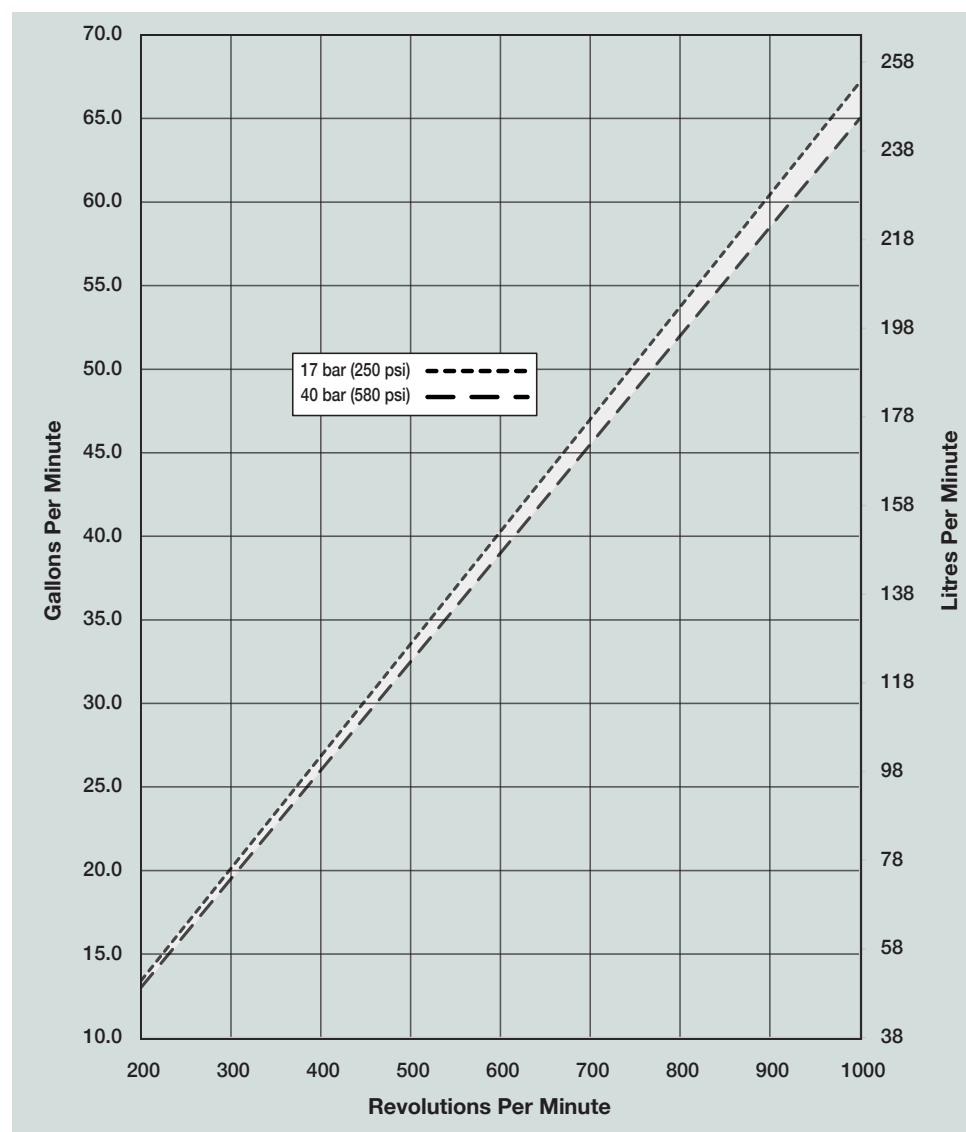
## Bare Shaft Pump Options

### Capacities

Model	Max. Input rpm	Max. Flow Capacities		Max. Inlet Pressure		Max. Discharge Pressure	
		@40 bar (580 psi) l/min	US gpm	bar	psi	Metallic Heads bar	psi
PH80AX	1000	246	65.0	17	250	40	580

Performance and specification ratings apply to PH80A configurations unless specifically noted otherwise.

### Maximum Flow at Designated Pressure



### Metering & Dosing

Performance characteristics of better than:

- ± 1% steady state accuracy
- ± 3% linearity
- ± 3% repeatability

please contact Wanner for further details.

# PH80A Pharma-Pro™ | Specifications

## Bare Shaft Pump Options

**Diaphragms per Liquid End** 5

**Flow Capacities @ 40 bar (580 psi) 6-pole Motor @ 50 Hz**

Model	rpm	l/min	US gpm
PH80AX	960	236.2	62.4

**Flow Capacities @ 40 bar (580 psi) 8-pole Motor @ 50 Hz**

Model	rpm	l/min	US gpm
PH80AX	730	179.6	47.45

**Delivery @ 40 bar (580 psi)**

Model	litres/rev	gal/rev
PH80AX	0.246	0.0650

**Maximum Discharge Pressure**

Metallic Heads: 40 bar (580 psi)

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

**Maximum Operating Temperature**

Metallic Heads: 90°C (194°F)  
Consult Wanner for correct component selection for temperatures greater than 71°C (160°F).

**Maximum Solids Size** 800 microns

**Inlet Port** 3" ASME BPE

**Discharge Port** 1.5" ASME BPE

**Shaft Diameter** 50.8 mm (2 inch)

**Shaft Rotation** Bi-directional

**Bearings** Tapered roller bearings

**Oil Capacity** 10.4 litres (11 US quarts)

**Weight** 181 Kg (399 lbs)

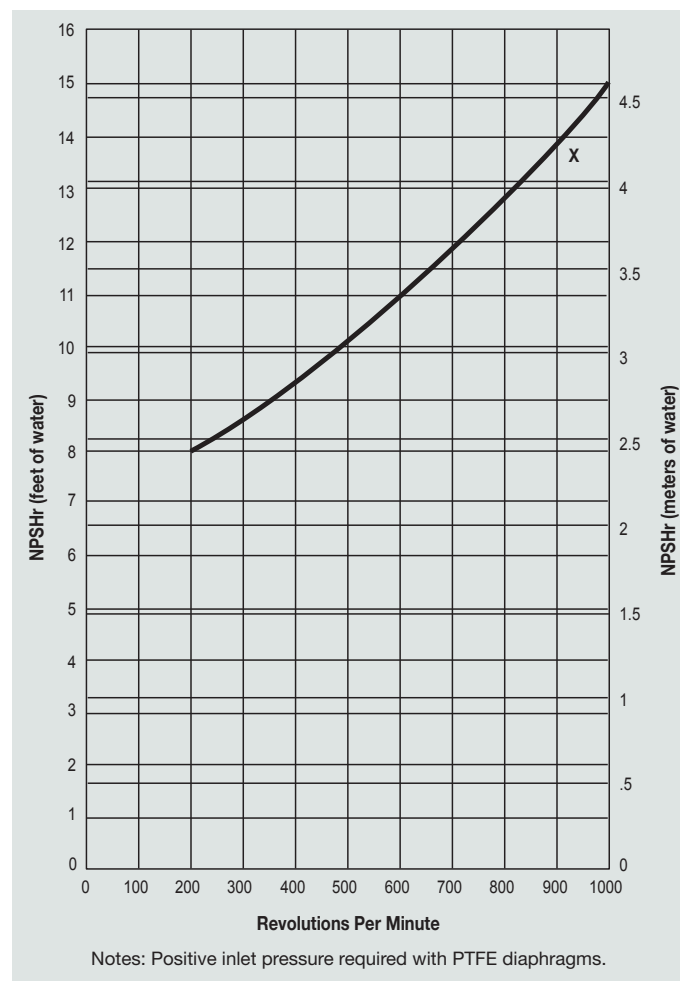
### Calculating Required Power

$$\frac{100 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}^*$$

$$\frac{100 \times \text{rpm}}{84,428} + \frac{\text{l/min} \times \text{bar}}{511} = \text{electric motor kW}^*$$

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.

### Net Positive Suction Head (NPSHr)

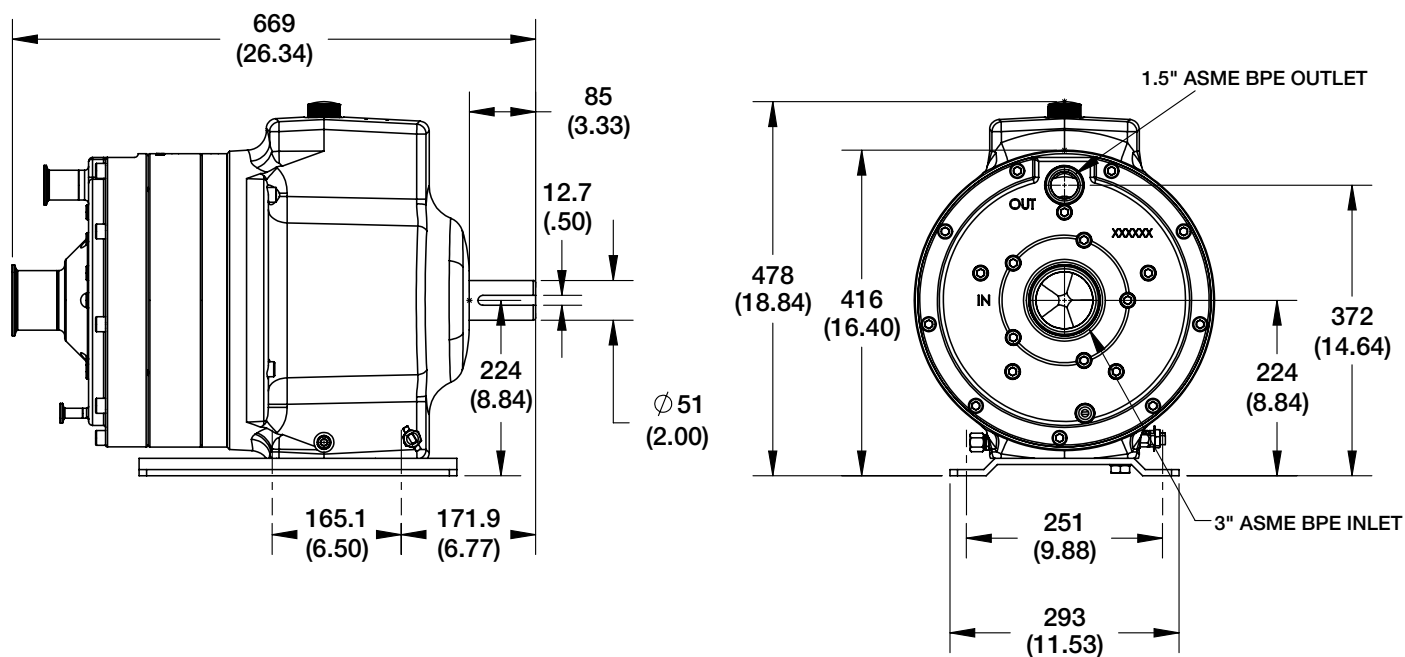


### Suction Lift:

Each Pharma-Pro 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 Pharma-Pro Product Manual. Compare those calculations to the NPSHr curves above.

## PH80A Models with ASME BPE Flanges mm (Inches)

Maximum Discharge Pressure: 40 bar (580 psi)



# PH80 Pharma-Pro™ Series | How to Order

## Ordering Information

A complete PH80 Series Model Number contains 19 digits including 2 customer-specified design and materials options; example: PH80AEAS200ETCX0000

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
P	H	8	0	A	E		S	2	0		E	T	C	X	0	0	0	0

Digit	Order Code	Description
1-5		<b>Pump Configuration</b>
	PH80A	Shaft-driven (up to 236 l/min)
6		<b>Hydraulic End Cam</b>
	E	Max 236 l/min (62.3 US gpm) @ 1050 rpm
7		<b>Pump Head Version</b> – <sup>1</sup> ADPC (Advanced Diaphragm Position Control System)
	A	ADPC <sup>1</sup> Non-Hazardous – Safe Area
	B	ADPC <sup>1</sup> Hazardous Area: ATEX CAT 2, Zone 1, IIC, T4
	C	ADPC <sup>1</sup> Hazardous Area: ATEX CAT 3, Zone 2, IIC, T4
8-9		<b>Pump Head Material &amp; Connection Type*</b> (Machined, 3.1 material certs, ASME BPE Flange, Maximum Operating Pressure 40 Bar)
	S2	316L stainless steel
10		<b>Manifold Drain Options</b>
	0	No drain
11		<b>Diaphragm Rupture Detection</b>
	0	No detection
	A	High / Low oil level bowl – not required with Digit 7 – B and C
12		<b>Diaphragm / O-rings / Follower</b> (All process wetted materials FDA compliant and TSE/BSE free)
	E	EPDM / PTFE / Hastelloy C276 – Must be used with option "C" Digit 14
13		<b>Valve / Valve Seat / Valve Spring / Spring Retainer*</b>
	T	Hastelloy C / Hastelloy C / Hastelloy C / Hastelloy C

\* Polished to 0.8 Ra

Digit	Order Code	Description
14		<b>Hydra-Oil</b>
	C	EPDM-compatible oil, NSF H1 – Must be used with Digit 12 option "E"
15		<b>Reduction Gearing Options</b>
	X	PH80A – Bare shaft pump; no reduction gearbox required
16-17		<b>Vertical Reduction Gearbox Ratio Options</b>
	00	PH80A – No reduction gearbox
18-19		<b>Vertical Reduction Gearbox with Vertical Mechanical Variator Options</b>
	00	No mechanical variator

QUICK & DISCOUNTED PRICING  
**CLICK HERE**  
OR CALL (908) 362-9981