# G25 PRO SERIES

Maximum Flow Rate: 76 l/min (20.0 USgpm)

Maximum Pressure: 69 bar (1000 psi) for Metallic Pump Heads 24 bar (350 psi) for Non-metallic Pump Heads

# **WANNER**<sup>™</sup> HYDRA-CELL<sup>®</sup> PRO

SEAL-LESS PUMP TECHNOLOGIES



# 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.



## **Capacities**

	Max.	Max. Flow	Max	. inlet	Max. Discharge Pressure						
	Input	@69 bar (	(1000 psi)	Pres	ssure	Metalli	c Heads	Polypropy	/lene Heads	PVDF	Heads
Model	rpm	l/min	USgpm	bar	psi	bar	psi	bar	psi	bar	psi
G25-X	1050	75.7	20.0	17	250	69	1000	17	250	24	350
G25-E	1150	75.9	20.0	17	250	69	1000	17	250	24	350

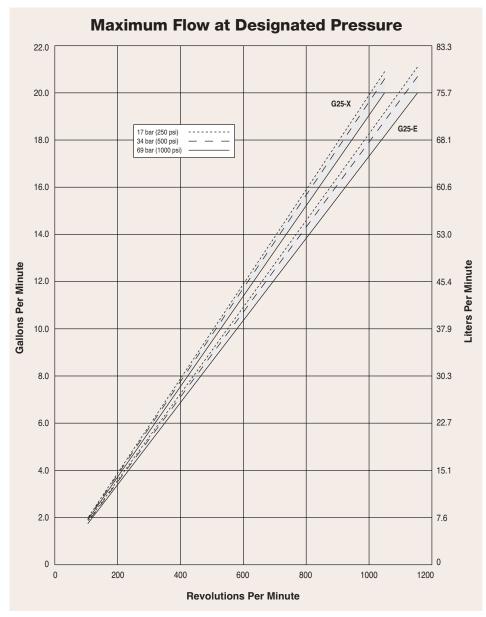
Performance and specification ratings apply to G25 configurations unless specifically noted otherwise.

### **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 960 rpm and pressures up to 69 bar (Metallic Head) and 24 bar (non-metallic pump heads)

### Available to Meet API 674

Please contact Wanner International for further information.



 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.



# G25 Pro Series | Specifications

Flow Capacities @ 69	bar (1000					
Model	rpm	l/min	USgpm			
G25-X	960	69.2	18.2			
G25-E	960	63.3	16.7			
Flow Capacities @ 69	bar (1000	psi) 8-pole Moto	or @ 50 Hz			
Model	rpm	l/min	USgpm			
G25-X	730	52.6	13.9			
G25-E	730	48.2	12.7			
<b>Delivery</b> @ 69 bar (100	)0 psi)					
Model		litres/rev	gal/rev			
G25-X		0.0721	0.0190			
G25-E		0.0660	0.0174			
<b>Maximum Discharge</b>	Pressure					
Metallic Heads:	eads: 69 bar (1000 psi)					
Non-metallic Heads:	Heads: 17 bar (250 psi) Polypropylene 24 bar (350 psi) PVDF					
<b>Maximum Inlet Press</b>	ure					
17 bar (250 psi)						
Maximum Operating	Temperati	ire				
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 800 microns						
Inlet Port	1-1/2 inch BSPT					
	1-1/2 inch NPT					
	150lb ANSI RF Flange					
Discharge Port	1 inch BSPT					
	1 inch NPT					
	600lb AN	SI RF Flange				

#### **Calculating Required Power**

50 x rpm 63,000	+	gpm x psi 1,460	= electric motor hp	
50 x rpm 84,428	+	$\frac{\text{l/min x bar}}{511}$	= electric motor kW	

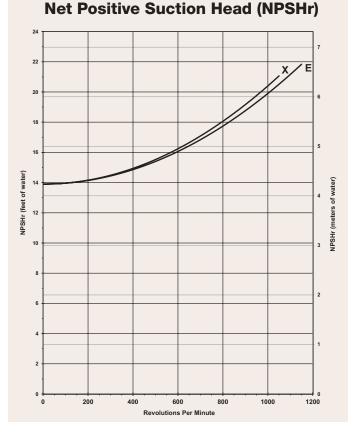
#### Attention!

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**

motor pulley OD	_	pump pulley OD			
pump rpm		motor rpm			

Shaft Diameter	28.6 mm (1-1/8 inch)
Shaft Rotation	Reverse (bi-directional)
Bearings	Tapered roller bearings
Oil Capacity	3.1 litres (3.3 US quarts)
Weight	
Metallic Heads:	56.8 kg (125 lbs.)
Non-metallic Heads:	40.9 kg (90 lbs.)



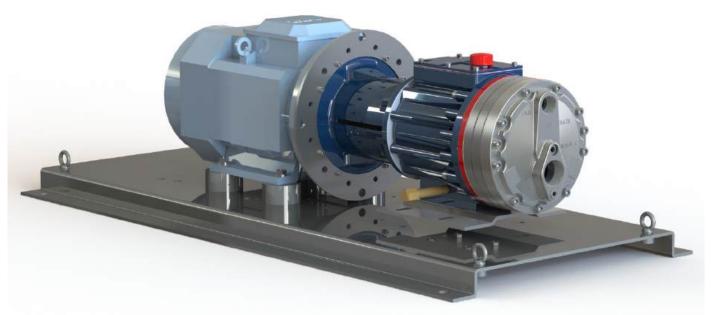
#### **Suction Lift**

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.

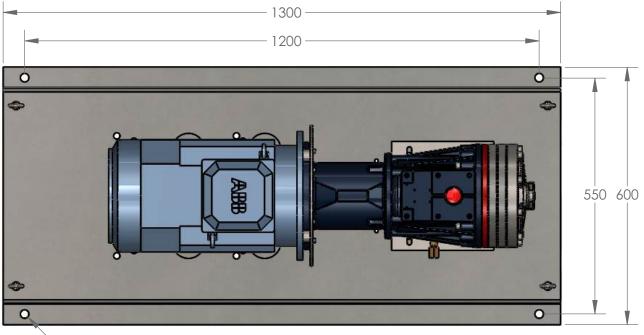
Due to the Wanner Engineering Continuous Improvement Program, specifications and other data are subject to change.



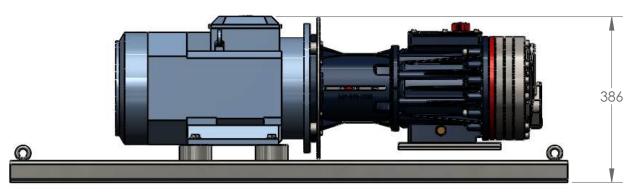
## **Baseplate Assembly with Motor Adaptor for IEC 132 Motor Frame**



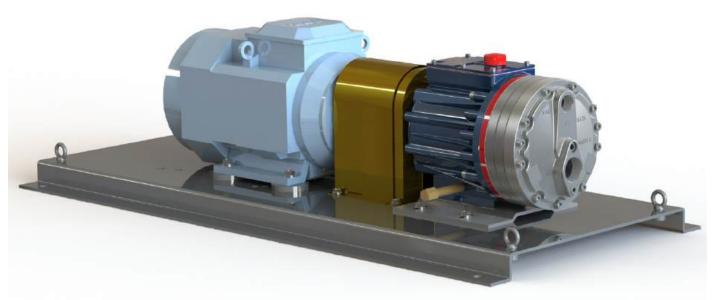
#### Dimensions in mm



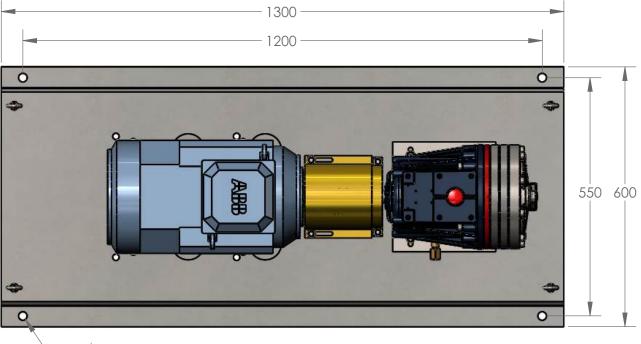
-4x ∅20



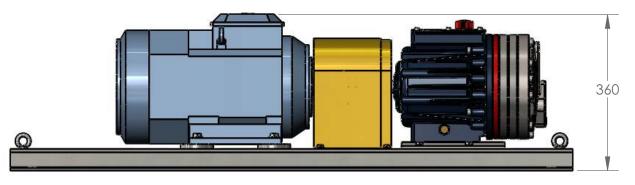
## **Baseplate Assembly Long-coupled for IEC 132 Motor Frame**



#### Dimensions in mm



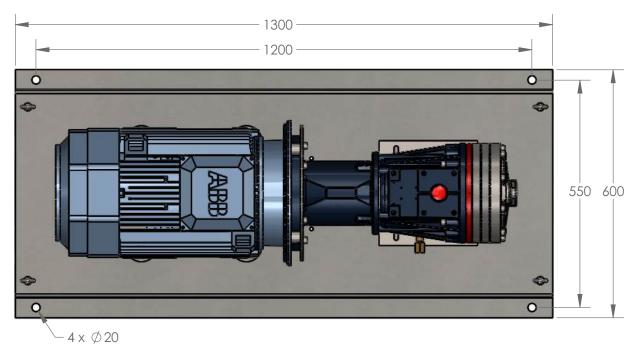
-4x ∅20

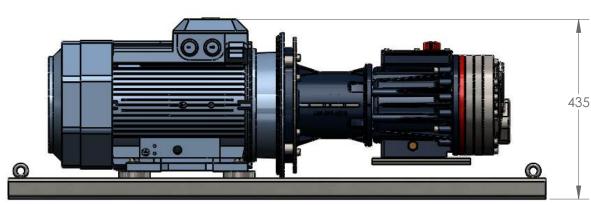


## **Baseplate Assembly with Motor Adaptor for IEC 160 Motor Frame**

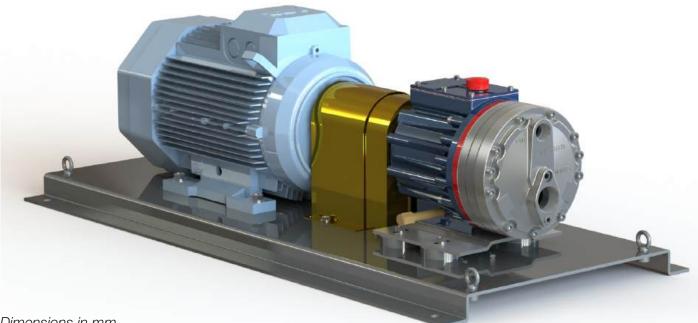


Dimensions in mm

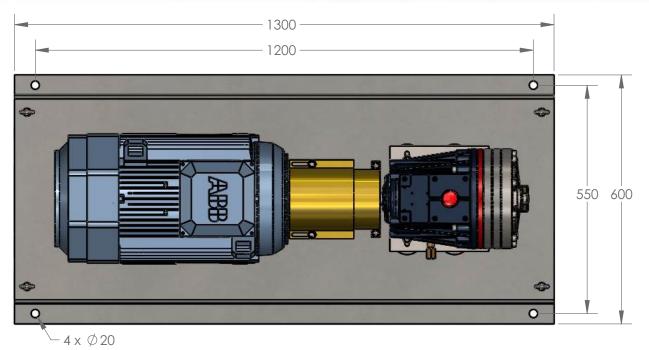


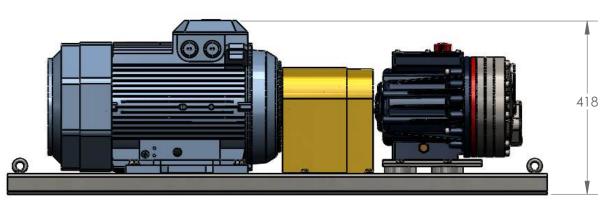


### **Baseplate Assembly Long-coupled for IEC 160 Motor Frame**



Dimensions in mm

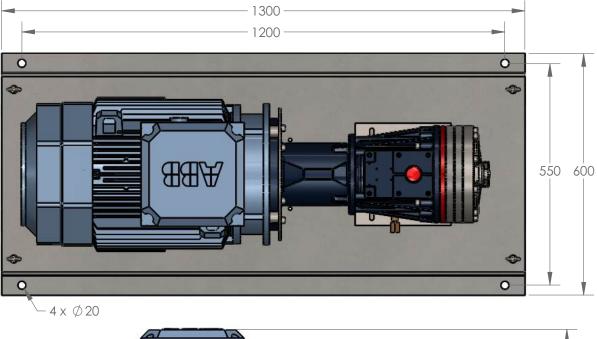


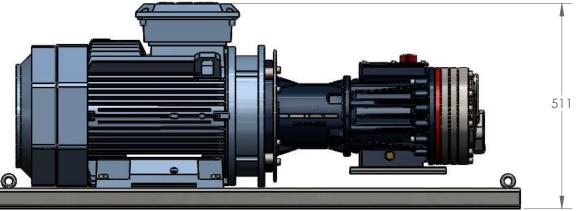


### **Baseplate Assembly with Motor Adaptor for IEC 180 Motor Frame**

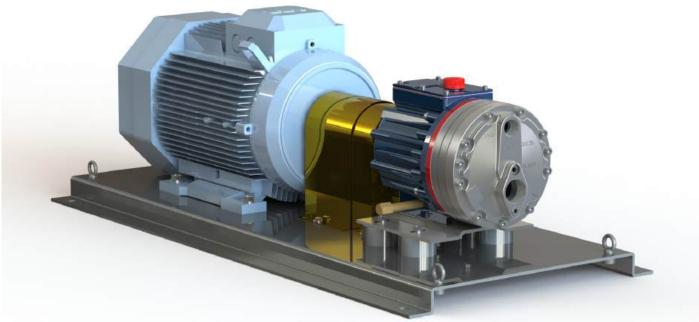


Dimensions in mm

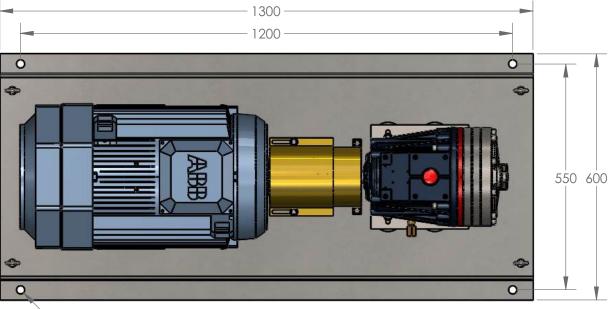




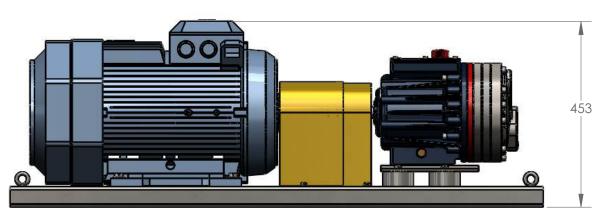
### **Baseplate Assembly Long-coupled for IEC 180 Motor Frame**



#### Dimensions in mm

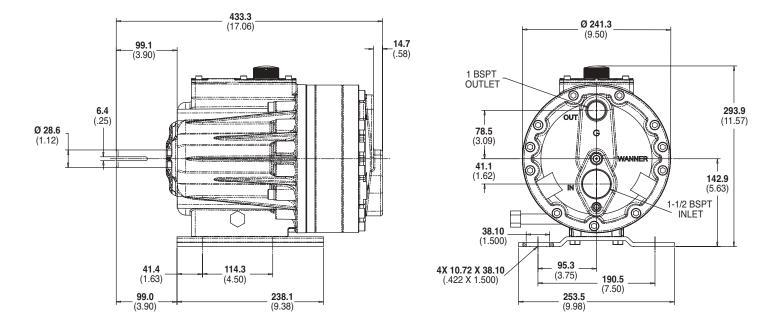


∽4 x Ø20



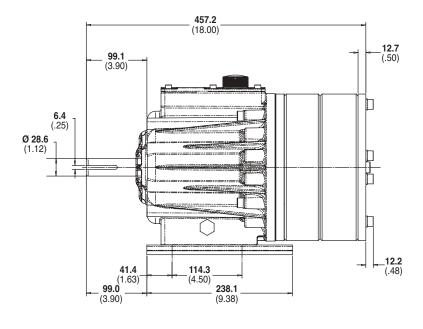


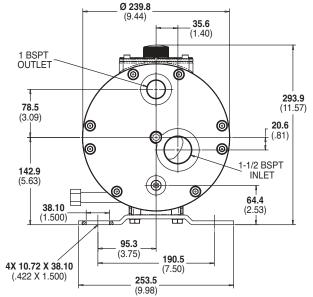
# G25 Pro Series | Representative Drawings



## G25 Models with Metallic Pump Head mm (Inches)

## G25 Models with Non-metallic Pump Head mm (Inches)

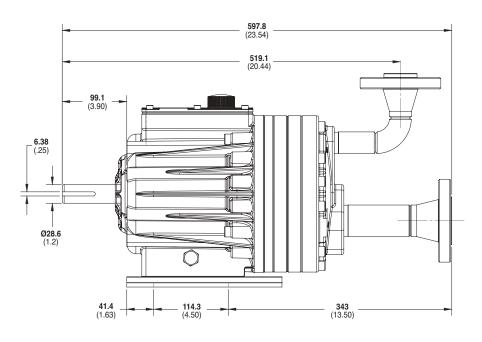


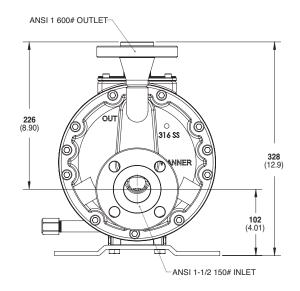


Note: Dimensions are for reference only. Contact factory for certified drawings.



### G25 Models with ANSI RF Flanges mm (Inches)





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

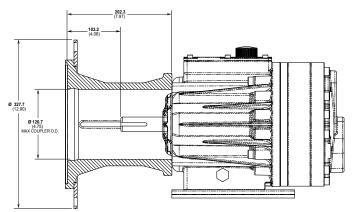


## Pump/Motor Adapter mm (Inches)

### Part Number: A04-041-1201

Must be ordered separately for G25 models for use with IEC 132 frame motors, B35 flange.

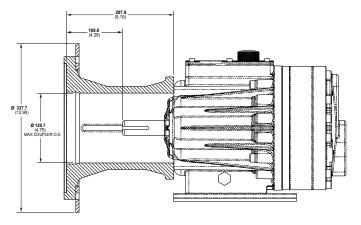
NEMA adaptor available - consult factory.



### Part Number: A04-041-1205

Must be ordered separately for G25 models for use with IEC 160 - 180 frame motors, B35 flange.

NEMA adaptor available - consult factory.



## Valve Selection

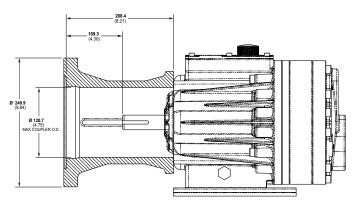
A seal-less **C63 Pressure Regulating Valve** is recommended for Hydra-Cell G25 pumping systems, especially for highpressure requirements or when handling dirty fluids.



### Part Number: A04-041-1203

Must be ordered separately for G25 models for use with IEC 160 frame motors, B14 flange.

NEMA adaptor available - consult factory.



#### A C23 Pressure Regulating Valve

provides a capable, lowercost alternative to C63 valves for Hydra-Cell G25 pumping systems.





#### **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



G25 with Cast Iron pump head.



G25 with Brass pump head.

G25 with Polypropylene pump head.



## **Ordering Information**

A complete G25 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: G25XKCGNNECA.



1-3       Pump Configuration         625       Shaft-driven (BSPT)         4       Mydraulic End Cam         X       Max 69.2 Umin (18.2 USgpm) @ 960 rpm         E       Max 63.2 Umin (18.2 USgpm) @ 960 rpm         5       Pump Mead Version         P       Hydra-cell Pro         M       Hydra-cell Pro         Mastelloy C       C         C       Duclex Ally 2205 Stainless Stell (with Hastelloy C 2205 Stainless Stell (with Hastelloy C C followers & follower screws)         M       PVDF (with Hastelloy C followers & follower screws)         N       Polypropylene (with Hastelloy C followers & follower screws)         A       1316L Stainless Steel         T       Hastelloy C M12MW         A       Allas diaphragm PTFE o-ring         B       Porter </th <th>Digit</th> <th>Order Code</th> <th>Description</th> <th>Digit</th> <th>Order Code</th> <th>Description</th>	Digit	Order Code	Description	Digit	Order Code	Description	
4       Hydraulic End Cam         X       Max 69.2 Vmin (16.2 USgpm) @ 960 rpm         E       Max 69.2 Vmin (16.2 USgpm) @ 960 rpm         5       Pump Head Version         6       Pump Head Material         7       Pump Head Material         8       Option Kit 0 Price         9       PUDF (with Hastelloy C followers & follower screws)         M       PUDF (with Hastelloy C followers & follower screws)         M       PUDF (with Hastelloy C followers & follower screws)         M       PUDF (with Hastelloy C followers & follower screws)         N       PODpropylene (with Hastelloy C followers & follower screws)         N       PODpropylene (with Hastelloy C followers & follower screws)         N       PODpropylene (with Hastelloy C followers & follower screws)         N       PODpropylene (with Hastelloy C followers & follower screws)         N       PODpropylene (with flange class 150 × 000         - 3 316. Stainless Steel ANSI flange class 150 × 000       T Hastelloy C W12MW         7       Daphragm & Oring Material         A       Afias diaphragm / PTFE o-ring         P       Neoprene         T       Buna-N         8       Valve Seat Material         C       Ceramic         D	1-3		Pump Configuration	9		Valve Material	
X       Max 69.2 Umin (18.2 USgpm) @ 960 rpm         E       Max 63.2 Umin (16.7 USgpm) @ 960 rpm         5       Pump Head Version         5       Pump Head Version         6       Pump Head Version         6       Pump Head Material         7       Barass         6       Pump Head Material         7       Ductle Iron (Nickel-plated)         8       Optiox Alloy 2205 Stainless Steel (with Hastelloy C followers & follower screws)         M       PVDF (with Hastelloy C followers & follower screws)         N       Poly Forpoylene (with Hastelloy C followers & follower screws)         R       316L Stainless Steel ANSI flange class follower screws)         R       316L Stainless Steel ANSI flange coltons. contact divertime for part number.         S       S16L Stainless Steel ANSI flange soptions. contact divertime for part number.         S       T         A flas diaphragm / PTFE o-ring         P       Neoprene         T       Bura-N         8       Valve Seat Material         C       Ceramic         D       Turngsten Carbide (900 rpm max.)         H       T-A Stainless Steel         H       T-A Stainless Steel         K       FKM diaphragm / PTFE o-ring		G25	Shaft-driven (BSPT)		C	Ceramic	
E       Max 63.2 Umin (16.7 USgpm) @ 960 rpm       N       N       Nitronic 50         5       Pump Head Version       T       Hastelloy C         6       Pump Head Material       T       Hastelloy C         6       Pump Head Material       E       Eliglicy         7       Hastelloy C followers & follower serves)       T       Hastelloy C         6       Duptex Alloy 2205 Statiness Steel (with Hastelloy C followers & follower serves)       H       T/7 - 75tatinless Steel         6       Duptex Alloy 2205 Statiness Steel (with Hastelloy C followers & follower serves)       H       H       H Hastelloy C         7       Polypropylene (with Hastelloy C followers & follower serves)       N       P UP/F       Hastelloy C W12MW pump head - statndard         8       16L Stainless Steel ANSI flange class 150 x 600       S       316L Stainless Steel ANSI flange specification for part number.         7       Diaptragm & O-ring Material       A       A flas diaphragm / PTFE o-ring Material         7       A flas diaphragm / PTFE o-ring Material       C       Certification Kit Options         8       Valve Seat Material       Certification Kit Options         7       Buna-N       A flas diaphragm / PTFE o-ring Person max.)       A flas diaphragm / PTFE o-ring Person max.)         8       Va	4		Hydraulic End Cam		D	Tungsten Carbide (900 rpm max.)	
5       Pump Head Version       T       Hastelloy C         6       Pump Head Material       10       Valve Springs         6       Pump Head Material       C       Cell Pro - machined housing to accept C-face adapter/gearbox       E       Elgiloy         6       Pump Head Material       C       Cell Pro - machined housing to accept C-face adapter/gearbox       E       Elgiloy         6       Pump Head Material       C       Cell Pro - machined housing to accept C-face adapter/gearbox       E       Elgiloy         6       Pump Head Material       C       Cell Pro - machined housing to accept C-face adapter/gearbox       E       Elgiloy         6       Pump Head Material       C       Cell Pro - machined housing to accept C-face adapter/gearbox       E       Elgiloy         6       Pump Head Material       C       Cell Pump Head Material       C       Cell Pump Head Material         7       Diaphragm & 0-ring Material       A       A       100 Hastelloy CW12MW       T       Hastelloy CW12MW Pump head - standard         7       Diaphragm & 0-ring Material       A       A       Alastelloy CW12MW       M       T       Hastelloy CW12MW         7       Diaphragm & 0-ring Material       A       A       Alastelloy CW12MW       C       Separate lin		Х	Max 69.2 I/min (18.2 USgpm) @ 960 rpm		F	17-4 Stainless Steel	
P       Hydra-Cell Pro         M       Hydra-Cell Pro         B       Brass         C       Durbe Mad Material         C       Ductile Iron (Nickel-plated)         G       Duplex Alloy 2205 Stainless Steel (with Hastelloy C followers & follower screws)         M       PVDF (with Hastelloy C followers & follower screws)         M       PVDF (with Hastelloy C followers & follower screws)         R       316L Stainless Steel ANSI flange class 150 x 600         -       316L Stainless Steel ANSI flange cplication for part number.         S       316L Stainless Steel Steel         T       Diaphragm & O-ring Material         A       Aflas diaphragm / PTFE o-ring         FDM (requires EPDM-compatible oil - Digit 12 oil code C)         G       FKM         J       PTFE (available with E and S cams only: 960 rpm max.)         K       FFKM diaphragm / PTFE o-ring         P       Neoprene         T       Bua-N <th></th> <th>E</th> <th>Max 63.2 I/min (16.7 USgpm) @ 960 rpm</th> <th></th> <th>Ν</th> <th>Nitronic 50</th>		E	Max 63.2 I/min (16.7 USgpm) @ 960 rpm		Ν	Nitronic 50	
M       Hydra-Cell Pro - machined housing to accept C-face adapter/gearbox       E       Elgiloy         See lower right for ATEX Certification Kit Options.       T       Hastelloy C         6       Pump Head Material       C       Celcon         8       Brass       C       Ductile from (Nickel-plated)         G       Dupter Alloy 2205 Stainless Steel (with Hastelloy C followers & follower screws)       H       17-7 Stainless Steel         M       PVDF (with Hastelloy C followers & follower screws)       H       Polypropylene (with Hastelloy C followers & follower screws)         R       316L Stainless Steel ANSI fange class 150 x 600       A       10W30 standard-duty oil         A       Alfas diaphrage ptons, contact Wanner international with fange optons, contact Wanner international with fange specification for part number.       C       40-wit for continuous-duty oil (use with 316L Stainless Steel         T       Diaphragm & O-ring Material       C       GS W30 cold-temp severe-duty synthetic oil H       15W50 high-temp severe-duty synthetic oil H         T       Diaphragm & O-ring Material T       C       Certification Kit Options As a separate line on your order, please add the required ATEX Certification Kit Option. -ATEX 2014/34/EU Certified, Category 3, Zone 2         K       FFKM diaphragm / PTFE o-ring P       Neoprene T       Buna-N       A         R       Valve Seat Material D </th <th>5</th> <th></th> <th>Pump Head Version</th> <th></th> <th>Т</th> <th>Hastelloy C</th>	5		Pump Head Version		Т	Hastelloy C	
G       Pump Head Material         6       Pump Head Material         6       Pump Head Material         6       Ductile Iron (Nickel-plated)         6       Ductile Iron (Nickel-plated)         6       Ductile Iron (Nickel-plated)         7       Duplex Alloy 2205 Stainless Steel (with Hastelloy C followers & follower screws)         8       Yolf (with Hastelloy C followers & follower screws)         7       No Polypropylene (with Hastelloy C followers & follower screws)         8       Stainless Steel ANSI flange class for I Ansler or INF and the funge specification for part number.         5       316L Stainless Steel         7       Diaphragm & O-ring Material         A       Alfas diaphragm / PTEF o-ring         F       Proble (roguires EPDM-compatible oil - Digit 12 oil code C)         G       FKM         J       PTEF (available with E and S cams only; 960 rpm max.)         K       FFKM diaphragm / PTEF o-ring         P       Neoprene         T       Buna-N         8       Valve Seat Material         C       Ceramic         D       Tungsten Carbide (900 rpm max.)         H       17-4 Stainless Steel         N       Nitronic 50		Р	Hydra-Cell Pro	10		Valve Springs	
See lower right for ATEX Certification Kit Options.         6       Pump Head Material       Valve Spring Retainers         6       Pump Head Material       C       Celcon         8       Brass       I       Valve Spring Retainers         6       Ductile Iron (Nickel-plated)       H       17-7 Stainless Steel         M       PUDF (with Hastelloy C followers & follower screws)       M       P Polypropylene         M       Polypropylene (with Hastelloy C followers & follower screws)       T       H astelloy C         N       Polypropylene (with Hastelloy C followers & follower screws)       T       H astelloy C         R       316L Stainless Steel ANSI flange class 150 × 600       A       A 0-wt for continuous-duty oil         S       316L Stainless Steel standard manifold with custom ANSI or DIM flange options, contact Wanner international with flange specification for part number.       C       40-wt feDMcompatible oil         T       Hastelloy CW12MW       C       40-wt feDMcompatible oil       B       40-wt for continuous-duty oil (use with 316L Stainless Steel         T       Hastelloy CW12MW       G       500 // Stainless Steel       M       1// Stainless Steel       M         T       Biaphragm & O-ring Material       A       A       C       Certification Kit Options.		М			Е	Elgiloy	
6       Pump Head Material         B       Brass         C       Ductile Iron (Nickel-plated)         G       Duplex Alloy 2205 Stainless Steel (with Hastelloy C followers & follower screws)         M       PVDF (with Hastelloy C followers & follower screws)         N       Polypropylene (with Hastelloy C followers & follower screws)         R       316L Stainless Steel ANSI flange class         150 x 600       -         -       316L Stainless Steel standard manifold with custom ANSI or DIN flange options, contact Wanner international with flange specification for part number.         S       316L Stainless Steel         T       Hastelloy CW12MW         7       Diaphragm & O-ring Material         A       Aftas diaphragm / PTFE o-ring         E       EPDM-compatible oil - Digit 12 oil code C)         G       FKM         J       PTFE (available with E and S cams only; 960 rpm max.)         K       FFKM diaphragm / PTFE o-ring         P       Neoprene         T       Buna-N         8       Valve Seat Material         C       Ceramic         D       Tungsten Carbide (900 rpm max.)         H       17-A Stainless Steel         N       Nitronic 50					Т	Hastelloy C	
B       Brass         C       Ductile from (Nickel-plated)         G       Duplex Alloy 2205 Stainless Steel (with Hastelioy C followers & follower screws)         M       PVDF (with Hastelloy C followers & follower screws)         N       Polypropytene (with Hastelloy C followers & follower screws)         R       316L Stainless Steel ANSI flange class follower screws)         R       316L Stainless Steel standard manifold with custom ANSI or DIN flange options, contact Wanner international with flange specification for part number.         S       316L Stainless Steel         T       Hastelloy CV12MW         7       Diaphragm & O-ring Material T         A       Aflas diaphragm / PTFE o-ring E         E       EPDM (requires EPDM-compatible oil - Digit 12 oil code C)         G       FKM         J       PTFE (available with E and S cams only; 960 rpm max.)         K       FFKM diaphragm / PTFE o-ring P         P       Neprene T         B       Valve Seat Material         C       C ceramic D         D       Tungsten Carbide (900 rpm max.)         H       17-4 Stainless Steel N         N       Nitronic 50				11		Valve Spring Retainers	
<ul> <li>C Ductile Iron (Nickel-plated)</li> <li>G Duplex Alloy 2205 Stainless Steel (with Hastelloy C followers &amp; follower screws)</li> <li>M PVDF (With Hastelloy C followers &amp; follower screws)</li> <li>N Polypropylene (with Hastelloy C followers &amp; follower screws)</li> <li>R 316L Stainless Steel ANSI flange class 150 x 600</li> <li>- 316L Stainless Steel Atnown ANSI or DIN flange options, contact Wanner international with flange specification for part number.</li> <li>S 316L Stainless Steel</li> <li>T Hastelloy CW12MW</li> <li>7 Diaphragm &amp; O-ring Material A Aflas diaphragm / PTFE o-ring E EPDM (requires EPDM-compatible oil - Digit 12 oil code C)</li> <li>G FKM</li> <li>J PTFE (available with E and S cams only; 960 rpm max.)</li> <li>K FFKM diaphragm / PTFE o-ring P Neoprene T Buna-N</li> <li>8 Valve Seat Material</li> <li>C Ceramic D Tungsten Carbide (900 rpm max.)</li> <li>H 17-4 Stainless Steel</li> <li>N Nitronic 50</li> </ul>	6		-		C	Celcon	
<ul> <li>G Duplex Alloy 2205 Stainless Steel (with Hastelloy C followers &amp; follower screws)</li> <li>M PVDF (with Hastelloy C followers &amp; follower screws)</li> <li>N Polypropylene (with Hastelloy C followers &amp; follower screws)</li> <li>N Polypropylene (with Hastelloy C followers &amp; follower screws)</li> <li>R 316L Stainless Steel standard manifold with cutsform ANSI or DIN flange options, contact Wanner international with flange specification for part number.</li> <li>S 316L Stainless Steel</li> <li>T Hastelloy CW12MW</li> <li>T Bianary A Aflas diaphragm / PTFE o-ring</li> <li>E PDM (requires EPDM-compatible oil - Digit 12 oil code C)</li> <li>G FKM</li> <li>J PTFE (available with E and S cams only; 960 rpm max.)</li> <li>K FFKM diaphragm / PTFE o-ring</li> <li>P Neoprene</li> <li>T Buna-N</li> <li>Valve Seat Material</li> <li>C Ceramic</li> <li>D Tungsten Carbide (900 rpm max.)</li> <li>H 17-4 Stainless Steel</li> <li>N Nitronic 50</li> </ul>					Н	17-7 Stainless Steel	
<ul> <li>Hastelloy C followers &amp; follower screws)</li> <li>M PVDF (with Hastelloy C followers &amp; follower screws)</li> <li>N Polypropylene (with Hastelloy C followers &amp; follower screws)</li> <li>R 316L Stainless Steel ANSI flange class 150 × 600</li> <li>- 316L Stainless Steel standard manifold with custom ANSI or DIN flange options, contact Wanner international with flange specification for part number.</li> <li>S 316L Stainless Steel</li> <li>T Hastelloy CW12MW</li> <li>7 Diaphragm &amp; O-ring Material</li> <li>A Aflas diaphragm / PTFE o-ring</li> <li>E EPDM (requires EPDM-compatible oil - Digit 12 oil code C)</li> <li>G FKM</li> <li>J PTFE (available with E and S cams only; 960 rpm max.)</li> <li>K FFKM diaphragm / PTFE o-ring</li> <li>P Neoprene</li> <li>T Buna-N</li> <li>8 Valve Seat Material</li> <li>C Ceramic</li> <li>D Tungsten Carbide (900 rpm max.)</li> <li>H 17-4 Stainless Steel</li> <li>N Nitronic 50</li> <li>A TEX Certification Kit Options</li> <li>A Secondary ATEX Label.</li> <li>Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oi is not include dard must be ordered separately.</li> <li>A Witon: cond</li> </ul>					М	PVDF	
M       PVDF (with Hastelloy C followers & follower screws)         N       Polypropylene (with Hastelloy C followers & follower screws)         R       316L Stainless Steel ANSI flange class 150 x 600         -       316L Stainless Steel standard manifold with custom ANSI or DIN flange options, contact wanner international with flange specification for part number.       B       40-wt for continuous-duty oil (use with 316L SST or Hastelloy CW12MW pump head - standard)         7       Diaphragm & O-ring Material       C       40-wt ferDM-compatible oil         8       PTHE (available with E and S cams only; 960 rpm max.)       G       Standard as Cast Aluminum.         8       Valve Seat Material       As a separate line on your order, please add the required ATEX 2014/34/EU Certified, Category 2, Zone 1         A TEX 2014/34/EU Certified, Category 2, Zone 1       - ATEX 2014/34/EU Certified, Category 2, Zone 1         A Torysten Carbide (900 rpm max.)       - ATEX 2014/34/EU Certified, Category 2, Zone 1         B       Valve Seat Material       - ATEX 2014/34/EU Certified, Category 2, Zone 1         C       Ceramic       - ATEX 2014/34/EU Certified, Category 3, Zone 2         N       Nitronic 50       - Atter available with non-metatible, curp beaves		G			Р	Polypropylene	
<ul> <li>Screws)</li> <li>N Polypropylene (with Hastelloy C followers &amp; follower screws)</li> <li>R 316L Stainless Steel ANSI flange class 150 x 600</li> <li>- 316L Stainless Steel ANSI flange class 150 x 600</li> <li>- 316L Stainless Steel standard manifold with custom ANSI or DIN flange options, contact Wanner international with flange specification for part number.</li> <li>S 316L Stainless Steel</li> <li>T Hastelloy CW12MW</li> <li>7 Diaphragm &amp; O-ring Material</li> <li>A Aflas diaphragm / PTFE o-ring</li> <li>E EPDM (requires EPDM-compatible oil - Digit 12 oil code C)</li> <li>G FKM</li> <li>J PTFE (available with E and S cams only; 960 rpm max.)</li> <li>K FFKM diaphragm / PTFE o-ring</li> <li>P Neoprene</li> <li>T Buna-N</li> <li>8 Valve Seat Material</li> <li>C Ceramic</li> <li>D Tungsten Carbide (900 rpm max.)</li> <li>H 17-4 Stainless Steel</li> <li>N Nitronic 50</li> </ul>			-		Т	Hastelloy C	
<ul> <li>N Polypropylene (with Hastelloy C followers &amp; follower screws)</li> <li>R 316L Stainless Steel ANSI flange class 150 x 600</li> <li>- 316L Stainless Steel standard manifold with custom ANSI or DIN flange options, contact Wanner international with flange specification for part number.</li> <li>S 316L Stainless Steel</li> <li>T Hastelloy CW12MW</li> <li>7 Diaphragm &amp; O-ring Material</li> <li>A Aflas diaphragm / PTFE o-ring</li> <li>E EPDM (requires EPDM-compatible oil - Digit 12 oi code C)</li> <li>G FKM</li> <li>J PTFE (available with E and S cams only; 960 rpm max.)</li> <li>K FFKM diaphragm / PTFE o-ring</li> <li>P Neoprene</li> <li>T Buna-N</li> <li>8 Valve Seat Material</li> <li>C Ceramic</li> <li>D Tungsten Carbide (900 rpm max.)</li> <li>H 17-4 Stainless Steel</li> <li>N Nitronic 50</li> </ul>		IVI			Y	Nylon (Zytel)	
follower screws)       A       10W30 standard-duty oil         R       316L Stainless Steel ANSI fange class       50 x 600         -       316L Stainless Steel standard manifold with custom ANSI or DIN flange options, contact Wanner international with flange specification for part number.       B       40-wt for continuous-duty oil (use with 316L Stainless Steel T Hastelloy CW12MW pump head - standard)         S       316L Stainless Steel       E       Food-contact oil       C       40-wt fEPDM-compatible oil         T       Hastelloy CW12MW       G       5W30 cold-temp severe-duty synthetic oil       H       15W50 high-temp severe-duty synthetic oil         T       Diaphragm & O-ring Material       G       5W30 cold-temp severe-duty synthetic oil         M       Aflas diaphragm / PTFE o-ring       G       5W30 cold-temp severe-duty synthetic oil         J       PTFE (available with E and S cams only; 960 rpm max.)       G       SEX       A fas diaphragm / PTFE o-ring         P       Neoprene       T       Buna-N       A separate line on your order, please add the required ATEX Certification Kit Option.         -       ATEX Certification Kit Option.       -       -         A       Toungsten Carbide (900 rpm max.)       -       ATEX cortification Kit Option.         R       Valve Seat Material       -       -       - <t< th=""><th></th><th>Ν</th><th></th><th>12</th><th></th><th>Hydra-Oil</th></t<>		Ν		12		Hydra-Oil	
<ul> <li>150 x 600</li> <li>316L Stainless Steel standard manifold with custom ANSI or DIN flange options, contact Wanner international with flange specification for part number.</li> <li>S 316L Stainless Steel</li> <li>T Hastelloy CW12MW</li> <li>7 Diaphragm &amp; O-ring Material</li> <li>A Aflas diaphragm / PTFE o-ring</li> <li>E EPDM (requires EPDM-compatible oil - Digit 12 oil code C)</li> <li>G FKM</li> <li>J PTFE (available with E and S cams only; 960 rpm max.)</li> <li>K FFKM diaphragm / PTFE o-ring</li> <li>P Neoprene</li> <li>T Buna-N</li> <li>8 Valve Seat Material</li> <li>C Ceramic</li> <li>D Tungsten Carbide (900 rpm max.)</li> <li>H 17-4 Stainless Steel</li> <li>N Nitronic 50</li> </ul>					Α	10W30 standard-duty oil	
C used matrix of matrix of matrix of matrixC used matrixC used matrixC used matrixS 316L Stainless SteelTTHastelloy CW12MW7Diaphragm & O-ring MaterialAAA flas diaphragm / PTFE o-ringEE PDM (requires EPDM-compatible oil - Digit 12 oil code C)GGGGFKMJPTFE (available with E and S cams only; 960 rpm max.)KFFKM diaphragm / PTFE o-ringPNeopreneTBuna-N8Valve Seat MaterialCCCCCCCCCCDTungsten Carbide (900 rpm max.)H17-4 Stainless SteelNNNNNNNNNNNNAAAACCCCCCCCCCCCCCCCCCCCCCCCCC<		R	150 x 600		В	SST or Hastelloy CW12MW pump head -	
Wanner international with flange specification for part number.EFood-contact oilS316L Stainless SteelITHastelloy CW12MW7Diaphragm & O-ring MaterialAAflas diaphragm / PTFE o-ringEEPDM (requires EPDM-compatible oil - Digit 12 oil code C)GFKMJPTFE (available with E and S cams only; 960 rpm max.)KFFKM diaphragm / PTFE o-ringPNeopreneTBuna-N8Valve Seat MaterialCCeramicDTungsten Carbide (900 rpm max.)H17-4 Stainless Steel NNNitronic 50		-			C		
S       316L Stainless Steel       50%30 Cold-temp Severe-duty synthetic oil         T       Hastelloy CW12MW         7       Diaphragm & O-ring Material         A       A flas diaphragm / PTFE o-ring         E       EPDM (requires EPDM-compatible oil - Digit 12 oil code C)         G       FKM         J       PTFE (available with E and S cams only; 960 rpm max.)         K       FFKM diaphragm / PTFE o-ring         P       Neoprene         T       Buna-N         8       Valve Seat Material         D       Tungsten Carbide (900 rpm max.)         H       17-4 Stainless Steel         N       Nitronic 50			Wanner international with flange specification				
THastelloy CW12MW7Diaphragm & O-ring MaterialAAflas diaphragm / PTFE o-ringEEPDM (requires EPDM-compatible oil - Digit 12 oil code C)GFKMJPTFE (available with E and S cams only; 960 rpm max.)KFFKM diaphragm / PTFE o-ring P Neoprene TPNeoprene TTBuna-N8Valve Seat Material C C Ceramic DCCertamic C DDTungsten Carbide (900 rpm max.) H HH17-4 Stainless Steel NNNitronic 50		c	•		G	5W30 cold-temp severe-duty synthetic oil	
<ul> <li><b>7</b> <ul> <li><b>Diaphragm &amp; O-ring Material</b></li> <li><b>A</b> <ul></ul></li></ul></li></ul>					Н	15W50 high-temp severe-duty synthetic oil	
<ul> <li>A Aflas diaphragm / PTFE o-ring</li> <li>E EPDM (requires EPDM-compatible oil - Digit 12 oil code C)</li> <li>G FKM</li> <li>J PTFE (available with E and S cams only; 960 rpm max.)</li> <li>K FFKM diaphragm / PTFE o-ring</li> <li>P Neoprene</li> <li>T Buna-N</li> <li>A TEX Certification Kit Options</li> <li>As a separate line on your order, please add the required ATEX Certification Kit Option.</li> <li>ATEX 2014/34/EU Certified, Category 2, Zone 1</li> <li>ATEX 2014/34/EU Certified, Category 3, Zone 2</li> <li>All options include Certificate, Oil Level Monitor or Sight Glass, Earth Stud &amp; Secondary ATEX Label.</li> <li>Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oil is not included and must be ordered separately.</li> <li>ATEX is not available with non-metallic pump heads</li> </ul>	_	I	-				
<ul> <li>E EPDM (requires EPDM-compatible oil - Digit 12 oil code C)</li> <li>G FKM</li> <li>J PTFE (available with E and S cams only; 960 rpm max.)</li> <li>K FFKM diaphragm / PTFE o-ring</li> <li>P Neoprene</li> <li>T Buna-N</li> <li>ATEX Certification Kit Options</li> <li>As a separate line on your order, please add the required ATEX Certification Kit Option.</li> <li>ATEX Certification Kit Option.</li> <li>ATEX 2014/34/EU Certified, Category 2, Zone 1</li> <li>ATEX 2014/34/EU Certified, Category 3, Zone 2</li> <li>All options include Certificate, Oil Level Monitor or Sight Glass, Earth Stud &amp; Secondary ATEX Label.</li> <li>Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oil is not included and must be ordered separately.</li> <li>ATEX is not available with non-metallic numn heads</li> </ul>	1						
<ul> <li>Digit 12 oil code C)</li> <li>G FKM</li> <li>J PTFE (available with E and S cams only; 960 rpm max.)</li> <li>K FFKM diaphragm / PTFE o-ring</li> <li>P Neoprene</li> <li>T Buna-N</li> <li>A TEX Certification Kit Options</li> <li>As a separate line on your order, please add the required ATEX Certification Kit Option.</li> <li>A TEX Certification Kit Option.</li> <li>ATEX 2014/34/EU Certified, Category 2, Zone 1</li> <li>ATEX 2014/34/EU Certified, Category 3, Zone 2</li> <li>All options include Certificate, Oil Level Monitor or Sight Glass, Earth Stud &amp; Secondary ATEX Label.</li> <li>Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oil is not included and must be ordered separately.</li> <li>ATEX is not available with non-metallic num heads</li> </ul>				G25 F	Pump Hous	sing is standard as Cast Aluminum.	
<ul> <li>J PTFE (available with E and S cams only; 960 rpm max.)</li> <li>K FFKM diaphragm / PTFE o-ring</li> <li>P Neoprene</li> <li>T Buna-N</li> <li>8 Valve Seat Material</li> <li>C Ceramic</li> <li>D Tungsten Carbide (900 rpm max.)</li> <li>H 17-4 Stainless Steel</li> <li>N Nitronic 50</li> </ul> ATEX Certification Kit Options As a separate line on your order, please add the required ATEX Certification Kit Option. <ul> <li>- ATEX 2014/34/EU Certified, Category 2, Zone 1</li> <li>- ATEX 2014/34/EU Certified, Category 3, Zone 2</li> <li>All options include Certificate, Oil Level Monitor or Sight Glass, Earth Stud &amp; Secondary ATEX Label.</li> <li>Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oil is not included and must be ordered separately.</li> <li>ATEX is not available with non-metallic nump heads</li> </ul>		E		Upgrade to Ductile Iron available.			
<ul> <li>960 rpm max.)</li> <li>K FFKM diaphragm / PTFE o-ring</li> <li>P Neoprene</li> <li>T Buna-N</li> <li>8 Valve Seat Material</li> <li>C Ceramic</li> <li>D Tungsten Carbide (900 rpm max.)</li> <li>H 17-4 Stainless Steel</li> <li>N Nitronic 50</li> <li>ATEX Certification Kit Options</li> <li>As a separate line on your order, please add the required ATEX Certification Kit Option.</li> <li>ATEX 2014/34/EU Certified, Category 2, Zone 1</li> <li>ATEX 2014/34/EU Certified, Category 3, Zone 2</li> <li>All options include Certificate, Oil Level Monitor or Sight Glass, Earth Stud &amp; Secondary ATEX Label.</li> <li>Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oil is not included and must be ordered separately.</li> <li>ATEX is not available with non-metallic nump heads</li> </ul>		G	FKM				
<ul> <li>K FFKM diaphragm / PTFE o-ring</li> <li>P Neoprene</li> <li>T Buna-N</li> <li>8 Valve Seat Material</li> <li>C Ceramic</li> <li>D Tungsten Carbide (900 rpm max.)</li> <li>H 17-4 Stainless Steel</li> <li>N Nitronic 50</li> <li>As a separate line on your order, please add the required ATEX Certification Kit Option.</li> <li>A As a separate line on your order, please add the required ATEX Certification Kit Option.</li> <li>A As a separate line on your order, please add the required ATEX Certification Kit Option.</li> <li>ATEX 2014/34/EU Certified, Category 2, Zone 1</li> <li>ATEX 2014/34/EU Certified, Category 3, Zone 2</li> <li>All options include Certificate, Oil Level Monitor or Sight Glass, Earth Stud &amp; Secondary ATEX Label.</li> <li>Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oil is not included and must be ordered separately.</li> <li>ATEX is not available with non-metallic nump heads</li> </ul>		J					
P       Neoprene       required ATEX Certification Kit Option.         T       Buna-N       - ATEX 2014/34/EU Certified, Category 2, Zone 1         B       Valve Seat Material       - ATEX 2014/34/EU Certified, Category 3, Zone 2         C       Ceramic       - ATEX 2014/34/EU Certified, Category 3, Zone 2         D       Tungsten Carbide (900 rpm max.)       - ATEX and a contract of the secondary ATEX Label.         H       17-4 Stainless Steel       - Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oil is not included and must be ordered separately.         N       Nitronic 50       - ATEX is not available with non-metallic nump heads				ATE		-	
T       Buna-N         Buna-N       - ATEX 2014/34/EU Certified, Category 2, Zone 1         C       Ceramic         D       Tungsten Carbide (900 rpm max.)         H       17-4 Stainless Steel         N       Nitronic 50				(6:3)	Y /		
<ul> <li>8 Valve Seat Material         <ul> <li>C Ceramic</li> <li>D Tungsten Carbide (900 rpm max.)</li> <li>H 17-4 Stainless Steel</li> <li>N Nitronic 50</li> </ul> </li> <li>A TEX 2014/34/EU Certified, Category 3, Zone 2</li> <li>All options include Certificate, Oil Level Monitor or Sight Glass, Earth Stud &amp; Secondary ATEX Label.</li> <li>Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oil is not included and must be ordered separately.</li> <li>ATEX is not available with non-metallic nump heads</li> </ul>		-	•				
<ul> <li>C Ceramic</li> <li>D Tungsten Carbide (900 rpm max.)</li> <li>H 17-4 Stainless Steel</li> <li>N Nitronic 50</li> <li>All options include Certificate, Oil Level Monitor or Sight Glass, Earth Stud &amp; Secondary ATEX Label.</li> <li>Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oil is not included and must be ordered separately.</li> <li>ATEX is not available with non-metallic nump heads.</li> </ul>		T					
<ul> <li>D Tungsten Carbide (900 rpm max.)</li> <li>H 17-4 Stainless Steel</li> <li>N Nitronic 50</li> <li>Stud &amp; Secondary ATEX Label.</li> <li>Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oil is not included and must be ordered separately.</li> <li>ATEX is not available with non-metallic pump heads.</li> </ul>	8						
<ul> <li>H 17-4 Stainless Steel</li> <li>N Nitronic 50</li> <li>Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oil is not included and must be ordered separately.</li> <li>ATEX is not available with non-metallic pump heads</li> </ul>						,	
N       Nitronic 50 <i>Pumps. This oil is not included and must be ordered separately.</i> • ATEX is not available with non-metallic nump heads						-	
• ATEX is not available with non-metallic own heads		Н					
T Hastelloy C		Ν			•		
		Т	Hastelloy C		not uvan		



# **WANNER**<sup>™</sup> HYDRA-CELL<sup>®</sup> PRO

SEAL-LESS PUMP TECHNOLOGIES

### Partners in over 70 countries



GLOBAL SALES & TECHNICAL SUPPORT

#### WANNER ENGINEERING, INC.

WORLD HEADQUARTERS & MANUFACTURING

Minneapolis, Minnesota USA t: 612-332-5681 e: sales@wannereng.com Hydra-Cell.com

#### **REGIONAL OFFICE**

Wichita Falls, Texas USA t: 940-322-7111 e: sales@wannereng.com

#### LATIN AMERICAN OFFICE

São Paulo, Brazil t: +55 (11) 99582-1969 e: mmagoni@wannereng.com Hydra-Cell-Pumps.com.br

#### WANNER INTERNATIONAL, LTD. UNITED KINGDOM

Church Crookham, Hampshire UK t: +44 (0) 1252 816847 e: support@wannerint.com Hydra-Cell.co.uk

#### WANNER PUMPS, LTD. Kowloon, HONG KONG

t: +852 3428 6534 e: sales@wannerpumps.com WannerPumps.com

Shanghai, CHINA t: +86-21-6876 3700 e: sales@wannerpumps.com WannerPumps.com

#### WANNER INDIA PVT. LTD.

Mumbai, INDIA t: +91 (22) 22044766 e: support@wannerindia.com WannerIndia.com





Michael Smith Engineers Limited Web: www.michael-smith-engineers.co.uk Email: info@michael-smith-engineers.co.uk Freephone: 0800 316 7891