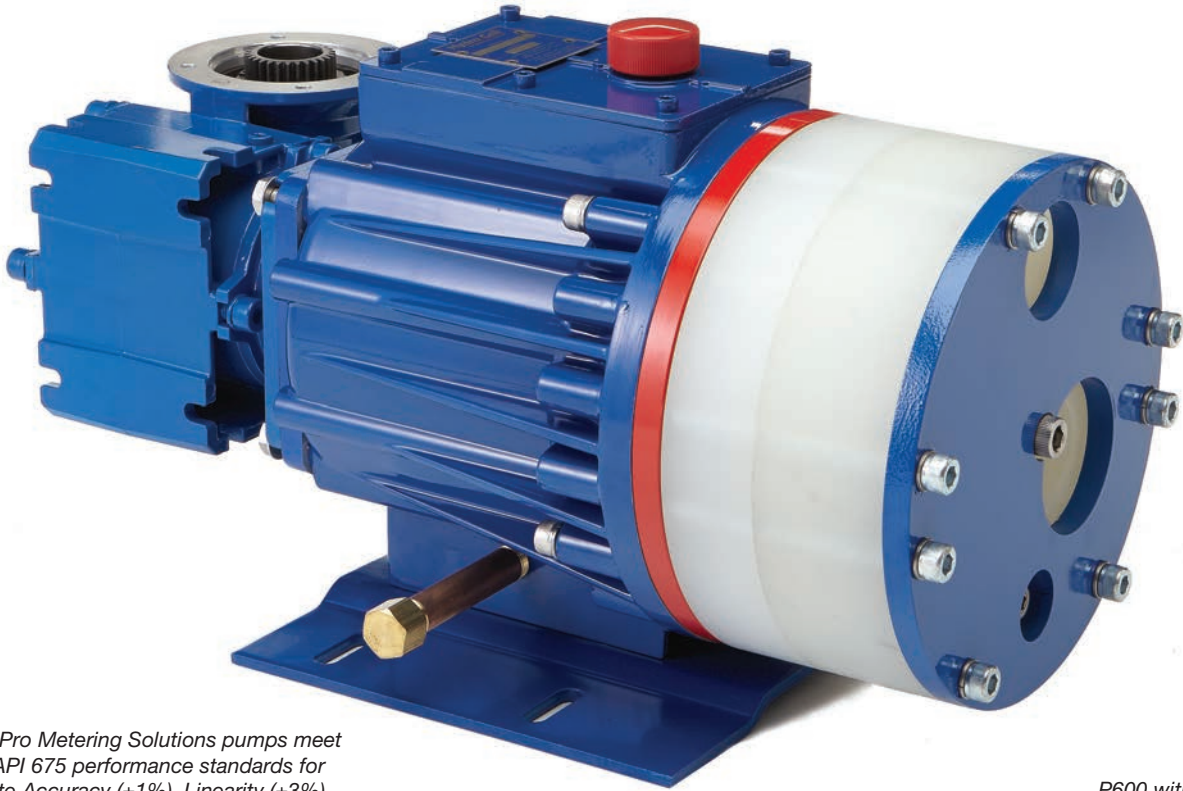


P600 PRO SERIES METERING PUMPS

Maximum Flow Rate: 890.3 gph (2808.0 lph)
Maximum Pressure: 1000 psi (69 bar) for Metallic Pump Heads
350 psi (24 bar) for Non-metallic Pump Heads

 **WANNER™** HYDRA-CELL® PRO
METERING PUMP SOLUTIONS



Hydra-Cell Pro Metering Solutions pumps meet or exceed API 675 performance standards for Steady-State Accuracy ($\pm 1\%$), Linearity ($\pm 3\%$), and Repeatability ($\pm 3\%$).

UK
CA CE

*P600 with Polypropylene
pump head*

Metering Pump with “Pulse-Free” Linear Flow

- Handles a wide range of fluids from clear water to thick slurries
- Electronic flow control increases accuracy and reliability
- Smaller footprint saves valuable space
- One pump covers a wide range of flows and pressures – reducing inventory requirements with fast, simple field conversion
- Duplexing option doubles capacity and equipment savings
- Hydraulically-actuated, balanced diaphragms provide superior performance across entire pressure range
- Rugged construction with a variety of affordable choices for liquid end, diaphragm and check valve materials
- Seal-less design means no seals, cups, or packing to leak or replace
- A replenishment valve in every piston assembly ensures optimum actuating oil on every stroke for continuous accuracy

P600 Pro Series Metering | Performance

Performance

Flows shown are for pumps with elastomeric diaphragms (consult factory for performance characteristics of pumps with PTFE diaphragms) and are based upon lab testing of multiple pumps. However, flows listed are approximate values and pumps must be calibrated once installed into any system. Flow variations will occur, but calibration will ensure proper pump performance.

Maximum Flow (gph) at Designated Pressure (psi)

All Pumps (gph)		Metallic Pump Heads Only (gph)		Pump rpm	Gear Ratio	Motor rpm
100 psi	250 psi	500 psi	1000 psi			
36.49	36.12	35.21	33.25	30	60:1	1800
43.90	43.48	42.49	40.35	36	50:1	
55.00	54.53	53.39	51.17	45	40:1	
73.56	72.97	71.58	68.75	60	30:1	
88.41	87.71	86.12	82.81	72	25:1	
110.7	109.8	107.9	103.9	90	20:1	
147.8	146.7	144.3	139.1	120	15:1	
222.1	220.4	217.0	209.4	180	10:1	
296.3	294.1	289.8	279.7	240	7.5:1	
444.8	441.6	435.2	420.3	360	5:1	
593.3	589.0	580.7	560.9	480	7.5:1	3600
890.3	883.9	871.6	842.1	720	5:1	

Required Motor hp

1/2	3/4	1	1-1/2	2	3	5	7-1/2	10	15
-----	-----	---	-------	---	---	---	-------	----	----

Maximum Flow (lph) at Designated Pressure (bar)

All Pumps (lph)		Metallic Pump Heads Only (lph)		Pump rpm	Gear Ratio	Motor rpm
7 bar	17 bar	34 bar	69 bar			
115.1	113.9	111.1	104.9	25	60:1	1500
138.5	137.2	134.0	127.3	30	50:1	
173.5	172.0	168.4	161.4	37.5	40:1	
232.0	230.2	225.8	216.9	50	30:1	
278.9	276.7	271.7	261.2	60	25:1	
349.2	346.5	340.5	327.8	75	20:1	
466.3	462.7	455.2	438.6	100	15:1	
700.5	695.3	684.7	660.4	150	10:1	
934.7	927.9	914.1	882.2	200	7.5:1	
1403	1393	1373	1326	300	5:1	
1872	1858	1832	1769	400	7.5:1	3000
2808	2788	2750	2656	600	5:1	

Required Motor kW

0.37	0.55	0.75	1.1	1.5	2.2
3	3.7	4	5.5	7.5	

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

P600 Pro Series Metering | Performance

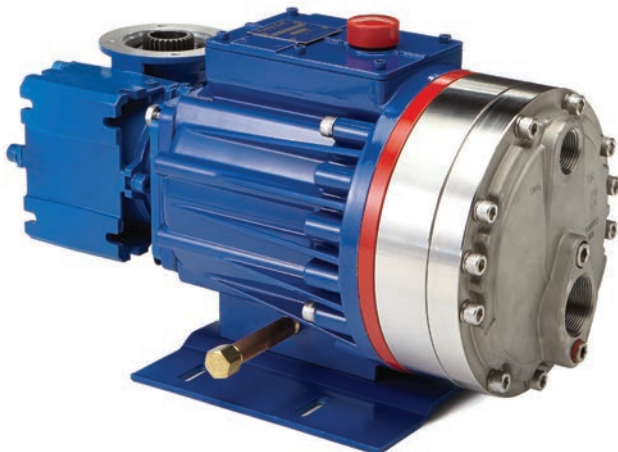
Pump Data

Diaphragms per Liquid End	3
Flow Control	Electronic variable speed drive
Maximum Discharge Pressure	
Metallic Heads:	1000 psi (69 bar)
Non-metallic Heads:	PVDF – 350 psi (24 bar) Polypropylene – 250 psi (17 bar)
Maximum Inlet Pressure	250 psi (17 bar)
Maximum Operating Temperatures	
Metallic Heads:	250°F (121°C)
Non-metallic Heads:	140°F (60°C)
	<i>Consult factory for correct metallic head component selection for temperatures from 160°F (71°C) to 250°F (121°C).</i>
Maximum Solids Size	500 microns
Inlet Port	1-1/2 inch NPT or BSPT
Discharge Port	1 inch NPT or BSPT
Shaft Rotation	Bi-directional
Oil Capacity	2.5 US quarts (2.4 liters)
Weight (less motor)	
Metallic Heads:	146.0 lbs. (66.2 kg)
Non-metallic Heads:	111.0 lbs. (50.3 kg)
Dimensions (less motor)	
Metallic Heads:	10.74" W x 20.6" D x 11.57" H (272.7 mm W x 524.3 mm D x 293.9 mm H)
Non-metallic Heads:	10.74" W x 21.56" D x 11.57" H (272.7 mm W x 547.6 mm D x 293.9 mm H)
	<i>For NEMA 56 motor frames only; see page 6 for other motor frame sizes.</i>

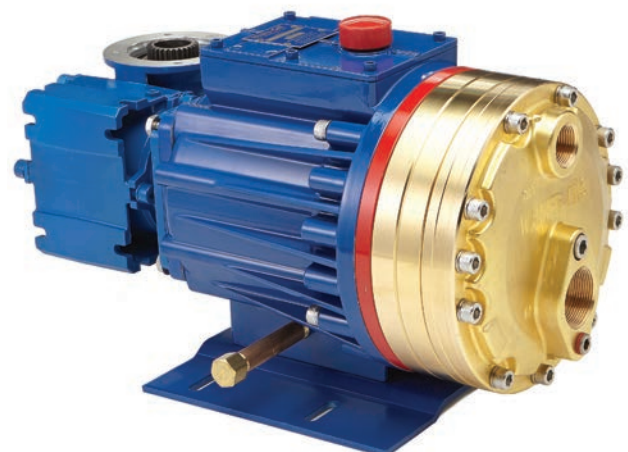
Accessories, Options and Services

Consult Wanner Engineering for complete details about available accessories and options as well as special services.

- Manifolds and Flanges
- Multiplexing Capability
- Different Gearbox Ratios
- Oil Cooler Systems
- Actuating Oils
- Magnetic Drain Plug
- Motors (Standard/Hazardous-duty)
- Controllers
- Control Freak™ Touch-screen Metering Controller
- SmartDrive Motor-Controller
- Calibration Cylinders
- Back Pressure Valves
- Pressure Relief Valves
- Pulsation Dampeners
- Demonstration (Cutaway) Units
- Testing Services
- System Components, Priming Kits and Plugs
- Replacement Part Kits and Tool Kits
- Customization Services



P600 with Stainless Steel pump head.

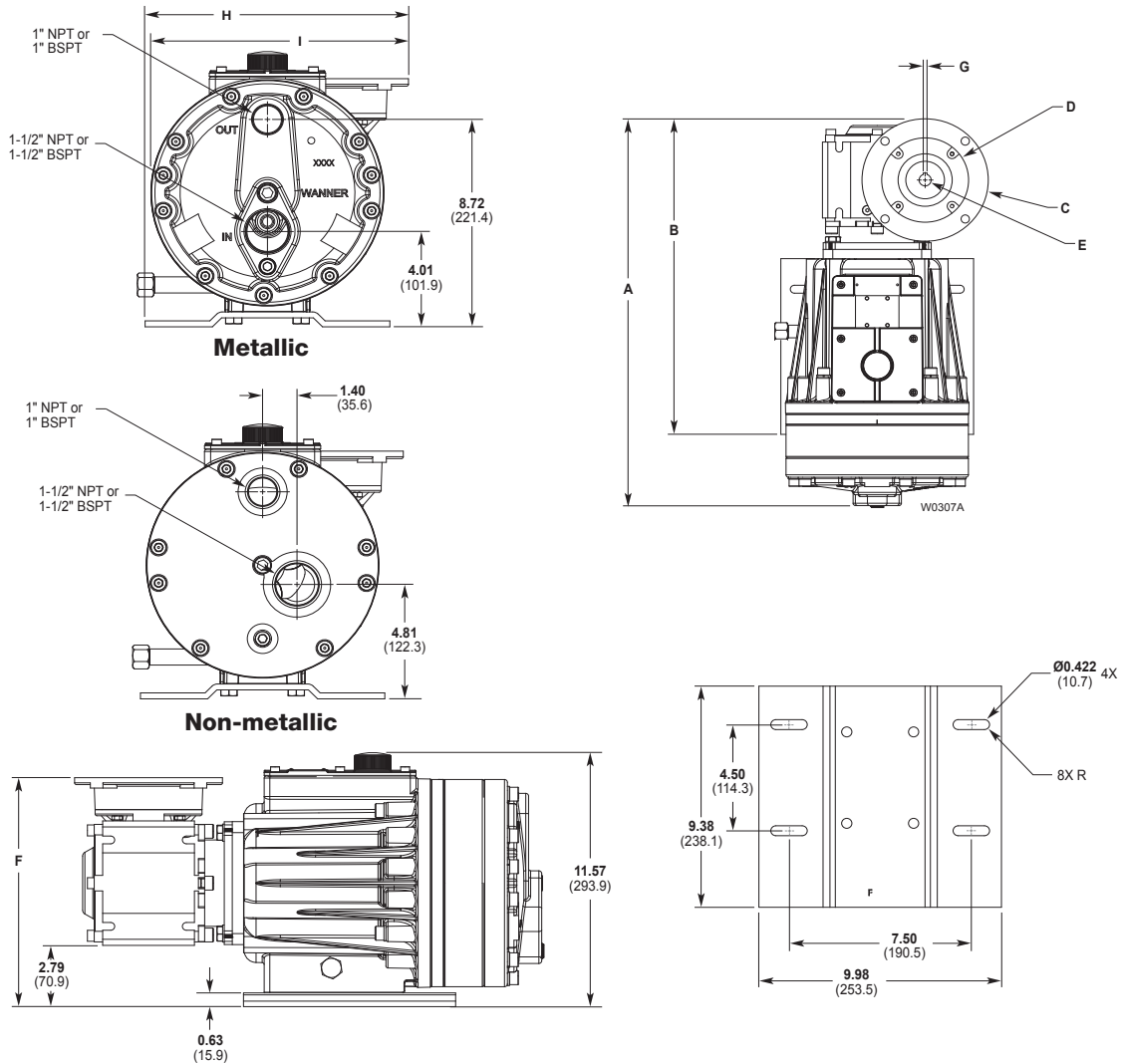


P600 with Brass pump head.

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

P600 Pro Series Metering | Representative Drawings

Metallic and Non-metallic Pump Heads Inches (mm)



P600 representative drawings for C and D reducers (NEMA motor sizes 213/215TC and 254/256TC), please visit www.Hydra-Cell.com.

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

Dimensions: Inches (mm)

Input Frame Size	A		B	C	D	E	F	G (Square Key)	H	I
	Metallic Pump Head	Plastic Pump Head								
NEMA 56C	20.64 (524.3)	21.56 (547.6)	16.84 (427.7)	ø 6.54 (ø 166)	ø 4.50 (ø 114.3)	ø 0.62 (ø 15.7)	10.43 (264.9)	0.187 (4.75)	10.74 (272.7)	10.49 (266.4)
NEMA 143/145TC	20.64 (524.3)	21.56 (547.6)	16.84 (427.7)	ø 6.54 (ø 166)	ø 4.50 (ø 114.3)	ø 0.87 (ø 22.2)	10.90 (276.9)	0.187 (4.75)	10.74 (272.7)	10.49 (266.4)
NEMA 182/184TC	21.95 (557.5)	22.88 (581.2)	18.16 (461.3)	ø 9.17 (ø 233)	ø 8.50 (ø 215.9)	ø 1.12 (ø 28.4)	12.03 (305.6)	0.25 (6.35)	12.06 (306.3)	11.81 (300)
IEC 63 B5	20.13 (511.3)	21.04 (534.4)	16.33 (414.8)	ø 5.51 (ø 140)	ø 3.74 (ø 95)	ø 0.43 (ø 11)	10.25 (260.4)	0.157 (4)	10.22 (259.6)	9.97 (253.3)
IEC 71 B5	20.52 (521.2)	21.44 (544.6)	16.72 (424.7)	ø 6.30 (ø 160)	ø 4.33 (ø 110)	ø 0.55 (ø 14)	10.25 (260.4)	0.196 (5)	10.62 (269.7)	10.37 (263.4)
IEC 80 B5	21.30 (541)	22.23 (564.7)	17.5 (444.5)	ø 7.87 (ø 200)	ø 5.12 (ø 130)	ø 0.75 (ø 19)	10.25 (260.4)	0.236 (6)	11.40 (289.6)	11.15 (283.3)
IEC 90 B5	21.30 (541)	22.23 (564.7)	17.5 (444.5)	ø 7.87 (ø 200)	ø 5.12 (ø 130)	ø 0.94 (ø 24)	10.25 (260.4)	0.314 (8)	11.40 (289.6)	11.15 (283.3)

P600 Pro Series Metering | How to Order

Ordering Information

A complete pump order number contains 13 digits based on the specified pump materials listed below.

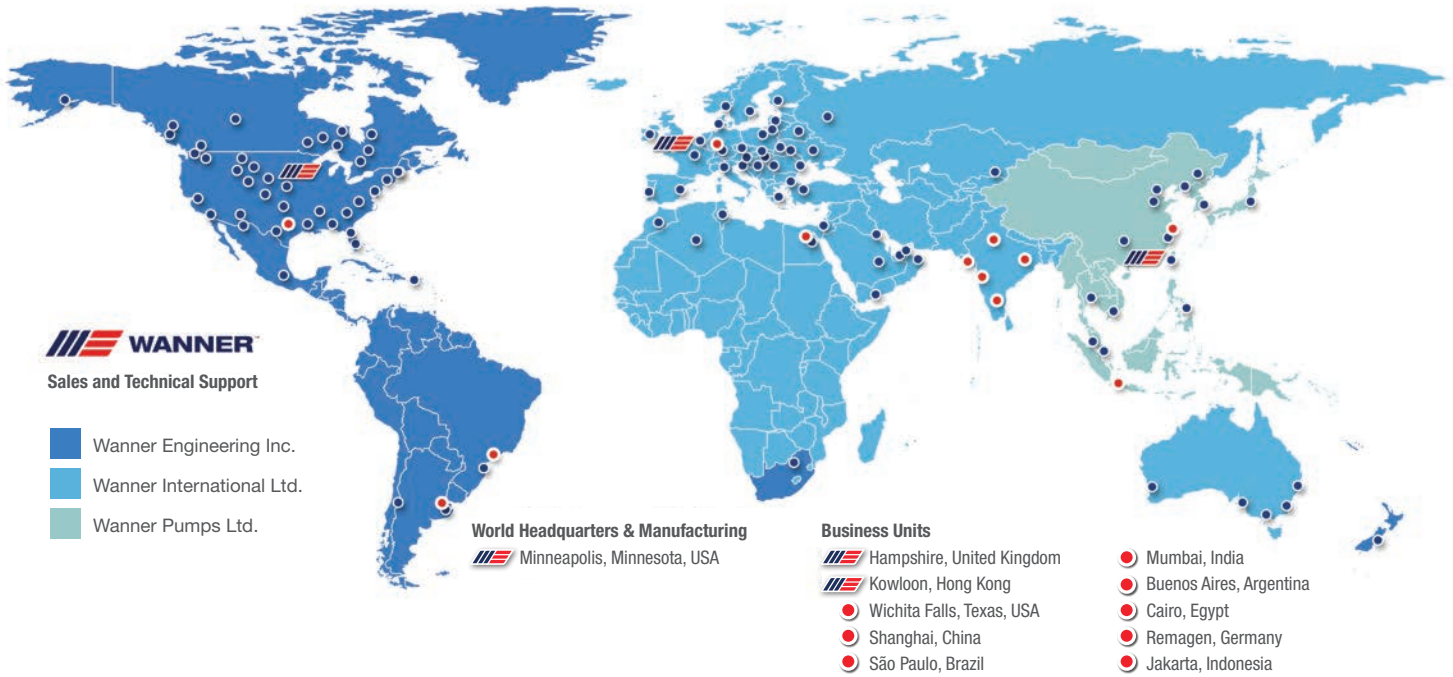
1	2	3	4	5	6	7	8	9	10	11	12	13
P	6	0	0									

Digit	Order Code	Description
1-4	P600	Pump Configuration For all P600 Pumps (Kel-Cell)
5		Pump Version
	N	NPT Ports or ANSI Flanges (NEMA motors only)
	M	BSPT Ports or ANSI Flanges (IEC motors only)
	X	ATEX BSPT Ports (IEC motors only)
6		Pump Head / Retainer Material
	B	Brass / Hastelloy C
	C	Cast Iron / Hastelloy C
	M	PVDF / PVDF
	P	Polypropylene / Polypropylene
	R	316L Stainless Steel (ANSI flange class 150 x 600) / Hastelloy C
	S	316L Stainless Steel (NPT or BSPT) / Hastelloy C
	T	Hastelloy CW12MW / Hastelloy C
7		Diaphragm & O-ring Material / Oil[▲]
	A	Aflas / PTFE O-rings (Synthetic oil)
	E	EPDM (EPDM-compatible oil)
	X	FKM (Synthetic oil)
	J	PTFE (Food-contact oil)
	P	Neoprene (Standard oil)
	T	Buna-N (Standard oil)
8-9		Check Valve Material (Valve Spring / Valve Seat / Valve)
	SS	Elgiloy / 316L SST / Nitronic 50
	TT	Hastelloy C / Hastelloy C / Hastelloy C
	SC	Elgiloy / Ceramic / Ceramic
	TC	Hastelloy C / Ceramic / Ceramic
	SD	Elgiloy / Tungsten Carbide / Tungsten Carbide
	TD	Hastelloy C / Tungsten Carbide / Tungsten Carbide
10-12		Gearbox Ratio / NEMA Motors
	060	60:1 (56C Motor Frame)
	050	50:1 (56C Motor Frame)
	040	40:1 (56C Motor Frame)
	A40	40:1 (143/145TC Motor Frame)
	030	30:1 (56C Motor Frame)
	A30	30:1 (143/145TC Motor Frame)
	025	25:1 (56C Motor Frame)
	A25	25:1 (143/145TC Motor Frame)
	020	20:1 (56C Motor Frame)
	A20	20:1 (143/145TC Motor Frame)
	015	15:1 (56C Motor Frame)
	A15	15:1 (143/145TC Motor Frame)
	B15	15:1 (182/184TC Motor Frame)
	010	10:1 (56C Motor Frame)

[▲] See price list for different actuating oils available with these materials.

Digit	Order Code	Description
	A10	10:1 (143/145TC Motor Frame)
	B10	10:1 (182/184TC Motor Frame)
	007	7.5:1 (56C Motor Frame)
	A07	7.5:1 (143/145TC Motor Frame)
	B07	7.5:1 (182/184TC Motor Frame)
	C07	7.5:1 (213/215TC Motor Frame)
	D07	7.5:1 (254/256TC Motor Frame)
	005	5:1 (56C Motor Frame)
	A05	5:1 (143/145TC Motor Frame)
	B05	5:1 (182/184TC Motor Frame)
	C05	5:1 (213/215TC Motor Frame)
	D05	5:1 (254/256TC Motor Frame)
13		Base Plate / NEMA Motors
	C	Carbon Steel (Epoxy painted) for 0 reducers, size 63
	H	Carbon Steel (Epoxy painted) for A & B reducers, size 75
	G	Carbon Steel (Epoxy painted) for C & D reducers
10-12		Gearbox Ratio / IEC Motors
	A60	60:1 (71 B5 Motor Frame)
	B60	60:1 (80 B5 Motor Frame)
	A50	50:1 (71 B5 Motor Frame)
	B50	50:1 (80 B5 Motor Frame)
	A40	40:1 (71 B5 Motor Frame)
	B40	40:1 (80 B5 Motor Frame)
	A30	30:1 (71 B5 Motor Frame)
	B30	30:1 (80 B5 Motor Frame)
	B25	25:1 (80 B5 Motor Frame)
	C25	25:1 (90 B5 Motor Frame)
	B20	20:1 (80 B5 Motor Frame)
	C20	20:1 (90 B5 Motor Frame)
	B15	15:1 (80 B5 Motor Frame)
	C15	15:1 (90 B5 Motor Frame)
	B10	10:1 (80 B5 Motor Frame)
	C10	10:1 (90 B5 Motor Frame)
	D10	10:1 (100/112 B14 Motor Frame)
	B07	7.5:1 (80 B5 Motor Frame)
	C07	7.5:1 (90 B5 Motor Frame)
	D07	7.5:1 (100/112 B14 Motor Frame)
	B05	5:1 (80 B5 Motor Frame)
	C05	5:1 (90 B5 Motor Frame)
	D05	5:1 (100/112 B14 Motor Frame)
13		Base Plate / IEC Motors
	H	Carbon Steel (Epoxy painted) for A & B reducers, size 75
	G	Carbon Steel (Epoxy painted) for C & D reducers

Partners in over 70 countries



Wanner worldwide

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

8 & 9 Fleet Business Park
Sandy Lane • Church Crookham
Hampshire UK GU52 8BF

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

