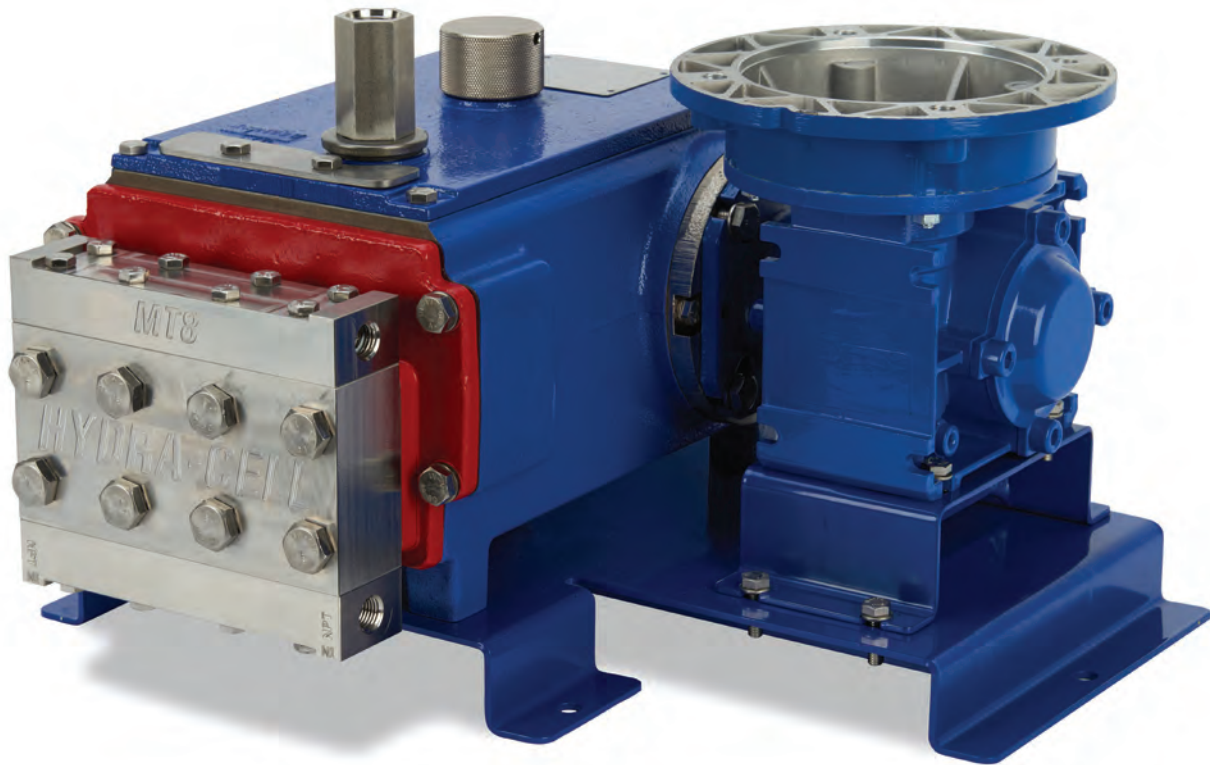


MT8 Pump

API 675

Maximum Flow Rate: 30.28 L/hr (8.00 gph)
Minimum Flow Rate: 0.227 L/hr (0.06 gph)
Maximum Pressure: 241 bar (3500 psi)



MT8 with Stainless Steel pump head

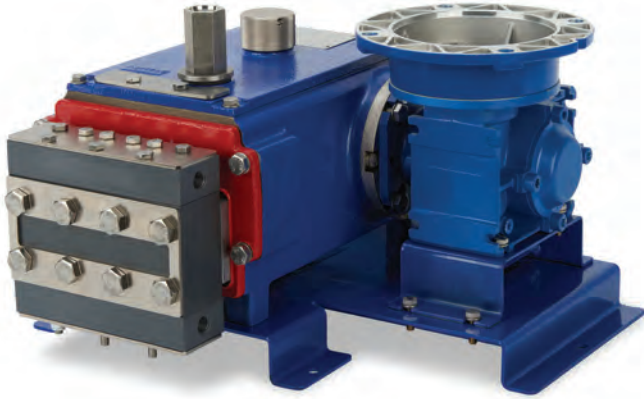
Hydra-Cell Metering Solutions pumps exceed API 675 performance standards for Steady-State Accuracy ($\pm 1\%$), Linearity ($\pm 3\%$), and Repeatability ($\pm 3\%$).

Triplex Metering Pump with Virtually Pulse-free Linear Flow

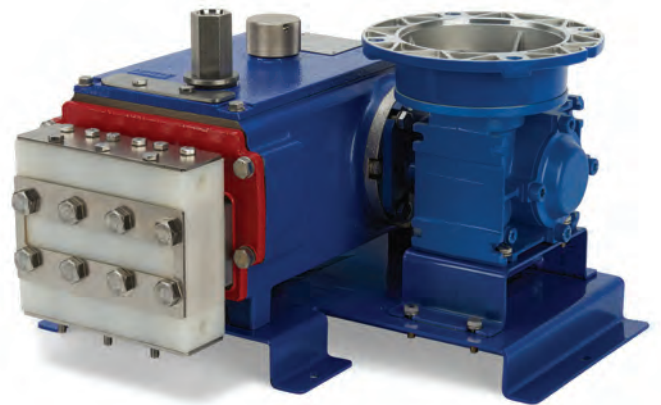
- Multiple-diaphragm design provides virtually pulse-free, linear flow without the need for expensive pulsation dampeners.
- Designed for low flow rates at high pressures.
- Can run dry indefinitely.
- Will operate without damage to the pump in the event of a blocked suction line.
- Handles a variety of processing fluids.
- Electronic flow control increases accuracy and reliability.
- The integral relief valve protects the pump from over pressurisation on the discharge side.
- Rugged construction.
- Smaller footprint saves valuable space.
- Duplexing option doubles capacity and equipment savings.
- One pump covers a wide range of flows and pressures - reducing inventory requirements with fast, simple field conversion.
- Hydraulically-actuated, balanced diaphragms provide superior performance across the entire pressure range.
- Seal-less design means no seals, cups, or packing to leak or replace.
- The replenishment valve system in every piston ensures optimum actuating oil on every stroke for continuous accuracy and protects the pump from damage in the event of a blocked suction line.

MT8 Pump

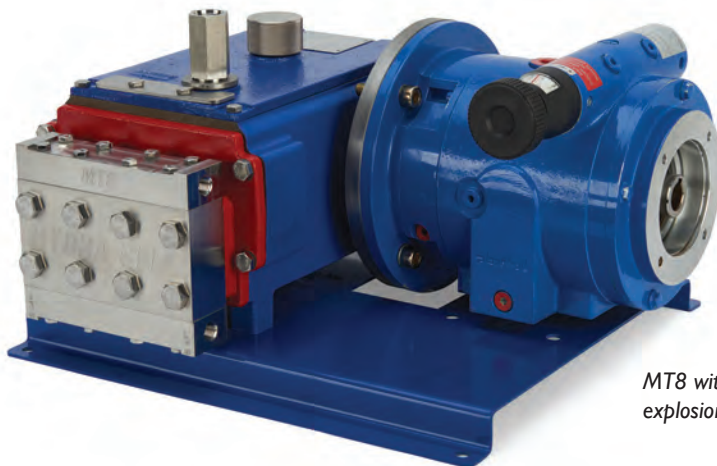
MT8 Materials and Configurations



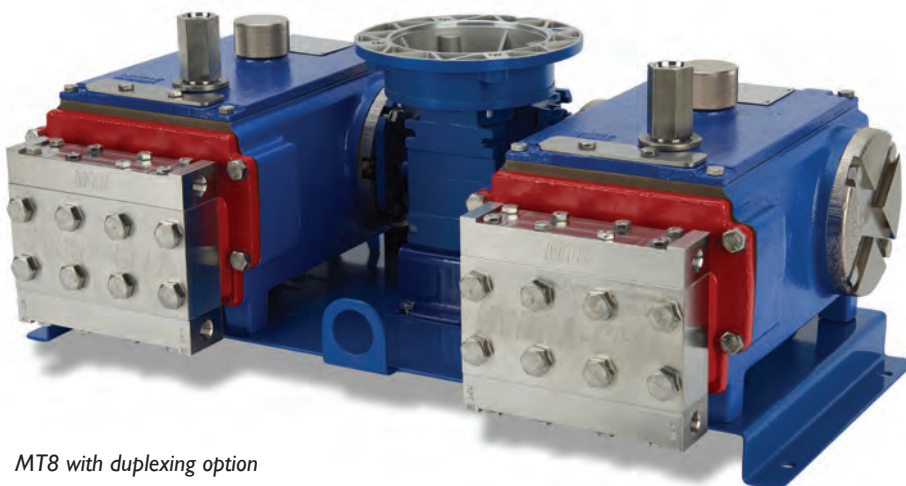
MT8 with PVC pump head



MT8 with PVDF pump head



MT8 with manual variable speed gearbox for use in explosion-rated zones



MT8 with duplexing option

Two MT8 pumps run at the same flow rate with only one gearbox and one motor. This “duplexing” option doubles capacity with a smaller footprint and lower investment cost than conventional metering pumps. Two different chemicals can be metered in a 1:1 ratio.

Performance Flow Capacities and Pressure Ratings

For Synchronous Speed, Self-cooled Motors
L/hr Maximum Flow at Designated Pressure

All Pumps (L/hr)				Pump RPM	Gear Ratio	Motor RPM
34 bar	103 bar	172 bar	241 bar			
1.49	1.36	1.23	1.08	15	100:1	1500
1.85	1.68	1.52	1.35	18.75	80:1	
2.45	2.22	2.01	1.79	25	60:1	
3.03	2.75	2.51	2.26	30	50:1	
3.72	3.44	3.11	2.81	37.5	40:1	
5.03	4.54	4.13	3.72	50	30:1	
7.30	6.65	6.08	5.46	75	20:1	
14.71	13.44	12.13	10.83	150	10:1	
19.44	17.55	15.99	14.10	200	7.5:1	
29.16	26.33	23.12	20.63	300	5:1	

Required Motor kW

0.37

Notes:

- The motor kW are based on ambient temperature conditions up to 25°C. For ambient temperatures above 25°C, Force-cooled Motors may be required. Please contact Wanner International.
- Contact factory for performance specifications.
- Based on using IE2 motors.
- Maximum continuous motor speed is 1500 RPM at full pressure.
- For intermittent or reduced pressure duties, please contact Wanner International.
- Flow rates above 30.28 L/hr are not guaranteed to meet API 675 Performance Standards. To reach a flow rate of 30.28 L/hr with a 5:1 gear box and 1500 RPM motor, the VFD will need to be programmed for operation above 50 Hz.

For 10:1 Turndown, Self-cooled Motors
L/hr Maximum Flow at Designated Pressure

All Pumps (L/hr)				Pump RPM	Gear Ratio	Motor RPM
34 bar	103 bar	172 bar	241 bar			
1.49	1.36	1.23	1.08	15	100:1	1500
1.85	1.68	1.52	1.35	18.75	80:1	
2.45	2.22	2.01	1.79	25	60:1	
3.03	2.75	2.51	2.26	30	50:1	
3.72	3.44	3.11	2.81	37.5	40:1	
5.03	4.54	4.13	3.72	50	30:1	
7.30	6.65	6.08	5.46	75	20:1	
14.71	13.44	12.13	10.83	150	10:1	
19.44	17.55	15.99	14.10	200	7.5:1	
29.16	26.33	23.12	20.63	300	5:1	

Required Motor kW

0.18 0.25 0.37 0.55

Please Note:

Systems vary. The MT8 pump must be calibrated once installed to ensure optimum performance. The API 675 Performance Standard is achievable for flow rates as low as 0.227 L/hr. Please contact the factory for assistance.

See Page 6 for Electronic Flow Rate Controller.

Mechanical Adjustment Controller for ATEX/Explosive Areas

All Min/Max flow rates in litres/hour

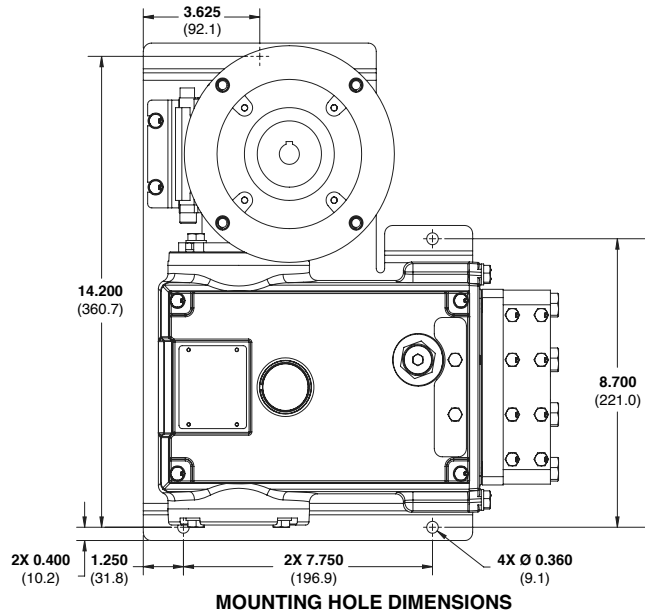
34 bar		103 bar		172 bar		241 bar		Pump RPM	Gearbox Ratio	Model Number	Required Motor Size & Frame	
Min	Max	Min	Max	Min	Max	Min	Max					
0.23		2.01		1.82		1.65		1.49	20	30:1	MEC1 - 63B14	0.18kW / IEC 63 / B14 / 4-Pole
		2.92		2.66		2.43		2.18	30	20:1		
		5.88		5.38		4.85		4.33	60	10:1		
		7.78		7.02		6.40		5.64	80	7.5:1		
		11.67		10.53		9.25		/	120	5:1	MEC3 - 71B14	0.25kW / IEC 71 / B14 / 4-Pole
		/		/		/		8.25				
		30.32		30.32		/		/	472	*	MEC5 - 80B14*	0.37kW / IEC 71 / B14 / 4-Pole
		/		/		30.32		30.32				

* For MT8 direct coupled to mechanical adjustment controller, without gearbox.

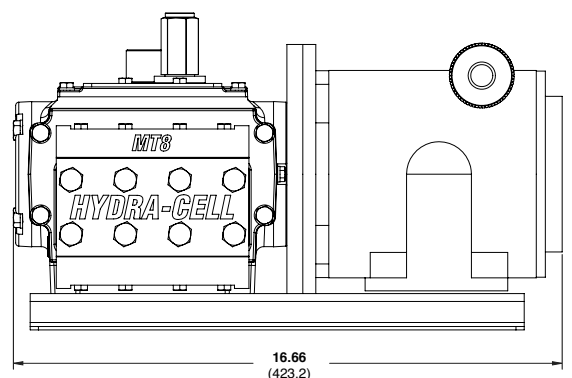
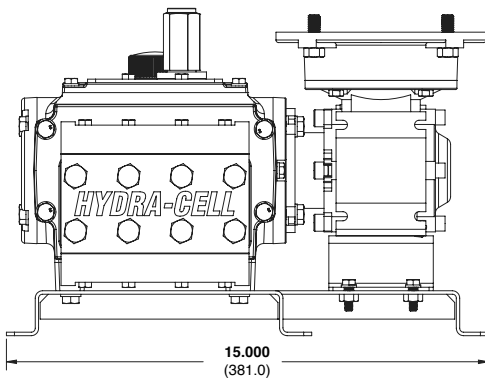
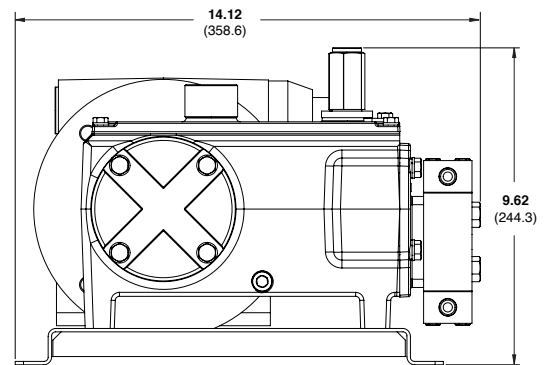
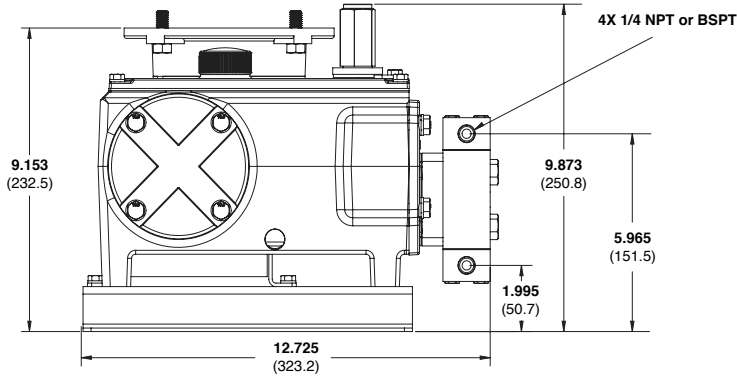
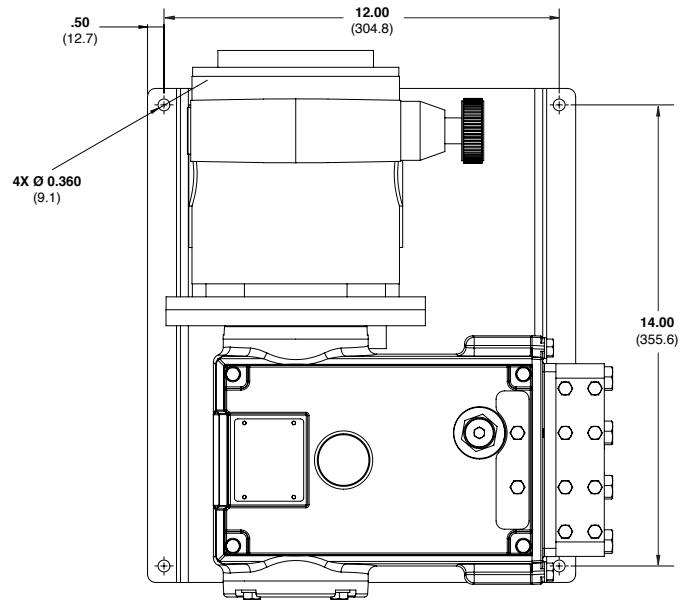
MT8 Pump

Representative Drawings Inches (mm)

Metallic Pump Heads



Metallic Heads with Manual Adjustment



How to Order

A complete pump order number contains 16 digits based on the specified pump materials listed below.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
M	T	0	8				J	N							

Pump Model Size (Digits 1-2)

MT Metering Triplex Pumps

Pump Capacity (Digits 3-4)

08 0.227 - 30.28 L/hr (0.06 - 8.00 gph)

Pump Version (Digit 5)

N NPT Ports
M BSPT Ports

Pump Head (Digits 6-7)

SN 316 SST
TN Hastelloy C
AN Alloy 20
VN PVC
MN PVDF

Diaphragm (Digit 8)

J PTFE

Leak Detection Style (Digit 9)

N No leak detection

CV Ball/Seat (Digits 10-11)

SS 316 SST / 316 SST
TT Hastelloy C / Hastelloy C
AA Alloy 20 / Alloy 20

Oil (Digit 12)

G 5W30 (Synthetic oil)
K Food-contact oil

Motor Flange Size (Digit 13)

A NEMA 56C
B NEMA 143/145TC
C IEC 63 B5
D IEC 71 B5
E IEC 80 B5

Gearbox Ratio (Digits 14-15)

00 100:1
80 80:1
60 60:1
50 50:1
40 40:1
30 30:1
20 20:1
10 10:1
07 7.5:1
05 5:1
MX Manual adjustment (IEC flanged)

Baseplate (Digit 16)

C Carbon Steel (Epoxy painted)
S SST
M Carbon Steel (Epoxy painted) Manual adjustment
T SST Manual adjustment

Pump Data

Diaphragms per Liquid End	3
Flow Control	Electronic variable speed drive
Maximum Discharge Pressure	
Metallic Heads:	241 bar (3500 psi)
Maximum Inlet Pressure	34 bar (500 psi)
Operating Temperatures (min./max.)	
Metallic Heads:	4.4 °C (40 °F) to 121 °C (250 °F)
<i>Consult factory for temperatures outside this range</i>	
Inlet Port	1/4 inch BSPT or NPT
Discharge Port	1/4 inch BSPT or NPT
Oil Capacity	1.7 litres (1.75 US quarts)
Weight (less motor)	
Metallic Heads:	37 kg (82 lbs.)

Accessories, Options & Services

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

- Different Gearbox Ratios
- 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
- Testing Services
- System Components, Priming Kits and Plugs
- Replacement Part Kits and Tool Kits
- Pulsation Dampeners
- Customisation Services

Hydra-Cell® Metering and Dosing Control Options

Electronic Flow Rate Adjustment For Local Control

- ATEX Dust Zone 21 (Ex tb III C T125c Db)
- IP66 Standard
- Various flow rate adjustments options including:
 - On-board potentiometer(s)
 - On-board keypad controller with flow rate display
 - Removable, hand-held key-pad controller for authorised personnel only

Control Freak For Sophisticated Local Control

- Option available to control up to 6 x Hydra-Cell pumps with one Hydra-Cell “Control Freak”
- Multiple Variable Frequency Drive (VFD) options
- Enables programming for flow rate or totalisation
- Allows up to 10 x separate batch sequences
- Built-in Calibration mode



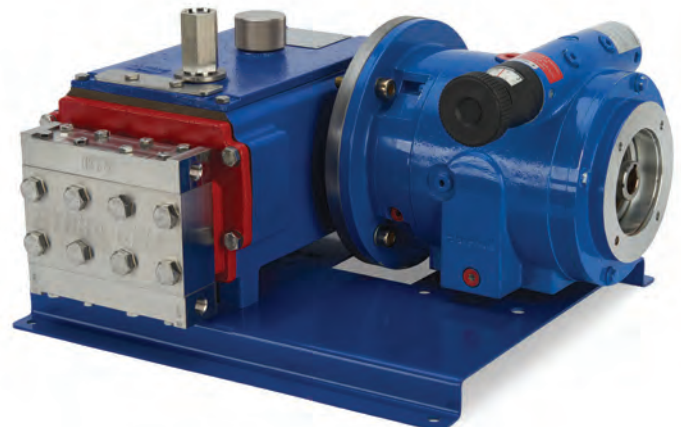
Mechanical Flow Rate Adjustment For Local Control

- Linear fine adjustment scale on hand-wheel
- High reliability due to frictionless design
- Option to fit a mechanical lock to prevent unauthorised flow rate change



On-board keypad control

Hand-held keypad control





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

OFFICIAL UK DISTRIBUTOR:
Michael Smith Engineers Limited
www.michael-smith-engineers.co.uk
freephone: 0800 316 7891

www.hydra-cell.eu