

## MT8 Pump

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) for Metallic Pump Heads 24 bar (350 psi) for Non-metallic Pump Heads



MT8 with inline gearbox for use in ATEX areas.

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

- ATEX Zone 2 classified 3 G IIC T5...T4.
- Multiple-diaphragm design provides virtually pulse-free, linear flow without the need for expensive pulsation dampeners.
- Designed for low flow rates at high pressures.
- Will operate without damage to the pump in the event of a blocked suction line.
- Handles a variety of processing fluids.
- The integral relief valve protects the pump from over pressurisation on the discharge side.
- Rugged construction with sealing oil cap.
- Smaller footprint saves valuable space.
- 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.

## 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
24 Bar	34 bar	103 bar	172 bar	241 bar			
1.79	1.79	1.62	1.47	1.30	18.42	81.45	1500
2.71	2.70	2.44	2.22	1.96	27.76	54.03	
3.53	3.53	3.18	2.90	2.56	36.27	41.36	
4.72	4.70	4.25	3.87	3.41	48.39	31.00	
7.18	7.16	6.46	5.89	5.19	73.64	20.37	
14.93	14.89	13.44	12.25	10.80	153.22	9.79	
20.65	20.59	18.59	16.94	14.94	211.86	7.08	
31.64 <sup>1</sup>	31.56 <sup>1</sup>	28.49	25.96	22.89	324.68	4.62	
38.57 <sup>1</sup>	38.47 <sup>1</sup>	34.73 <sup>1</sup>	31.65 <sup>1</sup>	27.90	395.78	3.79	

Motor kW sizing	0.12	0.18	0.25	0.37
Motor frame sizing	IEC 63, B5	IEC 63, B5	IEC 71, B5	IEC 71, B5

### For 10:1 Turndown, Self-cooled Motors

Inverter to be situated in safe zone

L/hr Maximum Flow at Designated Pressure

All Pumps (L/hr)					Pump RPM	Gear Ratio	Motor RPM
24 Bar	34 bar	103 bar	172 bar	241 bar			
1.79	1.79	1.62	1.47	1.30	18.42	81.45	1500
2.71	2.70	2.44	2.22	1.96	27.76	54.03	
3.53	3.53	3.18	2.90	2.56	36.27	41.36	
4.72	4.70	4.25	3.87	3.41	48.39	31.00	
7.18	7.16	6.46	5.89	5.19	73.64	20.37	
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31.64 <sup>1</sup>	31.56 <sup>1</sup>	28.49	25.96	22.89	324.68	4.62	
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Motor kW sizing	0.12	0.18	0.25	0.37	0.55
Motor frame sizing	IEC 63, B5	IEC 63, B5	IEC 71, B5	IEC 71, B5	IEC 80, B5

#### Notes:

- Flow rates above 30.28 L/hr are not guaranteed to meet API 675 Performance Standards.
- The motor kW are based on ambient temperature conditions up to 40°C. For ambient temperatures above 40°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.

#### 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.

# MT8 Pump (ATEX)

## Performance Flow Capacities and Pressure Ratings

### Manual Adjustment Controller

All Min/Max flow rates in litres/hour

24 bar		34 bar		103 bar		172 bar		241 bar		Max Pump RPM	Required Motor kW and Frame Sizing
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		
0.23	38.00	0.23	37.91	0.23	34.22	0.23	31.18	/	/	390	0.37kW / IEC 80 / B14 / 6-Pole
/	/	/	/	/	/	/	/	0.23	27.50	390	0.55kW / IEC 80 / B14 / 6-Pole

### Manual Flow Rate Adjustment for Local Control

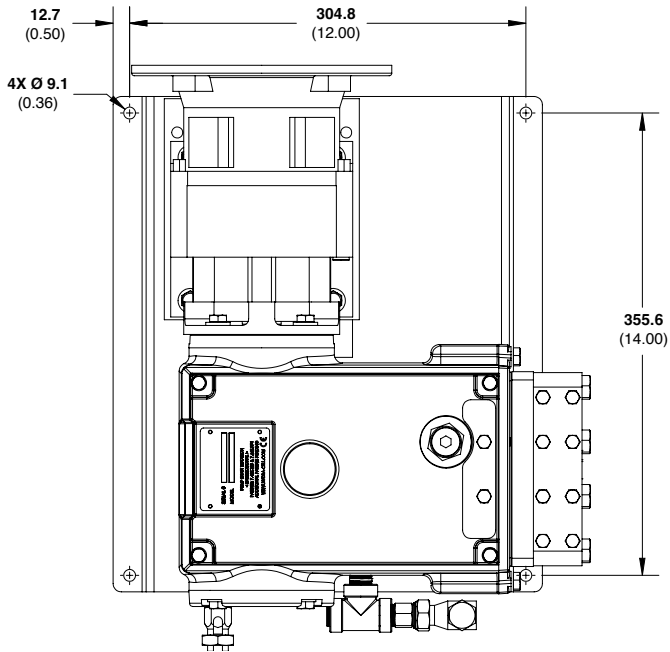
- Linear fine adjustment scale on hand-wheel.
- High reliability due to frictionless design.
- Option to fit a mechanical lock to prevent unauthorised flow rate change.



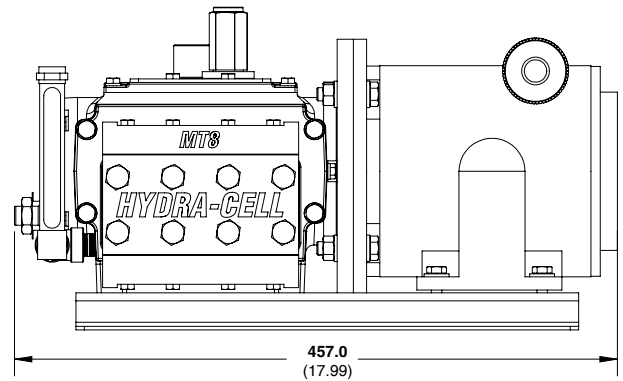
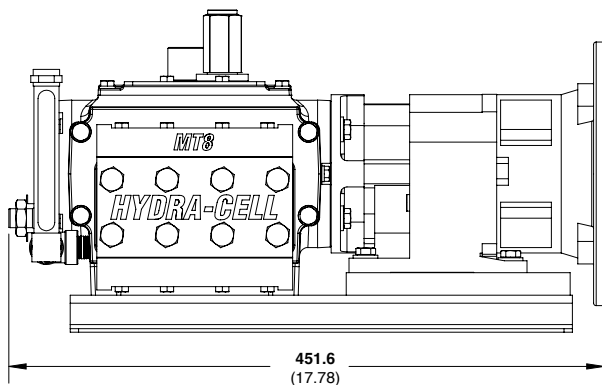
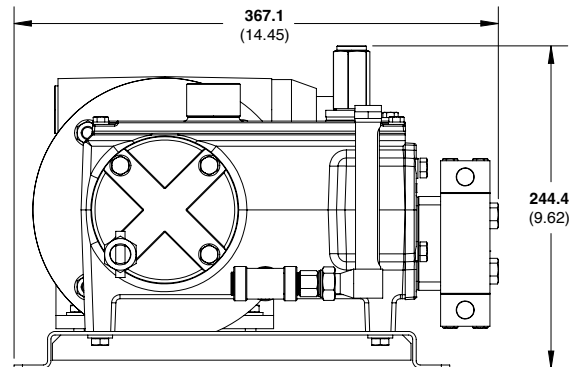
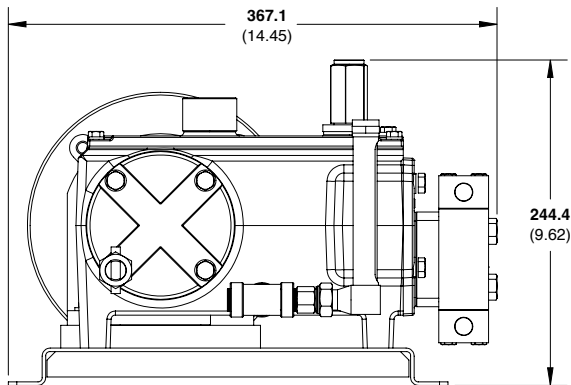
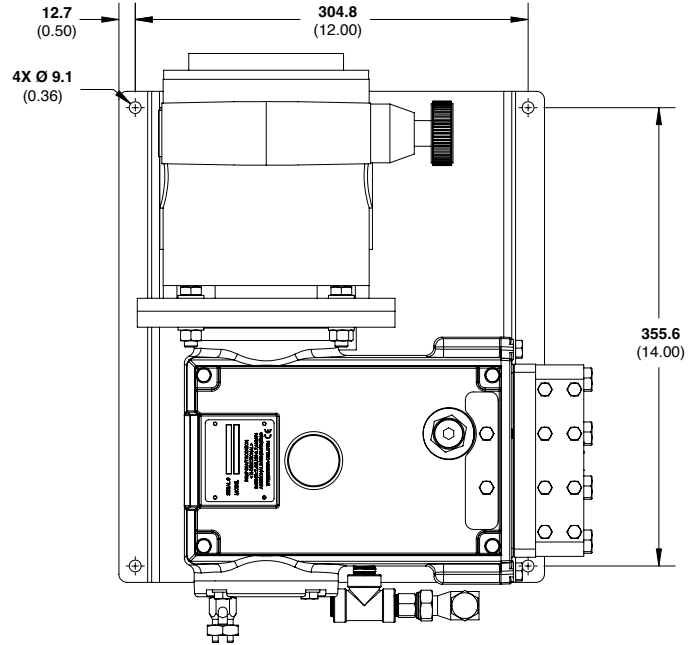
MT8 with manual adjustment controller for use in ATEX areas.

## Representative Drawings mm (Inches)

**Metallic Pump Heads ATEX Zone 2 with Gearbox**



**Metallic Pump Heads ATEX Zone 2 with Manual Adjustment**



Typical weight (excluding motor): 53 kg

Typical weight (excluding motor): 55 kg

**Note:** Dimensions are for reference only. Contact Wanner International for certified drawings.

## 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							T

### 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)

**B** BSPT Ports; ATEX Zone 2

**F** NPT Ports; ATEX Zone 2

### Pump Head (Digits 6-7)

**SN** 316 SST

**TN** Hastelloy C

**AN** Alloy 20

**VN** PVC

**MN** PVDF

### Diaphragm (Digit 8)

**J** PTFE (FDA-compliant wetted PTFE materials available on request - consult Wanner International)

### 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)

**C** IEC 63 B5

**D** IEC 71 B5

**E** IEC 80 B5

**M** IEC 80 B14 (MX only)

### Gearbox Ratio (Digits 14-15)

**81** 81.45:1

**54** 54.03:1

**41** 41.36:1

**31** 31.00:1

**20** 20.37:1

**10** 9.79:1

**07** 7.08:1

**05** 4.62:1

**04** 3.79:1

**MX** Manual adjustment ATEX (specify M flange for this option)

### Baseplate (Digit 16)

**T** SST Manual adjustment

## Pump Data

Diaphragms per Liquid End 3

Flow Control Electronic variable speed drive or manual adjustment

Maximum Discharge Pressure

Metallic Heads: 241 bar (3500 psi)

Non-metallic Heads: 24 bar (350 psi)

Maximum Inlet Pressure

Metallic Heads: 34 bar (500 psi)

Non-metallic Heads: 300 psi (21 bar)

Operating Temperatures (min./max.)

Metallic Heads: 4.4°C (40°F) to 82°C (180°F)

*Consult factory for temperatures outside this range*

Inlet Port 1/4 inch BSPT or NPT

Discharge Port 1/4 inch BSPT or NPT

Maximum Solids Size 200 microns

Suction Lift Capability 6.1 meters (20 feet)

Shaft Rotation Bi-directional

Oil Capacity 1.7 litres (1.75 US quarts)

Weight (less motor) Metallic Heads

MT8 with Inline Gearbox 53 kg

MT8 with Manual Adjustment 55 kg

## 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 (ATEX certified)
- 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

# MT8 Pump (ATEX)



**WANNER**

*Hydra-Cell*<sup>®</sup>  
Partners in over 70 Countries

## Standards Compliance



- API 675 performance testing, both witnessed and non-witnessed available. (Consult your local Wanner office for further details.)

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