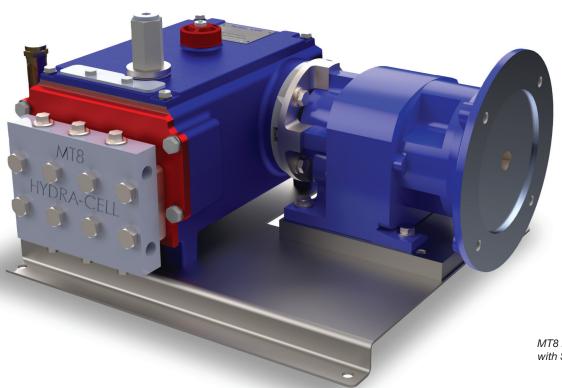
# MT8 PRO SERIES (ATEX) LOW PRESSURE METERING

Maximum Flow Rate: 30.28 L/hr (8.00 US gph)
Minimum Flow Rate: 0.227 L/hr (0.06 US gph)
Maximum Pressure: 103 bar (1500 psi) for
Metallic Pump Heads

### **WANNER** HYDRA-CELL PRO

METERING PUMP SOLUTIONS





MT8 Low Pressure Metering Pump with Stainless Steel pump head for use in ATEX/hazardous areas.

### A higher standard of metering performance and energy efficiency.

- ATEX Zone 1 IIC T4 (dependant on pump configuration).
- Integrates Wanner Hydra-Cell® Pro seal-less pump technologies for the highest levels of volumetric and energy efficiencies across the full turndown – from 100% to 1% of rated flow – for accurate metering performance.
- Multiple diaphragms deliver a very low-pulse flow, eliminating pulsation dampeners and pipe strain in most applications, with reduced acceleration head losses and a wider process window.
- Patented ADPC (Advanced Diaphragm Position Control) protects diaphragms under closed or restricted inlet conditions.

- Exceeds API 675 standards for steady-state accuracy (±1%), linearity (±3%), and repeatability (±3%) over a wide adjustable range.
- Hydraulic oil management system replenishes on every back stroke, ensuring superior accuracy and reliable operation at low- and high-suction pressures.
- Valve set design and material options reliably handle a wide range of viscosities and shear sensitivities, plus corrosive liquids, abrasives, slurries and suspended solids.
- Pumped liquid is 100% contained, preventing degradation and contamination.
- Reduced ownership costs in acquisition, operation, service, maintenance and energy use – with a 20+ year design life.



## MT8 Pro Low Pressure (ATEX) | Performance

### **Maximum Flow at Designated Pressure**

for Pumps with Gearbox Reducer

### For Synchronous Speed, Self-cooled Motors

Liters per Hour (L/hr) Maximum Flow at Designated Pressure

All Pumps i	in Liters per	Pump	Gear	Motor	
24 bar	34 bar	103 bar	rpm	Ratio	rpm
1.79**	1.79**	1.62**	18.42	81.45	
2.71	2.70	2.44	27.76	54.03	
3.53	3.53	3.18	36.27	41.36	
4.72	4.70	4.25	48.39	31.00	
7.18	7.16	6.46	73.64	20.37	1500
14.93	14.89	13.44	153.22	9.79	
20.65	20.59	18.59	211.86	7.08	
31.64*	31.56*	28.49	324.68	4.62	
38.57*	38.47*	34.73*	395.78	3.79	

Required	Motor
Motor kW	frame
0.12	IEC 63, B5
0.18	IEC 63, B5
0.25	IEC 71, B5

**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 (0.06 US gph). Please contact Wanner for assistance.

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

Liters per Hour (L/hr) Maximum Flow at Designated Pressure

All Pumps	in Liters per	Pump	Gear	Motor	
24 bar	34 bar	103 bar	rpm	Ratio	rpm
1.79**	1.79**	1.62**	18.42	81.45	
2.71	2.70	2.44	27.76	54.03	
3.53	3.53	3.18	36.27	41.36	
4.72	4.70	4.25	48.39	31.00	-
7.18	7.16	6.46	73.64	20.37	1500
14.93	14.89	13.44	153.22	9.79	
20.65	20.59	18.59	211.86	7.08	-
31.64*	31.56*	28.49	324.68	4.62	•
38.57*	38.47*	34.73*	395.78	3.79	•

Required	Motor
Motor kW	frame
0.12	IEC 63, B5
0.18	IEC 63, B5
0.25	IEC 71, B5

#### Notes:

- 1. 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.
- 2. Contact Wanner for performance specifications.
- 3. Based on using IE3 motors.
- 4. Maximum continuous motor speed is 1500 rpm at full pressure.
- 5. For intermittent or reduced pressure duties, please contact Wanner International.

### **Manual Adjustment Controller**

All Min/Max flow rates in Liters per Hour (L/hr)

24 Bar		34 Bar		103 Bar			
Min	Max	Min	Max	Min	Max	Max Pump RPM	Required Motor kW and Frame Sizing
0.23	38.00	0.23	37.91	0.23	34.22	390	0.37kW / IEC80 / B14 / 6-pole

For MT8 direct coupled to manual adjustment controller, without gearbox.

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



<sup>\*</sup> Flow rates above 30.28 lph are not guaranteed to meet API 675 Performance Standards.

<sup>\*\*</sup> Please consult Wanner for higher ratio gearboxes and flows below 2.2 L/hr.

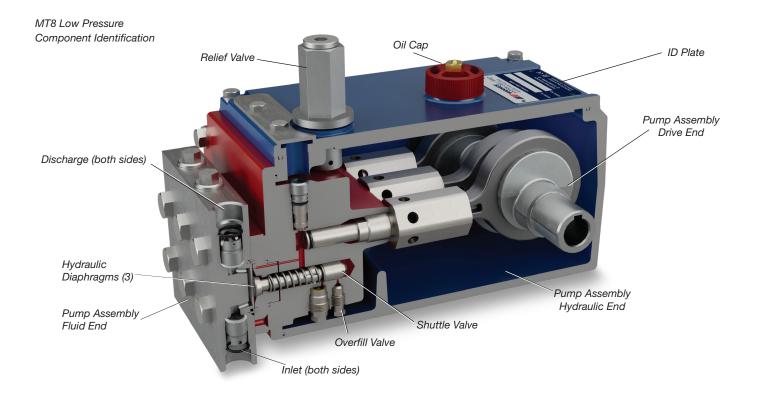
## MT8 Pro Low Pressure (ATEX) | Features & Specifications

### **Pump Features**

- Patented ADPC Advanced diaphragm position control. Protects the diaphragms from adverse suction conditions.
- Can run dry indefinitely without damage to the pump.
- · Wide, controllable flow range Independent of discharge pressure - from 100% to 1% of rated flow.
- Easy pump control eliminates mechanical actuators.
- Patented hydraulic replenishment systems replenishes on every diaphragm back stroke ensuring accurate consistent displacement on every forward stroke.
- Low shear pumping action.
- Internal pressure relief valve to protect the pump.
- Constant diaphragm stroke length ensures accurate control of flow rate with turn downs higher than 10:1
- Many materials of construction, easy change of parts makes pump repurposing easy.
- · Compact design with oil management system and multiple diaphragms in a single pump head - reduces size and weight.
- Simple servicing, no special tools or equipment
- Robust 20+ year service life with minimal maintenance.

### **Pump Data**

Diaphragms per Liquid End	3				
Flow Control	Electronic variable speed drive				
<b>Maximum Discharge Press</b>	ure				
Metallic Heads:	103 bar (1500 psi)				
<b>Maximum Inlet Pressure</b>					
Metallic Heads:	34 bar (500 psi)				
<b>Operating Temperatures</b> (m	in./max.)				
Metallic Heads:	4.4°C (40°F) to 121°C (250°F)				
Consult Wanner for tempe	ratures outside this range				
Inlet Port	1/4 inch NPT or BSPT				
<b>Diaphragm Material Tempe</b>	ratures (min./max.)				
	4.4°C (40°F) to 121°C (250°F)				
Discharge Port	1/4 inch NPT or BSPT				
Maximum Solids Size	200 microns				
Shaft Rotation	Bi-directional				
Oil Capacity	1.7 liters (1.75 US quarts)				
Suction Lift Capability	6.1 meters (20 feet)				
Weight (less motor)					
Metallic Heads:	36 kg (80 lbs.)				



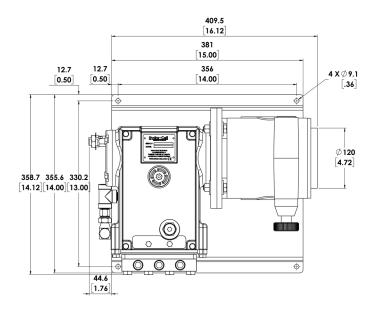
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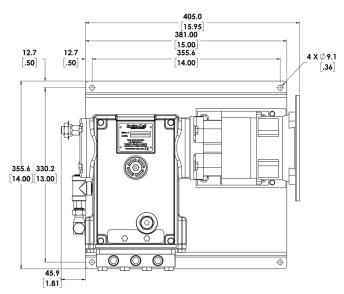
## MT8 Pro Low Pressure (ATEX) | Representative Drawings

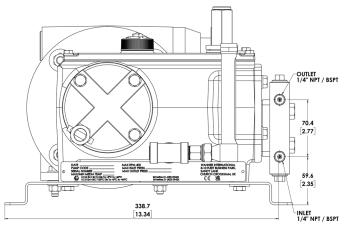
### **Metallic Pump Heads** Inches (mm)

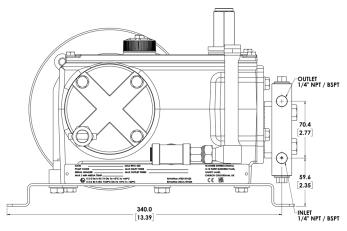
## MT8 Pro Low Pressure (ATEX) with Manual-Adjust

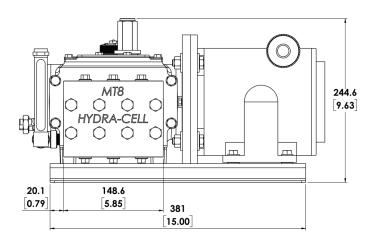


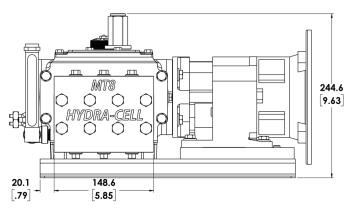
## MT8 Pro Low Pressure (ATEX) with Fixed-Ratio Gearbox











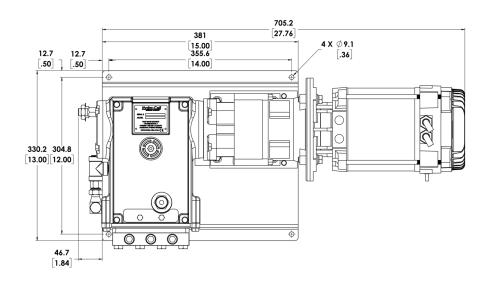
Note: Dimensions are for reference only. Contact Wanner for certified drawings.

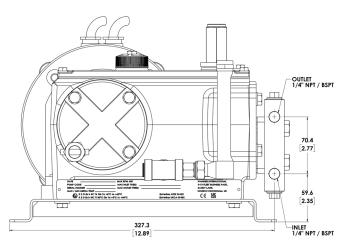


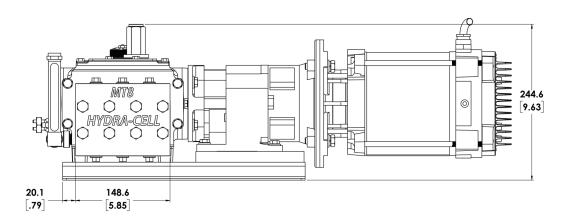
## MT8 Pro Low Pressure (ATEX) | Representative Drawings

### Metallic Pump Heads Inches (mm)

### MT8 Pro Low Pressure (ATEX) Solution for Local and Remote Control







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



## MT8 Pro Low Pressure (ATEX) | Options

## Metering and Dosing Control Options for use in ATEX/hazardous areas

## **Electronic Flow Rate Adjustment Solution for Local** or Remote Control

- Quick and precise flow rate control with versatile configurations
- High efficiency and reliability for heavy duty usage; up to 1500 rpm
- Remote control via 4-20mA input signal
- Local speed control via rotary potentiometer
- ATEX Zone 1 IIB T4



## 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
- ATEX Zone 1 IIC T4



### **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
- API 675 Performance Test Certificate
- System Components, Priming Kits and Plugs
- Replacement Part Kits and Tool Kits
- Pulsation Dampeners
- Customisation Services



## MT8 Pro Low Pressure (ATEX) | How to Order

### **Ordering Information**

A complete pump order number contains 18 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	17	18
M	$\lfloor T \rfloor$	0	8		S	N	J	N	S	S					T	L	

Digit	Order Code	Description
1-2	MT	Pump Model Size
		Triplex Metering Pumps
3-4		Pump Capacity
	80	0.227 - 30.28 L/ph (0.06 - 8.00 US gph)
5		Pump Version
	В	NPT Ports; ATEX Zone 1
	F	BSPT Ports; ATEX Zone 1
6-7		Pump Head
	SN	316 SST
8		Diaphragm
	J	PTFE
9		Leak Detection Style
	N	No leak detection
10-11		CV Ball/Seat
	SS	316 SST / 316 SS
12		Hydraulic End Oil
	В	EPDM oil (NSF H1 accredited)
	G	5W30 (Synthetic oil)
	K	Food-contact oil (NSF H1 accredited)
13		Motor Flange Size
	C	IEC 63 B5
	D	IEC 71 B5
	E	IEC 80 B5
	M	IEC 80 B14 (MX only)

Digit	Order Code	Description
14-15		Gearbox Ratio
	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)
16		Baseplate
	T	SST
17		Model
	L	Low Pressure 103 bar (1500 psi) Max Discharge
18		Electronic Flow Rate Adjustment Solution
	L	Local speed control rotary potentiometer*
	R	Remote control 4-20mA input signal*
	X	Not Required**

<sup>\*</sup> Digit 18 options L and R: ATEX Zone 1 IIB T4



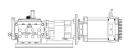
MT8 Pro Low Pressure (ATEX) with fixed ratio gearbox:

Select configuration from digits 1-18, do not select "MX" (digits 14-15).



MT8 Pro Low Pressure (ATEX) with manual adjust gearbox:

Select configuration as required digits 1-18, select "MX" (digits 14-15).



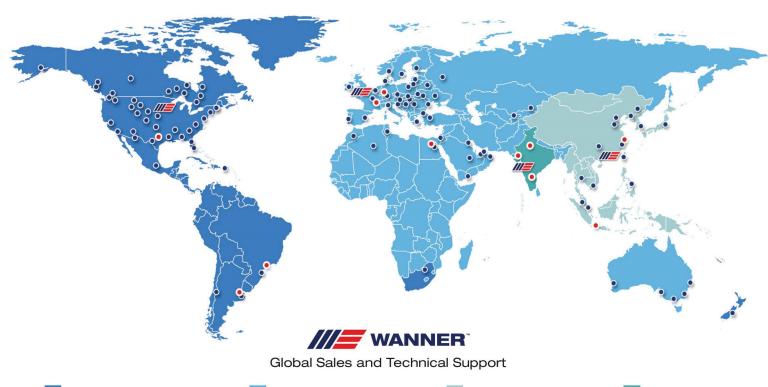
MT8 Pro Low Pressure (ATEX) solution for local and remote control:

Do not select "MX" (digits 14-15). Select configuration as required for digit 18.



<sup>\*\*</sup> Digit 18 option X: ATEX Zone 1 IIC T4

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