

Chemical Metering Pumps



Mahr Metering Systems Corporation

Advantages of Mahr Gear Pumps

- Constant pulse-less flow
- Adjustable flow rate via Variable Frequency Drive
- Critical tolerances for minimum slippage
- High reliability
- Corrosion resistant materials of construction

Specifications

- Flow rate from 0.16 cc/rev–27.8 cc/rev
- Discharge pressure—to 70 bar (1,000 psi)
- Viscosity up to 35,000 cp
- Metering accuracy—maximum flow rate variation $\pm 1\%$ (by volume)
- Outlets 1 or 2

Materials of Construction

AISI 440 c — high chromium and molybdenum alloyed steel, similar to stainless steels, but it can be hardened. Excellent for processing very corrosive chemical substances.

AISI M2 — a high-speed tool steel with additions of molybdenum, chromium, vanadium, and tungsten. Offers excellent wear resistance and high-temperature stability.

Sealing Options — EPDM, FKM, NBR, PTFE, UHMWPE

Applications

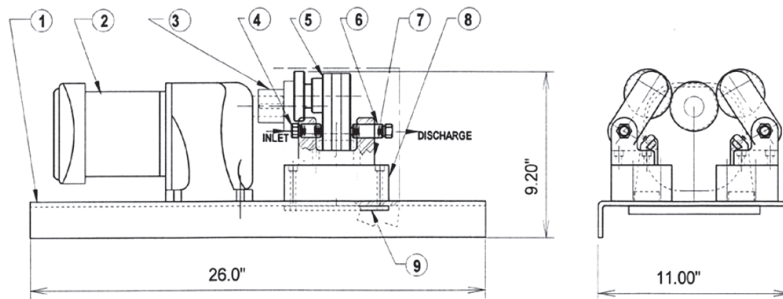
- Paints
- Solvents
- Oils
- Thin viscosity adhesives
- Resins
- Fuels
- Coatings



A closer look

Mahr's Chemical Pumps have been a major part of the chemical industry for over 20 years. The chemical pump is an excellent choice to economically meter chemicals at pressures under 1000 psi and viscosity up to 35,000 cp.

The chemical pump is ideal for metering many thin viscosity products and considered ideal for sanitary applications, and in food grade applications where 440 stainless steel is acceptable. Food grade seals are also available.



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|---------------------------|----------------------|
| 1) Base plate | 6) Discharge fitting |
| 2) Gear motor | 7) Pump block |
| 3) Outer drive gear | 8) Shim block |
| 4) Inlet fitting | 9) Cleat |
| 5) Chemical metering pump | |

Control Package

Combining a Mahr chemical pump with a variable speed drive enables the operator to vary the flow rate of the pump upon demand. This provides process control which exceeds any other low-cost chemical metering system on the market today. This design also allows one or two pumps to run simultaneously from one motor and controller.



Characteristic Data

single-stream RV pumps

application	pumping and metering of miscellaneous liquids
ports	inlet : \varnothing 9.7 mm (0.382") diameter outlet : \varnothing 5.5 mm (0.216") diameter
outlet pressure	up to 70 bar (1000 psig)
differential pressure	up to 60 bar (870 psi)
recommended speed	10 - 60 rpm (for 10 - 100 poise viscosity liquid)
rotation direction	counterclockwise (viewed at drive side)
operating temperature	up to 120°C (250°F)
torque for bolts	seal screws (M5 x 0.8) : 8 Nm binder screws (M6 x 1) : 12-13 Nm
pump capacities, cc/rev (listed by drawing #)	TC-1215 : 0.297 TC-1216 : 0.584 TC-1217 : 1.168 TC-1218 : 1.752 TC-1219 : 2.92 TC-1033 : 5.6 TC-1034 : 11.2 TC-1277 : 20.2 TC-1510 : 27.8

Mahr recognizes every customer as its worldwide partner



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