

Trust Macnaught

Established in 1948, Macnaught has a 60 year tradition of excellence in manufacturing. Macnaught began marketing flowmeters in 1965 and has been manufacturing oval gear flowmeters since the early 1990's. Our decades of experience have resulted in a simple, robust, and highly accurate family of flowmeters that are optimised to suit a broad range of applications and markets. Macnaught offers optimised solutions for Fuel and Oil measurement, Bulk Fuel Custody Transfer, Corrosive Chemicals, Solvents, and a wide variety of other industrial liquids.

With full ISO 9001 and 14001 accreditation, you can be secure in the knowledge that quality and environmental responsibility are at the forefront of every decision at Macnaught.

Trust Macnaught to deliver the performance, value, and reliability required in today's most demanding environments. With distributors in over 60 countries and global sales support, Macnaught has become a global leader in fluid management solutions. Our focus on oval gear flow measurement reflects our commitment to excellence in providing optimised solutions for fluid management applications.

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macnaught flow measurement



corrosive chemical flow meters

macnaught flow measurement

The **CR** range from **Macnaught** are a family of positive displacement oval gear flowmeters that are **optimised for corrosive chemical measurement** applications.

Macnaught Corrosive Chemical meters are constructed utilising a **PTFE/PSS blend** suitable for use in aggressive chemical environments. We will also soon add a **PVDF version** to provide chemical compatibility in applications where PSS is not suitable.

Our Unique **bearing-less Rotor design** provides **exceptionally low pressure drop** and can even be used in gravity fed applications. This unique rotor design utilises PTFE/PPS blended advanced material, ensuring minimal wear and resulting in many years of reliable service. This approach has proven over time to provide consistently accurate flow measurement that is not affected by variations in temperature, viscosity, or pressure.

Another benefit of our unique rotor design is simplicity of repair. With only **2 moving parts**, our meters are simple to repair, require minimal repair parts stock, and can even be repaired inline, resulting in less downtime.

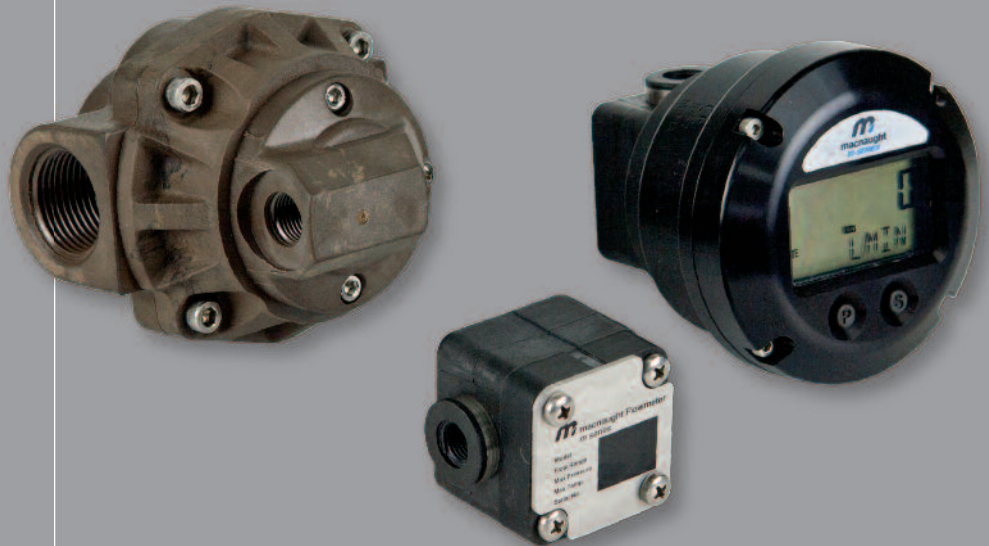
The positive displacement meter technology provides **excellent batch accuracy** (0.03% repeatability) and is **not affected by pulsating flow**, high viscosity, or low conductivity. This technology is also ideal for **dispensing and dosing** at extremely **low flow rates and small batch sizes**.

Oval Gear flowmeters do not require any flow conditioning or straight piping runs before or after the meter, so they **can be installed in tight spaces** without any sacrifice in performance.

With **9 digital display options** to choose from, Macnaught flowmeters are the perfect choice with outputs and displays to suit virtually any application requirement.

Applications

- Laundry Chemicals
- Additive Injection
- Water Treatment
- Corrosive Chemical Dispensing
- Chemical Batching
- Chemical Packaging and Blending



Meter Selection

Step 1 Verify Fluid Compatibility & Application Conditions

Determine if your fluid is compatible with the wetted parts of the meter. All Wetted parts are made from: FFKM, PPS, and Hastelloy C. Also determine if the Pressure and Temperature are within the stated limits.

Tips: If you need a mechanical register or have a high pressure application, you may be able to use our 316SS industrial meters, which come in high pressure models and are available with mechanical registers.

Step 2 Choose the model based on your flow rate (see Flow Range Chart)

Tips: If possible, choose a meter model where your expected flow rates fall between 20-80% of the maximum flow range for optimum performance. If you are measuring a high viscosity fluid (over 1000cp), the maximum flow range will be lower. You should consult the factory if you are unsure which model you need.

Step 3 Choose your connection thread type

Tips: For flanged meters, we offer 316SS Industrial meters, which are available with a variety of optional flange adaptors.

Step 4 Choose Pulse Output options

Tips: Choose a pulse output if you want to use a digital display. The Digital displays are listed in the next step and can either be mounted on the meter or remotely. Our standard pulse output comes with both hall effect sensor and reed switch outputs. If you are installing the meter in a hazardous environment, you can choose option "2" which will give you 2 reed switches, which classifies the output of the meter as a "simple device".

Step 5 Choose Accessories (See Chart 1,2,&3)

Tips: All of our digital displays can be mounted either locally on the meter itself, remotely on a wall, on a panel, or nearby on the piping. Just choose the functions you need and the housing type you require.

Part Number Selection

| | | | | |
|----|--|---------------------|----------------------------|--|
| CR | Chemical Flow Meters (PPS) | | | |
| CK | Chemical Flow Meters (PVDF) Available mid-2011 | | | |
| | Model | Nominal Size | Flow Range | Max Pressure |
| | 006 | 1/4" | 0.5-100 lph/ 0.13-26.4 gph | 10 Bar 150PSI |
| | 009 | 1/4" | 15-500 lph/ 4-132 gph | 10 Bar 150PSI |
| | 012 | 1/2" | 2-30 lpm/ 0.5-8 gpm | <i>(available mid-2011)</i> |
| | 025 | 1" | 3-80 lpm/ 0.8-21 gpm | 10 Bar 150PSI |
| | | Port Type | | |
| | | 2 | BSP (Rp) | Model 025 Only |
| | | 2 | NPT | |
| | | 4 | BSP (Rc) | N/A on Model 025 |
| | | | Rotor Type | |
| | | | S | Standard |
| | | | | Display Type |
| | | | | 1 Electronic Pulse Meter (Reed & Hall Effect) |
| | | | | 2 Reed Switch Only- for Hazardous Location Service |
| C | 009- | 1 | S | 1 |



Chart 1

Digital Displays

| Meter Mounted Displays | DR | DRA | ER | ERA | ERB | ERS | ERX | ERAX | ERBX |
|--------------------------------|------|------|------|------|------|------|------|------|------|
| Total | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Resettable Total | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | |
| Flow Rate Display | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | |
| Pulse Output | | ■ | | | | ■ | | | |
| 4-20 ma Output (Passive) | | ■ | | ■ | | | | ■ | |
| 4-20 ma Output (Active) | | | | | | ■ | | | |
| Batch Control (Relay Out) | | | | | ■ | | | | |
| Batch Control (Transistor Out) | | | | | | | | | ■ |
| Net Use Function | | | | | | ■ | | | |
| Intrinsic Safety | | | | | | | ■ | ■ | ■ |
| Aluminium Housing IP67 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Plastic Housing | | | | | | | | | |
| Digit Size (mm/ in.) | 12mm | 12mm | 17mm | 17mm | 17mm | 17mm | 17mm | 17mm | 17mm |

Flow Range Chart

flow rate liters per minute

