

Smartflow



**Smartflow** Fluid Control, Ejector Couplings and Mould Safety

Cool, connect and protect your mould with Smartflow



# Aluminium Manifolds

High quality and manufactured to exacting standards. One piece extrusion and anodized for corrosion protection.

- Predrilled for easy mounting
- Anodized for corrosion protection
- Interlocking bodies (3/4" to 1-1/2")
- Bespoke to your porting requirements
- 3/4" to 2" BSPP Supply - 1/4 to 1" BSPP Ports
- Available with connectors, ball valves and flow meters



For more information and full technical specification visit:  
[www.invotecsolutions.co.uk/smartflow](http://www.invotecsolutions.co.uk/smartflow)

## Smartflow Duoflow™ Manifolds

Duoflow Manifolds are robust extruded aluminium manifolds similar to the original Smartflow one-piece design. The manifolds are divided internally and anodized for long term protection.

The Duoflow design is available with standard port spacing or a shorter footprint specifically for mounting directly to an injection mould tool.

- Shorter Length for easier mounting directly to injection moulds
- Mould-Mount to speed up mould changes
- Economical, Proven Design for reliability
- Optional Quick Disconnect Fittings for convenience and ease of installation



*Significantly reduce tool change times!*

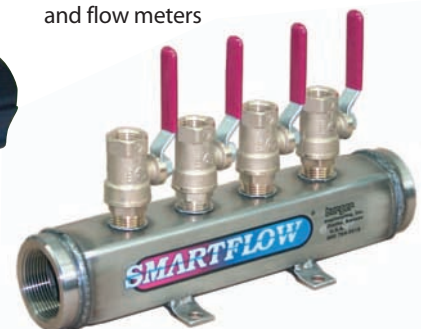


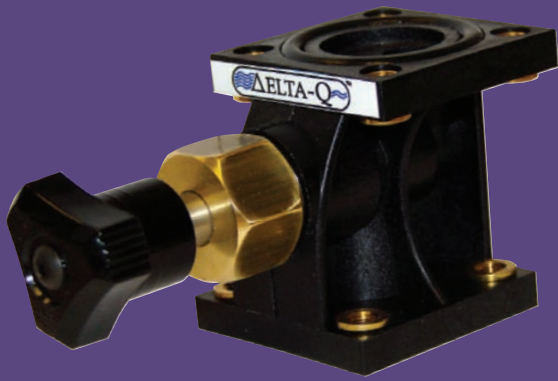
## Stainless Steel Manifolds

304SS construction giving you corrosion and chemical protection.



- Leak tested
- Single or parallel
- Chemical protection
- Predrilled for easy mounting
- Bespoke to your porting requirements
- 3/4" to 1-1/2" BSPP Supply - 1/4 to 1/2" BSPP Ports
- Available with connectors, ball valves and flow meters



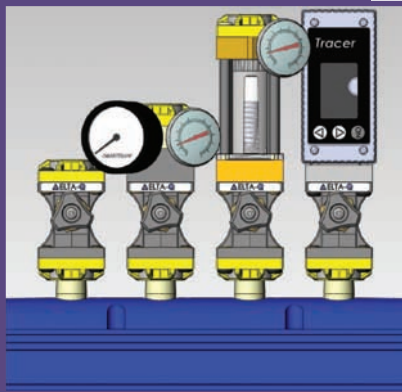


# Delta-Q Modular Flow Regulator

Delta-Q Modular Flow Regulator is used in conjunction with other Smartflow® components such as threaded end caps, flowmeters, temperature and pressure gauges, Tracer Electronic Flowmeters or Dr. Eddy Turbulent Flow Indicators.

The Delta-Q Regulator allows full adjustability of flow volume from unrestricted flow to complete shut off using the manual flow control knob.

- Compact size works well in restricted-space locations.
- Rugged construction gives years of dependable service.
- 210°F (99°C) Temperature Rating allows installation into a wide range of applications.



- Common Flowmeter Configurations Stocked to provide same-day delivery in many cases.
- No Mounting Restrictions ease installation in any position without extra brackets or hardware.
- Leak-Free installation is based on proven flowmeter design.



## Mechanical Flow Meters

Compact solid brass or aluminium construction with Polysulfone windows.



- Temperature rating to 115°C
- Anodized corrosion resistance
- Pressure rated to 100 psi (6.89 bar)
- Optional thermometer and pressure gauge
- Liquid-filled pressure gauge also available



## Hot Water/Oil Flowmeters

Stainless steel construction to 288°C

- Throughput 6 gpm (us)
- Temperature rating to 288°C
- All stainless steel construction
- Pressure rated to 150 psi (10.34 bar)

## Hot Oil Flowmeters

Safety and performance to 288°C

- Throughput 40 gpm (us)
- Temperature rating to 288°C
- Stainless steel internal parts
- Pressure rated to 150 psi (10.34 bar)
- Body carbon steel with black oxide (1") supply





## Flow Regulators

Inline or manifold mounted

- Leak free design
- Solid Brass Body
- Needle valve control
- Optional Temperature gauge
- Temperature rating to 115°C
- Pressure rated to 150 psi (10.34 bar)



## Mould Temperature Regulators

Accurate Mould heating control with no power or floor space required.

- No Power required
- Very low running costs
- Inlet 1/4" - Outlet 1/2"
- Temperature control 27° to 49°C
- Pressure rated to 125 psi (8.6 bar)
- Unaffected by water pressure changes
- Unaffected by supply temperature changes
- Nickel plated brass and 303 stainless steel construction

# Tracer<sup>®</sup> Electronic Flowmeters

Digital process control, local and remote signal outputs

- All model 3/8" to 2" BSP(P) supply
- 2-418 litres per minute
- Display of Temperature, Flow and BTU's
- Temperature and flow alarms
- Local display, remote alarm,\* and variable output\*
- Temperature rating to 110°C
- 100 psi (6.89 bar) or 150 psi (10.34 bar) 3/8" only

\* see table

Model	DD	NEW DDS
8-28VDC	×	✓
Battery powered	✓	×
Brass nickel plated body (3/8" model only)	✓	✓
Aluminium anodized body	✓	✓
Temp.Flow and BTU monitor	✓	✓
Temp.or Flow SDPT switch output	×	✓
Temp or flow analogue output to pc process	×	✓



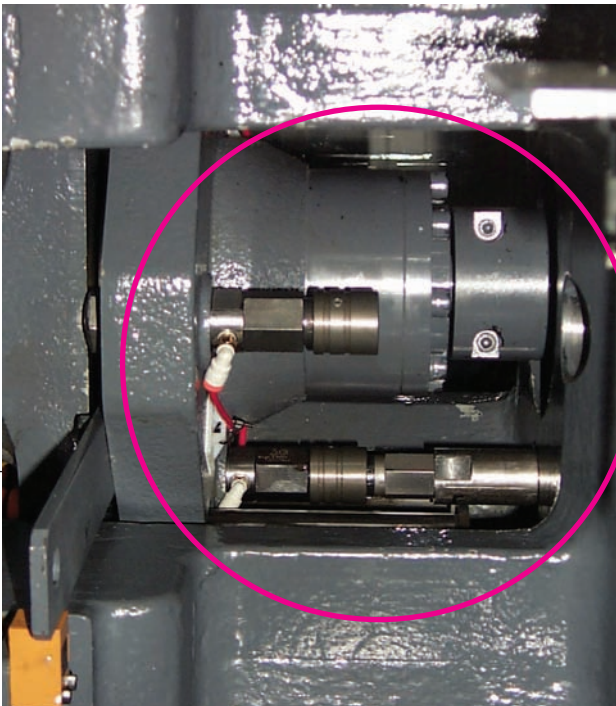
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# FasTie® Ejector fast connectors

Automatically lock your ejector to tooling with fast pneumatic release.



- Flexible modular system
- Hardened steel components
- Super Fast mould changes
- No mould or ejector modifications required
- Ejector force 2.5 tonnes (1") 7.5 tonnes (2")
- Space saving connectors only 1" or 2" diameter



## Dr Eddy Diagnoses Flow Conditions

NEW! Dr. Eddy™ Featuring Fluid Characteristic Indication (FCI) Technology

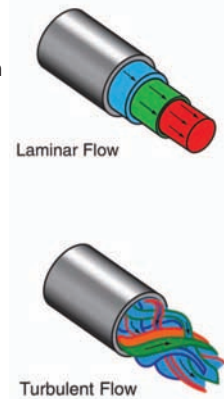
"Takes Care of Water and Energy Conservation"

Not just a flowmeter, but a tool to help conserve cooling water resources. In moulding applications, many mould operators try to maximize the flow of water through their cooling systems to ensure turbulent flow. Doing so increases energy costs for pumping more water than necessary through the system. This practice may also limit the amount of cooling water available for additional presses on the same cooling circuit.



Using FCI Technology, Dr. Eddy displays the condition of the water as it relates to flow efficiency: laminar flow, transient flow, or turbulent flow.

- Brass or Reinforced Nylon Ends with 1/4" or 3/8" NPT or British Parallel Threads
- Scales in English or Metric Units
- Polysulfone Sight Glass
- Standard Dual-Scale Temperature Gauge
- Optional Quick-Disconnect Fittings
- Max. Operating Temperature: 210°F/99°C
- Max. Pressure: 100 psi/6.9 bar



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## Ferrogard™

Magnetic port filtration keep your mould cooling channels clear and increase your cycle time.

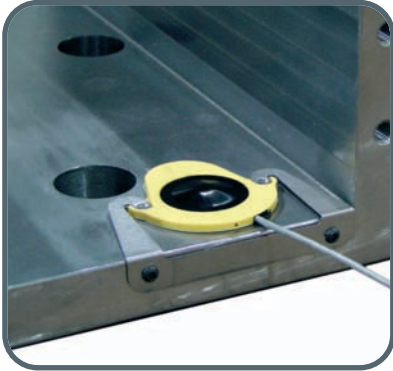
- Solid brass end caps
- Magnets C5C8 Ferrite
- Negligible pressure drop
- Collector plates Nickel plated steel
- Decreased wear in pumps, heaters and chillers
- Reduced tool and hydraulic system maintenance



# Mould Safety Switches

A complete suite of ejector plate and core protection switch, potentially saving you thousands in broken tooling.

## EJECTOR PLATE THIN SWITCHES



### The Global Thinswitch®

- 2 minute fitting. (No milling necessary)
- Liquid resistant
- **ONLY 3 or 4mm Thick**
- Over 14 million cycle life
- Temperature max. 79.4°C @ 70 mA load



### Thinswitch®

- 3/16" Thick
- Over 10 million cycle life
- Temperature max. 79.4°C @ 2 A load
- Optional Liquid Resistant model available
- Optional High Temperature model max. 121.1°C @ 3.5 A load



## CORE SAFETY SWITCHES

### Smartlock® Core slide retainer and limit switch

- Over 10 million cycle life
- 17-27 pounds holding force
- Superior flush mounted switch
- Temperature max. 79.4°C @ 2 A load
- Optional High Temperature model max. 121.1°C @ 3.5 A load

## The SWAP® Valve

Empty your mould tool of water in seconds.

- Full port design
- No water to dispose
- Body 360 solid brass
- Environmentally friendly
- Valves discs 303 stainless steel
- Significantly reduce tool change times
- Protect tools from corrosion during storage



For more information contact your local distributor

Affix distributor stamp here.

Discover us at:  
[www.invotecsolutions.co.uk](http://www.invotecsolutions.co.uk)

In the event there are no distributor details above, please contact:

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