# The GLASS Gazette



MAC Valves is releasing a breakthrough technology 21 line valve block reducing blank mould operator distance.

This block includes the legendary MAC Valves 54 series with an innovative 3 position manual override.



In exactly 12 months, MAC Valves and its Distributors (the MDN- MAC DISTRIBUTOR NETWORK) will return to Düsseldorf for Glasstec 2014.

See you then in Düsseldorf from Oct 21st to Oct 24th, 2014. We are looking forward to meeting you there.

### October 21st, 2013



MAC Valves introduces a 100% drop in replacement for individual solenoids for 26 line valve blocks featuring all the latest MAC Valves innovation, such as the spool design and the bullet valve<sup>™</sup> pilot.

A diagnostic port has been added to monitor correct operation of the unit.





The MAC Valves Glass Gazette is MAC Valves Newsletter for the Glass Industry ■ TO FIND YOUR LOCAL DISTRIBUTOR, VISIT WWW.MACVALVES.COM Wixom, MI, USA – Liège, Belgium- Taoyuan, Taiwan – Penrose, Auckland, New Zealand • Date : October 21st, 2013

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## **NEW GENERATION 21 LINES** For Electro-Pneumatic Valve Block on IS Machines

- 100% drop in solution for replacement of conventional cartridge / pilot block.
- Quick-and-easy exchange feature.
- Strong resistance to contamination.
- High flow characteristics (5000 NI/min per valve).
- Highly reliable, accurate switching, increased reliability.
- Designed to work in harsh environments.
- Ergonomic design for easier maintenance operations - Reduced blank mould operator distance.
- Less downtime Increased production.
- NC/NO colour distinction.
- 3-position manual override facing the operator on the valve block.
- Green LED facing the operator on the valve block.
- 15° inclined position for better ergonomy.



### **CUSTOMER BENEFITS**

- ✓ Standard IS machine dimensions direct installation on to the existing speed control bar.
- ✓ 3/2-way valve with the new technology patented 4-way pilot develops maximum shifting forces both ways.
- ✓ Balanced design for high flow, high speed and high consistency (Not sensitive to pressure variations).
- $\checkmark~$  All valves with LED indicators facing the operator.
- ✓ Short stroke with the highest flow on the market (up to 5000 NI/min per valve) in a compact package.
- ✓ Spool technology eliminates use of cartridges.
- ✓ Robust positive manual override.
- ✓ Proprietary high temperature seals for long life time, resistance to high temperature and aggresive lubrication.
- ✓ Robust 3-position manual override (locked neutral on).

- ✓ Burn-out proof MAC solenoid, life time guarantee on coils.
- ✓ 100 million cycles (est.) MTBF life time.
- ✓ 100% interchangeable with existing solution.
- ✓ All types of electrical connectors available.
- Plug in solution internal wiring (inside the manifold) no flying leads or open tabs.
- Colour coded valve body to easily identify normally closed and normally open valves (Red = NC / Blue = NO).
- Reduced blank mould operator distance.
- Protective cover including operating, start and stop buttons, available on request.
- ✓ Repair kit available for the complete valve.

MAC Valves - Highly engineered solutions for the highest performing applications since 1948



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# **NEW GENERATION 21 LINES** For Electro-Pneumatic Valve Block on IS Machines

### **TECHNICAL DATA**

Fluid:	Compressed air, vacuum, inert gases
Pressure range :	External pilot 0 to 8 bar / 0 to 120 PSI
Pilot pressure :	2,5 to 8 bar / 37.5 to 120 PSI
Lubrication :	Not required if used select a medium aniline point lubricant (between 80°C and 100°C / 176°F and 212°F)
Filtration :	40 μ
Temperature :	-18°C to + 80°C / 0°F to 176°F
Orifice :	13,5 mm / 0.53 in
Flow (at 6 bar, $\Delta$ P=1bar):	5000 NI/min / Cv 5.0 (per valve)
Coil:	Epoxy encapsulated - class F wires - long energization
Voltage range:	-15% to +10% of nominal voltage
MOD. EM87:	Viton seals, spool an poppet - High temperature grease - Glass industry manual override design.

### **MAC SOLUTION - HOW TO ORDER**

Circuit bar:	
Normally closed valve:	
Normally open valve:	
Repair kit - NC & NO valves:	

CBM054 MOD EXXX (MOD is defined in function of the customer requirements) 54A-CC-000-DP-DEWP-4FM MOD EM87 54A-DC-000-DP-DEWP-4FM MOD EM87 K-54001 Mod. 446K

### **INNOVATIVE FEATURES**

15° Inclination Design

### **3-Position Manual Override**

NEUTRAL











LOCKED



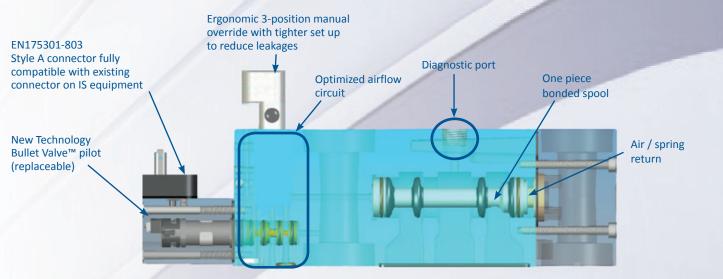


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## **NEW GENERATION HIGH FLOW** ndividual Solenoid Valve for 26 Line Blocks

- Drop-in solution.
- High flow characteristics (3000 NI/min) in a very compact package.
- No cartridges Spool technology for higher flow, less parts, more reliability
- Designed to work in harsh environments.
- MAC technology patented bullet valve pilot for a significant increase of the lifetime.
- High resistance to contamination and pressure variation.
- Highly durable, accurate switching, increased reliability.
- Fast switching response times.
- High temperature modification up to 80°C for complete valve (coil included).
- Less downtime Increased production.
- Fully repairable solenoid valve.
- Color code to indentify NO/NC valves (Red = NO / Blue = NC).
- Diagnostic port on valve body giving direct access into cylinder port for trouble shooting or diagnostic.

### **INNOVATIVE FEATURES**



### FULLY REPAIRABLE UNIT - 100% DROP IN SOLUTION

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# **NEW GENERATION HIGH FLOW** Individual Solenoid Valve for 26 Line Blocks

### **CUSTOMER BENEFITS**

- Balanced design for high flow, high speed and high consistency (not sensitive to pressure variations).
- High flow (3000 NI/min) for safer and better process accuracy.
- High speed valve: energized: 8 ms de-energized: 12 ms.
- ✓ Bonded spool with minimum friction, shifting in a glass like finished bore.
- ✓ No lubrication required.
- ✓ Wiping effect eliminates sticking.

- Proprietary high temperature seals for long life time, resistance to high temperature and aggresive lubrication.
- High temperature modification for solenoid.
- Burn out proof MAC solenoid, life time guarantee on coils.
- 3-position manual override facing the operator on the valve block.
- ✓ 100 million cycles (est) MTBF life time.

Fluid:		
Pressure range:		
Pilot pressure:		
Lubrication:		
Filtration:		
Temperature:		
Flow (at 6 bar, Δ P=1bar):		

**TECHNICAL DATA** 

Compressed air, vacuum, inert gases
External pilot 0 to 8 bar / 0 to 120 PSI
2,5 to 8 bar / 37.5 to 120 PSI
Not required if used select a medium aniline point lubricant (between 80°C and 100°C / 176°F and 212°F)
40 μ
-18°C to + 80°C / 0°F to 176°F
3000 NI/min - Cv 3.0
Epoxy encapsulated - Class F wires - Long energization
-15% to +10% of nominal voltage
Viton seals, spool and poppet - High temperature grease - Glass industry manual override design

### **MAC SOLUTION - HOW TO ORDER**

Normally closed valve: Normally open valve: Pilot valve: Repair kit:

Coil:

Voltage range: MOD. EM76:

> EMA-A1B-BV3-BFE0-CTR Mod. EM76 EMA-A2B-BV3-BFE0-CTR Mod. EM76 BV310A-CD1-00-BFEA-CTA Mod. 8468 Consult factory

### **ILLUSTRATION**



Previous solution



MAC Solution in situ

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