VESUVIUS reserves the right to modify and/or improve the equipment as described and specified in this leaflet, at any time according to the state-of-art. M-Type – patent applied for in various countries.

© copyright Vesuvius Group S.A. 2013-2015 all rights reserved. All product names in this brochure are trademarks or registered trademarks of the Vesuvius Group of companies.

For more information on this product and on our complete package of solutions please contact our local service center:
High precision electric stopper valve

The M-Type electric stopper valve improves the level stability in the mould by combining "all-in-one" the smoothness of ball bearing guiding and the performance of electric actuator.

**M-Type valve features**
- Ultra fast response time for better mould level stability
- Ball bearing guiding for precise and smooth flow control
- Performance consistency all year long
- Self-closure and manual operation possible when powered off
- Embedded, high resolution and non contact position feedback sensor
- Play free coupling between actuator and rigging
- Fully sealed design to prevent any dust introduction
- Improved safety: no oil burning risk
- Easy installation and operation
- Splitting of electric and mechanic functions for easy maintenance

**M-Type must be used with ACV drives**

**MQS120M**
- **A max**: 950 mm
- **B max**: 815 mm
- **Weight**: 122 kg

**MQS120ML**
- **A max**: 1200 mm
- **B max**: 1055 mm
- **Weight**: 180 kg

**MQS120MXL**
- **A max**: 1500 mm
- **B max**: 1335 mm
- **Weight**: 263 kg

* Without backplate and horizontal stopper arm.

**Stoper attachment system**

<table>
<thead>
<tr>
<th>Stopper Nose geometry</th>
<th>PIN-ROD</th>
<th>UNIROD</th>
<th>ARGOROD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single nose</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Conical</td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Apple</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

**Operation bench**

- Facilitates diagnosis and maintenance by user’s maintenance team
- Guarantees to send back to operation a valid valve system
- RFID creates maintenance records for each unit

**Wireless remote drive**

- Easier and safer mounting of the stopper with radio pendant
- Test of the valve before the tundish goes to the tundish-car

**Traceability with RFID tags**

- Easy traceability of working hours, events, alarms, previous maintenance on each unit
- Easy preventive maintenance organization

**Traceability with RFID tags**

- Easy traceability of working hours, events, alarms, previous maintenance on each unit
- Easy preventive maintenance organization

**Common to all models**

| Stroke (mm) | 120 |
| Peak effort (kgf) | 700 |
| Speed (mm/s) up to | 150 |

100% electric valve solution

**Stopper Nose geometry**
High precision electric stopper valve

The M-Type electric stopper valve improves the level stability in the mould by combining "all-in-one" the smoothness of ball bearing guiding and the performance of electric actuator

**M-Type valve features**

- Ultra fast response time for better mould level stability
- Ball bearing guiding for precise and smooth flow control
- Performance consistency all year long
- Self-closure and manual operation possible when powered off
- Embedded, high resolution and non contact position feedback sensor
- Play free coupling between actuator and rigging
- Fully sealed design to prevent active parts from dust
- Improved safety: no oil burning risk
- Easy installation and operation
- Splitting of electric and mechanic functions for easy maintenance

**Common to all models**

| Stroke (mm) | 120 |
| Peak effort (kgf) | 700 |
| Speed (m/min) up to 150 |

100% electric valve solution

**M-Type must be used with ACV drives**

**DEM9M secured on parking stand between sequences**

**MQS120M**

| A max (mm) | 950 |
| B max (mm) | 815 |
| Weight (kg)* | 122 |

**MQS120ML**

| A max (mm) | 1200 |
| B max (mm) | 1055 |
| Weight (kg)* | 180 |

**MQS120MXL**

| A max (mm) | 1500 |
| B max (mm) | 1335 |
| Weight (kg)* | 263 |

* Without backplate and horizontal stopper arm

**Stopper attachment system**

**Options for improved operation and maintenance**

**Traceability with RFID tags**

- Easy traceability of working hours, events, alarms, previous maintenance on each unit
- Easy preventive maintenance organization

**Test bench for maintenance shop**

- Facilitates diagnosis and maintenance by user’s maintenance team
- Guarantees to send back to operation a valid valve system
- RFID creates maintenance records for each unit

**Wireless remote drive**

- Easier and safer mounting of the stopper with radio pendant
- Test of the valve before the tundish goes to the tundish-car

**Stopper Nose geometry**

- **Single actuator**
- **Crossed**
- **Apper**

**MQS120M**

| PEIN | 10 | 500 | AIRGO100 |
| Cold furnace | ✔ | ✔ |
| Hot furnace | ✔ | ✔ |
| Slab and Fin Slab | ✔ | ✔ |
| Slab & Fin-Slab | ✔ | ✔ |
| Chugging insensitive | ✔ | ✔ |

**Options for improved operation and maintenance**

**Traceability with RFID tags**

- Easy traceability of working hours, events, alarms, previous maintenance on each unit
- Easy preventive maintenance organization

**Test bench for maintenance shop**

- Facilitates diagnosis and maintenance by user’s maintenance team
- Guarantees to send back to operation a valid valve system
- RFID creates maintenance records for each unit

**Wireless remote drive**

- Easier and safer mounting of the stopper with radio pendant
- Test of the valve before the tundish goes to the tundish-car

**Stopper Nose geometry**

- **Single actuator**
- **Crossed**
- **Apper**

**MQS120M**

| PEIN | 10 | 500 | AIRGO100 |
| Cold furnace | ✔ | ✔ |
| Hot furnace | ✔ | ✔ |
| Slab and Fin Slab | ✔ | ✔ |
| Slab & Fin-Slab | ✔ | ✔ |
| Chugging insensitive | ✔ | ✔ |

**Options for improved operation and maintenance**

**Traceability with RFID tags**

- Easy traceability of working hours, events, alarms, previous maintenance on each unit
- Easy preventive maintenance organization

**Test bench for maintenance shop**

- Facilitates diagnosis and maintenance by user’s maintenance team
- Guarantees to send back to operation a valid valve system
- RFID creates maintenance records for each unit

**Wireless remote drive**

- Easier and safer mounting of the stopper with radio pendant
- Test of the valve before the tundish goes to the tundish-car

**Stopper Nose geometry**

- **Single actuator**
- **Crossed**
- **Apper**
VESUVIUS reserves the right to modify and/or improve the equipment as described and specified in this leaflet, at any time according to the state-of-art. M-Type – patent applied for in various countries.

© copyright Vesuvius Group S.A. 2013-2015 all rights reserved. All product names in this brochure are trademarks or registered trademarks of the Vesuvius Group of companies.