

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Pneumatic Actuator**with type designation(s)
MT series

Issued to

EMME TECHNOLOGY S.r.l
Agrate Brianza, MB, Italy

is found to comply with

DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems
Offshore Standard DNV-OS-D101, Marine and Machinery Systems and Equipment**Application :****Product(s) approved by this certificate is/are accepted for installation on vessels classed by DNV GL.****Dsgn. press./Torque See page 2**Issued at **Høvik** on **2020-01-14**This Certificate is valid until **2025-01-13**.for **DNV GL**DNV GL local station: **Italy/Malta CMC**Approval Engineer: **Rob Oerlemans**

Zeinab Sharifi
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

Rack and pinion pneumatic actuator, double acting or spring return.

Housing: Aluminium 6005-T5 (6063) or T6 alternative treatment - EN 573.3
End flange: Aluminium EN AB 46100 - UNI EN 1676 e 1706- (Ex 5076) or ADC12 JIS H5302-1990
Screw: EN 10088-3 - X5CrNi18-10 (AISI 304)
Seals: Buna-N, Silicone, or Viton

Application/Limitation

This approval is related to the strength of parts subjected to internal pressure. Actuator functionality and output torque have not been subject to review.

Operating mediums are air or inert gas and no corrosion allowance is considered.

Temperature range:

- 20°C to 80°C with standard Buna-N nitrile seals.
- 50°C to 80°C with Silicone seals.
- 20°C to 120°C with Viton seals.

Type:	Cylinder internal diameter (mm)	Maximum allowable pressure (bar)	Volume (Litres)
MT03, MT05, MT07, MT15, MT17, MT20, MT25, MT30, MT35, MT40, MT45, MT50, MT55, MT60, MT65	Ø32, Ø47, Ø50 Ø60, Ø60, Ø77 Ø77, Ø95, Ø120 Ø120, Ø134, Ø170 Ø170, Ø218, Ø218	10	0.03, 0.07, 0.11 0.16, 0.20, 0.28 0.42, 0.57, 0.94 1.18, 1.68, 2.59 3.20, 4.86, 5.81
MT70, MT75	Ø270, Ø270	8	10.88, 13.33

The actuators have not been subject to fire testing.

Production testing

Each actuator is to be tested at 1.5 x the maximum allowable pressure before delivery.
Testing shall be witnessed by DNV GL when product certificate is required by society rules or purchaser.

Type Approval documentation

Tests carried out

Burst test

Marking of product

For traceability to this type approval the actuators are to be marked with:

- Manufacturer's name or trade mark
- Pressure rating and maximum torque
- Type designation

Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.