

TYPE EXAMINATION CERTIFICATE

This is to certify:

That the Pipe Support

with type designation(s)

MPC- , MPR-System (Pos. 001 - Pos. 065 / MPR- 41/21/2,0 BV, - 41/41/2,0 BV, - 41/41/2,5 BV),

Issued to

MÜPRO GmbH
Hofheim-Wallau, Germany

is found to comply with

GL Rules for Classification and Construction VI - Additional Rules and Guidelines Part 7 - Guidelines for the Performance of Type Approvals Chapter 8 - Test Requirements for Components and Systems of Mechanical Engineering and Offshore Technology

Application :

Product approved by this certificate is accepted for installation on all vessels classed by DNV GL.

Type:

MPC- , MPR-System (Pos. 001 - Pos. 065 / MPR- 41/21/2,0 BV, - 41/41/2,0 BV, - 41/41/2,5 BV)

Max. axial force:

According to manufacturers catalogue

Max. working temp.:

-60°C up to +110°C

Sizes:

According to manufacturers catalogue

Issued at **Hamburg** on **2016-03-23**

for **DNV GL**

This Certificate is valid until **2019-10-21**.

DNV GL local station: **Augsburg**

Approval Engineer: **Peter Gierhan**

Olaf Drews
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 Examination Certificate and not to the approval of equipment/systems installed.

Production Places

MÜPRO GmbH
Hessenstr. 11
65719 Hofheim-Wallau
GERMANY

Range of Application

The SUPPORT CHANNEL SYSTEM MPC / MPR in connection with the pipe clamps, fasteners and with threaded rods (length up to 140 mm) is approved for use in piping systems on ships and other structures classed by DNVGL. In case of threaded rods exceeding 150 mm in length a diagonal bracing is recommended.

Material Specification

Normal galvanized

Channel DX 51 D + Z275, S250 GD
Connectors S 235 JR
Pipe clamps S 235 JR

Material Hot-dip galvanized

Channel S 235 JR
Connectors S 235 JR
Pipe clamps S 235 JR

Material Stainless steel (A2/A4)

Channel 1.4301 / 1.4401 / 1.4404 / 1.4571
Connectors 1.4301 / 1.4307 / 1.4401 / 1.4404 / 1.4571
Pipe clamps 1.4301 / 1.4307 / 1.4401 / 1.4404 / 1.4571

LOAD SUPPORT CHANNEL SYSTEM MPC, MPR

Channel galvanized material Fyk = 250 [N/mm²], yield strength
Channel A2 material Fyk = 220 [N/mm²], yield strength
Channel A4 material Fyk = 240 [N/mm²], yield strength

Product Description

TECHNICAL DATA

Material Normal galvanized
Hot-dip galvanized
Stainless steel (A2/ A4)

Temperature range: - 60°C up to +110°C

Range of Application

The permissible operating temperatures are to be in accordance with the instructions of the manufacturer.

The SUPPORT CHANNEL SYSTEM MPC / MPR in connection with the pipe clamps, fasteners and with threaded rods (length up to 140 mm) is approved for use in piping systems on ships and other structures classed by DNVGL. In case of threaded rods exceeding 150 mm in length a diagonal bracing is recommended.

Application/Limitation

The use of the SUPPORT CHANNEL SYSTEM MPC / MPR outside the range of application is subject to special consideration by DNVGL in each individual case. The installation, operating and maintenance instructions of the manufacturer are to be strictly adhered to.

The selection of the SUPPORT CHANNEL SYSTEM for the corresponding application and the right installation are to be in accordance with the requirements of the manufacturer.

Type Approval Documentation

- Type Approval Assessment Report, dated: Test report no.: 2016-02.09
- Müpro-catalogue 2012
- DNVGL Ref-No.: 11-062067; DNVGL Ref-No.: 14-008338

Tests carried out

- Test reports: Vibration- and shock-test WTD 71 - 0019/2009, dated: 12.05.2009
- Test report no.: paconsult 12-4322, dated: 09.08.2012

Marking of Product

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

- Manufacturer's name or trade mark
- Type designation
- Size

Periodical Assessment

For retention of the type approval, a DNV GL surveyor shall perform a survey, every second year and before the expiry date of this certificate, to verify that the conditions for the type approval are complied with.