

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Structural Connecting Elements

with type designation(s)

Channel Systems incl. channels, brackets, connectors and accessories: MT, MQ-21, MQ-21D, MQ 21.5, MQ-41, MQ-41-L, Pipe Clamps: MP-MI, MP-MIS, MP-MI-F, MP-MRI, MP-MRXI, MP-MXI, MP-MXI-F, MP-U, MP-U-I

Issued to

Hilti AG
Schaan, Liechtenstein

is found to comply with

EN 1990:2002 Eurocode: Basis of structural design

EN 1991-1-1:2002 Eurocode 1: Actions on structures – Part 1-1: General actions – Densities, self-weight, imposed loads for buildings

EN 1993-1-1:2005 Eurocode 3: Design of steel structures – Part 1-1: General rules and rules for buildings

EN 1993-1-3:2006 Eurocode 3: Design of steel structures – Part 1-3: General rules – Supplementary rules for cold-formed members and sheeting

EN 1993-1-5:2006 Eurocode 3: Design of steel structures – Part 1-5: Plated structural elements

EN 1993-1-8:2005 Eurocode 3: Design of steel structures – Part 1-8: Design of joints

VdS 2344:2014 Procedure for the testing, approval, certification and conformity assessment of products and systems for fire protection and security technologies

VdS 2100-10:2018-02 VdS Guidelines for water extinguishing systems – Pipe fasteners – Requirements and test methods

VDE 0100-540:2012-06 Low-voltage electrical installations – Part 5-54: Selection and erection of electrical equipment – Earthing arrangements and protective conductors (IEC 60364-5-54:2011)

VDE 0660-600-1:2012-06 Low-voltage switchgear and controlgear assemblies – Part 1: General rules (IEC 61439-1:2011)

EAD 280016-00-0602:2018 Products for installation systems for supporting technical building equipment

VDMA 24364:2018-05 Testing for paint wetting impairment substances (LABS-conformity)

DIN EN ISO 9227:2017 Corrosion tests in artificial atmospheres – Salt spray tests

DIN 55635:2019-05 Paints and varnishes – Cyclic corrosion testing of coating systems on materials and components in automotive construction

ASTM D4169:16 Standard Practice for Performance Testing of Shipping Containers and Systems

EN 12825:2001 Raised access floors

CISCA Recommended Test Procedures for Access Panels (2007)

IEC 61914:2015-11 Cable cleats for electrical installations

2018, 2015, 2012, and 2009 International Building Code (IBC)

Application :

The HILTI-Channel-System and the HILTI-Pipe-Clamps are type approval for installation on board ships and other structures classed by DNV GL.



Job Id: **262.1-027595-2**
Certificate No: **TAS00002XE**

Issued at **Hamburg** on **2021-02-24**

This Certificate is valid until **2023-07-07** .

for **DNV GL**

DNV GL local unit: **Essen**

Approval Engineer: **Ana Cristina Do Carmo Insfran**

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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 Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

HILTI - Channel System

Type designation: MT, MQ-21, MQ-21D, MQ 21.5, MQ-41, MQ-41-L are made of either galvanized steel or stainless steel. The channel system contains the installation channels, brackets, connectors, and accessories.

Materials:

Galvanized Steel	Material	Standard
	S 250 GD	DIN EN 10346
	GTW45	DIN 1692
	DD11 MOD	HN 547
	S 355 J2	DIN EN 10025-2
	S 355 MC	DIN EN 10149-2
	S 280 GD	DIN EN 10346
	S350 GD+ZM310 A-C	EN10346
	Q235B	GB/T 700 2007.2
	Q355B	GB/T 1591
	S280GD+Z275-M-A-C	DIN EN 10346 2009.7
	S280GD+ZM310 A-C	EN 10346
	S460MC	DIN EN 10149-2 1995.11
	Prop. class 8.8	ISO 898-1
	C10B21	SAE J403 2001.11
	SWRCH35 K	JIS G 3507-1

Hot- dip galvanized (HDG / HDG plus)	Material	Standard
	S 235 JR	DIN EN 10025
	S 235 JRG2	DIN EN 10025
	EN-GJMW-450-7	DIN EN 1562
	C4C	DIN EN 10263
	DD11	DIN EN 10111

Stainless Steel (A2 / A4)	Material	Standard
	1.4571/1.4404	EN 10088, AISI 316Ti, AISI 316L
	1.4301	EN 10088
	1.4581	DIN EN 10283
	1.4401	DIN 17440

HILTI - Pipe Clamps

Type designation: MP-MI, MP-MIS, MP-MI-F, MP-MRI, MP-MRXI, MP-MXI, MP-MXI-F, MP-U, MP-U-I are made of either galvanized steel or stainless steel with rubber EPDM or TPE inlay material. The pipe clamp system contains the pipe clamps and accessories.

Materials:

Steel	Material	Standard
	S235JR	DIN EN 10025
	S235JR + C	DIN EN 10025-2
	1.4571/1.4404 (A4)	EN 10088, AISI 316Ti, AISI 316L
	DD11	DIN EN 10111
	DC01 MOD	HN 703
	DD11 MOD	HN 555-5

Application/Limitation

Channel System intended to be fastened on ceilings, walls, structures.

Pipe Clamps intended to fasten pipes with diameters $\leq$ DN250.



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Marking of product

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

- Manufacturers name or trademark
- 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 Type Approval are complied with. Refer to DNVGL-CP-0338, Sec.4.

- The certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnvgl.com>

END OF CERTIFICATE