

# Certificate Of Fire Approval

This is to certify that the product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

<b>Manufacturer</b>	<b>Hilti AG</b>
<b>Address</b>	Feldkircherstrasse 100, Liechtenstein, FL 9494
<b>Type</b>	CABLE AND PIPE PENETRATION (STANDARD FIRE TEST)
<b>Description</b>	Multi Cable/Pipe Penetration Types: "Hilti Penetration Transit" in steel bulkheads and decks.
<b>Trade Name</b>	Hilti Penetration Transit
<b>Specified Standard</b>	IMO Res. MSC.307 (88)-(2010 FTP Code) Annex 1 Part 3 IMO MSC/Circ.1120 IMO MSC.1/Circ.1488

This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register Canada Limited of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document and its supplementary Type Approval Terms and Conditions form part of this Certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.

1330 Enclave Parkway, Houston, Texas, 77077,  
United States

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**Bruce McDonald**

Fire & Safety Lead Specialist to  
Lloyd's Register North America, Inc.  
A member of the Lloyd's Register group

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**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR2072813SF-02**

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions, and this Design Appraisal Document forms part of the Certificate.

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**TEST REPORTS**

ZAG, Slovenian National Building and Civil Engineering Institute, test report reference P0474/17-530-1 dated 24<sup>th</sup> April 2018, reference P0474/17-530-2 dated 25<sup>th</sup> April 2018, P1139/17-530-1 dated 29<sup>th</sup> May 2018, P1139/17-530-2, dated 5<sup>th</sup> June 2018, P1139/17-530-3 dated 11<sup>th</sup> June 2018 and P1139/17-530-4 dated 18<sup>th</sup> June 2018.

Warrington Fire Gent, Ottergemsesteenweg-Zuid 711, B-9000 Gent, Belgium, test report number 19039A dated 21<sup>st</sup> June 2018, 19040A dated 21<sup>st</sup> June 2018, 19210A dated 7<sup>th</sup> August 2018, 19289A dated 20<sup>th</sup> November 2018, 19041A dated 28<sup>th</sup> June 2018, 19288A dated 20<sup>th</sup> November 2018, 19290A dated 20<sup>th</sup> November 2018, 19444A dated 16 January 2019 and 19540A dated 14<sup>th</sup> March 2019.

**APPROVAL DOCUMENTATION**

1. Hilti Installation drawings;
  - a) PDA Design A-60 Steel Bulkhead - Cable CF-S-T Rectangular Frames (39 pages)
  - b) PDA Design A-60 Steel Bulkhead - Cable CFS-T Round plugs (10 pages)
  - c) PDA Design A-60 Steel Bulkhead - Pipe CFS-T Rectangular Frames (24 pages)
  - d) PDA Design A-60 Steel Bulkhead - Pipe CFS-T Round plugs (3 pages)
  - e) PDA Design A-60 Steel Deck - Cable CFS-T Rectangular Frames (54 pages)
  - f) PDA Design A-60 Steel Deck - Cable CFS-T Round plugs (16 pages)
  - g) PDA Design A-60 Steel Deck - Pipe CFS-T Rectangular Frames (21 pages)
  - h) PDA Design A-60 Steel Deck - Pipe CFS-T Round plugs (3 pages)
  - i) PDA Design A-0 Steel Bulkhead (23 pages)
  - j) PDA Design A-0 Steel Deck (34 pages)
2. Hilti witness test report WGT CFS-T291018-01 dated 29<sup>th</sup> October 2018
3. Hilti witness test report WGT CFS-T070219-01 dated 7<sup>th</sup> February 2019

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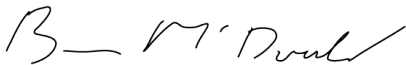
**CONDITIONS OF CERTIFICATION**

1. For use in A-0, A-15, A-30 and A-60 Steel bulkhead and decks
2. **Hilti Modular System for rectangular multi cable transits:** Frame Type “CFS-T SS/SSF” and CFS-T SSR/SSF+RF/SSR/R30 - rectangular steel frame welded or bolted into a steel bulkhead or deck: Sizes 1,2, 4, 6 & 8 and multiples thereof. Up to a maximum size of 8x8x2 or 8x5. For insulation arrangements refer to drawings referenced above. Frame variants CFS-T SBF, CFS-T SSk and CFS-T SSbtb (back to back arrangement) up to a maximum size of 8x2 are also acceptable with approved insulation arrangements. CFS-T EX and CFS-T EMC Modules are also acceptable.
3. **Hilti Modular System for circular multi cable transits:** Frame Type “CFS-T SLF RR/RRS, CFS-T RR,RRS” - circular steel frames welded or bolted into a steel bulkhead or deck: minimum size 50 & maximum size 200. CFS-T RR EMC are also acceptable.
4. A CFS-T bst SB/SS 2x1 penetration successfully underwent a pneumatic pressure test of 7 bar and a hydrostatic pressure test of 11 bar. A CFS-T SSF 8x 1 penetration successfully underwent a pneumatic pressure test of 3 bar and a hydrostatic pressure test of 4.5 bar.
5. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure that items are of the same standard as the approved prototype
6. The certificate holder is solely responsible for the products supplied under this Certificate and to ensure that their products, whether manufactured by themselves or their licensee manufacturers, if agreed by Lloyd's Register, are fully compliant with the relevant statutory regulations and Lloyd's Register Class rules as applicable and designed, manufactured and installed to the same quality and specifications as the prototype tested, including components that are designed and manufactured by third parties
7. The test laboratory is solely responsible for all tests performed within the scope of this certificate and to ensure that the testing is conducted in full compliance with the relevant test standard, approved operational procedures, statutory regulations and Lloyd's Register requirements as applicable and to meet client objectives as per contractual agreements

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**PLACE OF PRODUCTION**

Hilti Production Plant 5



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**Supplementary Type Approval Terms and Conditions**

*This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).*