

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Penetrations through "A" class divisions: pipe, duct, trunk, etc penetrations

with type designation(s)

ACO PIPE A-0 PIPE PENETRATION

Issued to

**ACO Industries k.s.
Pribyslav, Czech Republic**

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2019/1397,**

item No. MED/3.26b. SOLAS 74 as amended, Regulation II-2/9, IMO MSC.1/Circ.1276, IMO 2010 FTP Code and IMO MSC.1/1488

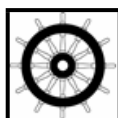
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-03-15.**

Issued at **Høvik** on **2020-03-16**

DNV GL local station:
Prague CMC

Approval Engineer:
Helge Bjørnarå



Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2019 dated February 22nd, 2019.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Product description

"ACO PIPE® A-0 PIPE PENETRATION"

Penetration system for ACO PIPE system pipes. The penetration pipe comes in six different versions; pipe penetration form T2, toilet penetration, flange penetration, penetration form R1B and AP sleeve penetration. The penetration pipe is welded to the division.

The penetration pipes are fitted with EPDM sealing material (manufactured by GBS srl, Italy) and socket clamps.

For further details, see drawings listed under Type Examination documentation below.

Application/Limitation

Approved for use as pipe penetration system in class A-0 steel bulkheads and steel decks (ref. tables below). Other applications are subject to case-by-case approval.

Table 1: A-0 steel deck

Version	Pipe size (OD) [mm]	Insulation	Rating
Pipe penetration form T2	40 - 160	None	A-0
Toilet penetration	40 - 50	None	A-0
Flange penetration	40 - 110	None	A-0
Penetration form R1B	40 - 110	None	A-0
AP sleeve penetration	50	None	A-0

Table 2: A-0 steel bulkhead

Version	Pipe size (OD) [mm]	Insulation	Rating
Pipe penetration form T2	40 - 160	None	A-0
Toilet penetration	40 - 50	None	A-0
Flange penetration	40 - 110	None	A-0
Penetration form R1B	40 - 110	None	A-0
AP sleeve penetration	50	None	A-0

Each product is to be supplied with its manual for installation and maintenance.

Type Examination documentation

Test report no. Pr-19-2.0004n-En dated 4 April 2019 from PAVUS, Veseli n.L. Czech Republic.

Test report no. Pr-19-2.0037n-En dated 4 April 2019 from PAVUS, Veseli n.L. Czech Republic.

Test report no. Pr-19-2.117n-En dated 6 September 2019 from PAVUS, Veseli n.L. Czech Republic.

Pipe penetration form T2:

- dwg No. T1-P014-490-00-00, Rev.004, from maker
- dwg No. T1-P014-492-00-00, Rev.005, from maker
- dwg No. T1-P014-494-00-00, Rev.004, from maker
- dwg No. T1-P014-495-00-00, Rev.003, from maker

Toilet penetration:

- dwg No. T1-P014-697-00-00, Rev.A, from maker
- dwg No. CZ-004434-00-00 from maker

Flange penetration:

- dwg No. CZ-004485-00-00 from maker
- dwg No. T1-P014-3170-00-00, Rev.000, from maker
- dwg No. T1-P014-637-00-00 from maker
- dwg No. T1-P014-653-00-00 from maker
- dwg No. T1-P014-654-00-00, Rev.002, from maker

Job Id: **344.1-001445-3**
Certificate No: **MEDB00005GR**

Penetration form R1B:

- dwg No. CZ-004444-00-00 from maker
- dwg No. T1-P014-1226-00-00, Rev.004 from maker

AP sleeve penetration:

- dwg No. T1-P014-513-00-00, Rev.D, from maker
- dwg No. T1-P014-515-00-00, Rev.D, from maker

Tests carried out

Tested according to IMO 2010 FTP Code Part 3.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire technical rating, the Mark of Conformity and USCG approval (see first page).