

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Flexible Hoses of Non-Metallic Material with Permanently Fitted Couplings

with type designation(s)

AT8S, MTH1LT, MTK Marine, MTKM Marine, OL7 Marine, VE8 Marine, VE8M Marine, HOG

Issued to

ZEC S.p.A.
Colorno PR, Italy

is found to comply with

DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems

DNVGL-OS-D101 – Marine and machinery systems and equipment, Edition January 2018

DNV GL class programme DNVGL-CP-0183 – Type approval – Flexible hoses

Application :

Product(s) approved by this certificate is/are accepted for installation on vessels classed by DNV GL.

Type:	Temperature range:	Max. working press.:	Sizes:
AT8S	see certificate	413 bar	3/16", 1/4" & 3/8"
MTH1LT	see certificate	70 bar to 325 bar (see certificate)	3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 1" & 1-1/4"
MTK Marine	see certificate	200 bar to 700 bar (see certificate)	3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" & 1"
MTKM Marine	see certificate	275 bar to 800 bar (see certificate)	1/4", 3/8", 1/2", 5/8", 3/4", 1" & 1-1/4"
OL7 Marine	see certificate	70 bar to 250 bar (see certificate)	1/8", 5/32", 3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" & 1"
VE8 Marine	see certificate	145 bar to 420 bar (see certificate)	1/8", 3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" & 1"
VE8M Marine	see certificate	250 bar to 700 bar (see certificate)	5/32", 3/16", 1/4", 3/8", 1/2", 3/4", 1" & 1-1/4"
HOG	see certificate	345 bar to 1034 bar (see certificate)	3/16", 1/4", 3/8", 1/2", 5/8", 3/4" & 1"

Issued at **Høvik** on **2018-12-27**

This Certificate is valid until **2022-06-20**.

for **DNV GL**

DNV GL local station: **Milan**

Approval Engineer: **Maheshraja Venkatesan**

.....
Marianne Spæren Marveng
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.

