



Certificate no.:
TAP000030R

TYPE APPROVAL CERTIFICATE

This is to certify:

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

with type designation(s)
2SN, 4SP, 4SH

issued to

Boss Paslanmaz Hidrolik Baglanti Elemanlari San. ve Tic. Ltd.Sti
Istanbul, Türkiye

is found to comply with

DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV-OS-D101 – Marine and machinery systems and equipment, Edition July 2021
DNV class programme DNV-CP-0183 – Type approval – Flexible non-metallic hoses

Application:

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

Type:	Temperature range:	Max. working press.:	Sizes:
2SN	See page 3	See page 3	DN5 to DN50
4SP	See page 3	See Page 3	DN6, DN10, DN12, DN16
4SH	See page 3	See Page 3	DN19 to DN50

Issued at **Høvik** on **2026-02-06**

This Certificate is valid until **2031-02-05**.

for **DNV**

DNV local unit: **Istanbul**

Approval Engineer: **Marc Avice**

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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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 USD 300 000.

Product description

Three (3) types of non-metallic flexible hose assemblies:

1- EN 853 Type 2SN

Hose assemblies designed & constructed according to EN 853 2SN comprising of

Tube	:	oil & glycol resistant synthetic rubber;
Reinforcement	:	2 layers of high tensile steel wire braid;
Cover	:	oil, abrasion and weather resistant synthetic rubber;
Coupling designations	:	Ferrule: BPHS1 / Insert: refer to Table 1 below.

2- EN 853 Type 4SP

Hose assemblies designed & constructed according to EN 856 4SP comprising of

Tube	:	oil & glycol resistant synthetic rubber;
Reinforcement	:	4 layers of spiral plies of steel wire wrapped in alternating directions. Each spiral wire ply shall be separated by an insulating layer of synthetic rubber;
Cover	:	oil, abrasion and weather resistant polyurethane;
Coupling designations	:	Ferrule: BPHS9 / Insert: refer to Table 2 below.

3- EN 853 Type 4SH

Hose assemblies designed & constructed according to EN 856 4SH comprising of

Tube	:	oil & glycol resistant synthetic rubber;
Reinforcement	:	4 layers of spiral plies of steel wire wrapped in alternating directions. Each spiral wire ply shall be separated by an insulating layer of synthetic rubber;
Cover	:	oil, abrasion and weather resistant synthetic rubber;
Coupling designations	:	Ferrule: BPHS9 / Insert: refer to Table 3 below.

Material of construction for end fittings

Stainless steel X6CrNiMoTi17-12-2/1.4571 or X2CrNiMo17-12-2/1.4404 according to (EN 10088-3)

Hose manufacturer:

Polimer Kaucuk San.ve Paz. A.S., Istanbul, Turkey

Coupling manufacturer:

Boss Paslanmaz – Mahallesi, Evliya Çelebi, Fedai Sk. No:15/1, 34944 Tuzla/Istanbul, Tyrkia

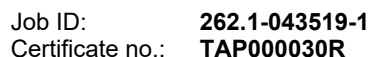
Assembly location:

Boss Paslanmaz – Mahallesi, Evliya Çelebi, Fedai Sk. No:15/1, 34944 Tuzla/Istanbul, Tyrkia

Application/Limitation

This certificate is valid for the specific assembly of hose and coupling type as specified, assembled and delivered by the assembling location stated in product description.

Maximum allowable work pressure (bar)						
HOSE SIZE		HOSE TYPE			HOSE END FITTING	HOSE END FITTING MATERIEAL
INCH	DN	EN 853 TYPE 2SN	EN856 TYPE 4SP	EN 856 TYPE 4SH		
3/16"	5	415	-	-	BPHM1, BPHM2, BPHM19, BPHM29, BPHB1, BPHB19, BPHJ1, BPHJ19, BPHNE1, BPHF2, BPHF29	1,4404 (316L) & 1,4571 (316Ti)
1/4"	6	400	450	-		
5/16"	8	350	-	-		
3/8"	10	330	445	-		
1/2"	12	275	415	-		
5/8"	16	250	-	-		
3/4"	19	215	-	420		
1"	25	165	-	380		
1 1/4"	32	125	-	350		
1 1/2"	38	90	-	290		
2"	50	78	-	250		

[illegible]

Dimensional Check Test, Change in Length Test, Leakage test, Cold flexibility test, Resistance against liquid, Cover adhesion test, Ozone resistance test, Fire resistance test and Impulse test.

Each hose assembly shall be hydrostatically tested at a hydrostatic pressure of 1.5 times the maximum working pressure and shall be delivered with the pressure test report with reference to this Type Approval certificate.

For traceability to this Type Approval, the products are at least to be marked with:

- hose manufacturer's name or trademark;
- date of manufacture (month/year);



Job ID: **262.1-043519-1**
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- designation type reference;
- nominal diameter;
- pressure rating;
- temperature rating.

Periodical assessment

This certificate is only valid if required periodical assessments are carried out with satisfactory results.

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNV-CP-0338.

To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>.