

TYPE APPROVAL CERTIFICATE

Certificate No:
TAP00001AU
Revision No:
3

This is to certify:

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

with type designation(s)
Parflex 575X, Parflex 575XN

Issued to

Parker Hannifin Corporation Parflex Division
Ravenna, OH, USA

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 :

Products approved by this certificate are accepted for installation on vessels classed by DNV.

Type:	Temperature range:	Max. working press.:	Sizes:
Parflex 575X	See page 2	345 bar	DN4, 6, 8, 12, and 16
Parflex 575XN	See page 2	345 bar	DN8 and DN10

Issued at **Høvik** on **2023-10-03**

for **DNV**

This Certificate is valid until **2028-06-30**.

DNV local unit: **New York**

Approval Engineer: **Sarah Miller**

Zeinab Sharifi
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 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 300,000 USD.



Product description

Thermoplastic high pressure hose with permanently fitted couplings designed according to manufacturers specification, constructed from the following materials :

Tube : Polymeric core
 Reinforcement : Multiple layers of synthetic fibre braids
 Outer cover : Thermoplastic abrasion resistance urethane cover (575X -4, -6, -12, and -16)
 Thermoplastic nylon cover (575XN -8 and -16)
 Couplings : Series CG and 15858XN-16-16C

Coupling Materials

Carbon Steel: 1.0736, 1.0737, 1.1193, 1.0301, 1.0402, 1.0044.
 Stainless Steel: 1.4305, 1.4301, 1.4404, 1.4401, 1.4571.

Hose manufacturing location:

Parker Hannifin Corporation Parflex Division
 Ravenna, OHIO, USA

Coupling manufacturing locations:

Zhejiang fitting machinery Co. Damaiyu Economic Devl Zone, Zhejiang, Yuhaun China 317604	CNC Precision Machine Inc. 18360 Industrial Circle Parkman, OH 44080
Lewis Unlimited, Inc 165 Jackson Drive Orange Village, OH 44022	Hycom Inc 374 STH Street NW Barberton, OH 44203
QP MFG. Group, LLC 215 Fifth Avenue Chardon, OH 44024	Universal Flexibles PVT LTD 2C, Dyavasandra Industrial Area 4 th Cross Whitefield Road, Mahadevapura post 560048 Bangalore, India
Strenzke Soemmerda De Am Oberwege 14 99610 Soemmerda, Germany	Parker Hannifin ES Muecke HPDE 5042 Freiherr-vom-Stein-Strasse 35325 Mucke, Germany

Application/Limitation

This certificate is valid for the specific assembly of hose and coupling type as specified, assembled and delivered by the holder (named as manufacturer) of this certificate.

Maximum allowable working pressure for corresponding size:

Size [mm (inch)]	6.4 (¼)	9.5 (3/8)	12.7 (½)	19.0 (¾)	25.4 (1)
MAWP [bar (psi)]	345 (5000)	345 (5000)	345 (5000)	345 (5000)	345 (5000)

Hose assemblies covered by this certificate may be used in systems conveying water based hydraulic fluids, fresh water and air in the below temperature ranges:

- water based hydraulic fluids: -40°C to +100°C, 575XN-16 rated from -40°C to +65.6°C
- water and air: 0°C to +70°C, 575XN-16 rated from 0°C to +65.6°C

Flexible hoses are only to be used in short lengths where it is necessary due to vibrations or flexible mounting of the machinery. The hoses shall not replace/be used where permanent piping is possible/required.

The hose assemblies must only be fitted in places where they are always accessible. Flexible hoses of these types are not to be used on boiler fronts.

The hoses are to be mounted in accordance with the manufacturer's instructions.

The cover of hoses for gaseous applications shall be pin-pricked

Hose type 575XN-16 can be delivered with splicing coupling 15858XN-16-16C.

The hose assemblies are not of fire-resistant type and are not approved for installation in piping systems for flammable media and sea water system where failure may result in flooding. This is not applicable in cases where such hoses are installed on open decks, as defined in SOLAS II-2/Reg. 9.2.3.3.2.2(10) and not used for fuel oil lines.

Production testing

All hose assemblies delivered under the DNV type approval scheme shall be subject to a pressure test at 1.5 times the maximum working pressure and shall be delivered with the pressure test report with reference to the type approval certificate.

Type Approval documentation

The approval is based on the following documentation:

- Manufacturers Catalogue 4660
- Burst test report no. 11905 dated 2017-12-12, witnessed by DNV Houston.
- Burst test report no. 13405 dated 2022-07-15, witnessed by DNV
- Type test report ER556H Rev. D, dated 2022-03-21
- Drawing no. 15858XN-16-16C - "58XN Series Splicer Assembly", dated 2021-10-18
- Renewal Burst test dated 2022-07-15

Tests carried out

Dimensional Check Test, Change in Length Test, Leakage Test, Proof Test, Burst Test, Cold Flexibility Test, Impulse Test, Fluid Resistance Test, Vacuum Test and Coupling End Pull.

Marking of product

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)
- Designation type reference
- Nominal diameter
- Pressure rating
- Temperature rating.

Periodical assessment

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.