



**TYPE APPROVAL CERTIFICATE**  
**No. MAC256919CS/002**

**This is to certify that the product identified below is in compliance with the regulations herewith specified.**

<b>Description</b>	<b>Non metallic flexible hoses</b>
<b>Type</b>	<b>H29 - H29TC - H29ST</b>
<b>Applicant</b>	<b>PARKER HANNIFIN MANUFACTURING SRL VIA G.B. PIRELLI, 6 22070 VENIANO (CO) ITALY</b>
<b>Manufacturer</b>	<b>PARKER HANNIFIN MANUFACTURING SRL</b>
<b>Place of manufacture</b>	<b>VIA G.B. PIRELLI, 6 22070 VENIANO (CO) ITALY</b>
<b>Reference standards</b>	<b>RINA Rules for the Type Approval of Flexible Hoses and Expansion Joints</b>

**Issued in Genoa on November 18, 2019. This Certificate is valid until November 17, 2024**

  
**RINA Services S.p.A.**  
**Marco Dardano**

**This certificate consists of this page and 1 enclosure**



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**Reference documents**

Parker Catalogue No. 4000.

**Reference Standard**

EN 856 - 4SH; ISO 3862 - 4SH.

**Materials/components**

**Lining:**

Synthetic rubber, oil resistant.

**Reinforcement:**

Four spirals of high tensile steel wire, separated by a synthetic rubber layer.

**Cover:**

Synthetic rubber, oil and weathering resistant.

TC = Tough Cover - highly abrasion resistant;

ST = Super Tough Cover - extreme abrasion resistant.

**End fittings:**

Carbon or stainless steel - series V4.

**Technical characteristics**

Maximum allowable working pressure at ambient temperature according to the following table:

Item	Nominal Diameter (mm)	Inside Diameter (mm)	Max. working pressure (MPa)
-12	20	19.1	42.0
-16	25	25.4	38.0
-20	32	31.8	32.5
-24	38	38.1	29.0
-32	50	50.8	25.0

Working temperature: from -40°C to +100°C

**Field of application**

Hydraulic systems with a hydraulic oil having a flash point not less than 150°C (closed cup test).

**Tests carried out**

Burst test (Test Report No. 14/GE/1387/01 dated 15/07/2014 of RINA Genoa Office).

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***Acceptance conditions***

The installation on board of the piping system is to be carried out by qualified personnel in accordance with the manufacturer's instructions.

The flexible hoses are to be installed in order to satisfy the requirements of para. 5.9.3 of Part C, Ch 1, Sec 10 of RINA Rules.

The acceptance of the a.m. products on board ships and other units classified with RINA is subject to the satisfactory outcome of testing as per RINA Rules.

For hoses assemblies to be used at temperatures below -10°C, couplings in stainless steel or normalized carbon steel are to be used.

The product (hose and fittings) is to be marked, for traceability, with the following data: nominal diameter, design conditions, Manufacturer's name or trademark, designation type reference.

***Remarks***

This certificate annuls and replaces the previous ones Nos. MAC086814CS/005 and MAC086814CS/006 issued on 19/09/2014.

**Genoa November 18, 2019**

