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## Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

<b>Manufacturer</b>	<b>PARKER HANNIFIN MANUFACTURING SRL</b>
<b>Address</b>	Via GB Pirelli 6, Veniano (CO), 22070, Italy
<b>Type</b>	Flexible Hoses
<b>Description</b>	Flexible hoses of non-metallic material with permanently fitted couplings
<b>Trade Name</b>	SR-SRI42
<b>Application</b>	Marine & Offshore
<b>Specified Standard</b>	Lloyd's Register Rules and Regulations for the Classification of Ships, July 2023 ISO 18752 ISO 3862 / EN 856 ISO 15540
<b>Ratings</b>	See Appendix
<b>Additional Tests</b>	<ol style="list-style-type: none"><li>1. Dimensional check</li><li>2. Adhesion cover and tube</li><li>3. Static pressure test</li><li>4. Change in length</li><li>5. Burst test</li><li>6. Impulse test</li><li>7. Cold flexibility test</li></ol>

*Sam Wang*

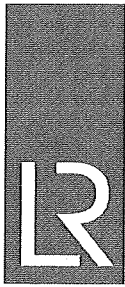
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**Sam Wang**  
Engineering Piping - Senior Specialist to  
Lloyd's Register EMEA  
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## Type Approval Certificate

8. Abrasion resistance test
9. Ozone resistance test
10. Fire resistance test

### Other Conditions

1. The use of flexible hoses should be restricted to short joining length only between various items of machinery and permanent piping systems where some degree of flexibility is essential.
2. Selection and installation to be in accordance with the producer's instructions and recommendations.
3. The flexible hoses should be fitted in readily visible positions.
4. Hose assemblies with coupling made of carbon steel are not to be used as temperature below -10 °C unless the material is normalized.
5. Hose assemblies covered by this type approval certificate are not to be installed in the systems subject to vacuum.
6. Materials for hoses and fittings are to be manufactured and tested in accordance with the requirements for Class I piping systems.
7. Each flexible hose with end fittings is to be provided with manufacturer's pressure test report and conformity of the production and the following details are to be permanently marked:
  - Manufacturer's name or trademark
  - Date of manufacture (month/year)
  - Designation type reference
  - Nominal diameter
  - Pressure rating
  - Temperature range

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document RTS-TA-PRJ11100422829/SMW and its supplementary Type Approval Terms and Conditions form part of this Certificate.



## Appendix

### Maximum allowable working pressure rating:

SR Construction	Inner tube: Synthetic rubber		
	Reinforcement: Four spiral high-tensile steel wire		
	Cover: Synthetic rubber		
Part Number	DN	Maximum Working Pressure (MPa)	Fitting Series
SR45-6	10	45	Series 70
SR35-8	12	35	Series 77
SR35-10	16	35	Series 77
SR35-12	19	35	Series 77
SR35-16	25	35	Series 77
SR35-20	31	35	Series 77
SR29-24	38	29	Series 73
SR25-32	51	25	Series 73

SRI42 Construction	Inner tube: Synthetic rubber		
	Reinforcement: Four or six spiral high-tensile steel wire		
	Cover: Synthetic rubber		
Part Number	DN	Maximum Working Pressure (MPa)	Fitting Series
SRI42-8	12	42	Series 77
SRI42-10	16	42	Series 77
SRI42-12	19	42	Series 77
SRI42-16	25	42	Series 77
SRI42-20	31	42	Series 77

**Temperature Range:** -40 °C up to +120 °C (+100 °C only for Size 6)

Exception: Air Max 70 °C

Water Max 85 °C

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Expiry Date: 1/7/2029  
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PRJ11100422829/SMW

## LLOYD'S REGISTER TYPE APPROVAL – DESIGN APPRAISAL DOCUMENT

Issued by: ROTTERDAM TECHNICAL SUPPORT OFFICE

Issued to: Parker Hannifin Manufacturing S.r.l.

For: Flexible Hoses of Non-Metallic Material with Permanently Fitted Couplings

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System Procedure TA14 Version 04 (September 2020) and this Design Appraisal Document forms part of the Certificate.

### APPROVAL DOCUMENTATION

Manufacturers hose layline and specifications, drawing Nos.:-

<u>Drawing No.</u>	<u>Rev.</u>	<u>Title</u>
Parkrimp No-Skive Hose_SR	-	Manufacturer's hose specification SR
Parkrimp No-Skive Hose_SRI42	-	Manufacturer's hose specification SRI42

### TEST REPORTS

Test specification (SR-6) No. 011-23.....	dated 30/06/2023
Test specification (SR-8) No. 012-23.....	dated 30/06/2023
Test specification (SR-10) No. 013-23.....	dated 30/06/2023
Test specification (SR-12) No. 014-23.....	dated 30/06/2023
Test specification (SR-16) No. 015-23.....	dated 30/06/2023
Test specification (SR35-20) No. 016-23.....	dated 30/06/2023
Test specification (SR29-24) No. 017-23.....	dated 30/06/2023
Test specification (SR25-32) No. 018-23.....	dated 30/06/2023
Test specification (SRI42-8) No. 016-23.....	dated 30/06/2023
Test specification (SRI42-10) No. 017-23.....	dated 30/06/2023
Test specification (SRI42-12) No. 018-23.....	dated 30/06/2023
Test specification (SRI42-16) No. 019-23.....	dated 30/06/2023
Test specification (SRI42-20) No. 020-23.....	dated 30/06/2023
Burst Test Sheet (SR45-6) No. 3581, witnessed by DNV.....	dated 04/07/2023
Burst Test Sheet (SR35-10) No. 3582, witnessed by DNV.....	dated 04/07/2023
Burst Test Sheet (SR35-16) No. 3583, witnessed by DNV.....	dated 04/07/2023
Burst Test Sheet (SR19-24) No. 3609.....	dated 06/12/2023
Burst Test Sheet (SRI42-8) No. 3584, witnessed by DNV.....	dated 04/07/2023
Burst Test Sheet (SRI42-16) No. 3585, witnessed by DNV.....	dated 04/07/2023
Impulse Test Report (SR-6) No. P0072BC-23.....	dated 04/05/2023
Impulse Test Report (SR-8) No. P0072B-23.....	dated 04/05/2023
Impulse Test Report (SR-10) No. P0072BC-23.....	dated 04/05/2023
Impulse Test Report (SR-12) No. P0064B-23.....	dated 20/04/2023

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PRJ11100422829/SMW

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Impulse Test Report (SR-16) No. P0054A-23.....	dated 31/03/2023
Impulse Test Report (SR-20) No. P0004A-23.....	dated 07/02/2023
Impulse Test Report (SR29-24) No. P0066A-23.....	dated 06/07/2023
Impulse Test Report (SR25-32) No. P0067A-23.....	dated 25/05/2023
Impulse Test Report (SRI42-8) No. P0072BF-23.....	dated 04/05/2023
Impulse Test Report (SRI42-10) No. P0072BD-23.....	dated 04/05/2023
Impulse Test Report (SRI42-12) No. P0064A-23.....	dated 20/04/2023
Impulse Test Report (SRI-16) No. P0054A-23.....	dated 31/03/2023
Impulse Test Report (SRI42-20) No. P269A-14.....	dated 31/03/2023
Fire Resistance Test Report No. 1416-1417-1418-2318.0IS0210/23.....	dated 11/01/2024
Fire Resistance Test Report No. 1419-1421-1798-2329.0IS0210/23.....	dated 11/01/2024
Production Quality Assessment Form PQA (Contract No. PRJ11100407801-1).....	dated 28/04/2023

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**Supplementary Type Approval Terms and Conditions**

*Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.*

*Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.*

*Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations. Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.*

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