



## 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>Aalberts integrated piping systems B.V.</b>
<b>Address</b>	Oude Amersfoortseweg 99, Hilversum, 1212 AA, Netherlands
<b>Type</b>	Mechanical Pipe Joints
<b>Description</b>	System of polypropylene coated (outside) or galvanized (outside) carbon steel pipes (E195) and compression (press type) couplings (E195 - 1.0034) sealed by butyl rubber (EPDM) or Viton O-ring. Compression and reshape to be achieved with special crimping tools.
<b>Trade Name</b>	VSH XPRESS CARBON STEEL, Press Type
<b>Application</b>	Use in non-essential piping systems on ships, classed or intended for classification with Lloyd's Register.
<b>Specified Standard</b>	LR Rules and Regulations for the Classification of Ships, July 2024. IACS Unified Requirements P2.11, 2023 (Rev.6, October 2023) (vacuum, burst, tightness, fire endurance, vibration, pull-out tests) EN 10305, EN 10893-1.
<b>Ratings</b>	Pipe and Fitting Sizes: 12x1.2 mm, 15x1.2 mm, 18x1.2 mm 22x1.5 mm, 28x1.5 mm 35x1.5 mm, 42x1.5 mm, 54x1.5 mm 76.1x2.0 mm 88.9x2.0 mm 108x2.0 mm

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### Max Pressures:

16 bar (12-54 mm)  
12.5 bar (76.1 mm)  
10 bar (88.9-108 mm)  
10 bar (for compressed air, all sizes)  
7 bar (for steam, all sizes)

### Temperature Range:

-20°C to 200°C (Green Viton O-ring)  
-35°C to 135°C (Black EPDM O-ring)

### Other Conditions

Use for fuel piping systems (gaseous or liquid) in domestic applications (heating, fireplace, galley, etc.) is not allowed.

Application in non-essential piping systems conveying flammable liquids is not allowed.

VSH XPRESS system is not allowed to pass through tanks or to be connected to ship's side as an overboard discharge for all services.

Bend radius of carbon steel pipes to be not less than 3D (D = outer diameter of pipe)

The manufacturer's list of the chemical resistance of the piping components is to be observed.

The selection of fittings, pipes and O-rings for the corresponding application and the right mounting with the stipulated pressing tools is to be in accordance with the manufacturer's instructions.



## Type Approval Certificate

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.

**Previous Version:** LR2003808TA-02

The Design Appraisal Document LR25304289TA\_DAD and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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