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PED TEST REPORT

Prepared For:	Guangdong Lianshu Valve Co., Ltd. No. 83, Xining Avenue, Ducheng Town, Yunan County, Yunfu City, Guangdong Province, China
Manufacturer:	Guangdong Lianshu Valve Co., Ltd. No. 83, Xining Avenue, Ducheng Town, Yunan County, Yunfu City, Guangdong Province, China
Product Name:	Water pipe and waterway fittings
Trade Name:	LESSO
Model:	DS03-DN15
Additional models	LSK081220, DS03-DN15, ST02-DN15, WT02-DN15, NS02-DN15, QZ-BW-20S-Q5
Prepared By:	Jilin Zhongfu Testing Technology Service Co., Ltd. Room 519, School of Mechanical and Electrical Engineering, Building 4, Changchun Institute of Technology, 395 Kuangping Road, Chaoyang District, Changchun City, Jilin Province, China
Test Date:	Sep. 2, 2026 To Sep. 9, 2026
Date of Report:	Sep. 10, 2026
Report No.:	ZF580730SQ00378SR

TEST REPORT DECLARATION

Applicant	:	Guangdong Lianshu Valve Co., Ltd.
Address	:	No. 83, Xining Avenue, Ducheng Town, Yunan County, Yunfu City, Guangdong Province, China
EUT Description	:	Water pipe and waterway fittings
Model Number	:	DS03-DN15
Test procedure	:	- Essential characteristics - The regulation of Pressure Equipment Directive 2014/68/EU(PED), Annex I, Paragraph 4.3 - Declaration of Conformity

Test reference standards:

- EN 10204:2004
- EN 10241:2000

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Prepared by: _____
Assistant

Tested by: _____
Test Engineer

Reviewer: _____
Supervisor

Approved & Authorized Signer: _____
Manager

ZHONGFU TESTING LABORATORY APPROVED

EN 10204:2004 Metallic products -Types of inspection documents

Clause	EN 10204 Requirement/Test items	Remark	Verdict
1	Scope		-
1.1	This document specifies the different types of inspection documents supplied to the purchaser, in accordance with the requirements of the order, for the delivery of all metallic products e.g. plates, sheets, bars, forgings, castings, whatever their method of production.	Pipes and fittings	Pass
1.2	This document may also apply to non-metallic products.	Metal product	N/A
1.3	This document is used in conjunction with the product specifications which specify the technical delivery conditions of the products. NOTE 1 The list of information that may be included in the inspection documents can be found in appropriate documents, e.g. EN 10168 for steel. NOTE 2 Annex A gives a summary of the different inspection documents.		Pass
2	Terms and definitions		-
3	Inspection documents based on non-specific inspection		-
3.1	Declaration of compliance with the order “type 2.1” Document in which the manufacturer declares that the products supplied are in compliance with the requirements of the order, without inclusion of test results.	Type 3.1	N/A
3.2	Test report “type 2.2” Document in which the manufacturer declares that the products supplied are in compliance with the requirements of the order and in which he supplies test results based on non-specific inspection.	Type 3.1	N/A
4	Inspection documents based on specific inspection		-
4.1	Inspection certificate 3.1 “type 3.1” Document issued by the manufacturer in which he declares that the products supplied are in compliance with the requirements of the order and in which he supplies test results. The test unit and the tests to be carried out are defined by the product specification, the official regulation and corresponding rules and/or the order. The document is validated by the manufacturer’s authorized inspection representative, independent of the manufacturing department. It shall be permissible for the manufacturer to transfer on to the inspection certificate 3.1 relevant test results obtained by specific inspection on primary or incoming products he uses, provided that the manufacturer operates traceability procedures and can provide the corresponding inspection documents required.	The provided documents is functional	Pass
4.2	Inspection certificate 3.2 “type 3.2” Document prepared by both the manufacturer’ s authorized inspection representative, independent of the manufacturing department and either the purchaser’s authorized inspection representative or the inspector designated by the official regulations and in which they declare that the products supplied are in compliance with the requirements of the order and in which test results are supplied. It shall be permissible for the manufacturer to transfer on to the inspection certificate 3.2 relevant test results obtained by specific inspection on primary or incoming products he uses, provided that the manufacturer operates traceability procedures and can provide the corresponding inspection documents required.	Type 3.1	N/A
5	Validation and transmission of inspection documents The inspection document shall be validated by the responsible person(s) (name and position). The retention and transmission of documents shall be either in electronic data or paper form.	In electronic form	Pass
6	Transmission of inspection documents by an intermediary An intermediary shall only pass on either an original or a copy of the inspection documents provided by the manufacturer without any alteration. This documentation shall be accompanied by suitable means of identification of the product, in order to ensure the traceability between the product and the documentation. Copying of the original document is permitted, provided that:	Without any alteration	Pass

Clause	EN 10204 Requirement/Test items	Remark	Verdict
	- traceability procedures are operated; - the original document is available on request. When producing copies it is permissible to replace the information on the original delivered quantity by the actual delivered partial quantity.		

EN 10241:2000 Steel threaded pipe fittings

Clause	EN 10241Requirement/Test items	Remark	Verdict
1	Scope This European Standard specifies requirements for threaded fitings of nominal sizes from DN 6 to DN 150inclusive, made out of welded or seamless steel tubes, forging and rolled bars. It is applicable to those threaded steel pipe fittings that are used in the transportation and distribution of liquid or gas.	Water pipe and waterway fittings are within the scope	**Pass**
2	Normative references		-
3	Terms and definitions		-
4	Designation The fitting in accordance with this European Standard shall be designated by the following in the sequence shown: 1) type of fitting (see Tables 7 to 24); 2) reference to this European Standard (EN 10241); 3)either nominal size (DN), or thread size. Fittings which have the same nominal sizes (DN) are designated only with that DN (see example 1). EXAMPLE 1: For an equal female elbow with DN 50 run, the designation will be: Elbow - EN 10241 - DN 50 Fitting which has difering nominal sizes shall be shown as in the sequence 1-2 where 1 refers to the run and 2 refers to the branch or the reduction (see examples 2 and 3). EXAMPLE 2: For a reducing tee with DN 50 run and DN 25 branch, the designation will be: Reducing tee - EN 10241 - DN 50 x DN 25 EXAMPLE 3 For a bush with DN 40 and a reduction DN 25, the designation will be: Bush - EN 10241 - DN 40 x DN 25	The designation is accessible	**Pass**
5	Information to be supplied by the purchaser		-
5.1	Mandatory information The following information shall be supplied by the purchaser, at the time of enquiry and/or order: 1) the quantity to be delivered; 2) the designation (see clause 4).	The information is negotiated	**Pass**
5.2	Options A number of options are specified in this European Standard and they are listed below. In the event that the purchaser does not indicate a wish to implement any of these options at the time ofenquiry and/or order, the fittings shall be supplied in accordance with the basic specification. 1) Taper internal thread type Rc conforming to ISO 7-1 2) Parallel external thread type GA or GB conforming to ISO 228-1 3) Parallel internal thread type G conforming to ISO 228-1 4) Zinc protective coating (see 8.2) 5) Leaktightness test (see 9.1) 6) Special packaging (see clause 11) 7)Inspection document 2.1 (see clause 12)	The information is negotiated	**Pass**
6	Technical requirements		-
6.1	Fitting manufacture Dimensions and tolerances of differing types of fittings shall be as given in Tables 5 to 24.	Fulfilled	**Pass**
6.2	Surface condition The fitting shall have a smooth surface consistent with the manufacturing process and be free from burrs; surface marks may be ground. Unless otherwise specified in the Tables 11 and 12, the female thread entrance shall be chamfered.	Smooth surface	**Pass**

<table>
<tr><th>Clause</th><th>EN 10241Requirement/Test items</th><th>Remark</th><th>Verdict</th></tr>
<tr><td></td><td>Repairs by welding, other than the weld seam, are forbidden.</td><td></td><td></td></tr>
<tr><td>6.3</td><td>Material</td><td></td><td>-</td></tr>
<tr><td>6.3.1</td><td>Chemical composition
The fitting shall be manufactured from steel having the chemical composition indicated in Tables 1 and 2
Table 1 - Chemical composition of seamless steel fittings
<table>
<tr><th>C max.
%</th><th>S max.
%</th><th>P max.
%</th></tr>
<tr><td>0,25</td><td>0,35</td><td>0,09</td></tr>
</table>
Table 2 - Chemical composition of fabricated fittings and tubulars
<table>
<tr><th>C max.
%</th><th>Mn max.
%</th><th>P max.
%</th><th>S max.
%</th></tr>
<tr><td>0,25</td><td>1,40</td><td>0,045</td><td>0,045</td></tr>
</table></td><td>The material is functional</td><td>Pass</td></tr>
<tr><td>6.3.2</td><td>Mechanical properties
The fitting shall be manufactured from base material having the mechanical properties indicated in Tables 3 and 4. These properties shall not be subject to verification on the fitting.
Table 3 - Mechanical properties of seamless steel fittings
<table>
<tr><th>Tensile strength min.
N/mm^2</th><th>Elongation min.
%</th></tr>
<tr><td>320</td><td>20</td></tr>
</table>
Table 4 - Mechanical properties of fabricated fittings and tubulars
<table>
<tr><th>Tensile strength min.
N/mm^2</th><th>Yieds strength min.
N/mm^2</th><th>Elongation min.
%</th></tr>
<tr><td>320</td><td>195</td><td>20</td></tr>
</table></td><td>The material has the performance</td><td>Pass</td></tr>
<tr><td>6.4</td><td>Threads
Internal threads shall be parallel and external threads shall be taper conforming to ISo7-1, except for certain tubulars in Tables 21, 23 and 24 or when the purchaser specifies other types of thread (see 5.2, option 1 or 2or 3); in this case the type of thread shall be identified.</td><td>Functional</td><td>Pass</td></tr>
<tr><td>7</td><td>Dimensions and tolerances</td><td></td><td>-</td></tr>
<tr><td>7.1</td><td>Dimensions
Fittings shall have the appropriate dimensions given in Tables 6 to 24.</td><td>Meet the requirements</td><td>Pass</td></tr>
<tr><td>7.2</td><td>Tolerances
tolerances
When tolerances are not specified in Tables 5 to 24, dimensions are nominal and subjected to manufacturing</td><td>Meet the requirements</td><td>Pass</td></tr>
<tr><td>7.2.1</td><td>Tolerances on length of fitting
The tolerances on the overall length of the fitting, centre to face, centre to centre and back to face dimensions are given in Table 5.
Table 5 - Tolerances
Dimensions in mm
<table>
<tr><th>Dimension</th><th>Up to and including 25</th><th>Over 25 to 40</th><th>Over 40 to 65</th><th>Over 65 to 75</th><th>Over 75 to 150</th><th>Over 150</th></tr>
<tr><td>Tolerance</td><td>+1,5
0</td><td>+3,0
0</td><td>+4,5
0</td><td>+6,0
0</td><td>+8,0
0</td><td>+10,0
0</td></tr>
</table></td><td>Meet the requirements</td><td>Pass</td></tr>
</table>

Clause	EN 10241Requirement/Test items	Remark	Verdict
7.2.2	Tolerances on diameters Unless otherwise stated in tables, the tolerances on outside diameters are given in Table 6		**Pass**
7.2.3	Tolerance on threads The axis of screw threads shall be accurate within 0,5° of the specified angle for fittings described in Tables 7 to 23 and +1,5° for fittings described in Table 24.	Within the limit	**Pass**
8	Protection		**-**
8.1	General The fitting shall be supplied black and shall be protected by a protective coating, e.g. light oil.	Protected when delivery	**Pass**
8.2	Zinc protective coating When a zinc protective coating is specified by the purchaser (see 5.2, option 4), one of the methods given in 8.2.1 to 8.2.3 shall be applied, at the discretion of the manufacturer.		**Pass**
8.2.1	Hot dip zinc galvanizing Galvanizing of fitings shall be performed before the thread cutting operation and shall be by means of thehot dip method. The minimum average coating thickness shall be 55 pm on the outside of the fitting, with alocal average of 45 um on 100 mm2. The hot dip zinc bath shall contain not less than 98,5 % pure zinc.		**Pass**
8.2.2	Electro zinc plating Electro zinc plating shall be performed on the finished black fitting. The minimum coating thickness on the outside of the fitting shall be 8 um.		**Pass**
8.2.3	Zinc flake Zinc flake non-electrolically applied cured coating shall be performed on the finished black fitting. The coating thickness on the outside of the fitting shall be between 5 um to 10 um. NOTEThe zinc coating thickness can be checked with an electronic and/or magnetic appliance		**Pass**
9	Inspection and testing		**-**
9.1	Leaktightness test Each fitting, after being threaded, shall be capable of withstanding, without any signs of leakage, the hydrostatic or air test as specified in clauses 9.1.1 and 9.1.2. This test shall only be carried out when specified by the purchaser at the time of enquiry and/or order (see 5.2, option 5).	No leakage after all test	**Pass**
9.1.1	Hydrostatic test Hydrostatic test, using water or light oil as a medium.		**Pass**
9.1.1.1	Tubulars These shall be tested to a minimum internal pressure of 50 bar.		**Pass**
9.1.1.2	Fabricated fittings These shall be tested to a minimum internal pressure of 75 bar.		**Pass**
9.1.1.3	Seamless fittings These shall be tested to a minimum internal pressure of 150 bar.		**Pass**
9.1.2	Air test Air test, with the fitting fully immersed in water or light oil as a medium. Tubulars, fabricated fittings and seamless fittings shall be tested to a minimum internal air pressure of 7 bar.		**Pass**
9.2	Inspection of threads		**-**
9.2.1	Inspection method Threads manufactured in accordance with ISO 7-1 shall be verified in accordance with ISO 7-2. Threads manufactured in accordance with ISO 228-1 shall be verified in accordance with ISO 228-2.		**Pass**
9.2.2	Thread electro zinc plating Where fittings have been electro zinc plating, this can result in the thread being covered in uneven particles of zinc; these particles may be removed with a plug or a brush.		**Pass**
10	Marking The manufacturer's brand or logo shall, depending on the size of fittings, either be	Proper markings attached	**Pass**

Clause	EN 10241Requirement/Test items	Remark	Verdict
	applied on a label attached on the packaging or be marked indelibly on each fitting.		
11	Packaging Unless special packaging is specified by the purchaser at the time of enquiry and/or order (see 5.2 option 6), fittings shall be supplied, either singly or in sacks or bags		**Pass**
12	Inspection documents Fittings shall be delivered without an inspection document. At the request of purchaser (see 5.2, option 7), the manufacturer shall provide a certificate of compliance, in accordance with EN 10204 type 2.1.	Provided	**Pass**

Remarks

We have tested the above-mentioned products in accordance with the listed standards and confirm that they comply with the regulation Pressure Equipment Directive 2014/68/EU(PED).

Product Pictures

Water pipe and waterway fittings / DS03-DN15



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