



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. P-14223

This is to certify that the
Pipe System with Couplings

with type designation(s)
Xpress Copper & RYW Press Fittings With Leak before Press Feature

Manufactured by
Pegler Yorkshire Group Limited
LEEDS WEST YORKSHIRE, United Kingdom

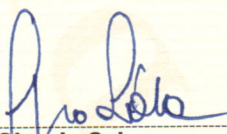
is found to comply with
Det Norske Veritas' Rules for Classification of Ships
Det Norske Veritas' Standards for Certification 2.9 No. 5-792.20

Application

The fittings may be used in piping systems onboard ships for fresh- and potable water, warm water heating and air conditioning systems (media: condensed water and water with ethylene glycol)

Temperature range: -24 to 120°C
Max. pressure: 10 - 16 bar (dep. size, see cert.)
Design:

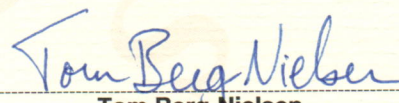
Høvik, 2012-09-10
for Det Norske Veritas AS


Giorgio Saia
Head of Section

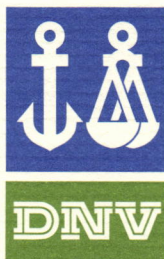


DNV local office:
Sheffield

This Certificate is valid until
2016-06-30


Tom Berg-Nielsen
Surveyor

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.
If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Certificate No.: P-14223
File No.: 791.10
Job Id.: 262.1-012986-1

Product description

Copper pressfittings with o-ring seal.

Manufactured at:

- 1) Yorkshire Fittings, Leeds, England
- 2) Yorkshire Fittings Gyártó Kft, Budapest, Hungary
- 3) Yorkshire Fittings Distribution (Assemble & Pack)

Material:

O-ring : EPDM
Fittings : Copper WNo. 2.0090 acc. DIN EN 1787 and
WNo. 2.1096.01 acc. DIN 1705

Fitting types:

Product Description	Art. No
Bend 90°	6090G
Bend 90°	6092G
Bend 90°, threaded end	6096G
Tee, threaded end	6130g
Adapter, male threads	6243g
Adapter, female threads	6246g
Adapter, female threads	6270f
Adapter, female threads	6270g
Adapter, male threads	6280g
Threaded conn, with pressfitting ends	6330
Stud end, female	6330g
Stud end, male	6331g
Threaded conn, with pressf. ends	6359
Bend 90, wall, female threads	6472g
Elbow 90°, wall, female threads	6472L
Elbow 90°	7001A
Elbow 90°	7002A
Elbow 45°	7040

Product Description	Art. No
Elbow 45° F/F	7041
Full cross over F/F	7085
Half cross over M/F	7086
Half cross over M/M	7087
Tee and Reduced Tee	7130
Reducer	7240
Reducer	7243
Straight	7270
Straight, long	7270S
End cap	7301
End plug	T301
End plug	T302
Cross 90°	61504//6
Cross 30°	61404//9
Double cross	63022//24
Double cross	63032//34
Double cross	63002//4
Double cross	63102//4
Double cross	62602//4

Application/Limitation

Maximum working pressure:

Size	Pressure	Pressing tool
DN10, 12, 15, 18, 22, 28 mm	16 bar	jaw
DN 35 mm	16 bar	jaw
DN 42, 54, 64, 76, 89, 108 mm	16 bar	collar

The piping system may not penetrate enclosed spaces below the freeboard deck (e.g. watertight- or fire bulkheads).
The components are to be mounted according to manufacturer's instructions.

Tabu



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The fittings are to be used with copper pipes according to EN1057 of the following dimensions:

Tube OD	Wt
12, 15, 18 mm	1,2 / 1,5 mm
22, 28, 35, 42 mm	1,5 mm
54 mm	2,0 mm
64, 76, 89, 108 mm	2,5 mm

The piping system can not be used:

- through ballast or fuel oil tanks.
- as air, overflow and sounding pipes for structural tanks.

Type Approval documentation

- Test reportno. 12 0354 8 98, 12 0354 8 98-11 dated 1998-06-26 from Materialprüfungsamt Nordrhein-Westfalen, Dortmund
- Testreport 398/2000 dated 2000-08-15 from Mannesmann Forschungsinstitut
- RYW Press Fittings, Technischer Katalog no. 364, March 2001
- RYW Press Fittings, Montageanleitung
- Drawingno TB-5000-001/-002/-003/-004 dated 2001-02-15
- DNV witnessed test report dated May 21, 2002
- DNV witnessed test surey/test report No. 261 7 0145
- Test report MPA NRW No.: 120001607-1 dated 2002-05-24, No.: 12000907 dated 2001-01-10
- Test report Danish Technological Institute No.: 192270 dated 2007-03-22

Tests carried out

Burst, vacuum, leakage, pull-out

Marking of product

For traceability with this type approval, each fitting is at least to be marked with:

- Manufacturers name or trademark
- Size

Certificate retention survey

For retention of the Type Approval, a DNV Surveyor shall perform a survey - every second year and before the expiry date of this certificate - to verify that the conditions for the type approval are complied with and to witness burst testing on samples of fittings selected at random from stock or from the running production.

END OF CERTIFICATE

TSV