



TRANSNET ENGINEERING

PRODUCT SYSTEMS DEVELOPMENT

WAGONS

ANGLE VALVE

L.P.G & ANHYDROUS AMMONIA TANK WAGONS

Revision 00

Date of Release:

22 May 2023

EW_NAT_SPEC_2001



Bidder's Name:.....

Date:.....

The information contained herein is the sole property of Transnet Engineering. It may not be used, disclosed, or reproduced in part or in whole in any manner, except with the written permission of and in a manner permitted by the proprietors.

SUMMARY OF REVISION

First issued – 22 May 2023

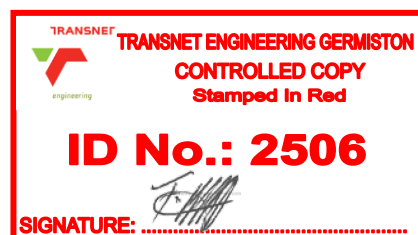
Document No. EW_NAT_SPEC_2001

The following revisions have been made in this revision:

Change	Description

Bidder's Signature:

Date:



Document Name: Angle Valve

Classification: Specification

Date: 22 May 2023

DOC. No: EW_NAT_SPEC_2001

Revision: 00

Page 2 of 7

TABLE OF CONTENTS

SUMMARY OF REVISION	2
1.1 Scope of Specification	4
1.2 Design Standards	4
1.3 Safety Relieve Valve Requirement	4
1.4 Certification and Guarantee	5
1.5 Documentation	5
1.6 Test Certificate	5
1.7 Data Plate- Marking	6
1.8 Quality Assurance Provision	6
DOCUMENT AUTHORITIES.....	7

Bidder's Signature:

Date:



Document Name: Angle Valve

Classification: Specification

Date: 22 May 2023

DOC. No: EW_NAT_SPEC_2001

Revision: 00

Page 3 of 7

1.1 Scope of Specification

This specification covers the technical requirements for Angle Valve requirements for XV's / XN / OXN tank cars which primary convey LP-Gas and anhydrous ammonia in railroad tank car.

1.2 Design Standards

The valve shall meet requirement mentioned on Pressure Equipment Regulations (PER), latest, as issued by Department of Labour, Occupation Health and Safety Act, 1993. Where **no** PER apply or exist, the valve must meet all relevant International Railway Standards & European Norms which are:

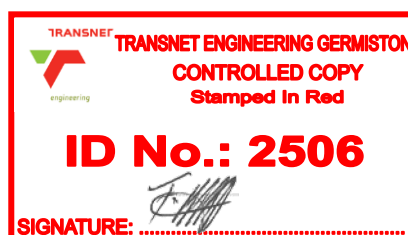
- I. Association of American Railroads (AAR) No. E122005.
- II. American Society of Mechanical Engineers (ASME);
- III. American National Standards Institute (ANSI);
- IV. European standards (EN);
- V. British standards (BS);
- VI. International Standards Organisation (ISO);
- VII. International union of railways (UIC).

1.3 Angle Valve Requirements

ANGLE VALVE	
Specification	Angle Valve
Bonnet	Ductile Iron casting
Stem	Stainless Steel
V-rings	Teflon
Media for which designed	LP-Gas and Anhydrous Ammonia
Seals (O-rings)	Synthetic Rubber
Seat Disc	Teflon
Valve PCD	158.75 mm P.C.D
Outlet Connection (Hole size)	2"
Handwheel	Cadmium Plated Ductile Iron
Housing Size	2"
Flow Rate at 1PSIG (Cv) Pressure Drop	112
Seat Material	Teflon
Max. Working Pressure	400 PSIG
Mounting Flange Connection	Raised surface 6mm

Bidder's Signature:

Date:



Document Name: Angle Valve

Classification: Specification

Date: 22 May 2023

DOC. No: EW_NAT_SPEC_2001

Revision: 00

Page 4 of 7

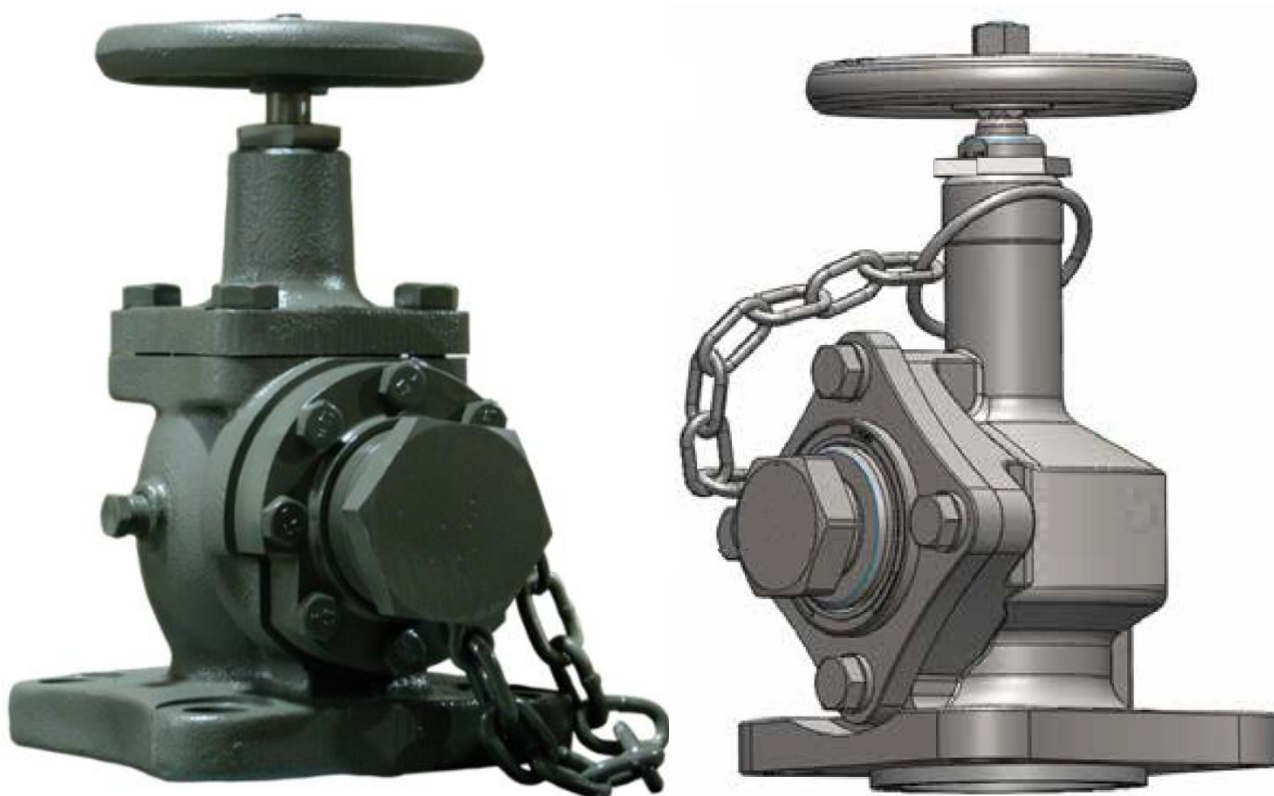


Figure 0-1:Angle Valve Examples

1.4 Certification and Guarantee

- All components to be supplied with all relevant certificates as proof and guarantee.

1.5 Documentation

The following documents are required for acceptance of the valve.

- Material specifications.
- ISO/SANS specifications for material and product compliance.
- Material and product compliance certificates (Test certificate).
- Data plate and serial number on the valve.

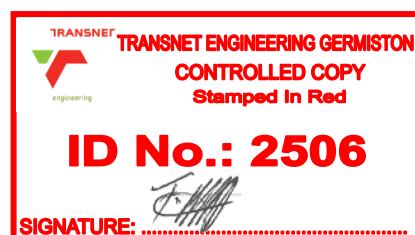
1.6 Test Certificate

The test certificate must include the following information

- Name of Company
- Company Valve description / Figure or Item No
- Maximum Pressure
- Seal material
- Test Date
- Reference Number

Bidder's Signature:

Date:



Document Name: Angle Valve

Classification: Specification

Date: 22 May 2023

DOC. No: EW_NAT_SPEC_2001

Revision: 00

Page 5 of 7

1.7 Data Plate- Marking

The data plate must include the following information

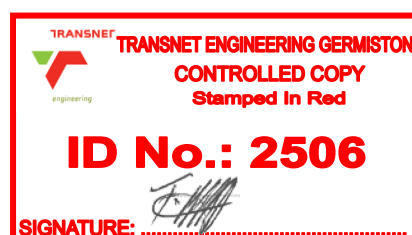
- Depot Code
- Type
- Pressure
- Name Plate
- Material Type
- Seal Material
- Passed Test Date
- Next Test Date
- Reference

1.8 Quality Assurance Provision

The supplier must be ISO accredited, however if that is not the case the supplier must have a proper quality management system that is in line with the principles in the policy on the supplier quality management framework Doc No: OPS_CQ_KLP_PP_0001.

Bidder's Signature:

Date:



Document Name: Angle Valve

Classification: Specification

Date: 22 May 2023

DOC. No: EW_NAT_SPEC_2001

Revision: 00

Page 6 of 7

DOCUMENT AUTHORITIES

Complier

Vicky Mashele

Signature



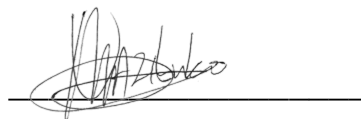
Designation

Product Development (Wagons)

Reviewer

Vusumuzi Mazibuko

Signature



Designation

Product Technician (Wagons)

Approver

Jabulile Thantsi

Signature



Designation

Engineering Manager (Wagons)

Approver

Willie Tones

Signature



Designation

Senior Engineer (Wagons)

Bidder's Signature:

Date:

Document Name: Angle Valve

Classification: Specification

Date: 22 May 2023

DOC. No: EW_NAT_SPEC_2001

Revision: 00

Page 7 of 7

