



TRANSNET ENGINEERING

PRODUCT SYSTEMS DEVELOPMENT

WAGONS

4" WAFER TYPE BUTTERFLY VALVE

FOR XB TANKERS

Revision 01

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EW_NAT_SPEC_2009

SUMMARY OF REVISION

First issue – 05 April 2024

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The following revisions have been made in this revision:

Change	Description
Rev 00 – Rev 01 (ECN0003123)	Clause 1.1 - Item number 568662725 added. Wagon types and Notes added. Clause 1.3 – Picture on Figure 1 added.

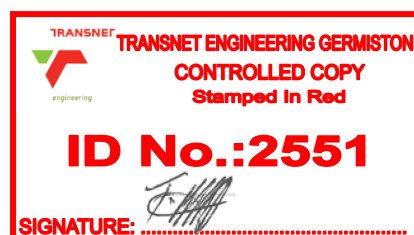


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1.1 Scope of Specification

This specification covers the technical requirements for a 4" Wafer Type Butterfly Valve (Item Number: 68008400 and 568662725), for XB-5; XB-6; and XB-8 up to XB-14 wagons.

Note: the butterfly valve with:

- Item number 68008400 must be supplied with handles as illustrated in Figure 1(A).
- Item number 568662725 must be supplied without handles as illustrated in Figure 1(B).

1.2 Design Standards

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

- I. Association of American Railroads (AAR).
- II. American Society of Mechanical Engineers (ASME).
- III. American National Standards Institute (ANSI).
- IV. European standards (EN); EN593
- V. British standards (BS); BS515, BS4504
- VI. International Standards Organisation (ISO).
- VII. International union of railways (UIC).



Table 1: 4" wafer-type butterfly valve parameters

Description	Parameters
Size:	4" Butterfly Valve
Body type	Wafer type
Design:	Handle-operated butterfly valve
Nominal inner diameter:	DN 100
Body material:	Cast iron
Nominal Pressure:	PN16 (16 bar)
Pressure Rating:	16 bar
Disc material:	Ductile iron
Shaft material:	Stainless steel
Seat material:	Ethylene Propylene (EPDM) Liner
Temperature (Max):	120 °C
Temperature (Min):	-10 °C
Body colour:	Black
Specification example:	Figure 1



**Figure 1(A)
With Handle**



**Figure 1(B)
Without Handle**

Figure 1: Example of Wafer Butterfly Valve

1.3 Certification and Guarantee

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

1.4 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).

1.5 Test Certificate

The test certificate must include the following information

- Name of Company
- Company Valve description or Item No
- Nominal Pressure
- Seal and Body material.
- Test Date
- Reference Number

1.6 Data Plate- Marking

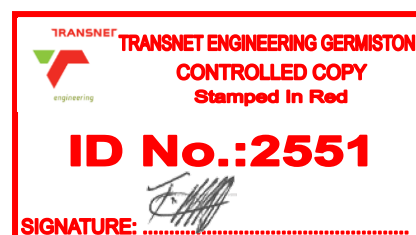
The manufacturer must ensure that the data plate and/or body marking are permanently fixed and include the following information:

- Name of Manufacturer
- Seal material.
- Construction material
- Size of the butterfly valve
- Pressure rating.
- Serial number on the valve.



1.7 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.

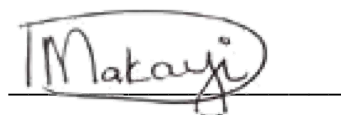


DOCUMENT AUTHORITIES

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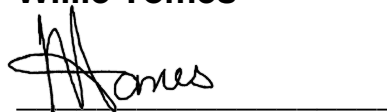
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