



Industrie Service

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Report 22019-R001
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Order: 22019		Report: 22019-R001	
Client: Duxvalves B.V.	Reference: Mr. B. Engbersen	Order number: PO011-100052	Operator: F. Huiszoon (LT1 EN473)
Component: DCV-C300 choke valve	Size and Class: 3inch 1500lbs	Drawing number: 11104-001-D	Test date: 06-03-2012
Part examined: Fugitive emission	Method: Helium sniffer Technique B3 EN1779	Equipment: Inficon PhoenixXL300 LD001, TL003	Sensitivity: <1E-7 atm·cm ³ ·s ⁻¹

Test procedure

The valve has been tested according to Duxvalves B.V. test instructions and SPE 77/312 rate A(HS), revision August 2010. As requested by Duxvalves, an additional 4500 cycles were performed which brings the total amount of mechanical cycles to 5000. Test has been witnessed by Mr. P. Deleu representing TÜV SÜD Industrie services GmbH.

Scope of valve

Valve manufacturer	: Duxvalves B.V.	Size	: 3 inch
ID number	: 22019001	Class	: 1500lbs
Pneumatic actuator	: Norbro, Double acting	Rated pressure	: 259 bar (x1.0)
Bonnet material	: 1.4462 Duplex	Body material	: AISI 4130

Requirements

Test pressure	: 259 bar(g)
Test temperature	: Ambient temperature
Test gas	: Helium
Hold time	: >15 minutes
Operational cycles	: 5000 (500 required, and additional 4500)
Operating pressure	: Max. 8.2 bar(g)

Allowable leak rate SPE 77/312 class A(HS)

Stem seal	: $1.4 \cdot 10^{-5} \text{ atm} \cdot \text{cm}^3 \cdot \text{s}^{-1}$ (80mm x $1.76 \cdot 10^{-7} \text{ atm} \cdot \text{cm}^3 \cdot \text{s}^{-1}$)
Bonnet gasket	: $8.0 \cdot 10^{-6} \text{ atm} \cdot \text{cm}^3 \cdot \text{s}^{-1}$ (145mm x π x $1.76 \cdot 10^{-8} \text{ atm} \cdot \text{cm}^3 \cdot \text{s}^{-1}$)

Test results

During the test for all possible leak paths no leakage has been found exceeding maximum allowable with technique B3 of EN1779. During the five thousand operational cycles the maximum measured actuator operating pressure was 3.5 bar(g).

The valve passed the test successfully according to SPE 77/312 rev. August 2010 class A(HS).

Name (ITIS)	Name authority (TÜV SÜD)
 F. Huiszoon (LT1 EN473) 06-03-2012 F. Huiszoon	 P. Deleu 06-03-2012