



Project: **Fugitive Emission Testing**

Client: **Metso Automation Oy, Helsinki, Finland**

Office: **HELSINKI**

Client's Order Number: -

Date: **27 June 2012**

Order Status: **Complete**

Inspection Dates

First: **23 March 2012**

Final: **10 April 2012**

This certificate is issued to **Metso Automation Oy, Helsinki, Finland**, to certify that the undersigned surveyors did at their request attend their works in Helsinki on the above dates for the purpose of witnessing fugitive emission test of a Neles D1F-series ball valve.

Type: D1FY04AAC03G
Rating: ASME 600
Size: 04"
Materials: As stated by manufacturer. See the test report.

The test valve was presented by the manufacturer. The test was conducted in accordance with the ISO 15848-1 (First edition 2006-01-15) standard.

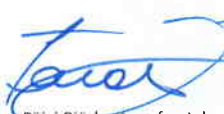
Leakage measurements were witnessed as indicated in the enclosure 5 of the test report. The valve behaviour between the measurements and witness points was verified from the data collected by Metso Automation as well as from the test report. Throughout the test the valve performed satisfactorily and met the requirements set in ISO 15848-1 (First edition 2006-01-15) standard as follows:

Endurance class: CO-2 (1500 mechanical cycles)
Temperature class: from -29°C to +400°C (Temperature test at +400°C)
Tightness class: BH

Visual examination after the test confirmed that design was in accordance with the manufacturer's drawing and parts list. Metso Automation Test Report dated 18.06.12 was reviewed, stamped and signed.

This test qualifies also D1F isolating valves as follows:

- Sizes between 2" ... 16" / DN50...DN400
- Pressure ratings ASME class 600 / PN100
- Valves with live loaded graphite stem packing


Lloyd's Register EMEA
Päivi Björkestam
Initials PB
Helsinki Office


Päivi Björkestam for Juha Kojo, Mikko Vartiainen, Carl Eric Schalin and self /ap
Surveyors to Lloyd's Register EMEA

A member of the Lloyd's Register Group

Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.