



Emerson Automation Solutions - Biffi
Actuation Technologies
Strada Biffi 29017
Fiorenzuola d'Arda (PC)
Italy

Shell Global Solutions International B.V.
Kessler Park 1
2288 GS Rijswijk (ZH)
The Netherlands

Subject: Acceptance of Endurance Testing

Date: 6 April 2018

Security Class: Unrestricted

Dear Emerson – Biffi Test Team,

This is to confirm that the actuator product range described in this acceptance document has satisfactorily completed the Endurance Test as described in EN 15714-3 (2009) including the Shell-specific pre- and post-inspections described in clause 9 of DEP 32.36.01.18 (2016).

Manufacturer name: Emerson Automation Solutions - Biffi

Product:

Emerson-Biffi ALGAS spring return pneumatic actuators with either symmetric or canted yoke, with materials suitable for either -60°C to 100°C or -20°C to 100°C and having Maximum Operating Torques (at Maximum Operating Pressure) between 284 Nm and 473.712 Nm.

Reference documents Biffi data sheet VCTDS-02694-EN 15/07 and Biffi 15LP015, ALGAS test procedure (May 2016).

Independent witness involved in the test: Mr. Giovanni Luoni, TUV InterCert SAAR

Any change to the design and specification or any change in material selection requires revalidation of this acceptance document.

This acceptance does not imply that the actuator is Shell P&T TAMAP approved.

The validity of this acceptance document expires 10 years after its publication date.

A handwritten signature in black ink, appearing to read 'Willem G.S. van Rijs'.

Willem G.S. van Rijs
Senior Automation Engineer – SME Automated Valves
PACO-EPAC