



# C E R T I F I C A T E

**Certificate no. 18-SIL-0010037-02-TIC**

WE HEREBY CERTIFY THAT

**Product description** BOLTED TOP ENTRY TRUNNION MOUNTED BALL VALVES

**Models** Series TE

**Manufacturer** ALTIFORT FCT  
2 rue Sabanel – 81160 Saint Juéry  
France



IS IN COMPLIANCE WITH THE REQUIREMENTS OF THE STANDARDS

**IEC 61508 Parts 1–7:2010**

AS RESULT OF THE ASSESSMENT ACCORDING TO THE PROVISION SET OUT IN THE ABOVE-MENTIONED STANDARDS

**Summary Report no. RC-0419-SIL-TIC-PC-0010037-18-04**

**Expiry date** 25.04.2022

**Note**

This certificate is issued upon the request of the manufacturer as voluntary certification; it does not include the production surveillance.  
This certificate does not allow the manufacturer to use the safety mark of TÜV INTERCERT.

Reggio Emilia, 26.04.2019



*D. Peridoo*  
Dipl. Ing. Peridoo Sergio  
TÜV INTERCERT Certification Body



# C E R T I F I C A T E

## ANNEX to Certificate no. 18-SIL-0010037-02-TIC

<b>Type</b>	A			
<b>HFT</b>	0			
<b>Safety functions</b>	<ol style="list-style-type: none"> <li>1. Close / Open upon the demand of the actuation system</li> <li>2. Close upon the demand of the actuation system, with inline tightness when in closed position</li> </ol>			
<b>Mode of operation</b>	Low Demand Mode			
<b>Random failure rates</b>				
<b>Configuration</b>	<b>Safety function</b>	$\lambda_{DU}$ [1/h]	$\lambda_{DD}$ [1/h]	$\lambda_S$ [1/h]
Self-relieving - No PST	1	7,98E-08	0,00E+00	0,00E+00
Self-relieving - With PST	1	7,18E-09	7,26E-08	0,00E+00
Self-relieving - No PST	2	9,52E-08	0,00E+00	0,00E+00
Self-relieving - With PST	2	2,26E-08	7,26E-08	0,00E+00
Double piston effect - No PST	1	7,98E-08	0,00E+00	0,00E+00
Double piston effect - With PST	1	7,18E-09	7,26E-08	0,00E+00
Double piston effect - No PST	2	8,49E-08	0,00E+00	0,00E+00
Double piston effect - With PST	2	1,23E-08	7,26E-08	0,00E+00
<b>Systematic capability</b>	3 (Route 1 <sub>S</sub> applied)			
<b>Architectural constraints</b>	<b>Route 1<sub>H</sub>:</b>	Applied	<b>Route 2<sub>H</sub>:</b>	Applied
	The product can be used in: <ul style="list-style-type: none"> <li>• single channel configuration:               <ul style="list-style-type: none"> <li>○ up to SIL 2 without external diagnostic tests</li> <li>○ up to SIL 3 considering external diagnostic tests</li> </ul> </li> <li>• double channel configuration: up to SIL 3</li> </ul>			

**Remarks:**

- Self-relieving configuration: both upstream and downstream seats shall be of self-relieving type (i.e. single barrier in the flow direction)
- Double piston effect configuration: at least downstream seat shall be of double piston effect type (i.e. double barrier in the flow direction)
- For further details, including environmental conditions, limitations of use, lifetime, failure rates traceability, mean repair times, common cause factors and systematic capability constraints, make reference to Safety Manual R-DT-SIL-F.

END OF CERTIFICATE

Reggio Emilia, 26.04.2019

  
 Dipl. Ing. Peridoor Sergizzarea  
 TÜV INTERCERT Certification Body