

Fugitive Emissions Summary & Coverage Range

Fig.	Rating*	DN	NPS	O'ring	Valve Tested	Stem Dim.	Certificate Num.	FE Report
300 - 500 - 600 - 3300 - 3500	150# / PN16	DN15 to DN650	½" to 2½"	FKM	550LIPK15	12mm	Cert.REP 60-104-2018-IT	JC-FET-INT-001 rev.00
300 - 500 - 600 - 3300 - 3500	150# / PN16	DN40 to +	1½" to +	FKM	530LIPK80	28mm	Cert.REP 60-107-2018-IT	JC-FET-INT-004 rev.00
300 - 500 - 600 - 3300 - 3500	150# / PN16	DN15 to DN650	½" to 2½"	AFLAS	550LIPK15	12mm	Cert.REP 60-105-2018-IT	JC-FET-INT-002 rev.00
300 - 500 - 600 - 3300 - 3500	150# / PN16	DN40 to +	1½" to +	AFLAS	530LIPK80	28mm	Cert.REP 60-108-2018-IT	JC-FET-INT-005 rev.00
300 - 500 - 600 - 3300 - 3500	150# / PN16	DN15 to DN650	½" to 2½"	FFKM	550LIM15	12mm	Cert.REP 60-106-2018-IT	JC-FET-INT-003 rev.00
300 - 500 - 600 - 3300 - 3500	150# / PN16	DN40 to +	1½" to +	FFKM	530LIM80	28mm	Cert.REP 60-109-2018-IT	JC-FET-INT-006 rev.00
300 - 500 - 600 - 3300 - 3500	300# / PN40	DN15 to DN50	½" to 2"	FKM	550LIPK15	12mm	Cert.REP 60-104-2018-IT	JC-FET-INT-001 rev.00
300 - 500 - 600 - 3300 - 3500	300# / PN40	DN40 to +	1½" to +	FKM	530LIPK80	28mm	Cert.REP 60-107-2018-IT	JC-FET-INT-004 rev.00
300 - 500 - 600 - 3300 - 3500	300# / PN40	DN15 to DN50	½" to 2"	AFLAS	550LIPK15	12mm	Cert.REP 60-105-2018-IT	JC-FET-INT-002 rev.00
300 - 500 - 600 - 3300 - 3500	300# / PN40	DN40 to +	1½" to +	AFLAS	530LIPK80	28mm	Cert.REP 60-108-2018-IT	JC-FET-INT-005 rev.00
300 - 500 - 600 - 3300 - 3500	300# / PN40	DN15 to DN50	½" to 2"	FFKM	550LIM15	12mm	Cert.REP 60-106-2018-IT	JC-FET-INT-003 rev.00
300 - 500 - 600 - 3300 - 3500	300# / PN40	DN40 to +	1½" to +	FFKM	530LIM80	28mm	Cert.REP 60-109-2018-IT	JC-FET-INT-006 rev.00
300 - 500 - 600 - 3300 - 3500	600# / PN63 / PN100	DN15 to DN25	½" to 1"	FKM	550LIPK15	12mm	Cert.REP 60-104-2018-IT	JC-FET-INT-001 rev.00
300 - 500 - 600 - 3300 - 3500	600# / PN63 / PN100	DN40 to +	1½" to +	FKM	550LIDV40	22mm	Cert.REP 60-114-2018-IT	JC-FET-INT-011 rev.00
300 - 500 - 600 - 3300 - 3500	600# / PN63 / PN100	DN15 to DN25	½" to 1"	AFLAS	550LIPK15	12mm	Cert.REP 60-105-2018-IT	JC-FET-INT-002 rev.00
300 - 500 - 600 - 3300 - 3500	600# / PN63 / PN100	DN40 to +	1½" to +	AFLAS	550BLIPK40	22mm	Cert.REP 60-115-2018-IT	JC-FET-INT-012 rev.00
300 - 500 - 600 - 3300 - 3500	600# / PN63 / PN100	DN15 to DN25	½" to 1"	FFKM	550LIM15	12mm	Cert.REP 60-106-2018-IT	JC-FET-INT-003 rev.00
300 - 500 - 600 - 3300 - 3500	600# / PN63 / PN100	DN40 to +	1½" to +	FFKM	550BLIM15	22mm	Cert.REP 60-116-2018-IT	JC-FET-INT-013 rev.00
300 - 500 - 600 - 3300 - 3500	900#	DN15 to DN20	½" to ¾"	FKM	550LIPK15	12mm	Cert.REP 60-104-2018-IT	JC-FET-INT-001 rev.00
300 - 500 - 600 - 3300 - 3500	900#	DN25 to +	1" to +	FKM	550LIDV40	22mm	Cert.REP 60-114-2018-IT	JC-FET-INT-011 rev.00
300 - 500 - 600 - 3300 - 3500	900#	DN15 to DN20	½" to ¾"	AFLAS	550LIPK15	12mm	Cert.REP 60-105-2018-IT	JC-FET-INT-002 rev.00
300 - 500 - 600 - 3300 - 3500	900#	DN25 to +	1" to +	AFLAS	550BLIPK40	22mm	Cert.REP 60-115-2018-IT	JC-FET-INT-012 rev.00
300 - 500 - 600 - 3300 - 3500	900#	DN15 to DN20	½" to ¾"	FFKM	550LIM15	12mm	Cert.REP 60-106-2018-IT	JC-FET-INT-003 rev.00
300 - 500 - 600 - 3300 - 3500	900#	DN25 to +	1" to +	FFKM	550BLIM15	22mm	Cert.REP 60-116-2018-IT	JC-FET-INT-013 rev.00
300 - 500 - 600 - 3300 - 3500	1500#	DN15 to DN20	½" to ¾"	FKM	550LIPK15	12mm	Cert.REP 60-104-2018-IT	JC-FET-INT-001 rev.00
300 - 500 - 600 - 3300 - 3500	1500#	DN25 to +	1" to +	FKM	550LIDV40	22mm	Cert.REP 60-114-2018-IT	JC-FET-INT-011 rev.00
300 - 500 - 600 - 3300 - 3500	1500#	DN15 to DN20	½" to ¾"	AFLAS	550LIPK15	12mm	Cert.REP 60-105-2018-IT	JC-FET-INT-002 rev.00
300 - 500 - 600 - 3300 - 3500	1500#	DN25 to +	1" to +	AFLAS	550BLIPK40	22mm	Cert.REP 60-115-2018-IT	JC-FET-INT-012 rev.00
300 - 500 - 600 - 3300 - 3500	1500#	DN15 to DN20	½" to ¾"	FFKM	550LIM15	12mm	Cert.REP 60-106-2018-IT	JC-FET-INT-003 rev.00
300 - 500 - 600 - 3300 - 3500	1500#	DN25 to +	1" to +	FFKM	550BLIM15	22mm	Cert.REP 60-116-2018-IT	JC-FET-INT-013 rev.00
700	150#	DN15 to DN80	½" to 3"	FKM	730LIT25	12mm	Cert.REP 60-123-2018-IT	JC-FET-INT-019 rev.00
700	150#	DN20 to DN250	¾" to 10"	FKM	730LIT80	22mm	Cert.REP 60-124-2018-IT	JC-FET-INT-020 rev.00
700	300#	DN15 to DN80	½" to 3"	FKM	730LIT25	12mm	Cert.REP 60-123-2018-IT	JC-FET-INT-019 rev.00
700	300#	DN20 to DN200	¾" to 8"	FKM	730LIT80	22mm	Cert.REP 60-124-2018-IT	JC-FET-INT-020 rev.00
800	800#	DN15 to DN50	½" to 2"	FKM	81500LIPK25	16mm	Cert.REP 60-125-2018-IT	JC-FET-INT-021 rev.00
81500	1500#	DN15 to DN50	½" to 2"	FKM	81500LIPK25	16mm	Cert.REP 60-125-2018-IT	JC-FET-INT-021 rev.00
400	800#	DN15 to DN50	½" to 2"	FKM	41500LIPK25	12mm	Cert.REP 60-126-2018-IT	JC-FET-INT-022 rev.00
41500	1500#	DN15 to DN50	½" to 2"	FKM	41500LIPK25	12mm	Cert.REP 60-126-2018-IT	JC-FET-INT-022 rev.00

***See attached coverage rule, the class tested covers all classes lower as well**

Fig.	Rating	DN	NPS	O'ring	Valve Tested	Stem Dim.	Certificate Num.	FE Report
1500	150#	DN250	10"	FKM	1530LIT200	45mm	Cert.REP 60-127-2018-IT	JC-FET-INT-023 rev.00
1500	150#	DN300	12"	FKM	1530LIT300	60mm	Cert.REP 60-128-2018-IT	JC-FET-INT-024 rev.00
1500	300#	DN200 to DN250	8" to 10"	FKM	1530LIT200	45mm	Cert.REP 60-127-2018-IT	JC-FET-INT-023 rev.00
1500	300#	DN300	12"	FKM	1530LIT300	60mm	Cert.REP 60-128-2018-IT	JC-FET-INT-024 rev.00
2500	150#	DN40 to DN250	1½" to 10"	FKM	2560LICG100	35mm	Cert.REP 60-129-2018-IT	JC-FET-INT-025 rev.00
2500	150#	DN300 to DN600	12" to 24"	FKM	2560LICG250	65mm	Cert.REP 60-130-2018-IT	JC-FET-INT-026 rev.00
2500	300#	DN40 to DN250	1½" to 10"	FKM	2560LICG100	35mm	Cert.REP 60-129-2018-IT	JC-FET-INT-025 rev.00
2500	300#	DN300 to DN500	12" to 20"	FKM	2560LICG250	65mm	Cert.REP 60-130-2018-IT	JC-FET-INT-026 rev.00
2500	600#	DN40 to DN100	1½" to 4"	FKM	2560LICG100	35mm	Cert.REP 60-129-2018-IT	JC-FET-INT-025 rev.00
2500	600#	DN150 to DN400	6" to 16"	FKM	2560LICG250	65mm	Cert.REP 60-130-2018-IT	JC-FET-INT-026 rev.00
500Q - 3500Q	PN16	DN15 to DN125	½" to 5"	-	540QIIF50	19mm	Cert.REP 60-144-2019-IT	JC-FET-INT-041 rev.00
500Q - 3500Q	PN16	DN40 to DN200	1½" to 8"	-	540QIIF100	28mm	Cert.REP 60-145-2019-IT	JC-FET-INT-042 rev.00
500Q - 3500Q	PN40	DN15 to DN125	½" to 5"	-	540QIIF50	19mm	Cert.REP 60-144-2019-IT	JC-FET-INT-041 rev.00
500Q - 3500Q	PN40	DN40 to DN200	1½" to 8"	-	540QIIF100	28mm	Cert.REP 60-145-2019-IT	JC-FET-INT-042 rev.00
6000	150#	DN50 to DN250	2" to 10"	FKM	6050LIPK80	42mm	Cert.REP 60-110-2018-IT	JC-FET-INT-007 rev.00
6000	150#	DN50 to DN250	2" to 10"	AFLAS	6050LIPK80	42mm	Cert.REP 60-111-2018-IT	JC-FET-INT-008 rev.00
6000	150#	DN50 to DN250	2" to 10"	FFKM	6050LIM80	42mm	Cert.REP 60-112-2018-IT	JC-FET-INT-009 rev.00
6000	150#	DN300 to DN600	12" to 24"	FKM	6050LIPK150	63mm	Cert.REP 60-117-2018-IT	JC-FET-INT-014 rev.00
6000	150#	DN300 to DN600	12" to 24"	AFLAS	6050LIPK150	63mm	Cert.REP 60-118-2018-IT	JC-FET-INT-015 rev.00
6000	150#	DN300 to DN600	12" to 24"	FFKM	6050LIM150	63mm	Cert.REP 60-119-2018-IT	JC-FET-INT-018 rev.00
6000	150#	DN600 to +	24" to +	FKM	6050LIPK250	90mm	Cert.REP 60-113-2018-IT	JC-FET-INT-010 rev.00
6000	150#	DN600 to +	24" to +	AFLAS	6050LIPK250	90mm	Cert.REP 60-120-2018-IT	JC-FET-INT-017 rev.00
6000	150#	DN600 to +	24" to +	FFKM	6050LIPK250	90mm	Cert.REP 60-121-2018-IT	JC-FET-INT-016 rev.00
6000	300#	DN50 to DN250	2" to 10"	FKM	6050LIPK80	42mm	Cert.REP 60-110-2018-IT	JC-FET-INT-007 rev.00
6000	300#	DN50 to DN250	2" to 10"	AFLAS	6050LIPK80	42mm	Cert.REP 60-111-2018-IT	JC-FET-INT-008 rev.00
6000	300#	DN50 to DN250	2" to 10"	FFKM	6050LIM80	42mm	Cert.REP 60-112-2018-IT	JC-FET-INT-009 rev.00
6000	300#	DN300 to DN600	12" to 24"	FKM	6050LIPK150	63mm	Cert.REP 60-117-2018-IT	JC-FET-INT-014 rev.00
6000	300#	DN300 to DN600	12" to 24"	AFLAS	6050LIPK150	63mm	Cert.REP 60-118-2018-IT	JC-FET-INT-015 rev.00
6000	300#	DN300 to DN600	12" to 24"	FFKM	6050LIM150	63mm	Cert.REP 60-119-2018-IT	JC-FET-INT-018 rev.00
6000	300#	DN600 to +	24" to +	FKM	6050LIPK250	90mm	Cert.REP 60-113-2018-IT	JC-FET-INT-010 rev.00
6000	300#	DN600 to +	24" to +	AFLAS	6050LIPK250	90mm	Cert.REP 60-120-2018-IT	JC-FET-INT-017 rev.00
6000	300#	DN600 to +	24" to +	FFKM	6050LIPK250	90mm	Cert.REP 60-121-2018-IT	JC-FET-INT-016 rev.00
6000	600#	DN50 to DN250	2" to 10"	FKM	6050LIPK80	42mm	Cert.REP 60-110-2018-IT	JC-FET-INT-007 rev.00
6000	600#	DN50 to DN250	2" to 10"	AFLAS	6050LIPK80	42mm	Cert.REP 60-111-2018-IT	JC-FET-INT-008 rev.00
6000	600#	DN50 to DN250	2" to 10"	FFKM	6050LIM80	42mm	Cert.REP 60-112-2018-IT	JC-FET-INT-009 rev.00
6000	600#	DN300 to DN600	12" to 24"	FKM	6050LIPK150	63mm	Cert.REP 60-117-2018-IT	JC-FET-INT-014 rev.00
6000	600#	DN300 to DN600	12" to 24"	AFLAS	6050LIPK150	63mm	Cert.REP 60-118-2018-IT	JC-FET-INT-015 rev.00
6000	600#	DN300 to DN600	12" to 24"	FFKM	6050LIM150	63mm	Cert.REP 60-119-2018-IT	JC-FET-INT-018 rev.00
6000	600#	DN600 to +	24" to +	FKM	6050LIPK250	90mm	Cert.REP 60-113-2018-IT	JC-FET-INT-010 rev.00
6000	600#	DN600 to +	24" to +	AFLAS	6050LIPK250	90mm	Cert.REP 60-120-2018-IT	JC-FET-INT-017 rev.00
6000	600#	DN600 to +	24" to +	FFKM	6050LIPK250	90mm	Cert.REP 60-121-2018-IT	JC-FET-INT-016 rev.00
6000	900#	DN50 to DN150	2" to 6"	FKM	6050LIPK80	42mm	Cert.REP 60-110-2018-IT	JC-FET-INT-007 rev.00
6000	900#	DN50 to DN150	2" to 6"	AFLAS	6050LIPK80	42mm	Cert.REP 60-111-2018-IT	JC-FET-INT-008 rev.00
6000	900#	DN50 to DN150	2" to 6"	FFKM	6050LIM80	42mm	Cert.REP 60-112-2018-IT	JC-FET-INT-009 rev.00

Fig.	Rating	DN	NPS	O'ring	Valve Tested	Stem Dim.	Certificate Num.	FE Report
6000	900#	DN200 to DN500	8" to 20"	FKM	6050LIPK150	63mm	Cert.REP 60-117-2018-IT	JC-FET-INT-014 rev.00
6000	900#	DN200 to DN500	8" to 20"	AFLAS	6050LIPK150	63mm	Cert.REP 60-118-2018-IT	JC-FET-INT-015 rev.00
6000	900#	DN200 to DN500	8" to 20"	FFKM	6050LIM150	63mm	Cert.REP 60-119-2018-IT	JC-FET-INT-018 rev.00
6000	900#	DN200 to +	8" to +	FKM	6050LIPK250	90mm	Cert.REP 60-113-2018-IT	JC-FET-INT-010 rev.00
6000	900#	DN200 to +	8" to +	AFLAS	6050LIPK250	90mm	Cert.REP 60-120-2018-IT	JC-FET-INT-017 rev.00
6000	900#	DN200 to +	8" to +	FFKM	6050LIPK250	90mm	Cert.REP 60-121-2018-IT	JC-FET-INT-016 rev.00
6000	1500#	DN50 to DN100	2" to 4"	FKM	6050LIPK80	42mm	Cert.REP 60-110-2018-IT	JC-FET-INT-007 rev.00
6000	1500#	DN50 to DN100	2" to 4"	AFLAS	6050LIPK80	42mm	Cert.REP 60-111-2018-IT	JC-FET-INT-008 rev.00
6000	1500#	DN50 to DN100	2" to 4"	FFKM	6050LIM80	42mm	Cert.REP 60-112-2018-IT	JC-FET-INT-009 rev.00
6000	1500#	DN150 to DN350	6" to 14"	FKM	6050LIPK150	63mm	Cert.REP 60-117-2018-IT	JC-FET-INT-014 rev.00
6000	1500#	DN150 to DN350	6" to 14"	AFLAS	6050LIPK150	63mm	Cert.REP 60-118-2018-IT	JC-FET-INT-015 rev.00
6000	1500#	DN150 to DN350	6" to 14"	FFKM	6050LIM150	63mm	Cert.REP 60-119-2018-IT	JC-FET-INT-018 rev.00
6000	1500#	DN150 to +	6" to +	FKM	6050LIPK250	90mm	Cert.REP 60-113-2018-IT	JC-FET-INT-010 rev.00
6000	1500#	DN150 to +	6" to +	AFLAS	6050LIPK250	90mm	Cert.REP 60-120-2018-IT	JC-FET-INT-017 rev.00
6000	1500#	DN150 to +	6" to +	FFKM	6050LIPK250	90mm	Cert.REP 60-121-2018-IT	JC-FET-INT-016 rev.00

JC Fábrica de Válvulas S.A.U.

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Falta Fig. 515Q, 530Q, 3515Q, 3530Q

Certificate no.:
REP 60-111-2018-IT

Project no.:
TA LUFT

Report date:
23/05/2018

Office:
Curno, Italy

Independent Third Party Inspection Certificate

Manufacturer identification			
Head Office / Plant	JC Fábrica de Válvulas, S.A.U		
	Av. Segle XXI, 75 – Poligono Industrial Can Calderon 08830 Sant Boi de Llobregat, Barcelona (Spain)		
Product identification			
Type:	6050LIPK80 AFLAS: dwg 12939 rev.2		
Description	Ball Valve, Fig 6050 DN-3" L.I.PK. Class #300 With wrench / RTJ Flange / O'Ring AFLAS		
Scope of Certification	Prototype test with reference to the requirements of TA LUFT ed. 07/2002 (Technische Anleitung zur Reinhaltung der Luft) Point 5.2.6.4 – VDI 2440 Ed.11/2000 Point 3.3.1.3 and with reference to pr EN ISO 15848-1 ed. 06/2015.		
Reference standard	Test	Result	
TA LUFT ed. 07/2002	Equivalence criteria of shaft sealing system according to TA LUFT Ed. July 2002 under point 5.2.6.4 and relevant VDI 2440	<i>Leaks Lower than 10-4 mbar/l s m</i>	
VDI 2440 Ed.11/2000 Point 3.3.1.3			
EN ISO 15848-1 ed. 10/2015.	Endurance test (205 cycles) with two Thermal cycle (CO1) and one stem seal adjustment (SS1)	<i>Leakege class BH</i>	
Test location:	JC Fábrica de Válvulas, S.A.U		
Leak detection Method	Helium Leak detector (Vacuum Method), Mass Spectrometer type Balzer HLT 150		
Packing Material and sealing Configuration	Stem O-Ring AFLAS	Stem Diameter	42 mm
Examination result:	The above reported BALL VALVE was found to meet the standard required qualifying a range of valves of the same type of construction relating to material, design (shape), tolerance classes same packing sealing configuration with stem diameter within the range of 50% lower and 200% higher than the valve under test. temperature range from -20°C to 230°C. Figure Qualified: 6015-6030-6060-6090-6050 TRUNNION EXTERNAL		
Test Report No.:	JC-FET-INT-008 rev.00		
Test Procedure :	QSS 01 – TA Luft test procedure QSS 02 – ISO 15848 Qualification Test procedure		

Statement prepared and submitted without prejudice by:

Antonio Borraccino
Technical Representative
ABS Group LTD



This Report is granted subject to the condition that it is understood and agreed that nothing herein contained shall be deemed to relieve any designer, manufacturer, seller, supplier, repairer or operator of any warranty, express or implied and the liability of ABS Services Ltd. (hereinafter referred to as ABS Services) shall be limited to the acts or omissions of its employees, agents or subcontractors. Under no circumstances whatsoever shall ABS Services be liable for any injury or damage to any person or property occurring by reason of negligent operation or any defect in materials, machinery, equipment or other items other than such defects ascertainable by normally accepted testing standards and only upon those items actually inspected by ABS Services and which are covered by this Report.

Certificate no.:
REP 60-110-2018-IT

Project no.:
TA LUFT

Report date:
22/05/2018

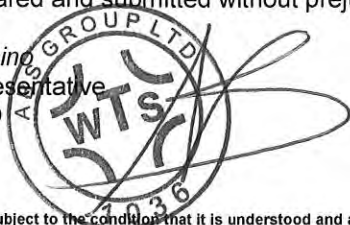
Office:
Curno, Italy

Independent Third Party Inspection Certificate

Manufacturer identification			
Sede Legale / Unità Operativa Head Office / Plant	JC Fábrica de Válvulas, S.A.U Av. Segle XXI, 75 – Poligono Industrial Can Calderon 08830 Sant Boi de Llobregat, Barcelona (Spain)		
Product identification			
Type:	6050LIPK80 FKM GLT: dwg 12938 rev.2		
Description	Ball Valve, Fig 6050 DN-3" L.I.PK. Class #1500 With wrench / RTJ Flange / O'Ring FKM GLT		
Scope of Certification	Prototype test with reference to the requirements of TA LUFT ed. 07/2002 (Technische Anleitung zur Reinhaltung der Luft) Point 5.2.6.4 – VDI 2440 Ed.11/2000 Point 3.3.1.3 and with reference to pr EN ISO 15848-1 ed. 06/2015.		
Reference standard	Test	Result	
TA LUFT ed. 07/2002	Equivalence criteria of shaft sealing system according to TA LUFT Ed. July 2002 under point 5.2.6.4 and relevant VDI 2440	<i>Leaks Lower than 10-4 mbar/l s m</i>	
VDI 2440 Ed.11/2000 Point 3.3.1.3			
EN ISO 15848-1 ed. 10/2015.	Endurance test (205 cycles) with two Thermal cycle (CO1) and one stem seal adjustment (SS1)	<i>Leakege class BH</i>	
Test location:	JC Fábrica de Válvulas, S.A.U		
Leak detection Method	Helium Leak detector (Vacuum Method), Mass Spectrometer type Balzer HLT 150		
Packing Material and sealing Configuration	Stem O-Ring FKM GLT	Stem Diameter	42 mm
Examination result:	The above reported BALL VALVE was found to meet the standard required qualifying a range of valves of the same type of construction relating to material, design (shape), tolerance classes same packing sealing configuration with stem diameter within the range of 50% lower and 200% higher than the valve under test. temperature range from -46° to 200°C. Figure qualified: 6015-6030-6060-6090-6050 TRUNNION EXTERNAL		
Test Report No.:	JC-FET-INT-007 rev.00		
Test Procedure :	QSS 01 – TA Luft test procedure QSS 02 – ISO 15848 Qualification Test procedure		

Statement prepared and submitted without prejudice by:

Antonio Borraccino
Technical Representative
ABS Group LTD



This Report is granted subject to the condition that it is understood and agreed that nothing herein contained shall be deemed to relieve any designer, manufacturer, seller, supplier, repairer or operator of any warranty, express or implied and the liability of ABS Services Ltd. (hereinafter referred to as ABS Services) shall be limited to the acts or omissions of its employees, agents or subcontractors. Under no circumstances whatsoever shall ABS Services be liable for any injury or damage to any person or property occurring by reason of negligent operation or any defect in materials, machinery, equipment or other items other than such defects ascertainable by normally accepted testing standards and only upon those items actually inspected by ABS Services and which are covered by this Report.

Certificate no.:
REP 60-120-2018-IT

Project no.:
TA LUFT

Report date:
22/06/2018

Office:
Curno, Italy

Independent Third Party Inspection Certificate

Manufacturer identification		
Head Office / Plant	JC Fábrica de Válvulas, S.A.U Av. Segle XXI, 75 – Poligono Industrial Can Calderon 08830 Sant Boi de Llobregat, Barcelona (Spain)	
Product identification		
Type:	6050LIPK250 AFLAS: dwg 12947 rev.2	
Description	Ball Valve, Fig 6050 DN 10" L.I.PK. Class #1500 Free Stem / RF Flange / O'Ring AFLAS	
Scope of Certification	Prototype test with reference to the requirements of TA LUFT ed. 07/2002 (Technische Anleitung zur Reinhaltung der Luft) Point 5.2.6.4 – VDI 2440 Ed.11/2000 Point 3.3.1.3 and with reference to pr EN ISO 15848-1 ed. 06/2015.	
Reference standard	Test	Result
TA LUFT ed. 07/2002	Equivalence criteria of shaft sealing system according to TA LUFT Ed. July 2002 under point 5.2.6.4 and relevant VDI 2440	<i>Leaks Lower than 10-4 mbar/l s m</i>
VDI 2440 Ed.11/2000 Point 3.3.1.3		
EN ISO 15848-1 ed. 10/2015.	Endurance test (205 cycles) with two Thermal cycle (CO1) and one stem seal adjustment (SS1)	<i>Leakege class BH</i>
Test location:	JC Fábrica de Válvulas, S.A.U	
Leak detection Method	Helium Leak detector (Vacuum Method), Mass Spectrometer type Balzer HLT 150	
Packing Material and sealing Configuration	Stem O-Ring AFLAS	Stem Diameter 90 mm
Examination result:	The above reported BALL VALVE was found to meet the standard required qualifying a range of valves of the same type of construction relating to material, design (shape), tolerance classes same packing sealing configuration with stem diameter within the range of 50% lower and 200% higher than the valve under test. temperature range from -20°C to 230°C. Figure qualified: 6015-6030-6060-6090-6050 TRUNNION INTERNAL	
Test Report No.:	JC-FET-INT-017 rev.00	
Test Procedure :	QSS 01 – TA Luft test procedure QSS 02 – ISO 15848 Qualification Test procedure	

Statement prepared and submitted without prejudice by:

Antonio Borraccino
Technical Representative
ABS Group LTD

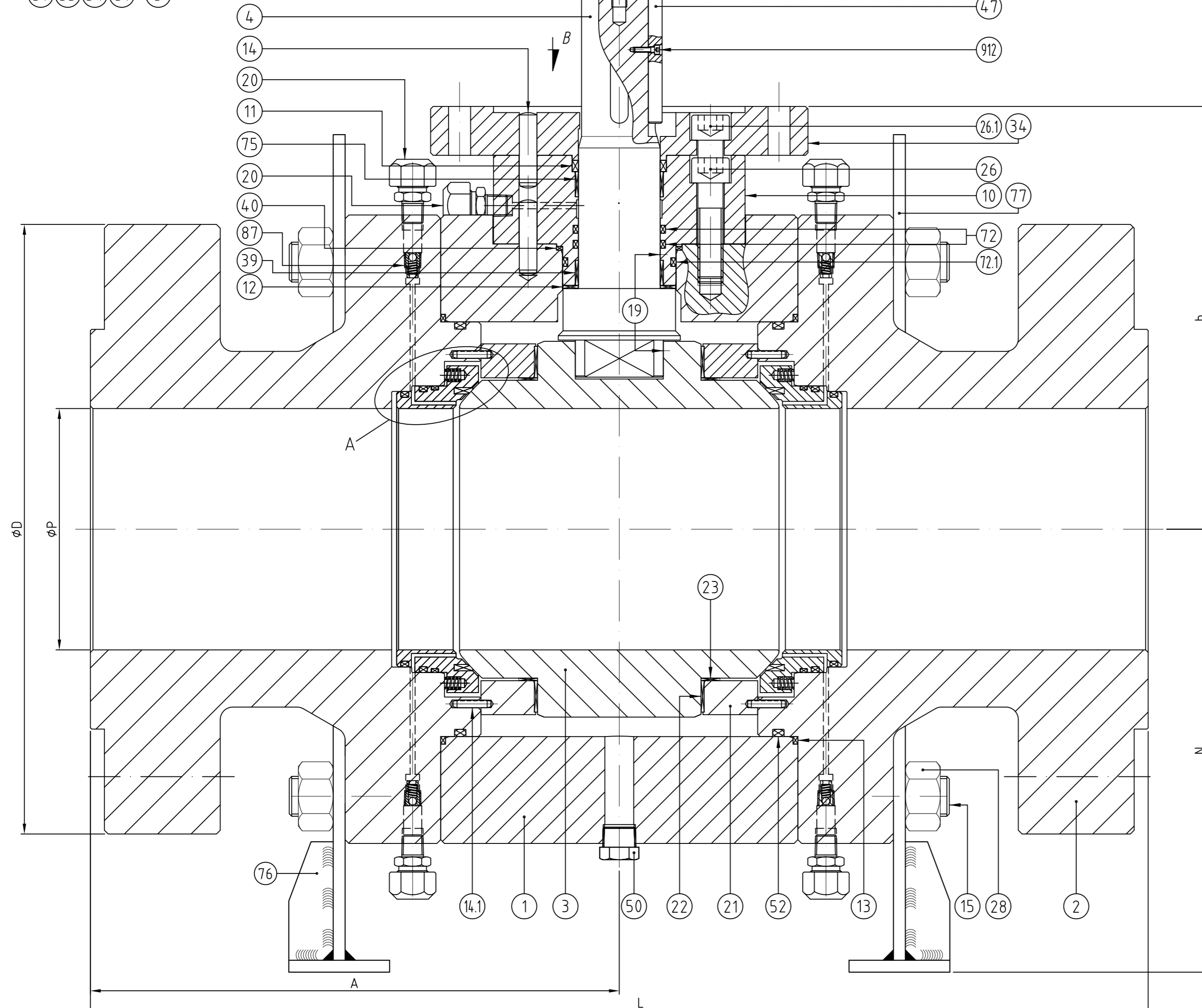
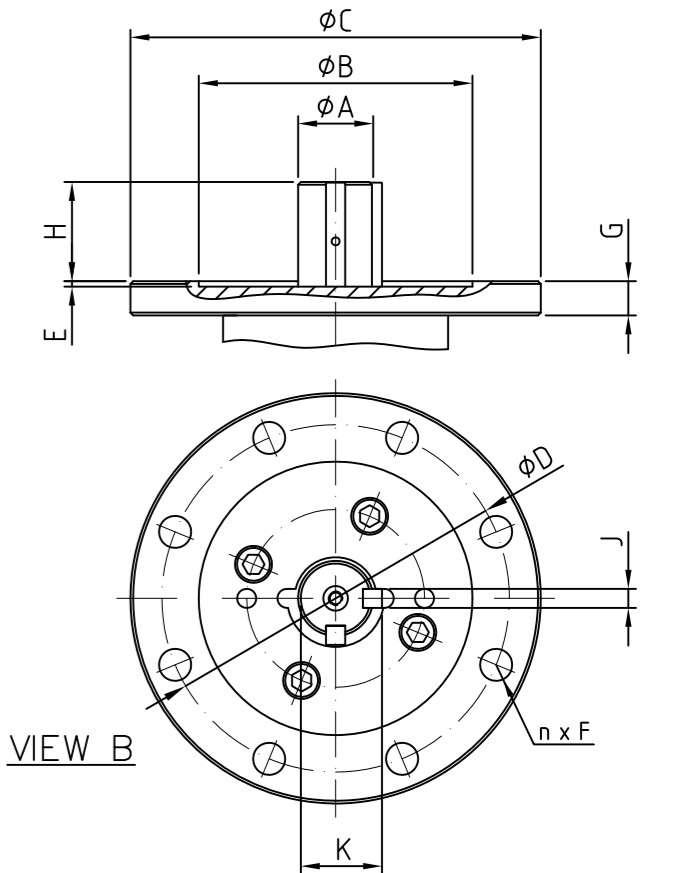
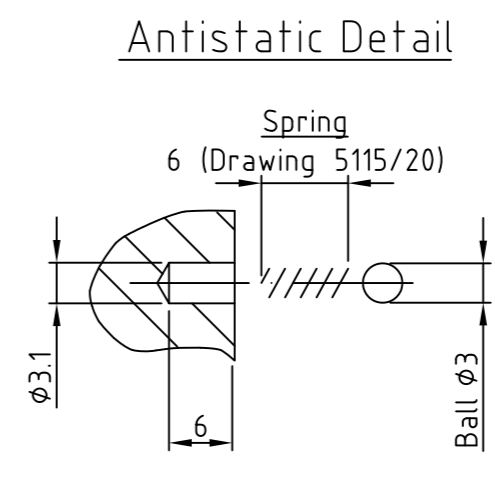
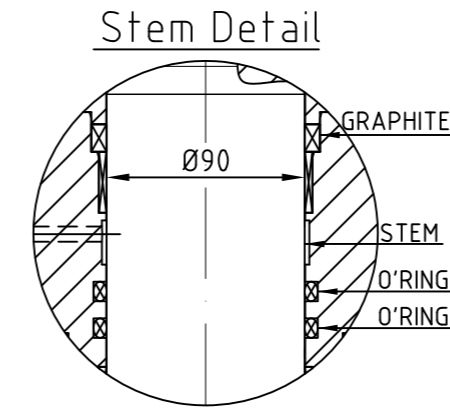
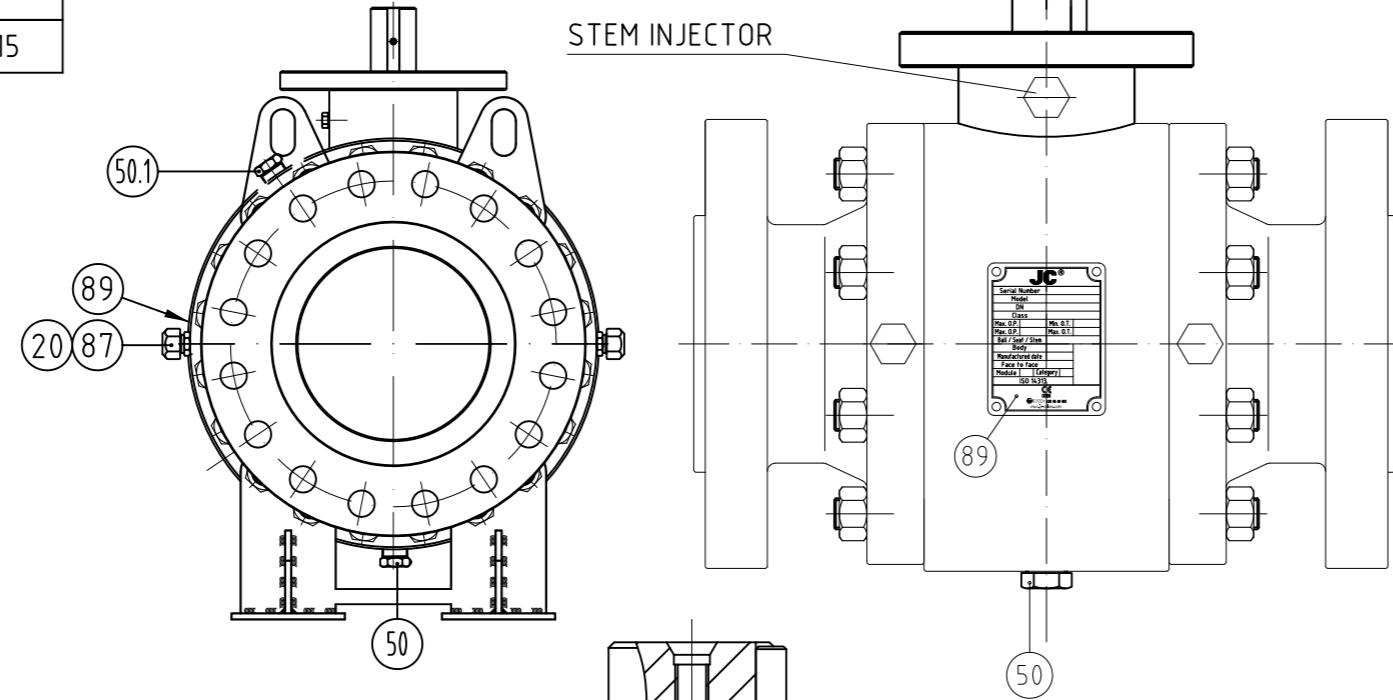
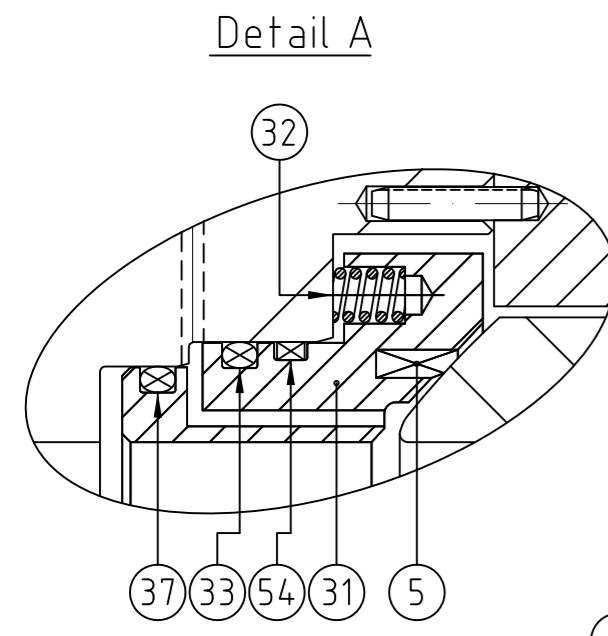


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DN	ØP	ØD	L	A	h	N
10"	241	585	991	496	402	415

BALL VALVE. FREE STEM DIMENSIONS											WEIGHT (Kg)	Quantity	Item	TAG	
DN	ISO 5211	ØA	ØB	ØC	ØD	E	G	H	n x ØF	J					K
10"	F25	85	--	300	254	--	34	132.5	8 x Ø18	22	95	1560	--	--	--

WEIGHT (Kg)	Quantity	Item	TAG
1560	--	--	--



(*) RECOMMENDED SPARE PARTS

POS.	QUAN.	DENOMINATION	MATERIAL	DRAWING N°.
	2	PLASTIC CAP	PLASTIC	
912	2	BOLT	A4	
89	1	IDENTIFICATION PLATE	STAINLESS ST.	
87	4	CHECK VALVE	STAINLESS ST.	
77	4	LUG	CARBON STEEL	
76	2/2	SUPPORT	CARBON STEEL	
75	1	STEM BUSHING	AISI 316 + PTFE	*
72.1	1	"O" RING	AFLAS	*
72	2	"O" RING	AFLAS	*
54	2	SEAT CARRIER SEAL	GRAPHITE	*
52	2	"O" RING	AFLAS	*
50.1	1	VENT PLUG	A 350 LF2	
50	1	DRAIN PLUG	A 350 LF2	
47	2	KEY	CARBON STEEL	
40	1	GASKET	GRAPHITE	*
39	1	STEM BUSHING	AISI 316 + PTFE	*
37	2	"O" RING	AFLAS	*
34	1	UPPER CAP	A 350 LF2	
33	2	SEAT SEAL	AFLAS	*
32	32	SPRING	INCONEL X-750	
31	2	SEAT CARRIER	A 182 F316	*
28	40	NUT	A 194 Gr. 7M ZP + BICHROMATED	
26.1	4	BOLT	A 320 Gr. L7M ZP + BICHROMATED	
26	4	BOLT	A 320 Gr. L7M ZP + BICHROMATED	
23	2	BEARING	AISI 316 + PTFE	*
22	2	TRUNNION BEARING	AISI 316 + PTFE	*
21	2	SPACER	A 182 F316	
20	5	INJECTION FITTING	STAINLESS ST.	
19	2	ANTISTATIC DEVICE	STAINLESS ST.	
15	40	STUD	A 320 Gr. L7M ZP + BICHROMATED	
14.1	4	STOP PIN	STAINLESS STEEL	
14	4	STOP PIN	STAINLESS STEEL	
13	2	BODY CONNECTOR SEAL	GRAPHITE	*
12	1	STEM THRUST SEAL	25 G.F. + PTFE	*
11	1	GLAND PACKING	GRAPHITE	*
10	1	GLAND	A 350 LF2	
5	2	SEAT RING	PEEK	*
4	1	STEM	A 182 F316	
3	1	BALL	A 182 F316 + ENP	
2	2	BODY CONNECTOR	A 350 LF2	
1	1	BODY	A 350 LF2	

Rev.	Modification	Date	Nam.	Approv.
2	General Update	28/03/18	DCM	
1	Stem detail	27/02/18	DCM	
0	First issue	26/01/18	DCM	

Dimensions	Drawn	26/01/18	DCM
mm.	Checked	26/01/18	J.R.
Weight:	Appr. Eng.		
Substitutes:	Scale:		
Substitutes by:			

GENERAL DRAWING		Ref.:
Fig.6050 DN-10" LIPK Class-1500 RF FB		Drawing n°:
FREE STEM / RF FLANGE / O'RING AFLAS		12947

This drawing is our property. It is strictly forbidden to use the drawing, to give it to third parties or to reproduce it totally or partially without our permission.

12947

JC VALVES

TEST VALVE INFORMATION

PO	N/A	Item Nr	N/A
Valve Model/Nominal Size	6050LIPK250 AFLAS		
Pressure Class	1500		
Valve Serial Number	FET017		
Tightness Class/Endurance Test	BH / CO1		
Spec. 15848 Part 1 - 2015	Temperature Qualification Range: -20°C +230°C		
Valve Tag Number	FET017		

Body Material	ASTM A350 LF2	Material Closures	ASTM A350 LF2
Ball Material	ASTM A182 Tp. 316	Material Stem	A182 F316
Stem O'ring	AFLAS	Stem Diameter	90 mm

Verification to be done prior to the fugitive emission testing

Step	Description	Acceptance Criteria	Test Result
1	Visual Inspection of the valve and operator assembly	No surface damage or degradation of surface finish	No damage
2	Dimensional check of valve and operator assembly	dwg 12947 rev.2	Satisfactory
3	Check of valves preparedness for FET test	Valves shall be dry, dust and oil free	Satisfactory

Thermal Cycle 1

Fugitive Emission Test (Preliminary Test at Room Temperature) with Helium Gas of 97% purity

Step	description	Pressure (Barq)	No. Of Cycle	Stabilization Time (min)	Leakage Allowable max	Measured Leakage	ISO 15848-1 Reference
1	Body/End seal along the interface between body and closure	262	0	10	< 50 ppmv	9 ppmv	5.2.4.4
	Stem seal/stuffing box along the interface between stem and cover				2,826E-05	1,50E-06	5.2.4.4

Notes: Test Pressure has been maintained with a range of +/- 5%

Fugitive Emission Test (Preliminary Test at -20°C) with Helium Gas of 97% purity

Step	description	Pressure (Barq)	No. Of Cycle	Stabilization Time (min)	Leakage Allowable max	Measured Leakage	ISO 15848-1 Reference
1	Body/End seal along the interface between body and closure	262	0	10	< 50 ppmv	12 ppmv	5.2.4.4
	Stem seal/stuffing box along the interface between stem and cover				2,826E-05	2,50E-06	5.2.4.4

Notes: Test Pressure has been maintained with a range of +/- 5%

Fugitive Emission Test (Mechanical Cycles at -20°C) with Helium Gas of 97% purity

Step	description	Pressure (Barq)	No. Of Cycle	Stabilization Time (min)	Leakage Allowable max	Measured Leakage	ISO 15848-1 Reference
2	Stem seal/stuffing box along the interface between stem and cover	262	50		2,826E-05	3,00E-06	5.2.4.5

Notes: Test Pressure has been maintained with a range of +/- 5%

Fugitive Emission Test (Static Test at +230°C) with Helium Gas of 97% purity

Step	description	Pressure (Barq)	No. Of Cycle	Stabilization Time (min)	Leakage Allowable max	Measured Leakage	ISO 15848-1 Reference
3	Stem seal/stuffing box along the interface between stem and cover	262		10	2,826E-05	3,60E-06	5.2.4.6

Notes: Test Pressure has been maintained with a range of +/- 5%

Fugitive Emission Test (Mechanical Cycle at +230°C) with Helium Gas of 97% purity

Step	description	Pressure (Barq)	No. Of Cycle	Stabilization Time (min)	Leakage Allowable max	Measured Leakage	ISO 15848-1 Reference
4	Stem seal/stuffing box along the interface between stem and cover	262	50		2,826E-05	3,80E-06	5.2.4.7

Notes: Test Pressure has been maintained with a range of +/- 5%

Thermal Cycle 2

Fugitive Emission Test (Intermediate Test at -20°C) with Helium Gas of 97% purity

Step	description	Pressure (Barq)	No. Of Cycle	Stabilization Time (min)	Leakage Allowable max	Measured Leakage	ISO 15848-1 Reference
5	Stem seal/stuffing box along the interface between stem and cover	262		10	2,826E-05	4,10E-06	5.2.4.4


Notes: Test Pressure has been maintained with a range of +/- 5%

Reported By

Witnessed by

 ABS GRUPO S.R.L. WTS
 1036

Antonio Borraccino - ABSG Inspection Engineer

Fugitive Emission Test (Mechanical Cycles at -20°C) with Helium Gas of 97% purity						Date		20/06/2018
Step	description	Pressure (Barq)	No. Of Cycle	Stabilization Time (min)	Leakage Allowable max	Measured Leakage	ISO 15848-1 Reference	
6	Stem seal/stuffing box along the interface between stem and cover	262	50		2,826E-05	4,45E-06	5.2.4.5	
Notes:		Test Pressure has been maintained with a range of +/- 5%						
Fugitive Emission Test (Static Test at + 230°C) with Helium Gas of 97% purity						Date		21/06/2018
Step	description	Pressure (Barq)	No. Of Cycle	Stabilization Time (min)	Leakage Allowable max	Measured Leakage	ISO 15848-1 Reference	
7	Stem seal/stuffing box along the interface between stem and cover	262		10	2,826E-05	4,90E-06	5.2.4.6	
Notes:		Test Pressure has been maintained with a range of +/- 5%						
Fugitive Emission Test (Mechanical Cycle at + 230°C) with Helium Gas of 97% purity						Date		21/06/2018
Step	description	Pressure (Barq)	No. Of Cycle	Stabilization Time (min)	Leakage Allowable max	Measured Leakage	ISO 15848-1 Reference	
8	Stem seal/stuffing box along the interface between stem and cover	262	50		2,826E-05	5,10E-06	5.2.4.7	
Notes:		Test Pressure has been maintained with a range of +/- 5%						
Fugitive Emission Test (Preliminary Test at Room Temperature) with Helium Gas of 97% purity						Date		21/06/2018
Step	description	Pressure (Barq)	No. Of Cycle	Stabilization Time (min)	Leakage Allowable max	Measured Leakage	ISO 15848-1 Reference	
9	Body/End seal along the interface between body	262	5	10	< 50 ppmv	12 ppmv	5.2.4.4	
	Stem seal/stuffing box along the interface between stem and cover				2,826E-05	5,20E-06	5.2.4.4	
Notes:		Test Pressure has been maintained with a range of +/- 5%						
POST TEST VALVE INSPECTION AND EXAMINATION						Date		21/06/2018
Check for easy disassemble of the valve		Satisfactory		Note:		None		5.2.4.10
Visual Inspection of seats insert		No damage		Note:		None		5.2.4.10
Visual Inspection of Stem O'Ring		No damage		Note:		None		5.2.4.10
Visual inspection to the main internal component		No damage		Note:		None		5.2.4.10
Test Closout						Date		21/06/2018
Reported By				Witness by				
				 Antonio Borraccino - ABSO Inspection Engineer				

Certificate no.:
REP 60-121-2018-IT

Project no.:
TA LUFT

Report date:
22/06/2018

Office:
Curno, Italy

Independent Third Party Inspection Certificate

Manufacturer identification			
Sede Legale / Unità Operativa	JC Fábrica de Válvulas, S.A.U		
Head Office / Plant	Av. Segle XXI, 75 – Poligono Industrial Can Calderon		
	08830 Sant Boi de Llobregat, Barcelona (Spain)		
Product identification			
Type:	6050LIPK250 AFLAS: dwg 12948 rev.2		
Description	Ball Valve, Fig 6050 DN 10" L.I.PK. Class #1500 Free Stem / RF Flange / O'Ring AFLAS		
Scope of Certification	Prototype test with reference to the requirements of TA LUFT ed. 07/2002 (Technische Anleitung zur Reinhaltung der Luft) Point 5.2.6.4 – VDI 2440 Ed.11/2000 Point 3.3.1.3 and with reference to pr EN ISO 15848-1 ed. 06/2015.		
Reference standard	Prova / Test	Risultato / Result	
TA LUFT ed. 07/2002	Equivalence criteria of shaft sealing system according to TA LUFT Ed. July 2002 under point 5.2.6.4 and relevant VDI 2440	<i>Leaks Lower than 10-4 mbar/l s m</i>	
VDI 2440 Ed.11/2000 Point 3.3.1.3			
EN ISO 15848-1 ed. 10/2015.	Endurance test (205 cycles) with two Thermal cycle (CO1) and one stem seal adjustment (SS1)	<i>Leakege class BH</i>	
Test location:	JC Fábrica de Válvulas, S.A.U		
Leak detection Method	Helium Leak detector (Vacuum Method), Mass Spectrometer type Balzer HLT 150		
Packing Material and sealing Configuration	Stem O-Ring FFKM	Stem Diameter	90 mm
Examination result:	The above reported BALL VALVE was found to meet the standard required qualifying a range of valves of the same type of construction relating to material, design (shape), tolerance classes same packing sealing configuration with stem diameter within the range of 50% lower and 200% higher than the valve under test. temperature range from -20°C to 300°C. Figure qualified: 6015-6030-6060-6090-6050 TRUNNION INTERNAL		
Test Report No.:	JC-FET-INT-016 rev.00		
Test Procedure :	QSS 01 – TA Luft test procedure QSS 02 – ISO 15848 Qualification Test procedure		

Statement prepared and submitted without prejudice by:

Antonio Borraccino
Technical Representative
ABS Group LTD



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Certificate no.:
REP 60-144-2019-IT

Project no.:
TA LUFT

Report date:
02/10/2019

Office:
Dalmine, Italy

Independent Third Party Inspection Certificate

Manufacturer identification			
Sede Legale / Unità Operativa Head Office / Plant	JC Fábrica de Válvulas, S.A.U Av. Segle XXI, 75 – Poligono Industrial Can Calderon 08830 Sant Boi de Llobregat, Barcelona (Spain)		
Product identification			
Type:	540QIIFPN40 TFM1600: dwg 13985 rev.0		
Description	Ball Valve, Fig 540Q DN-50 I.I.F. Class PN40 With wrench / RF Flange / Packing TFM1600		
Scope of Certification	Prototype test with reference to the requirements of TA LUFT ed. 07/2002 (Technische Anleitung zur Reinhaltung der Luft) Point 5.2.6.4 – VDI 2440 Ed.11/2000 Point 3.3.1.3 and with reference to pr EN ISO 15848-1 ed. 06/2015.		
Reference standard	Test	Result	
TA LUFT ed. 07/2002	Equivalence criteria of shaft sealing system according to TA LUFT Ed. July 2002 under point 5.2.6.4 and relevant VDI 2440	<i>Leaks Lower than 3,38E-06 mbar/l s m</i>	
VDI 2440 Ed.11/2000 Point 3.3.1.3			
EN ISO 15848-1 ed. 10/2015.	Endurance test (205 cycles) with two Thermal cycle (CO1) and one stem seal adjustment (SS1)	<i>Leakege class AH</i>	
Test location:	JC Fábrica de Válvulas, S.A.U		
Leak detection Method	Helium Leak detector (Vacuum Method), Mass Spectrometer type Balzer HLT 150		
Packing Material and sealing Configuration	Stem Packing TFM1600	Stem Diameter	19 mm
Examination result:	The above reported BALL VALVE was found to meet the standard required qualifying a range of valves of the same type of construction relating to material, design (shape), tolerance classes same packing sealing configuration with stem diameter within the range of 50% lower and 200% higher than the valve under test. temperature range from -46° to 200°C. Figure qualified: Body/Body connector With FTM1600 Packing size DN 50 PN40		
Test Report No.:	JC-FET-INT-001 rev.00		
Test Procedure :	QSS 01 – TA Luft test procedure QSS 02 – ISO 15848 Qualification Test procedure		

Statement prepared and submitted without prejudice by:



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Certificate no.:
REP 60-145-2019-IT

Project no.:
TA LUFT

Report date:
04/10/2019

Office:
Dalmine, Italy

Independent Third Party Inspection Certificate

Manufacturer identification			
Sede Legale / Unità Operativa Head Office / Plant	JC Fábrica de Válvulas, S.A.U Av. Segle XXI, 75 – Poligono Industrial Can Calderon 08830 Sant Boi de Llobregat, Barcelona (Spain)		
Product identification			
Type:	540QI I FPN40 TFM1600 :dwg 13986 rev.0		
Description	Ball Valve, Fig 540Q DN-100 I .I .F. Class PN40 With wrench / RF Flange / Packing TFM1600		
Scope of Certification	Prototype test with reference to the requirements of TA LUFT ed. 07/2002 (Technische Anleitung zur Reinhaltung der Luft) Point 5.2.6.4 – VDI 2440 Ed.11/2000 Point 3.3.1.3 and with reference to pr EN ISO 15848-1 ed. 06/2015.		
Reference standard	Test	Result	
TA LUFT ed. 07/2002	Equivalence criteria of shaft sealing system according to TA LUFT Ed. July 2002 under point 5.2.6.4 and relevant VDI 2440	<i>Leaks Lower than 4,98E-06 mbar/l s m</i>	
VDI 2440 Ed.11/2000 Point 3.3.1.3			
EN ISO 15848-1 ed. 10/2015.	Endurance test (205 cycles) with two Thermal cycle (CO1) and one stem seal adjustment (SS1)	<i>Leakege class AH</i>	
Test location:	JC Fábrica de Válvulas, S.A.U		
Leak detection Method	Helium Leak detector (Vacuum Method), Mass Spectrometer type Balzer HLT 150		
Packing Material and sealing Configuration	Stem Packing TFM1600	Stem Diameter	28 mm
Examination result:	The above reported BALL VALVE was found to meet the standard required qualifying a range of valves of the same type of construction relating to material, design (shape), tolerance classes same packing sealing configuration with stem diameter within the range of 50% lower and 200% higher than the valve under test. temperature range from -46° to 200°C. Figure qualified: Body/Body connector With FTM1600 Packing size DN 100 PN40		
Test Report No.:	JC-FET-INT-002 rev.00		
Test Procedure :	QSS 01 – TA Luft test procedure QSS 02 – ISO 15848 Qualification Test procedure		

Statement prepared and submitted without prejudice by:

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Technical Representative
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Certificate no.:
REP 60-113-2018-IT

Project no.:
TA LUFT

Report date:
28/05/2018

Office:
Curno, Italy

Independent Third Party Inspection Certificate

Manufacturer identification		
Sede Legale / Unità Operativa Head Office / Plant	JC Fábrica de Válvulas, S.A.U Av. Segle XXI, 75 – Poligono Industrial Can Calderon 08830 Sant Boi de Llobregat, Barcelona (Spain)	
Product identification		
Type:	6050LIPK250 FKM GLT: dwg 12946 rev.2	
Description	Ball Valve, Fig 6050 DN-10" L.I.PK. Class #1500 Free stem / RF Flange / O'Ring FKM GLT	
Scope of Certification	Prototype test with reference to the requirements of TA LUFT ed. 07/2002 (Technische Anleitung zur Reinhaltung der Luft) Point 5.2.6.4 – VDI 2440 Ed.11/2000 Point 3.3.1.3 and with reference to pr EN ISO 15848-1 ed. 06/2015.	
Reference standard	Test	Result
TA LUFT ed. 07/2002	Equivalence criteria of shaft sealing system according to TA LUFT Ed. July 2002 under point 5.2.6.4 and relevant VDI 2440	Leaks Lower than 10-4 mbar/l s m
VDI 2440 Ed.11/2000 Point 3.3.1.3		
EN ISO 15848-1 ed. 10/2015.	Endurance test (205 cycles) with two Thermal cycle (CO1) and one stem seal adjustment (SS1)	Leakege class BH
Test location:	JC Fábrica de Válvulas, S.A.U	
Leak detection Method	Helium Leak detector (Vacuum Method), Mass Spectrometer type Balzer HLT 150	
Packing Material and sealing Configuration	Stem O-Ring FKM GLT	Stem Diameter 90 mm
Examination result:	The above reported BALL VALVE was found to meet the standard required qualifying a range of valves of the same type of construction relating to material, design (shape), tolerance classes same packing sealing configuration with stem diameter within the range of 50% lower and 200% higher than the valve under test. temperature range from -46° to 200°C. Figure qualified: 6015-6030-6060-6090-6050 TRUNNION EXTERNAL	
Test Report No.:	JC-FET-INT-010 rev.00	
Test Procedure :	QSS 01 – TA Luft test procedure QSS 02 – ISO 15848 Qualification Test procedure	

Statement prepared and submitted without prejudice by:

Antonio Borraccino
Technical Representative
ABS Group LTD



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Certificate no.:
REP 60-112-2018-IT

Project no.:
TA LUFT

Report date:
25/05/2018

Office:
Curno, Italy

Independent Third Party Inspection Certificate

Manufacturer identification			
Sede Legale / Unità Operativa Head Office / Plant	JC Fábrica de Válvulas, S.A.U Av. Segle XXI, 75 – Poligono Industrial Can Calderon 08830 Sant Boi de Llobregat, Barcelona (Spain)		
Product identification			
Type:	6050LIM80 FFKM: dwg: 12942 rev.2		
Description	Ball Valve, Fig 6050 DN-3" LIM Class #1500 With wrench / RTJ Flange / O'Ring FFKM		
Scope of Certification	Prototype test with reference to the requirements of TA LUFT ed. 07/2002 (Technische Anleitung zur Reinhaltung der Luft) Point 5.2.6.4 – VDI 2440 Ed.11/2000 Point 3.3.1.3 and with reference to pr EN ISO 15848-1 ed. 06/2015.		
Reference standard	Prova / Test	Risultato / Result	
TA LUFT ed. 07/2002	Equivalence criteria of shaft sealing system according to TA LUFT Ed. July 2002 under point 5.2.6.4 and relevant VDI 2440	<i>Leaks Lower than 10-4 mbar/l s m</i>	
VDI 2440 Ed.11/2000 Point 3.3.1.3			
EN ISO 15848-1 ed. 10/2015.	Endurance test (205 cycles) with two Thermal cycle (CO1) and one stem seal adjustment (SS1)	<i>Leakege class BH</i>	
Test location:	JC Fábrica de Válvulas, S.A.U		
Leak detection Method	Helium Leak detector (Vacuum Method), Mass Spectrometer type Balzer HLT 150		
Packing Material and sealing Configuration	Stem O-Ring FFKM	Stem Diameter	42 mm
Examination result:	The above reported BALL VALVE was found to meet the standard required qualifying a range of valves of the same type of construction relating to material, design (shape), tolerance classes same packing sealing configuration with stem diameter within the range of 50% lower and 200% higher than the valve under test. temperature range from -20°C to 300°C. Figure qualified: 6015-6030-6060-6090-6050 TRUNNION EXTERNAL		
Test Report No.:	JC-FET-INT-009 rev.00		
Test Procedure :	QSS 01 – TA Luft test procedure QSS 02 – ISO 15848 Qualification Test procedure		

Statement prepared and submitted without prejudice by:

Antonio Borraccino
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Certificate no.:
REP 60-118-2018-IT

Project no.:
TA LUFT

Report date:
16/06/2018

Office:
Curno, Italy

Independent Third Party Inspection Certificate

Manufacturer identification		
Head Office / Plant	JC Fábrica de Válvulas, S.A.U Av. Segle XXI, 75 – Poligono Industrial Can Calderon 08830 Sant Boi de Llobregat, Barcelona (Spain)	
Product identification		
Type:	6050LIPK150 AFLAS: dwg 12944 rev.2	
Description	Ball Valve, Fig 6050 DN 6" L.I.PK. Class #1500 Free Stem / RF Flange / O'Ring AFLAS	
Scope of Certification	Prototype test with reference to the requirements of TA LUFT ed. 07/2002 (Technische Anleitung zur Reinhaltung der Luft) Point 5.2.6.4 – VDI 2440 Ed.11/2000 Point 3.3.1.3 and with reference to pr EN ISO 15848-1 ed. 06/2015.	
Reference standard	Test	Result
TA LUFT ed. 07/2002	Equivalence criteria of shaft sealing system according to TA LUFT Ed. July 2002 under point 5.2.6.4 and relevant VDI 2440	Leaks Lower than 10-4 mbar/l s m
VDI 2440 Ed.11/2000 Point 3.3.1.3		
EN ISO 15848-1 ed. 10/2015.	Endurance test (205 cycles) with two Thermal cycle (CO1) and one stem seal adjustment (SS1)	Leakege class BH
Test location:	JC Fábrica de Válvulas, S.A.U	
Leak detection Method	Helium Leak detector (Vacuum Method), Mass Spectrometer type Balzer HLT 150	
Packing Material and sealing Configuration	Stem O-Ring AFLAS	Stem Diameter 63 mm
Examination result:	The above reported BALL VALVE was found to meet the standard required qualifying a range of valves of the same type of construction relating to material, design (shape), tolerance classes same packing sealing configuration with stem diameter within the range of 50% lower and 200% higher than the valve under test. temperature range from -20°C to 230°C. Figure qualified: 6015-6030-6060-6090-6050 TRUNNION INTERNAL	
Test Report No.:	JC-FET-INT-015 rev.00	
Test Procedure :	QSS 01 – TA Luft test procedure QSS 02 – ISO 15848 Qualification Test procedure	

Statement prepared and submitted without prejudice by:

Antonio Borraccino
Technical Representative
ABS Group LTD



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Certificate no.:
REP 60-119-2018-IT

Project no.:
TA LUFT

Report date:
20/06/2018

Office:
Curno, Italy

Independent Third Party Inspection Certificate

Manufacturer identification		
Sede Legale / Unità Operativa Head Office / Plant	JC Fábrica de Válvulas, S.A.U Av. Segle XXI, 75 – Poligono Industrial Can Calderon 08830 Sant Boi de Llobregat, Barcelona (Spain)	
Product identification		
Type:	6050LIM150 FFKM: dwg: 12945 rev.2	
Description	Ball Valve, Fig 6050 DN 6" LIM. Class #1500 Free Stem / RF Flange / O'Ring FFKM	
Scope of Certification	Prototype test with reference to the requirements of TA LUFT ed. 07/2002 (Technische Anleitung zur Reinhaltung der Luft) Point 5.2.6.4 – VDI 2440 Ed.11/2000 Point 3.3.1.3 and with reference to pr EN ISO 15848-1 ed. 06/2015.	
Reference standard	Prova / Test	Risultato / Result
TA LUFT ed. 07/2002	Equivalence criteria of shaft sealing system according to TA LUFT Ed. July 2002 under point 5.2.6.4 and relevant VDI 2440	<i>Leaks Lower than 10-4 mbar/l s m</i>
VDI 2440 Ed.11/2000 Point 3.3.1.3		
EN ISO 15848-1 ed. 10/2015.	Endurance test (205 cycles) with two Thermal cycle (CO1) and one stem seal adjustment (SS1)	<i>Leakege class BH</i>
Test location:	JC Fábrica de Válvulas, S.A.U	
Leak detection Method	Helium Leak detector (Vacuum Method), Mass Spectrometer type Balzer HLT 150	
Packing Material and sealing Configuration	Stem O-Ring FFKM	Stem Diameter 63 mm
Examination result:	The above reported BALL VALVE was found to meet the standard required qualifying a range of valves of the same type of construction relating to material, design (shape), tolerance classes same packing sealing configuration with stem diameter within the range of 50% lower and 200% higher than the valve under test. temperature range from -20°C to 300°C. Figure qualified: 6015-6030-6060-6090-6050 TRUNNION INTERNAL	
Test Report No.:	JC-FET-INT-018 rev.00	
Test Procedure :	QSS 01 – TA Luft test procedure QSS 02 – ISO 15848 Qualification Test procedure	

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Certificate no.:
REP 60-117-2018-IT

Project no.:
TA LUFT

Report date:
13/06/2018

Office:
Curno, Italy

Independent Third Party Inspection Certificate

Manufacturer identification		
Sede Legale / Unità Operativa Head Office / Plant	JC Fábrica de Válvulas, S.A.U Av. Segle XXI, 75 – Poligono Industrial Can Calderon 08830 Sant Boi de Llobregat, Barcelona (Spain)	
Product identification		
Type:	6050LIPK150 FKM GLT: dwg 12943 rev.2	
Description	Ball Valve, Fig 6050 DN-6" L.I.PK. Class #1500 Free Stem / RF Flange / O'Ring FKM GLT	
Scope of Certification	Prototype test with reference to the requirements of TA LUFT ed. 07/2002 (Technische Anleitung zur Reinhaltung der Luft) Point 5.2.6.4 – VDI 2440 Ed.11/2000 Point 3.3.1.3 and with reference to pr EN ISO 15848-1 ed. 06/2015.	
Reference standard	Test	Result
TA LUFT ed. 07/2002	Equivalence criteria of shaft sealing system according to TA LUFT Ed. July 2002 under point 5.2.6.4 and relevant VDI 2440	Leaks Lower than 10-4 mbar/l s m
VDI 2440 Ed.11/2000 Point 3.3.1.3		
EN ISO 15848-1 ed. 10/2015.	Endurance test (205 cycles) with two Thermal cycle (CO1) and one stem seal adjustment (SS1)	Leakege class BH
Test location:	JC Fábrica de Válvulas, S.A.U	
Leak detection Method	Helium Leak detector (Vacuum Method), Mass Spectrometer type Balzer HLT 150	
Packing Material and sealing Configuration	Stem O-Ring FKM GLT	Stem Diameter 63 mm
Examination result:	The above reported BALL VALVE was found to meet the standard required qualifying a range of valves of the same type of construction relating to material, design (shape), tolerance classes same packing sealing configuration with stem diameter within the range of 50% lower and 200% higher than the valve under test. temperature range from -46° to 200°C. Figure qualified: 6015-6030-6060-6090-6050 TRUNNION INTERNAL	
Test Report No.:	JC-FET-INT-014 rev.00	
Test Procedure :	QSS 01 – TA Luft test procedure QSS 02 – ISO 15848 Qualification Test procedure	

Statement prepared and submitted without prejudice by:

Antonio Borraccino
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**Industrial valves — Measurement,
test and qualification procedures for
fugitive emissions —**

**Part 1:
Classification system and qualification
procedures for type testing of valves**

*Robinetterie industrielle — Mesurage, essais et modes opératoires de
qualification pour émissions fugitives —*

*Partie 1: Système de classification et modes opératoires de
qualification pour les essais de type des appareils de robinetterie*



- i) valve performance classes achieved;
- j) valve mounting instructions;
- k) valve repacking before type test to be reported, if applicable;
- l) insulation of test valve to be reported, if applicable;
- m) valve operation data:
 - valve operating torque or force;
 - gland bolt tightening torque;
 - stroke/angle;
- n) description of the actuator, if applicable;
- o) copy of the test sequence;
- p) detailed results of the test;
- q) qualification certificate: the certificate shall indicate the number of the standard and its year of issue (e.g. ISO 15848-1:2015).

The specific product data file including the following information shall be the responsibility of the manufacturer and shall be included as an annex:

- a) cross sectional valve assembly drawing;
- b) bill of valve materials;
- c) stem or shaft seal description, dimensions, and specifications;
- d) body seal(s) description, dimensions, and specifications;
- e) material specifications of stem (or shaft) seal components;
- f) hydrostatic test certificate.

8 Extension of qualification to untested valves

Upon the successful completion of the test program as defined in this part of ISO 15848, this qualification can be extended to untested sizes and classes of valves of the same type, if the following criteria are met:

- a) the stem (or shaft) seals and body seals are of the same material, design (shape), and construction, independent of the size;
- b) loading arrangement applies a similar sealing stress to the seal element as that applied in the test valve;
- c) the type of motion of the stem (or shaft) is identical;
- d) tolerances classes and surface finishes specifications of all valve components which affect sealing performance are identical;

NOTE The tolerances classes are in accordance with ISO 286-1 and ISO 286-2.

- e) stem diameters are from half to twice the tested valve diameter, half diameter and double diameter included: $D_0/2 \leq D \leq 2 D_0$ with D_0 being the stem diameter of the tested valve;
- f) the valve class or PN designation is equal or lower;