



Kiwa Inspecta

KIWA INSPECTA
TYPKONTROLLINTYG
TYPE INSPECTION CERTIFICATE

FÖRETAG/COMPANY

RINGO VALVULAS S.L
SAMSON RINGO

Calle Romero N°6 & N°8
Polígono Industrial Empresarium
50720 Zaragoza
Spain

SERIETILLVERKADE / SERIAL PRODUCED

GLOBE VALVES
BELLOW SEALED GLOBE VALVES
CHECK VALVES
BALL VALVES
GATE VALVES

I KVALITETSKLASS / IN QUALITY CLASS

1,2,3,4 & 4A

TYPKONTROLLINTYG NR.: / TYPE INSPECTION CERTIFICATE NO.:

117448

Utfärdad / Date of authorization: 17th December 2020

Giltig till / Valid until: 31st December 2025

Revisions nr / Revision no.: 15

Revisions datum / Revision date: 16th Dec 2020

Årliga uppföljningsrevisioner: / Yearly follow-up audits:

2021

2022

2023

2024

2025

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

Innehållsförteckning/ Table of Contents

Sida/Page

1.	Tillverkning och kontroll / Manufacturing and inspection	4
	Företagsgodkännanden / Company qualifications	4
	Villkor / Conditions.....	4
2.	Konstruktionskontroll / Design review	5
	Omfattning av godkännande/Scope of approval	5
	Regler och förutsättningar för konstruktionsgranskning/ Rules and conditions related to product design review	5
	Konstruktionskontrollintyg / Design review certificate	5
3.	Materialspecifikationer / Material specifications	6
	Materiallista / Bill of materials.....	6
	Materialcertifikat / Material certificates.....	6
	Registrering och arkivering / Indexing, filing and storage.....	6
4.	Kvalitetssystem / Quality system	6
	Organisation och kvalitetssystem / Organization and quality system.....	6
	Kvalitetsmanual / Quality manual.....	7
	Genomförande / Implementation	7
5.	Inköp / Purchasing	7
	Bedömning av underleverantörer / Assessment of sub-contractors	7
	Kontraktsgenomgång / Contract review.....	7
6.	Processtyrning / Process control	7
	Arbetsinstruktioner / Work instructions	7
	Kontroll- och provningsstatus / Inspection and test status.....	7
	Behandling av avvikande produkter / Control of nonconforming products	7
7.	Svetsning / Welding	8
	Kvalificering för svetsning / Qualification for welding.....	8
	Företag / Company	8
	Procedurer / Procedure qualification record.....	8
	Svetsarprovning / Welder performance qualifications.....	8
	Svetsprocedurer / Welding procedure specifications	8
8.	Värmebehandling – Formning / Heat treatment – Forming	8
	Tillstånd / Authorization	8
	Värmebehandlingsprocedurer / Heat treatment specifications.....	8
	Formningsprocedurer / Forming specifications	9
9.	Oförstörande provning / Non destructive testing	10
	OFP-metoder / NDT-methods	10
	Certifieringssystem /Certification system	10
	OFP-procedurer / NDT-procedure	10
10.	Utrustning – Kalibrering / Equipment – Calibration	10
	Kontroll-, mät- och provningsutrustning/Inspection, measuring and test equipment	10
	Utrustning / Equipment	10
	Kalibrering och underhåll / Calibration and maintenance	10
	Kalibrering utförs av / Calibration performed by.....	10
11.	Kvalitetsplan / Quality plan	11
	Kontroll och provning / Inspection and testing.....	11
	Mottagningskontroll / Receiving inspection and testing.....	11
	Kontroll och provning under tillverkning / In-process inspection and testing.....	11

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

Slutkontroll / Final inspection	11
Slutprovning / Final testing	11
12. Övrigt / Miscellaneous	12
13. Leverans / Delivery	12
Kvalitetsdokument / Quality records.....	12
Märkning och dokumentation / Marking and documentary evidence.....	12
Marking:	12
Bilagor / Appendices	13
Bilaga 1 / Appendix 1.....	14
Bilaga 2 / Appendix 2.....	15
Bilaga 3 / Appendix 3	16

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

1. Tillverkning och kontroll / Manufacturing and inspection

Namngivet företag medges tillverka och leverera komponenter, i den omfattning som anges nedan, i enlighet med tillämpliga bestämmelser i

The named company is authorized to manufacture and supply components to the scope shown below in accordance with applicable rules and regulations in

- SSMFS 2008:13
- KBM edition 7

Bemyndigandet och tillämpningen är underkastade villkor som anges i detta typkontrollintyg. The authorization and use are subject to provisions stated in this type inspection certificate.

Typkontrollintyget gäller endast under förutsättning av godkända årliga uppföljningsrevisioner. The type inspection certificate is only valid under the condition of approved yearly follow-up audits.

Tillverkare / Manufacturer

Ringo Valvulas S.L

Referens / Reference

María Ángel Gumiel

Adress / Address

Calle Romero N°6
Polígono Industrial Empresarium
50720 Zaragoza Spain

Telefon / Telephone

+34 976 45 49 40

Telefax / Facsimile

+34 976 45 48 40

E-mail

magumiel@ringospain.com

Representant / Representative

Ringo Nordic AB

Referens / Reference

Bo Eriksson

Adress / Address

Gulskärsvägen 12
442 75 Lycke
Sweden

Telefon / Telephone

+46 70 570 80 68

Telefax / Facsimile

-

E-mail

beriksson@ringospain.com

Företagsgodkännanden / Company qualifications

- | | | | |
|---|---|--|--------------------------|
| <input checked="" type="checkbox"/> 2014/68/EU | <input checked="" type="checkbox"/> ISO 9001:2015 | <input checked="" type="checkbox"/> AD2000-Merkblatt
HP 0 | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> EN ISO 3834-2 | <input checked="" type="checkbox"/> TRD 201 | <input checked="" type="checkbox"/> ASME N, NPT | <input type="checkbox"/> |

Villkor / Conditions

1. Minimum wall thickness for welding ends must be calculated for the design data given by customer.
2. In case that seismic loads or pipe loads are present, a separate calculation is needed.

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

3. Valves with minor design deviations can, after approved design review by Kiwa Inspecta Nuclear, be supplied according to the Type Inspection Certificate.
4. Cobalt based hardfacing is not allowed in valves in primary water systems.
5. For valves in quality class 1 hot tensile test according to KBM EP 2-03 is required.

2. Konstruktionskontroll / Design review

Omfattning av godkännande/Scope of approval

Godkända komponenter/Approved components:

Type	Dimension	Rating
Check Valve	DN15-DN50	PN16-PN250
Globe Valve	DN15-DN50	PN16-PN250
Ball Valve	DN15-DN50	PN16-PN160
Gate Valve	DN15-DN50	PN16-PN250
Bellows Globe Valve	DN15-DN50	PN16- PN250
”Y” Globe Valves	DN15-DN50	PN16- PN250

Regler och förutsättningar för konstruktionsgranskning/ Rules and conditions related to product design review

SSMFS 2008:13 2014/68/EU ASME III

Konstruktionskontrollintyg / Design review certificate

Nej/No

Ja/Yes

thothu110304_1	thudan150701_3
thothu111018_1	sanpat170523-1
thothu120427_1	sanpat170627-1
hanmar120415_1	holbjo180508-1
hanmar130408_1	holbjo180508-2
hanmar140414_1	holbjo180508-3
hanmar140521_1	holbjo180508-4
hanmar141202_1	holbjo180509-1
thudan150313_1	holbjo180509-2
holbjo190408-1	sanpat190408-1
holbjo200422-2	holbjo200515-1
sanpat200604-1	sanpat200625-2
sanpat200626-1	sanpat201216-1

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

3. Materialspecifikationer / Material specifications

Materiallista / Bill of materials

Materialspecifikationer / Material specifications:

Part	Material options		
	SS	CS	CS
Body, Bonnet	SA182 – F316L	SA182 F1 (1.5415)	SA105
	A182 – F316L	-	A105
Ball	SA182 – F316	-	SA182 – F316
	A182 – F316	-	A182 – F316
Disc, Wedge	SA479 – 316	SA182 F1 (1.5415)	SA479 – 316
	A479 – 316	-	A479 – 316
Stud	SA453 – Gr660B	SA 193 B7	SA 193 B7
	A453 – Gr660B	-	A 193 B7
Nut	SA194 – Gr6 T410	SA 194 2H	SA 194 2H
	A194 – Gr6 T410	-	A 194 2H
Bellow	SA182 – 316Ti	SA182 – 316Ti	SA182 – 316Ti

Materialspecifikation / Material specification

MPS-10-001 rev 2	Material procurement specification SS (Forgings SA-182)
MPS-10-002 rev 2	Material procurement specification SS (Forgings SA-479)
MPS-10-003 rev 4	Material procurement specification (Stems)
MPS-10-004 rev 3	Material procurement specification CS (Forged Valve parts SA-105)
MPS-10-005 rev 1	Material procurement specification for bellows.
MPS-10-006 rev 1	Material procurement specification CS (16Mo3, 1.5415)
MPS-10-007 rev 1	Material procurement specification forged austenitic-ferritic steel pressure retaining parts for valves
MPS-10-011 rev 0	Material procurement specification (Stems) XM19 SA182
MPS-10-012 rev 0	Material procurement specification (Stems) 1.4057

Registrering och arkivering / Indexing, filing and storage

PR-104 rev 5	Purchases
PR-106 rev 3	Inspection
IIP-01-001 rev 2	Incoming Inspection Procedure

The material certificates are stored in the quality department.

4. Kvalitetssystem / Quality system

Organisation och kvalitetssystem / Organization and quality system

ISO 9001:2015 ISO 14001:2015 USNRC 10 CFR50APP B

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

Kvalitetsmanual / Quality manual

Nej/No Ja/Yes: MG/01 Edition 6 14/04/2020

Registrerad på Inspecta / Registered on Inspecta

Nej/No Ja/Yes:

Genomförande / Implementation

MG/01 Edition 6, Divided into section 1-8

General procedures PG-X and PR-X according to Current Document List 20/11/2020

Instructions according to “list of procedures applicable to type inspection certificate” Rev 4
1/12/2020

5. Inköp / Purchasing

Bedömning av underleverantörer / Assessment of sub-contractors

PR-104 Rev 5 Purchases and evaluation of suppliers

Kontraktsgenomgång / Contract review

PR-101 Rev 6 Commercial Management

6. Processtyrning / Process control

Arbetsinstruktioner / Work instructions

Instructions according “list of procedures applicable to type inspection certificate” Rev 4
1/12/2020

Kontroll- och provningsstatus / Inspection and test status

MG/01 Chapter 8

PR-106 Rev 3 Inspection

Behandling av avvikande produkter / Control of nonconforming products

PR-204 Rev 4 Improvement (non conformities, corrective and preventive actions, internal audits) Non-conformance report Form FPR-204-1

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

7. Svetsning / Welding

Kvalificering för svetsning / Qualification for welding

Företag / Company

EN ISO 3834-2

Procedurer / Procedure qualification record

SS-EN ISO 15614-1 ASME IX

Svetsarprövning / Welder performance qualifications

SS-EN ISO 9606-1, 9606-5 ASME IX

Svetsprocedurer / Welding procedure specifications

WPS-01-001, rev. 0	WPQR ZA - 709/15/004/PS/16E
WPS-01-002, rev. 0	WPQR ZA - 709/15/004/PS/16E
WPS-03-001, rev. 0	WPQR PQR-1-EN
WPS-03-002, rev. 0	WPQR ZA - 709/15/004/PS/15E
WPS-03-003, rev. 1	WPQR PQR-1-EN
WPS-11-001, rev. 0	WPQR ZA - 709/15/004/PS/16E
WPS-11-002, rev. 0	WPQR ZA - 709/15/004/PS/16E
WPS-11-003, rev. 1	WPQR ZA - 709/15/004/PS/16E
WPS-13-001, rev. 2	WPQR PQR-1-EN
WPS-15-001, rev. 0	WPQR ZA - 709/09/003/PS/04E
WPS-20-002, rev. 1	WPQR ZA - 709/15/004/PS/12E
WPS-20-003, rev. 0	WPQR ZA - 709/15/004/PS/10E
WPS-25-001, rev. 0	WPQR ZA - 709/15/004/PS/14E
WPS-25-002, rev. 0	WPQR ZA - 709/15/004/PS/13E
WPS-28-001, rev. 0	WPQR ZA - 709/13/003/PS/05E
WPS-28-002, rev. 0	WPQR ZA - 709/15/004/PS/08E
WPS-29-001, rev. 0	WPQR ZA - 709/15/004/PS/11E
WPS-29-002, rev. 0	WPQR ZA - 709/15/004/PS/09E

Referens / Reference

Sergio Esco Muñoz, IWS
Santiago Hijazo, IWE

8. Värmebehandling – Formning / Heat treatment – Forming

Tillstånd / Authorization

SS-EN ISO 17663 AD-Merkblatt HP 7/1

Värmebehandlingsprocedurer / Heat treatment specifications

N/A

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

Formningsprocedurer / Forming specifications

N/A

Referens / Reference

N/A

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

9. Oförstörande provning / Non destructive testing

OFP-metoder / NDT-methods

Metod/Method Utföres av/Performed by

<input type="checkbox"/>	RT	
<input type="checkbox"/>	MT	
<input checked="" type="checkbox"/>	UT	Ringo / S.C.I
<input checked="" type="checkbox"/>	PT	Ringo / S.C.I.
<input type="checkbox"/>	ET	
<input checked="" type="checkbox"/>	VT	Ringo

Certifieringssystem / Certification system

<input checked="" type="checkbox"/> SNT-TC 1A	<input checked="" type="checkbox"/> EN ISO 9712	<input type="checkbox"/>	<input type="checkbox"/> CSWIP
<input type="checkbox"/> COFREND	<input type="checkbox"/> DGZfp	<input type="checkbox"/>	

OFP-procedurer / NDT-procedure

PT	PTP-10-001, rev. 1	
UT	UTP-10-002, rev. 2	Surface welding*
UT	UTP-10-001, rev. 2	Forging
VT	VTP-10-001, rev. 1	

*Not applicable due to geometry of valves \leq DN50

Referens / Reference

Santiago Hijazo, Level II

10. Utrustning – Kalibrering / Equipment – Calibration

Kontroll-, mät- och provningsutrustning/Inspection, measuring and test equipment

SS-EN ISO 17662 SS-EN 50504

Utrustning / Equipment

List of calibration/verification in computer.

Kalibrering och underhåll / Calibration and maintenance

PR-203 Rev 3 Infrastructure (Maintenance of Equipment & Installations,
Computer Maintenance, Calibration of Equipment)

Kalibrering utförs av / Calibration performed by

Ringo Valvulas uses Accredited laboratory for calibration of manometers, measuring equipment and UT-equipment.

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

11. Kvalitetsplan / Quality plan

Kontroll och provning / Inspection and testing

Inspection and Test Plan	Material	Quality Class
ITP-BALL-1, rev. 1	Stainless Steel	2,3 & 4
ITP-BALL-2, rev. 1	Carbon Steel	2,3 & 4
ITP-BALL-3, rev. 0	Stainless Steel	1
ITP-BALL-4, rev. 0	Stainless / Carbon Steel	4
ITP-GLOBE-1, rev. 1	Stainless Steel	2,3 & 4
ITP-GLOBE-2, rev. 3	Carbon Steel	2,3 & 4
ITP-GLOBE-3, rev. 0	Stainless Steel	1
ITP-BELLOW-1, rev. 1	Stainless Steel	2,3 & 4
ITP-BELLOW-2, rev. 1	Carbon Steel	2,3 & 4
ITP-BELLOW-3, rev. 0	Stainless Steel	1
ITP-4742-1, rev. 0	Stainless Steel	4
ITP-CHECK-1, rev. 1	Stainless Steel	2,3 & 4
ITP-CHECK-2, rev. 2	Carbon Steel	2,3 & 4
ITP-CHECK-3, rev. 0	Stainless Steel	1
ITP-GATE-1, rev. 1	Stainless Steel	2,3 & 4
ITP-GATE-2, rev. 1	Carbon Steel	2,3 & 4
ITP-GATE-3, rev. 0	Stainless Steel	1
ITP-YGLOBE-1, rev 1	Carbon Steel	2 - 4
ITP-YGLOBE-2, rev 1	Stainless Steel	2 - 4
ITP-8086-1, rev 0	Carbon Steel	3

Mottagningskontroll / Receiving inspection and testing

MG/01 Chapter 6 and 8
PR-104 Rev 5 Purchases (Reception)
PR-106 Rev 3 Inspection (Inspection in Reception)
IIP-01-001 rev 2 Incoming Inspection Procedure

Referens / Reference

Santiago Hijazo

Kontroll och provning under tillverkning / In-process inspection and testing

MG/01 Chapter 6 and 8
PR-106 Rev 3 Inspection (Inspection in process)

Slutkontroll / Final inspection

TVP-10-001, rev. 0 Hydraulic and functional test according to KBM
CLP-01-001, rev. 0 Cleaning of carbon steel and stainless steel valves.
PCP-01-001, rev. 5 Packing ,shipping, handling and storage procedure
VTP-10-001, rev. 1 Inspection of surfaces
TIP-01-001, rev. 3 Identification of valves
FIP-01-001, rev. 3 Final Inspection

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

Slutprovning / Final testing

N/A

12. Övrigt / Miscellaneous

Material specifications for stainless steel fulfils requirement in TBM ed. 7 chp. 3.1.1.4 regarding the maximum carbon content of 0.02%.

MPS-10-001, rev. 2 Material procurement specification SS (Forgings SA-182)
MPS-10-002, rev. 2 Material procurement specification SS (Forgings SA-479)

Corrosion protection and Packing

PCP-01-001, rev. 5 Packing ,shipping, handling and storage procedure
CLP-01-001, rev. 0 Cleaning of carbon steel and stainless steel valves.
PPP-10-001, rev. 1 Painting procedure according to TBY

13. Leverans / Delivery

Kvalitetsdokument / Quality records

PR-201 rev 2 Management of the Documented Information
Certificate of compliance 3.1
Traveler, Inspection and testing plan
NDT Certificates

Referens / Reference

María Ángel Gumiel

Märkning och dokumentation / Marking and documentary evidence

Marking:

Marking:

Manufacturer name, Type, Size, Pressure rating, Body material, Disc material, Design temperature, Nuclear quality class, Seismic class, Design pressure, Serial number, Date (year)

Documentation sent together with delivery:

Certificate of compliance to Type Inspection Certificate
Assembly drawing

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

Bilagor / Appendices

Appendices filed at Kiwa Inspecta Nuclear AB:
CD with all design information

Documents appended to Type Inspection Certificate:

- Appendix 1 Certificate of compliance
- Appendix 2 List of Drawings
- Appendix 3 Example of PT record


TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

Bilaga 1 / Appendix 1 Certificate of compliance

	<p><u>CERTIFICADO DE CUMPLIMIENTO</u></p> <p><u>(COMPLIANCE CERTIFICATE)</u></p>
Certificate Nr.:	Page: 1 of 1

Obra (Work Order) n°:	Cliente (Customer):
Equipo (Product):	Ctd (Qty):
Orden de compra (P/O) n°:	

<i>(Ringo Valvulas, S.L. hereby, certifies that): Ringo Valvulas, S.L. por el presente certifica que:</i>	
<i>The goods stated here below have been inspected and tested in accordance with the conditions and requirements of the Type Inspection Certificate number 117448 issued 2015-12-15 valid until 2020-12-15 by Kiwa Inspecta Nuclear AB</i>	
Firmado (Signed):	Fecha (Date):

Item	Datos de la válvula (Valve Data)	N° Serie (Serial N°)	Tag n°	Ctd (Qty)
	Datos de la presión de pruebas (Valve Pressure Test Data)			

RINGO VALVULAS, S.L. F8-3-2

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

Bilaga 2 / Appendix 2 List of drawings

TYPE	DRAWINGS	REV.	MTRL.*	DIMENSIONS DN	RATING
Ball Valves	RV-B2814	4	SS	15/20/25/40/50	PN100
	RV-B2813	4	CS	15/20/25/40/50	PN100
	RV-B5077	10	CS/SS	50	PN16
	RV-B5945	8	SS	8	PN16
	RV-B7104	0	SS	DN20	PN150
	RV-B7107	0	SS	DN50	PN150
	RV-B7109	0	SS	DN25	PN150
Bellow Globe Valves	RV-G1866	4	CS	15/20/25	PN250
	RV-G1867	5	SS	15/20/25	PN250
	RV-G1868	5	CS	40/50	PN250
	RV-G1869	5	SS	40/50	PN250
	RV-G2092	5	CS ¹	20	PN250
	RV-G2063	5	SS	25	PN250
	RV-G1941	4	CS ¹	25	PN250
	RV-G2152	2	SS	15/20/25	PN250
	RV-G2151	2	CS	15/20/25	PN250
	RV-G2154	2	SS	40/50	PN250
	RV-G2153	2	CS	40/50	PN250
	RV-G2519	6	CS	25	PN250
	RV-G3145	4	SS	25	PN250
	RV-G3542 ³	4	CS	25	PN250
Check Valves	RV-R1164	4	CS	15/20	PN250
	RV-R1163	4	SS	15/20	PN250
	RV-R1162	4	CS	25/40/50	PN250
	RV-R1161	4	SS	25/40/50	PN250
	RV-R2003	0	SS	15	PN250
	RV-R2004	0	CS	15	PN250
	RV-R3419	3	SS	50	PN40
Gate Valves	RV-C1874	3	SS	15/20	PN250
	RV-C1875	2	CS	15/20	PN250
	RV-C1876	3	SS	25	PN250
	RV-C1877	2	CS	25	PN250
	RV-C1878	4	SS	40/50	PN250
	RV-C1879	3	CS	40/50	PN250
	RV-C5188 ⁵	3	SS	40/50	PN250
Globe Valves	RV-G1751	5	SS	15/20	PN250
	RV-G1847	3	CS	15/20	PN250
	RV-G1848	4	SS	40/50	PN250
	RV-G1849	4	CS	40/50	PN250
	RV-G1850	4	SS	25	PN250
	RV-G1851	3	CS	25	PN250
	RV-G1879	6	CS	25	PN250
	RV-G1942	6	CS ¹	50	PN250

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

	RV-G2093	5	CS ¹	20	PN250
	RV-G2094	4	CS ¹	20	PN250
	RV-G2145	2	SS	15/20	PN250
	RV-G2146 ²	1	CS	15/20	PN250
	RV-G2147	2	SS	40/50	PN250
	RV-G2148	2	CS	40/50	PN250
	RV-G2149	2	SS	25	PN250
	RV-G2150 ²	1	CS	25	PN250
	RV-G3042	2	SS	50	PN250
	RV-G3804	8	SS	50	PN150
	RV-G3919 ⁶	3	CS	25	PN250
	RV-G3920 ⁶	3	SS	25	PN250
	RV-G4168	3	CS	20	PN250
	RV-G4183	3	SS	20	PN250
	RV-G4937 ⁴	6	CS	50	PN150
"Y" Globe Valves	RV-G4292	5	SS	50	PN250
	RV-G4293	3	SS	25/40	PN250
	RV-G4294 ⁶	4	CS	50	PN250
	RV-G3921	5	CS	50	PN250
	RV-G3922	5	SS	50	PN250
	RV-G4209	4	SS	25/40	PN250
	RV-G4536	1	CS	20	PN250
	RV-G4539	1	SS	20	PN250
	RV-G4537	1	CS	25	PN250
	RV-G4538	1	SS	25	PN250

*CS = Carbon Steel

SS = Stainless Steel

¹ SA182 F1 (16Mo3).

² RV-G2146, RV-G2150 are verified for acceleration load 10g in vertical direction and horizontal directions and 7.6 MPa design pressure and 316 °C design temperature.

³ Approval of Valve includes actuator. Verified in calculation report DC-6803-1.

⁴ Valve with Actuator, RV-G4937, verified and approved for 6g acceleration in all directions.

⁵ Valve, RV-C5188, verified and approved for 6g acceleration in all directions.

⁶ Valve, RV-G3919, RV-G3920, RV-G4294 verified and approved for 6g acceleration in all directions.

TYPKONTROLLINTYG TYPE INSPECTION CERTIFICATE

Revision nr/Revision No.:
15

Typkontrollintyg nr.: / Type Inspection Certificate No.:
117448

Datum/Date:
16th December 2020

Bilaga 3 / Appendix 3

Example of PT record



INFORME DE INSPECCION POR LIQUIDOS PENETRANTES

Penetrant Liquid Test Report

Laboratorio de ensayo acreditado por ENAC con acreditación N° 67/LE101.
Las actividades marcadas con (*) no están amparadas por la acreditación ENAC.

INFORME: 190092ENDMAD-OT0001-PT01-REV1 REV. 1
Report
O.T.(S.C.I.): 190092ENDMAD-OT0001



Digitally signed by:
SERVICIOS DE
CONTROL E
INSPECCION S.A.
Date:2019.02.14 15:54:37

CLIENTE:
Customer

DOMICILIO SOCIAL:
Address

DIRECCION DE REALIZACION DEL ENSAYO:
Testing Piece

PEDIDO: UPPER SHAFT ADAPTER FALNGE RUBBING. S/P ENAZ170P0004

P. order DAMPER SHAFT ADAPTER S/P ENAZ170P0005

OBJETO ENSAYADO: UPPER SHAFT ADAPTER FALNGE
Tested Object RUBBING.(1UD.)

PLANO: ENAZ170P0004 Y ENAZ170P0005
Drawing

PROCEDIMIENTO: END-PT-4062
Procedure

REVISED: 0.0

CALIF. S/ESPECIFICACION:
Specification Qualification

NORMA ENSAYO: UNE-EN ISO 3452-01 2013
Testing norm

FECHA DE ENSAYO: 08/02/2019
Test date

EXTENSION EXAMEN: 100%
Control extension

FECHA DE RECEPCION: 08/02/2019
Reception date

DATOS DE LA PIEZA:
Specimen

SOLDADURA
Weld

CHAPA
Plate

FUNDICION, FORJA, REDONDO
Casting, forging and bars

OTROS
Other

IDENTIFICACION:
Identification

UPPER SHAFT ADAPTER FALNGE RUBBING. S/P ENAZ170P0004 (1 UD).
DAMPER SHAFT ADAPTER S/P ENAZ170P0005 (1UD).

ZONA A INSPECCIONAR:
Inspection area

CARAS EXTERNAS E INTERNAS ACCESIBLES

MATERIAL - CALIDAD:
Material - Specification

F1272

ESPESOR (mm): 10/92
Thickness

TRATAMIENTO TERMICO:
Heat Treatment

N/D

TIPO DE UNION:
Type of Joint

N/A

PROCESO DE SOLDEO:
Welding procedure

N/A

ESTADO SUPERFICIAL:
Surface Condition

Mecanizado

MEDIOS DE INSPECCION.
Inspection Equipments

TIPO DE ENSAYO:
Type of test

Fluorescentes eliminables con agua y revelador humedo

	MARCA COMERCIAL Commercial name	CODIGO Code	TIPO Type	COLOR Colour	Nº LOTE Batch No.
DISOLVENTE Solvent	N/A	N/A	AGUA	N/A	N/A
PENETRANTE Penetrant	CHEMETALL	BRITEMOR 4455	ELIMINABLE CON AGUA	ROJO	0900061018
REVELADOR Developer	CHEMETALL	LD7	HUMEDO NO ACUOSO	BLANCO	0900058050

ILUMINACION:
Illumination type

NATURAL

ARTIFICIAL

U.V.

CODIGO SCI LAMPARA U.V.:

PME02022
Black light code nbr.

APLICACION.
Application

TEMPER. SUPERFICIE 16 °C
Surface temperature

TIEMPO PENETRACION 30 MINUTOS
Penetrating time

TIEMPO REVELADO 20 MINUTOS
Developing time

Nº DE DOCUMENTOS ANEXOS AL INFORME: 3
Nº of annex attached to this

RESULTADOS DE LA PRUEBA: (*)
Test Result

ACEPTABLE.

OBSERVACIONES GENERALES:
General Notes

-ESTA REVISIÓN ANULA Y SUSTITUYE AL INFORME ANTERIOR. EMITIDO POR ERROR DE TRANSCRIPCIÓN.
-A PETICIÓN DEL CLIENTE, NO SE ADMITEN GRIETAS

SUPERVISOR: FRANCISCO JAVIER RODRIGO CASADO
DNI: 07829036C



Para verificar la autenticidad de este certificado accede a la url <http://www.scisa.es/verificar>

OPERADOR JOSE URBANO ARAUJO MORCUENDE
Operator NIVEL: II DNI: 04170598P 14/02/2019 3:54 PM
SCI Servicios Control e Inspección. A78024668