



**CERTIFICADO DE APROBACION DEL SISTEMA DE CALIDAD**  
**CERTIFICATE OF QUALITY SYSTEM APPROVAL**

**N° CE-0056-PED-H1-JCV-001-12-ESP**

ECA ENTIDAD COLABORADORA DE LA ADMINISTRACION S.A.U., actuando dentro del campo de su notificación (Organismo Notificado nº 0056, y Acreditado por ENAC con acreditación nº OC-C/0190), **certifica** que el sistema de calidad aplicado por el fabricante para el diseño, la fabricación, la inspección final y los ensayos de los equipos a presión identificados a continuación, ha sido evaluado según los requisitos del módulo H1 del anexo III de la Directiva de Equipos a Presión 97/23/CE transpuesta por el RD 768/1999, y satisface las disposiciones correspondientes de la directiva que le aplican.

*ECA ENTIDAD COLABORADORA DE LA ADMINISTRACION S.A.U., acting within the scope of its notification (Notified Body number 0056, and Accredited by ENAC with nº OC-C/190), certifies that the quality system operated by the manufacturer for design, manufacturing, final inspection and testing of the pressure equipments identified hereunder has been examined against the provisions of annex III, module H1, of the Pressure Equipment directive 97/23/EC transposed by the RD 769/1999, and found to satisfy the provisions of the directive which apply to it.*

Fabricante (Nombre) / *Manufacturer (Name):* **JC FÁBRICA DE VÁLVULAS, S.A.**  
 Dirección / *Address:* **c/ Cantabria, 2. Pol. Ind. Les Salines.,  
 8830 Sant Boi de Llobregat,  
 Barcelona SPAIN**

Marca comercial / *Branding name:* **JC**

Descripción de los equipos/ *Equipments description:* **· Depósito Acero Inoxidable / Stainless Steel Tank · Depósito Acero al Carbono / Carbon Steel Tank · Válvulas de Bola / Ball Valves Type DIN · Válvulas de Bola / Ball Valves Type ANSI · Válvulas de Compuerta / Gate Valve · Válvulas de Globo / Globe Valve · Válvulas de Retención / Check Valves · Fitros / Filters**

Identificación de los tipos afectados (lista en anexo en caso necesario): **Ver Anexos de los Certificados de Examen CE de diseño Tipo H1D / See Annexes of EC Certificates of Design Review Type H1D.**  
*Identification of the types concerned (list attached when necessary):*

Número(s) de los certificado(s) de examen CE de diseño emitido(s), en el alcance del módulo H1, por ECA ENTIDAD COLABORADORA DE LA ADMINISTRACION S.A.U., (organismo notificado nº 0056), cubiertos por la aprobación del sistema de calidad :

*Number(s) of the EC design-examination certificate(s) issued under the scope of module H1, by ECA ENTIDAD COLABORADORA DE LA ADMINISTRACION S.A.U., (notified body nr 0056), concerned by the approval of the quality system :*

**See the List of the concerned equipment (Annex)**

Esta aprobación es válida hasta (mes/día/año): **02/21/2015**

*This certificate is valid until (MM/DD/YYYY)*

La aprobación está condicionada a la realización de auditorias, ensayos y verificaciones llevados a cabo por ECA, según las condiciones establecidas en la solicitud firmada entre el fabricante y ECA.

*The approval is conditional upon the surveillance audits, tests and verifications to be carried out by ECA, as per the provisions stated in the application signed by both the manufacturer and ECA.*

Este certificado será presumido nulo y solo el fabricante soportará cualquier consecuencia derivada de su utilización, cuando el fabricante no cumpla con sus obligaciones según el acuerdo con respecto a : (a) implementación de su sistema de calidad aprobado, (b) conformidad del equipo con las condiciones del certificado de examen CE de diseño y (c) inspección y ensayos del producto final, y de forma general, cuando el fabricante no cumpla en particular con cualquiera de sus obligaciones incluidas en la Directiva 97/23/CE del 29 de mayo de 1997 transpuesta por el R.D. 769/1999.

*This certificate shall be deemed to be void and the manufacturer shall alone bear any consequences pursuant to its use, where the manufacturer fails to comply with his undertakings as per the agreement in respect of (a) implementation of the approved quality system, (b) conformity of the equipment with EC-design approval conditions and (c) inspection and tests on the final product, and generally where the manufacturer fails in particular to comply with any of his obligations under directive 97/23/EC of 29 May 1997 as transposed in the R.D. 769/1999.*

Fecha de la auditoría / *Date of the audit:* **02/21/2012**  
 Inspector / *Surveyor:* **Roberto Garcia**

Realizado en / <i>Made at</i>	El (mes/día/año) / <i>On (MM/DD/YYYY)</i>	Aprobado y registrado en / <i>Approved and Recorded in</i>	Firmado por / <i>Signed by (Director Técnico / Technical Manager)</i>	Firma autorizada por el Organismo Notificado / <i>Signature authorised by Notified Body No 0056</i>
<b>Barcelona</b>	<b>02/21/2012</b>	<b>Spain</b>	<b>Javier Irigoyen</b>	

Code d'enregistrement / *Registration code:* **2012/80.09.2289/PSPA**

Este certificado está sujeto a los términos de las condiciones generales de actuación de ECA Entidad Colaboradora de la Administración, S.A.U. *This certificate is subject to the terms of ECA Entidad Colaboradora de la Administración, S.A.U. General Conditions of Service.*

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**ANEXO al certificado de aprobación del sistema de calidad (módulo H1)**  
*ANNEX to the certificate of quality system approval (module H1)*

**N° CE-0056-PED-H1-JCV-001-12-ESP**

**Lista de los equipos afectados**  
*List of the concerned equipment*

Numbers of the EC design-examination certificates issued under the scope of module H1 · CE-0056-PED-H1D-JCV-001-11-ESP · CE-0056-PED-H1D-JCV-002-11-ESP · CE-0056-PED-H1D-JCV-003-11-ESP · CE-0056-PED-H1D-JCV-004-11-ESP · CE-0056-PED-H1D-JCV-005-11-ESP · CE-0056-PED-H1D-JCV-006-11-ESP · CE-0056-PED-H1D-JCV-007-11-ESP Localización de las Plantas en la certificación Multi-site, donde se ha certificado el Pleno aseguramiento de la calidad / Plant Location in Multi-Site Certification, which has been certified, the full quality assurance:

•1. PLANTA SPAIN

C/CANTABRIA, 2. POL. IND. LES SALINES.

08830. SANT BOI LLOBREGAT. BARCELONA. ESPAÑA. (Spain)

•2. PLANTA CHINA

NO. 790, TAO GAN ROAD, SHESHAN INDUSTRIAL ZONE.

SONGJIANG DISTRICT. SHANGHAI. P.R.C. 201602. CHINA



**ANEXO al CERTIFICADO DE EXAMEN CE DE DISEÑO (módulo H1D)**

*ANNEX to EC DESIGN-EXAMINATION CERTIFICATE (Module H1D)*

**N° CE-0056-PED-H1D-JCV-004-11-ESP**

**VERSIONES CUBIERTAS POR EL DISEÑO APROBADO/  
VERSIONS COVERED BY THE APPROVED DESIGN:**

**BALL VALVE-TYPE/FAMILY: ANSI**

**1. Serie/Model: SFF (FLOATING BALL)**

**Fig. 515/530**

**Standard: API 6D (23rd Edition) / ASME B16.34:2009 / ISO 17292:2004**

Figure: 515/530	CLASS 150 Figure:515 SIZE (DN)	Category by PED*	CLASS 300 Figure:530 SIZE (DN)	Category by PED*
Full Bore	40(1 1/2")	I	40(1 1/2")	II
Full Bore	50(2")	I	50(2")	II
Full Bore	65 (2 1/2")	I		
Full Bore	80(3")	I	80(3")	II
Full Bore	100 (4")	I	100 (4")	II
Full Bore	150 (6")	II	150 (6")	III
Full Bore	200 (8")	II		

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. CLASS & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C)		TEMPERATURA DISEÑO (°C)		
	#150	#300	T min	T max	
				#150	#300
ASTM A182 F22	1.4	7.62	-29	538	595
ASTM A182 F304	1.4	24.4	-50	538	
ASTM A182 F304 Cryogenic	1.4	24.4	-196	538	
ASTM A351 CF8M	1.4	25.2	-50	538	
ASTM A351 CF8M Cryogenic	1.4	25.2	-196	538	
ASTM A182 F316	1.4	25.2	-50	538	
ASTM A182 F316 Cryogenic	1.4	25.2	-196	538	
ASTM A182 F44	6.5	36.5	-29	400	
ASTM A182 F51	9.7	38.5	-29	315	
ASTM A350 LF2	5.5	28.8	-46	425	
ASTM A352 LCC	8.5	40.2	-46	345	
ASTM A217 WC6	1.4	6.64	-29	538	595
ASTM A105	5.5	28.8	-29	425	
ASTM A216 WCB	5.5	28.8	-29	425	
ASTM A216 WCC	5.5	28.8	-29	425	





**2. Serie/Model: SFF (Floating Ball)  
Fig. 560**

**Standard: API 6D (23rd Edition) / ASME B16.34:2009 / ISO17292:2004 / EN1983:2006**

<i>Figure: 560</i>	<i>CLASS 600 SIZE (DN)</i>	<i>Category by PED*</i>
<i>Full Bore</i>	50(2")	II
<i>Full Bore</i>	80(3")	II
<i>Full Bore</i>	100 (4")	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. CLASS & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL  #600	TEMPERATURA DISEÑO ( °C )	
		T min	T max
ASTM A182 F22	15,04	-29	595
ASTM A182 F44	72,3	-29	400
ASTM A182 F304	45,1	-50	538
ASTM A182 F304 Cryogenic	45,1	-196	538
ASTM A351 CF8M	48,5	-50	538
ASTM A351 CF8M Cryogenic	48,5	-196	538
ASTM A182 F316	48,5	-50	538
ASTM A182 F316 Cryogenic	48,5	-196	538
ASTM A182 F51	76,86	-29	315
ASTM A350 LF2	57,5	-46	425
ASTM A352 LCC	79,92	-46	345
ASTM A217 WC6	13	-29	595
ASTM A105	57,5	-29	425
ASTM A216 WCB	57,5	-29	425
ASTM A216 WCC	57,5	-29	425





**3. Serie/Model: SFR (Floating Ball)  
Fig. 660**

**Standard: API 6D (23rd Edition) / ASME B16.34:2009 / ISO17292:2004 / EN1983:2006**

Figure: 660	CLASS 600 SIZE (DN)	Category by PED*
Reduced bore	50	II
Reduced bore	80	II
Reduced bore	100	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. CLASS & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO - TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL	TEMPERATURA DISEÑO ( °C )	
		#600	T min
ASTM A182 F22	15,04	-29	595
ASTM A182 F44	72,3	-29	400
ASTM A182 F304	45,1	-50	538
ASTM A182 F304 Cryogenic	45,1	-196	538
ASTM A351 CF8M	48,5	-50	538
ASTM A351 CF8M Cryogenic	48,5	-196	538
ASTM A182 F316	48,5	-50	538
ASTM A182 F316 Cryogenic	48,5	-196	538
ASTM A182 F51	76,86	-29	315
ASTM A350 LF2	57,5	-46	425
ASTM A352 LCC	79,92	-46	345
ASTM A217 WC6	13	-29	595
ASTM A105	57,5	-29	425
ASTM A216 WCB	57,5	-29	425
ASTM A216 WCC	57,5	-29	425





**4. Serie/Model: EFR (Floating Ball)  
Fig. 715/730**

Standard: API 6D (23rd Edition) / ASME B16.34:2009 /ISO 17292:2004

Figure: 715/730	CLASS 150 Figure:715 SIZE (DN)	Category by PED*	CLASS 300 Figure:730 SIZE (DN)	Category by PED*
Reduced Bore	40(1 1/2")	I	40(1 1/2")	II
Reduced Bore	50(2")	I	50(2")	II
Reduced Bore	80 (3")	I	80 (3")	II
Reduced Bore	100 (4")	I	100 (4")	II
Reduced Bore	150 (6")	II	150 (6")	III
Reduced Bore	200 (8")	II	200 (8")	III
Reduced Bore	250 (10")	II		

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. CLASS & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C)		TEMPERATURA DISEÑO ( °C )		
	#150	#300	T min	T max	
				#150	#300
ASTM A182 F22	1.4	7.62	-29	538	595
ASTM A182 F304	1.4	24.4	-50	538	
ASTM A182 F304 Cryogenic	1.4	24.4	-196	538	
ASTM A351 CF8M	1.4	25.2	-50	538	
ASTM A351 CF8M Cryogenic	1.4	25.2	-196	538	
ASTM A182 F316	1.4	25.2	-50	538	
ASTM A182 F316 Cryogenic	1.4	25.2	-196	538	
ASTM A182 F44	6.5	36.5	-29	400	
ASTM A182 F51	9.7	38.5	-29	315	
ASTM A350 LF2	5.5	28.8	-46	425	
ASTM A352 LCC	8.5	40.2	-46	345	
ASTM A217 WC6	1.4	6.64	-29	538	595
ASTM A105	5.5	28.8	-29	425	
ASTM A216 WCB	5.5	28.8	-29	425	
ASTM A216 WCC	5.5	28.8	-29	425	





**5. Serie/Model: MFF (Floating Ball)  
Fig. 915 L or T port**

**Standard: ASME B16.34:2009**

<i>Figure: 915</i>	<i>CLASS 150 Figure:715 SIZE (DN)</i>	<i>Category by PED*</i>
<i>Full Bore</i>	1 1/2"	I
<i>Full Bore</i>	2"	I
<i>Full bore</i>	2 1/2"	I
<i>Full Bore</i>	3"	I
<i>Full Bore</i>	4"	I
<i>Full Bore</i>	6"	II
<i>Full Bore</i>	8"	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. CLASS & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C) #150	TEMPERATURA DISEÑO ( °C )	
		T min	T max
ASTM A182 F22	1.4	-29	538
ASTM A182 F304	1.4	-50	538
ASTM A182 F304 Cryogenic	1.4	-196	538
ASTM A351 CF8M	1.4	-50	538
ASTM A351 CF8M Cryogenic	1.4	-196	538
ASTM A182 F316	1.4	-50	538
ASTM A182 F316 Cryogenic	1.4	-196	538
ASTM A182 F44	6.5	-29	400
ASTM A182 F51	9.7	-29	315
ASTM A350 LF2	5.5	-46	425
ASTM A352 LCC	8.5	-46	345
ASTM A217 WC6	1.4	-29	538
ASTM A105	5.5	-29	425
ASTM A216 WCB	5.5	-29	425
ASTM A216 WCC	5.5	-29	425





**6. Serie/Model: SBF (Trunnion Ball)  
Fig. 1515/1530**

**Standard: API 6D (23rd Edition) / ASME B16.34:2009 / ISO 17292:2004**

Figure: 1515/1530	CLASS 150 Figure:1515 SIZE (DN)	Category by PED*	CLASS 300 Figure:1530 SIZE (DN)	Category by PED*
Full Bore			200 (8")	III
Full Bore	250 (10")	III	250 (10")	III
Full Bore	300(12")	III	300(12")	III

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**Standard: EN1983:2006 / EN12516-1:2005**

Figure: 1515/1530	CLASS 300 Figure:1530 SIZE (DN)	Category by PED*
Full Bore	200 (8")	III
Full Bore	250 (10")	III
Full Bore	300(12")	III

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. CLASS & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C)		TEMPERATURA DISEÑO ( °C )		
	#150	#300	T min	T max	
				#150	#300
ASTM A182 F22	1.4	7.62	-29	538	595
ASTM A182 F304	1.4	24.4	-50	538	
ASTM A182 F304 Cryogenic	1.4	24.4	-196	538	
ASTM A351 CF8M	1.4	25.2	-50	538	
ASTM A351 CF8M Cryogenic	1.4	25.2	-196	538	
ASTM A182 F316	1.4	25.2	-50	538	
ASTM A182 F316 Cryogenic	1.4	25.2	-196	538	
ASTM A182 F44	6.5	36.5	-29	400	
ASTM A182 F51	9.7	38.5	-29	315	
ASTM A350 LF2	5.5	28.8	-46	425	
ASTM A352 LCC	8.5	40.2	-46	345	
ASTM A217 WC6	1.4	6.64	-29	538	595
ASTM A105	5.5	28.8	-29	425	
ASTM A216 WCB	5.5	28.8	-29	425	
ASTM A216 WCC	5.5	28.8	-29	425	

NOTA: Las válvulas diseñadas s/EN12516-1:2005, sólo están permitidas para clase 300#







**7. Serie/Model: STF (Soft and Metal Seat) (Trunnion Ball)  
Fig. 2515/2530/2560**

**Standard: API 6D (23rd Edition) / ASME B16.34:2009 / ISO 17292:2004**

<i>Figure: 2515/2530/2560</i>	<i>CLASS 150 Figure:2515 SIZE (DN)</i>	<i>Category by PED*</i>	<i>CLASS 300 Figure:2530 SIZE (DN)</i>	<i>Category by PED*</i>	<i>CLASS 600 Figure:2560 SIZE (DN)</i>	<i>Category by PED*</i>
<i>Full Bore</i>	50 (2")	I	50 (2")	II	50 (2")	II
<i>Full Bore</i>	80 (3")	I	80 (3")	II	80 (3")	II
<i>Full Bore</i>	100 (4")	I	100 (4")	II	100 (4")	II
<i>Full Bore</i>	150 (6")	II	150 (6")	III	150 (6")	III
<i>Full Bore</i>	200 (8")	II	200 (8")	III	200 (8")	III
<i>Full Bore</i>	250 (10")	II	250 (10")	III	250 (10")	III
<i>Full Bore</i>	300(12")	II	300(12")	III	300(12")	III
<i>Full Bore</i>	350 (14")	II	350 (14")	III		
<i>Full Bore</i>	400 (16")	III	400 (16")	III		

**Standard: EN1983:2006 / EN12516-1:2005**

<i>Figure: 2515/2530/2560</i>	<i>CLASS 300 Figure:2530 SIZE (DN)</i>	<i>Category by PED*</i>	<i>CLASS 600 Figure:2560 SIZE (DN)</i>	<i>Category by PED*</i>
<i>Full Bore</i>	50 (2")	II	50 (2")	II
<i>Full Bore</i>	80 (3")	II	80 (3")	II
<i>Full Bore</i>	100 (4")	II	100 (4")	II
<i>Full Bore</i>	150 (6")	III	150 (6")	III
<i>Full Bore</i>	200 (8")	III	200 (8")	III
<i>Full Bore</i>	250 (10")	III	250 (10")	III
<i>Full Bore</i>	300(12")	III	300(12")	III
<i>Full Bore</i>	350 (14")	III		
<i>Full Bore</i>	400 (16")	III		

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)





**PS(bar) VALVE, ACC. CLASS & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO - TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C)			TEMPERATURA DISEÑO ( °C )		
	#150	#300	#600	T min	T max	
					#150	#300 / #600
ASTM A182 F22	1.4	7.62	15.26	-29	538	595
ASTM A182 F304	1.4	24.4	72,3	-50	538	
ASTM A182 F304 Cryogenic	1.4	24.4	45,1	-196	538	
ASTM A351 CF8M	1.4	25.2	45,1	-50	538	
ASTM A351 CF8M Cryogenic	1.4	25.2	48,5	-196	538	
ASTM A182 F316	1.4	25.2	48,5	-50	538	
ASTM A182 F316 Cryogenic	1.4	25.2	48,5	-196	538	
ASTM A182 F44	6.5	36.5	48,5	-29	400	
ASTM A182 F51	9.7	38.5	76,86	-29	315	
ASTM A350 LF2	5.5	28.8	57,5	-46	425	
ASTM A352 LCC	8.5	40.2	79,92	-46	345	
ASTM A217 WC6	1.4	6.64	13.28	-29	538	595
ASTM A105	5.5	28.8	57,5	-29	425	
ASTM A216 WCB	5.5	28.8	57,5	-29	425	
ASTM A216 WCC	5.5	28.8	57,5	-29	425	



**8. Serie/Model: SFF (Floating Ball)  
Fig. 3515/3530**

Standard: API 6D (23rd Edition) / ASME B16.34:2009 / ISO 14313:2007 / ISO 17292:2004

Figure: 3515/3530	CLASS 150 Figure:3515 SIZE (DN)	Category by PED*	CLASS 300 Figure:3530 SIZE (DN)	Category by PED*
Full Bore	40 (1 ½")	I	40 (1 ½")	II
Full Bore	50 (2")	I	50 (2")	II
Full Bore	65 (2 ½")	I	---	---
Full Bore	80 (3")	I	80 (3")	II
Full Bore	100 (4")	I	100 (4")	II
Full Bore	150 (6")	II	150 (6")	III
Full Bore	200 (8")	II	---	---



**Standard: EN1983:2006**

Figure: 3515/3530	CLASS 300 Figure:3530 SIZE (DN)	Category by PED*
Full Bore	40 (1 1/2")	II
Full Bore	50 (2")	II
Full Bore	---	---
Full Bore	80 (3")	II
Full Bore	100 (4")	II
Full Bore	150 (6")	III

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. CLASS & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C)		TEMPERATURA DISEÑO ( °C )		
	#150	#300	T min	T max	
				#150	#300
ASTM A182 F22	1.4	7.62	-29	538	595
ASTM A182 F304	1.4	24.4	-50	538	
ASTM A182 F304 Cryogenic	1.4	24.4	-196	538	
ASTM A351 CF8M	1.4	25.2	-50	538	
ASTM A351 CF8M Cryogenic	1.4	25.2	-196	538	
ASTM A182 F316	1.4	25.2	-50	538	
ASTM A182 F316 Cryogenic	1.4	25.2	-196	538	
ASTM A182 F44	6.5	36.5	-29	400	
ASTM A182 F51	9.7	38.5	-29	315	
ASTM A350 LF2	5.5	28.8	-46	425	
ASTM A352 LCC	8.5	40.2	-46	345	
ASTM A217 WC6	1.4	6.64	-29	538	595
ASTM A105	5.5	28.8	-29	425	
ASTM A216 WCB	5.5	28.8	-29	425	
ASTM A216 WCC	5.5	28.8	-29	425	





**9. Serie/Model: STF/STR (Trunnion Ball)**

- Full Bore Fig. 6015/6030/6060/6090/6050/6042
- Reduced Bore Fig. 7015/7030/7060/7090/7050/7042

Standard: API 6D (23rd Edition) / ASME B16.34:2009

Figure: 6015/6030/ 6060/6090/ 6050/6042	CLASS 150 Figure: 6015 SIZE (DN)	Category by PED*	CLASS 300 Figure: 6030 SIZE (DN)	Category by PED*	CLASS 600 Figure: 6060 SIZE (DN)	Category by PED*	CLASS 900 Figure: 6090 SIZE (DN)	Category by PED*	CLASS 1500 Figure: 6050 SIZE (DN)	Category by PED*	CLASS 2500 Figure: 6042 SIZE (DN)	Category by PED*
Full Bore	50 (2")	I	50 (2")	II	50 (2")	III	50 (2")	II	50 (2")	II	50 (2")	III
Full Bore	80 (3")	I	80 (3")	II	80 (3")	III	80 (3")	II	80 (3")	III	80 (3")	III
Full Bore	100 (4")	I	100 (4")	II	100 (4")	III	100 (4")	III	100 (4")	III	100 (4")	IV
Full Bore	150 (6")	II	150 (6")	III	150 (6")	III	150 (6")	IV	150 (6")	IV	150 (6")	IV
Full Bore	200 (8")	II	200 (8")	III	200 (8")	IV	200 (8")	IV	200 (8")	IV	200 (8")	IV
Full Bore	250 (10")	III	250 (10")	III	250 (10")	IV	250 (10")	IV	250 (10")	IV	---	---
Full Bore	300(12")	III	300(12")	IV	300(12")	IV	300(12")	IV	300(12")	IV	---	---
Full Bore	350 (14")	III	350 (14")	IV	350 (14")	IV	350 (14")	IV	---	---	---	---
Full Bore	400 (16")	III	400 (16")	IV	400 (16")	IV	400 (16")	IV	---	---	---	---
Full Bore	450 (18")	IV	450 (18")	IV	450 (18")	IV	450 (18")	IV	---	---	---	---
Full Bore	500 (20")	IV	500 (20")	IV	500 (20")	IV	500 (20")	IV	---	---	---	---
Full Bore	600 (24")	IV	600 (24")	IV	600 (24")	IV	600 (24")	IV	---	---	---	---

Figure: 7015/7030/ 7060/7090/ 7050/7042	CLASS 150 Figure: 7015 SIZE (DN)	Category by PED*	CLASS 300 Figure: 7030 SIZE (DN)	Category by PED*	CLASS 600 Figure: 7060 SIZE (DN)	Category by PED*	CLASS 900 Figure: 7090 SIZE (DN)	Category by PED*	CLASS 1500 Figure: 7050 SIZE (DN)	Category by PED*	CLASS 2500 Figure: 7042 SIZE (DN)	Category by PED*
Reduced bore	3" x 2"	I	3" x 2"	II	3" x 2"	III	3" x 2"	II	3" x 2"	II	3" x 2"	III
Reduced bore	4" x 3"	I	4" x 3"	II	4" x 3"	III	4" x 3"	III	4" x 3"	III	4" x 3"	IV
Reduced bore	6" x 4"	II	6" x 4"	III	6" x 4"	III	6" x 4"	IV	6" x 4"	IV	6" x 4"	IV
Reduced bore	8" x 6"	II	8" x 6"	III	8" x 6"	IV	8" x 6"	IV	8" x 6"	IV	8" x 6"	IV
Reduced bore	10" x 8"	III	10" x 8"	III	10" x 8"	IV	10" x 8"	IV	10" x 8"	IV	10" x 8"	IV
Reduced bore	12" x 10"	III	12" x 10"	IV	12" x 10"	IV	12" x 10"	IV	12" x 10"	IV	---	---
Reduced bore	14" x 12"	III	14" x 12"	IV	14" x 12"	IV	14" x 12"	IV	14" x 12"	IV	---	---
Reduced bore	16" x 14"	III	16" x 14"	IV	16" x 14"	IV	16" x 14"	IV	---	---	---	---
Reduced bore	18" x 16"	IV	18" x 16"	IV	18" x 16"	IV	18" x 16"	IV	---	---	---	---
Reduced bore	20" x 18"	IV	20" x 18"	IV	20" x 18"	IV	20" x 18"	IV	---	---	---	---
Reduced bore	24" x 20"	IV	24" x 20"	IV	24" x 20"	IV	24" x 20"	IV	---	---	---	---
Reduced bore	30" x 24"	IV	30" x 24"	IV	30" x 24"	IV	30" x 24"	IV	---	---	---	---





**BUREAU  
VERITAS**  
Standard: EN1983:2006

Figure: 6015/6030 /6060/609 0/6050/60 42	CLASS 150 Figure: 7015 SIZE (DN)	Category by PED*	CLASS 300 Figure: 7030 SIZE (DN)	Category by PED*	CLASS 600 Figure: 7060 SIZE (DN)	Category by PED*	CLASS 900 Figure: 7090 SIZE (DN)	Category by PED*	CLASS 1500 Figure: 7050 SIZE (DN)	Category by PED*	CLASS 2500 Figure: 7042 SIZE (DN)	Category by PED*
Full Bore			50 (2")	II	50 (2")	III	50 (2")	III	50 (2")	III	50 (2")	III
Full Bore			80 (3")	II	80 (3")	III	80 (3")	III	80 (3")	III	---	---
Full Bore			100 (4")	II	100 (4")	III	100 (4")	III	100 (4")	III	---	---
Full Bore			150 (6")	III	150 (6")	III	150 (6")	IV	150 (6")	IV	---	---
Full Bore			200 (8")	III	200 (8")	IV	200 (8")	IV	200 (8")	IV	---	---
Full Bore			250 (10")	III	250 (10")	IV	250 (10")	IV	250 (10")	IV	---	---
Full Bore			300(12")	IV	300(12")	IV	300(12")	IV	300(12")	IV	---	---
Full Bore			350 (14")	IV	350 (14")	IV	350 (14")	IV	---	---	---	---
Full Bore			400 (16")	IV	400 (16")	IV	400 (16")	IV	---	---	---	---
Full Bore			450 (18")	IV	450 (18")	IV	450 (18")	IV	---	---	---	---
Full Bore			500 (20")	IV	500 (20")	IV	500 (20")	IV	---	---	---	---
Full Bore			600 (24")	IV	600 (24")	IV	600 (24")	IV	---	---	---	---

Figure: 7015/7030 /7060/709 0/7050/70 42	CLASS 150 Figure: 7015 SIZE (DN)	Category by PED*	CLASS 300 Figure: 7030 SIZE (DN)	Category by PED*	CLASS 600 Figure: 7060 SIZE (DN)	Category by PED*	CLASS 900 Figure: 7090 SIZE (DN)	Category by PED*	CLASS 1500 Figure: 7050 SIZE (DN)	Category by PED*	CLASS 2500 Figure: 7042 SIZE (DN)	Category by PED*
Reduced bore	3" x 2"	I	3" x 2"	II	3" x 2"	III	3" x 2"	III	3" x 2"	II	3" x 2"	III
Reduced bore	4" x 3"	I	4" x 3"	II	4" x 3"	III	4" x 3"	III	4" x 3"	III	---	---
Reduced bore	6" x 4"	II	6" x 4"	III	6" x 4"	III	6" x 4"	IV	6" x 4"	IV	---	---
Reduced bore	8" x 6"	II	8" x 6"	III	8" x 6"	IV	8" x 6"	IV	8" x 6"	IV	---	---
Reduced bore	10" x 8"	III	10" x 8"	III	10" x 8"	IV	10" x 8"	IV	10" x 8"	IV	---	---
Reduced bore	12" x 10"	III	12" x 10"	IV	12" x 10"	IV	12" x 10"	IV	12" x 10"	IV	---	---
Reduced bore	14" x 12"	III	14" x 12"	IV	14" x 12"	IV	14" x 12"	IV	14" x 12"	IV	---	---
Reduced bore	16" x 14"	III	16" x 14"	IV	16" x 14"	IV	16" x 14"	IV	---	---	---	---
Reduced bore	18" x 16"	IV	18" x 16"	IV	18" x 16"	IV	18" x 16"	IV	---	---	---	---
Reduced bore	20" x 18"	IV	20" x 18"	IV	20" x 18"	IV	20" x 18"	IV	---	---	---	---
Reduced bore	24" x 20"	IV	24" x 20"	IV	24" x 20"	IV	24" x 20"	IV	---	---	---	---
Reduced bore	30" x 24"	IV	30" x 24"	IV	30" x 24"	IV	30" x 24"	IV	---	---	---	---

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)





Standard: ISO 17292:2005

Figure: 6015/6030/ 6060/6090/ 6050/6042	CLASS 150 Figure: 7015 SIZE (DN)	Category by PED*	CLASS 300 Figure: 7030 SIZE (DN)	Category by PED*	CLASS 600 Figure: 7060 SIZE (DN)	Category by PED*
Full Bore	50 (2")	I	50 (2")	II	50 (2")	III
Full Bore	80 (3")	I	80 (3")	II	80 (3")	III
Full Bore	100 (4")	I	100 (4")	II	100 (4")	III
Full Bore	150 (6")	II	150 (6")	III	150 (6")	III
Full Bore	200 (8")	II	200 (8")	III	200 (8")	IV
Full Bore	250 (10")	III	250 (10")	III	250 (10")	IV
Full Bore	300(12")	III	300(12")	IV	300(12")	IV
Full Bore	350 (14")	III	350 (14")	IV	350 (14")	IV
Full Bore	400 (16")	III	400 (16")	IV	400 (16")	IV
Full Bore	450 (18")	IV	450 (18")	IV	450 (18")	IV
Full Bore	500 (20")	IV	500 (20")	IV	500 (20")	IV

Figure: 7015/7030/ 7060/7090/ 7050/7042	CLASS 150 Figure: 7015 SIZE (DN)	Category by PED*	CLASS 300 Figure: 7030 SIZE (DN)	Category by PED*	CLASS 600 Figure: 7060 SIZE (DN)	Category by PED*
Reduced bore	3" x 2"	I	3" x 2"	II	3" x 2"	III
Reduced bore	4" x 3"	I	4" x 3"	II	4" x 3"	III
Reduced bore	6" x 4"	II	6" x 4"	III	6" x 4"	III
Reduced bore	8" x 6"	II	8" x 6"	III	8" x 6"	IV
Reduced bore	10" x 8"	III	10" x 8"	III	10" x 8"	IV
Reduced bore	12" x 10"	III	12" x 10"	IV	12" x 10"	IV
Reduced bore	14" x 12"	III	14" x 12"	IV	14" x 12"	IV
Reduced bore	16" x 14"	III	16" x 14"	IV	16" x 14"	IV
Reduced bore	18" x 16"	IV	18" x 16"	IV	18" x 16"	IV
Reduced bore	20" x 18"	IV	20" x 18"	IV	20" x 18"	IV

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)





**PS(bar) VALVE, ACC. CLASS & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C)						TEMPERATURA DISEÑO ( °C )	
	#150	#300	#600	#900	#1500	#2500	T min	T max
	ASTM A182 F22	1.4	7.62	15.26	22.88	38.04	63.46	-29
ASTM A182 F304	1.4	24.4	48.9	73.3	122.1	203.6	-50	538
ASTM A182 F304 Cryogenic	1.4	24.4	48.9	73.3	122.1	203.6	-196	538
ASTM A351 CF8M	1.4	25.2	50.0	75.2	125.5	208.9	-50	538
ASTM A351 CF8M Cryogenic	1.4	25.2	50.0	75.2	125.5	208.9	-196	538
ASTM A182 F316	1.4	25.2	50.0	75.2	125.5	208.9	-50	538
ASTM A182 F316 Cryogenic	1.4	25.2	50.0	75.2	125.5	208.9	-196	538
ASTM A182 F44	6.5	36.5	73.3	109.8	183.1	304.9	-29	400
ASTM A182 F51	9.7	38.5	76,86	115.3	192.2	320.3	-29	315
ASTM A350 LF2 Cl 1	5.5	28.8	57,5	86.3	143.8	239.7	-46	425
ASTM A352 LCC	8.5	40.28	80.52	120.9	201.4	335.7	-46	345
ASTM A217 WC6	1.4	6.64	13.28	19.92	33.2	55.4	-29	538 (150#) 595 resto clases
ASTM A105	5.5	28.8	57,5	86.3	143.8	239.7	-29	425
ASTM A216 WCB	5.5	28.8	57,5	86.3	143.8	239.7	-29	425
ASTM A216 WCC	5.5	28.8	57,5	86.3	143.8	239.7	-29	425



**10. Serie/Model: TFF (Floating Ball)**

**Series 41500R NPT, SW & BW Ends**

**Figures Full Bore (41500): 41501R; 41502R, 41504R, 41504HR, 41505R, 41505TVR, 41506R, 41507R**

**Standard: ASME B16.34:2009 / EN1983:2006**

Figure:41500	Class 1500 Figure:41500 SIZE (DN)	Category by PED*
Full Bore	11/2"	II
Full Bore	2"	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. PN & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C)	TEMPERATURA DISEÑO ( °C )	
	#1500	T min	T max
ASTM A182 F22	38.04	-29	595
ASTM A182 F304	122.1	-50	538
ASTM A182 F304 Cryogenic	122.1	-196	538
ASTM A351 CF8M	125.5	-50	538
ASTM A351 CF8M Cryogenic	125.5	-196	538
ASTM A182 F316	125.5	-50	538
ASTM A182 F316 Cryogenic	125.5	-196	538
ASTM A479 316	125.5	-50	538
ASTM A479 316 Cryogenic	125.5	-196	538
ASTM A479 316L	117.1	-29	450
ASTM A182 F44	183.1	-29	400
ASTM A182 F51	192.2	-29	315
ASTM A350 LF2 CL 1	143.8	-46	425
ASTM A352 LCC	201.4	-46	345
ASTM A217 WC6	33.2	-29	595
ASTM A105	143.8	-29	425
ASTM A216 WCB	143.8	-29	425
ASTM A216 WCC	143.8	-29	425







**11. Serie/Model: TFR (Floating Ball)**

**Series 41500R NPT, SW & BW Ends**

**Figures Reduced Bore (41510): 41512R; 41514R, 41514HR, 41515R, 41515TVR, 41516R, 41517R**

**Standard: ASME B16.34:2009 / EN1983:2006**

Figure:41510	Class 1500 Figure:41510 SIZE (DN)	Category by PED*
Reduced Bore	11/2" x 11/4"	II
Reduced Bore	2" x 11/2"	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. PN & MATERIAL VALVE & T (°C)**



MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C)	TEMPERATURA DISEÑO( °C )	
	#1500	T min	T max
ASTM A182 F22	38.04	-29	595
ASTM A182 F304	122.1	-50	538
ASTM A182 F304 Cryogenic	122.1	-196	538
ASTM A351 CF8M	125.5	-50	538
ASTM A351 CF8M Cryogenic	125.5	-196	538
ASTM A182 F316	125.5	-50	538
ASTM A182 F316 Cryogenic	125.5	-196	538
ASTM A479 316	125.5	-50	538
ASTM A479 316 Cryogenic	125.5	-196	538
ASTM A479 316L	117.1	-29	450
ASTM A182 F44	183.1	-29	400
ASTM A182 F51	192.2	-29	315
ASTM A350 LF2 CL 1	143.8	-46	425
ASTM A352 LCC	201.4	-46	345
ASTM A217 WC6	33.2	-29	595
ASTM A105	143.8	-29	425
ASTM A216 WCB	143.8	-29	425
ASTM A216 WCC	143.8	-29	425



**12. Serie/Model: WFR (Floating Ball)  
Fig. UDV Class 1500**

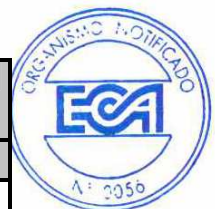
**Standard: ASME B16.34:2009 / EN1983:2006**

Figure:UDV	Class 1500 Figure:UDV SIZE (DN)	Category by PED*
Full Bore	11/2"	II
Full Bore	2"	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. PN & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C)	TEMPERATURA DISEÑO( °C )	
	#1500	T min	T max
ASTM A182 F22	38.04	-29	595
ASTM A182 F304	122.1	-50	538
ASTM A182 F304 Cryogenic	122.1	-196	538
ASTM A351 CF8M	125.5	-50	538
ASTM A351 CF8M Cryogenic	125.5	-196	538
ASTM A182 F316	125.5	-50	538
ASTM A182 F316 Cryogenic	125.5	-196	538
ASTM A479 316	125.5	-50	538
ASTM A479 316 Cryogenic	125.5	-196	538
ASTM A479 316L	117.1	-29	450
ASTM A182 F44	183.1	-29	400
ASTM A182 F51	192.2	-29	315
ASTM A350 LF2 CL 1	143.8	-46	425
ASTM A352 LCC	201.4	-46	345
ASTM A217 WC6	33.2	-29	595
ASTM A105	143.8	-29	425
ASTM A216 WCB	143.8	-29	425
ASTM A216 WCC	143.8	-29	425





**13. Serie/Model: WFF (Floating Ball)**

**Series 400 NPT, SW & BW Ends**

**Figures Full Bore (400): 401; 402, 404, 404H, 405, 405TV, 406, 407**

**Standard: ASME B16.34:2009**

Figure:400	Class 800 Figure:400 SIZE (DN)	Category by PED*
Full Bore	11/2"	II
Full Bore	2"	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. PN & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C)	TEMPERATURA DISEÑO( °C )	
	#800	T min	T max
ASTM A182 F22	20.34	-29	595
ASTM A182 F304	65.17	-50	538
ASTM A182 F304 Cryogenic	65.17	-196	538
ASTM A351 CF8M	66.8	-50	538
ASTM A351 CF8M Cryogenic	66.8	-196	538
ASTM A182 F316	66.8	-50	538
ASTM A182 F316 Cryogenic	66.8	-196	538
ASTM A479 316	66.8	-50	538
ASTM A479 316 Cryogenic	66.8	-196	538
ASTM A479 316L	62.4	-29	450
ASTM A182 F44	97.63	-29	400
ASTM A182 F51	102.52	-29	315
ASTM A350 LF2 CL 1	76.7	-46	425
ASTM A352 LCC	107.42	-46	345
ASTM A217 WC6	17.72	-29	595
ASTM A105	76.7	-29	425
ASTM A216 WCB	76.7	-29	425
ASTM A216 WCC	76.7	-29	425





**14. Serie/Model: WFR (Floating Ball)**

**Series 400 NPT, SW & BW Ends**

**Figures Reduced Bore (400): 411; 412, 414, 414H, 415, 415TV, 416, 417**

**Standard: ASME B16.34:2009 / EN1983:2006**

Figure:400	Class 800 Figure:400 SIZE (DN)	Category by PED*
Reduced Bore	11/2"	II
Reduced Bore	2"	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. PN & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C)	TEMPERATURA DISEÑO( °C )	
	#800	T min	T max
ASTM A182 F22	20.34	-29	595
ASTM A182 F304	65.17	-50	538
ASTM A182 F304 Cryogenic	65.17	-196	538
ASTM A351 CF8M	66.8	-50	538
ASTM A351 CF8M Cryogenic	66.8	-196	538
ASTM A182 F316	66.8	-50	538
ASTM A182 F316 Cryogenic	66.8	-196	538
ASTM A479 316	66.8	-50	538
ASTM A479 316 Cryogenic	66.8	-196	538
ASTM A479 316L	62.4	-29	450
ASTM A182 F44	97.63	-29	400
ASTM A182 F51	102.52	-29	315
ASTM A350 LF2 CL 1	76.7	-46	425
ASTM A352 LCC	111.68	-46	345
ASTM A217 WC6	17,72	-29	595
ASTM A105	76.7	-29	425
ASTM A216 WCB	76.7	-29	425
ASTM A216 WCC	76.7	-29	425



**15. Serie/Model: WFR (Floating Ball)  
Fig. UDV Class 800**

**Standard: ISO 17292:2005**

Figure:UDV	Class 800 Figure:UDV SIZE (DN)	Category by PED*
Reduced Bore	11/2"	II
Reduced Bore	2"	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. PN & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C)	TEMPERATURA DISEÑO( °C )	
	#800	T min	T max
ASTM A182 F22	20.34	-29	595
ASTM A182 F304	65.17	-50	538
ASTM A182 F304 Cryogenic	65.17	-196	538
ASTM A351 CF8M	66.8	-50	538
ASTM A351 CF8M Cryogenic	66.8	-196	538
ASTM A182 F316	66.8	-50	538
ASTM A182 F316 Cryogenic	66.8	-196	538
ASTM A479 316	66.8	-50	538
ASTM A479 316 Cryogenic	66.8	-196	538
ASTM A479 316L	62.4	-29	450
ASTM A182 F44	97.63	-29	400
ASTM A182 F51	102.52	-29	315
ASTM A350 LF2 CL 1	76.7	-46	425
ASTM A352 LCC	111.68	-46	345
ASTM A217 WC6	17.72	-29	595
ASTM A105	76.7	-29	425
ASTM A216 WCB	76.7	-29	425
ASTM A216 WCC	76.7	-29	425



**16. Serie/Model: WFR (Floating Ball)  
Fig. 411 Class 800**

**Standard: ISO 17292:2005**

Figure:411	Class 800 Figure:411 SIZE (DN)	Category by PED*
Reduced Bore	11/2"	II
Reduced Bore	2"	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. PN & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO – TAPA	PS (bar) VALVE ACC. CLASS & MATERIAL (°C)	TEMPERATURA DISEÑO( °C )	
	#800	T min	T max
ASTM A182 F22	20.34	-29	595
ASTM A182 F304	65.17	-50	538
ASTM A182 F304 Cryogenic	65.17	-196	538
ASTM A351 CF8M	66.8	-50	538
ASTM A351 CF8M Cryogenic	66.8	-196	538
ASTM A182 F316	66.8	-50	538
ASTM A182 F316 Cryogenic	66.8	-196	538
ASTM A479 316	66.8	-50	538
ASTM A479 316 Cryogenic	66.8	-196	538
ASTM A479 316L	62.4	-29	450
ASTM A182 F44	97.63	-29	400
ASTM A182 F51	102.52	-29	315
ASTM A350 LF2 CL 1	76.7	-46	425
ASTM A352 LCC	111.68	-46	345
ASTM A217 WC6	17.72	-29	595
ASTM A105	76.7	-29	425
ASTM A216 WCB	76.7	-29	425
ASTM A216 WCC	76.7	-29	425



**ANEXO al CERTIFICADO DE EXAMEN CE DE DISEÑO (módulo H1D)**  
**ANNEX to EC DESIGN-EXAMINATION CERTIFICATE (Module H1D)**  
**N° CE-0056-PED-H1D-JCV-003-11-ESP**

**VERSIONES CUBIERTAS POR EL DISEÑO APROBADO/  
 VERSIONS COVERED BY THE APPROVED DESIGN:**

**BALL VALVE-TYPE/FAMILY: DIN**

**1. Serie/Model: SFF (Floating Ball)**  
**Fig. 316/340**

**Standard: EN1983:2006**

Nota: la norma DIN 3357 ha sido derogada y sustituida por la EN1983)

<i>Figure: 316/340</i>	<i>PN 16 Figure:316 SIZE (DN)</i>	<i>Category by PED*</i>	<i>PN 40 Figure:340 SIZE (DN)</i>	<i>Category by PED*</i>
<i>Full Bore</i>	65	I	32	I
<i>Full Bore</i>	80	I	40	II
<i>Full Bore</i>	100	II	50	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)





**PS(bar) VALVE, ACC. CLASS/PN & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO - TAPA	PS (bar) VALVE ACC. PN & MATERIAL (°C)		TEMPERATURA DISEÑO ( °C )	
	16	40	T min	T max
1.0619	7,2	18	-29	427
1.5419	3,5	8,9	-29	538
1.5415	3,5	8,9	-196	538
1.4306	8,6	21,7	-196	427
1.4308	9,1	22,8	-196	500
1.4301	9,1	22,8	-196	500
1.4404	10	25	-196	454
1.4408	10,7	26,9	-196	454
1.4401	8,9	22,4	-196	600
1.4581	8,8	22	-196	600
1.4571	8,8	22	-196	600
1.4580	8,8	22	-196	600
1.4552	6,5	16,3	-196	600
1.4550	6,5	16,3	-196	600
A216 WCB	9,1	22,7	-29	425
A350 LF2	11,7	29,2	-46	353
A352 LCC	12,8	32,1	-46	343
A350 LF3	12,8	32,1	-46	343
A352 LCB	11,5	28,6	-46	343
A217 C5	4,72	11,8	-29	538
A182 F5	4,72	11,8	-29	538
A479 304	6,3	15,7	-196	600
A351 CF8	6,3	15,7	-196	600
A351 CF3	9,2	23	-196	427
A479 316	6,3	15,7	-196	600
A351 CF8M	6,3	15,7	-196	600
A351 CF3M	9,1	22,8	-196	454
A479 304L	7,2	17,9	-196	425
A479 316L	7	17,6	-196	454
A351 CK3MCuN	11,6	28,9	-60	400







**2. Serie/Model: MFF**  
**Fig. 916 L or T port**

**Standard: EN1983:2006**

Figure: 916	PN 16 Figure:916 SIZE (DN)	Category by PED*
Full Bore	40	I
Full Bore	50	I
Full Bore	65	I
Full Bore	80	II
Full Bore	100	II
Full Bore	150	II
Full Bore	200	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. CLASS/PN & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO - TAPA	PS (bar) VALVE ACC. PN & MATERIAL (°C)  16	TEMPERATURA DISEÑO  ( °C )	
		T min	T max
1.0619	8.4	-29	427
1.5419	7.3	-29	538
1.5415	7.3	-196	538
1.4306	7.2	-196	427
1.4308	8.3	-196	500
1.4301	7	-196	500
1.4404	7.87	-196	454
1.4408	8.7	-196	454
1.4401	8.3	-196	600
1.4581	8.3	-196	600
1.4571	8.9	-196	600
1.4580	8.9	-196	600
1.4552	8.9	-196	600
1.4550	8.9	-196	600
A216 WCB	9.1	-29	425
A350 LF2	9.1	-46	353
A352 LCC	12.78	-46	343
A350 LF3	12.78	-46	343
A352 LCB	11.45	-46	343
A217 C5	4.42	-29	538
A182 F5	4.42	-29	538
A479 304	1	-196	600
A351 CF8	6.3	-196	600
A351 CF3	8.8	-196	427
A479 316	6.3	-196	600
A351 CF8M	6.3	-196	600
A351 CF3M	9.1	-196	454
A479 304L	7.2	-196	425
A479 316L	7	-196	454
A351 CK3MCuN	11.6	-60	400





**3. Serie/Model: SBF**  
**Fig. 1516 / 1540**

**Standard: EN1983:2006**

NOTA: La norma DIN 3357 está derogada y sustituida por la EN 1983:2006.

Figure: 1516	PN 16 Figure:1516 SIZE (DN)	Category by PED*	PN 40 Figure:1540 SIZE (DN)	Category by PED*
Full Bore	N.A.	N.A.	200	III
Full Bore	250	II	250	III
Full Bore	300	III	300	III

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. CLASS/PN & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO - TAPA	PS (bar) VALVE ACC. PN & MATERIAL (°C)		TEMPERATURA DISEÑO ( °C )	
	16	40	T min	T max
1.0619	7,2	18	-29	427
1.5419	3,5	8,9	-29	538
1.5415	3,5	8,9	-196	538
1.4306	8,6	21,7	-196	427
1.4308	9,1	22,8	-196	500
1.4301	9,1	22,8	-196	500
1.4404	10	25	-196	454
1.4408	10,7	26,9	-196	454
1.4401	8,9	22,4	-196	600
1.4581	8,8	22	-196	600
1.4571	8,8	22	-196	600
1.4580	8,8	22	-196	600
1.4552	6,5	16,3	-196	600
1.4550	6,5	16,3	-196	600
A216 WCB	9,1	22,7	-29	425
A350 LF2	11,7	29,2	-46	353
A352 LCC	12,8	32,1	-46	343
A350 LF3	12,8	32,1	-46	343
A352 LCB	11,5	28,6	-46	343
A217 C5	4,72	11,8	-29	538
A182 F5	4,72	11,8	-29	538
A479 304	6,3	15,7	-196	600
A351 CF8	6,3	15,7	-196	600
A351 CF3	9,2	23	-196	427
A479 316	6,3	15,7	-196	600
A351 CF8M	6,3	15,7	-196	600
A351 CF3M	9,1	22,8	-196	454
A479 304L	7,2	17,9	-196	425
A479 316L	7	17,6	-196	454
A351 CK3MCuN	11,6	28,9	-60	400





**4. Serie/Model: SFF**  
**Fig. 3516 / 3540 y 3316 / 3340**

Standard: EN1983:2006 / ISO 17292: 2004

Figure: 3516/3540/3316/3340	PN 16 Figure:3516/3316 SIZE (DN)	Category by PED*	PN 40 Figure:3540/3340 SIZE (DN)	Category by PED*
Full Bore	n.a.	n.a.	32	II
Full Bore	n.a.	n.a.	40	II
Full Bore	n.a.	n.a.	50	II
Full Bore	65	I	65	II
Full Bore	80	II	80	II
Full Bore	100	II	100	II
Full Bore	125	II	125	III
Full Bore	150	II	150	III
Full Bore	200	II	n.a.	n.a.

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. CLASS/PN & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO - TAPA	PS (bar) VALVE ACC. PN & MATERIAL (°C)		TEMPERATURA DISEÑO ( °C )	
	16	40	T min	T max
1.0619	7,2	18	-29	427
1.5419	3,5	8,9	-29	538
1.5415	3,5	8,9	-196	538
1.4306	8,6	21,7	-196	427
1.4308	9,1	22,8	-196	500
1.4301	9,1	22,8	-196	500
1.4404	10	25	-196	454
1.4408	10,7	26,9	-196	454
1.4401	8,9	22,4	-196	600
1.4581	8,8	22	-196	600
1.4571	8,8	22	-196	600
1.4580	8,8	22	-196	600
1.4552	6,5	16,3	-196	600
1.4550	6,5	16,3	-196	600
A216 WCB	9,1	22,7	-29	425
A350 LF2	11,7	29,2	-46	353
A352 LCC	12,8	32,1	-46	343
A350 LF3	12,8	32,1	-46	343
A352 LCB	11,5	28,6	-46	343
A217 C5	4,72	11,8	-29	538
A182 F5	4,72	11,8	-29	538
A479 304	6,3	15,7	-196	600
A351 CF8	6,3	15,7	-196	600
A351 CF3	9,2	23	-196	427
A479 316	6,3	15,7	-196	600
A351 CF8M	6,3	15,7	-196	600
A351 CF3M	9,1	22,8	-196	454
A479 304L	7,2	17,9	-196	425
A479 316L	7	17,6	-196	454
A351 CK3MCuN	11,6	28,9	-60	400





**5. Serie/Model: PFR  
Fig. 420**

**Standard: EN1983:2006**

Figure: 420	PN 6 Figure:420 SIZE (DN)	Category by PED*
Reduced bore	50	I
Reduced bore	80	I
Reduced bore	100	I
Reduced bore	150	II
Reduced bore	200	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. CLASS/PN & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO - TAPA	PS (bar) VALVE ACC. PN & MATERIAL (°C)	TEMPERATURA DISEÑO	
		( °C )	
		T min	T max
1.0619	3.17	-29	400
1.5419	2.73	-29	500
1.5415	2.73	-196	500
1.4306	2.7	-196	450
1.4308	2.61	-196	300
1.4301	2.61	-196	500
1.4404	2.95	-196	454
1.4408	3.2	-196	400
1.4401	2.44	-196	500
1.4581	2.54	-196	500
1.4571	2.54	-196	550
1.4580	2.54	-196	550
1.4552	2.33	-196	500
1.4550	2.33	-196	500
A216 WCB	3.4	-29	425
A350 LF2	4.79	-46	353
A352 LCC	4.28	-46	343
A350 LF3	4.79	-46	343
A352 LCB	4.28	-46	343
A217 C5	1.66	-29	538
A182 F5	1.66	-29	538
A479 304	1.99	-196	600 (*)
A351 CF8	2.36	-196	600 (*)
A351 CF3	3.3	-196	427
A479 316	2.36	-196	600 (*)
A351 CF8M	2.36	-196	600 (*)
A351 CF3M	3.42	-196	454
A479 304L	2.69	-196	425
A479 316L	2.64	-196	454
A351 CK3MCuN	4.34	-60	400

(\*) Usar sólo a temperatura por encima de 540°C cuando el contenido de carbono sea igual o superior a 0.04%





**6. Serie/Model: SFF**

**Fig. 516/540**

**Standard: EN1983:2006**

Nota: la norma DIN 3357 ha sido derogada y sustituida por la EN1983)

Figure: 516/540	PN 16 Figure:516 SIZE (DN)	Category by PED*	PN 40 Figure:540 SIZE (DN)	Category by PED*
Full Bore	n.a.	n.a.	32	I
Full Bore	n.a.	n.a.	40	II
Full Bore	n.a.	n.a.	50	II
Full Bore	65	I	65	II
Full Bore	80	I	80	II
Full Bore	100	II	100	II
Full Bore	125	II	125	III
Full Bore	150	II	150	III
Full Bore	200	II	n.a.	n.a.

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

**PS(bar) VALVE, ACC. CLASS/PN & MATERIAL VALVE & T (°C)**

MATERIAL VALVE CUERPO - TAPA	PS (bar) VALVE ACC. PN & MATERIAL (°C)		TEMPERATURA DISEÑO ( °C )	
	16	40	T min	T max
1.0619	7,2	18	-29	427
1.5419	3,5	8,9	-29	538
1.5415	3,5	8,9	-196	538
1.4306	8,6	21,7	-196	427
1.4308	9,1	22,8	-196	500
1.4301	9,1	22,8	-196	500
1.4404	10	25	-196	454
1.4408	10,7	26,9	-196	454
1.4401	8,9	22,4	-196	600
1.4581	8,8	22	-196	600
1.4571	8,8	22	-196	600
1.4580	8,8	22	-196	600
1.4552	6,5	16,3	-196	600
1.4550	6,5	16,3	-196	600
A216 WCB	9,1	22,7	-29	425
A350 LF2	11,7	29,2	-46	353
A352 LCC	12,8	32,1	-46	343
A350 LF3	12,8	32,1	-46	343
A352 LCB	11,5	28,6	-46	343
A217 C5	4,72	11,8	-29	538
A182 F5	4,72	11,8	-29	538
A479 304	6,3	15,7	-196	600
A351 CF8	6,3	15,7	-196	600
A351 CF3	9,2	23	-196	427
A479 316	6,3	15,7	-196	600
A351 CF8M	6,3	15,7	-196	600
A351 CF3M	9,1	22,8	-196	454
A479 304L	7,2	17,9	-196	425
A479 316L	7	17,6	-196	454





A351 CK3MCuN	11,6	28,9	-60	400
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## 7. Serie/Model: SFF

### Fig. 517

Standard: EN1983:2006

Nota: la norma DIN 3357 ha sido derogada y sustituida por la EN1983)

Figure: 517	PN 16 Figure:517 SIZE (DN)	Category by PED*	PN 40 Figure:517 SIZE (DN)	Category by PED*
Full Bore	80	I	40	II
Full Bore	100	II	50	II

\*According to unfavourable pressure of the material construction (Directive 97/23/CE Annex II-Table 6)

### PS(bar) VALVE, ACC. CLASS/PN & MATERIAL VALVE & T (°C)

MATERIAL VALVE CUERPO - TAPA	PS (bar) VALVE ACC. PN & MATERIAL (°C)		TEMPERATURA DISEÑO ( °C )	
	16	40	T min	T max
1.0619	7,2	18	-29	427
1.5419	3,5	8,9	-29	538
1.5415	3,5	8,9	-196	538
1.4306	8,6	21,7	-196	427
1.4308	9,1	22,8	-196	500
1.4301	9,1	22,8	-196	500
1.4404	10	25	-196	454
1.4408	10,7	26,9	-196	454
1.4401	8,9	22,4	-196	600
1.4581	8,8	22	-196	600
1.4571	8,8	22	-196	600
1.4580	8,8	22	-196	600
1.4552	6,5	16,3	-196	600
1.4550	6,5	16,3	-196	600
A216 WCB	9,1	22,7	-29	425
A350 LF2	11,7	29,2	-46	353
A352 LCC	12,8	32,1	-46	343
A350 LF3	12,8	32,1	-46	343
A352 LCB	11,5	28,6	-46	343
A217 C5	4,72	11,8	-29	538
A182 F5	4,72	11,8	-29	538
A479 304	6,3	15,7	-196	600
A351 CF8	6,3	15,7	-196	600
A351 CF3	9,2	23	-196	427
A479 316	6,3	15,7	-196	600
A351 CF8M	6,3	15,7	-196	600
A351 CF3M	9,1	22,8	-196	454
A479 304L	7,2	17,9	-196	425
A479 316L	7	17,6	-196	454
A351 CK3MCuN	11,6	28,9	-60	400

