



Válvulas Worcester
de México[®]
Rhino Valves Worldwide[®]



CATÁLOGO de Productos

PRODUCT Catalog



www.worcester.com.mx





DET NORSKE VERITAS

CERTIFICADO DEL SISTEMA DE GESTIÓN DE CALIDAD

Certificado No. 66129-2009-AQ-MC1-RVA

Por el presente se certifica que:

Válvulas Worcester de México, S.A. de C.V. / Rhino Valves Worldwide / Valtaco

Calle Maíz No. 263, Colonia Valle del Sur, Delegación Iztapalapa, C.P. 09819, México D.F.

Ha sido encontrada conforme al estándar de Sistema de Administración de Calidad:

ISO 9001:2008

Este certificado es válido para el siguiente rango de productos y servicios:

Diseño y Manufactura de Válvulas de Bola y Comercialización de Accesorios y Equipos Relacionados

Fecha original de Certificación:
Noviembre 27, 2009

Cada Certificación es válida hasta:
Noviembre 27, 2012

La fecha de emisión de este certificado es de:
Monterrey Aguilar

La no satisfacción de las condiciones expuestas en el Apéndice dará lugar a la revocación del sistema.

DNV CERTIFICACIONES S.A. - København 1, 2904 LB Borsbølsholm, Det Nordske Veritas, Tlf. +45 4622 486, FAX: +11 54 426 748

Compromiso con la Calidad

Worcester® / Rhino Valves Worldwide® reconoce la importancia de la calidad de las válvulas para la seguridad, la salud del personal y la protección de la propiedad del cliente. Es nuestro compromiso de calidad enfocar nuestros recursos para proveer a nuestros clientes productos de primera clase y precio competitivo, los cuales se diseñan, fabrican, inspeccionan y prueban de acuerdo a los requisitos del cliente y que cumplan con estándares internacionales que apliquen.

El Sistema de Aseguramiento de la calidad de Worcester® / Rhino Valves Worldwide® está dedicado a la búsqueda de válvulas con cero defectos y esto tiene como resultado que la organización tenga más certificaciones y aprobaciones de usuarios que la mayoría de nuestros competidores.

Worcester® / Rhino Valves Worldwide® tiene el certificado ISO 9001 (certificado por DNV), API 6D (Licencia No. 6D-0321) y CE/PED (Module H, categoría II a IV, certificado por BVNA Inc.); algunas de las válvulas de bola con asientos suaves son a prueba de fuego, atestiguadas y certificadas por Lloyd's Register. También tenemos certificados de PEMEX y CFE.

Quality Commitment

Worcester® / Rhino Valves Worldwide® recognizes the importance of its valves' quality in terms of their safety, the personnel's health, and the protection of the client's property. It is our quality commitment to focus our resources on providing our customers with first-class products at a competitive price, that are designed, manufactured, inspected, and tested in accordance with our customers' requirements, and that comply with international standards.

Worcester® / Rhino Valves Worldwide®'s Quality Assurance System pursues a zero-defects valve, which has resulted in the company having more quality qualifications and end-user approvals than most of our competitors.

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Worcester® / Rhino Valves Worldwide® complies with the standards ISO 9001 (certified by DNV), API 6D (License Number 6D-0321), and CE/PED (Module H, category II to IV, certified by BVNA Inc.); some of Worcester® / Rhino Valves Worldwide®'s soft-seated ball valves are fire safe tested, witnessed and certified by Lloyd's Register. Moreover, we have certifications of PEMEX and CFE.

Bureau Veritas UK Limited
Notified Body 0041

CERTIFICATE OF QUALITY SYSTEM APPROVAL
N° CE-0041-PED-H-WOR-001-10-MEX

BUREAU VERITAS UK Limited, acting within the scope of its notification (notified body number 0041), attests that the quality system operated by the manufacturer for design, manufacture, final inspection and testing of the pressure equipment identified hereunder has been examined against the provisions of module H, as specified in the Pressure Equipment Regulations 1999 (EC Pressure Equipment Directive n° 97/23/EC), and found to satisfy the provisions of the directive which apply to it.

Manufacturer (Name): **Valvulas Worcester de Mexico SA de CV**

Address: **Maíz No. 263 Col. Valle del Sur Delegación Iztapalapa D.F.C.P. 09819, MEXICO**

Trading name: **Valvulas Worcester / Rhino Valves Worldwide / Valtaco**

Equipment description: **Series 152 Ball Valves
Series 44/Series 44 ISO Ball Valves
Series 48 Ball Valves
Series 152/Series 152 Ball Valves
Series 25 Ball Valves**

Scope of approval (list attached where necessary): **See Annex**

This certificate is valid until: **06/30/2013**

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

This certificate shall be deemed to be void and the manufacturer shall assume full responsibility pursuant to its use, where the manufacturer fails to comply with its undertakings as per the agreement in respect of (a) implementation of the approved quality system, (b) conformity of the equipment with the type and (c) reaction and tests on the final product, and generally where the manufacturer fails in particular to comply with any of his obligations under directive n° 97/23/EC of 29 May 1997 as transposed in the applicable laws.

Made at	On	Signed by	Signature
Manchester, UK	07/01/2010	Bilalsh Chahat	

Registration code: **2010/04.10.418/04**

This certificate is subject to the terms of Bureau Veritas General Conditions of Service attached to the agreement signed by the applicant.

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BVL 1687 rev 01

1/2 Annex H

Contract No.: 2005HST09
http://www.bureauveritas.com/ped

Bureau Veritas UK Limited
Notified Body 0041

ANNEX to the certificate of quality system approval
N° CE-0041-PED-H-WOR-001-10-MEX

List of the concerned equipment

Series 152 Ball Valves - Full Port

- Carbon and Stainless Steel Ball Valves
- DN 25 mm to DIN 200 mm (1" to 8" NPS) - Class #150
- End connections: Flanged Ends

Series 44/Series 44 ISO and Series 151 Ball Valves Full Port and Reduce Bore

- Carbon and Stainless Steel Ball Valves
- DN 25 mm to DIN 100 mm (1" to 4" NPS) - Class #400 & 600
- End connections: NPT, SW, BSPP, BSPT & Butt Weld (Sch. 5, 10, 40, & 80)

Series 45 ISO Ball Valves

- Carbon and Stainless Steel Ball Valves
- DN 25 mm to DIN 100 mm (2 1/2", 3" & 4" NPS) - Class # 300
- End connections: Screw and (NPT, BS, SEF), Socket Weld & Butt Weld (Sch. 5, 10, 40, & 80)

Series N44/Series N44 ISO Ball Valves Full Port and Reduce Bore

- Carbon and Stainless Steel Ball Valves
- DN 25 mm to DIN 50 mm (1" to 2" NPS) - Class # 400 & 600
- End connections: NPT, SW, BSPP, BSPT & Butt Weld (Sch. 5, 10, 40, & 80)

Series 15 ISO Ball Valves

- Carbon and Stainless Steel Ball Valves
- DN 20mm to DIN 200mm (1" to 8" NPS) - Class # 300
- End connections: Flanged End

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BVL 1687 rev 01

2/2 Annex H

Contract No.: 2005HST09
http://www.bureauveritas.com/ped



Lloyd's Register Type Approval Certificate

This is to certify that the undernoted products have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System, 2002.

This certificate is issued to:

PRODUCER: **Valvulas Worcester de Mexico, S.A. de C.V. / Rhino Valves Worldwide / Valtaco**

PLACE OF PRODUCTION: **Maíz 263 Colonia Valle del Sur, México DF, D.F.**

DESCRIPTION: **Quarter Turn Fire Sealed Ball Valves**

TYPE: **Series 44 and 151
Series 152
Series N44
Series 15
Series 45 and 26**

SIZE & RATINGS: **Series 44 and 151: Size 1/2" to 2" Class 400 & 600 Carbon Steel and Stainless Steel Code PS-44-440 and PS-44-460
Series 152: Size 1/2" to 2" Class 150A & 300A Carbon Steel and Stainless Steel Code PS-152-440 and PS-152-460
Series N44: Size 1/2" to 2" Class 400 & 600 Carbon Steel and Stainless Steel Code PS-N44-440 and PS-N44-460
Series 15: Size 1/2" to 2" Class 150 Carbon Steel and Stainless Steel Code PS-15-440 and PS-15-460
Series 45 and 26: Size 2 1/2" to 6" Class 300 Carbon Steel and Stainless Steel Code PS-45-440 and PS-45-460**

Certificate No.: **1160012**

Issue Date: **27 July 2011**

Expiry Date: **26 July 2016**

Sheet: **1 of 2**

Lloyd's Register North America Inc.
1300 Goucher Parkway, Texas, 77027

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LABORATORIO DE PRUEBAS DE EQUIPOS Y MATERIALES SALVADOR CISNEROS CHAVIZ

CONSTANCIA DE CALIFICACIÓN DE PROVEEDOR

SE HA HECHO CONSTAR QUE LA EMPRESA CUMPLE CON LOS REQUISITOS DE CALIFICACIÓN DE PROVEEDOR.

Razón Social: **VALVULAS WORCESTER DE MEXICO S.A. DE C.V.**

PLANTA O UBICACIÓN: **N/A**

DOMICILIO: **Calle Maíz No. 263, Colonia Valle del Sur, Delegación Iztapalapa, D.F., México**

FECHA DE EMISIÓN: **11 SET 2012**

VIGENCIA: **24 Meses a partir de su emisión**

REQUISITOS DE REFERENCIA: **6 - 60000 - 4**

ING. JORGE THOMAS LONELLI
Máx. Dpto. Ejecutivo y Director de Operaciones

ING. LUIS JAVIER FERRER BIZZO
Subgerente de Gestión en Calidad

Certificate of Authority to use the Official API Monogram
License Number: **6D-0321**

The American Petroleum Institute hereby grants to:

**VALVULAS WORCESTER DE MEXICO, S.A. DE C.V.
RHINO VALVES WORLDWIDE
Maíz #263 Col. Valle del Sur
Iztapalapa, Distrito Federal
México**

the right to use the Official API Monogram® on its manufactured products within the restrictions of the written authorization of the American Petroleum Institute (API) License #6D-0321 and API Spec 6D.

It is further understood that the use of the Official API Monogram is subject to the terms and conditions of the License Agreement.

The American Petroleum Institute hereby certifies that the above named Valvulas Worcester de Mexico, S.A. de C.V. is an API Licensee under the Official API Monogram as defined in the American Petroleum Institute License Agreement.

The scope of this license includes the following product: **Ball Valves**

QMS Exclusions: **No Exclusions identified in Addendum**

Effective Date: **NOVEMBER 6, 2008**
Expiration Date: **NOVEMBER 6, 2011**

To verify the authenticity of this license, go to www.api.org/competibid.

ACERCA de
ABOUT

Válvulas Worcester® de México



Siendo una empresa 100% mexicana, Válvulas Worcester de México fue fundada en 1963 por el Ing Héctor Cuéllar Sánchez bajo licencia de Worcester Controls.

In 1963 Válvulas Worcester de México, a 100% Mexican company, was founded by Ing. Héctor Cuéllar Sánchez under the license of Worcester Controls.

Alcanzando 50 años de experiencia en la manufactura de válvulas de bola manuales hemos logrado ofrecer una variedad de diseños de válvulas para aplicaciones en la industria, así como válvulas automáticas por medio de actuadores eléctricos y neumáticos, además de los diversos accesorios que el mercado demanda constantemente (interruptores de límite, válvulas solenoides, tableros de control, protocolos de comunicación digital.)

Having almost 50 years of experience in the manufacture of manual ball valves we are in the position to offer a wide range of designs for industrial applications, together with automated valves operated by electric and pneumatic actuators, as well as various accessories which are constantly demanded by the market (limit switches, solenoid valves, control panels, and digital communication protocols).

La calidad que precede nuestro nombre, la infraestructura de nuestra planta, el alto volumen de producción que mantenemos y el servicio que ofrecemos, permite la atención inmediata y confiable a las necesidades de nuestros clientes.

The quality which is associated with our brand name, our plant's sophisticated infrastructure, and our high volume of production, allow an immediate and reliable customer service tailored to our clients' needs.

La capacidad creativa, eficaz y comprometida para el desarrollo de nuestras actividades productivas y comerciales está directamente vinculada al personal altamente capacitado en cada una de las áreas; siempre con la apertura y visión para atraer y consolidar nuevos negocios.

The creativity, efficiency, and commitment we are putting in the manufacture of our products and our commercial activities are directly linked to our highly qualified personnel with experts in all areas covered; they are always dedicated to attracting and concluding new businesses.



Válvulas Worcester

Sustentamos la confiabilidad y garantía de nuestros productos por medio de las certificaciones ISO 9000:2008, API, CE, Proveedor Confiable de Pemex y LAPEM, entre otras.

The reliability and guarantee of our products is supported by various certifications such as ISO 9000:2008, API, Proveedor Confiable de Pemex and LAPEM, to name just a few.

Con éste antecedente de presencia en el mercado, Válvulas Worcester de México es indudablemente el líder del mercado mexicano en la manufactura de válvulas de bola.

With its market presence, Válvulas Worcester de México is undoubtedly Mexico's leader in the manufacture of ball valves.

Extendiendo la demanda del mercado mexicano hacia el mercado internacional, comercializamos nuestros productos bajo el nombre de Rhino Valves Worldwide, exportando válvulas a Sudamérica, Oceanía, Norteamérica y al Medio Oriente. Adicionalmente, contamos con una filial en Europa localizada en los Países Bajos que se encarga de satisfacer las necesidades del mercado europeo.

We have continually extended our business globally under the name of Rhino Valves Worldwide currently exporting to South America, Oceania, North America, and the Middle East. Moreover, our subsidiary in Europe, based in the Netherlands, has been serving the needs of the European market for years.

Válvulas Worcester de México ha mantenido una visión de innovación y vanguardia constante de acuerdo a los nuevos requerimientos que se presentan para satisfacer las aplicaciones más críticas en cuestiones de diseño, automatización y seguridad ofreciendo siempre una solución integral.

Válvulas Worcester de México has maintained a zest for innovation and has been a vanguard of industrial progress, always tackling new challenges of the most critical applications in terms of design, automation, and security, at all times offering integral solutions.

Nuestro compromiso no termina hasta asegurar que su válvula opere adecuadamente.

Our commitment never stops until we can be sure that your valves give you the highest performance you were looking for.





Para Servicios Generales / For General Services



Válvula de bola para usos generales WOG (Agua, Aceite, Aire), paso reducido, cuerpo de 2 piezas en medidas de 1/4" a 2". Conexiones NPT, BSPP, BSPT.

Opción: Libre de grasa

Valve for general use WOG (Water, Oil, Gas), reduced bore, 2-piece design, in sizes from 1/4" to 2". Connections NPT, BSPP, BSPT.

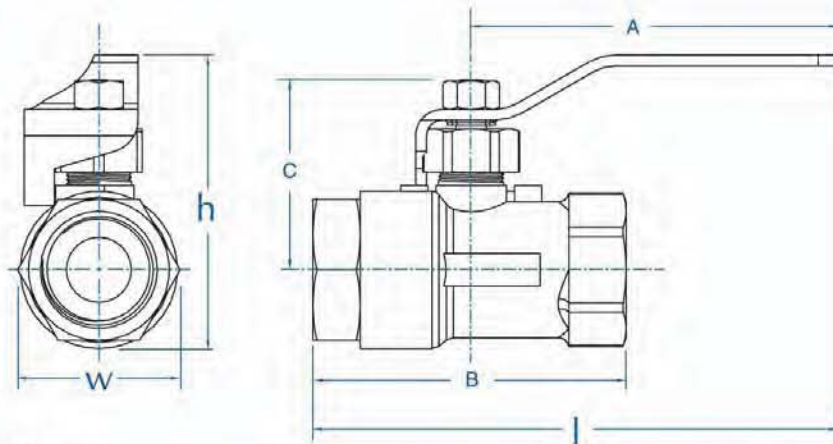
Option: Oil free

Serie 42 Materiales de sellos y asientos
Series 42 Seal and seat materials

Asiento Seat	Sello del cuerpo Body seal	Sello del vástago Stem seal
T PTFE	T PTFE	R R-PTFE

Latón • Brass	
B283-C37700	
Válvula Valve	Presión de Trabajo Working Pressure
Serie 42 • Series 42	600 PSI WOG

Dimensiones • Dimensions



Serie 42 Paso Reducido
Series 42 Reduced Bore

Medida / Size	A	B	C	Paso Bore	Peso / Weight		Largo /Length	Altura /Height	Ancho /Width
					kg	lb			
1/4	4.25	2.50	1.94	.410	0.350	.800	5.56	2.96	1.25
3/8	4.25	2.50	1.94	.410	0.350	.800	5.56	2.96	1.25
1/2	4.25	2.50	1.94	.410	0.350	.800	5.56	2.96	1.25
3/4	4.25	2.72	2.06	.540	0.430	.9400	5.66	3.11	1.45
1	4.25	3.62	2.25	.750	0.760	1.700	6.09	3.49	1.90
1 1/2	5.75	4.39	2.94	1.260	2.030	4.500	8.05	4.59	2.80
2	5.75	4.91	3.12	1.500	2.700	5.900	8.20	5.02	3.40

Nota: Dimensiones en pulgadas • Note: All dimensions in inch





Válvula de bola, diseño de tres piezas, en medidas de 1/4" a 2"
Construcción robusta en materiales de latón, acero al carbón y/o
acero inoxidable. Sellos del vástago para ciclos frecuentes.
Conexiones: NPT, BSPP, BSPT, SW, BW.

Ball valve, three-piece design, available in sizes from 1/4" to 2",
strong construction in brass, carbon, and stainless steel. Stem
seals for frequent cycles.

Connections: NPT, BSPP, BSPT, SW, BW.

Latón • Brass	
B283-C37700	
Válvula Valve	Presión de Trabajo Working Pressure
Serie 400 Latón • Series 400 Brass	600 PSI

OPCIONES:

- Diversos materiales para asientos y sellos. paso completo, dispositivo para candado, cuerpo ISO conforme a la norma ISO 5211, Enchquetado para control térmico (Solo acero al carbon e inoxidable), Maneral oval, Libre de grasa, Vástago extendido, Vástago antiestático, Automatización con actuador eléctrico ó neumático. Aprueba de fuego cumple con normativa API 607 (acero al carbon e Inoxidable) API 6D, CE Marking.

OPTIONS:

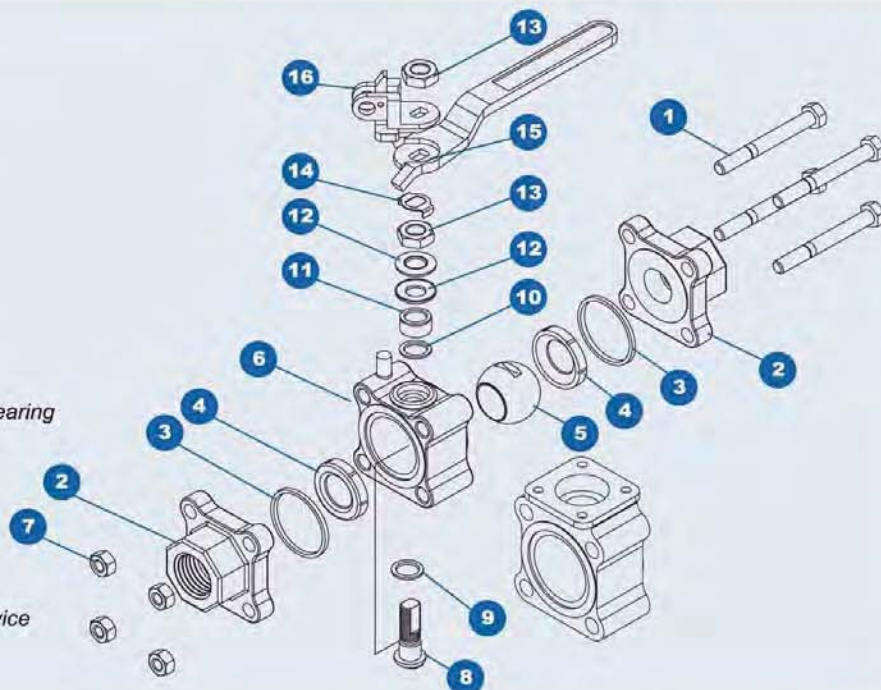
- Diversity in materials for seals and seats, locking device, body Series ISO according to ISO 5211, fire-safe design, oval handle, oil free, 3 ways / diverter, cryogenic, antistatic stem, extended stem. The valve can be automated with an electric or pneumatic actuator. In accordance with API 6D and CE Marking.

Válvula Valve	ANSI B16.34 Clase • Class	Acero al Carbón • Carbon Steel		Acero Inoxidable • Stainless Steel	
		Presión de Trabajo Working Pressure	Presión Max.de Prueba Max. Test Pressure	Presión de Trabajo Working Pressure	Presión Max.de Prueba Max. Test Pressure
Serie 400 • Series 400	400	990 psi	1500 psi	960 psi	1450 psi

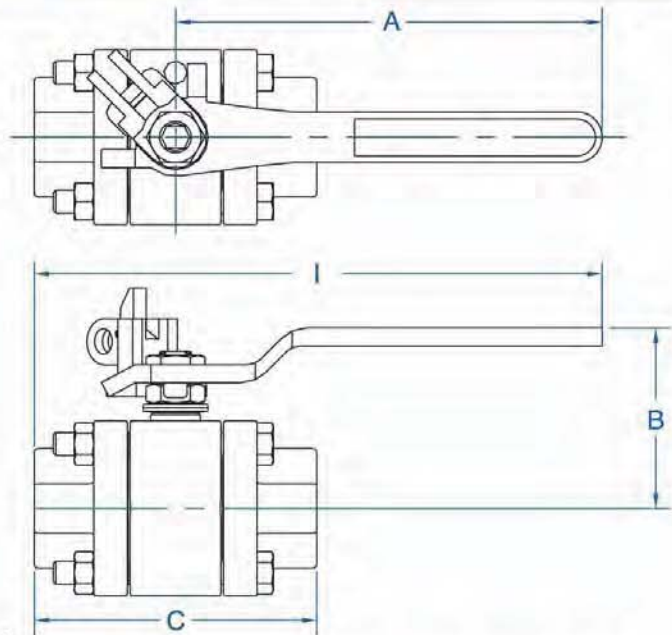
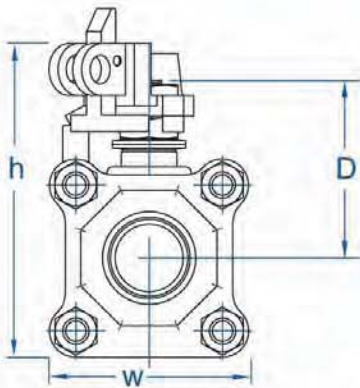
Lista de partes

List of components

- Tornillo del cuerpo • Body bolt
- Tapa • Pipe end
- Sello de cuerpo • Body seal
- Asiento • Seat
- Bola • Ball
- Cuerpo • Body
- Tuerca del cuerpo • Body nut
- Vástago • Stem
- Roldana inferior de vástago • Thrust bearing
- Sello de vástago • Stem seal
- Separador • Stem follower
- Roldana cóncava • Belleville washer
- Tuerca de vástago • Retaining nut
- Seguro para tuerca • Lock nut
- Maneral • Handle
- Dispositivo para candado • Locking device



Dimensiones • Dimensions



Serie 400 Paso reducido (Carbón e Inoxidable)
Series 400 (Carbon and Stainless Steel) Reduced bore

Medida / Size	A	B	C	D	Paso Bore	Peso / Weight		Largo / Length	h	w
						kg	lb			
1/4	4.30	1.75	2.61	1.47	.440	0.660	1.400	5.63	2.64	1.77
3/8	4.30	1.71	2.61	1.49	.440	0.620	1.300	5.63	2.58	1.75
1/2	4.30	1.65	2.61	1.51	.440	0.590	1.300	5.63	2.58	1.75
3/4	4.30	1.73	2.83	1.55	.560	0.800	1.800	5.74	2.74	2.00
1	5.75	2.40	3.75	2.17	.810	1.490	3.300	7.57	3.59	2.38
1 1/4	5.86	2.49	4.22	2.35	1.000	2.010	4.400	7.98	3.82	2.63
1 1/2	7.13	3.02	4.62	2.89	1.250	3.330	7.300	9.45	4.62	3.19
2	7.14	3.15	5.01	3.07	1.500	4.400	9.700	9.65	5.00	3.57

Serie 400 Paso completo (Carbón e Inoxidable)
Series 400 (Carbon and Stainless Steel) Full bore

Medida / Size	A	B	C	D	Paso Bore	Peso / Weight		Largo / Length	h	w
						Kg	lb			
1/4	4.30	1.71	2.61	1.49	.440	0.620	1.400	5.63	2.58	1.75
3/8	4.30	1.65	2.61	1.51	.440	0.590	1.300	5.63	2.58	1.75
1/2	4.30	1.73	2.83	1.55	.560	0.80	1.800	5.74	2.74	2.00
3/4	5.75	2.40	3.75	2.17	.810	1.490	3.300	7.57	3.59	2.38
1	5.86	2.49	4.22	2.35	1.000	2.010	4.400	7.98	3.82	2.63
1 1/4	7.13	3.02	4.62	2.89	1.250	3.330	7.300	9.45	4.62	3.19
1 1/2	7.14	3.15	5.01	3.07	1.500	4.400	9.700	9.65	5.00	3.57
2	7.42	4.84	5.87	4.68	2.000	9.910	21.900	10.36	7.12	4.55

Nota: Dimensiones en pulgadas • Note: All dimensions in inch

Materiales de Sellos y Asientos • Seal and seat materials

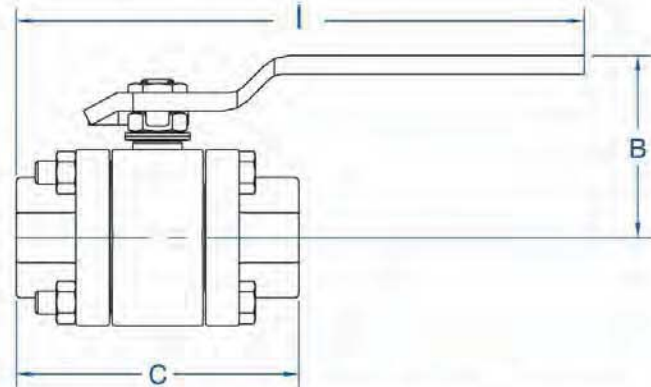
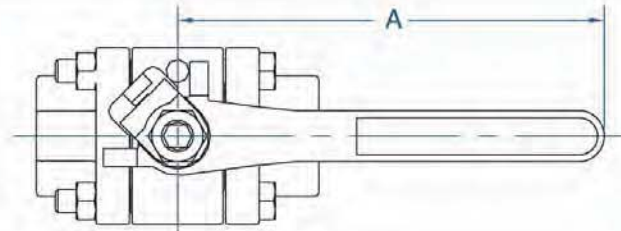
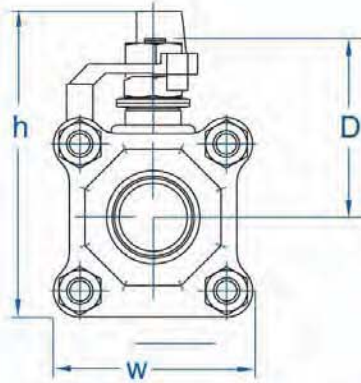
Asiento Seat	Sello del cuerpo Body seal	Sello del vástago Stem seal
B BUNA	B - BUNA	
* T PTFE	* T - PTFE	* R R-PTFE
R R-PTFE	M - MULTIFIL	
M MULTIFIL	V - VITON	
I PTFE + INOX.	G - GRAFOIL	
Y DELRIN	S - "S" GASKET	M MULTIFIL
U UHMWPE		
P PEEK		

* Materiales estandar / Standard materials





Dimensiones • Dimensions



Serie 400 (Latón) Paso reducido • Series 400 (Brass) Reduced bore

Medida / Size	A	B	C	D	Paso Bore	Peso / Weight		l	h	w
						kg	lb	Largo / Length	Altura / Height	Ancho / Width
1/4	4.30	1.69	2.61	1.50	.430	0.630	1.300	5.56	2.57	1.79
3/8	4.30	1.75	2.61	1.50	.450	0.620	1.300	5.56	2.65	1.79
1/2	4.30	1.58	2.61	1.50	.450	0.590	1.300	5.56	2.50	1.79
3/4	4.30	1.87	2.83	1.50	.560	0.750	1.600	5.74	2.72	2.00
1	5.84	2.21	3.69	2.19	.810	1.460	3.200	7.69	3.58	2.45
1 1/4	5.75	2.76	4.16	2.35	1.000	2.010	4.400	7.81	3.96	2.63
1 1/2	7.00	3.02	4.56	2.89	1.250	2.940	6.480	9.28	4.51	3.06
2	7.00	3.21	4.94	3.13	1.500	4.010	8.800	9.52	5.00	3.48

Serie 400 (Latón) Paso completo • Series 400 (Brass) Full bore

Medida / Size	A	B	C	D	Paso Bore	Peso / Weight		l	h	w
						Kg	lb			
1/4	4.30	1.75	2.61	1.50	.450	0.620	1.300	5.56	2.65	1.79
3/8	4.30	1.58	2.61	1.50	.450	0.590	1.300	5.56	2.50	1.79
1/2	4.30	1.87	2.83	1.50	.560	0.750	1.600	5.74	2.72	2.00
3/4	5.84	2.21	3.69	2.19	.810	1.460	3.200	7.69	3.58	2.45
1	5.75	2.76	4.16	2.35	1.000	2.010	4.400	7.81	3.96	2.63
1 1/4	7.00	3.02	4.56	2.89	1.250	2.940	6.480	9.28	4.51	3.06
1 1/2	7.00	3.21	4.94	3.13	1.500	4.010	8.800	9.52	5.00	3.48

Nota: Dimensiones en pulgadas • Note: All dimensions in inch

Para Uso Industrial / For Industrial Use





Válvula de bola bridada en paso reducido, clases 150 y 300 construcción robusta en materiales de acero al carbón y acero inoxidable, sellos del vástago para ciclos frecuentes en diversos materiales.

Diseño de cuerpo de 3 piezas en medidas de 1/2" a 2". Clase 150 y 300

Diseño de cuerpo de 1 pieza con tapon roscado en medidas de 3" a 10" en clase 150 y de 3" a 8" en Clase 300, base ISO 5211 estándar de 3 a 8" (excepto en 10").

Diseño de maneral corto para operar la válvula con palanca, en medidas de 3" y mayores (para serie 150 y serie 300).

Three piece design valve, available in sizes from 1/2" to 2" ANSI 150 / 300 and 1 piece design with screwed cap in sizes from 3" to 10" ANSI 150 and from 3" to 10" ANSI 300. ISO Pad 5211 as standard in sizes from 3" to 8" (exception 10").

Short-handle, designed for operating the valve with lever. From size 3" and up.



Serie 150/300 Materiales de sellos y asientos

Serie 150/300 Seat and seal materials

Asiento Seat	Sello del cuerpo Body seal	Sello del vástago Stem seal
B BUNA	B - BUNA	
* T PTFE	* T - PTFE	* R R-PTFE
R R-PTFE	M - MULTIFIL	
M MULTIFIL	V - VITON	
I PTFE + INOX.	G - GRAFOIL	
Y DELRIN	S - "S" GASKET	M MULTIFIL
U UHMWPE		
P PEEK		

* Materiales estandar / Standard materials

OPCIONES:

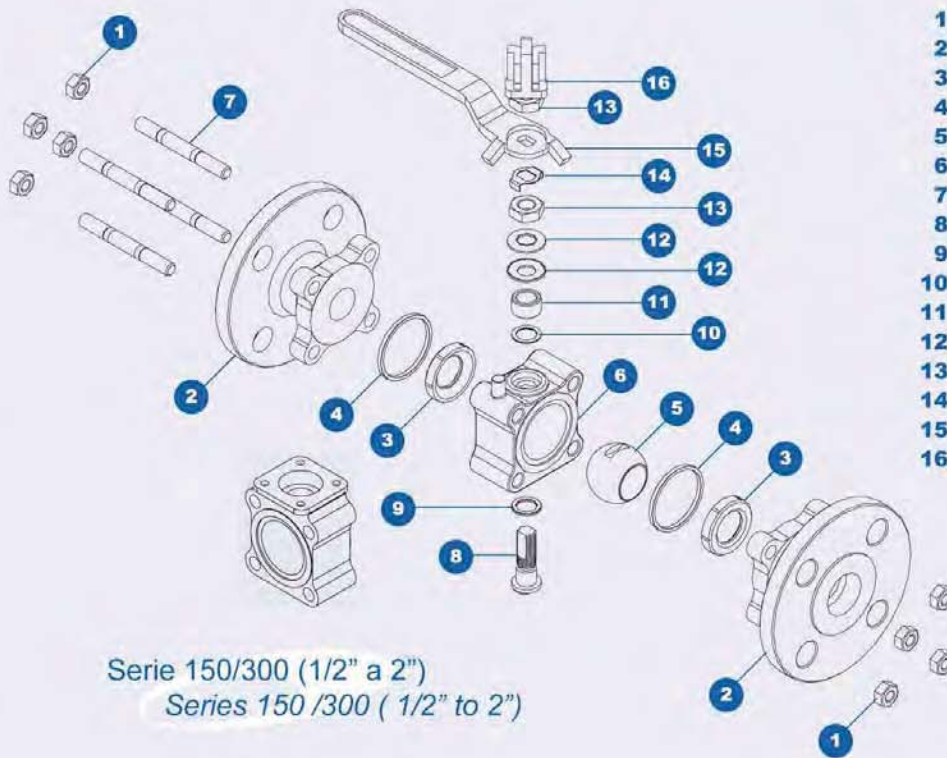
- Diversos materiales de sellos y asientos.
- Dispositivo para candado.
- Vástago antiestático.
- Cuerpo ISO de acuerdo a ISO 5211 (en medidas de 1/2" a 2").
- 3 vías (en medida de 1/2" a 2").
- Libre de grasa.
- Maneral oval (en medidas de 1/2" a 2").
- Extensión del vástago (en medidas de 1/2" a 2").
- Automatización con actuadores eléctricos ó neumáticos.

OPTIONS:

- Diversity in materials for seats and seals
- Locking device
- Antistatic device
- Body ISO according to ISO 5211 (in sizes from 1/2" to 2")
- 3 ways (in sizes from 1/2" to 2")
- Oil free
- Oval handle (in sizes from 1/2" to 2")
- Stem extension (in sizes from 1/2" to 2")
- The valve can be automated with an electric or pneumatic actuator.

Válvula Valve	ANSI B16.34 Clase • Class	Acero al Carbón • Carbon Steel ASTM A216 WCB		Acero Inoxidable • Stainless Steel ASTM A351 CF8M	
		Presión de Trabajo Working Pressure	Presión Max. de Prueba Max. Test Pressure	Presión de Trabajo Working Pressure	Presión Max. de Prueba Max. Test Pressure
Serie 150 • Series 150	150	285 psi	450 psi	275 psi	425 psi
Serie 300 • Series 300	300	740 psi	1125 psi	720 psi	1100 psi

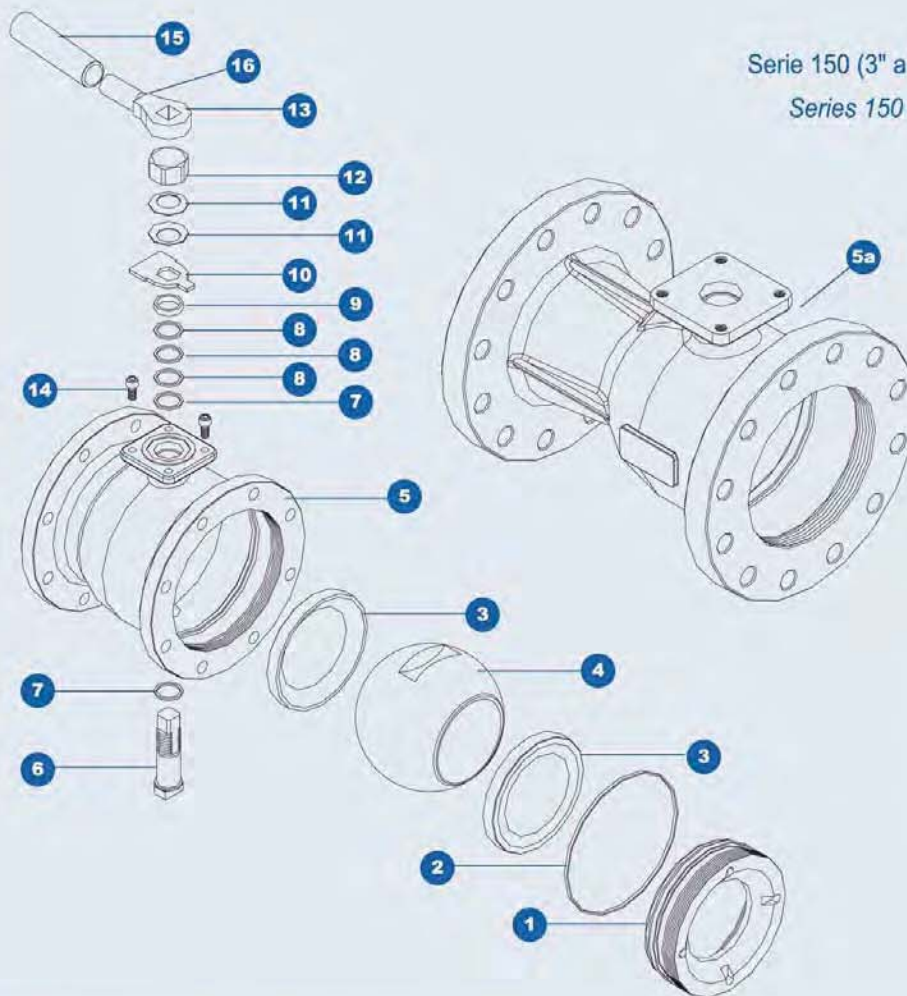




- 1 Tuerca del cuerpo • Body nut
- 2 Tapa Brida • Flanged Cover
- 3 Asiento • Seat
- 4 Sello de cuerpo • Body seal
- 5 Bola • Ball
- 6 Cuerpo • Body
- 7 Birlo del cuerpo • Body bolt
- 8 Vástago • Stem
- 9 Roldana inferior de vástago • Thrust bearing
- 10 Roldana superior de vástago • Stem seal
- 11 Separador • Follower
- 12 Roldana cóncava • Belleville washer
- 13 Tuerca de vástago • Stem nut
- 14 Seguro para tuerca de vástago • Stem lock
- 15 Maneral • Handle
- 16 Dispositivo para candado (opcional)
• Locking device (optional)

Serie 150/300 (1/2" a 2")
 Series 150/300 (1/2" to 2")

Lista de partes
 List of components

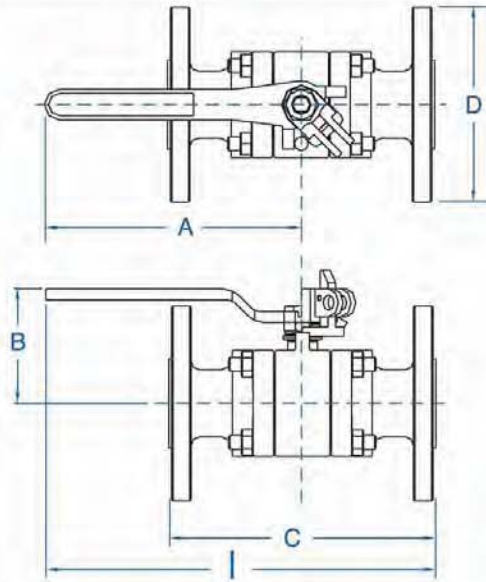


Serie 150 (3" a 10") Serie 300 (3" a 8")
 Series 150 (3" to 10") Series 300 (3" to 8")

Lista de partes
 List of components

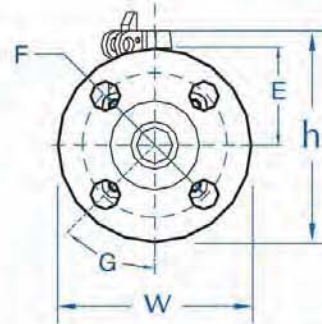
- 1 Tapón • Plug
- 2 Sello de cuerpo • Body seal
- 3 Asiento • Seat
- 4 Bola • Ball
- 5 Cuerpo 150 • Body 150
- 5a Cuerpo 300 • Body 300
- 6 Vástago • Stem
- 7 Roldana de vástago • Thrust bearing
- 8 Sello de vástago • Stem seal
- 9 Separador • Stem follower
- 10 Placa tope • Stop plate
- 11 Roldana cóncava • Belleville washer
- 12 Tuerca autotrabante • Retaining nut
- 13 Maneral • Handle
- 14 Tornillo tope • Stop screw
- 15 Palanca • Lever
- 16 Opresor para maneral • Handle screw





Dimensiones • Dimensions

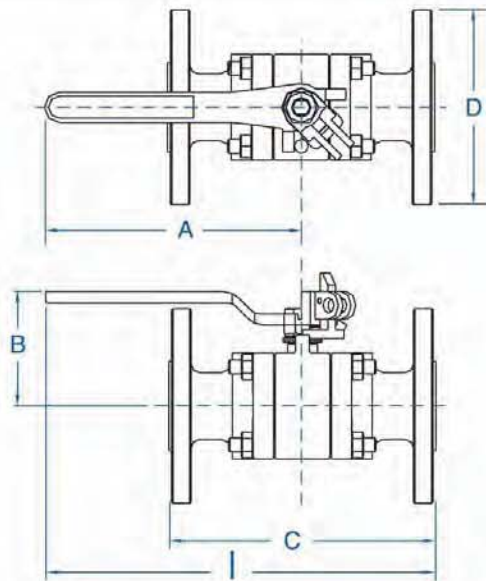
Serie 150 (1/2" a 2")
 Series 150 (1/2" to 2")



Serie 150 • Series 150

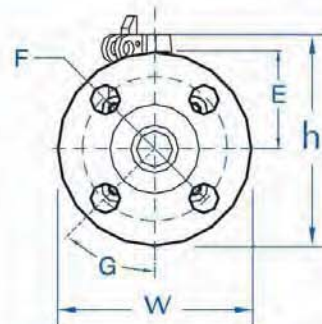
Medida / Size	A	B	C	D	E	F	G	Paso / Bore	Peso / Weight		Largo / Length	h	W
									kg	lb			
1/2	4.35	2.70	4.37	3.64	1.46	2.38	45°	.440	1.600	3.500	6.53	4.50	3.61
3/4	4.95	2.58	4.78	3.98	1.60	2.75	45°	.560	2.100	4.600	6.83	4.57	3.98
1	4.85	3.61	5.13	4.37	2.17	3.12	45°	.810	3.230	7.120	8.37	5.78	4.37
1 1/2	7.15	4.27	6.50	5.13	2.88	3.58	45°	1.250	6.710	14.790	10.43	6.77	5.13
2	7.20	4.40	7.00	6.13	3.07	4.75	45°	1.500	9.170	20.700	10.71	7.40	6.13

Nota: Dimensiones en pulgadas • Note: All dimensions in inch



Dimensiones • Dimensions

Serie 300 (1/2" a 2")
 Series 300 (1/2" to 2")



Serie 300 • Series 300

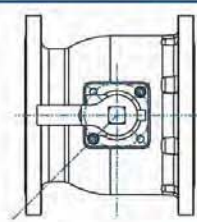
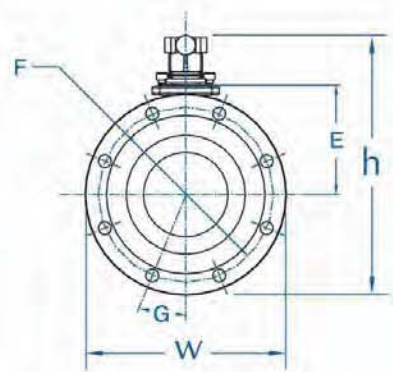
Medida / Size	A	B	C	D	E	F	G	Paso / Bore	Peso / Weight		Largo / Length	h	W
									kg	lb			
1/2	4.25	2.72	5.54	3.75	1.46	2.62	45°	.440	2.060	4.540	7.00	4.60	3.75
3/4	4.25	2.78	6.00	4.62	1.57	3.25	45°	.560	3.100	7.000	7.25	5.34	4.62
1	5.85	3.45	6.50	4.88	2.17	3.50	45°	.810	4.490	9.900	9.08	5.90	4.88
1 1/2	7.00	4.27	7.59	6.12	2.88	4.47	45°	1.250	9.600	21.160	10.81	7.35	6.12
2	7.12	4.39	8.50	6.50	3.07	5.00	45°	1.500	11.370	24.070	11.42	7.64	6.50

Nota: Dimensiones en pulgadas • Note: All dimensions in inch

Bridadas para Uso Industrial / Flanged for Industrial



Dimensiones • Dimensions



Serie 150 (3" a 10")
Series 150 (3" to 10")

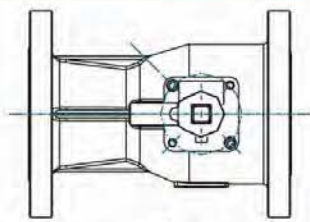
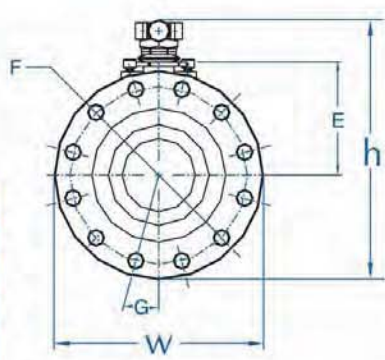
ISO 5211	
3	F10
4	F10
6	F12
8	F12
10	-

Serie 150 • Series 150

Medida / Size	A	B	C	D	E	F	G	H	Paso Bore	Peso / Weight		l Largo / Length	h Altura / Height	w Ancho / Width
										kg	lb			
3	3 1/4	3.62	8.00	6.15	3.88	6.00	45°	7.50	2.500	19.000	43.600	8.00	9.80	7.50
4	3 1/4	3.99	9.00	6.74	4.48	7.50	22.5°	9.00	3.250	30.400	67.000	9.00	11.25	9.00
6	4 11/32	4.21	10.50	9.192	6.19	9.50	22.5°	11.00	4.370	48.200	106.200	10.50	14.67	11.00
8	4 11/32	5.11	11.50	10.20	7.28	11.75	22.5°	13.50	5.680	77.400	170.600	11.50	16.95	13.50
10	4	7.12	13.00	12.84	9.47	14.00	15°	16.00	7.370	122.000	268.900	13.00	20.85	16.00

Nota: Dimensiones en pulgadas • Note: All dimensions in inch

Dimensiones • Dimensions



Serie 300 (3" a 8")
Series 300 (3" to 8")

ISO 5211	
3	F10
4	F10
6	F12
8	F12

Serie 300 • Series 300

Medida / Size	A	B	C	D	E	F	G	H	Paso Bore	Peso / Weight		l Largo / Length	h Altura / Height	w Ancho / Width
										kg	lb			
3	3 1/4	4.27	11.12	6.14	3.88	6.62	22.5°	8.25	2.500	23.600	52.030	11.12	10.27	8.25
4	3 1/4	4.72	12.00	6.75	4.48	7.88	22.5°	10.00	3.250	38.000	183.700	12.09	11.75	10.00
6	4 11/32	5.50	15.88	9.26	6.19	10.62	15°	12.50	4.370	69.000	152.140	15.88	15.50	12.50
8	4 11/32	8.19	16.50	10.33	7.43	13.00	15°	15.00	5.680	122.000	269.010	16.50	17.83	15.00

Nota: Dimensiones en pulgadas • Note: All dimensions in inch

Cómo Ordenar una Válvula Worcester "BOLA FLOTANTE"

How to Order a Valve from Worcester "FLOATING BALL"



Ejemplo:
Example

2"	52	4	6	6	R	F	G	RF	L
1	2	3	4	5	6	7	8	9	10

Código Code	Descripción • Description
1	Medida Size
2	Serie Series
3	Material del Cuerpo Body Material
4	Material de la Bola Ball Material
5	Material del Vástago Stem Material
6	Material del Asiento Seat Material
7	Aplicación especial Special Application
8	Material del Sello Seal Material
9	Tipo de Conexión Type of Connection
10	Operador Operator

1	Medida • Size
1/4"	DN8
3/8"	DN10
1/2"	DN15
3/4"	DN20
1"	DN25
1-1/4"	DN32
1-1/2"	DN40
2"	DN50
2-1/2"	DN65
3"	DN80
4"	DN100
6"	DN150
8"	DN200
10"	DN250

3	Material del Cuerpo (1 Dígito) Body material (1 Digit)
1	Latón Brass
4	Acero al Carbón Carbon Steel
6	Acero Inoxidable Stainless Steel
9	Especial Special

4	Material de la Bola (1 Dígito) Ball material (1 Digit)
1	Latón Brass
4	Acero al Carbón Carbon Steel
6	Acero Inoxidable Stainless Steel
9	Especial Special

2	Serie	Serie (2 dígitos) • Series (2 digits)	
42	42	Modelo económico de 2 piezas (1/2" a 2") Economical model, 2 pieces (1/2" to 2")	Servicios Generales General Services
10	1000	Cuerpo de 3 piezas (1/2" a 2"), paso completo 3-piece body (1/2" to 2"), full bore	
44	400	Clase 400, de 3 piezas (1/4" a 2") paso reducido y completo Class 400, 3 pieces (1/4" to 2") full and reduce bore	Uso Industrial Industrial Use
66	600	Clase 600, de 3 piezas (1/4" a 2") paso reducido y paso completo Class 600, 3 pieces (1/4" to 2") full and reduce bore	
N4	N44	Nuevo diseño de la serie 400/600/H600, cuerpo de 3 piezas (1/4" a 2") 3-piece body, design new of series 400/600/H600 (1/4" to 2")	Bridas Flanged Industrial Use
45	45	Clase 300, de 3 piezas paso reducido y completo (2" 1/2 a 6") class 300, 3 pieces (2" 1/2 to 6") reduced and full bore	
15	15	Clase 150, Bridada de 1 pieza (1" a 6"), paso reducido Flanged Class 150, 1 piece (1" to 6"), reduced bore	Válvulas Especiales Special Valves
50	150	Clase 150, bridada, (1/2" a 2") paso reducido Class 150, flanged (1/2" to 2") reduced bore	
30	300	Clase 300, bridada, (1/2" a 8") paso reducido Class 300, flanged (1/2" to 8") reduced bore	
52	152	Clase 150, bridada, (1/2" a 8") paso completo Class 150, flanged (1/2" to 8") full bore	Bridas Flanged Industrial Use
32	302	Clase 300, bridada, (2" a 6") paso completo Class 300, flanged (2" to 6") full bore	
B6	600	Clase 600, de 3 piezas 2" Bridada paso completo Class 600, 3 piece flanged (2" to 6") full bore	Válvulas Especiales Special Valves
51	151	Modelo corto para colocar entre bridas clase 150 de 1 pieza (3" a 6") Paso reducido Short-pattern model to be installed between flanges, class 150, 1 piece (3" to 6") reduced bore	
H6	H600	Cuerpo de 3 piezas Alta presión (1/2" a 2") High Pressure, 3-piece body (1/2" to 2")	
60	6000	Alta presión clase 2500, de 2 piezas paso completo (1/4" a 2") High Pressure class 2500, 2 pieces (1/4" to 2")	Válvulas Especiales Special Valves
18	18	Clase 150, multipuertos (2" a 6") Class 150, multiport (2" to 6")	

5	Material del Vástago (1 Dígito) Stem material (1 Digit)
4	Acero al Carbón Carbon Steel
6	Acero Inoxidable Stainless Steel
9	Especial Special

6	Material del Asiento (1 Dígito) Seat material (1 Digit)
B	Buna-N Buna-NBR
D	Devlon Devlon
I	Teflon® + A/I Teflon® + Stainless Steel
M	Multifil Multifil
P	Peek Peek
R	Teflon® Reforzado (R-PTFE) Reinforced Teflon® (R-PTFE)
T	Teflon® Virgen (PTFE) Virgin Teflon® (PTFE)
Y	Delrhin-Lubetal Delrhin-Lubetal
9	Especial Special

7	Aplicación Especial (1 Dígito) Special Application (1 Digit)
0	Estándar Standard
1	3 Vías Porting 1 3 Ways Porting 1
2	3 Vías Porting 2 3 Ways Porting 2
3	3 Vías Porting 3 3 Ways Porting 3
B	Vástago Antiestático Antistatic Device
C	Criogénica Cryogenic
D	Tuercas y Tornillos de Inox. Stainless Bolts and Nuts
F	A Prueba de Fuego Fire Safe
G	Plato ISO 5211 ISO 5211 Plate
I	Cuerpo ISO Body ISO
J	Enchaquetada Jacketed
K	Bola con Barreno de Alivio Ball with relief hole
O	Servicio de Oxígeno Oxygen Service
P	Paso Completo Full Bore
Q	Servicio de Vacío Vacuum Service
X	Cavity Fill Cavity Fill
Z	Asientos Integrales Integral Seats

8	Material del Sello (1 Dígito) Seal material (1 Digit)
T	Teflon® Reforzado (R-PTFE) Reinforced Teflon® (R-PTFE)
B	Buna-N Buna-NBR
G	Grafoil Graphite
V	Vitón Viton
U	UHMWPE UHMWPE
D	Devlon DEVLON
M	Multifil Multifil
Y	Delrhin Delrhin

9	Tipo de Conexión (2 Dígito) Type of Connection (2 Digit)
BS	Roscada BSPT Threaded BSPT
BP	Roscada BSPP Threaded BSPP
CC	Conexión Clamp Connection Clamp
RF	Bridada Cara realzada (RF) Flanged Raised Face (RF)
NP	Roscada NPT Threaded NPT
SW	Soldable a Caja (SW) (SW) Socket Weld
B1	Buttweld (BW) P/ Ced. 10 Buttweld (BW) for Ced. 10
B4	Buttweld (BW) P/ Ced. 40 Buttweld (BW) for Ced. 40
B8	Buttweld (BW) P/ Ced. 80 Buttweld (BW) for Ced. 80

10	Operador (1 Dígito) • Operator (1 Digit)
M	Maneral Handle
L	Vástago Desnudo Bare shaft
O	Maneral Oval Oval Handle
I	Maneral C/Dispositivo P/Candado Handle with Locking Device

Cómo Ordenar una Válvula Worcester "BOLA GUIADA" How to Order a Valve from Worcester "TRUNNION BALL"



Ejemplo:

Example

14"	94	4	4E	2	4E	N	RF	G
1	2	3	4+R	5+R	6+R	7	8	9

Código Code	Descripción • Description
1	Medida <i>Size</i>
2	Serie <i>Series</i>
3	Material del Cuerpo <i>Body Material</i>
4	Material de la Bola <i>Ball Material</i>
5	Material del Vástago <i>Stem Material</i>
6	Material del Anillo <i>Seat Ring Material</i>
R	Recubrimiento <i>Covering</i>
7	Inserto del Asiento <i>Seat Insert</i>
8	Tipo de Conexión <i>Type of Connection</i>
9	Operador <i>Operator</i>

2 Serie (2 dígitos) • Series (2 digits)

72	Clase 150 bridada, paso completo, cuerpo atornillado <i>Class 150, flanged, full bore, bolted body</i>	FUNDIDO CASTED	
73	Clase 300 bridada, paso completo, cuerpo atornillado <i>Class 300, flanged, full bore, bolted body</i>		
82	Clase 150 bridada, paso completo, cuerpo atornillado <i>Class 150, flanged, full bore, bolted body</i>		
83	Clase 300 bridada, paso completo, cuerpo atornillado <i>Class 300, flanged, full bore, bolted body</i>		
84	Clase 600 bridada, paso completo, cuerpo atornillado <i>Class 600, flanged, full bore, bolted body</i>		
85	Clase 900 bridada, paso completo, cuerpo atornillado <i>Class 900, flanged, full bore, bolted body</i>		
86	Clase 1500 bridada, paso completo, cuerpo atornillado <i>Class 1500, flanged, full bore, bolted body</i>		
87	Clase 2500 bridada, paso completo, cuerpo atornillado <i>Class 2500, flanged, full bore, bolted body</i>		
92	Clase 150 bridada, paso completo, cuerpo soldado <i>Class 150, flanged, full bore, fully welded body</i>		FORJADO FORGED
93	Clase 300 bridada, paso completo, cuerpo soldado <i>Class 300, flanged, full bore, fully welded body</i>		
94	Clase 600 bridada, paso completo, cuerpo soldado <i>Class 600, flanged, full bore, fully welded body</i>		
95	Clase 900 bridada, paso completo, cuerpo soldado <i>Class 900, flanged, full bore, fully welded body</i>		
96	Clase 1500 bridada, paso completo, cuerpo soldado <i>Class 1500, flanged, full bore, fully welded body</i>		
97	Clase 2500 bridada, paso completo, cuerpo soldado <i>Class 2500, flanged, full bore, fully welded body</i>		

R Recubrimiento (1 Dígito) Covering (1 Digit)

E	ENP <i>ENP</i>
W	Carburo de Tungsteno <i>Tungsten carbide</i>
S	Estellite <i>Stellite</i>
H	Cromo duro <i>Hard chrome</i>

8 Tipo de Conexión (2 Dígitos) Type of Connection (2 Digits)

RF	Bridada Cara realzada (RF) <i>Flanged Raised Face (RF)</i>
B1	Buttweld (BW) P/ Ced. 10 <i>Buttweld (BW) for Ced. 10</i>
B4	Buttweld (BW) P/ Ced. 40 <i>Buttweld (BW) for Ced. 40</i>
BB	Buttweld (BW) P/ Ced. 80 <i>Buttweld (BW) for Ced. 80</i>
TJ	Bridada RTJ <i>Flanged RTJ</i>

1 Medida • Size

2"	DN50	18"	DN450
3"	DN80	20"	DN500
4"	DN100	22"	DN550
6"	DN150	24"	DN600
8"	DN200	30"	DN750
10"	DN250	36"	DN900
12"	DN300	40"	DN1000
14"	DN350	42"	DN1050
16"	DN400	48"	DN1200

3 Material del Cuerpo (1 Dígito) Body Material (1 Digit)

4	Acero al Carbón <i>Carbon Steel</i>
6	Acero Inoxidable <i>Stainless Steel</i>
9	Especial <i>Special</i>

4 Material de la Bola (1 Dígito) Ball Material (1 Digit)

4	Acero al Carbón <i>Carbon Steel</i>
6	Acero Inoxidable <i>Stainless Steel</i>
9	Especial <i>Special</i>

5 Material del Vástago (1 Dígito) Stem material (1 Digit)

2	AISI 4140 <i>AISI 4140</i>
4	Acero al Carbón <i>Carbon Steel</i>
5	Acero Inoxidable 17-4PH <i>Stainless Steel 17-4PH</i>
6	Acero Inoxidable <i>Stainless Steel</i>
9	Especial <i>Special</i>

6 Material del Anillo del asiento (1 Dígito) Seat Ring Material (1 Digit)

4	Acero al Carbón <i>Carbon Steel</i>
6	Acero Inoxidable <i>Stainless Steel</i>
9	Especial <i>Special</i>

7 Inserto del Asiento (1 Dígito) Seat Insert (1 Digit)

T	Teflon® Virgen (PTFE) <i>Virgin Teflon® (PTFE)</i>
R	Teflon® Reforzado (R-PTFE) <i>Reinforced Teflon® (R-PTFE)</i>
P	Peek <i>Peek</i>
V	Vitón <i>Viton</i>
N	Nylon <i>Nylon</i>
M	Metal-Metal <i>Metal to Metal</i>

9 Operador (1 Dígito) • Operator (1 Digit)

M	Maneral <i>Handle</i>
L	Vástago Desnudo <i>Bare shaft</i>
G	Caja de Engranajes <i>Gear Box</i>

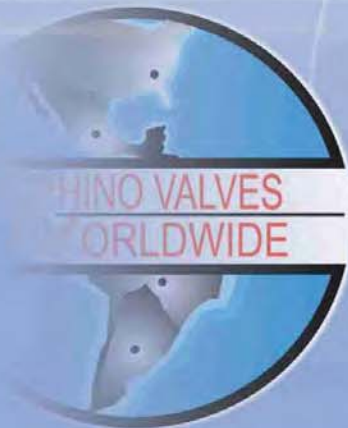
...La mejor por diseño
The best by design...





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