

RHINO VALVES WORLDWIDE



Series 42

**The Economic valve of more reliable Brass.
Wrought body with plug, available with
threaded connection or socket weld in reduced port
for diverse industrial applications as Water,
Gas, Steam, etc.**



LICENSE No. 6D-0321



RHINO VALVES WORLDWIDE



SERIES 42

With the series 42 valve, you get an economical forged brass valve suitable for steam service to 150psi, air, water, oil and gas up to 600psi, temperatures to 375°F.

All Series 42 are designed with quality features like:

- Resilient seats to provide a tight sealing surface.
- Downstream sealing to give a bubble tight seal against flow from either direction.
- Adjustable stem packing that keeps stem seal tight even in high temperature service.
- Continuous die forming ring which eliminates leaks.
- Optional economical Buna-N seats that allow use with a high pressure differential, up to 300psi (600psi with TFE or RTFE).
- Self cleaning ball that keeps operation smooth.
- TFE thrust washer that keeps and forged stops that provide strength for years of the rugged use.

All in all, the Series 42 gives you a well built, economical ball valve full of features you need for years of reliable, trouble free service.

SEATS

The design of Worcester/Rhino Valves allows flow pressure in both directions which is transferred to the floating ball. Then, this is pressed against the downstream seat, resulting in a bubble tight sealing. The resilient seats patented by Worcester allow relief the pressure to the upstream seat against the ball, resulting a low torque of operation and a long, soft operation even with high differential pressures. This low torque characteristic, permits a smaller actuator operation, resulting in lower cost. The seats also acts as a ball whipper, as it removes any adhered material to ball for a better sealing.

STEM

The stem is designed for both safety and a long, leak-tight service life. Inserted from the bottom through the cavity, it rests securely against an interior body shoulder.

The stem is held in place by a live loaded retaining system, featuring opposing belleville washers. These flex in response to thermal expansions and contractions and maintain effective sealing pressure as they compensate for normal stem seal wear. The seal can also be easily adjusted in-line by the accessible stem nut. In series 400 and 600, a stem nut retaining clip holds the nut in place and prevents backing off, particularly in high cycle actuated services. In series 152 a CHEVRON^o type external stem seal is provided.

TORQUE

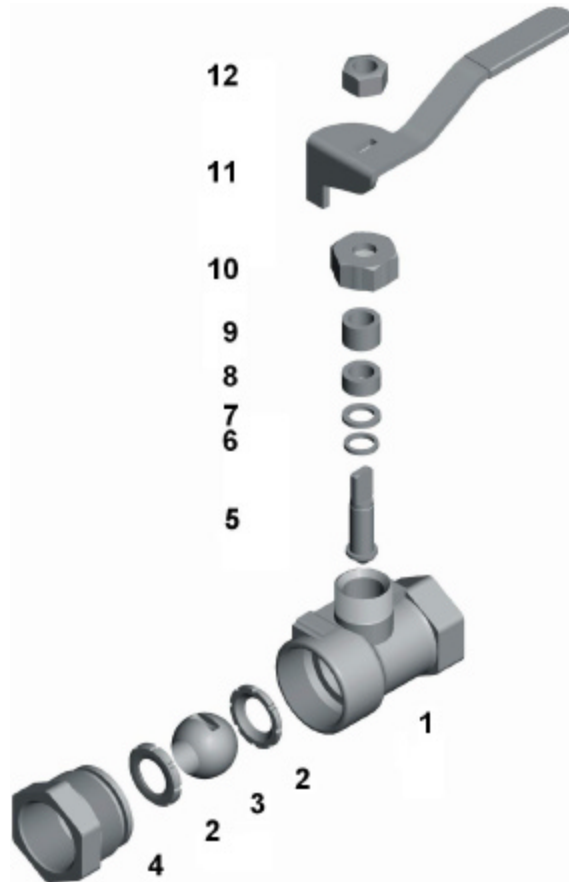
The operating torque of the ball valve is influenced by a number of factors which has to be considered to size a valve for actuation. These factors are divided in Design (type and material of valve seats), and application (pressure, media and frequency of operation).

RHINO VALVES WORLDWIDE



SERIES 42"

SERIES 42. Brass valve, robust design of two pieces, economic and durable. For general use of up to 600 psi. Patented seats with slot relief in multiple materials of construction. From ¼" to 2".



PARTS LISTING OF SERIES 42 1/4" - 2"

ITEM	QUANTITY	DESCRIPTION	BRASS
1	1	BODY	ASTM B 283 C37700
2	2	SEAT	PTFE
3	1	BALL	ASTM B 21 C46400, ASTM B 283 C37700
4	1	PLUG END	ASTM B 21 C46400, ASTM B 283 C37700
5	1	STEM	AISI 316
6	1	THRUST WASHER	R-PTFE 15%
7	1	WASHER	ASTM B16-85
8	1	STEM PACKING	GARLOCK 7750
9	1	FOLLOWER	ASTM B 16
10	1	BONNET NUT	ASTM B 16
11	1	HANDLE	AISI 1018-1020
12	1	STEM NUT	SAE J 429 GR. 5

RHINO VALVES WORLDWIDE

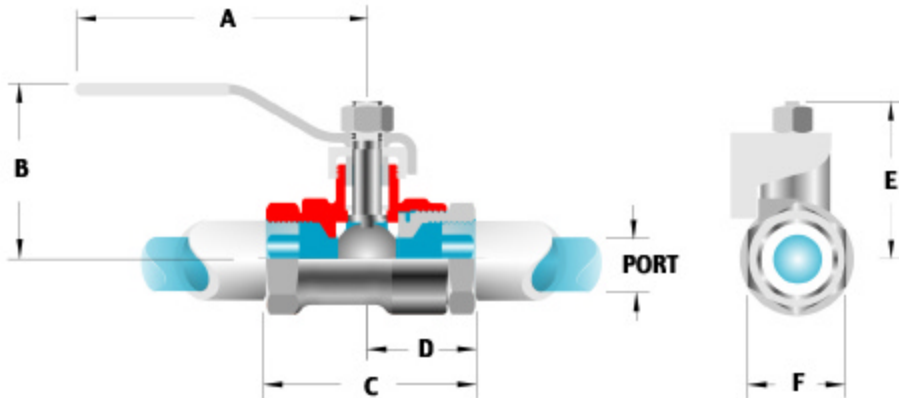
SERIES 42”



RHINO VALVES WORLDWIDE



SERIES 42"



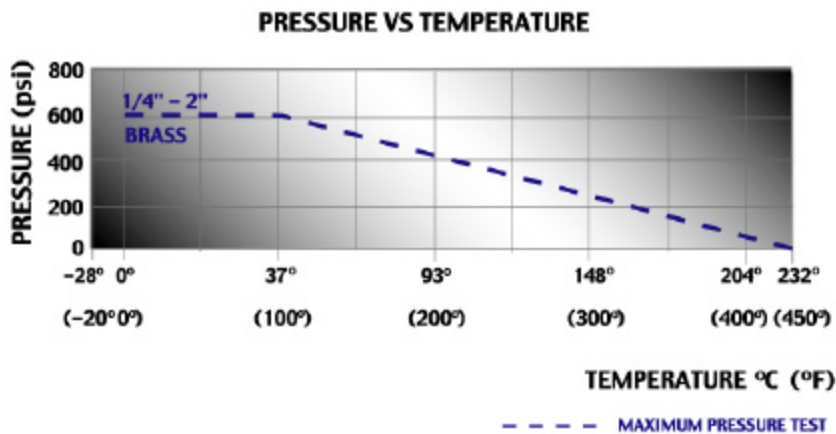
The pipe is exclusively representative. They are only as reference and they are subject to changes without previous notice.

Dimension in inches.

SERIE 42 1/4" - 2"

600 PSI

SIZE	A	B	C	D	E	F	PORT	WEIGHT IN LBS
1/4"	4 1/4	2.33	2.50	1.31	1.94	1.25	0.41	0.915
3/8"	4 1/4	2.33	2.50	1.31	1.94	1.25	0.41	0.849
1/2"	4 1/4	2.33	2.50	1.31	1.94	1.25	0.41	0.791
3/4"	4 1/4	2.39	2.72	1.41	2.06	1.44	0.53	0.959
1"	4 1/4	2.58	3.62	1.84	2.25	1.81	0.75	1.678
1 1/2"	5 3/4	3.24	4.39	2.22	2.94	2.39	1.25	4.352
2"	5 3/4	3.46	4.91	2.45	3.12	3.12	1.50	5.992



RHINO VALVES WORLDWIDE

APPLICABLE INTERNATIONAL STANDARDS



APPLICABLE INTERNATIONAL STANDARDS

Norm	Description	Applicable in	Size	Content
NACE MR-01-75	Valves that require special resistance to fractures and hydrosulfuric attack	All the models except Brass	1/4" - 8"	For sour environment, stainless ferrous and not ferrous metals
ANSI/FCI 70-2	for seat leaks of control valves. Class VI	All the models	1/4" - 8"	(pneumatic) trapped air test
MSS-SP-26	System of Marking Standard	All the models except series 42, 43, 1000	1/4" - 8"	Size-thread-temperature. Pressure-material-Nom. Casting Heat. No.
MSS-SP-55	Visual inspection Method acceptance of cast steel valves	All the models except Brass	1/2" - 8"	12 types of frequent surface irregularities identifiable by comparative visual inspection
API 6D	Specification for piping and valves	All the models	2" - 8"	Quality system according to American Petroleum Institute
API 607	"Fire Safe" testing	All the models except series 42, 43 and 1000	1/4" - 8"	Available certificate in some valves
API 598	Inspection and test of valves	All the models	1/4" - 2"	Hydrostatic and pneumatic inspection
ANSI B 16.5	Flanges for steel pipe lines	All the flanged models	1/2" - 8"	Dimension-material-range. Pressure temperature-facing. Different types of flanges
ANSI B 16.10	End to end dimensions of valves with flanges and/or to weld ends	All the flanged models and weld end models	1/2" - 8"	Face to face Dimensions
ANSI B 16.11	End Dimensions: S.W. (Socket Weld) S.E. (Threaded)	All the models except flanged	1/4" - 6"	Face to face Dimensions
ANSI B 16.34	Steel valves	All the models	1/4" - 14"	Wall Thickness designs. Material-specifications. Range-Pressure-Temperature. Hydrostatic Test
ANSI B 16.25	Buttweld ends	All the models except flanged	1/2" - 6"	Angle of machine beveling and O.D. And I.D.

RHINO VALVES WORLDWIDE



HOW TO ORDER

HOW TO ORDER TO RHINO VALVES

Valve Size	Type	Series	Body, pipe ends	M a t e r i a l			Ends
				Ball Steam	Seat	Body Seals	
1 1/2"	D	4	4	6	T	T	SW
1/4"	- Normal	4 - 400 (44)	1 - Brass	1 - Brass	B - Buna	B - Buna	SE - Screw End
3/8"	FS - Fire Safe	6 - 600	4 - Carbon Steel	4 - Carbon Steel	T - Ptfе	T - Ptfе	SW - Socket Weld
1/2"	D - Diverter	H6 - H600	6 - Stainless Steel	6 - Stainless Steel	R - Tfe	R - Tfe	BW - Butt Weld
3/4"	T - 3 Ways	42 - Mite	6L - Stainless Steel CF-3M		Y - Lubetal (Delrin)	Y - Lubetal (Delrin)	150# - Ansi 150
1"	C - Cryogenic	43 - Mass			MT - Multifil	MT - Multifil	300# - Ansi 300
1 1/4"	PT - Full Port	60 - 6000			U - Uhmwpe	U - Uhmwpe	
1 1/2"		45			D - Devlon	D - Devlon	
2"		150				G - Graphoil	
3"		151				V - Viton	
4"		152					
6"		300					
8"		302					
		10 - 1000					
		20 - 2000					
					Note : Use only one letter if body seal is to be same material as seat		

NOT ALL THE COMBINATIONS ARE AVAILABLE. SEE THE FOLLOWING TABLE AND CONSULT TO THE COMPANY OR AUTHORIZED DISTRIBUTOR FOR AVAILABILITY.

THERE ARE SOME OTHER MATERIALS, OPTIONS AND ENDS AVAILABLE

COMMON COMBINATION FOR SEALS AND SEATS MATERIALS

SERIES	SEATS	BODY SEALS	STEAM SEAL
ALL	BUNA	BUNA	RTFE
ALL	PTFE	PTFE	RTFE
ALL	RTFE	PFTE	RTFE
ALL	LUBETAL	VITON	RTFE
ALL	MULTIFIL	MULTIFIL	MULTIFIL
ALL	UHMWPE	VITON	RTFE
FS ONLY	PTFE	GRAPHOIL	GRAPHOIL
H600 ONLY	DELTRIN	VITON	DELTRIN/MULTIFIL
6000 ONLY	DELTRIN/VITON	VITON	DELTRIN/MULTIFIL