

# Series S Screwed End / Grooved End / UNI-directional Screwed End

Designed originally to accommodate the intermediate pressures in the oil and gas industry, the popularity of the Series S has resulted in a continued extension of sizes, pressures, and materials.

The Series S is available in Balon ductile iron in pressures from 500 psi to 2000 psi, and in carbon steel and stainless steel in pressures to 3000 psi. All have built-in locking devices and, unlike others on the market, require no lubrication for the life of the valve.

## **UNI-directional modification for tank draw-down service.**

While no design can prevent a valve from freezing, Balon has introduced a new UNI-directional modification which reduces the likelihood that a temporary freeze will result in permanent damage to the valve. This

design modification incorporates a relief hole in the upstream side of the closed ball. When water trapped inside the ball cavity freezes and expands, the relief hole allows dissipation of the increased internal pressure.

As shown in the diagram on the following

page, the addition of the relief hole renders the valve unidirectional with the body side of the valve positioned upstream for proper sealing and operation. Balon's new UNI-directional modification is available as an option

within the Series S valve line.

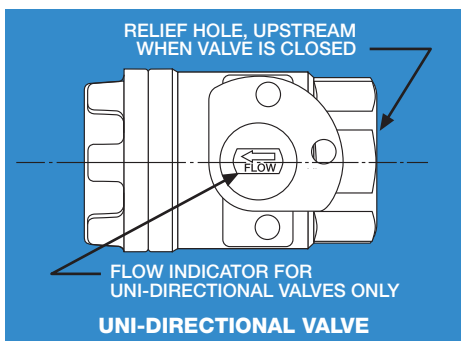
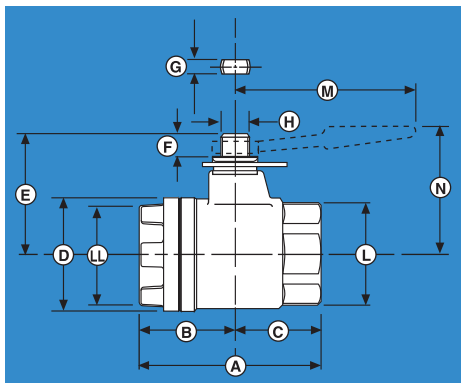


## Material Description

ITEM	PART NAME	MATERIAL (STANDARD)	MATERIAL STAINLESS STEEL (NACE)
1	*Handle	Ductile iron	Ductile iron
2	Handle bolt	Standard hex bolt	Standard hex bolt
3	Weather guard	Polyethylene	Polyethylene
4	Lock plate retainer	Carbon spring steel	Carbon spring steel
5	Lock plate	Carbon steel - zinc plated	Carbon steel - zinc plated
6	Dust cover	Polyethylene	Polyethylene
7	Stop plate retainer	Carbon spring steel	Carbon spring steel
8	Stop plate	Carbon steel zinc plated	Carbon steel zinc plated
9	Stem O-ring	Buna	Fluorocarbon
10	Stem seal	TFE	TFE
11	Stem	Carbon steel zinc plated ASTM A311-79 Class B	AISI A-316 stainless steel annealed ASTM A-276-316
12	Ball	AISI 1018 nickel chrome plated	ASTM A-743-CF8M/316 annealed stainless steel
13	Ball seat	Nylon (TFE optional)	Nylon (TFE optional)
14	Body O-ring	Buna	Fluorocarbon
15	End adapter	ASTM A395 class 60-40-18 fully annealed	ASTM A395 class 60-40-18 fully annealed
16	Body	ASTM A395 class 60-40-18 fully annealed	ASTM A395 class 60-40-18 fully annealed

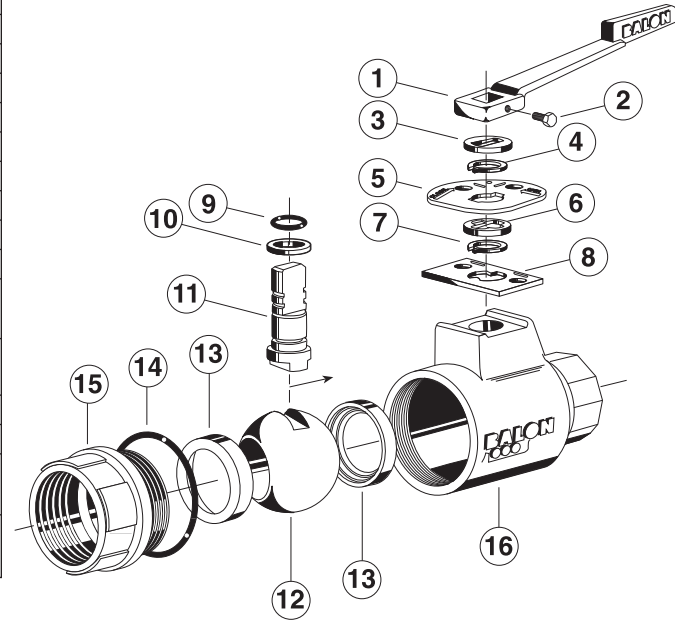
\* Balon valves are designed to be operated with a standard open-end wrench.

Handle and Handle Bolt are optional.



All Series S available with 316 SS and NACE.  
WP is for valve equipped with standard nylon seats. See Chart on page 43 TFE ratings.

## Lever Operated Threaded Construction 1" thru 4" To 2000 PSI WP



## Dimensions

BALON SERIES "S" SCREWED END - DIM. DATA																
SIZE	CAT. NO.		PORT	WP	A	B	C	D	E	F	G	H	L	LL	M	N
	STANDARD TRIM CARBON STEEL BALL & STEM	NACE TRIM 316 STAINLESS STEEL BALL & STEM														
1x1x1	1F-S62-SE	1F-S62N-SE	1	1500	3/4	1 1/8	1 1/8	2 1/4	2 1/4	1/2	0.340	0.685	1 1/4	2	4 1/2	2
1x1x1	1F-S92-SE	1F-S92N-SE	1	2000	4	2	2	2 1/2	2 1/2	1/2	0.340	0.685	2 1/8	2	4 1/2	2
1x1x1	1F-S42-SE	1F-S42N-SE	1	1000	3/4	1 1/8	1 1/8	2 1/4	2 1/4	1/2	0.340	0.685	1 1/8	2	4 1/2	2
2x1 1/2x2	2R-S62-SE	2R-S62N-SE	1 1/2	1500	5/4	2 1/2	2 1/2	3 3/4	3 3/4	3/4	0.434	0.873	3	3	7 1/4	5
2x1 1/2x2	2R-S92-SE	2R-S92N-SE	1 1/2	2000	5/4	2 1/2	2 1/2	3 3/4	3 3/4	3/4	0.434	0.873	3 1/4	3 1/4	7 1/4	5
2x1 1/2x2	2R-S42-SE	2R-S42N-SE	1 1/2	1000	5/4	2 1/2	2 1/2	3 3/4	3 3/4	3/4	0.434	0.873	3	3	7 1/4	5
2x1 1/2x2	2R-S32-SE	2R-S32N-SE	1 1/2	750	5/4	2 1/2	2 1/2	3 3/4	3 3/4	3/4	0.434	0.873	3 3/8	3 3/8	7 1/4	5
2x2x2	2F-S32-SE	2F-S32N-SE	2	750	5/4	2 1/2	2 1/2	4 1/4	4 1/4	3/4	0.497	0.998	3	3	10 1/4	5 1/2
2x2x2	2F-S62-SE	2F-S62N-SE	2	1500	6	3	3	4 1/4	4 1/4	3/4	0.497	0.998	3 1/4	3 1/4	10 1/4	5 1/2
2x2x2	2F-S42-SE	2F-S42N-SE	2	1000	5 1/2	2 1/2	2 1/2	4 1/4	4 1/4	3/4	0.497	0.998	3	3	10 1/4	5 1/2
2x2x2	2F-S92-SE	2F-S92N-SE	2	2000	6	3	3	4 1/4	4 1/4	3/4	0.497	0.998	3 1/4	3 1/4	10 1/4	5 1/2
*3x2 1/2x3	3R-S42-SE	3R-S42N-SE	2 1/2	1000	7 1/4	3 3/8	3 3/8	5 1/4	5 1/4	1 1/8	0.622	1.248	4 1/8	4	16	5 1/2
3x2x3	3R-S62-SE	3R-S62N-SE	2	1500	7 1/4	3 3/8	3 3/8	5	4 3/4	3/4	0.497	0.998	4 1/2	4 1/2	10 1/4	5 1/2
3x3x3	3F-S32-SE	3F-S32N-SE	3	750	8	4	4	6	5 1/4	3/4	0.747	1.373	4 1/4	4	20	6 1/2
3x2x3	3R-S32-SE	3R-S32N-SE	2	750	7 1/4	3 1/2	3 1/2	4 1/2	4 1/4	3/4	0.497	0.998	4 1/4	4	10 1/4	5 1/2
3x3x3	3F-S42-SE	3F-S42N-SE	3	1000	8 1/4	4 1/4	4 1/4	6	5 1/4	3/4	0.747	1.373	4 1/2	4 1/2	20	6 1/2
4x3x4	4R-S32-SE	4R-S32N-SE	3	750	8 1/4	4 1/4	4 1/4	6	5 1/4	3/4	0.747	1.373	5 1/8	5 1/4	20	6 1/2
4x3x4	4R-S42-SE	4R-S42N-SE	3	1000	8 1/4	4 1/4	4 1/4	6	5 1/4	3/4	0.747	1.373	5 1/8	5 1/4	20	6 1/2
4x4x4	4F-S22-SE	4F-S22N-SE	4	500	9 1/4	4 1/4	4 1/4	7 1/4	6 1/4	1 1/8	0.747	1.373	5 1/8	5 1/4	20	7 1/4

\* This reduced port valve has a 2 1/2" bore for increased flow.

BALON SERIES "S" GROOVED END - DIM. DATA																
SIZE	CAT. NO.		PORT	WP	A	B	C	D	E	F	G	H	L	LL	M	N
	STANDARD TRIM CARBON STEEL BALL & STEM	NACE TRIM 316 STAINLESS STEEL BALL & STEM														
2x1 1/2x2	2R-S32-GE	2R-S32N-GE	1 1/2	750	5 1/4	2 1/8	2 1/8	3 3/4	3 3/4	3/4	0.434	0.873	2 1/4	2 3/4	7 1/4	5
3x2x3	3R-S32-GE	3R-S32N-GE	2	750	7 1/4	3 1/2	3 1/2	4 1/2	4 1/4	3/4	0.497	0.998	3 1/2	3 1/2	10 1/4	5 1/2
4x3x4	4R-S32-GE	4R-S32N-GE	3	750	8 1/4	4 1/2	4 1/2	6	5 1/4	3/4	0.747	1.373	4 1/2	4 1/2	20	6 1/2