

3000

Series 3000 Piston Accumulators

- Heavy Duty Service with 3000 PSI Operating Pressure
- 2" thru 12" Bores with Over 50 Standard Capacities
- Patented V-O-ring Piston Seals
- Serviceable Threaded End Construction
- Five Standard Seal Options to Handle a Variety of Fluids and Temperatures
- ASME Certification and CE Marking Available



Materials

- Shell – high strength alloy steel
- Caps – steel
- Pistons – aluminum (2" thru 8"), ductile iron (9" & 12")
- Gas Valve Cartridge – steel
- Gas Valve Protector – steel
- Piston Glide Rings – PTFE
- Piston & End Seals – various polymers
- Piston Seal Backups – PTFE

Actual Bore Sizes & Maximum Flow Rates**Pressure Ratings**

Nominal Bore Size (in.)	Actual Bore Size		Max. Recommended Flow*	
	(in.)	(mm)	GPM	LPM
2	2.02	51.44	100	380
3	3.00	76.20	220	834
4	4.03	102.4	397	1504
6	5.78	146.9	818	3096
7	7.00	177.8	1199	4538
8	7.87	200	1199	4538
9	9.00	228.6	1982	7502
12	11.88	301.6	3450	13061

*Note: Based on 120 in/sec maximum piston speed, port & fitting size will become limiting factors for most applications.

Parker Series 3000 piston accumulators are rated at 3000 psi and a minimum 4 to 1 design factor. For pressures over 3000 psi, see Series 4000 and Series 5000 accumulators.

Fluids

Parker's piston accumulators are compatible with a wide variety of fluids. Standard accumulators (with nitrile seals) may be used with petroleum-based industrial oils or water-based flame resistant fluids. Optional seals compatible with most industrial fluids are available with temperature ranges from -45°F to 325°F (-43°C to 162°C).

Precharge

Units are shipped with a nominal nitrogen precharge as standard. For specific precharge pressures, specify at the time of order.

Auxiliary Gas Bottles

When space does not permit the installation of the required piston accumulator, a smaller accumulator may be used by connecting it to an auxiliary gas bottle(s) that can be located in a nearby spot where space is available. In some cases, a piston accumulator and gas bottle combination may be more economical, especially large capacity sizes. Piston travel, confined to the accumulator, must be calculated with ample margins to store the required fluid.

Standard Ports

The following ports are supplied as standard on all fluid ends and on the gas end of accumulators ordered for use with gas bottles:

Notes:

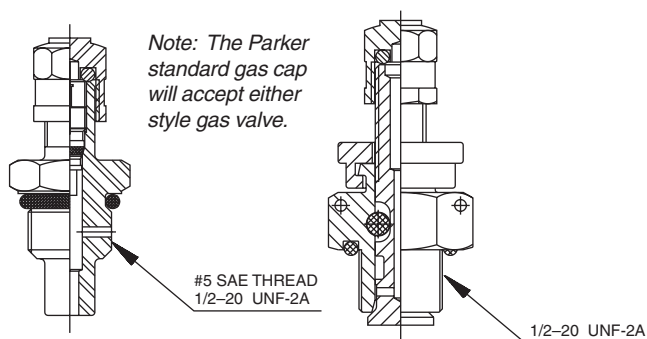
- 1) For flange dimensions, see tables below.
- 2) On standard 7", 8" & 9" bore accumulators, both SAE Straight Thread and Flange ports are available as standard. Omit port code for SAE #32 Straight Thread, specify "PL" port code for 2" Code 61 Flange when ordering. Flange ports are recommended at operating pressures above 2000 PSI due to pressure limitations of most #32 SAE Straight Thread fittings.

Bore Size	Standard Ports			
	Standard Models		Metric Models	
	SAE Port	SAE Flange ¹	BSPP Port (in)	Metric SAE Flange ¹
2	#12	—	3/4	—
3	#12	—	1	—
4	#20	—	1	—
6	#24	—	1-1/2	—
7	#32	2" Code 61	—	2" Code 61
8	#32	2" Code 61	—	2" Code 61
9	#32	2" Code 61	—	2" Code 61
12	—	3" Code 61	—	3" Code 61

- 1) See flange dimensions in Port Options.

Gas Valves

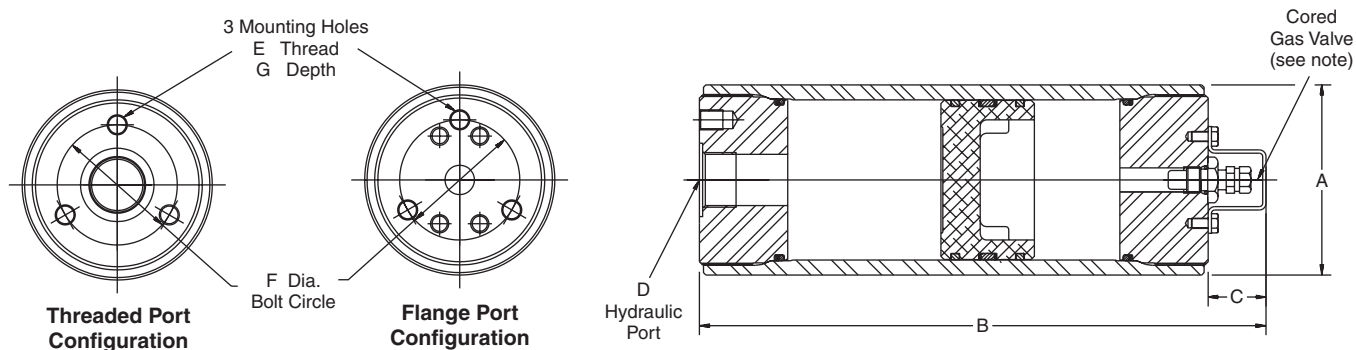
Two types of gas valves are available on Series 3000 piston accumulators and gas bottles. Units with 2" thru 6" bores, are offered with a cored gas valve cartridge (ISO-4570-8V1) as standard. All 7" thru 12" bore units are supplied with a heavy duty (military) poppet-type gas valve cartridge (MS28889-2) as standard.

**Available Options**

If your application requires a piston accumulator, gas bottle, or special option that falls outside of Parker's broad offering, consult your local distributor, Parker representative, or the factory with your specific requirements. Parker has the manufacturing and engineering expertise to design and build piston accumulators to your exacting requirements, from simple modifications of standard units to complete designs. Some example of Parker's past special designs include:

- Special and Stainless Steel Materials
- Piston Position and Velocity Sensors and Switches
- Water Service
- Non-Standard Capacities

3000 PSI Piston Accumulators for Oil and Water Service

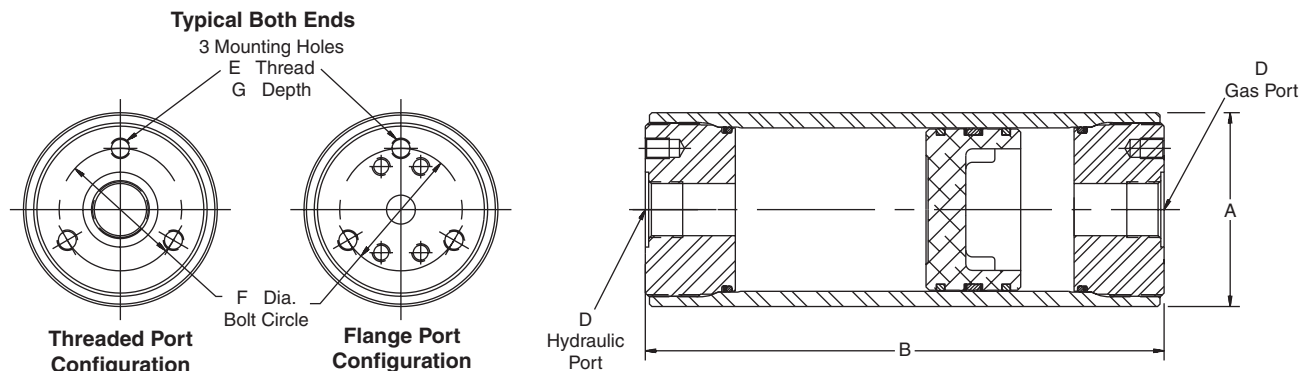


Model No. ¹	Fluid Volume		Gas Volume (cu in)	A (in)	B (in)	C (in)	D-Hydraulic Port			E (in)	F (in)	G (in)	Weight (lbs)
							SAE No.	Thread Size (in)	Tube Size				
Oil Service	(gal)	(cu in)											
A2N0005D1K	—	5	6		6.76								5
A2N0010D1K	—	10	11		8.31								5
A2N0015D1K	—	15	16	2.38	9.78	1.06	12	1-1/16 - 12	3/4	—	—	—	6
A2N0029D1K	1 Pint	29	30		14.19								7
A2N0058D1K	1 Quart	58	59		23.19								10
A3N0029D1K	1 Pint	29	34		10.25								14
A3N0058D1K	1 Quart	58	63		14.34								18
A3N0090D1K	1.5 Liter	90	95	3.56	18.94	1.13	12	1-1/16 - 12	3/4	3/8 - 24	2.25	0.56	22
A3N0116D1K	1/2 Gal.	116	121		22.56								25
A3N0183D1K	3 Liter	183	188		32.06								32
A4N0058D1K	1 Quart	58	68		11.63								29
A4N0116D1K	1/2 Gal.	116	126		16.19								35
A4N0231D1K	1 Gal.	231	241	4.75	25.19	1.13	20	1-5/8 - 12	1-1/4	1/2 - 20	3.25	0.75	48
A4N0347D1K	1-1/2 Gal.	347	357		34.31								61
A4N0578D1K	2-1/2 Gal.	578	588		52.38								87
A6N0231D1K	1 Gal.	231	266		17.38								83
A6N0347D1K	1-1/2 Gal.	347	382		21.81								97
A6N0578D1K	2-1/2 Gal.	578	613		30.63								124
A6N0924D1K	4 Gal.	924	959	6.88	43.81	1.13	24	1-7/8 - 12	1-1/2	1/2 - 20	4.38	0.75	165
A6N1155D1K	5 Gal.	1155	1190		52.63								192
A6N1733D1K	7-1/2 Gal.	1733	1768		74.63								260
A6N2310D1K	10 Gal.	2310	2345		96.63								327

Notes:

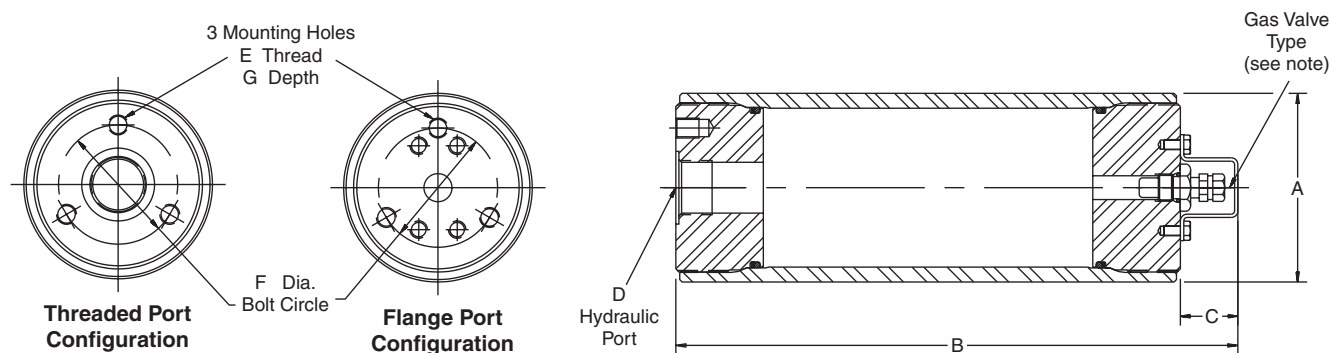
- 1) For Water Service add "W" after construction code, see "How to Order" information.
- 2) See Port Options for complete listing of optional ports.
- 3) ASME Certified and CE marked accumulators and gas bottles are available.
- 4) When accumulators are to be used with gas bottles, order "Accumulators for Use with Gas Bottles."
- 5) 2", 3", 4" & 6" bores standard with cored gas valves. Poppet type (MS28889-2) gas valve available as an option.

3000 PSI Accumulators for Use with Gas Bottles



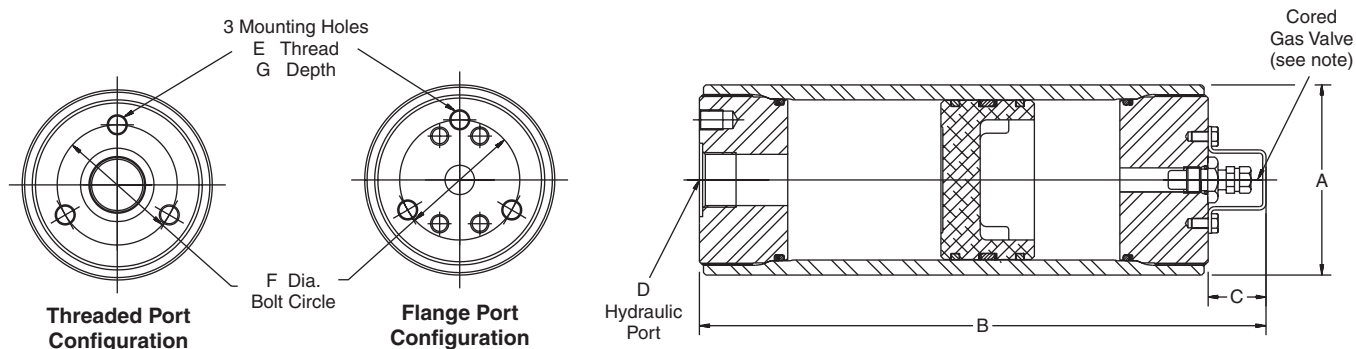
Accumulator Model No.	Fluid Volume		Gas Volume (cu in)	A (in)	B (in)	D Port (Both Ends)			E (in)	F (in)	G (in)	Weight (lbs)
	(gal)	(cu in)				SAE No.	Thread Size (in)	Tube Size				
A4N0058D3KTFTF	1 Quart	58	68	4.75	10.50	20	1-5/8 - 12	1-1/4	1/2 - 20	3.25	0.75	29
A4N0116D3KTFTF	1/2 Gal.	116	126		15.06							35
A4N0231D3KTFTF	1 Gal.	231	241		24.06							48
A4N0347D3KTFTF	1-1/2 Gal.	347	357		33.19							61
A4N0578D3KTFTF	2-1/2 Gal.	578	588		51.25							87
A6N0231D3KTGTG	1 Gal.	231	266	6.88	16.25	24	1-7/8 - 12	1-1/2	1/2 - 20	4.38	0.75	83
A6N0347D3KTGTG	1-1/2 Gal.	347	382		20.68							97
A6N0578D3KTGTG	2-1/2 Gal.	578	613		29.50							124
A6N0924D3KTGTG	4 Gal.	924	959		42.68							165
A6N1155D3KTGTG	5 Gal.	1155	1190		51.50							192
A6N1733D3KTGTG	7-1/2 Gal.	1733	1768		73.50							260
A6N2310D3KTGTG	10 Gal.	2310	2345		95.50							327

3000 PSI Auxiliary Gas Bottles



Model No.	Gas Volume		A (in)	B (in)	C (in)	D Port			E (in)	F (in)	G (in)	Weight (lbs)
	Nominal (gal)	Actual (cu in)				SAE No.	Thread Size (in)	Tube Size				
B4N0058D1K	1 Quart	86	4.75	11.63	1.13	20	1-5/8 - 12	1-1/4	1/2 - 20	3.25	0.75	27
B4N0116D1K	1/2 Gal.	144		16.19								33
B4N0231D1K	1 Gal.	259		25.19								46
B4N0347D1K	1-1/2 Gal.	375		34.31								59
B4N0578D1K	2-1/2 Gal.	606		52.38								85
B6N0231D1K	1 Gal.	319	6.88	17.38	1.13	24	1-7/8 - 12	1-1/2	1/2 - 20	4.38	0.75	68
B6N0347D1K	1-1/2 Gal.	435		21.81								82
B6N0578D1K	2-1/2 Gal.	666		30.63								111
B6N0924D1K	4 Gal.	1012		43.81								154
B6N1155D1K	5 Gal.	1243		52.63								182
B6N1733D1K	7-1/2 Gal.	1821		74.63								254
B6N2310D1K	10 Gal.	2398		96.63								325

207 Bar Metric Accumulators for Oil and Water Service

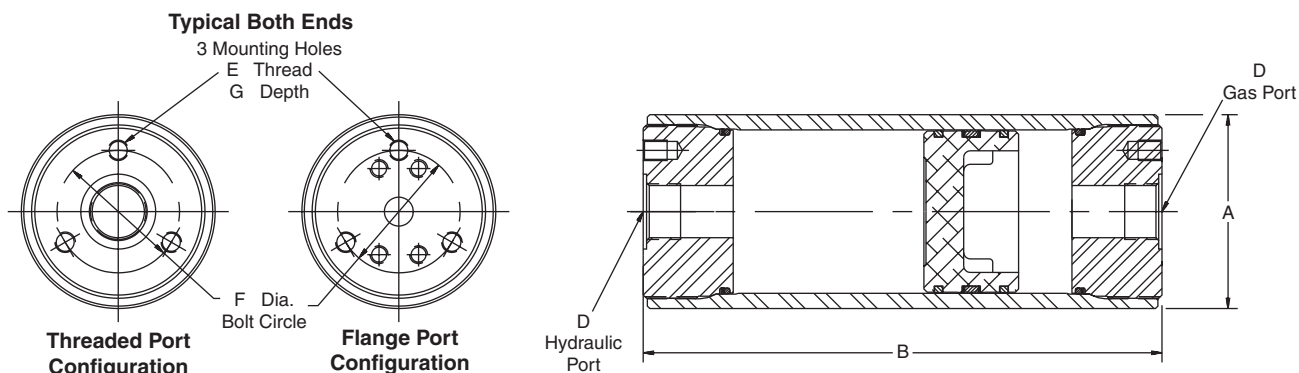


Model No. ¹	Fluid Volume		Gas Volume (Liters)	A (mm)	B (mm)	C (mm)	D-Hydraulic Port		E (mm)	F (mm)	G (mm)	Weight (Kg)
							BSPP/G (in)	SAE Flange				
A2N0005D2K	0.08	5	0.11	60	172	27	3/4	—	—	—	—	2.1
A2N0010D2K	0.16	10	0.19		211							2.3
A2N0015D2K	0.25	15	0.24		250							2.6
A2N0029D2K	0.48	29	0.50		360							3.3
A2N0058D2K	0.95	58	0.98		589							4.7
A3N0029D2K	0.48	29	0.56	90	260	29	1	—	M10	60	15	6.5
A3N0058D2K	0.95	58	1.03		364							8.1
A3N0090D2K	1.47	90	1.56		481							9.8
A3N0116D2K	1.90	116	1.98		573							11.1
A3N0183D2K	3.00	183	3.08		814							14.6
A4N0058D2K	0.95	58	1.11	121	295	29	1	—	M12	82	18	13.0
A4N0116D2K	1.90	116	2.06		411							15.9
A4N0231D2K	3.79	231	3.95		640							21.8
A4N0347D2K	5.69	347	5.85		871							27.6
A4N0578D2K	9.47	578	9.64		1330							39.3
A6N0231D2K	3.79	231	4.36	175	441	29	1-1/2	—	M12	110	18	37.8
A6N0347D2K	5.69	347	6.26		554							44.0
A6N0578D2K	9.47	578	10.0		778							56.3
A6N0924D2K	15.1	924	15.7		1113							74.7
A6N1155D2K	18.9	1155	19.5		1337							87.0
A6N1733D2K	28.4	1733	29.0		1896							117.8
A6N2310D2K	37.9	2310	38.4		2454							148.5

Notes:

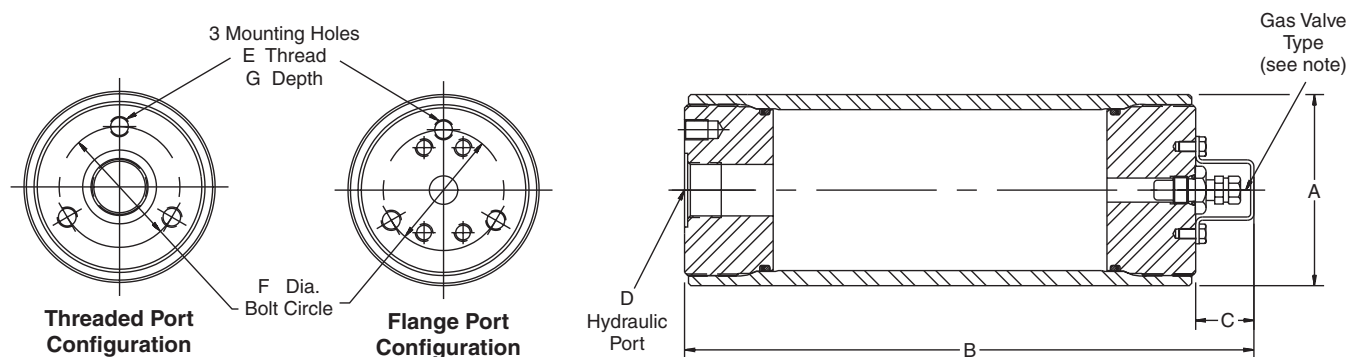
- 1) For Water Service add "W" after construction code, see "How to Order" information.
- 2) See Port Options for complete listing of port options.
- 3) ASME Certified and CE marked accumulators and gas bottles are available.
- 4) When accumulators are to be used with gas bottles, order "Accumulators for Use with Gas Bottles."
- 5) 2", 3", 4" & 6" bores standard with cored gas valves. Poppet type (MS28889-2) gas valves available as an option.

207 Bar Metric Accumulators for Use with Gas Bottles



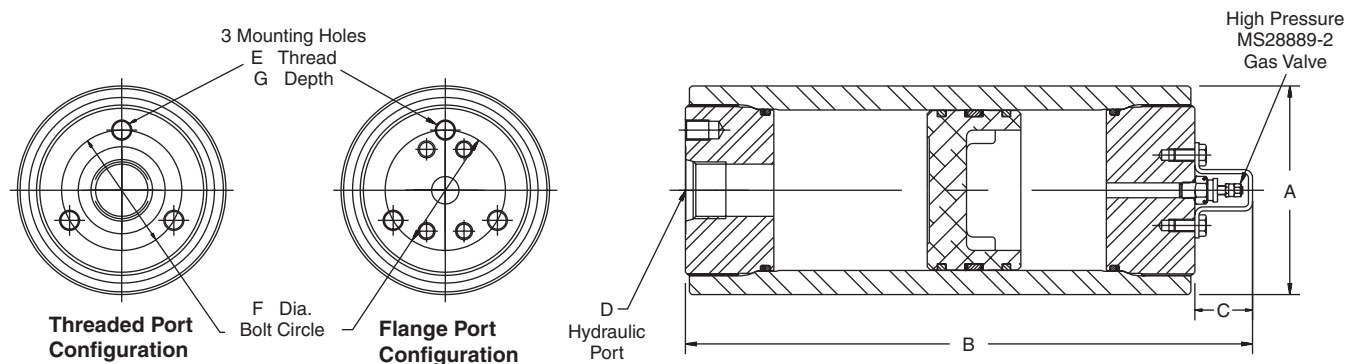
Accumulator Model No.	Fluid Volume		Gas Volume (Liters)	A (mm)	B (mm)	D - Port (Both Ends)		E (mm)	F (mm)	G (mm)	Weight (Kg)
	(Liters)	(cu in)				BSPP/G (in)	SAE Flange				
A4N0058D2KRDRD	0.95	58	1.11	121	267	1	—	M12	82	18	13
A4N0116D2KRDRD	1.90	116	2.06		383						16
A4N0231D2KRDRD	3.79	231	3.95		611						22
A4N0347D2KRDRD	5.69	347	5.85		843						28
A4N0578D2KRDRD	9.47	578	9.64		1302						39
A6N0231D2KRFRF	3.79	231	4.36	175	413	1-1/2	—	M12	110	18	38
A6N0347D2KRFRF	5.69	347	6.26		525						44
A6N0578D2KRFRF	9.47	578	10.0		749						56
A6N0924D2KRFRF	15.1	924	15.7		1084						75
A6N1155D2KRFRF	18.9	1155	19.5		1308						87
A6N1733D2KRFRF	28.4	1733	29.0		1867						118
A6N2310D2KRFRF	37.9	2310	38.4		2426						149

207 Bar Metric Auxiliary Gas Bottles



Model No.	Gas Volume		A (mm)	B (mm)	C (mm)	D-Hydraulic Port		E (mm)	F (mm)	G (mm)	Weight (Kg)
	Nominal (gal)	Actual (liters)				BSPP/G (in)	SAE Flange				
B4N0058D2K	1 Quart	1.41	121	295	29	1	—	M12	82	18	12
B4N0116D2K	1/2 Gal.	2.36		411							15
B4N0231D2K	1 Gal.	4.24		640							21
B4N0347D2K	1-1/2 Gal.	6.15		871							27
B4N0578D2K	2-1/2 Gal.	9.93		1330							39
B6N0231D2K	1 Gal.	5.23	175	441	29	1-1/2	—	M12	110	18	36
B6N0347D2K	1-1/2 Gal.	7.13		554							42
B6N0578D2K	2-1/2 Gal.	10.9		778							54
B6N0924D2K	4 Gal.	16.6		1113							72
B6N1155D2K	5 Gal.	20.4		1337							85
B6N1733D2K	7-1/2 Gal.	29.8		1896							116
B6N2310D2K	10 Gal.	39.3		2454							146

3000 PSI Piston Accumulators for Oil and Water Service



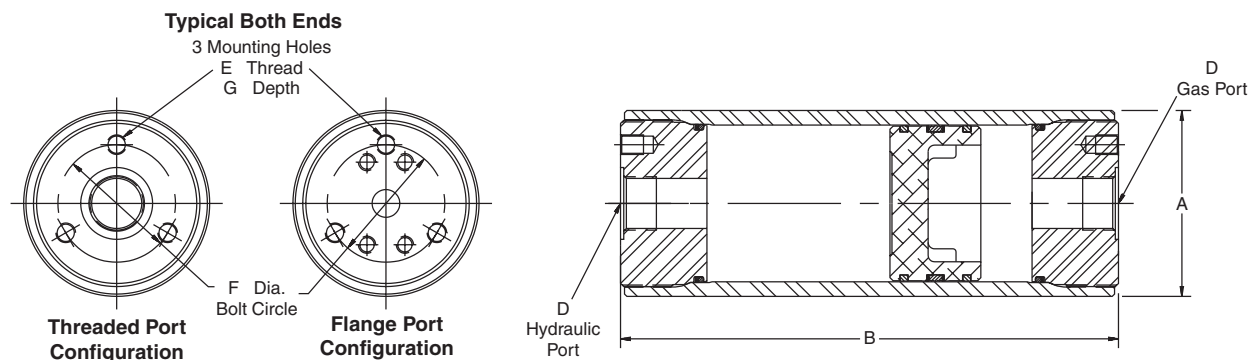
Model No. ¹	Fluid Volume		Gas Volume (cu in)	A (in)	B (in)	C (in)	D-Hydraulic Port			E (in)	F (in)	G (in)	Weight (lbs)
Oil Service							SAE No.	Thread Size (in)	Tube Size				
A7K0578D3KPL	2-1/2 Gal	578	633	8.13 ±0.06	27.25	1.63	32	2-1/2 - 12	2	5/8 - 18	5.75	0.94	170
A7K1155D3KPL	5 Gal.	1155	1210		42.25		or 2" Code 61 Flange (PL) ²						
A7K1733D3KPL	7-1/2 Gal.	1733	1788		57.25								
A7K2310D3KPL	10 Gal.	2310	2365		72.25								
A7K3465D3KPL	15 Gal.	3465	3520		102.25								
A7K5775D3KPL	25 Gal.	5775	5830	162.25									682
A9K2310D3KPL	10 Gal.	2310	2400	11.02 ±0.09	48.75	1.63	32	2-1/2 - 12	2	3/4 - 16	7.00	1.13	595
A9K3465D3KPL	15 Gal.	3465	3555		66.94		or 2" Code 61 Flange (PL) ²						
A9K4620D3KPL	20 Gal.	4620	4710		85.06								
A9K5775D3KPL	25 Gal.	5775	5865		103.18								
A9K6930D3KPL	30 Gal.	6930	7020		121.37								
A12K5775D1K	25 Gal.	5775	5975	14.41 ±0.09	67.50	1.63	3" SAE Flange Ports (Code 61) See Port Options for Dimensions			7/8-9 (6X)	9.00	1.50	1336
A12K6930D1K	30 Gal.	6930	7130		76.31								1490
A12K9240D1K	40 Gal.	9240	9440		98.88								1799
A12K11550D1K	50 Gal.	11550	11750		119.62								2108

The Minimum Design Metal Temperature (MDMT) for ASME certified 7" and 9" piston accumulators presented in this section is 20°F (-7°C).
The Minimum Design Metal Temperature (MDMT) for ASME certified 12" piston accumulators presented in this section is 32°F (0°C).

Notes:

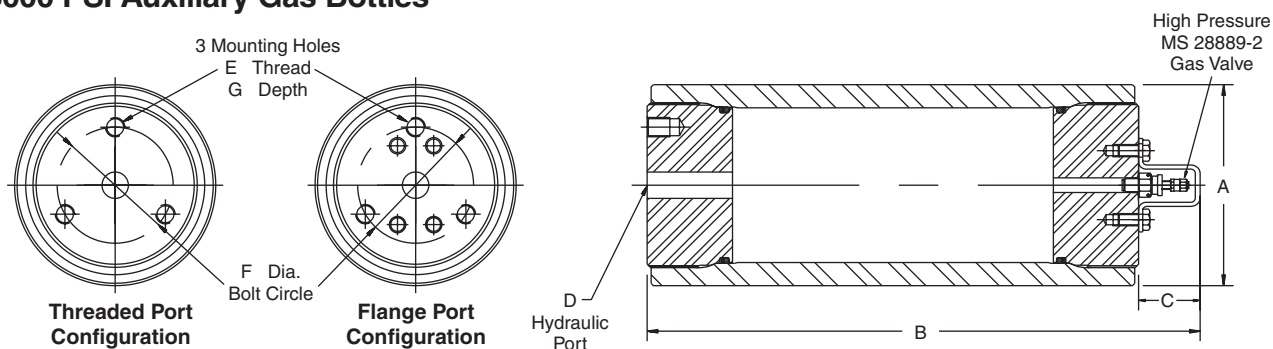
- 1) For Water Service add "W" after construction code, see "How to Order" information.
- 2) Most SAE #32 fittings are rated for 2000 PSI. If 2000 to 3000 PSI service is required, two options are available; order accumulator with optional standard 2" SAE Code 61 4-bolt flange port by specifying "PL" code when ordering or order the accumulator with a SAE #24 port or smaller, see "Port Options" for dimensions and "How to Order".
- 3) See Port Options for complete listing of optional ports.
- 4) ASME Certified and CE marked accumulators and gas bottles are available.
- 5) When accumulators are to be used with gas bottles, order "Accumulators for Use with Gas Bottles."
- 6) Poppet type (MS28889-2) gas valve standard.

3000 PSI Accumulators for Use with Gas Bottles



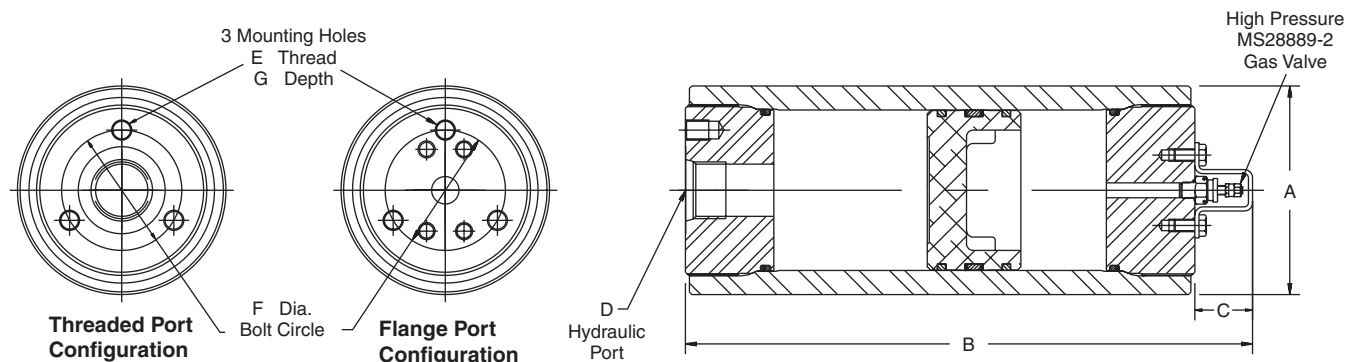
Accumulator Model No.	Fluid Volume		Gas Volume (cu in)	A (in)	B (in)	D Port (Both Ends)(in)	E (in)	F (in)	G (lbs)	Weight
	(gal)	(cu in)								
A7K0578D3KPLPL	2-1/2 Gal.	578	633		25.63	2" Code 61 Flange (PL) ² or #32 SAE Straight Thread	5/8 - 18	5.75	0.94	170
A7K1155D3KPLPL	5 Gal.	1155	1210		40.63					226
A7K1733D3KPLPL	7-1/2 Gal.	1733	1788	8.13	55.63					283
A7K2310D3KPLPL	10 Gal.	2310	2365	±0.06	70.63					340
A7K3465D3KPLPL	15 Gal.	3465	3520		100.63					454
A9K2310D3KPLPL	10 Gal.	2310	2400		47.00	2" Code 61 Flange (PL) ² or #32 SAE Straight Thread	3/4 - 16	7.00	1.13	595
A9K3465D3KPLPL	15 Gal.	3465	3555		65.25					758
A9K4620D3KPLPL	20 Gal.	4620	4710	11.02	101.50					920
A9K5775D3KPLPL	25 Gal.	5775	5865	±0.09	119.62					1083
A9K6930D3KPLPL	30 Gal.	6930	7020		137.75					1246
A12K5775D3KPNPN	25 Gal.	5775	5975		65.88	3" SAE Flange Ports (Code 61) See Port Options for Dimensions	7/8 - 9 (6X)	9.00	1.50	1336
A12K6930D3KPNPN	30 Gal.	6930	7130	14.41	74.69					1490
A12K9240D3KPNPN	40 Gal.	9240	9440	±0.09	97.25					1799
A12K11550D3KPNPN	50 Gal.	11550	11750		118.00					2108

3000 PSI Auxiliary Gas Bottles



Model No.	Gas Volume		A (in)	B (in)	C (in)	D Port	E (in)	F (in)	G (in)	Weight (lbs)
	Nominal (gal)	Actual (cu in)								
B7K0578D3K(PL)	2-1/2 Gal.	677		27.25		2" Code 61 Flange (PL) ² or #32 SAE Straight Thread	5/8 - 18	5.75	0.94	160
B7K1155D3K(PL)	5 Gal.	1254		42.25						217
B7K1733D3K(PL)	7-1/2 Gal.	1832	8.13	57.25	1.63					274
B7K2310D3K(PL)	10 Gal.	2401	±0.06	72.25						331
B7K3465D3K(PL)	15 Gal.	3556		102.25						445
B9K2310D3K(PL)	10 Gal.	2474		48.75		2" Code 61 Flange (PL) ² or #32 SAE Straight Thread	3/4 - 16	7.00	1.13	546
B9K3465D3K(PL)	15 Gal.	3629		66.94						709
B9K4620D3K(PL)	20 Gal.	4620	11.02	85.06	1.63					872
B9K5775D3K(PL)	25 Gal.	5775	±0.09	103.25						1035
B9K6930D3K(PL)	30 Gal.	6930		121.37						1197
B12K5775D1K	25 Gal.	6288		67.50		3" SAE Flange Ports (Code 61) See Port Options for Dimensions	7/8 - 9 (6X)	9.00	1.50	1246
B12K6930D1K	30 Gal.	7443	14.41	76.31	1.63					1400
B12K9240D1K	40 Gal.	9783	±0.09	98.88						1709
B12K11550D1K	50 Gal.	12093		119.62						2017

207 Bar Metric Accumulators for Oil and Water Service

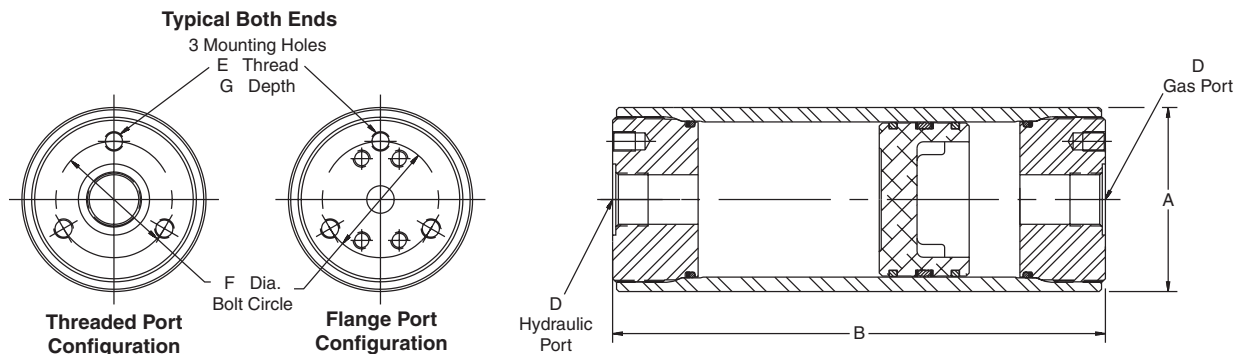


Model No. ¹	Fluid Volume		Gas Volume (Liters)	A (mm)	B (mm)	C (mm)	D-Hydraulic Port		E (mm)	F (mm)	G (mm)	Weight (Kg)
							BSPP/G (in)	SAE Flange				
Oil Service	(Liters)	(cu in)										
A7K0578D2K	9.47	578	10.4		692							76.9
A7K1155D2K	18.9	1155	19.8		1073							103
A7K1733D2K	28.4	1733	29.3	206.5	1454	41	—	2" Metric Code 61 Flange	M16	150	24	129
A7K2310D2K	37.9	2310	38.8	±1.52	1835							154
A7K3465D2K	56.8	3465	57.7		2597							206
A9K2310D2K	37.9	2310	39.3		1238							270
A9K3465D2K	56.8	3465	58.3		1700							344
A9K4620D2K	75.7	4620	77.2	279.9	2161	41	—	2" Metric Code 61 Flange	M20	182	30	417
A9K5775D2K	94.7	5775	96.2	±2.29	2622							491
A9K6930D2K	113.6	6930	115.1		3083							565
A12K5775D2K	94.6	5775	97.9		1715							606
A12K6930D2K	114	6930	117	365.9	1938	41	—	3" Metric Code 61 Flange	M20 (6X)	230	30	676
A12K9240D2K	151	9240	155	±2.29	2512							816
A12K11550D2K	189	11550	193		3038							956

Notes:

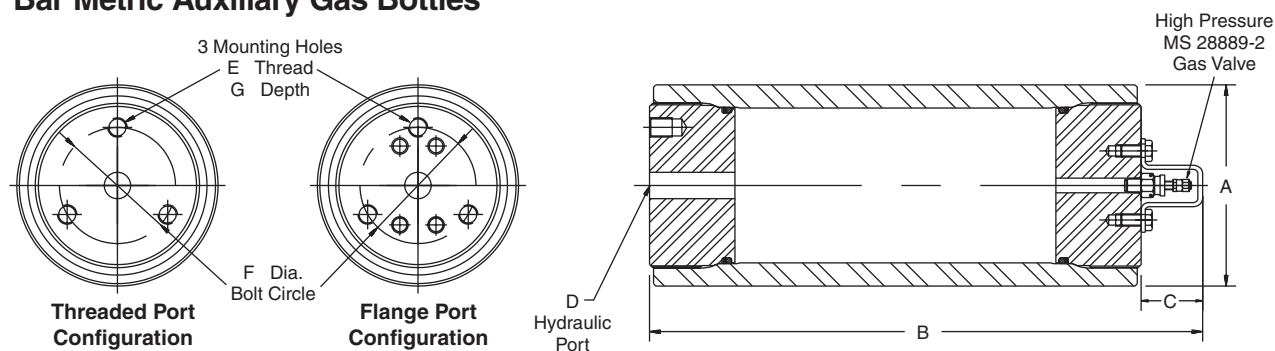
- 1) For Water Service add "W" after construction code, see "How to Order" information.
- 2) Most SAE #32 fittings are rated for 2000 PSI. If 2000 to 3000 PSI service is required, two options are available; order accumulator with optional standard 2" SAE Code 61 4-bolt flange port by specifying "PL" code when ordering or order the accumulator with a SAE #24 port or smaller, see "Port Options" for dimensions and "How to Order".
- 3) See Port Options for complete listing of optional ports.
- 4) ASME Certified and CE marked accumulators and gas bottles are available.
- 5) When accumulators are to be used with gas bottles, order "Accumulators for Use with Gas Bottles."
- 6) Poppet type (MS28889-2) gas valve standard.

207 Bar Metric Accumulators for Use with Gas Bottles



Accumulator Model No.	Fluid Volume		Gas Volume (Liters)	A (mm)	B (mm)	D-Port (Both Ends)		E (mm)	F (mm)	G (mm)	Weight (Kg)
	(Liters)	(cu in)				BSPP/G (in)	SAE Flange				
A7K0578D2KMLML	9.47	578	10.4		651						77
A7K1155D2KMLML	18.9	1155	19.8		1032						103
A7K1733D2KMLML	28.4	1733	29.3		1413	—	2" Metric Code 61 Flange	M16	150	24	129
A7K2310D2KMLML	37.9	2310	38.8	±1.52	1794						154
A7K3465D2KMLML	56.8	3465	57.7		2556						206
A9K2310D2KMLML	37.9	2310	39.3		1194						270
A9K3465D2KMLML	56.8	3465	58.3		1657		2" Metric Code 61 Flange	M20	182	30	344
A9K4620D2KMLML	75.7	4620	77.2	279.9	2118	—					417
A9K3465D2KMLML	94.6	5775	96.1	±2.29	2581						419
A9K4620D2KMLML	113.6	6930	115.1		3044						565
A12K5775D2KMMNMN	94.6	5775	97.9		1673						606
A12K6930D2KMMNMN	114	6930	117	365.9	1897	—	3" Metric Code 61 Flange	M20 (6X)	230	30	676
A12K9240D2KMMNMN	151	9240	155	±2.29	2470						816
A12K11550D2KMMNMN	189	11550	193		2997						956

207 Bar Metric Auxiliary Gas Bottles



Model No.	Gas Volume		A (mm)	B (mm)	C (mm)	D-Hydraulic Port		E (mm)	F (mm)	G (mm)	Weight (Kg)
	Nominal (gal)	Actual (liters)				BSPP/G (in)	SAE Flange				
B7K0578D2K	2-1/2 Gal.	11.1		692							73
B7K1155D2K	5 Gal.	20.5		1073							99
B7K1733D2K	7-1/2 Gal.	30.0	206.5	1454	41	—	2" Metric Code 61 Flange	M16	150	24	125
B7K2310D2K	10 Gal.	39.3	±1.52	1835							150
B7K3465D2K	15 Gal.	58.3		2597							202
B9K2310D2K	10 Gal.	40.5		1238							248
B9K3465D2K	15 Gal.	59.5		1700			2" Metric Code 61 Flange	M20	182	30	322
B9K4620D2K	20 Gal.	78.4	279.9	2161	41	—					396
B9K5775D2K	25 Gal.	98.0	±2.29	2623							469
B9K6930D2K	30 Gal.	117.6		3085							543
B12K5775D2K	25 Gal.	103		1715							565
B12K6930D2K	30 Gal.	122	365.9	1938	41	—	3" Metric Code 61 Flange	M20 (6X)	230	30	635
B12K9240D2K	40 Gal.	160	±2.29	2512							775
B12K11550D2K	50 Gal.	198		3038							915

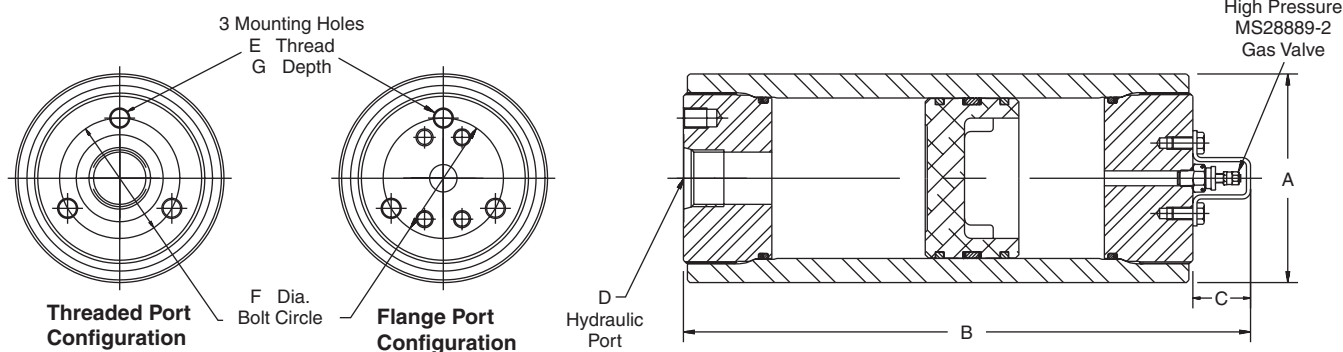
3000 PSI Non-ASME Piston Accumulators for Oil and Water Service

ASME certification is a requirement of strength and material traceability (see page 4). Many states require ASME certification, but not all. It is the function of the system designer to specify whether ASME is or is not required.

We now offer true non-ASME accumulators in 7" and 8" bore sizes which carry a full 4:1 design factor and utilize industry

standard materials. When ASME certification is not required, specifying these accumulators can result in significant savings.

Local rules and regulations should be followed. However, the accumulators listed on these two pages can be used with confidence when ASME certification is not required.

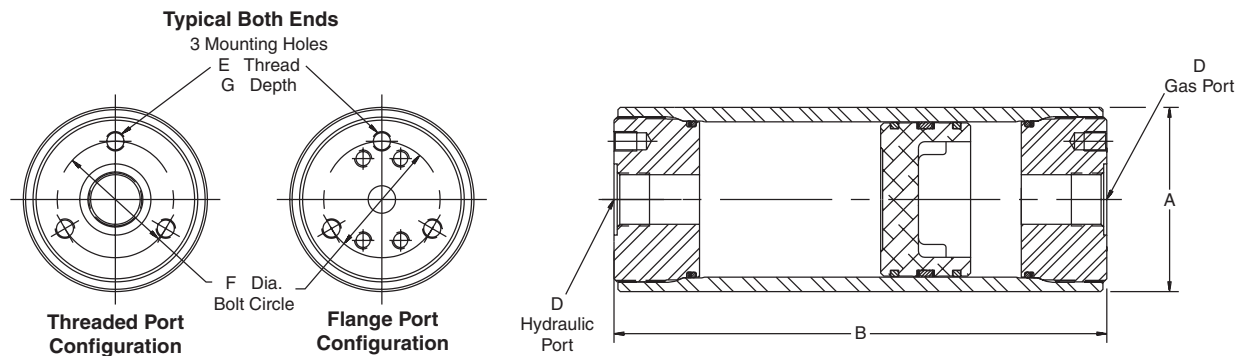


Model No. ¹	Fluid Volume		Gas Volume (cu in)	A (in)	B (in)	C (in)	D-Hydraulic Port			E (in)	F (in)	G (in)	Weight (lbs)	
Oil Service							SAE No.	Thread Size (in)	Tube Size					
	(gal)	(cu in)												
A7N0578D3KPL	2½	578	633	8.13 ±0.06	27.25	1.63	32	2½ - 12	2	5/8 - 18	5.75	0.94	170	
A7N1155D3KPL	5	1155	1210		42.25		or 2" Code 61 Flange (PL) ²							226
A7N1733D3KPL	7½	1733	1788		57.25									283
A7N2310D3KPL	10	2310	2365		72.25									340
A7N3465D3KPL	15	3465	3520		102.25									454
A7N5775D3KPL	25	5775	5830		162.25									682
A8N0578D3KPL	2½	578	655	9.06 ±0.06	22.94	1.63	32	2½-12	2	5/8-18	6.75	0.94	216	
A8N1155D3KPL	5	1155	1232		34.81		or 2" Code 61 Flange (PL) ²							268
A8N1733D3KPL	7½	1733	1810		46.68									321
A8N2310D3KPL	10	2310	2387		58.50									374
A8N3465D3KPL	15	3465	3542		82.28									479
A8N5775D3KPL	25	5775	5852		129.68									690

Notes:

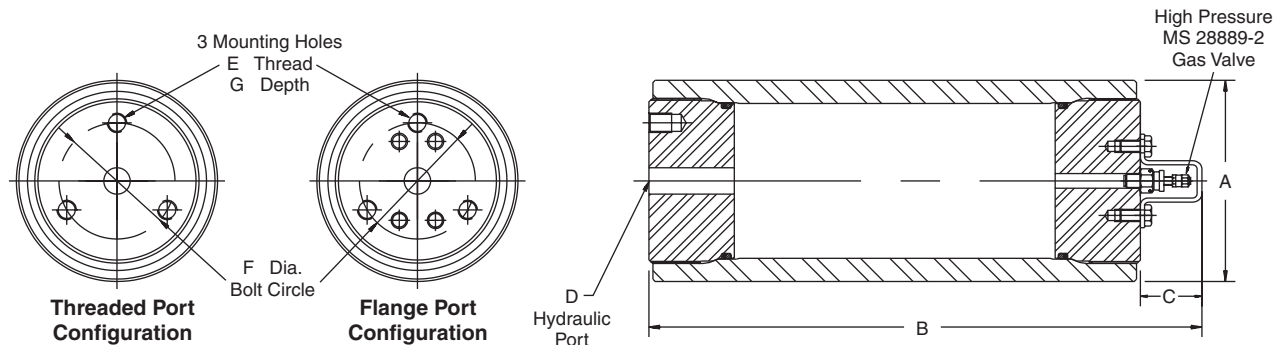
- 1) For Water Service add "W" after construction code, see "How to Order" information.
- 2) Most SAE #32 fittings are rated for 2000 PSI. If 2000 to 3000 PSI service is required, two options are available; order accumulator with optional standard 2" SAE Code 61 4-bolt flange port by specifying "PL" code when ordering or order the accumulator with a SAE #24 port or smaller, see "Port Options" for dimensions and "How to Order".
- 3) See Port Options for complete listing of optional ports.
- 4) ASME Certified and CE marked accumulators and gas bottles are available.
- 5) When accumulators are to be used with gas bottles, order "Accumulators for Use with Gas Bottles."
- 6) Poppet type (MS28889-2) gas valve standard.

3000 PSI Non-ASME Accumulators for Use with Gas Bottles



Accumulator Model No.	Fluid Volume		Gas Volume (cu in)	A (in)	B (in)	D Port (Both Ends)(in)	E (in)	F (in)	G (lbs)	Weight
	(gal)	(cu in)								
A7N0578D3KPLPL	2½	578	633	8.13 ±0.06	25.63	2" Code 61 Flange (PL) ² or #32 SAE Straight Thread	5/8 - 18	5.75	0.94	170
A7N1155D3KPLPL	5	1155	1210		40.63					226
A7N1733D3KPLPL	7½	1733	1788		55.63					283
A7N2310D3KPLPL	10	2310	2365		70.63					340
A7N3465D3KPLPL	15	3465	3520		100.63					454
A7N5775D3KPLPL	25	5775	5830		160.50					682
A8N0578D3KPLPL	2½	578	650	9.06 ±0.06	21.31	2" Code 61 Flange (PL) ² or #32 SAE Straight Thread	5/8 - 18	6.75	0.94	216
A8N1155D3KPLPL	5	1155	1228		33.18					268
A8N1733D3KPLPL	7½	1733	1806		45.06					321
A8N2310D3KPLPL	10	2310	2381		56.88					374
A8N3465D3KPLPL	15	3465	3537		80.63					479
A8N5775D3KPLPL	25	5775	5847		128.06					690

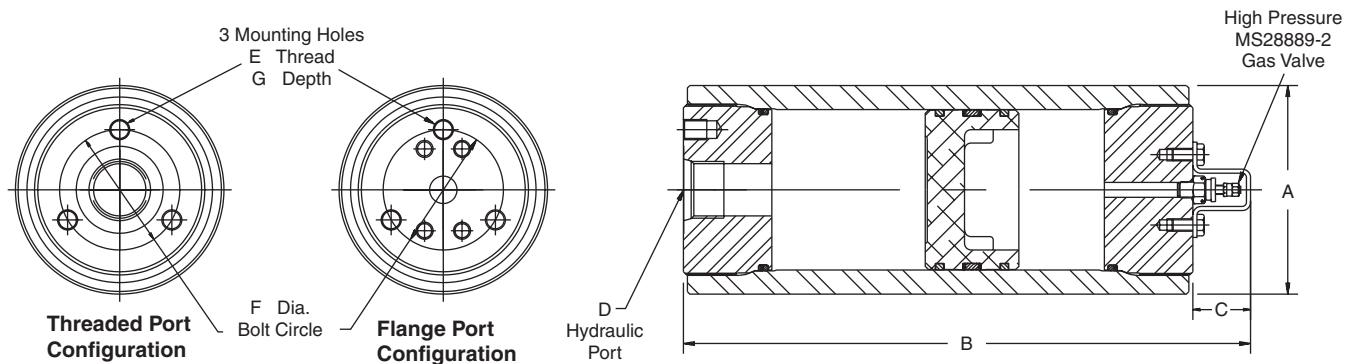
3000 PSI Non-ASME Auxiliary Gas Bottles



Model No.	Gas Volume		A (in)	B (in)	C (in)	D Port	E (in)	F (in)	G (in)	Weight (lbs)
	Nominal (gal)	Actual (cu in)								
B7N0578D3K(PL)	2½	787	8.13 ±0.06	27.25	1.63	2" Code 61 Flange (PL) ² or #32 SAE Straight Thread	5/8 - 18	5.75	0.94	160
B7N1155D3K(PL)	5	1309		42.25						217
B7N1733D3K(PL)	7½	1942		57.25						274
B7N2310D3K(PL)	10	2464		72.25						331
B7N3465D3K(PL)	15	3619		102.25						445
B7N5775D3K(PL)	25	5929		162.13						673
B8N0578D3K(PL)	2½	772	9.06 ±0.06	22.94	1.63	2" Code 61 Flange (PL) ² or #32 SAE Straight Thread	5/8 - 18	6.75	0.94	205
B8N1155D3K(PL)	5	1350		34.81						257
B8N1733D3K(PL)	7½	1928		46.68						310
B8N2310D3K(PL)	10	2503		58.50						363
B8N3465D3K(PL)	15	3659		82.25						468
B8N5775D3K(PL)	25	5969		129.68						679

2000 PSI Piston Accumulators for Oil and Water Service

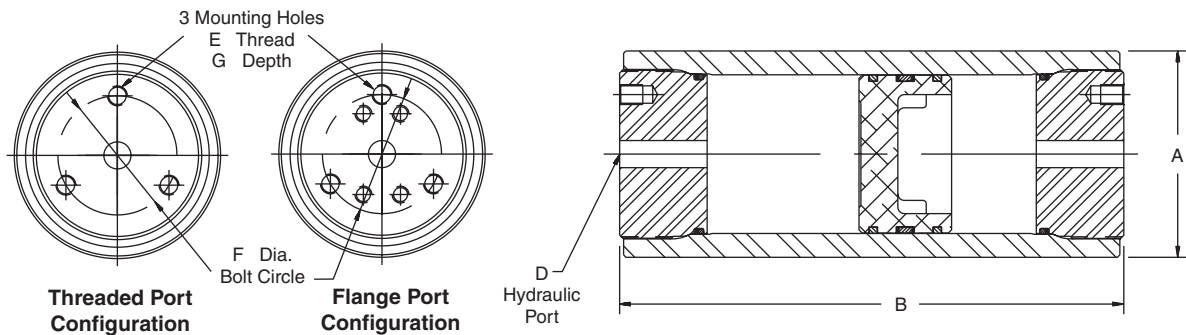
The aluminum die casting industry has been the primary user of our 2000 PSI accumulators. We offer a 2000 PSI accumulator in 12" bore size and a variety of capacities for industries where lower pressure ratings can be used.



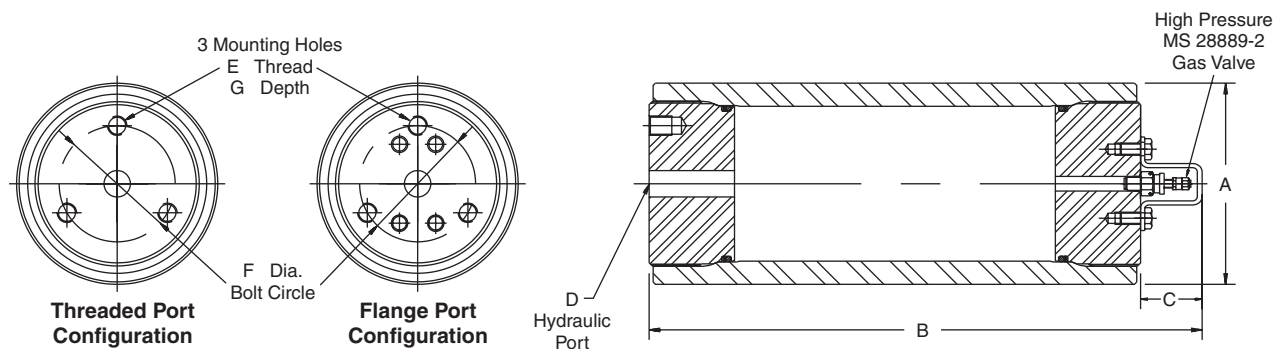
Model No. ¹	Fluid Volume		Gas Volume (cu in)	A (in)	B (in)	C (in)	D-Hydraulic Port			E (in)	F (in)	G (in)	Weight (lbs)
							SAE No.	Thread Size (in)	Tube Size				
Oil Service	(gal)	(cu in)	(cu in)										
A12K4620K1K	20	4620	4820		55.75								1048
A12K5775K1K	25	5775	5975		66.19								1193
A12K6930K1K	30	6930	7130	14.02	76.62	1.62	3" SAE Flange Ports (Code 61) See Port Options for Dimensions			7/8-9 (6X)	9.00	1.50	1338
A12K9240K1K	40	9240	9440	±0.09	97.50								1628
A12K11550K1K	50	11550	11750		118.37								1918

Notes:

- 1) For Water Service add "W" after construction code, see ["How to Order"](#) information.
- 2) Most SAE #32 fittings are rated for 2000 PSI. If 2000 to 3000 PSI service is required, two options are available; order accumulator with optional standard 2" SAE Code 61 4-bolt flange port by specifying "PL" code when ordering or order the accumulator with a SAE #24 port or smaller, see ["Port Options"](#) for dimensions and ["How to Order"](#).
- 3) See [Port Options](#) for complete listing of optional ports.
- 4) ASME Certified and CE marked accumulators and gas bottles are available.
- 5) When accumulators are to be used with gas bottles, order "Accumulators for Use with Gas Bottles."
- 6) Poppet type (MS28889-2) gas valve standard.

2000 PSI Accumulators for Use with Gas Bottles**Typical Both Ends**

Accumulator Model No.	Fluid Volume		Gas Volume (cu in)	A (in)	B (in)	D Port (Both Ends)(in)	E (in)	F (in)	G (lbs)	Weight
	(gal)	(cu in)								
A12K4620K3KPNPN	20	4620	4820		54.13	3" SAE Flange Ports (Code 61) See Port Options for Dimensions	7/8 - 9 (6X)	9.00	1.50	1048
A12K5775K3KPNPN	25	5775	5975		64.56					1193
A12K6930K3KPNPN	30	6930	7130	14.02	75.00					1338
A12K9240K3KPNPN	40	9240	9440	±0.09	95.88					1628
A12K11550K3KPNPN	50	11550	11750		116.75					1918

2000 PSI Auxiliary Gas Bottles

Model No.	Gas Volume		A (in)	B (in)	C (in)	D Port	E (in)	F (in)	G (in)	Weight (lbs)
	Nominal (gal)	Actual (cu in)								
B12K4620K1K	20	4620		55.75		3" SAE Flange Ports (Code 61) See Port Options for Dimensions	7/8 - 9 (6X)	9.00	1.50	957
B12K5775K1K	25	6288		66.19						1167
B12K6930K1K	30	7443	14.02	76.62	1.62					1312
B12K9240K1K	40	9783	±0.09	97.50						1606
B12K11550K1K	50	12093		118.37						1896

Water Service Option (W)

Piston accumulators are available for use with water as the fluid media. Modifications include electroless nickel plating all surfaces and metal parts. Consult factory for details.

Seals

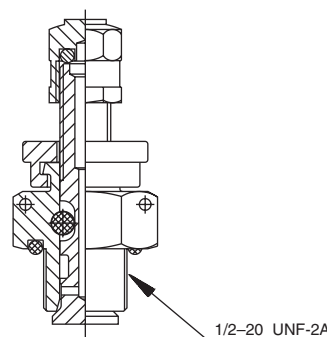
Seal Code	Polymer	**Recommended Operating Temperature Range	Maximum Temperature with Reduced Life	General Application and Compatibility*
K	Buna-Nitrile	-20°F to 165°F -29°C to 74°C	200°F 93°C	Parker's Standard Compound – Compatible with most mineral oil-based fluids
E	Fluorocarbon Elastomer	-10°F to 250°F -23°C to 121°C	400°F 204°C	Compatible with most mineral oil-based fluids at higher temperatures and some exotic fluids
D	Ethylene Propylene	-40°F to 250°F -40°C to 121°C	300°F 149°C	Compatible with most phosphate ester fluids and some synthetic fluids
H	Hydrogenated Nitrile	-45°F to 325°F -43°C to 162°C	350°F 177°C	Compatible with most oil-based and biodegradable fluids, maintains sealing effectiveness at a wide range of temperatures
Q	Low Temp. Nitrile	-45°F to 160°F -43°C to 71°C	200°F 93°C	Compatible with most mineral oil-based fluids and maintains sealing effectiveness at low temperatures

*Note: Consult local distributor or factory for fluid compatibility information.

** The temperatures listed indicate the operating temperature range of the seals, not the accumulator. For the Minimum Design Metal Temperature (MDMT) of ASME certified accumulators, [refer to page 28](#).

Gas Valve Option (M)

The military style (MS) gas valve is available on 2" thru 6" bores as an option (M). Specify when ordering.

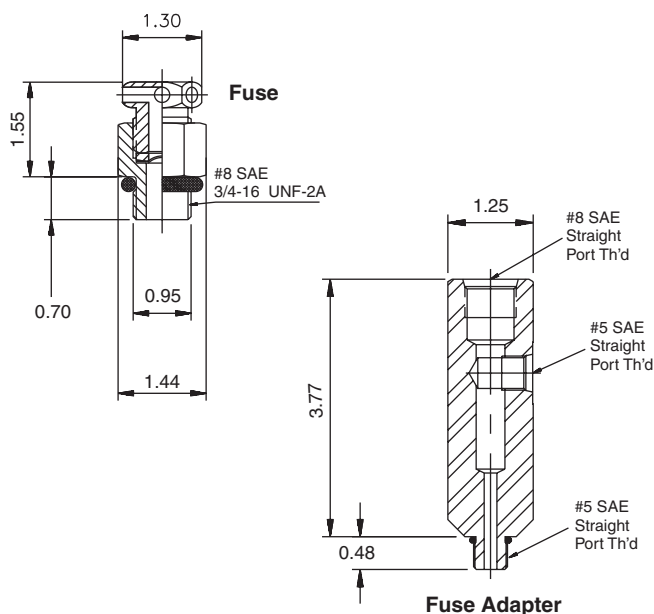


Safety Fuse Options (F)

Safety Fuses are used as a safety device on accumulators and gas bottles to prevent over-pressurization of gas due to external heat or hydraulic pressure (set at 140% of maximum system pressure to avoid rupture disk fatigue and premature failure). The rupture disks are calibrated to rupture at a pre-determined pressure. Safety fuses are available on most sizes of piston and bladder accumulators and gas bottles. Safety fuses can be installed on all piston accumulators by using the "Fuse Adapter" as shown to the right. 4" bore units and above can be equipped with a fuse port machined in the gas cap by specifying the "Safety Fuse Option" (F) at the time of order in the model code, [see "How to Order."](#) The safety fuse assembly and/or fuse adapter must be ordered separately.

Description	Part Number
Safety Fuse Assembly ¹	086471xxxx
Replacement Rupture Disks	756003xxxx
Fuse Adapter	1468970002

1) Assembly includes housing and rupture disk, xxxx = pressure setting in 100 psi increments, i.e., for an assembly with a 2000 PSI setting, order P/N 0864712000.



Optional Ports

The following ports are available as options on all Series 3000 piston accumulators

SAE Straight Thd.			Code 61 Flange				NPT			BSPP			ISO 6149-1		
Port Size	Port Code	Min. Bore	Port Size	Port Code		Min. Bore	Port Size	Port Code	Min. Bore	Port Size	Port Code	Min. Bore	Port Size	Port Code	Min. Bore
#5	TA	2"	1/2"	PT	MT	3"	3/8"	UT	2"	3/8"	RA	2"	M14	YA	2"
#6	TB	2"	3/4"	PU	MU	3"	1/2"	UU	2"	1/2"	RB	2"	M18	YB	2"
#8	TC	2"	1"	PV	MV	3"	3/4"	UV	2"	3/4"	RC	2"	M22	YC	2"
#10	TI	2"	1 1/4"	PW	MW	3"	1"	UW	3"	1"	RD	3"	M27	YD	2"
#12	TD	2"	1 1/2"	PJ	MJ	4"	1 1/4"	UX	3"	1 1/4"	RE	3"	M33	YE	3"
#16	TE	3"	2"	PL	ML	6"	1 1/2"	UY	4"	1 1/2"	RF	4"	M42	YF	3"
#20	TF	3"	2 1/2"	PM	MM	6"	2"	UZ	4"	2"	RG	4"	—	—	—
#24	TG	4"	3"	PN	MN	7"	—	—	—	—	—	—	—	—	—

Note:

- 1) 3000 PSI SAE Code 61 (ISO 6162) Flange dimensions are shown below.
- 2) BSPT and Metric ports available, consult factory.

SAE 4-Bolt Flange Port Dimensions

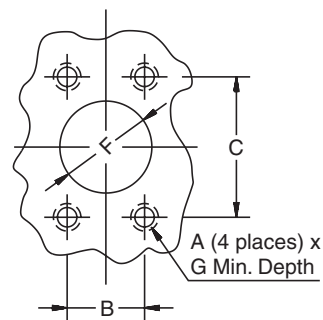
Standard Pressure – 3000 PSI (207 Bar)

Flange Size	SAE Code 61 Flange Dimensions (in.)				
in	A	B	C	F	G
1 1/2"	1/2 - 13	1.406	2.750	1 1/2	1.062
2"	1/2 - 13	1.688	3.062	2	1.062
2 1/2"	1/2 - 13	2.000	3.500	2 1/2	1.188
3"	5/8 - 11	2.438	4.188	3	1.188

Note: Some flanges using this bolt pattern are not rated for 3000 PSI.

Flange Size	Metric ISO6162 Flange Dimensions (mm)				
mm	A	B	C	F	G
38	M12	35.7	69.9	38	26.9
51	M12	42.9	77.8	51	26.9
64	M12	50.8	88.9	64	30.1
76	M16	61.9	106.4	76	30.1

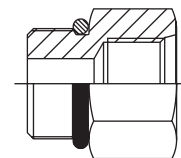
Note: Some flanges using this bolt pattern are not rated for 3000 PSI.



Port Adapters

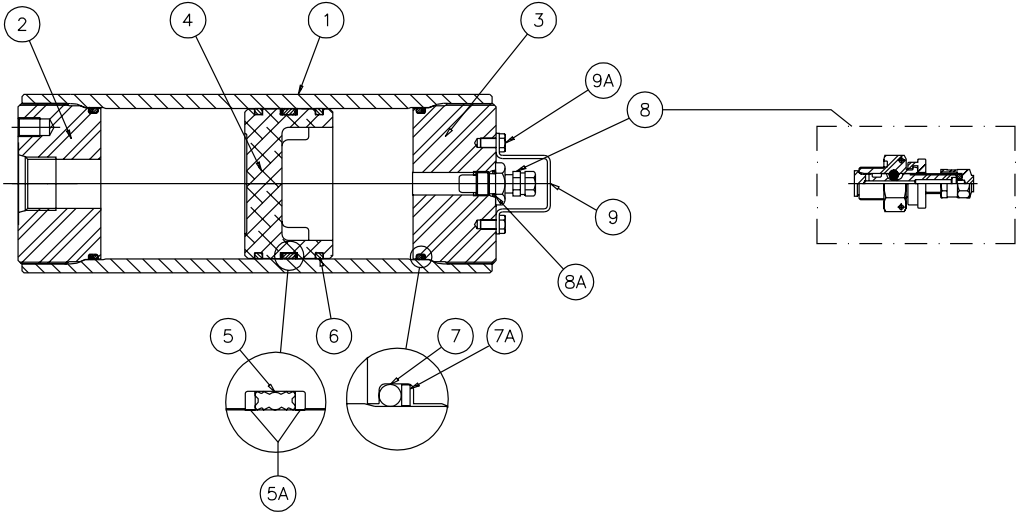
A wide variety of port adapters are offered for those that wish to convert Parker's standard SAE port offerings to NPTF or smaller SAE port sizes.

For a complete listing, [see Accumulator Accessories](#).



Seal Kits

Seal Kits are available for all piston accumulator models. When ordering seal kits, please supply the complete model and serial numbers from the name plate and specify fluid type and operating temperature.



Parts List

- 1 Body
- 2 Hydraulic Cap
- 3 Gas Cap
- 4 Piston
- 5 V-O-ring Piston Seal
- 5A V-O-ring Backups
- 6 PTFE Glide Rings
- 7 O-ring
- 7A O-ring Backup
- 8 Gas Valve
- 8A Gas Valve O-ring
- 9 Gas Valve Guard
- 9A Screw

3000 PSI Seal Kit Numbers (Includes items 5, 5A, 6, 7, 7A, 8A)

Material	Bore Size						
	2"	3"	4"	6"	7"	9"	12"
Buna-Nitrile (Std.)	RK0200K000	RK0300K000	RK0400K000	RK0600K000	RK0700K000	RK0900K000	RK1200K000
Fluorocarbon	RK0200E000	RK0300E000	RK0400E000	RK0600E000	RK0700E000	RK0900E000	RK1200E000
EPR	RK0200D000	RK0300D000	RK0400D000	RK0600D000	RK0700D000	RK0900D000	CF*
Hydrogenated Nitrile	RK0200H000	RK0300H000	RK0400H000	RK0600H000	RK0700H000	CF*	CF*
Low Temp Nitrile	RK0200Q000	RK0300Q000	RK0400Q000	RK0600Q000	RK0700Q000	RK0900Q000	CF*

*CF = Consult Factory

Mounting, Charging & Gauging Accessories

Parker offers a wide variety of mounting, charging and gauging accessories. See ["Accumulator Accessories."](#)



Special Options

If your application requires a piston accumulator, gas bottle, or special option that falls outside of Parker's broad offering, consult your local distributor, Parker representative, or the factory with your specific requirements. Parker has the manufacturing and engineering expertise to design and build piston accumulators to your exacting requirements, from simple modifications of standard units to complete designs. Some example of Parker's past special designs include:

- Special and Stainless Steel Materials
- Piston Position and Velocity Sensors and Switches
- Special Seals
- Non-Standard Capacities
- Tie Rod Construction
- Special Certifications
- Spring & Weight Loaded

Consult the experts at Parker with your next piston accumulator requirement!

How to Order Piston Accumulators

Piston accumulators and gas bottles can be specified by using the symbols in the chart below to develop a model number. Select only those symbols that represent the features desired, and place them in the sequence indicated by the example at the top of the chart.

Series	Nominal Bore Size	Type of Construction	Options	Capacity	Design Pressure	Design Number	Seal Compound	Hyd. Port Modification	Gas Port Modification
A	7	K	-	2310	D	1	K	-	-

Series	
A	Accumulator
B	Gas Bottle

Nominal Bore Size	
2	2 inches
3	3 inches
4	4 inches
6	6 inches
7	7 inches
8	8 inches
9	9 inches
12	12 inches

Type of Construction	
N	Threaded both ends non-ASME mat'l standard on 2", 4", 6", 7" & 8" (3000 PSI fatigue design tested)
K	Threaded both ends A.S.M.E. mat'l standard on 7" & up
L	Same as K with A.S.M.E. approval stamp 7" & up. Available as special on smaller sizes
E	Threaded both ends, CE marked (1 liter and above) or SEP marked (under 1 liter)

Options	
Blank	Standard Gas Cap
W	Water Service
F	SAE Fuse Port *
G	SAE Fuse Port *, Water Service
M	MS28889-2 Gas Valve
L	MS28889-2 Gas Valve, Water Service
P	Fuse* and MS28889-2
R	Fuse* and MS28889-2, Water Service

Bore Size/Capacity	
0005	5 cu. in. (0.08 liters)
0010	10 cu. in. (0.16 liters)
0029	29 cu. in. (0.48 liters)
0058	58 cu. in. (0.95 liters)
0029	29 cu. in. (0.48 liters)
0058	58 cu. in. (0.95 liters)
0090	90 cu. in. (1.47 liters)
0116	116 cu. in. (1.90 liters)
0183	183 cu. in. (3.00 liters)
0058	58 cu. in. (0.95 liters)
0116	116 cu. in. (1.90 liters)
0231	1 gal. (3.79 liters)
0347	1½ gal. (5.69 liters)
0578	2½ gal. (9.47 liters)
0231	1 gal. (3.79 liters)
0347	1½ gal. (5.69 liters)
0578	2½ gal. (9.47 liters)
0924	4 gal. (15.1 liters)
1155	5 gal. (18.9 liters)
1733	7½ gal. (28.4 liters)
2310	10 gal. (37.9 liters)
0578	2½ gal. (9.47 liters)
1155	5 gal. (18.9 liters)
1733	7½ gal. (28.4 liters)
2310	10 gal. (37.9 liters)
3465	15 gal. (56.8 liters)
5775	25 gal. (94.6 liters)
0578	2½ gal. (9.47 liters)
1155	5 gal. (18.9 liters)
1733	7½ gal. (28.4 liters)
2310	10 gal. (37.9 liters)
3465	15 gal. (56.8 liters)
5775	25 gal. (94.6 liters)
2310	10 gal. (37.9 liters)
3465	15 gal. (56.8 liters)
4620	20 gal. (75.7 liters)
5775	25 gal. (94.6 liters)
6930	30 gal. (113.6 liters)
5775	25 gal. (94.6 liters)
6930	30 gal. (114 liters)
9240	40 gal. (151 liters)
11550	50 gal. (189 liters)

Consult factory for other available sizes.

Design Pressure	
D	3000 PSI (All Bore Sizes)
K	2000 PSI (12" Bore only)
X	Other
For CE Marked Only	
L	250 Bar (All Bore Sizes)
H	350 Bar (See page 63)

Design Number	
1	Standard
2	Metric Mounting Holes & Hyd. Port (BSPP Standard) Specify Optional Ports
3	Optional Port (Hyd. or Gas, See Port Table)
***	Special Design

Hydraulic and Gas Port Modifications Designated by 2 Digits			
1st Digit	Style	2nd Digit	Description
Blank	Std.	Blank	Std.
T	SAE Straight Thread Ports	A	SAE #5 (1/2 - 20)
		B	SAE #6 (9/16 - 18)
		C	SAE #8 (3/4 - 16)
		D	SAE #12 (1 1/16 - 12)
		E	SAE #16 (1 5/16 - 12)
		F	SAE #20 (1 5/8 - 12)
		G	SAE #24 (1 7/8 - 12)
		H	SAE #32 (2 1/2 - 12)
		I	SAE #10 (7/8 - 14)
P	Flange (Code 61)	J	1 1/2"
		L	2"
		M	2 1/2"
M	Metric Flange per ISO 6162	N	3"
		T	1/2"
		U	3/4"
		V	1"
		W	1 1/4"
U	NPTF (Not Recommended)	T	3/8"
		U	1/2"
		V	3/4"
		W	1"
		X	1 1/4"
		Y	1 1/2"
		Z	2"
R	BSPP Parallel	A	3/8 - 19
B	BSPT Taper Port	B	1/2 - 14
G	Metric	C	3/4 - 14
Y	ISO 6149-1	D	1 - 11
		E	1 1/4 - 11
		F	1 1/2 - 11
		G	2 - 11
		A	M14 x 1.5
		B	M18 x 1.5
		C	M22 x 1.5
		D	M27 x 2
		E	M33 x 2
		F	M42 x 2
		G	M48 x 2

Example of Optional Port Accumulator

A 4 N 0231 D 3 K T C U V

Non-std. Port SAE #8 Hyd. Port NPT 3/4" Gas Port

Standard Ports Available (See Port Modifications Table if Using Other Than Standard Ports Shown Below)		
Bore Size	Standard Port Sizes	Metric Port Sizes
2"	SAE #12	3/4
3"	SAE #12	3/4
4"	SAE #20	1
6"	SAE #24	1
7"	SAE #32	ISO 6162
8"	SAE #32	ISO 6162
9"	SAE #32	ISO 6162
12"	3" SAE Flange Code 61	ISO 6162

Seal Compound (See Catalog for Temperature Settings)	
K	Buna-Nitrile (Std)
E	Fluoroelastomer
D	EPR
H	Hydrogenated Nitrile
Q	Low Temp.
S	Special (to be specified)