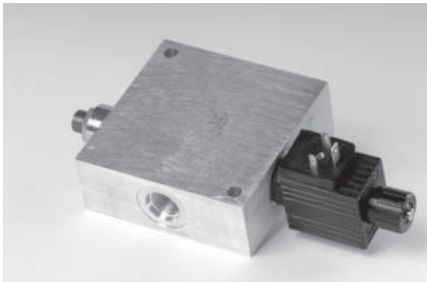
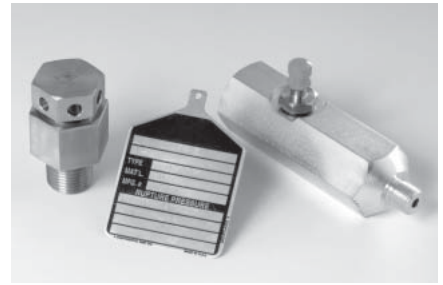




Accumulator Accessories

- Charging & Gauging Assemblies
- Unloading Valves
- Mounting Kits
- Port Adapters
- Repair Tools



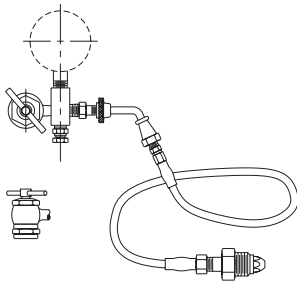
Accessories for:

- Piston Accumulators
- Bladder Accumulators
- Diaphragm Accumulators
- Gas Bottles
- SurgeKushons
- PulseTones

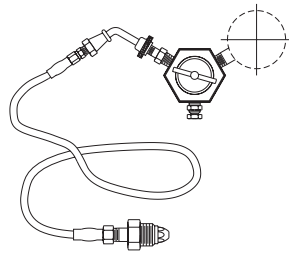


Charging & Gauging Assemblies

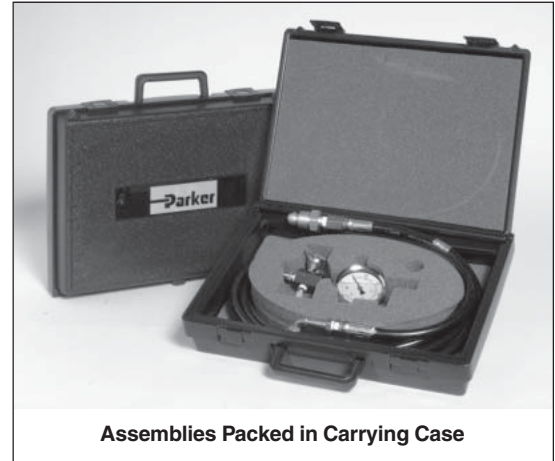
Charging and Gauging Assembly consists of 10' charging hose with standard right-hand thread nitrogen fittings, adapter incorporating gas valve, bleeder valve and gas chuck. Assemblies are packed in a plastic storage case. Gauge not included.



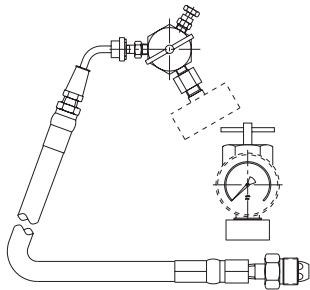
144595 0000 (Std)
144596 0000 (Left Hand Thread)



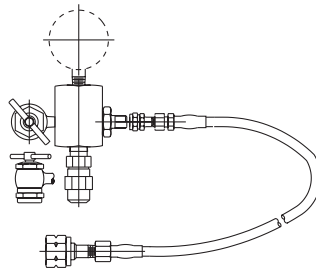
087100 0000



Assemblies Packed in Carrying Case



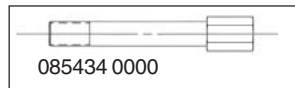
148675 0000



870816 0000

3000 PSI Charging & Gauging Assemblies (with 3000 PSI Gauge)			
Part Number	Piston Style	Bladder Style	Diaphragm Style
144595 3000	All	All*	with Cored valve
144596 3000	All	All*	with Cored valve
148675 3000	—	—	with M28 valve
087100 3000	—	1-15 gal.**	—
087102 3000	—	10-150 Cl**	—
4000/5000 PSI Charging & Gauging Assemblies (with 5000 PSI Gauge)			
870816 5000	All	All	—

* For top repairable styles, valve extension part #085434 0000 would be required.

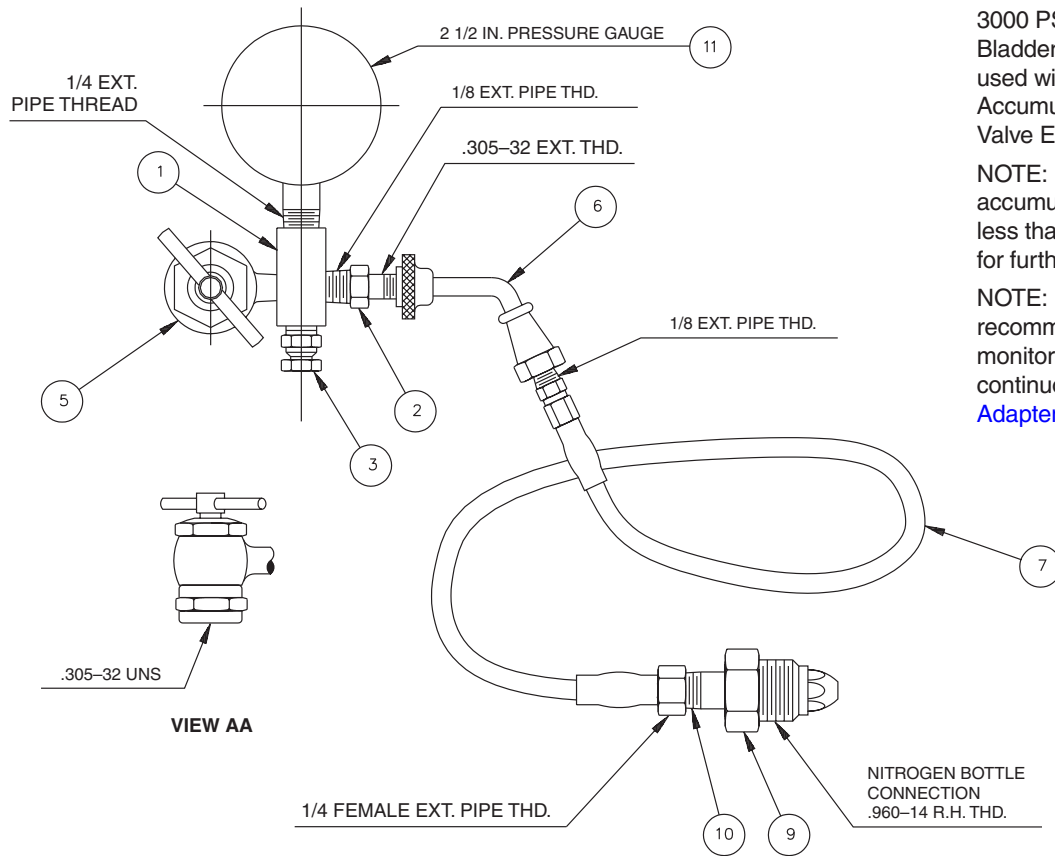


** Used primarily for top repairable accumulators and/or permanent mount gage.

Gauges

Gauges are 2½" dial type pressure gauges with 100 PSI graduation. Include blowout safety case and orifice surge damper.

Part Number	Pressure Range
087040 1000	0 - 1000 PSI
087040 2000	0 - 2000 PSI
087040 3000	0 - 3000 PSI
087040 4000	0 - 4000 PSI
087040 6000	0 - 6000 PSI



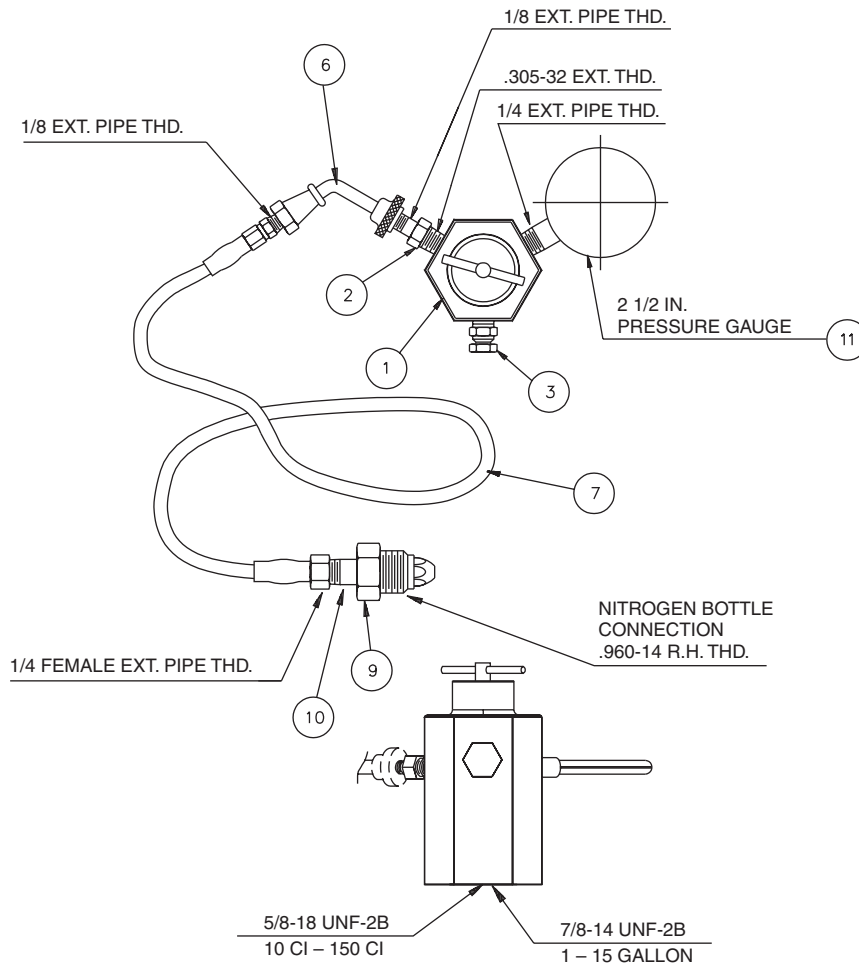
The following assemblies and parts are recommended for use on all 3000 PSI Piston Accumulators and 3000 PSI Bottom Repairable Bladder Accumulators. Can be used with 3000 PSI Top Repairable Accumulators, but require a Gas Valve Extension.

NOTE: Can be used on all accumulators with a gas precharge less than 3000 PSI. Consult factory for further information.

NOTE: These assemblies are not recommended for continuous monitoring of gas precharge. For continuous monitoring, see [Gauging Adapters](#).

Item	Part Number	Description
1-10	1445950000	Standard Assembly with Right Hand (RH) Nitrogen Bottle Connection, No Gauge
1-11	1445950500	Standard Assembly RH Connection with 500 PSI Gauge
1-11	1445951000	Standard Assembly RH Connection with 1000 PSI Gauge
1-11	1445952000	Standard Assembly RH Connection with 2000 PSI Gauge
1-11	1445953000	Standard Assembly RH Connection with 3000 PSI Gauge
1-10L	1445960000	Optional Assembly with Left Hand (LH) Nitrogen Bottle Connection, No Gauge
1-5	0851220000	Gauging Assembly, No Hose or Gauge
1-5H	5420880000	Optional Gauging assembly w/ 2" Hose Ext. between Gas Chuck (5) and Adapter Cross (1), No Hose or Gauge
6-10	1457810000	Hose Assembly with RH Connection
6-10L	1457820000	Hose Assembly with LH Connection
1	5420910000	Adapter Cross
2	5420920000	Gas Valve with 1/8" NPT
3	0832140000	Bleeder Valve
5*	8708150000	Gas Chuck
6**	5420860000	Hose Coupling with Female Thread Connection
7	0870520000	Charging Hose
9	6661250000	Nitrogen Bottle Nut with RH Connection
9L	6661260000	Nitrogen Bottle Nut with LH Connection
10	6661240000	Nitrogen Bottle Nipple
11	See Gauges	2.5" Pressure Gauge
	0854340000	Gas Valve Extension
	1333290000	Case with Insert for Complete Charging and Gauging Assembly
*	5824390000	Gasket for 5422150000 (5)
**	8702770000	Gasket for 5420860000 (6)

Accessories



The following assemblies and parts are recommended for use on all 3000 PSI Bladder Accumulators. Cannot be used with Piston Accumulators.

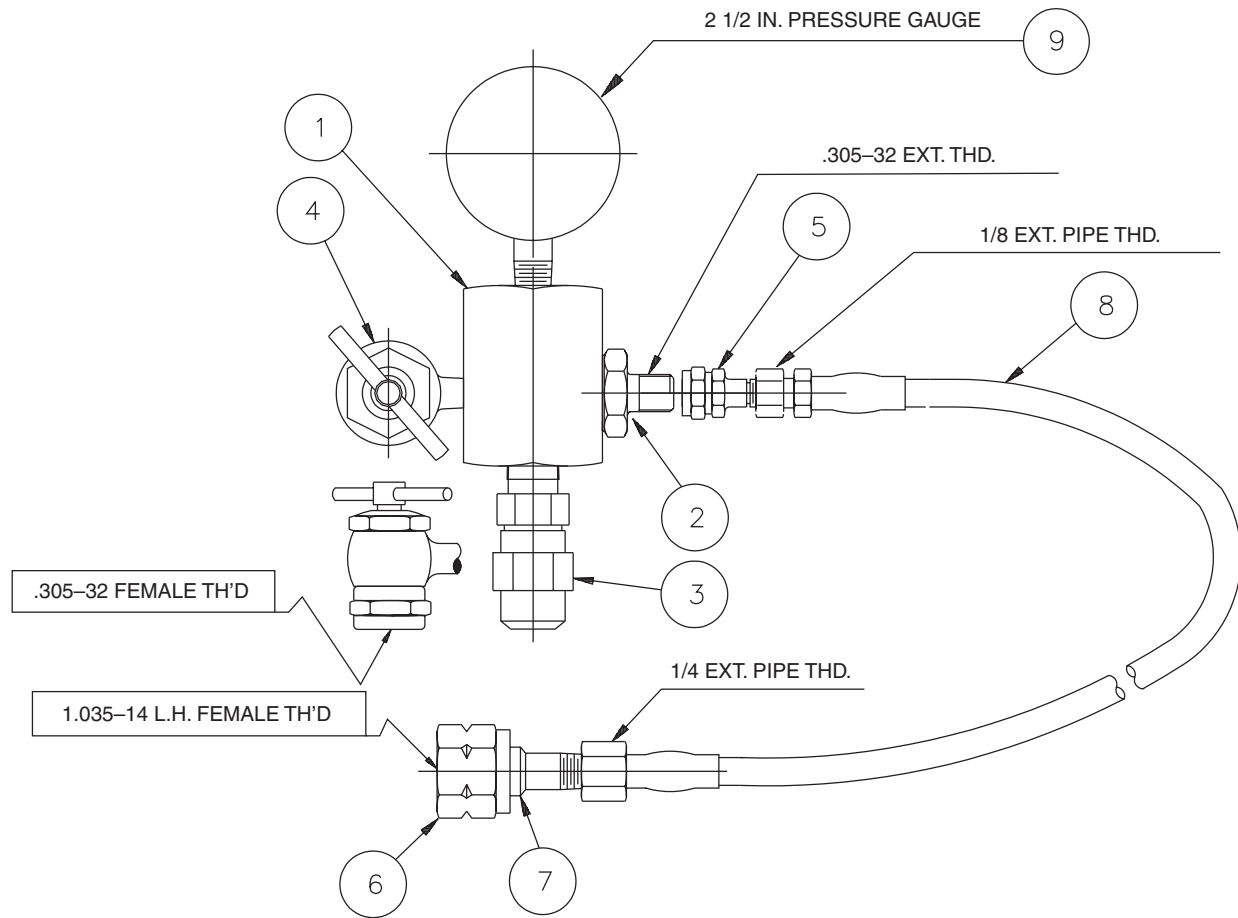
NOTE: These assemblies are not recommended for continuous monitoring of gas precharge. For continuous monitoring, see Gauging Adapters.

Item	Part Number	Description
1-10	0871020000	Standard Assembly for 10 to 150 Cubic Inch with RH Nitrogen Bottle Connection, No Gauge
1-11	0871021000	Standard Assembly for 10 to 150 Cubic Inch with RH Connection with 1000 PSI Gauge
1-11	0871022000	Standard Assembly for 10 to 150 Cubic Inch with RH Connection with 2000 PSI Gauge
1-11	0871023000	Standard Assembly for 10 to 150 Cubic Inch with RH Connection with 3000 PSI Gauge
1-10	0871000000	Standard Assembly for 1 to 15 Gallon with RH Nitrogen Bottle Connection, No Gauge
1-11	0871001000	Standard Assembly for 1 to 15 Gallon with RH Connection with 1000 PSI Gauge
1-11	0871002000	Standard Assembly for 1 to 15 Gallon with RH Connection with 2000 PSI Gauge
1-11	0871003000	Standard Assembly for 1 to 15 Gallon with RH Connection with 3000 PSI Gauge
1S-5	0871030000	Gauging Assembly for 10 to 150 Cubic Inch (No Hose or Gauge)
1-5	0871010000	Gauging Assembly for 1 to 15 Gallon (No Hose or Gauge)
6-10	1457810000	Hose Assembly with RH Connection
1S	4000450000	Gas Chuck Body for 10 to 150 Cubic Inch
1	4017740000	Gas Chuck Body for 1 to 15 Gallon
2	5420920000	Gas Valve with 1/8" NPT
3	0832140000	Bleeder Valve
6*	5420860000	Hose Coupling with 0.305-32 Female Thread Connection
7	0870520000	Charging Hose
9	6661250000	Nitrogen Bottle Nut with RH Connection
10	6661240000	Nitrogen Bottle Nipple
11	See Gauges	2.5" Pressure Gauge
*	8702770000	Gasket for 5420860000 (6)
	1353290000	Case with Insert for Complete Charging and Gauging Assembly

The following assemblies and parts are recommended for use on all 5000 PSI Piston Accumulators and all 5000 PSI Bladder Accumulators. 5000 PSI Top Repairable Accumulators require a Gas Valve Extension.

NOTE: Can be used on all accumulators with a gas precharge less than 5000 PSI. Consult factory for further information.

NOTE: *These assemblies are not recommended for continuous monitoring of gas precharge. For continuous monitoring, see Gauging Adapters.*

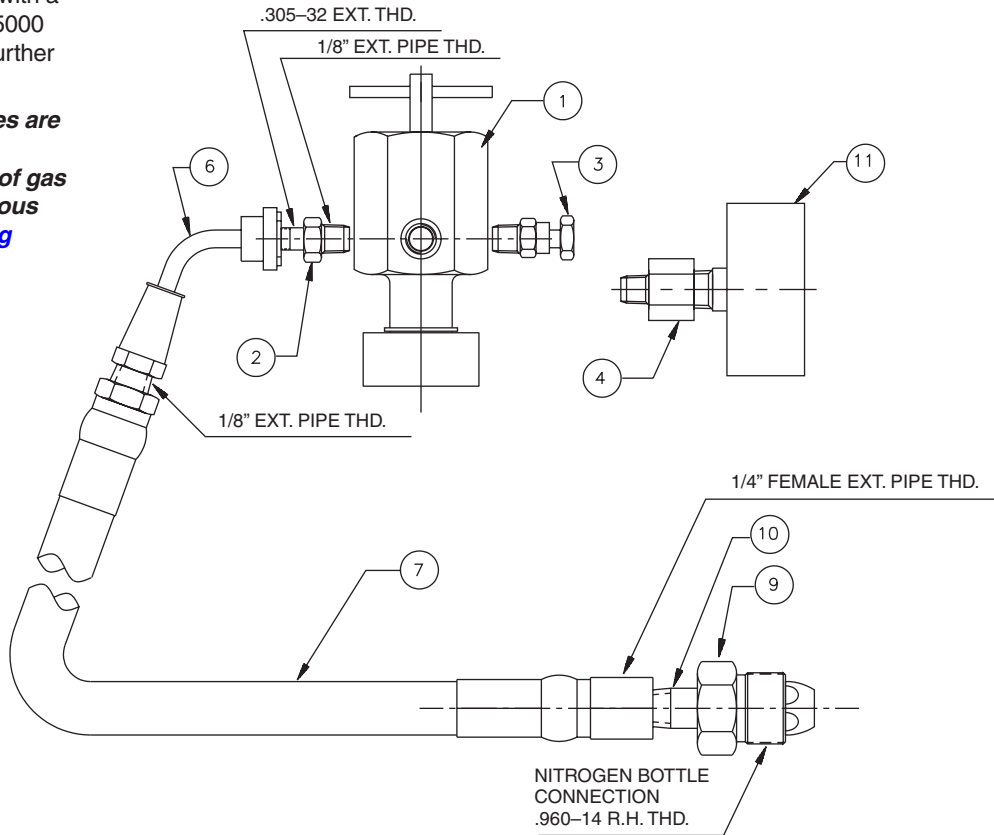


Item	Part Number	Description
1-8	8708160000	Standard Assembly with Left Hand (LH) Connection, No Gauge
1-9	8708165000	Standard Assembly LH Connection with 5000 PSI Gauge
1-9	8708166000	Standard Assembly LH Connection with 6000 PSI Gauge
1-4	8713720000	Gauging Assembly (No Hose or Gauge)
5-8	8712640000	Hose Assembly with LH Connection
1	8708460000	Adapter Cross
2	L07688000K	Gas Valve Assembly
3	8708140000	Bleed Valve
4	8708150000	Gas Chuck
5	0854210000	Valve Connector
6	0854220000	Nitrogen Bottle Nut with LH Connection
7	0854250000	Gas Tank Nipple (Cga 677)
8	0854150000	Charging Hose (10 ft.)
9	See Gauges	2.5" Pressure Gauge

The following assemblies and parts are recommended for use on all Diaphragm Accumulators with M28 Gas Valve.

NOTE: Can be used on all diaphragm accumulators with a gas precharge less than 5000 PSI. Consult factory for further information.

NOTE: *These assemblies are not recommended for continuous monitoring of gas precharge. For continuous monitoring, see Gauging Adapters.*

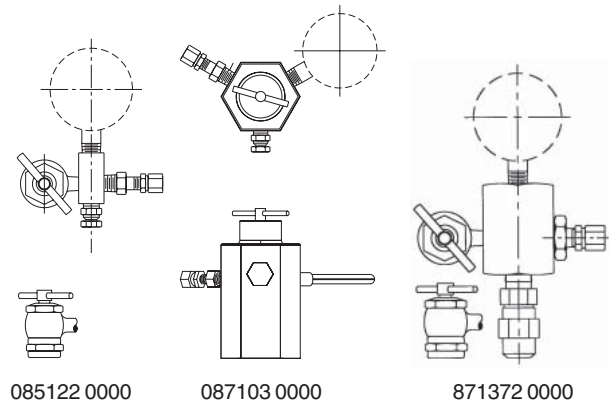


Item	Part Number	Description
1-10	1486750000	Standard Assembly with Right Hand (RH) Nitrogen Bottle Connection, No Gauge
1-11	1486751000	Standard Assembly RH Connection with 1000 PSI Gauge
1-11	1486752000	Standard Assembly RH Connection with 2000 PSI Gauge
1-11	1486753000	Standard Assembly RH Connection with 3000 PSI Gauge
1-11	1456755000	Standard Assembly RH Connection with 5000 PSI Gauge
1-10L	8700430000	Optional Assembly with Left Hand (LH) Nitrogen Bottle Connection, No Gauge
1-4	8702780000	Gauging Assembly (No Hose or Gauge)
6-10	1457810000	Hose Assembly with RH Connection
6-10L	1457820000	Hose Assembly with LH Connection
1		
2	5420920000	Gas Valve with 1/8" NPT
3	0832140000	Bleeder Valve
4	0873930000	Reducer - 1/4 x 1/8
6*	5420860000	Swivel Connector with Female Thread Connection
7	0870520000	Charging Hose
9	6661250000	Nitrogen Bottle Nut with RH Connection (Cga584)
9L	6661260000	Nitrogen Bottle Nut with LH Connection (Dga 584)
10	6661240000	Nitrogen Bottle Nipple
11	See Gauges	2.5" Pressure Gauge
*	8702770000	Gasket for 5420860000 (6)
	1353290000	Case with Insert for Complete Charging and Gauging Assembly

Gauging Assemblies

Gauging Assembly consists of adapter incorporating gas valve, bleeder valve and gas chuck (less gauge).

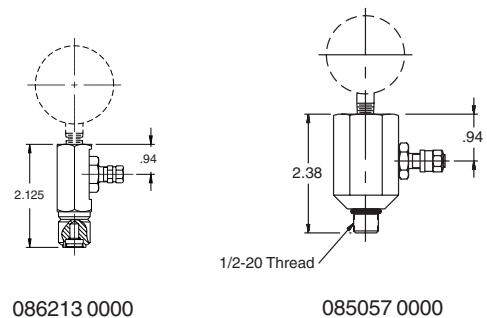
3000 PSI			
Part Number (Assembly only)	Piston Styles	Bladder Styles	Diaphragm Styles
085122 0000	All	All	w/Cored valve
087101 0000	—	1-15 gal.	—
087103 0000	—	10-150 CI	—
4000/5000 PSI			
871372 0000	All	All	—



Gauging Adapters (Fixed Mount)

For continuous monitoring of gas precharge. Order gauge separately.

Part Number	Description
086213 0000	For 10-150 CI Bladder Accumulators (3000 PSI only) – includes gas valve
085057 0000	For 1 Gal. and above bladder and all piston accumulators (3000 - 5000 PSI)
146897 0003	For conventional top repairable bladder accumulators (2.5 to 15 Gal.)



Unloading Valve

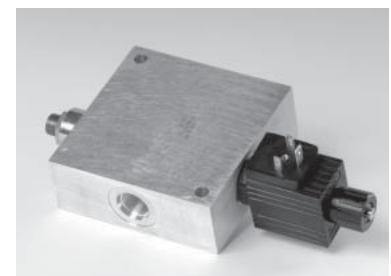
Unloading valves provide cost effective safety for your hydraulics by relieving hydraulic pressure when the system is de-energized. Valves conform to OSHA Rule 29CFR1910.147 to enhance safe system operation. Needle valve allows for manual accumulator bleed-down.

How to Order Unloading Valves

DV Series unloading valves 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.

Features

- Lightweight aluminum housing
- 2-way normally open solenoid
- 3000 PSI operating pressure
- Encapsulated 17W Solenoid
- Four standard voltage and connection options
- Viton seals standard
- Small compact manifold design
- Leakproof SAE ports standard
- Needle valve override
- 10 GPM flow rate @ 3000 PSI
- 8 GPM @ 2000 PSI average



Series	Size	Coil Voltage	Coil Connection	Ports
DV	10	A	D	C
DV Accumulator Unloading Valve		A 120/110 VAC, 60/50 Hz B 240/220 VAC, 60/50 Hz C 12 VDC D 24 VDC	C 1/2 NPTF Conduit Connector with 24" Class H Wires D DIN 43650 (Hirschmann Plug) P SAE 18-0.25 SAE Double Spade (DC Only) W Double Wire 24" Class H (DC Only)	C SAE #8 Accumulator and Tank Ports, SAE #5 Test Port

Accumulator Repair Tools



1. **Bladder Pull Rods** — (Bladder Type Accumulator) Pull rods are available in different lengths for different size accumulators. The pull rods attach to the gas valve of the bladder for ease of assembly into shell during reassembly.
2. **Core Tool** — The core tool is used to remove and reinstall the valve core. It is also used to ream valve seat and repair threads.
3. **Spanner Wrench** — Fits all standard size bladder accumulators. Used to remove hydraulic poppet assembly from accumulator shell.

Description	Part No
Pull Rod (1 Qt.-2½ Gal.)	085109 0250
Pull Rod (5 Gal.)	085109 0500
Pull Rod (10-11 Gal.)	085109 1000
Pull Rod (15 Gal.)	085109 1500
Core Repair Tool	582441 0000
Core Installation Tool	300987
Spanner Wrench	085110 0000

Port Adapters



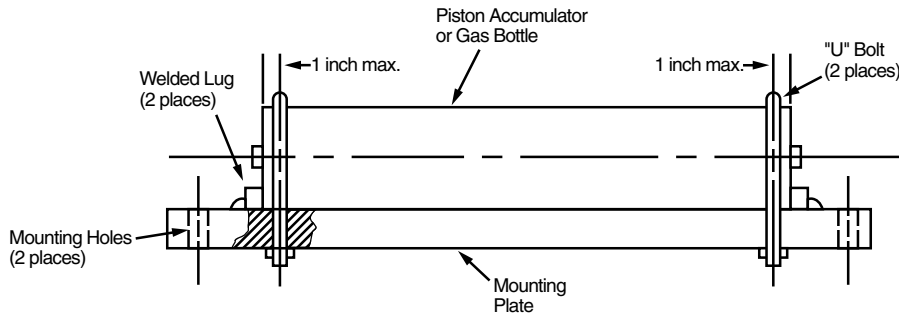
SAE to SAE Port Adapters	
Part Number	Description
5626840000	#24 SAE to #20 SAE
5626850000	#24 SAE to #16 SAE
5626860000	#24 SAE to #12 SAE
5626870000	#20 SAE to #16 SAE
5626880000	#20 SAE to #12 SAE
5626890000	#20 SAE to #10 SAE
0864730000	#16 SAE to #12 SAE
5626900000	#12 SAE to #10 SAE
5626910000	#12 SAE to #8 SAE
5720860000	#32 SAE to #24 SA
5720870000	#32 SAE to #20 SAE
5720880000	#32 SAE to #16 SAE

SAE to NPT Port Adapters	
Part Number	Description
5626810000	#24 SAE to 1-1/2" NPT
5626820000	#20 SAE to 1-1/4" NPT
5626830000	#12 SAE to 3/4" NPT
5720890000	#32 SAE to 2" NPT
6560070001	#12 SAE to 1/2" NPT
6560070002	#20 SAE to 1" NPT

“U” Bolts for Piston & Bladder-Type Accumulators

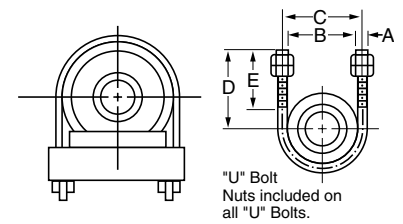
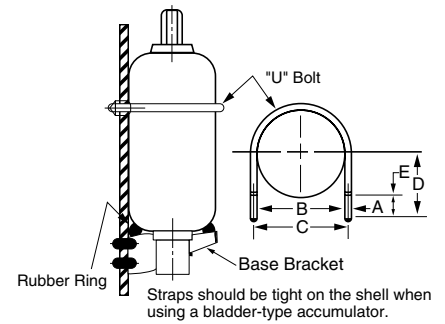
Accumulator Models (3000 PSI)		Part No. and Dimensions								
Piston Bore	Bladder Size	“U” Bolt Part No.	A	B	C	D	E	Thd.	Wt. Lbs.	
A2	—	0854370000	1/4	2-7/16	2-11/16	2-11/16	1-3/4	1/4-20	0.2	
A3	1 Pint	0862090000	1/2	3-11/16	4-1/16	3-5/8	2	3/8-16	0.9	
—	1 Qt.	0854380000	1/2	4-5/8	5-1/8	4-1/2	3	1/2-13	1.2	
A4	—	0864960000	1/2	5	5-1/2	4-1/2	3	1/2-13	1.3	
—	1 Gal.	0854390000	5/8	6-3/4	7-3/8	6-1/8	3-3/4	5/8-11	2.4	
A6	—	0864970000	5/8	7-1/8	7-3/4	6-1/8	3-3/4	5/8-11	2.5	
A7	—	0854400000	5/8	8-1/4	8-7/8	7	3-3/4	5/8-11	3.0	
—	2 1/2 - 15 Gal.	0853360000	5/8	9	9-5/8	7-1/8	3-3/4	5/8-11	3.0	
A9	—	0854410000	3/4	11-1/4	12	9-1/2	4-1/2	3/4-10	6.0	
A12	—	0854420000	7/8	14-1/8	15	10-1/4	4-1/4	7/8-9	8.2	
—	*2 1/2 - 15 Gal.	0865020000	5/8	9-3/4	10-3/8	7-1/4	3-13/4	5/8-11	3.5	

NOTE: “U” Bolts should never be mounted more than 1 inch from end of accumulator (piston type).



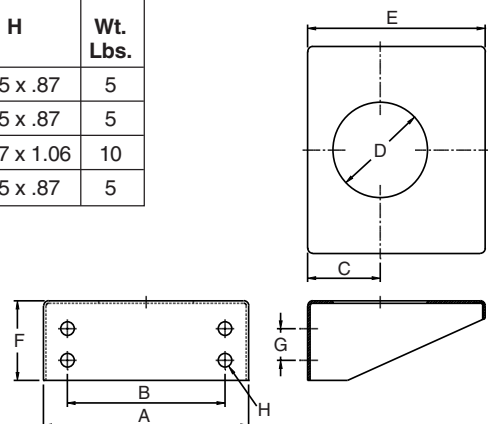
Bladder-Type Accumulator
 Bladder-type accumulators should be mounted vertically with the hydraulic port down.

CAUTION: Bladder-type accumulators should never be mounted more than 25° angle from the vertical.



Base Bracket Assembly for Bladder Accumulators

Accumulator Models		Part Number and Dimensions								
Bladder Size	Base Bracket Assembly Part No.	A	B	C	D	E	F	G	H	Wt. Lbs.
1 Gal. (3K)	1449100000	10.3	7.87	3.62	4.75	8.87	3.85	1.58	0.65 x .87	5
2 1/2-15 Gal. (3K)	1448720000	10.3	7.87	4.84	6.75	8.87	3.85	1.58	0.65 x .87	5
25-40 Gal. (3K)	1480020000	15.3	10.6	7.68	8.18	15.3	9.40	4.18	0.87 x 1.06	10
2 1/2-15 Gal. (5K)	1481410000	10.3	7.87	5.35	6.75	8.87	3.85	1.58	0.65 x .87	5



Clamp Brackets for Bladder-Type Accumulators

Bladder Size	Clamp Part No.	Dimensions							Wt. Lbs.
		A	B	C Max.	D Max.	E	F	G	
1 Qt., 150 C.I. (Figure A)	1466230000	4.5	3.9	5.5	6.3	2.6	.35 x .51	1.2	1.8
1 Gal. (Figure A)	1449080000	6.8	6.3	7.6	8.5	3.6	.35 x .51	1.2	2.7
2 1/2-15 Gal. (3K) (Figure B)	1449070000	9.0	8.5	10.0	11.7	4.8	.50 x .75	1.2	4.2
2 1/2-15 Gal. (5K) (Figure B)	1349200000	9.5	8.5	10.5	12.0	5.4	.50 x .75	1.2	4.5

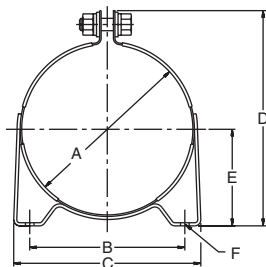


Figure A

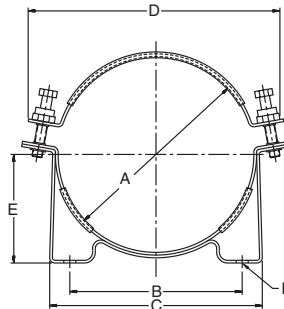
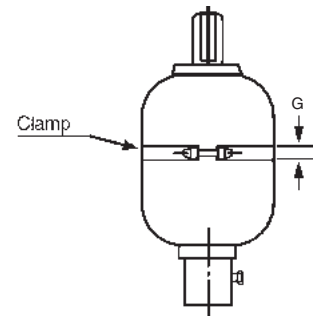
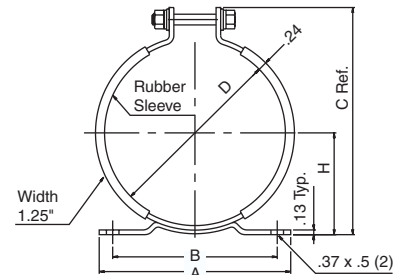


Figure B



Clamp Brackets for Diaphragm and Small Piston and Bladder Accumulators

Part No.	Dimensions					Accumulator Style/Size		
	A	B	C	D	H	Diaphragm liters/cu in	Piston bore/series	Bladder liters/cu in
8700110238	4.25	3.35	4.29	2.25 / 2.41	1.58	—	2" / 3K	0.16 / 10
8700110252	4.25	3.35	4.42	2.62 / 2.82	1.64	0.075 / 5	2" / 4-5K	—
8700110291	4.25	3.35	4.84	2.81 / 3.01	1.86	0.16 / 10	—	—
8700110358	5.00	3.94	5.62	3.50 / 3.62	2.28	0.35 / 20	3" / 3-4K	0.50 / 30
8700110413	5.25	4.33	6.06	4.04 / 4.22	2.45	0.50 / 30	3" / 5K	—
8700110476	5.25	4.33	6.71	4.67 / 4.90	2.77	0.75 / 45	4" / 3K	1-3 / 60-150
8700110535	5.75	4.92	7.43	5.32 / 5.50	3.21	1.0 / 60	—	—
8700110630	7.00	5.98	8.29	6.25 / 6.37	3.57	1.4 / 85 & 2.0 / 120	—	—
1449080000	7.60	6.30	8.50	6.80	3.60	2.8 / 170	—	—



Clamp Brackets for Series 4000 & Series 5000 Piston Accumulators

Piston Bore Size	Series 4000 Part Number	Series 5000 Part Number
2"	8700110252	8700110252
3"	8700110358	8700110413
4"	8700110535	87001100535
6"	—	—
7"	N/A	8701960890
9"	N/A	8701961220