



# **QH<sup>TM</sup> ACCUMULATEURS ACCUMULATORS**

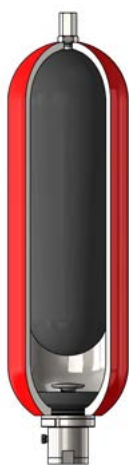
**VESSIE PISTON DIAPHRAGME  
BLADDER PISTON DIAPHRAGM**



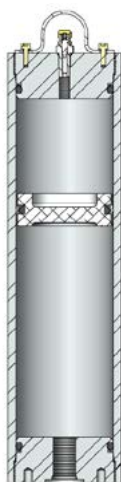


# SELECTION LIENS RAPIDES / QUICK LINKS

## ACCUMULATORS / ACCUMULATEURS



**Bladder Accumulator**  
1QT - 40 GAL  
3000 to 10000 PSI



**Piston Accumulator**  
0.5 PT - 50 GAL  
3000 to 20000 PSI



**Diaphragm Non-repairable Accumulator**  
10 - 85 Cubic Inch  
3000 to 5000 PSI



**Diaphragm Repairable Accumulator**  
6 - 150 Cubic Inch  
3000 to 5000 PSI



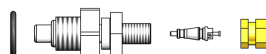
**Accumulator Mounting Collar**  
1QT - 15 GAL  
3000 to 10000 PSI



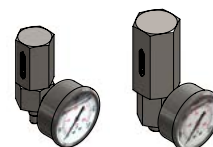
**Bladder Repair kits**  
1QT - 40 GAL  
3000 to 10000 PSI



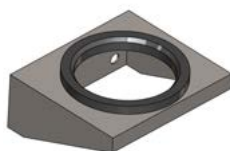
**Bladder Accumulator Repair parts**



**Gas Valves**



**Deluxe Pressure Monitor PM3/PM6**  
3000 to 6000 PSI



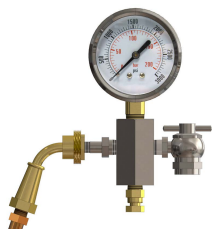
**Accumulator Base**  
1QT - 15 GAL  
3000 to 10000 PSI



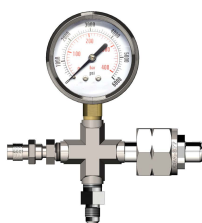
**Bladder Accumulator Repair Tools**



**Safety Valve**  
1QT to 15 GAL  
3000 to 5800 PSI



**Accumulator C&G Kit**  
1QT - 15 GAL  
3000 to 10000 PSI



**Nitrogen Gas Booster**  
6000 to 10000 PSI



# VESSIE / BLADDER TYPE INTERCHANGE 3000 PSI STANDARD



# ACCUMULATORS / ACCUMULATEURS

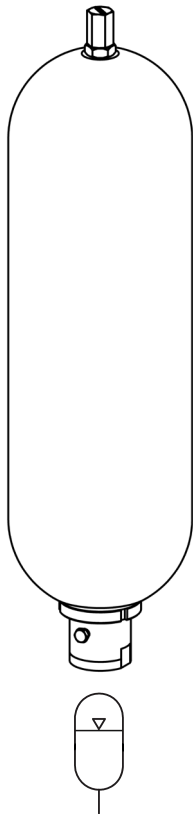


| Size    | QH™                |       | MP Filtri |     | Hydac                |     | Parker       |     |
|---------|--------------------|-------|-----------|-----|----------------------|-----|--------------|-----|
|         | P/N                | SAE   | P/N       | SAE | P/N                  | SAE | P/N          | SAE |
| 1 qt    | <b>QHA1QT31003</b> | 12/16 | A1QT31003 | 12  | SB330-1A1/112S-210C  | 12  | BA002B3T01A1 | 16  |
| 1 gal   | <b>QHA131003</b>   | 20    | A131003   | 20  | SB330-4A1/112S-210C  | 20  | BA01B3T01A1  | 20  |
| 2.5 gal | <b>QHA2.531003</b> | 24    | A2.531003 | 24  | SB330-10A1/112S-210C | 24  | BA02B3T01A1  | 24  |
| 5 gal   | <b>QHA531003</b>   | 24    | A531003   | 24  | SB330-20A1/112S-210C | 24  | BA05B3T01A1  | 24  |
| 10 gal  | <b>QHA1031003</b>  | 24    | A1031003  | 24  | SB330-32A1/112S-210C | 24  | BA10B3T01A1  | 24  |
| 11 gal  | <b>QHA1131003</b>  | 24    | A1131003  | 24  | SB330-42A1/112S-210C | 24  | BA11B3T01A1  | 24  |
| 15 gal  | <b>QHA1531003</b>  | 24    | A1531003  | 24  | SB330-54A1/112S-210C | 24  | BA15B3T01A1  | 24  |

| Size    | QH™                |       | Olaer     |     | Servi Fluid Power  |     | Tobul         |     |
|---------|--------------------|-------|-----------|-----|--------------------|-----|---------------|-----|
|         | P/N                | SAE   | P/N       | SAE | P/N                | SAE | P/N           | SAE |
| 1 qt    | <b>QHA1QT31003</b> | 12/16 | 1QT-100-3 | 16  | BA01-03-SJ-N-0-1-A | 16  | TBR30-.2NMD   | 16  |
| 1 gal   | <b>QHA131003</b>   | 20    | 1-100-6   | 20  | BA04-03-SK-N-0-1-A | 20  | TBR30-1NMEA   | 20  |
| 2.5 gal | <b>QHA2.531003</b> | 24    | 2.5-100-6 | 24  | BA10-01-SL-N-0-1-A | 24  | TBR30-2.5NMFA | 24  |
| 5 gal   | <b>QHA531003</b>   | 24    | 5-100-6   | 24  | BA20-03-SL-N-0-1-A | 24  | TBR30-5NMFA   | 24  |
| 10 gal  | <b>QHA1031003</b>  | 24    | 10-100-6  | 24  | BA37-03-SL-N-0-1-A | 24  | TBR30-10NMFA  | 24  |
| 11 gal  | <b>QHA1131003</b>  | 24    | 11-100-6  | 24  | BA42-03-SL-N-0-1-A | 24  | TBR30-11NMFA  | 24  |
| 15 gal  | <b>QHA1531003</b>  | 24    | 15-100-6  | 24  | BA57-03-SL-N-0-1-A | 24  | TBR30-15NMFA  | 24  |



# ACCUMULATORS / ACCUMULATEURS

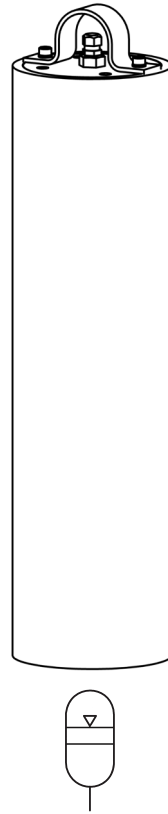


**BLADDER  
ACCUMULATORS**

Bladder accumulators are easily field repairable and have a high tolerance for contamination.

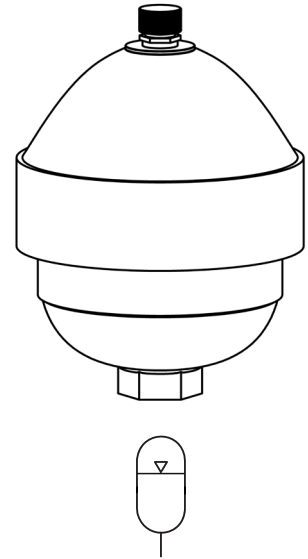
We offer standard sizes ranging up to 40 gallons capacity at 3,000 PSI, and up to 15 gallons capacity at 6,000 and 10,000 PSI.

Available with carbon steel, stainless steel, or carbon-fiber wrapped shells and a wide variety of protective coatings.



**PISTON  
ACCUMULATORS**

Piston accumulators are highly-customizable and can offer much larger volumes and higher pressures and temperatures than many bladder accumulators. Additionally, a wider tolerance for the initial precharge setting allows for a higher fluid-to-gas ratio necessary for certain applications. We can manufacture any required piston accumulator for your application. Several sizes are available from stock.



**DIAPHRAGM  
ACCUMULATORS**

Diaphragm accumulators provide a great deal of energy in a small space. They have a high tolerance for contamination and are perfect for pulsation dampening, off road equipment and other small-flow applications.

Available up to 150 in<sup>3</sup> capacity at 3,000 PSI and 45 in<sup>3</sup> capacity at 5,000 PSI. We offer both welded and field-repairable versions.





# VESSIE / BLADDER TYPE

## 1QT - 40 GAL 3000 | 6000 | 10000 PSI



### CODE

|    | APPROVAL CODE | SIZE | MODEL | PRESSURE | FLUID PORT | BLADDER | SERVICE | EXAMPLE      |
|----|---------------|------|-------|----------|------------|---------|---------|--------------|
| QH | A             | 15   |       | 3100     | 3          |         | NP      | QHA1531003NP |

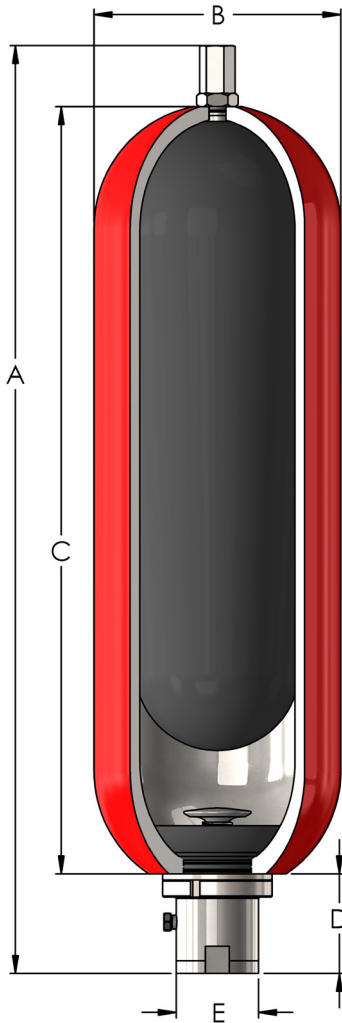
| APPROVAL CODE   |      | MODEL                     |       | 1 QUART FLUID PORTS                            |       | BLADDER             |       |
|-----------------|------|---------------------------|-------|------------------------------------------------|-------|---------------------|-------|
| OPTION          | CODE | OPTION                    | CODE  | OPTION                                         | CODE  | OPTION              | CODE  |
| Standard (ASME) | A    | Bottom Repairable         | Blank | 3/4" NPT                                       | Blank | Buna-Nitrile        | Blank |
| DNV             | N    | Top Repairable            | TR    | 1 1/16"-12 SAE #12 ORB                         | 3     | Butyl               | B     |
| ABS             | B    | Float                     | F     | Code 61, 3/4" SAE Split Flange                 | 4     | EPR                 | E     |
| CE              | P    | High Flow                 | H     | 1 & 1.5 GAL FLUID PORTS                        |       | Fluorocarbon        | V     |
| CRN             | R    | High Flow, Top Repairable | HT    | OPTION CODE                                    |       | Low-Temp            | L     |
| ABS & DNV       | D    | Transfer Barrier          | TB?*  | 1 1/4" NPT                                     | Blank | Extreme Low-Temp    | X     |
| ABS, DNV & NR13 | DJ   | PRESSURE                  |       | 1 5/8"-12 SAE #20 ORB                          | 3     | SERVICE             |       |
| SIZE            |      | OPTION CODE               |       | Code 61, 1.5" SAE Split Flange                 | 4     | OPTION CODE         |       |
| OPTION CODE     |      | 2000 PSI 2100             |       | 2.5-15 GAL FLUID PORTS                         |       | Oil Service Blank   |       |
| 1 Quart 1QT     |      | 3000 PSI 3100             |       | OPTION CODE                                    |       | Water Service WS    |       |
| 1 Gallon 1      |      | 4000 PSI 4100             |       | 2" NPT                                         | Blank | Chemical Service PS |       |
| 1.5 Gallon 1.5  |      | 5000 PSI 5100             |       | 1 1/4" NPT                                     | 1     | Nickel Plated NP    |       |
| 2.5 Gallon 2.5  |      | 6000 PSI 6100             |       | 1-7/8"-12 SAE #24 ORB                          | 3     | Extreme Service XS  |       |
| 5 Gallon 5      |      | 10000 PSI 10100           |       | Code 61, 2" SAE Split Flange (3000 PSI)        | 4     | Economy Service CS  |       |
| 10 Gallon 10    |      |                           |       | Code 62, 1.5" SAE Split Flange (6000 PSI)      | 4     | All Stainless AS    |       |
| 11 Gallon 11    |      |                           |       | Code 62, 1.5" SAE Split Flange Extended Neck   | 15    |                     |       |
| 15 Gallon 15    |      |                           |       | Code 62, 1.5" SAE Split Flange; Seal Sub, Male | 98    |                     |       |
| 40 Gallon 40    |      |                           |       |                                                |       |                     |       |



# VESSIE / BLADDER TYPE

## 1QT - 40 GAL 3000 | 6000 | 10000 PSI

# ACCUMULATORS / ACCUMULATEURS



Carbon steel standard. Also available in stainless steel, carbon fiber, and with a wide variety of protective coatings. Contact us for more information.



TOP REPAIRABLE (TR) OPTION

### 3000 PSI MODELS

| PART       | PART (TR)    | NOMINAL SIZE (GAL) | GAS VOLUME (CU. IN.) | DIMENSIONS (IN.) |     |      |     |     | WEIGHT (LBS.) | WEIGHT (TR) |
|------------|--------------|--------------------|----------------------|------------------|-----|------|-----|-----|---------------|-------------|
|            |              |                    |                      | A                | B   | C    | D   | E   |               |             |
| QHA1QT3100 | -            | 0.25               | 49                   | 12.0             | 4.5 | 7.6  | 2.1 | 1.4 | 10            | -           |
| QHA13100   | -            | 1                  | 214                  | 17.0             | 6.7 | 11.0 | 3.5 | 2.4 | 32            | -           |
| QHA1.53100 | -            | 1.5                | 328                  | 18.0             | 6.6 | 11.5 | 3.5 | 2.4 | 33            | -           |
| QHA2.53100 | QHA2.5TR3100 | 2.5                | 536                  | 21.0             | 9.0 | 15.5 | 3.5 | 3.0 | 76            | 78          |
| QHA53100   | QHA5TR3100   | 5                  | 1106                 | 33.0             | 9.0 | 27.5 | 3.5 | 3.0 | 116           | 118         |
| QHA103100  | QHA10TR3100  | 10                 | 2101                 | 54.0             | 9.0 | 48.5 | 3.5 | 3.0 | 212           | 214         |
| QHA113100  | QHA11TR3100  | 11                 | 2359                 | 60.0             | 9.0 | 54.0 | 3.5 | 3.0 | 230           | 232         |
| QHA153100  | QHA15TR3100  | 15                 | 3165                 | 78.0             | 9.0 | 72.0 | 3.5 | 3.0 | 296           | 298         |
| -          | QHA40TR3100  | 40                 | 9240                 | 93.0             | 14  | 87.8 | 5.1 | 4.3 | -             | 780         |

### 5000 & 6000 PSI MODELS

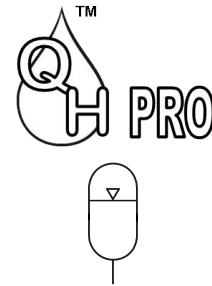
| PART       | PART (TR)    | NOMINAL SIZE (GAL) | GAS VOLUME (CU. IN.) | DIMENSIONS (IN.) |     |      |     |     | WEIGHT (LBS.) | WEIGHT (TR) |
|------------|--------------|--------------------|----------------------|------------------|-----|------|-----|-----|---------------|-------------|
|            |              |                    |                      | A                | B   | C    | D   | E   |               |             |
| QHA1QT5100 | -            | 0.25               | 49                   | 12.0             | 4.6 | 7.6  | 2.1 | 1.4 | 12            | -           |
| QHA16100   | -            | 1                  | 214                  | 18.0             | 7.2 | 11.4 | 3.5 | 2.4 | 36            | -           |
| QHA2.56100 | QHA2.5TR6100 | 2.5                | 536                  | 22.0             | 9.6 | 15.5 | 3.9 | 3.0 | 118           | 120         |
| QHA56100   | QHA5TR6100   | 5                  | 1106                 | 34.0             | 9.6 | 27.5 | 3.9 | 3.0 | 198           | 200         |
| QHA106100  | QHA10TR6100  | 10                 | 2101                 | 55.0             | 9.6 | 48.5 | 3.9 | 3.0 | 308           | 310         |
| QHA156100  | QHA15TR6100  | 15                 | 3165                 | 79.0             | 9.6 | 72.0 | 3.9 | 3.0 | 468           | 470         |

### 10000 PSI MODELS

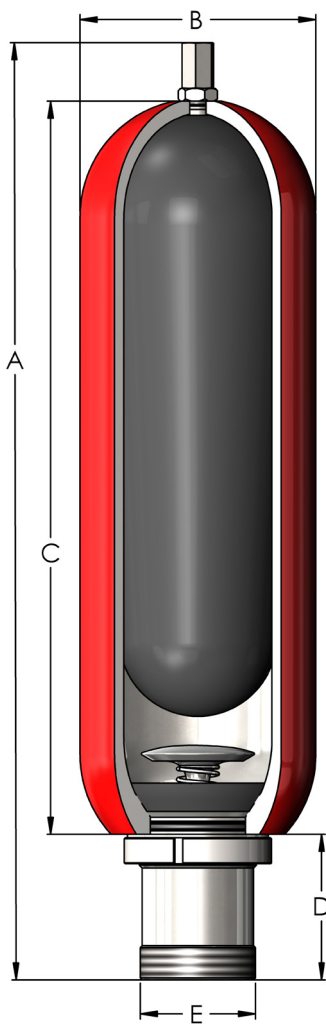
| PART          | NOMINAL SIZE (GAL) | GAS VOLUME (CU. IN.) | DIMENSIONS (IN.) |       |      |     |     | WEIGHT (LBS.) |
|---------------|--------------------|----------------------|------------------|-------|------|-----|-----|---------------|
|               |                    |                      | A                | B     | C    | D   | E   |               |
| QHA2.510100XS | 2.5                | 496                  | 25.0             | 11.75 | 17.0 | 3.5 | 3.0 | 325           |
| QHA510100XS   | 5                  | 1065                 | 37.0             | 11.75 | 29.0 | 3.5 | 3.0 | 515           |
| QHA1010100XS  | 10                 | 2060                 | 58.0             | 11.75 | 50.0 | 3.5 | 3.0 | 850           |
| QHA1510100XS  | 15                 | 3165                 | 81.0             | 11.75 | 73.5 | 3.5 | 3.0 | 1225          |



# VESSIE / BLADDER TYPE HIGH-FLOW 2.5 - 15 GAL 3000 PSI



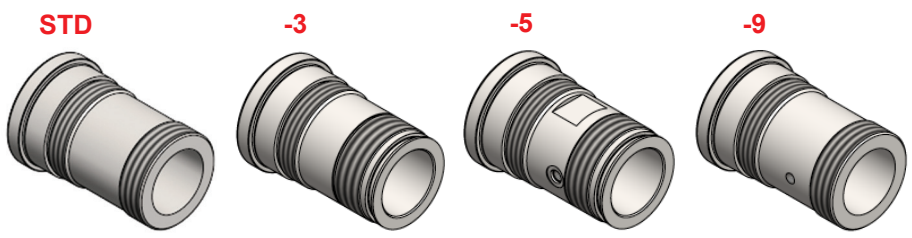
ACCUMULATORS / ACCUMULATEURS



Designed for applications that require a fluid transfer rate of 200-600 GPM.

| 3000 PSI MODELS |                |                    |                      |                  |     |      |     |     |               |             |
|-----------------|----------------|--------------------|----------------------|------------------|-----|------|-----|-----|---------------|-------------|
| PART            | TOP REPAIRABLE | NOMINAL SIZE (GAL) | GAS VOLUME (CU. IN.) | DIMENSIONS (IN.) |     |      |     |     | WEIGHT (LBS.) | WEIGHT (TR) |
|                 |                |                    |                      | A                | B   | C    | D   | E   |               |             |
| QHA2.5H3100     | QHA2.5HT3100   | 2.5                | 522                  | 24.0             | 9.0 | 16.0 | 5.6 | 4.4 | 78            | 80          |
| QHA5H3100       | QHA5HT3100     | 5                  | 1092                 | 36.0             | 9.0 | 28.0 | 5.6 | 4.4 | 118           | 120         |
| QHA10H3100      | QHA10HT3100    | 10                 | 2087                 | 57.0             | 9.0 | 49.0 | 5.6 | 4.4 | 214           | 216         |
| QHA11H3100      | QHA11HT3100    | 11                 | 2345                 | 63.0             | 9.0 | 55.0 | 5.6 | 4.4 | 230           | 232         |
| QHA15H3100      | QHA15HT3100    | 15                 | 3208                 | 81.0             | 9.0 | 73.0 | 5.6 | 4.4 | 296           | 298         |

## FLUID PORT OPTIONS

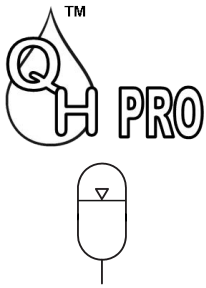


## STANDARD HIGH-FLOW FLUID PORT OPTIONS

- Std 4" -8 Male NPT
- 3 4-1/4" -8 UN-2 Male SAE
- 5 4-1/4" -8 UN-2 Male SAE, 9/16" -18 SAE Bleed
- 9 4" -8 Male NPT, 1/4" -18 NPT bleed



# VESSIE / BLADDER TYPE MATERIAL SPECIFICATIONS



## BLADDER MATERIAL SPECIFICATIONS

The following chart is for typical applications at moderate cycles and is based on a combination of laboratory results and field testing. System fluid selection and contamination can significantly affect performance. Since real world usage can vary widely, QH™ cannot guarantee the acceptability of any particular system or the expected life of an elastomer product.

The use of compatible clean fluids is highly recommended. Proper filtration is necessary. High temperature applications should use oil coolers. Low temperature applications require fluid that is in a liquid state.

| BLADDER MATERIAL SPECIFICATIONS |      |                |                   |              |                    |               |                |
|---------------------------------|------|----------------|-------------------|--------------|--------------------|---------------|----------------|
| RUBBER COMPOUND                 | CODE | PEAK RANGE (F) | OPTIMAL RANGE (F) | PERMEABILITY | HARDNESS SHORE (A) | TENSILE (PSI) | ELONGATION (%) |
| BUNA-NITRILE                    | N/A  | -10 TO 220     | 35 TO 160         | .39          | 60                 | 2000          | 400            |
| LOW TEMP BUNA-NITRILE           | L    | -60 TO 200     | -25 TO 145        | 2.05         | 50                 | 1500          | 400            |
| EXTREME LOW TEMP NITRILE        | X    | -80 TO 200     | -25 TO 145        | 2.10         | 60                 | 1500          | 400            |
| BUTYL                           | B    | -45 TO 200     | 35 TO 160         | .22          | 60                 | 1500          | 400            |
| ETHYLENE-PROPYLENE (EPR)        | E    | -55 TO 330     | 35 TO 250         | 2.25         | 60                 | 1500          | 400            |
| FLUORO-ELASTOMER (FKM)          | V    | 0 TO 350       | 35 TO 350         | 1.72         | 65                 | 1300          | 400            |
| HYDRIN                          | H    | -40 TO 275     | -                 | .23          | 60                 | 1300          | 400            |

**PEAK:** Upper value is based on polymer vendor data. Lower value is based on ASTM D-1053.

**OPTIMAL:** Based on good hydraulic practices. Extended operation beyond these temperatures may shorten the life of the bladder.

**PERMEABILITY:** Based on ASTM D-1434 at 73° F. Units x 10<sup>-8</sup> cm<sup>2</sup>/sec • atm.

**PHYSICAL PROPERTIES:** Values are nominal and are based on laboratory results.

## BLADDER ELASTOMER CAPABILITY

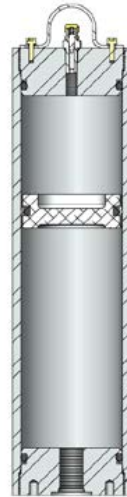
There are thousands of chemical compounds that have been tested with bladder elastomers. An up to date compatibility chart of the most popular fluids can be found.

Please contact our sales department for additional assistance in determining the proper elastomer for your application.



## PISTON TYPE

1QT - 40 GAL 3000 - 15000 PSI



CODE

|    | APPROVAL<br>CODE | NOMINAL<br>SIZE | PRESSURE | CYLINDER<br>BORE | GAS END<br>PORT(S) | FLUID END<br>PORT(S) | SEALS | MATERIAL | EXAMPLE             |
|----|------------------|-----------------|----------|------------------|--------------------|----------------------|-------|----------|---------------------|
| QH | PA               | 15              | 3100     | 6B               | 0G                 | 2F                   | V     | SS       | QHPA1531006B0G2FVSS |

| APPROVAL CODE |      | PRESSURE      |       | FLUID AND GAS PORTS     |      | SEALS POLYMER    |       |
|---------------|------|---------------|-------|-------------------------|------|------------------|-------|
| OPTION        | CODE | OPTION        | CODE  | OPTION                  | CODE | OPTION           | CODE  |
| QH™ STD       | PA   | 3000 PSI      | 3100  | 3/8"-24 SAE w/gas valve | 0    | Buna-Nitrile     | Blank |
| ASME          | PX   | 4000 PSI      | 4100  | 3/4"-12 SAE (#8)        | 1    | Butyl            | B     |
| DNV           | PN   | 6000 PSI      | 6100  | 1-1/16"-12 SAE (#12)    | 2    | EPDM             | E     |
| ABS           | PB   | 7500 PSI      | 7500  | 1-5/16"-12 SAE (#16)    | 3    | Fluorocarbon     | V     |
| CE            | PP   | 10000 PSI     | 10100 | 1-7/8"-12 SAE (#24)     | 4    | Low-Temp Buna    | L     |
| CRN           | PR   | 15000 PSI     | 15100 | Code 61, 2" SAE         | 5    | Polypropylene    | P     |
| ABS, DNV      | PD   | CYLINDER BORE |       | Code 62, 1.5" SAE       | 6    | Teflon           | T     |
| SIZE          |      | OPTION        | CODE  | 3/8" MP                 | 7    | KEL-F            | KELF  |
| OPTION        | CODE | 2" Bore       | 2B    | 2.5"-12 SAE (#32)       | 8    | MATERIALS        |       |
| 1 Quart       | 1QT  | 3" Bore       | 3B    | 1" NPT                  | 9    | OPTION           | CODE  |
| 1/2 Gallon    | 2QT  | 4" Bore       | 4B    | 1/2"-20 SAE w/gas valve | 10   | Carbon Steel     | Blank |
| 1 Gallon      | 1    | 5" Bore       | 5B    | 3/4" NPT                | 11   | Stainless        | SS    |
| 2.5 Gallon    | 2.5  | 5.5" Bore     | 5.5B  | 1/2" NPT                | 12   | Chrome-plated ID | CP    |
| 5 Gallon      | 5    | 6" Bore       | 6B    | Code 61, 1.5" SAE       | 13   |                  |       |
| 7.5 Gallon    | 7.5  | 7" Bore       | 7B    | Solid, no port          | 15   |                  |       |
| 10 Gallon     | 10   | 8" Bore       | 8B    | 9/16" MP                | 16   |                  |       |
| 15 Gallon     | 15   | 10" Bore      | 10B   | 1-5/8" SAE (#20)        | 17   |                  |       |
| 20 Gallon     | 20   | 12" Bore      | 12B   |                         |      |                  |       |
| 40 Gallon     | 40   |               |       |                         |      |                  |       |

<sup>1</sup> ASME standard for all accumulators larger than 6" bore.

<sup>2</sup> Larger and custom sizes available.

<sup>3</sup> Higher and custom pressures available.

<sup>4</sup> Many other options available.

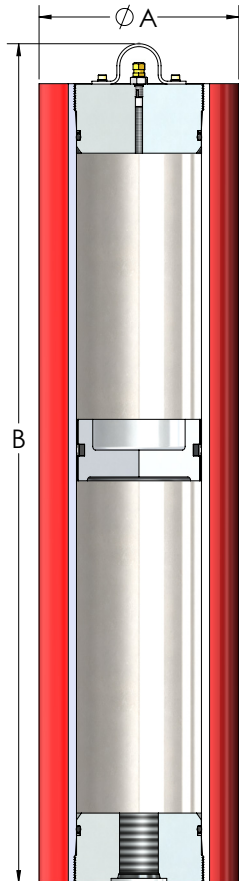




# PISTON TYPE

## 1QT - 40 GAL 3000 - 15000 PSI

# ACCUMULATORS / ACCUMULATEURS



### STANDARD COMPONENT PARTS

- 1 Gas Valve
- 2 Gas Cap
- 3 Shell
- 4 Piston
- 5 Fluid Cap

### 3 INCH BORE 3000 PSI PISTONS

| MODEL NUMBER       | NOMINAL FLUID CAPACITY<br>GAL | GAS CAPACITY<br>IN <sup>3</sup> | DRY WEIGHT<br>LBS. | A (OD)<br>IN | B (OAL)<br>IN | MOUNTING CLAMP | SEAL KIT    |
|--------------------|-------------------------------|---------------------------------|--------------------|--------------|---------------|----------------|-------------|
| QHPA.5PT31003B0GXF | 0.5 PT                        | 19                              | 11                 | 3.5          | 7.5           | QH-CLR-350     | QHPA-3B-4KT |
| QHPA1PT31003B0GXF  | 1 PT                          | 35                              | 12                 | 3.5          | 9.75          | QH-CLR-350     | QHPA-3B-4KT |
| QHPA1QT31003B0GXF  | 1 QT                          | 68                              | 16                 | 3.5          | 14.5          | QH-CLR-350     | QHPA-3B-4KT |
| QHPA2QT31003B0GXF  | 2 QT                          | 124                             | 21                 | 3.5          | 22.5          | QH-CLR-350     | QHPA-3B-4KT |
| QHPA131003B0GXF    | 1 GAL                         | 241                             | 33                 | 3.5          | 39            | QH-CLR-350     | QHPA-3B-4KT |

### 4 INCH BORE 3000 PSI PISTONS

| MODEL NUMBER        | NOMINAL FLUID CAPACITY<br>GAL | GAS CAPACITY<br>IN <sup>3</sup> | DRY WEIGHT<br>LBS. | A (OD)<br>IN | B (OAL)<br>IN | MOUNTING CLAMP | SEAL KIT        |
|---------------------|-------------------------------|---------------------------------|--------------------|--------------|---------------|----------------|-----------------|
| QHPA1QT31004B10G3FK | 1 QT                          | 64                              | 33                 | 4.75         | 13            | QH-1QT-511     | QHPA-4B-4KT-ALT |
| QHPA131004B10G3FK   | 1 GAL                         | 237                             | 53                 | 4.75         | 26.75         | QH-1QT-511     | QHPA-4B-4KT-ALT |
| QHPA2.531004B10G3FK | 2.5 GAL                       | 584                             | 93                 | 4.75         | 54.5          | QH-1QT-511     | QHPA-4B-4KT-ALT |

### 6 INCH BORE 3000 PSI PISTONS

| MODEL NUMBER          | NOMINAL FLUID CAPACITY<br>GAL | GAS CAPACITY<br>IN <sup>3</sup> | DRY WEIGHT<br>LBS. | A (OD)<br>IN | B (OAL)<br>IN | MOUNTING CLAMP | SEAL KIT    |
|-----------------------|-------------------------------|---------------------------------|--------------------|--------------|---------------|----------------|-------------|
| QHPA131006B0GXF-R1    | 1 GAL                         | 244                             | 67                 | 6.5          | 16.5          | QH-CLR-650     | QHPA-6B-4KT |
| QHPA2.531006B0GXF-R1  | 2.5 GAL                       | 598                             | 94                 | 6.5          | 30            | QH-CLR-650     | QHPA-6B-4KT |
| QHPA531006B0GXF-R1    | 5 GAL                         | 1168                            | 139                | 6.5          | 52            | QH-CLR-650     | QHPA-6B-4KT |
| QHPA7.531006B0GXF-R1  | 7.5 GAL                       | 1753                            | 185                | 6.5          | 74.5          | QH-CLR-650     | QHPA-6B-4KT |
| QHPA1031006B0GXF-R1   | 10 GAL                        | 2335                            | 231                | 6.5          | 97            | QH-CLR-650     | QHPA-6B-4KT |
| QHPA12.531006B0GXF-R1 | 12.5 GAL                      | 2908                            | 276                | 6.5          | 119           | QH-CLR-650     | QHPA-6B-4KT |

### 8 INCH BORE 3000 PSI PISTONS

| MODEL NUMBER           | NOMINAL FLUID CAPACITY<br>GAL | GAS CAPACITY<br>IN <sup>3</sup> | DRY WEIGHT<br>LBS. | A (OD)<br>IN | B (OAL)<br>IN | MOUNTING CLAMP | SEAL KIT    |
|------------------------|-------------------------------|---------------------------------|--------------------|--------------|---------------|----------------|-------------|
| QHPX531008B10GXF-R1    | 5 GAL                         | 1207                            | 260                | 9.5          | 33            | QH-S6-511      | QHPA-8B-4KT |
| QHPX7.531008B10GXF-R1  | 7.5 GAL                       | 1785                            | 327                | 9.5          | 44.5          | QH-S6-511      | QHPA-8B-4KT |
| QHPX1031008B10GXF-R1   | 10 GAL                        | 2362                            | 394                | 9.5          | 56            | QH-S6-511      | QHPA-8B-4KT |
| QHPX12.531008B10GXF-R1 | 12.5 GAL                      | 2940                            | 460                | 9.5          | 67.5          | QH-S6-511      | QHPA-8B-4KT |
| QHPX1531008B10GXF-R1   | 15 GAL                        | 3517                            | 527                | 9.5          | 79            | QH-S6-511      | QHPA-8B-4KT |
| QHPX2031008B10GXF-R1   | 20 GAL                        | 4672                            | 661                | 9.5          | 102           | QH-S6-511      | QHPA-8B-4KT |
| QHPX2531008B10GXF-R1   | 25 GAL                        | 5832                            | 795                | 9.5          | 125           | QH-S6-511      | QHPA-8B-4KT |
| QHPX3031008B10GXF-R1   | 30 GAL                        | 6971                            | 927                | 9.5          | 147.5         | QH-S6-511      | QHPA-8B-4KT |
| QHPX4031008B10GXF-R1   | 40 GAL                        | 9281                            | 1194               | 9.5          | 193.5         | QH-S6-511      | QHPA-8B-4KT |

### 8 INCH BORE 4000 PSI PISTONS

| MODEL NUMBER        | NOMINAL FLUID CAPACITY<br>GAL | GAS CAPACITY<br>IN <sup>3</sup> | DRY WEIGHT<br>LBS. | A (OD)<br>IN | B (OAL)<br>IN | MOUNTING CLAMP | SEAL KIT    |
|---------------------|-------------------------------|---------------------------------|--------------------|--------------|---------------|----------------|-------------|
| QHPX541008B10GXF    | 5 GAL                         | 1272                            | 300                | 9.5          | 36            | QH-S6-511      | QHPA-8B-4KT |
| QHPX7.541008B10GXF  | 7.5 GAL                       | 1781                            | 356                | 9.5          | 46            | QH-S6-511      | QHPA-8B-4KT |
| QHPX1041008B10GXF   | 10 GAL                        | 2312                            | 416                | 9.5          | 56.5          | QH-S6-511      | QHPA-8B-4KT |
| QHPX12.541008B10GXF | 12.5 GAL                      | 2940                            | 486                | 9.5          | 69            | QH-S6-511      | QHPA-8B-4KT |
| QHPX1541008B10GXF   | 15 GAL                        | 3541                            | 555                | 9.5          | 81            | QH-S6-511      | QHPA-8B-4KT |

continued on next page

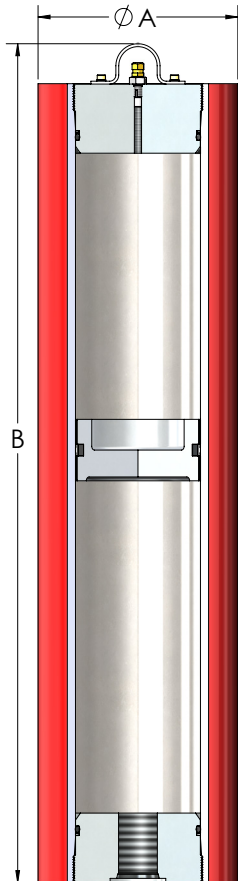


# PISTON TYPE

## 1QT - 40 GAL 3000 - 15000 PSI



# ACCUMULATORS / ACCUMULATEURS



### 8 INCH BORE 4000 PSI PISTONS (CONTINUED)

|                   |        |      |     |     |       |           |             |
|-------------------|--------|------|-----|-----|-------|-----------|-------------|
| QHPX2041008B10GXF | 20 GAL | 4673 | 681 | 9.5 | 103.5 | QH-S6-511 | QHPA-8B-4KT |
| QHPX2541008B10GXF | 25 GAL | 5828 | 811 | 9.5 | 126.5 | QH-S6-511 | QHPA-8B-4KT |
| QHPX3041008B10GXF | 30 GAL | 7006 | 938 | 9.5 | 150   | QH-S6-511 | QHPA-8B-4KT |

### 4 INCH BORE 6000 PSI PISTONS

| MODEL NUMBER       | NOMINAL FLUID CAPACITY<br>GAL | GAS CAPACITY<br>IN <sup>3</sup> | DRY WEIGHT<br>LBS. | A (OD)<br>IN | B<br>IN | MOUNTING CLAMP | SEAL KIT    |
|--------------------|-------------------------------|---------------------------------|--------------------|--------------|---------|----------------|-------------|
| QHPA1QT61004B10GXF | 1 QT                          | 64                              | 33                 | 5            | 11.5    | QH-CLR-500     | QHPA-4B-4KT |
| QHPA2QT61004B10GXF | 2 QT                          | 126                             | 43                 | 5            | 16.5    | QH-CLR-500     | QHPA-4B-4KT |
| QHPA161004B10GXF   | 1 GAL                         | 240                             | 61                 | 5            | 25.5    | QH-CLR-500     | QHPA-4B-4KT |
| QHPA2.561004B10GXF | 2.5 GAL                       | 584                             | 116                | 5            | 53      | QH-CLR-500     | QHPA-4B-4KT |
| QHPA461004B10GXF   | 4 GAL                         | 930                             | 171                | 5            | 80.5    | QH-CLR-500     | QHPA-4B-4KT |

### 7 INCH BORE 6000 PSI PISTONS

| MODEL NUMBER        | NOMINAL FLUID CAPACITY<br>GAL | GAS CAPACITY<br>IN <sup>3</sup> | DRY WEIGHT<br>LBS. | A (OD)<br>IN | B (OAL)<br>IN | MOUNTING CLAMP | SEAL KIT    |
|---------------------|-------------------------------|---------------------------------|--------------------|--------------|---------------|----------------|-------------|
| QHPX561007B10GXF    | 5 GAL                         | 1188                            | 397                | 9.13         | 41.5          | QH-S-511       | QHPA-7B-4KT |
| QHPX1061007B10GXF   | 10 GAL                        | 2343                            | 625                | 9.13         | 71.5          | QH-S-511       | QHPA-7B-4KT |
| QHPX12.561007B10GXF | 12.5 GAL                      | 2921                            | 739                | 9.13         | 86.5          | QH-S-511       | QHPA-7B-4KT |
| QHPX1561007B10GXF   | 15 GAL                        | 3498                            | 853                | 9.13         | 101.5         | QH-S-511       | QHPA-7B-4KT |
| QHPX2061007B10GXF   | 20 GAL                        | 4648                            | 1080               | 9.13         | 131.5         | QH-S-511       | QHPA-7B-4KT |
| QHPX2561007B10GXF   | 25 GAL                        | 5820                            | 1311               | 9.13         | 162.0         | QH-S-511       | QHPA-7B-4KT |
| QHPX3061007B10GXF   | 30 GAL                        | 6975                            | 1539               | 9.13         | 192.0         | QH-S-511       | QHPA-7B-4KT |

### 5.5 INCH BORE 7500 PSI STAINLESS STEEL PISTONS

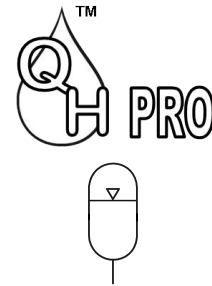
| MODEL NUMBER             | NOMINAL FLUID CAPACITY<br>GAL | GAS CAPACITY<br>IN <sup>3</sup> | DRY WEIGHT<br>LBS. | A (OD)<br>IN | B (OAL)<br>IN | MOUNTING CLAMP | SEAL KIT          |
|--------------------------|-------------------------------|---------------------------------|--------------------|--------------|---------------|----------------|-------------------|
| QHPX2.57.51005.5B10G1FSS | 2.5                           | 596                             | 257                | 7.5          | 36.50         | QH-CLR-750-SS  | QHPA-5.5B-7.5-4KT |
| QHPX57.51005.5B10G1FSS   | 5.0                           | 1174                            | 399                | 7.5          | 60.75         | QH-CLR-750-SS  | QHPA-5.5B-7.5-4KT |

### 2.5 INCH BORE 10000 PSI PISTONS

| MODEL NUMBER           | NOMINAL FLUID CAPACITY<br>GAL | GAS CAPACITY<br>IN <sup>3</sup> | DRY WEIGHT<br>LBS. | A (OD)<br>IN | B (OAL)<br>IN | MOUNTING CLAMP | SEAL KIT         |
|------------------------|-------------------------------|---------------------------------|--------------------|--------------|---------------|----------------|------------------|
| QHPA.5PT101002.5B10GXF | 0.5 PT                        | 15.75                           | 30                 | 4            | 11.5          | QH-CLR-400     | QHPA-2.5B-10-4KT |
| QHPA1PT101002.5B10GXF  | 1 PT                          | 30.75                           | 37                 | 4            | 14.5          | QH-CLR-400     | QHPA-2.5B-10-4KT |
| QHPA1QT101002.5B10GXF  | 1 QT                          | 62.5                            | 51                 | 4            | 21            | QH-CLR-400     | QHPA-2.5B-10-4KT |
| QHPA2QT101002.5B10GXF  | 2 QT                          | 123                             | 78                 | 4            | 33.5          | QH-CLR-400     | QHPA-2.5B-10-4KT |
| QHPA3QT101002.5B10GXF  | 3 QT                          | 188                             | 106                | 4            | 46.5          | QH-CLR-400     | QHPA-2.5B-10-4KT |
| QHPA4QT101002.5B10GXF  | 4 QT                          | 247                             | 132                | 4            | 58.5          | QH-CLR-400     | QHPA-2.5B-10-4KT |
| QHPA6QT101002.5B10GXF  | 6 QT                          | 367                             | 185                | 4            | 83            | QH-CLR-400     | QHPA-2.5B-10-4KT |

### 2.5 & 3 INCH BORE 15000 PSI PISTONS

| MODEL NUMBER            | NOMINAL FLUID CAPACITY<br>GAL | GAS CAPACITY<br>IN <sup>3</sup> | DRY WEIGHT<br>LBS. | A (OD)<br>IN | B (OAL)<br>IN | MOUNTING CLAMP | SEAL KIT   |
|-------------------------|-------------------------------|---------------------------------|--------------------|--------------|---------------|----------------|------------|
| QHPA1QT151002.5B7G7FK   | 1 QT                          | 60                              | 40                 | 3.75         | 18.75         | QH-CLR-516     | Contact us |
| QHPA1QT151002.5B7G7FSSK | 1 QT                          | 60                              | 71                 | 4.6          | 18.75         | QH-1QT-511     | Contact us |
| QHPA1151003B7G7FSSK     | 1 GAL                         | 231                             | 213                | 5.5          | 41            | QH-CLR-550     | Contact us |



ACCUMULATORS / ACCUMULATEURS

DIAPHRAGM TYPE  
1QT - 40 GAL 3000 - 15000 PSI



CODE

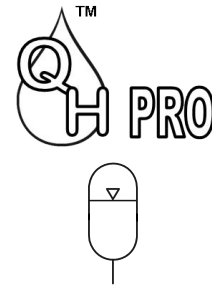
|    | MODEL | SIZE | PRESSURE | FLUID PORT | ELASTOMER | SERVICE | EXAMPLE        |
|----|-------|------|----------|------------|-----------|---------|----------------|
| QH | AME   | 30   | 3100     | 3          |           | NP      | QHAME3031003NP |

| MODEL       |      | PRESSURE |      | FLUID PORT                  |      | ELASTOMER     |       |
|-------------|------|----------|------|-----------------------------|------|---------------|-------|
| OPTION      | CODE | OPTION   | CODE | OPTION                      | CODE | OPTION        | CODE  |
| Repairable  | AME  | 2000 PSI | 2100 | 6 - 30 cu. in.; 3/4" SAE    | 3    | Buna-Nitrile  | Blank |
| Welded      | AMW  | 3000 PSI | 3100 | 45-150 cu. in.; 1-1/16" SAE | 3    | Eco/Hydrin    | H     |
| SIZE        |      | 5000 PSI | 5100 |                             |      | EPR           | E     |
| OPTION      | CODE |          |      |                             |      | Viton         | V     |
| 6 cu. in.   | 6    |          |      |                             |      | SERVICE       |       |
| 10 cu. in.  | 10   |          |      |                             |      | OPTION        | CODE  |
| 20 cu. in.  | 20   |          |      |                             |      | Painted       | Blank |
| 30 cu. in.  | 30   |          |      |                             |      | All Stainless | AS    |
| 45 cu. in.  | 45   |          |      |                             |      | Nickel Plated | NP    |
| 60 cu. in.  | 60   |          |      |                             |      |               |       |
| 85 cu. in.  | 85   |          |      |                             |      |               |       |
| 90 cu. in.  | 90   |          |      |                             |      |               |       |
| 150 cu. in. | 150  |          |      |                             |      |               |       |

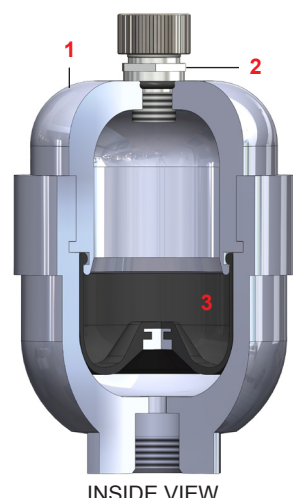
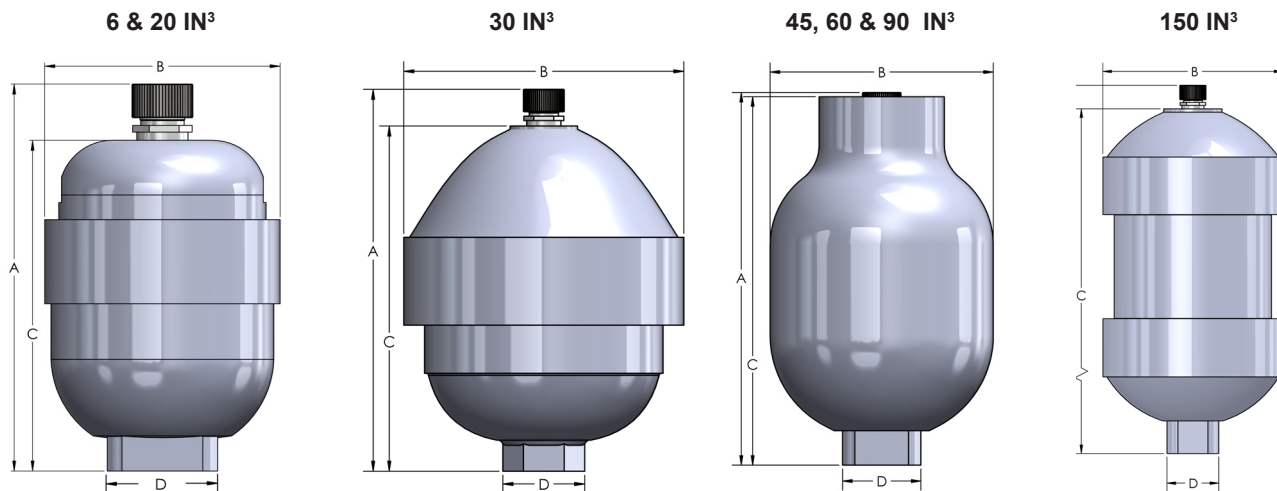
Only the most popular options are shown above. We have many more options and products available.



# DIAPHRAGM TYPE RÉPARABLE / REPAIRABLE



## ACCUMULATORS / ACCUMULATEURS



- COMPONENT PARTS**
- 1 Shell
  - 2 Gas valve
  - 3 Diaphragm

### 3000 PSI MODELS

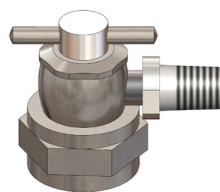
| PART NUMBER    | NOMINAL SIZE (IN³) | GAS VOLUME (IN³) | DIMENSIONS |     |      |     | WEIGHT (LBS.) | STD. FLUID PORT | REPAIR KIT      |
|----------------|--------------------|------------------|------------|-----|------|-----|---------------|-----------------|-----------------|
|                |                    |                  | A          | B   | C    | D   |               |                 |                 |
| QHAME631003    | 6                  | 6.10             | 5.0        | 3.0 | 4.3  | 1.4 | 4.2           | 3/4"-16 SAE     | QHAME-6-3KT     |
| QHAME2031003   | 20                 | 21.4             | 6.2        | 3.9 | 5.4  | 1.4 | 6.4           | 3/4"-16 SAE     | QHAME-20-3KT    |
| QHAME3031003   | 30                 | 30.5             | 6.8        | 4.6 | 6.0  | 1.4 | 9.0           | 3/4"-16 SAE     | QHAME-30-3KT    |
| QHAME45TR31003 | 45                 | 45.8             | 7.8        | 4.6 | 7.6  | 1.6 | 9.6           | 1-1/16"-12 SAE  | QHAME-60-TR-3KT |
| QHAME60TR31003 | 60                 | 61.0             | 8.5        | 4.6 | 8.3  | 1.6 | 11.0          | 1-1/16"-12 SAE  | QHAME-60-TR-3KT |
| QHAME90TR31003 | 90                 | 91.5             | 11.7       | 4.6 | 11.5 | 1.6 | 14.9          | 1-1/16"-12 SAE  | QHAME-90-3KT    |
| QHAME15031003  | 150                | 152.6            | 17.3       | 5.4 | 16.5 | 1.6 | 30.9          | 1-1/16"-12 SAE  | QHAME-150-3KT   |

### 5000 PSI MODELS

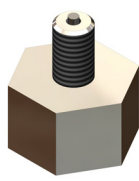
| PART NUMBER  | NOMINAL SIZE (IN³) | GAS VOLUME (IN³) | DIMENSIONS |     |     |     | WEIGHT (LBS.) | STD. FLUID PORT | REPAIR KIT   |
|--------------|--------------------|------------------|------------|-----|-----|-----|---------------|-----------------|--------------|
|              |                    |                  | A          | B   | C   | D   |               |                 |              |
| QHAME651003  | 6                  | 6.10             | 5.0        | 3.0 | 4.3 | 1.4 | 4.2           | 3/4"-16 SAE     | QHAME-6-3KT  |
| QHAME2051003 | 20                 | 21.36            | 6.2        | 3.9 | 5.4 | 1.4 | 6.4           | 3/4"-16 SAE     | QHAME-20-3KT |
| QHAME3051003 | 30                 | 30.51            | 6.8        | 4.6 | 6.0 | 1.4 | 9.0           | 3/4"-16 SAE     | QHAME-30-3KT |

### CHARGING & GAUGING

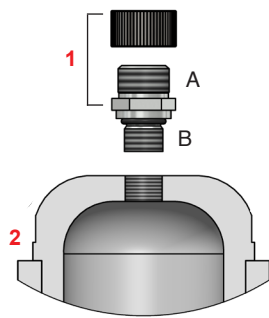
Use adapter QHAME-CG-004 with our QH-CG3-3KT-SS charging kit. We also offer a 5/8"-18 straight thread air chuck (QHAME-CG-002) for All QHAME series diaphragm accumulators.



QHAME-CG-002



QHAME-CG-004



3K | 5K STANDARD GAS VALVE WITH CAPTURED O-RING SEAL

### COMPONENT PARTS

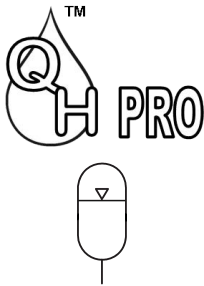
| ITEM | PART #      | DESCRIPTION        |
|------|-------------|--------------------|
| 1    | QHAME-309-1 | Gas valve assembly |
| 2    | -           | Shell              |

### THREAD SPECIFICATIONS

| ITEM | DESCRIPTION |
|------|-------------|
| A    | 5/8"-18 UNF |
| B    | M12x1.5     |

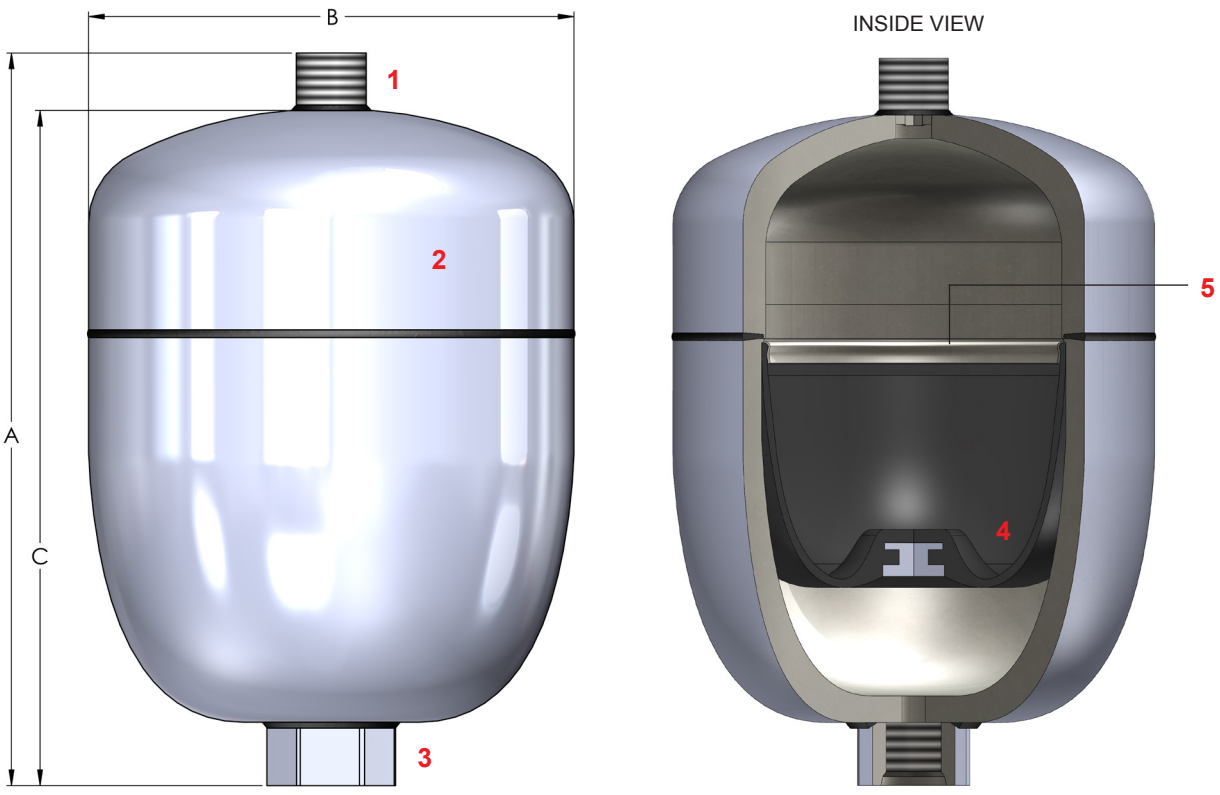


# DIAPHRAGM TYPE SOUDÉ / WELDED



## ACCUMULATORS / ACCUMULATEURS

Part numbers below are standard carbon steel. Items are available with OD coatings or in stainless steel for improved corrosion resistance and diaphragm life. The models detailed below are non-repairable and should be replaced if no longer functioning properly.



| 3000 & 5000 PSI MODELS |                |                                 |                      |            |     |     |               | COMPONENT PARTS |                            |
|------------------------|----------------|---------------------------------|----------------------|------------|-----|-----|---------------|-----------------|----------------------------|
| PART NUMBER            | MODEL PRESSURE | NOMINAL SIZE (IN <sup>3</sup> ) | GAS VOLUME (CU. IN.) | DIMENSIONS |     |     | WEIGHT (LBS.) | ITEM            | DESCRIPTION                |
|                        |                |                                 |                      | A          | B   | C   |               |                 |                            |
| QHAW1031003            | 3000           | 10                              | 9.8                  | 4.9        | 2.7 | 4.2 | 2             | 1               | Gas port, M28X1.5, welded  |
| QHAW2031003            | 3000           | 20                              | 21.4                 | 6          | 3.8 | 5.2 | 4             | 2               | Shell                      |
| QHAW3031003            | 3000           | 30                              | 30.5                 | 6.5        | 4.1 | 5.7 | 5.1           | 3               | Fluid port, 3/4" SAE (#8)  |
| QHAW4531003            | 3000           | 45                              | 45.7                 | 6.7        | 4.8 | 6   | 6.6           | 4               | Diaphragm                  |
| QHAW6031003            | 3000           | 60                              | 61.0                 | 8.2        | 4.6 | 6.6 | 9.9           | 5               | Diaphragm supporting plate |
| QHAW8531003            | 3000           | 85                              | 85.4                 | 7.6        | 6   | 6.9 | 12.3          |                 |                            |
| QHAW6051003            | 5000           | 60                              | 61.0                 | 8.1        | 5.3 | 7.3 | 10.8          |                 |                            |

### M28X1.5 CHARGING AND GAUGING KIT



We offer two charging and gauging kits for our welded accumulators:

- QHAM-CG3-000-B (3000 PSI models)
- QHAM-CG5-000-B (5000 PSI models)

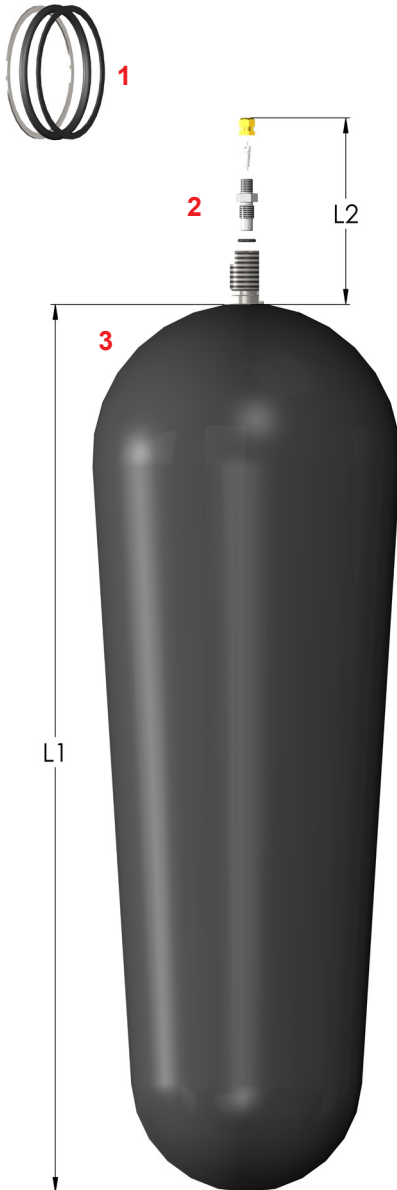
These charging kits require no additional tools or parts to precharge or check gas pressure on any M28X1.5 gas valve port.



# VESSIE / BLADDER TYPE PIÈCES / PARTS



## ACCUMULATORS / ACCUMULATEURS



### COMPONENT PARTS

- 1 Seal Rings
- 2 Gas Valve\*
- 3 Bladder

\*3000 PSI gas valve shown

### 3000 PSI BLADDER SPECIFICATIONS

| SIZE (PART NO.)         | L1 (IN) | L2 (IN) | STD. THREAD OD | WEIGHT (LBS) |
|-------------------------|---------|---------|----------------|--------------|
| 1 PINT (QH-1PT-3KT)     | 5.25    | 1.7     | 5/8"-18 UNF    | 1            |
| 1 QUART (QH-1QT-3KT)    | 5.7     | 1.7     | 5/8"-18 UNF    | 1            |
| 150 CI (QH-150CI-3KT)   | 11      | 2.3     | 5/8"-18 UNF    | 1            |
| 1 GALLON (QH-1-3KT)     | 8       | 2.3     | 7/8"-14 UNF    | 1            |
| 1.5 GALLON (QH-1.5-3KT) | 12.0    | 2.3     | 7/8"-14 UNF    | 1            |
| 2.5 GALLON (QH-2.5-3KT) | 11.5    | 2.3     | 7/8"-14 UNF    | 2            |
| 5 GALLON (QH-5-3KT)     | 23      | 2.3     | 7/8"-14 UNF    | 4            |
| 10 GALLON (QH-10-3KT)   | 43.5    | 2.3     | 7/8"-14 UNF    | 6            |
| 11 GALLON (QH-11-3KT)   | 49.5    | 2.3     | 7/8"-14 UNF    | 7            |
| 15 GALLON (QH-15-3KT)   | 64      | 2.3     | 7/8"-14 UNF    | 8            |
| 40 GALLON (QH-40-3KT)   | 80      | 5       | 2"-12 UNF      | 25           |

### 5000 & 6000 PSI BLADDER SPECIFICATIONS

| SIZE (PART NO.)           | L1 (IN) | L2 (IN) | STD. THREAD OD | WEIGHT (LBS) |
|---------------------------|---------|---------|----------------|--------------|
| 1 Quart (QH-1QT-5-3KT)    | 5.7     | 1.7     | 7/8"-14 UNF    | 1            |
| 1 Gallon (QH-1-6-3KT)     | 8       | 1.7     | 7/8"-14 UNF    | 1            |
| 2.5 Gallon (QH-2.5-6-3KT) | 11.5    | 3.3     | 7/8"-14 UNF    | 2            |
| 5 Gallon (QH-5-6-3KT)     | 23      | 3.3     | 7/8"-14 UNF    | 4            |
| 10 Gallon (QH-10-6-3KT)   | 43.5    | 3.3     | 7/8"-14 UNF    | 6            |
| 15 Gallon (QH-15-6-3KT)   | 64      | 3.3     | 7/8"-14 UNF    | 8            |

### 10000 PSI BLADDER SPECIFICATIONS

| SIZE (PART NO.)               | L1 (IN) | L2 (IN) | STD. THREAD OD | WEIGHT (LBS) |
|-------------------------------|---------|---------|----------------|--------------|
| 2.5 Gallon (QH-2.5-10-3KT-SS) | 11.5    | 5.2     | 2"-12 UNF      | 5            |
| 5 Gallon (QH-5-10-3KT-SS)     | 23      | 5.2     | 2"-12 UNF      | 7            |
| 10 Gallon (QH-10-10-3KT-SS)   | 43.5    | 5.2     | 2"-12 UNF      | 9            |
| 15 Gallon (QH-15-10-3KT-SS)   | 64      | 5.2     | 2"-12 UNF      | 11           |

### GT TYPE 3000 & 5000 PSI BLADDER SPECIFICATIONS

| SIZE (PART NO.)             | L1 (IN) | L2 (IN) | STD. THREAD OD | WEIGHT (LBS) |
|-----------------------------|---------|---------|----------------|--------------|
| 2.5 Gallon (QH-2.5-GT5-3KT) | 11.5    | 4.8     | 2"-12 UNF      | 6            |
| 5 Gallon (QH-5-GT5-3KT)     | 23      | 4.8     | 2"-12 UNF      | 8            |
| 10 Gallon (QH-10-GT5-3KT)   | 43.5    | 4.8     | 2"-12 UNF      | 10           |
| 15 Gallon (QH-15-GT5-3KT)   | 64      | 4.8     | 2"-12 UNF      | 12           |

### ANTI-EXTRUSION RINGS\*

| PART NUMBER | SIZE                         |
|-------------|------------------------------|
| QH-1QT-407  | 1 QT, 3000 & 5000 PSI        |
| QH-1-407    | 1 & 1.5 GAL, 3000 & 6000 PSI |
| QH-S-407    | 2.5-15 GAL, 3000 & 6000 PSI  |
| QH-S10-407  | 2.5-15 GAL, 10000 PSI        |

\*Not included in bladder kits



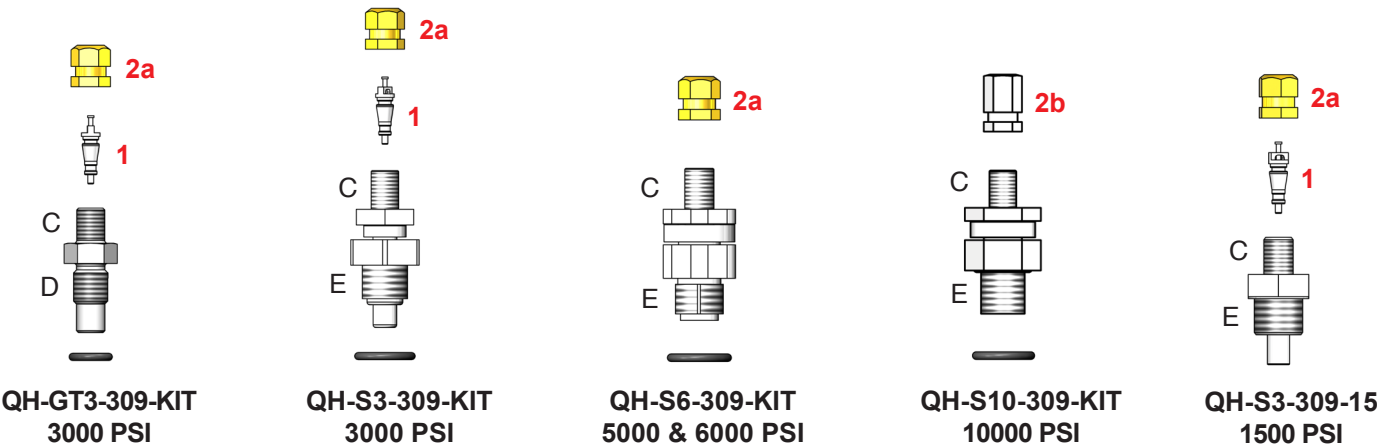


# VESSIE / BLADDER TYPE PIÈCES / PARTS

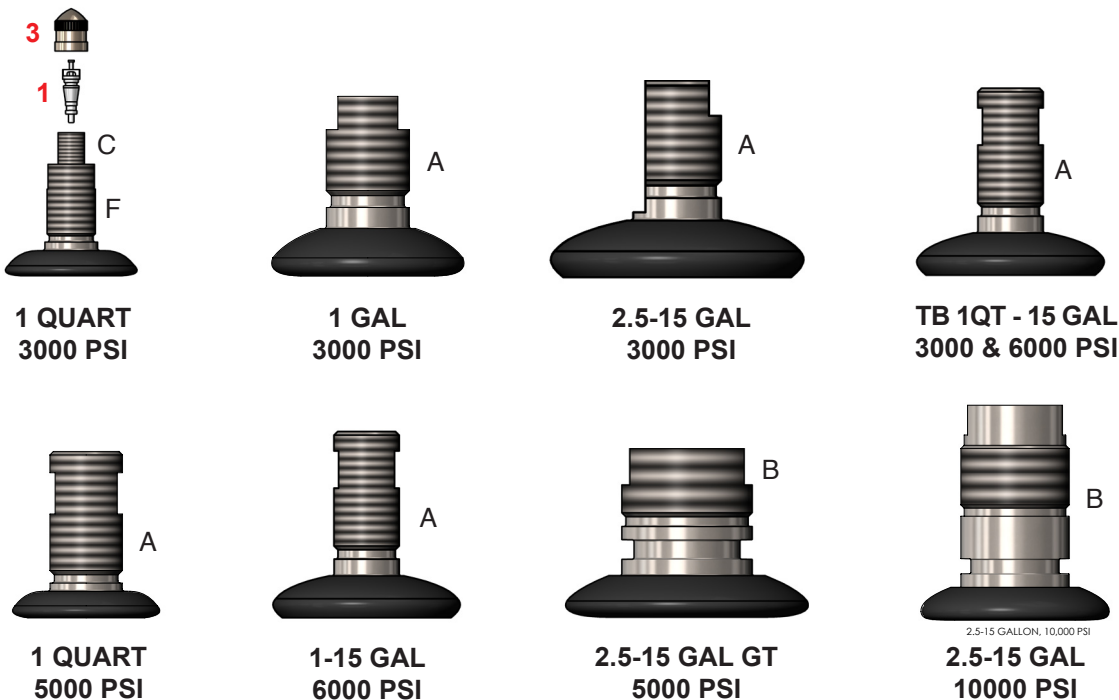


## ACCUMULATORS / ACCUMULATEURS

### GAS VALVES



### MOLDED BLADDER VALVE STEMS



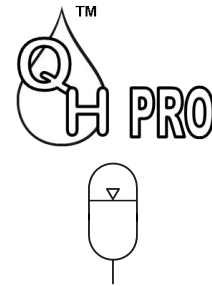
Other custom designs available, including European designs. Drawings are not shown to scale.

| COMPONENT PARTS |                      |                 | OD THREAD SPECIFICATIONS |                  |
|-----------------|----------------------|-----------------|--------------------------|------------------|
| PART            | DESCRIPTION          | PART #          | PART                     | DESCRIPTION      |
| 1               | Valve core           | QH-S-304        | A                        | 7/8"-14 UNF OD   |
| 2a              | Valve cap            | QH-S-303        | B                        | 2"-12 UNF OD     |
| 2b              | Valve cap, stainless | QH-S-303-SS-316 | C                        | .305"-32 UNEF OD |
| 3               | Valve cap, 1 quart   | QH-1QT-303      | D                        | 3/8"-24 UNF OD   |
|                 |                      |                 | E                        | 1/2"-20 UNF OD   |
|                 |                      |                 | F                        | 5/8"-18 UNF OD   |

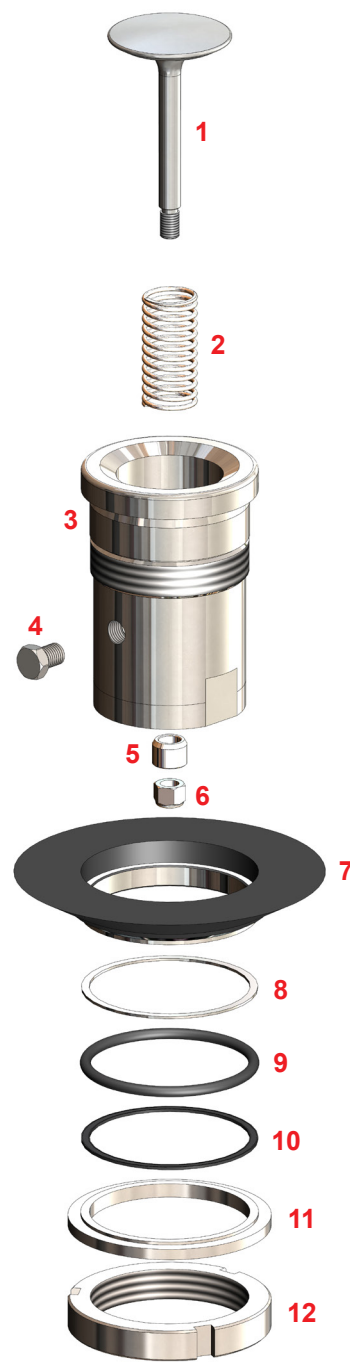


# VESSIE / BLADDER TYPE

## PIÈCES / PARTS



# ACCUMULATORS / ACCUMULATEURS



### 3000 PSI ASSEMBLIES

| PART | DESCRIPTION                    | 1 QUART       | 1-1.5 GALLON | 2.5-15 GALLON |
|------|--------------------------------|---------------|--------------|---------------|
|      | Fluid port assembly (1-12)     | QH-1QT-400    | QH-1-400     | QH-S3-400     |
|      | Plug and poppet assembly (1-6) | QH-1QT-401    | QH-1-401     | QH-S3-401     |
| 1    | Poppet                         | QH-1QT-404    | QH-1-404     | QH-S-404      |
| 2    | Spring                         | QH-1QT-409-SS | QH-1-409-SS  | QH-S-409-SS   |
| 3    | Fluid port                     | QH-1QT-402    | QH-1-402     | QH-S3-402     |
| 4    | Bleed plug                     | -             | -            | -             |
|      | NPT                            | -             | QH-S-418     | QH-S-418      |
|      | SAE                            | -             | QH-S-419     | QH-S-419      |
| 5    | Piston                         | QH-1QT-405-SS | QH-1-405-SS  | QH-S-405-SS   |
| 6    | Stop nut                       | QH-1QT-408    | QH-1-408     | QH-S-408-SS   |
| 7    | Anti-extrusion ring            | QH-1QT-407    | QH-1-407     | QH-S-407      |
| 8    | Metal backup ring              | QH-1QT-412    | QH-1-412     | QH-S-412      |
| 9    | O-ring                         | QH-1QT-410    | QH-1-410     | QH-S-410      |
| 10   | Rubber backup ring             | -             | QH-1-411     | QH-S-411      |
| 11   | Spacer                         | QH-1QT-406    | QH-1-406     | QH-S3-406     |
| 12   | Locknut                        | QH-1QT-403    | QH-1-403     | QH-S-403      |

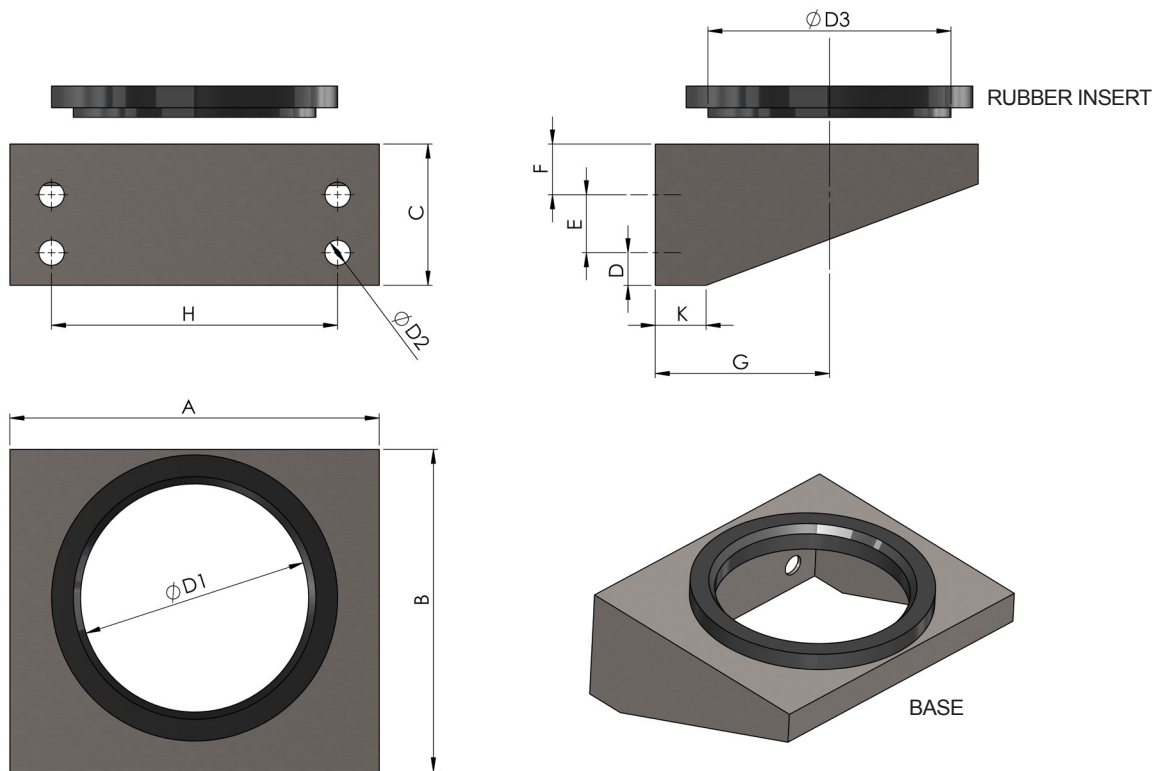
### 5000 AND 6000 PSI ASSEMBLIES

| PART | DESCRIPTION                    | 5K 1 QUART    | 6K 1 GALLON | 6K 2.5-15 GALLON |
|------|--------------------------------|---------------|-------------|------------------|
|      | Fluid port assembly (1-12)     | QH-1QT-400    | QH-1-6-400  | QH-S6-400        |
|      | Plug and poppet assembly (1-6) | QH-1QT-401    | QH-1-6-401  | QH-S6-401        |
| 1    | Poppet                         | QH-1QT-404    | QH-1-404    | QH-S-404         |
| 2    | Spring                         | QH-1QT-409-SS | QH-1-409-SS | QH-S6-409-SS     |
| 3    | Fluid port                     | QH-1QT-402    | QH-1-6-402  | QH-S6-402        |
| 5    | Piston                         | QH-1QT-405-SS | QH-1-405-SS | QH-S-405-SS      |
| 6    | Stop nut                       | QH-1QT-408    | QH-1-408    | QH-S-408-SS      |
| 7    | Anti-extrusion ring            | QH-1QT-407    | QH-1-407    | QH-S-407         |
| 8    | Metal backup ring              | QH-1QT-412    | QH-1-412    | QH-S-412         |
| 9    | O-ring                         | QH-1QT-410    | QH-1-410    | QH-S-410         |
| 10   | Rubber backup ring             | -             | QH-1-411    | QH-S-411         |
| 11   | Spacer                         | QH-1QT-406    | QH-1-6-406  | QH-S6-406        |
| 12   | Locknut                        | QH-1QT-403    | QH-1-403    | QH-S-403         |

Our fluid ports are available in carbon steel, nickel-plated carbon steel and stainless steel. Replacement 10,000 PSI fluid port assemblies are also available.



# VESSIE / BLADDER TYPE BASES DE MONTAGE / MOUNTING BASES



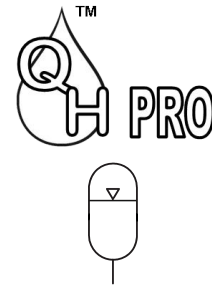
## MOUNTING BASES FOR BLADDER ACCUMULATORS

| ITEM                                   | KIT PART NUMBER | DIMENSIONS (IN.) |      |     |     |     |     |     |     |     |     |     |
|----------------------------------------|-----------------|------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                                        |                 | A                | B    | C   | D   | D1  | D2  | D3  | E   | F   | G   | H   |
| 1 QT 3000 & 5000 PSI Base              | QH-1QT-512      | 7.9              | 6.9  | 3.5 | 0.7 | 4.3 | 0.4 | 4.7 | 1.6 | 1.2 | 3.7 | 5.5 |
| 1 QT 3000 & 6000 PSI SS Base           | QH-1QT-512-SS   | 7.9              | 6.9  | 3.5 | 0.7 | 4.3 | 0.4 | 4.7 | 1.6 | 1.2 | 3.7 | 5.5 |
| 1 GAL 3000 & 6000 PSI Base             | QH-1-512        | 10.2             | 8.9  | 3.9 | 1.0 | 4.3 | 0.7 | 4.7 | 1.6 | 1.4 | 3.6 | 7.9 |
| 1 GAL 3000 & 6000 PSI SS Base          | QH-1-512-SS     | 10.2             | 8.9  | 3.9 | 1.0 | 4.3 | 0.7 | 4.7 | 1.6 | 1.4 | 3.6 | 7.9 |
| 1 QT & 1 GAL Rubber Insert Replacement | QH-1QT-513      | -                | -    | -   | -   | 4.3 | -   | 4.7 | -   | -   | -   | -   |
| 2.5-15 GAL 3000 PSI Base               | QH-S-512        | 10.2             | 8.9  | 3.9 | 1.0 | 6.3 | 0.7 | 6.7 | 1.6 | 1.4 | 4.8 | 7.9 |
| 2.5-15 GAL 3000 PSI SS Base            | QH-S-512-SS     | 10.2             | 8.9  | 3.9 | 1.0 | 6.3 | 0.7 | 6.7 | 1.6 | 1.4 | 4.8 | 7.9 |
| 2.5-15 GAL 6000 PSI Base               | QH-S6-512       | 10.2             | 9.4  | 3.9 | 1.0 | 6.3 | 0.7 | 6.7 | 1.6 | 1.4 | 5.3 | 7.9 |
| 2.5-15 GAL 6000 PSI SS Base            | QH-S6-512-SS    | 10.2             | 9.4  | 3.9 | 1.0 | 6.3 | 0.7 | 6.7 | 1.6 | 1.4 | 5.3 | 7.9 |
| 2.5-15 GAL 10000 PSI SS Base           | QH-S10-512-SS   | 12               | 12.5 | 3.9 | 0.9 | 6.3 | 0.7 | 6.7 | 1.6 | 1.4 | 6.4 | 7.9 |
| 2.5-15 GAL Rubber Insert Replacement   | QH-S-513        | -                | -    | -   | -   | 6.3 | -   | 6.7 | -   | -   | -   | -   |

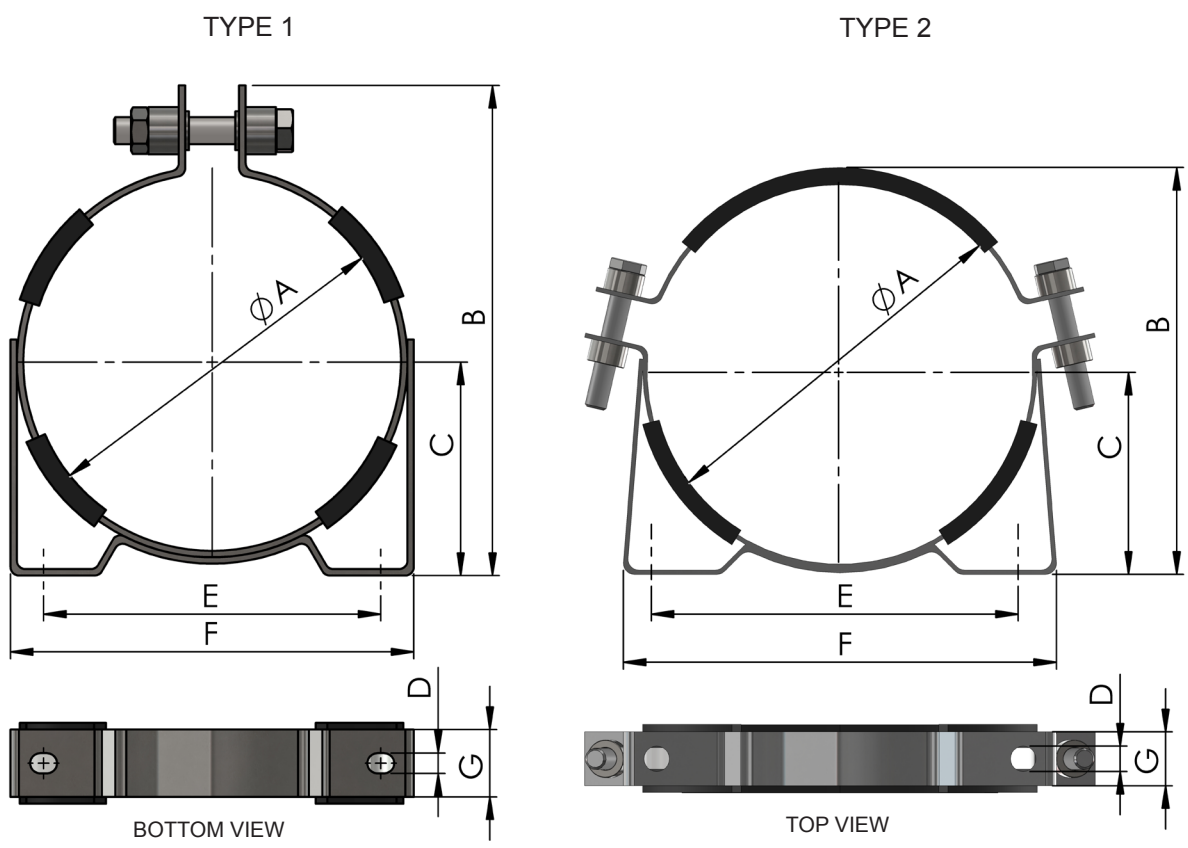
Bases can be used in conjunction with our rubber-lined mounting collars to achieve proper vertical alignment.

All mounting bases are sold in kit form and include the rubber insert. Mounting bolts are not included.

Standard mounting bases are zinc plated carbon steel. Stainless steel units are 300 series stainless. Dimensions are nominal and may vary within manufacturing tolerances. Mounting collars sold separately.



VESSIE / BLADDER TYPE  
COLLIERS DE MONTAGE / MOUNTING COLLARS



| MOUNTING COLLARS FOR BLADDER ACCUMULATORS |      |                            |                          |                  |      |     |     |      |      |     |
|-------------------------------------------|------|----------------------------|--------------------------|------------------|------|-----|-----|------|------|-----|
| ITEM                                      | TYPE | PART NUMBER<br>ZINC PLATED | PART NUMBER<br>STAINLESS | DIMENSIONS (IN.) |      |     |     |      |      |     |
|                                           |      |                            |                          | A                | B    | C   | D   | E    | F    | G   |
| 1 QT 3000 & 5000 PSI Collar               | 1    | QH-1QT-511                 | contact us               | 4.5              | 6.7  | 2.9 | 0.4 | 3.9  | 5.3  | 1.3 |
| 1 GAL 3000 PSI Collar                     | 1    | QH-1-511                   | QH-1-511-SS              | 6.8              | 9.0  | 3.9 | 0.4 | 6.0  | 7.5  | 1.3 |
| 1 GAL 6000 PSI Collar                     | 1    | QH-1-6-511                 | QH-1-6-511-SS            | 7.2              | 9.3  | 4.0 | 0.4 | 6.3  | 7.9  | 1.3 |
| 2.5-15 GAL 3000 PSI Collar                | 2    | QH-S-511                   | QH-S-511-SS              | 8.9              | 9.4  | 4.7 | 0.6 | 8.5  | 10.0 | 1.3 |
| 2.5-15 GAL 6000 PSI Collar                | 2    | QH-S6-511                  | QH-S6-511-SS             | 9.5              | 10.3 | 5.3 | 0.6 | 8.5  | 10.4 | 1.5 |
| 2.5-15 GAL 10000 PSI Collar               | 2    | -                          | QH-S10-511-SS            | 11.6             | 12.5 | 6.4 | 0.7 | 10.7 | 14.8 | 1.5 |

In addition to the standard options shown above, mounting collars are available in increments of 1/4" from 3" to 20" OD (QH-CLR-300 through QH-CLR-2000).

Mounting collars are sold in kit form, including the appropriate adjustment bolts and rubber cushions. Mounting bolts are not included (for hole marked D). Standard collars are carbon steel plated with zinc. Stainless collars are 300 series stainless. Mounting bases are recommended and are sold separately.

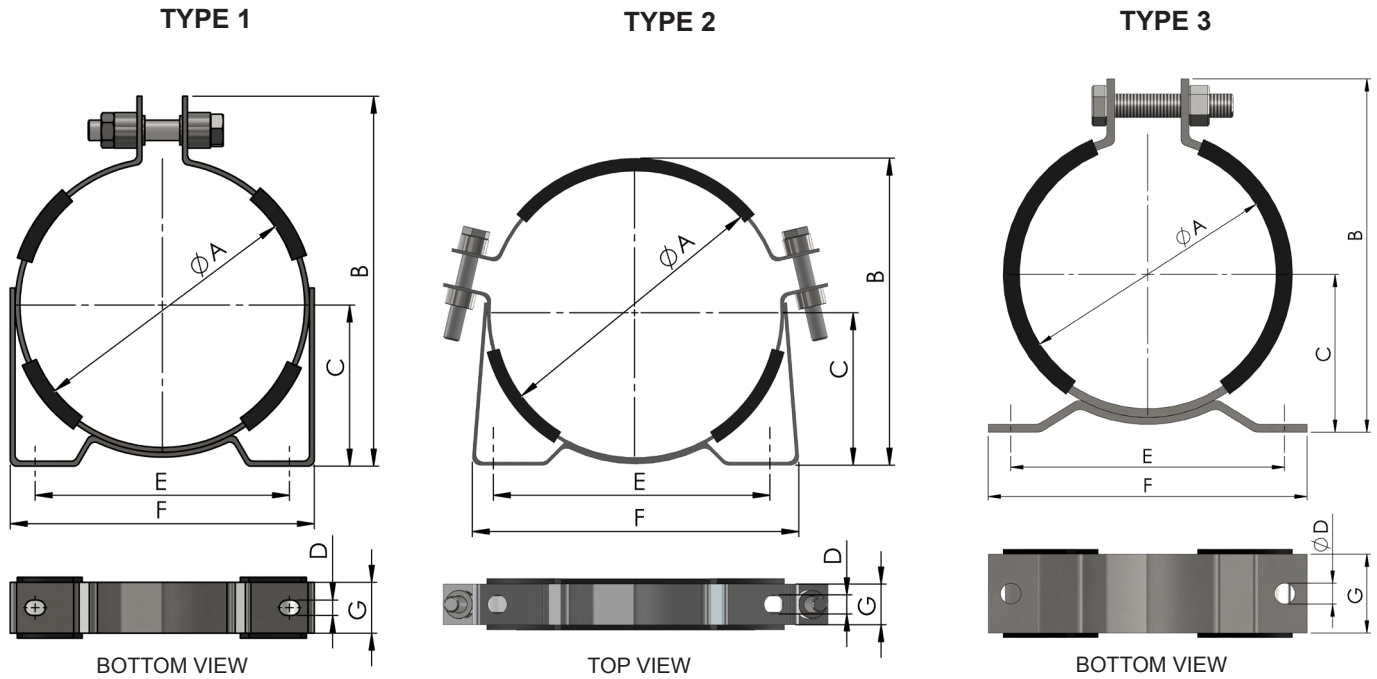
These collars are mounting fasteners only and are not intended to support the entire weight of an accumulator. Contact us for specifications.



PISTON TYPE  
COLLIERS DE MONTAGE / MOUNTING COLLARS



ACCUMULATORS / ACCUMULATEURS



| MOUNTING COLLARS FOR PISTON ACCUMULATORS |      |                            |                          |                  |      |     |     |     |      |     |
|------------------------------------------|------|----------------------------|--------------------------|------------------|------|-----|-----|-----|------|-----|
| DESCRIPTION                              | TYPE | PART NUMBER<br>ZINC PLATED | PART NUMBER<br>STAINLESS | DIMENSIONS (IN.) |      |     |     |     |      |     |
|                                          |      |                            |                          | A                | B    | C   | D   | E   | F    | G   |
| 2.5" Bore 10000 PSI Collar               | 3    | QH-CLR-400                 | QH-CLR-400-SS            | 4.1              | 5.6  | 2.5 | 0.3 | 3.5 | 5.0  | 1.3 |
| 3" Bore 3000 PSI Collar                  | 1    | QH-CLR-350                 | QH-CLR-350-SS            | 3.5              | 4.4  | 2.1 | 0.4 | 3.2 | 5.1  | 1.2 |
| 4" Bore 6000 PSI Collar                  | 1    | QH-CLR-500                 | QH-CLR-500-SS            | 5.0              | 7.0  | 3.0 | 0.4 | 5.4 | 6.8  | 1.3 |
| 6" Bore 3000 PSI Collar                  | 2    | QH-CLR-650                 | QH-CLR-650-SS            | 6.5              | 7.5  | 3.6 | 0.4 | 5.8 | 7.2  | 1.2 |
| 7" Bore 6000 PSI Collar                  | 2    | QH-S-511                   | QH-S-511-SS              | 8.9              | 9.4  | 4.7 | 0.6 | 8.5 | 10.0 | 1.3 |
| 8" Bore 4000 PSI Collar                  | 2    | QH-S6-511                  | QH-S6-511-SS             | 9.4              | 10.3 | 5.3 | 0.3 | 8.5 | 10.4 | 1.5 |

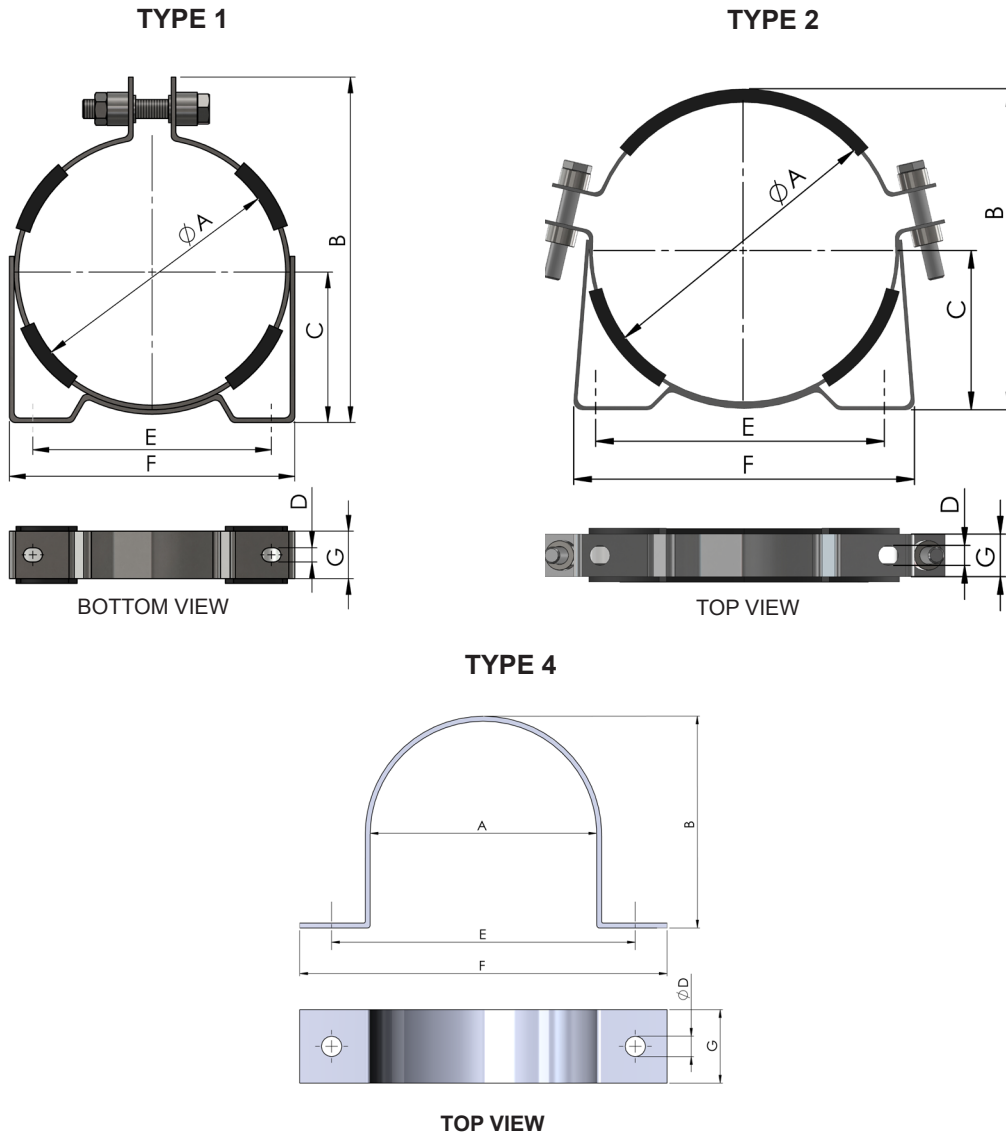
Mounting collars are available in increments of 1/4" from 3" OD to 20" OD (QH-CLR-300 through QH-CLR-2000). Please contact us for more information.

Mounting collars are sold in kit form, including the appropriate adjustment bolts and rubber cushions. Mounting bolts are not included. Stainless collars are 300 series stainless.

These collars are mounting fasteners only and are not intended to support the entire weight of an accumulator. Contact us for specifications.



DIAPHRAGM TYPE  
COLLIERS DE MONTAGE / MOUNTING COLLARS



| MOUNTING COLLARS FOR QHAME DIAPHRAGM ACCUMULATORS |                          |      |                                         |                  |     |     |     |     |     |     |
|---------------------------------------------------|--------------------------|------|-----------------------------------------|------------------|-----|-----|-----|-----|-----|-----|
| PART NUMBER<br>ZINC PLATED                        | PART NUMBER<br>STAINLESS | TYPE | FITS                                    | DIMENSIONS (IN.) |     |     |     |     |     |     |
|                                                   |                          |      |                                         | A                | B   | C   | D   | E   | F   | G   |
| QHAM-515                                          | -                        | 4    | QHAME6, QHAMW10                         | 2.9              | 2.9 | -   | 0.4 | 4.6 | 5.0 | 1.2 |
| QHAM-514                                          | QHAM-514-SS              | 1    | QHAME30                                 | 3.6              | 5.3 | 2.2 | 0.4 | 3.5 | 4.4 | 1.2 |
| QHAM-516                                          | -                        | 4    | QHAME20                                 | 3.7              | 3.5 | -   | 0.4 | 5.0 | 6.0 | 1.2 |
| QH-CLR-400                                        | -                        | 1    | QHAMW30                                 | 4.1              | 5.6 | 2.5 | 0.3 | 3.5 | 5.0 | 1.3 |
| QHAM-511                                          | -                        | 2    | QHAME45 - QHAME150,<br>QHAMW60, QHAMW45 | 4.6              | 5.3 | 2.6 | 0.4 | 3.9 | 7.0 | 1.2 |
| QH-CLR-600                                        | -                        | 2    | QHAMW85                                 | 6.1              | -   | 3.4 | 0.4 | 5.8 | -   | 1.2 |

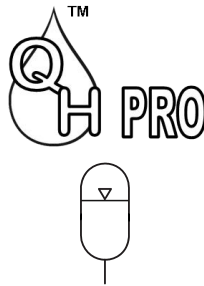
Mounting collars available in increments of 1/4" from 3" OD to -20" (QH-CLR-300 through QH-CLR-2000). Contact us for more information.

NOTE: Mounting collars are sold in kit form, including the appropriate adjustment bolts and rubber cushions. Mounting bolts are not included. Standard collars and clamps are carbon steel plated with zinc. Stainless collars are 300 series stainless. These clamps are mounting fasteners only and are not intended to support the entire weight of an accumulator. Contact us for specifications.

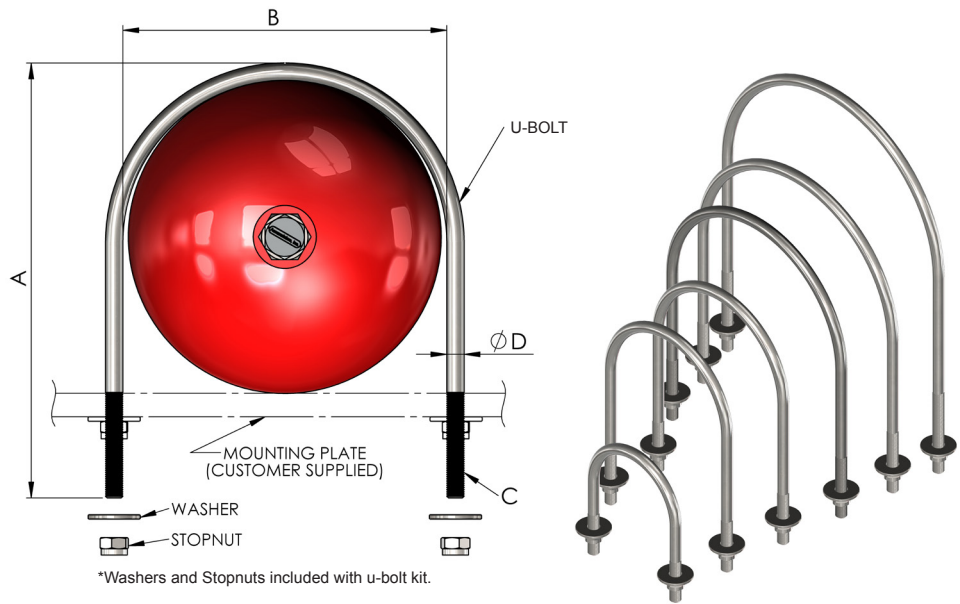




# VESSIE / BLADDER TYPE U-BOLTS



ACCUMULATORS / ACCUMULATEURS



| BLADDER ACCUMULATORS U-BOLTS |         |                  |                     |                  |      |                    |     |
|------------------------------|---------|------------------|---------------------|------------------|------|--------------------|-----|
| SIZE                         | KIT QTY | PART NUMBER      |                     | DIMENSIONS (IN.) |      |                    |     |
|                              |         | CARBON STEEL     | STAINLESS           | A                | B    | C                  | D   |
| 1 QT 3000 & 5000             | 1       | QH-1QT-507-KIT   | QH-1QT-507-KIT-SS   | 6.1              | 4.8  | 2" X 3/8" -16 UN   | 0.3 |
| 1 QT Washer                  | 2       | QH-1QT-509       | QH-1QT-509-SS       | -                | -    | -                  | -   |
| 1 QT Stop Nut                | 2       | QH-1QT-508       | QH-1QT-508-SS       | -                | -    | 3/8" -16 UN        | -   |
| 1 GAL 3000 PSI               | 1       | QH-1-507-KIT     | QH-1-507-KIT-SS     | 10.1             | 6.8  | 3" X 1/2" -13 UN   | 0.5 |
| 2.5 GAL 3000 PSI             | 1       | QH-2.5-507-KIT   | QH-2.5-507-KIT-SS   | 12.3             | 9.4  | 3.5" X 1/2" -13 UN | 0.5 |
| 5-15 GAL 3000 PSI            | 2       | QH-507-KIT       | QH-507-KIT-SS       | 12.3             | 9.4  | 3.5" X 1/2" -13 UN | 0.5 |
| 1 GAL 6000 PSI               | 1       | QH-1-6-507-KIT   | QH-1-6-507-KIT-SS   | 10.6             | 7.3  | 3" X 1/2" -13 UN   | 0.5 |
| 2.5 GAL 6000 PSI             | 1       | QH-2.5-6-507-KIT | QH-2.5-6-507-KIT-SS | 13               | 10   | 3.5" X 1/2" -13 UN | 0.5 |
| 5-15 GAL 6000 PSI            | 2       | QH-S6-507-KIT    | QH-S6-507-KIT-SS    | 13               | 10   | 3.5" X 1/2" -13 UN | 0.5 |
| 2.5-15 GAL 10000 PSI         | 1       | -                | QH-S10-507-KIT-SS   | 15.9             | 12.3 | 4" X 5/8" -11 UN   | 0.6 |
| 1-15 GAL Washer              | 2 or 4  | QH-509           | QH-509-SS           | -                | -    | -                  | -   |
| 1-15 GAL Stop Nut            | 2 or 4  | QH-508           | QH-508-SS           | -                | -    | 1/2" -13 UN        | -   |

Additional options available: Teflon Coated (-T), Rubber Coated (-RUB).  
Custom sizes available. Please contact us for more details.

All mounting U-bolts are sold in kit form with elastic stop nuts and washers. All standard units are zinc-plated carbon steel. Rubber coated units are carbon or stainless steel, shrunk-fit with buna-nitrile rubber. DuPont™ Teflon® coated units are carbon steel with Teflon spray coating.

Dimensions are nominal and may vary within manufacturing tolerances. It is recommended that you have the U-bolt on-hand when drilling mounting plate. U-bolts are not designed to work in conjunction with our mounting bases.

These u-bolts are mounting fasteners only and are not intended to support the entire weight of an accumulator. Contact us for specifications.



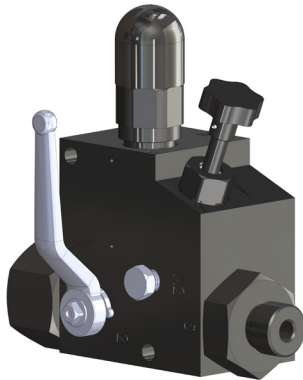
## VALVE DE SÉCURITÉ / SAFETY VALVE

# ACCUMULATORS / ACCUMULATEURS

Our accumulator safety block is a multifunctional valve placed between the hydraulic accumulator and the operating system. The safety block allows for isolation of the accumulator for maintenance or system testing, and will function as an emergency shut-off device or pressure relief valve to protect the hydraulic system from overpressurization or system failure.

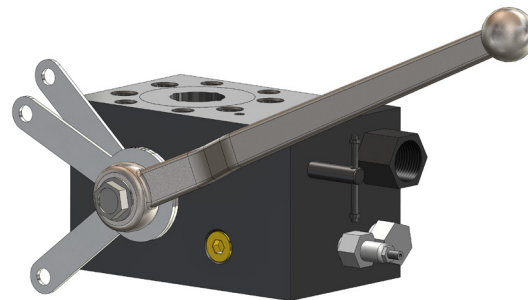
Our accumulator safety blocks incorporate the following components:

- 90-degree full-orifice ball valve to isolate the accumulator from the system
- Manual adjustable safety relief valve
- Manually-operated bleed valve; bleeds down accumulator safely
- Optional female port for pressure gauge options
- Rated to 5800 PSI
- Manual release handle standard



**MODEL 1 | QHASB-850**

Model one is designed for use with our 1 quart and 1 gallon bladder accumulators equipped with female SAE fluid ports. Safety block outlet port is available in SAE -8, -12 and -20 sizes.



**MODEL 2 | QHASB-800**

This model is designed for our 2.5 through 15 gallon accumulators. Best suited for use with SAE split flange connections for ease of installation and maintenance. The SAE split flanges are rated for code 61 or code 62 series.

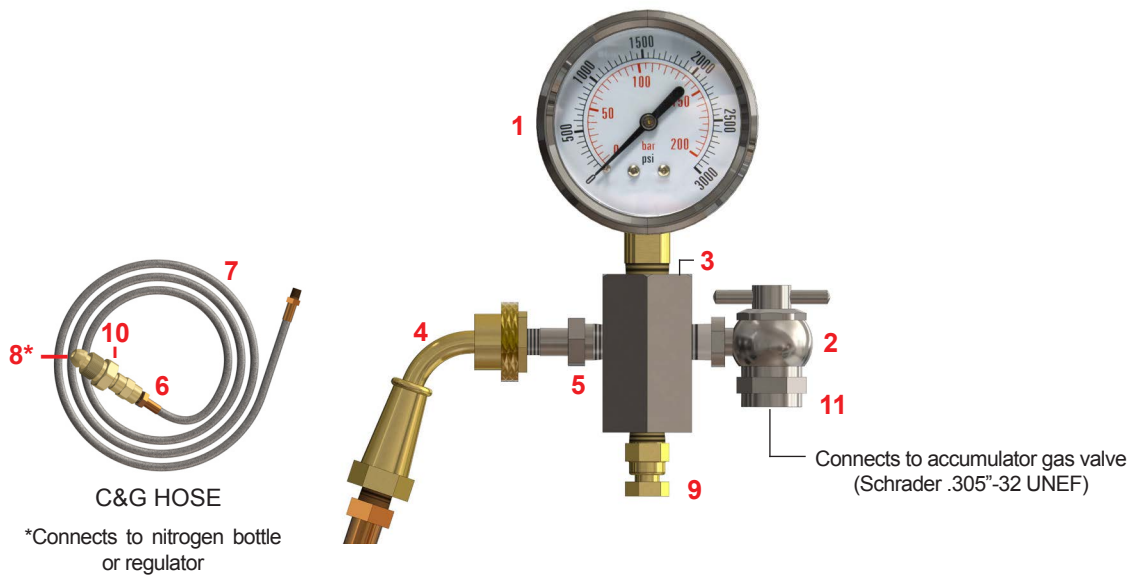
- Optional solenoid-operated dump valve
- Optional lock-out plates to avoid unauthorized access to open or close valve



CHARGE / CHARGING 3000 PSI



CHARGING AND GAUGING KITS FOR 3000 PSI ACCUMULATORS



| 3000 PSI CHARGING KITS                |               |
|---------------------------------------|---------------|
| Kit with 3000 PSI Gauge (Items 1a-11) | QH-CG3-3KT-SS |
| Kit with 6000 PSI Gauge (Items 1b-11) | QH-CG3-6KT-SS |

**WARNING!**

QH-CG3-3KT-SS and QH-CG3-6KT-SS are rated to 3000 PSI maximum working pressure. Connects to a maximum 3000 PSI nitrogen tank with a CGA 580 connection. Do not use on accumulators with a pressure higher than 3000 PSI. It is highly recommended that a N<sub>2</sub> gas regulator be used while charging any accumulator. Use dry nitrogen gas (N<sub>2</sub>) only.

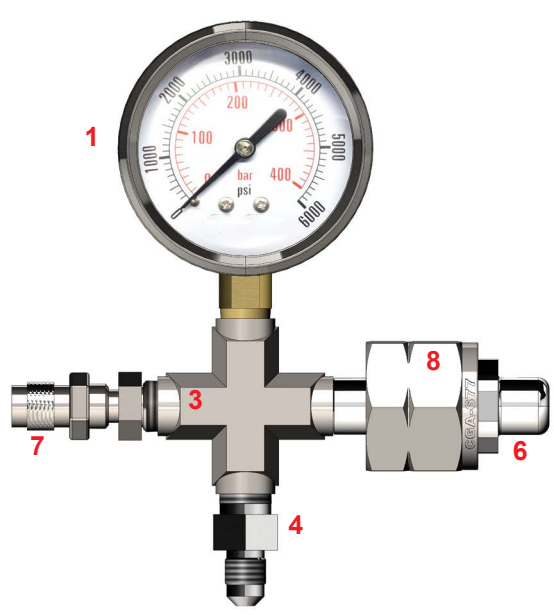
- ALSO AVAILABLE:**
- Complete accumulator repair kits
  - N<sub>2</sub> gas regulators
  - Special order C&G kits with different connections and different hose lengths

| COMPONENT PARTS LIST |                                                             |               |
|----------------------|-------------------------------------------------------------|---------------|
| PART                 | DESCRIPTION                                                 | PART NUMBER   |
| 1a                   | 3000 PSI Gauge                                              | QH-CG3-001    |
| 1b                   | 6000 PSI Gauge                                              | QH-CG6-001    |
| 2                    | Air Chuck                                                   | QH-CG-002     |
| 3                    | Adapter Block                                               | QH-CG-003     |
| 4                    | Swivel Connector                                            | QH-CG-004     |
| 5                    | Tank Valve                                                  | QH-CG-005-KIT |
| 6                    | Coupler                                                     | QH-CG-006     |
| 7                    | Hose (8 ft.)                                                | QH-CG-007-SS  |
| 8                    | Gland (Nipple)                                              | QH-CG-008     |
| 9                    | Bleed Valve                                                 | QH-CG-009     |
| 10                   | Nut                                                         | QH-CG-011     |
| 11                   | Copper Washer                                               | QH-CG-020     |
|                      | Gauging & Head Assembly, 3000 PSI Gauge (Items 1a-5, 9, 11) | QH-CG3-313    |
|                      | Gauging & Head Assembly, 6000 PSI Gauge (Items 1b-5, 9, 11) | QH-CG6-613    |
|                      | Hose Assembly (items 6, 7, 8, 10)                           | QH-CG-017-SS  |
|                      | Valve Core (internal)                                       | QH-S-304      |



## CHARGE / CHARGING 6000 PSI

### CHARGING AND GAUGING KITS FOR 5000 & 6000 PSI ACCUMULATORS



C&G HOSE

\*Connects to accumulator high pressure gas valve

#### FULL ASSEMBLY COMPONENT PARTS LIST

| PART | DESCRIPTION                                      | PART NUMBER   |
|------|--------------------------------------------------|---------------|
|      | Complete Kit (Items 1-8)                         | QH-CG6-6KT-SS |
| 1    | Gauge, 6000 PSI                                  | QH-CG6-501-SS |
| 2    | Air Chuck                                        | QH-CG6-502-SS |
| 3    | Cross                                            | QH-CG6-503-SS |
| 4    | JIC Adapter                                      | QH-CG6-506-SS |
| 5    | Hose (8 ft.)                                     | QH-CG6-507-SS |
| 6    | Cylinder Valve Tube                              | QH-CG6-508-SS |
| 7    | Bleed Valve                                      | QH-CG6-509-SS |
| 8    | Cylinder Valve Nut                               | QH-CG6-511-SS |
|      | Hose Assembly (Items 2, 5)                       | QH-CG6-517-SS |
|      | Gauging & Head Assembly (Items 1, 3, 4, 6, 7, 8) | QH-CG6-613-SS |

#### WARNING!

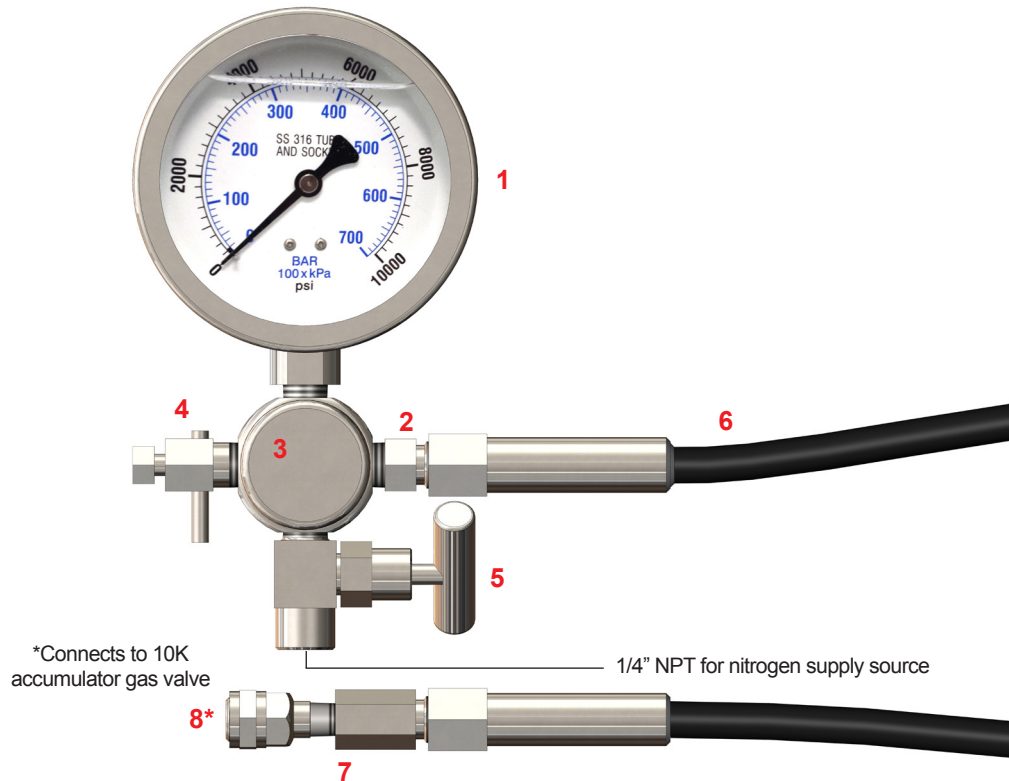
QH-CG6-6KT-SS is rated to 6000 PSI maximum working pressure. Do not use on accumulators with a pressure higher than 6000 PSI. Connects to a maximum 6000 PSI nitrogen tank with a CGA 677 connection. It is highly recommended that a N<sub>2</sub> gas regulator be used while charging any accumulator. Use dry nitrogen gas (N<sub>2</sub>) only.

ACCUMULATORS / ACCUMULATEURS



## CHARGE / CHARGING 10000 PSI

### 10000 PSI CHARGING AND GAUGING ASSEMBLY



#### COMPONENTS LIST

| PART | DESCRIPTION                        | PART NUMBER               |
|------|------------------------------------|---------------------------|
|      | 10K C&G Assembly (Items 1-8)       | QH-CG10-10KT-SS           |
| 1    | Gauge (0-10000 PSI, liquid filled) | QH-CG10-001-L-SS          |
| 2    | Block Fitting                      | QH-ADP-A-NPT4M-MH6M-15-SS |
| 3    | Adapter Block                      | QH-CG10-503-SS            |
| 4    | Bleed Valve                        | QH-CG10-509-SS            |
| 5    | Needle Valve                       | QH-CG10-510-SS            |
| 6    | Hose (4ft)                         | QH-CG10-507-4-R           |
| 7    | Air Chuck Adapter                  | QH-ADP-A-NPT2F-MH6M-15-SS |
| 8    | Air Chuck                          | QH-CG10-502-SS            |

#### WARNING!

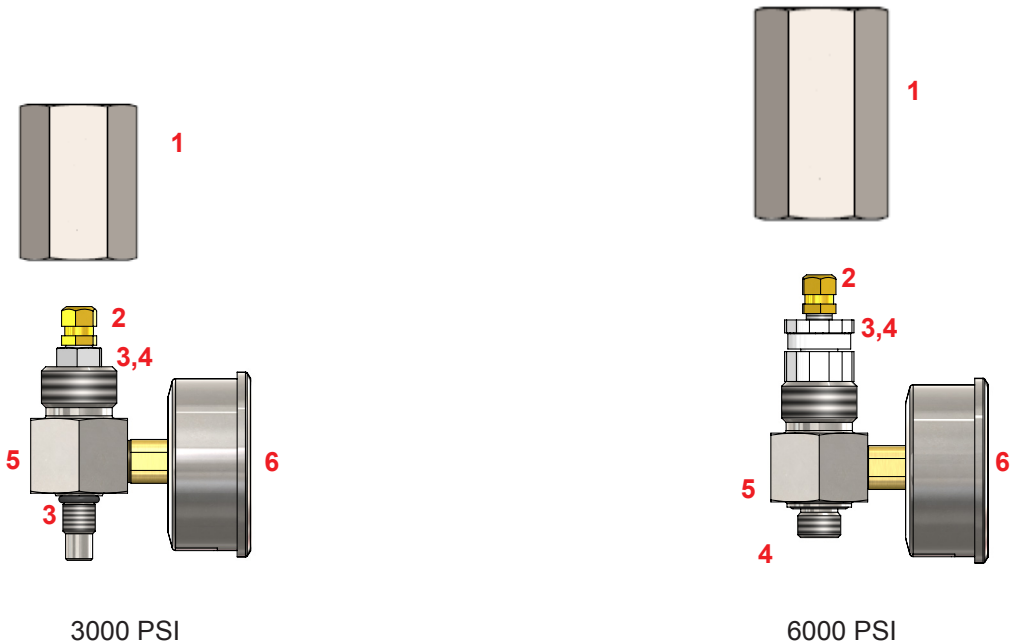
QH-CG10-10KT-SS is rated to 10000 PSI maximum working pressure. Do not use on accumulators with a pressure higher than 10000 PSI. It is highly recommended that a N<sub>2</sub> gas regulator be used while charging any accumulator. Use dry nitrogen gas (N<sub>2</sub>) only.



VESSIE / BLADDER TYPE  
ACCESSOIRES / ACCESSORIES

ACCUMULATORS / ACCUMULATEURS

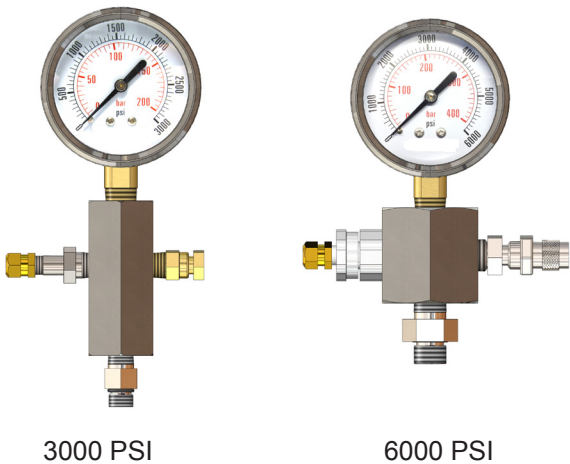
3000 AND 6000 PSI DELUXE PERMANENT MOUNT PRESSURE MONITORS



| QH-PM3-3KT-L-SS COMPONENTS<br>LIST 1 QT – 40 GAL |                                          |                   |
|--------------------------------------------------|------------------------------------------|-------------------|
| PART                                             | DESCRIPTION                              | PART NUMBER       |
| 1                                                | Protective Cap                           | QH-306-4-SS       |
| 2                                                | Valve Cap                                | QH-S-303          |
| 3                                                | Gas Valve                                | QH-GT3-309-SS     |
| 4                                                | O-Ring                                   | QH-GT3-311        |
| 5                                                | Pressure Monitor Block, Deluxe, 3000 PSI | QH-PM3-003-D-SS   |
| 6                                                | Gauge, 3000 PSI, Liquid Filled           | QH-CG3-001-1-L-SS |

| QH-PM6-6KT-L-SS COMPONENTS<br>LIST 1 QT – 15 GAL |                                          |                   |
|--------------------------------------------------|------------------------------------------|-------------------|
| PART                                             | DESCRIPTION                              | PART NUMBER       |
| 1                                                | Protective Cap                           | QH-306-2-SS       |
| 2                                                | Valve Cap                                | QH-S-303          |
| 3                                                | High Pressure Gas Valve                  | QH-S6-309         |
| 4                                                | O-Ring                                   | QH-S6-310         |
| 5                                                | Pressure Monitor Block, Deluxe, 6000 PSI | QH-PM6-003-D-SS   |
| 6                                                | Gauge, 6000 PSI, Liquid Filled           | QH-CG6-001-1-L-SS |

3000 AND 6000 PSI BASIC  
PERMANENT MOUNT PRESSURE MONITORS



- These units are intended to be mounted permanently on the valve stem of the accumulator to monitor hydraulic system pressure. Nitrogen precharge may only be measured when hydraulic line pressure is zero PSI.
- We recommend the use of a liquid-filled gauge for high-cycle shock applications.
- Accumulator gas valve must be removed prior to installation. Ensure all accumulator pressure has been removed before beginning installation.
- Custom and digital assemblies are available.
- Compatible with our piston accumulators.





## VESSIE / BLADDER TYPE OUTILS / TOOLS



# ACCUMULATORS / ACCUMULATEURS

### QH-501 PULL ROD



Used to help pull the bladder through the accumulator shell during assembly and bladder replacement. For 1 quart, 1 gallon or 2.5 gallon accumulators.

(QH-502): For 5-gallon accumulators

(QH-503): For 10-gallon or 11-gallon accumulators

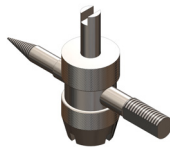
(QH-504): For 15-gallon accumulators

### QH-TR-501-SS PULL ROD



Used for top repairable bladder accumulators. The "T" section of the pull rod is designed so that the rod cannot fall into the accumulator and also provides additional leverage for the technician to properly remove the bladder.

### QH-506 VALVE CORE TOOL



Our valve core tool allows the user to remove or reinstall the valve core in our standard 3000 psi gas valve, as well as depress the valve core for gas removal. Also includes ID and OD thread chasing capabilities.

### QH-511 LIFTING HOOK ASSEMBLY



Our lifting hook assembly allows the user to connect a chain or other lifting apparatus to the gas end of our accumulators. We recommend this tool to lift all accumulator sizes over 2.5 gallons. Load-tested assemblies available with a test certificate at additional cost. Standard size is 7/8"-14; 2"-12 size available as part number QH-GT-511.

### QH-505 SPANNER WRENCH



Used for removal and replacement of the locknuts at the fluid end of an accumulator and at the gas end of top repairable accumulator models.

### QH-TR-015 GAS VALVE EXTENSION



Our gas valve extension allows the user to connect our charging & gauging assembly (QH-CG3-3KT-SS) to the gas valve in a 3000 psi top-repairable accumulator.

### QH-527 VALVE CORE TORQUE WRENCH



Use this tool during installation of a valve core to ensure the core is installed to precisely the correct torque; over or under-tightening the valve core can cause gas leakage and accumulator failure.

### QH-515-KIT TR GAS VALVE TOOL



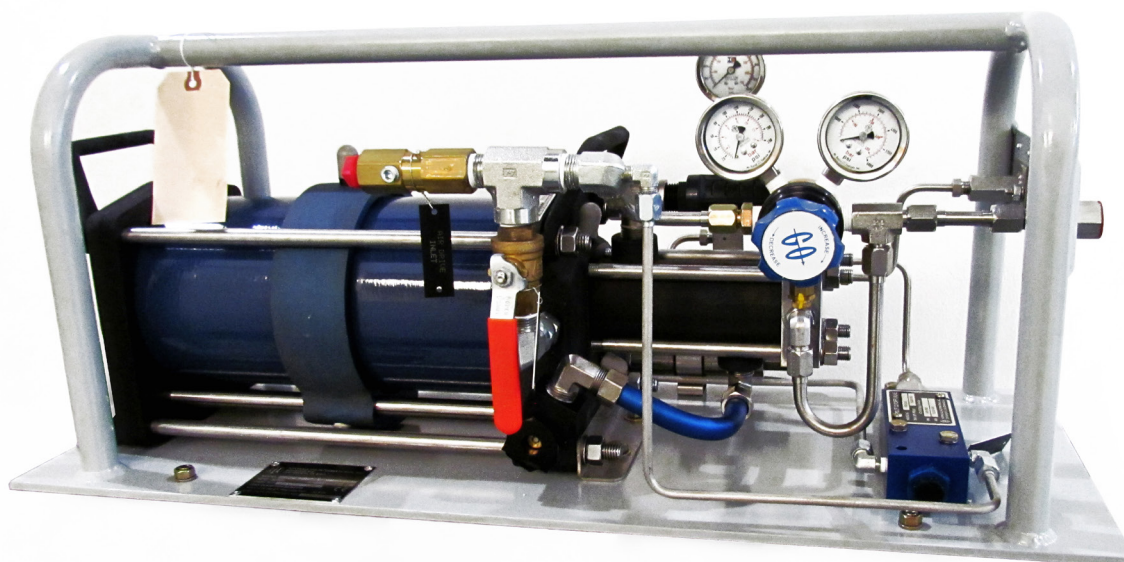
This is a set of 2 specially-designed wrenches for the installation or removal of the gas valve in a 6000 psi top-repairable accumulator.



## NITROGEN GAS BOOSTER OUTILS / TOOLS



# ACCUMULATORS / ACCUMULATEURS



Our nitrogen gas boosters are designed to boost directly from high pressure storage cylinders to outlet pressures of up to 10000 psi. The unit ensures maximum outlet pressure fills even if the supply storage pressure drops as low as 500 psi.

The booster operates from a low-pressure, conventional compressed air source or “bootstraps,” directly from the high-pressure nitrogen supply. In the shop-air drive mode, non-contaminated outlet gas is assured through complete dual-vented separation from the drive section. The high-pressure section of the booster is cooled by the drive exhaust gas and requires no lubrication. Valves and gauges are SS line-mounted to the booster. All items are mounted on a painted, aluminum tubular frame with carry handles.

### CONTROLS INCLUDED

- Single acting double drive gas booster configuration.
- Automatic control to stop/restart the booster when the outlet pressure exceeds set point; pre-selected pressure up to 6000 psi (adjustable, depending on model).
- Manual start and stop
- High pressure air controls (HP regulator, relief valve, inlet & regulated outlet gauges and on/off valve)
- Adjustable safety relief valve
- Gas inlet and outlet gauges

### SPECIFICATIONS

- Dimensions: 30”L x 12”D x 12”H
- Weight: 60 pounds
- Maximum outlet pressure: 6000, 7500, or 10000 psi