

SN Series

Description

Nitrogen bottles can be used in accumulator applications where large volumes of gas are required for an accumulator. The nitrogen bottle serves to store a large portion of the gas externally from the accumulator in order to reduce or minimize the size and cost of the accompanying accumulator. Nitrogen bottles are typically paired with piston accumulators and sometimes bladder accumulators. The nitrogen bottles themselves are based on either bladder or piston accumulator pressure vessel shells.

Model Code

Model Codes containing RED selections are non-standard items – Contact HYDAC for information and availability
Not all combinations are available

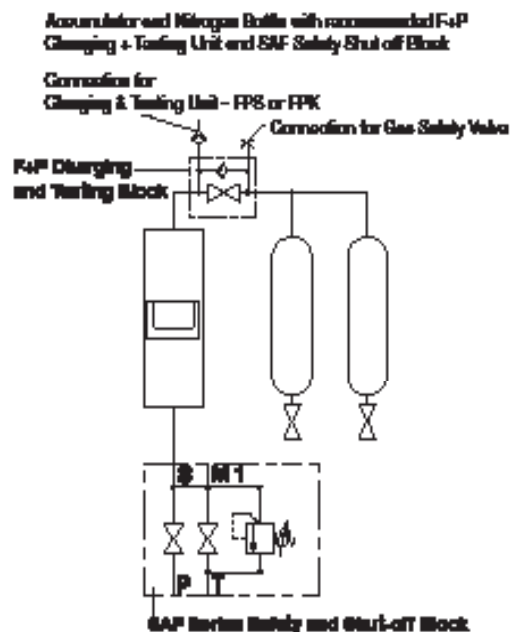
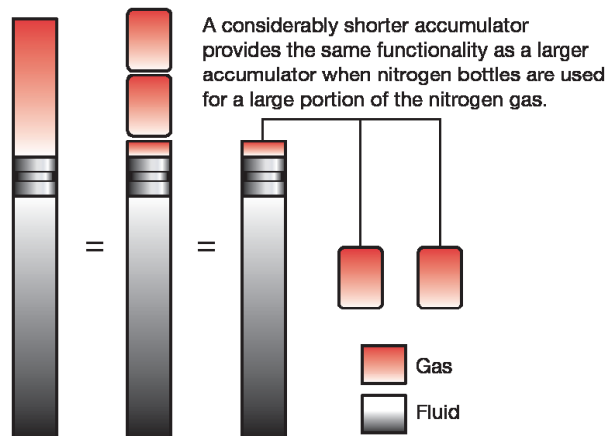
| | SN330 | B - 57 | CC / 010 | S - 210 | EF |
|--|-------|--------|----------|---------|----|
| Series | | | | | |
| SN 330 = Nitrogen Bottle (3000 psi typically) | | | | | |
| SN 600 = Nitrogen Bottle (5000 psi typically) | | | | | |
| Design Code* | | | | | |
| (omit) = Standard Nitrogen Bottle | | | | | |
| B = Based on Bladder Accumulator Shell (see page 13 for details) | | | | | |
| TR = Top Repairable (Based on Bladder Accumulator Shell) see page 14 for details | | | | | |
| K = Based on Piston Accumulator Shell | | | | | |
| Size* | | | | | |
| 54 = 54 Liters | | | | | |
| 57 = 57 Liters | | | | | |
| 100 = 100 Liters | | | | | |
| Connection Type | | | | | |
| Connection 1 (see table 1 on following page) | | | | | |
| A = BSP (ISO 228) | | | | | |
| B = Metric (DIN 13 According to ISO 965/1) | | | | | |
| C = SAE (ANSI B1.1) (standard) | | | | | |
| D = NPT (ANSI B2.1) | | | | | |
| F = Flange | | | | | |
| Connection 2 (see table 1 on following page) | | | | | |
| A = BSP (ISO 228) | | | | | |
| B = Metric (DIN 13 According to ISO 965/1) | | | | | |
| C = SAE (ANSI B1.1) (standard) | | | | | |
| D = NPT (ANSI B2.1) | | | | | |
| F = Flange | | | | | |
| Material Code | | | | | |
| Ports | | | | | |
| 0 = No Components (standard) | | | | | |
| 1 = Carbon steel | | | | | |
| 3 = Stainless steel | | | | | |
| 4 = Carbon steel (coated) | | | | | |
| Shell | | | | | |
| 1 = Carbon steel (standard) | | | | | |
| 2 = Carbon steel (coated) | | | | | |
| 4 = Stainless steel | | | | | |
| Seal Material | | | | | |
| 0 = No Elastomer (standard) | | | | | |
| 2 = NBR (Buna N) | | | | | |
| 4 = IIR (Butyl) | | | | | |
| 6 = FPM (Fluoroelastomer) | | | | | |
| Country of Installation | | | | | |
| S = USA (for other countries see page 3 for proper code designation) | | | | | |
| Maximum Working Pressure in bar | | | | | |
| 210 = 3000 psi | | | | | |
| 345 = 5000 psi | | | | | |
| Connection Size (see table 1 on following page) | | | | | |
| Connection 1 | | | | | |
| Connection 2 | | | | | |

* Size offering listed is for standard nitrogen bottles. For design types other than standard nitrogen bottles, (Eg. piston type) consult factory.

HYDAC Nitrogen Bottles

F+P Charging and Testing Block

| Description | MAWP bar/psi | Weight (kg/lbs) | Part Number |
|--|-----------------|--------------------|----------------|
| F+P-16-3/4-16UNF-6112-02X | 400/5800 | 4.3/9.5 | 2068047 |
| F+P-32-1 5/8-12UN-6112-02X | 350/5076 | 14/31 | 2067162 |
| F+P-32-1 5/8-12UN-6112-02X(VERS 4-FPS) | 350/5076 | 14/31 | 2075698 |



Dimensions

| Size (MAWP) | Connections (1 and 2) | Vol. (gallons) | Weight (lbs) | A (inches) | D (inches) | Part Number |
|----------------|--------------------------|-------------------|-----------------|---------------|---------------|----------------|
| 54 (5000 psi) | 1 5/16-12UN | 15 | 353 | 72" | 9" | C/F |
| 57 (3000 psi) | 1 5/16-12UN | 15 | 247 | 72" | 9" | 2096345 |
| 75 (3000 psi) | 1 5/16-12UN | 20 | 317 | 80.7 | 9" | C/F |
| 100 (3000 psi) | 1 5/16-12UN | 25 | 386 | 89.4" | 10.5" | C/F |

Connections:

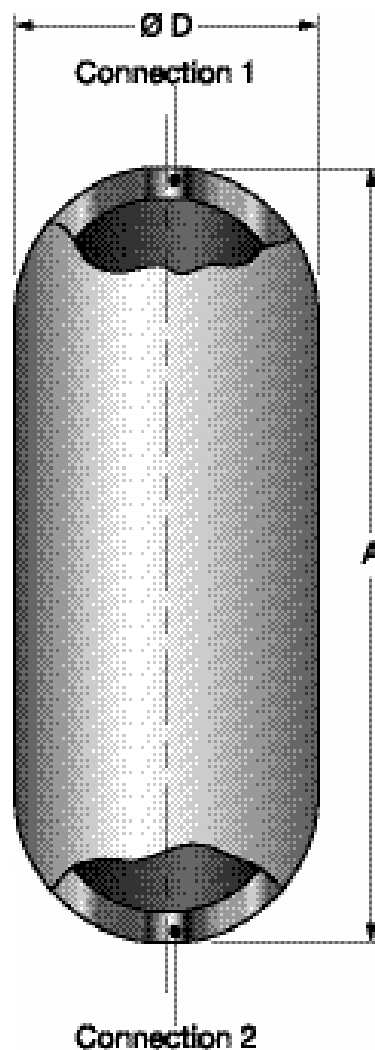
Example Model Code

SN... -57CC/010S-210EF
 CE = SAE 1 5/16" -12UN
 CF = SAE 1 5/8" -12UN

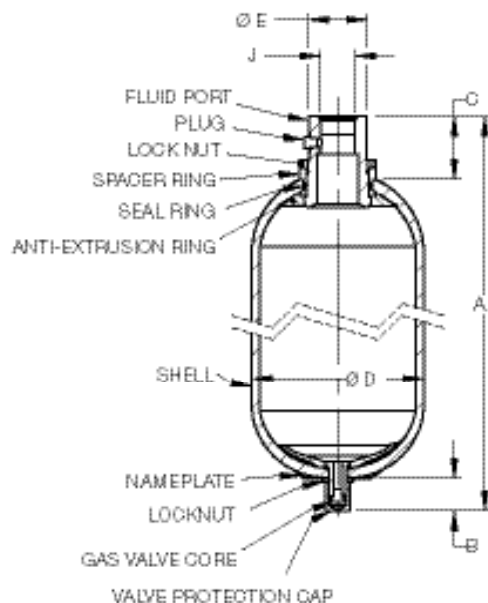
| Type | A | B | C | D | F |
|------|-----------------|----------------------------------|--------------|--------------------|-------------------------|
| Size | BSP (ISO228) | Metric (DIN 13 Acc.ISO 965/1) | (ANSI B1.1) | NPT (ANSI B2.1) | SAE Flange |
| A | G 1/4" | M 12 x 1.5 | 7/16"-20 UNF | 1/4" | 1/2" 3000 psi Code 61 |
| B | G 3/8" | M 18 x 1.5 | 9/16"-18UNF | 3/8" | 3/4"-3000 psi Code 61 |
| C | G 1/2" | M 22 x 0.5 | 3/4"-16UNF | 1/2" | 1" 3000 psi Code 61 |
| D | G 3/4" | M 27 x 2 | 1 1/16"-12UN | 3/4" | 1 1/4" 3000 psi Code 61 |
| E | G 1" | M 33 x 2 | 1 5/16"-12UN | 1" | 1 1/2" 3000 psi Code 61 |
| F | G 1 1/4" | M 42 x 2 | 1 5/8"-12UN | 1 1/4" | 2" 3000 psi Code 61 |
| G | G 1 1/2" | M 48 x 2 | 1 7/8"-12UN | 1 1/2" | 1/2" 6000 psi Code 62 |
| H | G 2" | M 14 x 1.5 | 2 1/2"-12UN | 2" | 3/4" 6000 psi Code 62 |
| I | G 1 3/4" | M 8 | 1/2"-20UNF | — | 1" 6000 psi Code 62 |
| J | — | — | — | — | 1 1/4" 6000 psi Code 62 |
| K | — | — | 7/8"-14UNF | 5/8" | 1 1/2" 6000 psi Code 62 |
| L | — | — | — | — | 2" 6000 psi Code 62 |

Items in RED are using the basic design with an adapter.

Dimensions are for general information only,
 all critical dimensions should be verified by requesting a certified print.



SN 300 SN330B-_C4/112S-210G



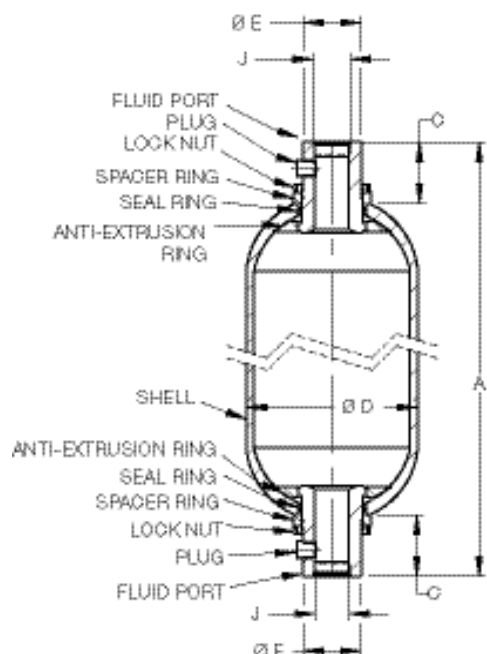
Bottom Repairable

| Nom. Vol. (L.) | Eff. Gas Vol. in ³ | Weight | A | B | C | ØD | ØE | Thread J |
|----------------|-------------------------------|-----------|-------------|----------|----------|-----------|----------|----------------------|
| | | | | | | | | SAE |
| 10 | 566 | 86 (39) | 22.0 (559) | 3.1 (80) | 1.6 (40) | 9.1 (231) | 3.0 (76) | 1 7/8-24 UN (SAE-24) |
| 20 | 1125 | 140 (63) | 34.5 (876) | 3.1 (80) | 1.6 (40) | 9.1 (231) | 3.0 (76) | 1 7/8-24 UN (SAE-24) |
| 32 | 2080 | 226 (102) | 54.7 (1390) | 3.1 (80) | 1.6 (40) | 9.1 (231) | 3.0 (76) | 1 7/8-24 UN (SAE-20) |
| 54 | 3205 | 330 (150) | 78.3 (1980) | 3.1 (80) | 1.6 (40) | 9.1 (231) | 3.0 (76) | 1 7/8-24 UN (SAE-24) |

Consult factory for more details

Dimensions are for general information only, all critical dimensions should be verified.
Dimensions are in inches/(mm) and lbs/(kg)

GG



Top Repairable

| Nom. Vol. (L.) | Eff. Gas Vol. in ³ | Weight | A | C | ØD | ØE | Thread J |
|----------------|-------------------------------|-----------|-------------|----------|-----------|----------|----------------------|
| | | | | | | | SAE |
| 10 | 566 | 86 (43) | 23.5 (597) | 3.1 (80) | 9.1 (231) | 3.0 (76) | 1 7/8-24 UN (SAE-24) |
| 20 | 1125 | 140 (63) | 36.5 (927) | 3.1 (80) | 9.1 (231) | 3.0 (76) | 1 7/8-24 UN (SAE-24) |
| 32 | 2080 | 226 (102) | 56.2 (1428) | 3.1 (80) | 9.1 (231) | 3.0 (76) | 1 7/8-24 UN (SAE-24) |
| 54 | 3205 | 330 (150) | 79.8 (2027) | 3.1 (80) | 9.1 (231) | 3.0 (76) | 1 7/8-24 UN (SAE-24) |

Consult factory for more details

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Dimensions are in inches/(mm) and lbs/(kg)