

**OPERATING TEMPERATURES:**

- **Operating Duty:** -25°C to 95°C [-13°F to 203°F]
- **Intermittent Duty:** - 40°C to -25°C [-40°F to -13°F]

**MATERIAL:**

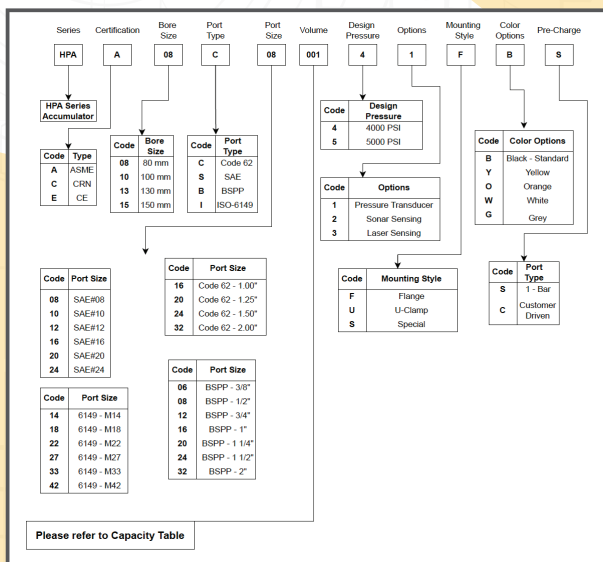
ASME certified materials.

**PRESSURE RATING:**

- Accumulators are rated for 4000/5000 psi [275/345 Bar]

ACTUAL FLOW SIZES & MAX BORE SIZES		
NOMINAL SIZE	MAX RECOMMENDED FLOW	
MM (INCH)	GPM	LPM
80 (3.15)	250	946
100 (3.94)	415	1,571
130 (5.12)	650	2,461
150 (5.91)	850	3,218

**ORDERING NOMENCLATURE**



**OVER 30 YEARS OF WORLD-CLASS CUSTOM HYDRAULIC COMPONENTS**

**Our expansive product line includes:**

- Hydraulic Cylinders
- Rotary Manifolds
- Slip Rings & Sensors
- Manifold Control Blocks
- Custom Hydraulic Systems & Solutions

**CONTACT US**

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**PISTON ACCUMULATOR**



## FEATURES

- CRN Certified
- Taper Lock Technology \*\*
- Double Sealing Systems
- Tamper proof valve cup, fully impact protected
- Custom made options for Corrosive Fluids
- Engineered for Reliability, Durability and Low Maintenance
- Optional port available.
- For special requirements please consult HDT.

### STANDARD PORTS

NOMINAL SIZE	PORT SIZE	
MM (INCH)	SAE PORT	BSPP PORT
80 (3.15)	12	3/4'
100 (3.94)	16	3/4'
130 (5.12)	16	1.00'
150 (5.91)	16	1.00'

### EXTERNAL FINISH:

- Black – Standard
- Yellow
- Orange
- White
- Grey



\*Image is for illustrative purpose only, actual product may vary in size and color.  
 \*\*Patent Pending.

## FLUID TYPE

Recommended fluid type:

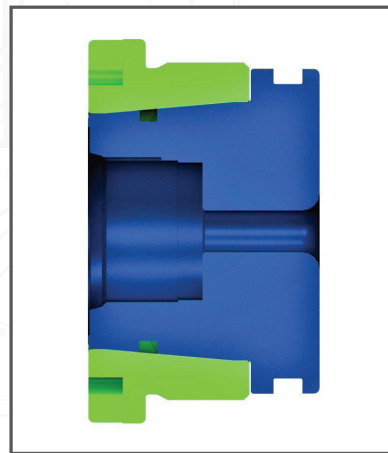
1. Univis Ultra - Preferred
2. SAE 5W30
3. Hydrau
4. SAE 0W40
5. SAE 15W40
6. ISO Oil
7. SAE 10W30

## TAPER LOCK TECHNOLOGY (TLT)\*\*:

Gas Side of the accumulators utilizes TLT, refer to the image below.

This concept has multiple benefits over conventional design such as:

- Better contact pressure distribution/bearing between tapered nitrogen cap and gland.
- Mechanical seal via an O-ring and the taper.
- High load capacity while minimizing axial loading on threads.

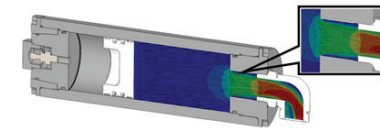


## VENA CONTRACTA

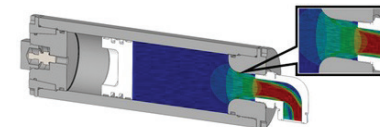
Fluid when subjected to sudden contraction, increases fluid velocity, which in turns leads to drop in pressure, due to the principle of conservation of energy. This point of minimum pressure and maximum velocity is termed as Vena Contracta.

The best way to avoid vena contracta is by allowing the influent media to be preconditioned via rounding or bell mousing. The difference can be clearly noted in the below images.

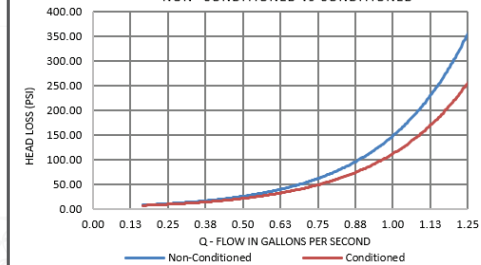
VELOCITY PROFILE - SUDDEN CONTRACTION



VELOCITY PROFILE - CONDITIONED INFLUENT



HEAD LOSS CURVE  
NON -CONDITIONED vs CONDITIONED



Benefit of conditioned flow results in reduction of head loss on average of 30%.