

Hydraulic Accumulators

Positive Displacement



Valcor Engineering Corporation

DESCRIPTION

Positive displacement hydraulic accumulators serve as self-contained sources of hydraulic pressure. The gas-charged piston-based accumulators allow hydraulic systems to quickly respond to changes in pressure demand and can also smooth out pulsation from pumps and other cycling devices up and downstream. Using accumulators often allows for the use of smaller pumps, providing for a lower system weight and footprint. Our innovative design features a hydraulic reservoir made with a proprietary composite fiber wrapping over a thin metal sleeve. This provides for pressure ratings to 4000 PSIG, while saving up to 40% of the weight found in competitive products. Dual piston seals provide for positive separation of the charging gas from the process media.

APPLICATION

Positive displacement hydraulic accumulators are used in aircraft and rotorcraft applications, including emergency backup hydraulic power for landing gear and braking systems. They also provide the pressure required to drive the motor of auxiliary power units.

FEATURES

- Up to 40% lower weight than competitive products
- Composite fiber wrapping over metal sleeve for high strength and low weight
- Dual piston seals for positive gas/liquid separation
- Self-displacing to achieve max pressure differential
- Self-lubricating seals for exceptional cycle life
- Maintenance free bellows construction
- Integrated control valve module
- Optional accessories include thermometer, pressure gauge, piston position indicator, and pressure switches
- Fully customizable for your application



Custom designs are our specialty. Contact us today to see how we can help on your next project.

Valcor Engineering Corporation
2 Lawrence Road | Springfield, NJ 07081
(973) 467-8400 | aircraft@valcor.com
www.valcor.com

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Valcor specializes in custom designs.
Below are just some examples of solutions we
have created in the past for our customers.

Examples	Program	Approx. Vessel Envelope (LxD in.)	Operating Pressure (PSIG)	High Press Oil Volume (Cu. In.)	Fluid Temperature (°F)	Overwrap Material	Self-Displace
898253-1-W	Military Rotorcraft	30.0 x 6.92	3000-3500	140	-50 to 275	Kevlar®	Yes
896711-W	Military Fixed Wing Aircraft	60.7 x 5.67	3000	350	-65 to 160	Fiberglass	Yes
898745-W	Proprietary	35.0 x 6.81	3000-3600	200	-40 to 220	Kevlar®	Yes
884097-W	EmergPwr Cart	35.4 x 7.81	3000	660	-65 to 275	Kevlar®	No
899211-W	Mixed Fixed Wing Aircraft	26.3 x 6.81	3000-3600	140	-40 to 275	Kevlar®	Yes
899346-W	Mixed Fixed Wing Aircraft	28.0 x 4.28	3000	79	-65 to 275	Kevlar®	Yes
895907-W	Mixed Fixed Wing Aircraft	28.3 x 4.80	3000	206	-40 to 275	Kevlar®	No
895800-W	Mixed Fixed Wing Aircraft	16.2 x 5.00	3000	77	-65 to 275	Fiberglass	No
894114-W	Mixed Fixed Wing Aircraft	61.0 x 5.44	3000	350	-65 to 160	Fiberglass	Yes
893904-W	Mixed Fixed Wing Aircraft	20.4 x 2.81	3000	38	-65 to 275	Fiberglass	No
898227-W	Mixed Fixed Wing Aircraft	26.3 x 6.4	3000-3600	140	-40 to 275	Kevlar®	Yes
898254-1-W	Military Rotorcraft	30 x 6.92	3000-3600	140	-50 to 275	Kevlar®	Yes
898225-W	Military Rotorcraft	26.3 x 6.4	3000-3600	140	-40 to 275	Kevlar®	Yes
V9100-14-W	Proprietary	39 x 8.19	3300	575	-20 to 170	Kevlar®	No
V9100-62-1-W	Military Rotorcraft	7.2 x 19.78	3000	131.8	-65 to 275	Carbon	No
V9100-63-W	Military Rotorcraft	5.00 x 12.80	3000	6.1	-58 to 158	Carbon	No
884119-05-W	Mixed Fixed Wing Aircraft	7.00 x 23.68	3000	142	-40 to 275	Carbon	No
884119-05-1-W	Mixed Fixed Wing Aircraft	7.00 x 23.68	3000	142	-40 to 275	Carbon	No
884120-06-W	Mixed Fixed Wing Aircraft	3.8 x 14.5	3000	30	-40 to 275	Kevlar®	No
884120-06-1-W	Mixed Fixed Wing Aircraft	3.8 x 14.5	3000	30	-40 to 275	Kevlar®	No
V9100-77-W	Military Rotorcraft	42 x 9.90	4000-4200	346	-65 to 275	Carbon	Yes

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