

Large Composite Pressure Vessel

Increasing safety and system performance

A new generation of large 4m³ low maintenance, cost-competitive composite air pressure vessels (CAPV) are now being delivered. Its noncorrosive properties coupled with our new SmartTank system ensures reduced life cycle cost and increased safety.

Introduction

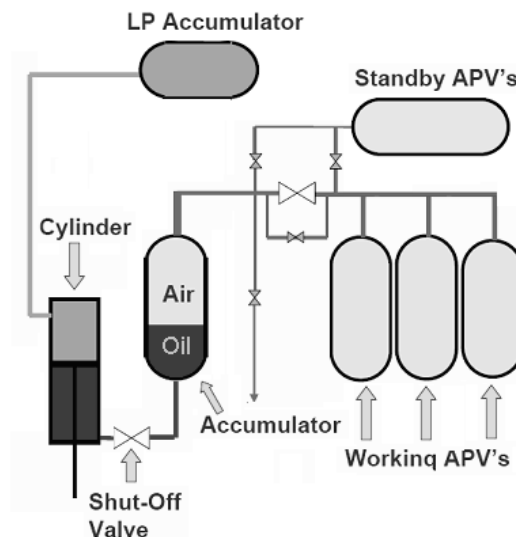
Umoe Advanced Composites has designed a one meter diameter 4m³ CAPV according to DNV offshore standard OS-C501, both acknowledged by DNV and ABS. It is typically used as a working pressure vessel in a riser tension system.

The load carrying carbon fibres used ensures a low weight to volume ratio. CAPVs are safer than comparative steel vessels due to higher burst pressure capacity and are designed according to the "leak before burst" principle.

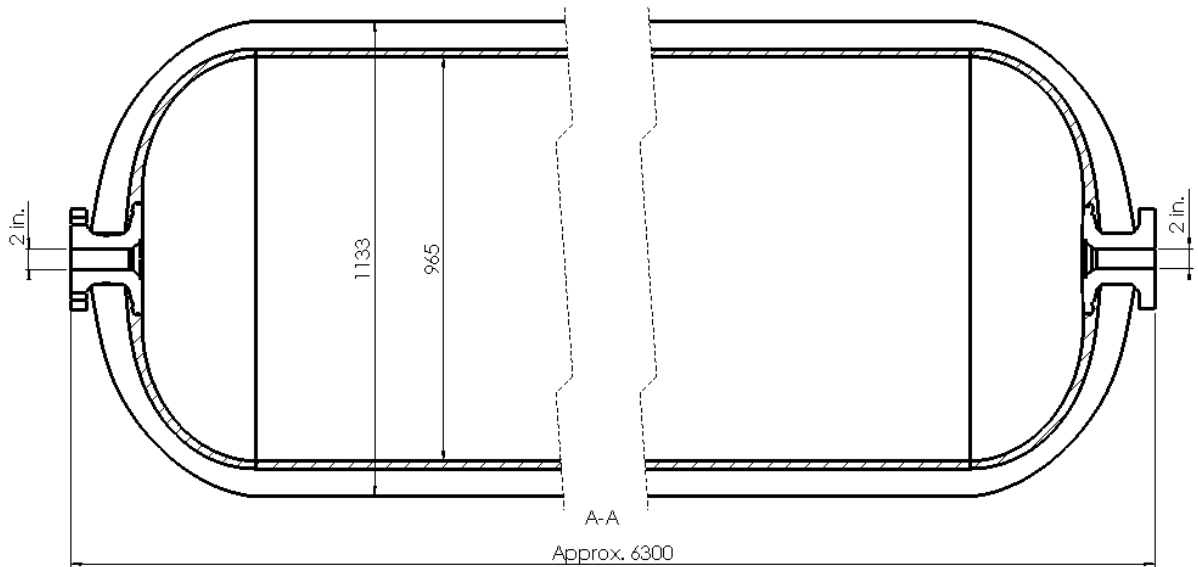
Maintenance costs are reduced as composites do not corrode, resulting in lower life cycle cost compared to equivalent steel vessels. Further life cycle cost reductions are obtained through full integration with our new SmartTank system, an integrated lifetime monitoring system, ensuring full life utilization and even extending its 25 year service life.

CAPVs from Umoe Advanced Composites are now installed on several of the new drillships and semisubmersible rigs operating in the deep and ultra deep waters worldwide.

System Overview



Vessel Specifications



Design Data

Area classification	SAFE
Design code / standard	DNV-OS-C501
Environment	Harsh offshore environment
Temperature range	- 40°C to +70°C
Volume	4m ³
DNV type approval	Pending
Lifetime	25 years
Nominal pressure	207bar
Design Pressure	230bar
Burst Pressure	600bar
Internal Diameter	965mm
Outer diameter	1100mm
Bare bottle weight	1500kg
Pressure medium	Air or Nitrogen
Cleanness	NAS class 8
Connection:	SAE J 518 Code 61, type 1 (other interfaces on request)
Connection size:	2" (other sizes on request)

Further Information

You can obtain further information (data sheets, instructions, etc.) via our internet address www.uac.no

Specifications and dimensions given in this leaflet represents the state of engineering at the time of printing. Modification may take place and materials specified may be replaced without prior notice.

Umoe Advanced Composites AS

Gismerøya, Mandal, Norway
Tel: 38 27 92 00 – Fax 38 26 03 88
e-mail: sales@uac.no,
web: www.uac.no