

WHAT WE DO

- concept development
- feasibility studies
- development services
- fem – metodo degli elementi finiti
- FEM
- construction
- prototyping
- plant realization
- training
- start-up support

EXPERIENCE

- Over 30 years of expertise in plastic and composite materials technologies.
- Strength in product designing and production concepts development for composite pressure vessels.
- Worldwide network to provide technical consulting and start-up support.
- Wide range of applications and sizes.



WE RAISE YOUR BUSINESS

Aumatech®

HEADQUARTER

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Aumatech®
GREEN MOBILITY SOLUTIONS



| CPV
**COMPOSITE
PRESSURE
VESSELS**

Aumatech®



LATEST GENERATION OF COMPOSITE VESSELS

Cylinders Type IV main features



Lightness



Non-explosive



Durability



Eco-friendly

Lightweight

High-pressure cylinders weigh up to 70% less than steel cylinders. This is the most important thing for vehicle's stability.

Corrosion and fatigue resistant

The cylinders do not rust and do not become obsolete – something that is crucial to its service life cycle and safety.

Fuel economy improvement

Lower combined weight and greater storage capacity give better fuel economy.

Operational efficiency

These pressure vessels are realized with high performance composite material and filament winding.

EXAMPLES OF CPV APPLICATION

LPG vessels

- lightweight
- non-corrosive
- visual control of filling level
- Attractive casing and shape
- Low maintenance costs



Use: domestic and outdoor use.

Operation pressure: 20 bar.

Operation temperature: -40 +65°C.

CNG/Hydrogen vessels

- high pressure storage;
- long range with zero emission;
- hydrostatic test at 1050 bar compliant with EC79 and R134 regulation;
- up to 30 years of durability;
- vehicle weight reduction.

Use: truck, bus, automotive, shipping, e-maritime, storage.

Operation pressure: 350-700 bar.



Water softener tank – water treatment

- All thread made from 30% glass filled PP provides higher strength, temperature and pressure limits versus glass filled PE.
- Full choice of pressure tanks diameter and height.

Use: residential and commercial water retention tank.

Operation pressure: 10,5 bar.

Operation temperature: 1-50°C.



CPV TYPE IV PRODUCTION CYCLE

- 1 BLOW MOULDING
- 2 COOLING/STABILIZATION
- 3 WELDING
- 4 SURFACE TREATMENT
- 5 FILAMENT WINDING
- 6 CURING OVEN
- 7 HYDRO TESTING
- 8 FINAL OPERATIONS
- 9 LEAK TEST - ULTRASONIC/HELIUM
- 10 PACKING AND SHIPPING