



SETTAS is a world-leading titanium centrifugal foundry, specializing in the manufacturing of medium and large titanium investment castings up to 120 kg and sand castings up to 450 kg with superior mechanical properties.

SETTAS has become a specialist in large titanium parts for naval applications.

Aerospace (civil & defense) :
 → Bearing supports, brake torque tubes, trailing edges, ribs, fittings, ...
titanium density = 50% that of steel

Marine (civil & defense)
 → Desalination wheels, valve bodies, pump bodies, ...
titanium = exceptional anti-corrosion properties in seawater

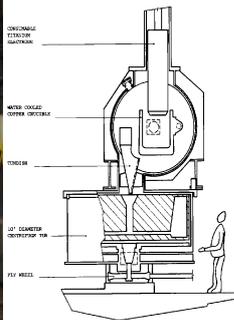
Industry
 → Centrifugal pumps, valves, filter hubs, ...
titanium = exceptional anti-corrosion properties in acidic environments



With 40 years of experience, SETTAS provides in-house engineering and production, co-developing complex parts. SETTAS casts large titanium components up to 2600 mm in diameter using sand casting (as an alternative to forged components or large welded assemblies).



Furnace



Section

	SETTAS	Casting Spec AMS 4985 C2	Casting Spec AMS 4985 C3
Tensile Strength (MPa)	549 deviation: +/- 42	345	450
Yield Strength (MPa)	437,8 deviation: +/- 32	275	380
Elongation (%)	24 deviation: +/- 6	15	12

Ti Grade C2 -C3 – Properties of Centrifugal Pour

Components are vacuum-poured through the center of a 3-meter diameter casting table into cold molds under high pressure, providing mechanical properties typically found in forged products. This process helps avoid issues associated with conventional gravity casting and ensures rapid and complete feeding within a few seconds.

As a result, the metal begins to solidify simultaneously across the entire part, ensuring good homogeneity of the metallurgical structure and a very fine internal grain structure.

These advantages lead to superior mechanical properties. For example, excellent results have been achieved with commercially pure Titanium Grades C2 and C3, as well as with Titanium alloys such as Ti 6/4 and Ti 6242.

