



**Turbo Cast (India) Pvt. Ltd.**

Join India's First Indigenous Investment Casting foundry  
exclusively for Aerospace, Defence & Medical application

Aerospace  
Defense  
Medical



**A World Class Investment Casting Foundry**

# AS9100 Certified Investment Casting Foundry





## History

❖ 1995

We established M/s **Inova Cast** with well-equipped modern manufacturing facilities for manufacturing Investment Castings.

❖ 2000

Certified by **ISO 9001, P.E.D. & AD 2000 - Merkblatt W 0** from TUV Nord.

❖ 2005

We started 2nd manufacturing unit M/s **Inovative Technocast** to fulfill growing needs from our customers.

❖ 2010

We developed In-House **CNC Machine Shop** to supply ready to use quality components to our customers.

❖ 2015

We started our Third foundry **Turbo Cast (India) Pvt. Ltd**, certified for AS 9100C, exclusively for Aerospace, Defense and Medical applications.

# Production Capacity and Range



**Inova Cast Pvt. Ltd.**

Description	Capacity / Range
➤ Area of Land	10,000 Meter <sup>2</sup>
➤ Built up Area	7,000 Meter <sup>2</sup>
➤ Max. Overall Size	600 mm X 300 mm X 200 mm
➤ Installed Capacity	60 MT / Month
➤ Present Production	40 MT / Month
➤ Weight Range	45 Grams to 45 Kg. for Steel
➤ Min. Wall Thickness	2.00 mm
➤ Surface Roughness	As Cast Ra 3.2 to 6.3 μm Machined Ra 0.4 μm (Min)
➤ Industries Catered	Valves, Pumps, Automobile, General Engg.
➤ Total Employee	150 Nos.
➤ Quality Approval	ISO 9001, P.E.D., AD 2000-Merkblatt W 0
➤ Export Market (50% Export) (50% Domestic)	Germany, France, U.K., Spain, Japan, USA, Mexico, Argentina, Australia

# Production Capacity and Range



**Inovative Technocast Pvt. Ltd.**

Description	Capacity / Range
➤ Area of Land	10,000 Meter <sup>2</sup>
➤ Built up Area	7,000 Meter <sup>2</sup>
➤ Max. Overall Size	600 mm X 300 mm X 200 mm
➤ Installed Capacity	60 MT / Month
➤ Present Production	40 MT / Month
➤ Weight Range	45 Grams to 45 Kg. for Steel
➤ Min. Wall Thickness	2.00 mm
➤ Surface Roughness	As Cast Ra 3.2 to 6.3 μm Machined Ra 0.4 μm (Min)
➤ Industries Catered	Valves, Pumps, Automobile, General Engg.
➤ Total Employee	150 Nos.
➤ Quality Approval	ISO 9001, P.E.D., AD 2000-Merkblatt W 0
➤ Export Market (50% Export) (50% Domestic)	Germany, France, U.K., Spain, Japan, USA, Mexico, Argentina, Australia

# Production Capacity and Range



**Turbo** Cast (India) Pvt.Ltd.

Description	Capacity / Range
➤ Area of Land	16,000 Meter <sup>2</sup>
➤ Built up Area	8,000 Meter <sup>2</sup>
➤ Max. Overall Size	600 mm X 300 mm X 200 mm
➤ Installed Capacity	50 MT / Month
➤ Present Production	10 MT / Month
➤ Weight Range	45 Grams to 45 Kg. for Steel 15 Grams to 15 Kg. for Aluminum
➤ Min. Wall Thickness	2.00 mm for Steel 1.50 mm for Aluminum
➤ Surface Roughness (Steel)	As Cast Ra 3.2 to 6.3 $\mu$ m Machined Ra 0.4 $\mu$ m (Min)
➤ Surface Roughness (Aluminum)	As Cast Ra 2.4 to 3.2 $\mu$ m Machined Ra 0.6 $\mu$ m (Min)
➤ Total Employee	50 Nos.

## Our Vision & Mission



*“To adopt a solution driven approach to achieve Customer Delight and create marked presence internationally.”*

*“To be a global solution provider in Investment castings for a niche market of Aerospace, Defense and Medical applications offering high degree of dedication and cost effective solutions.”*



# Our Road Map.....

**2015**

Production  
Started

**2017**

NADCAP in  
NDT (FPI)

**2019**

Vacuum  
Melting  
(Super Alloy)

**2016**

FPI System  
as per  
NADCAP

**2018**

NADCAP  
in Heat  
Treatment

**2020**

Vacuum  
Melting  
(Titanium)

# Values



**Cast  
Precision**

**5 Star Reputation**



**Cast  
Reputation**



**Cast  
Progress**

Cast Precision: to Produce high quality products for customers

Cast Reputation: to keep a good reputation

Cast Progress : to make progress everyday

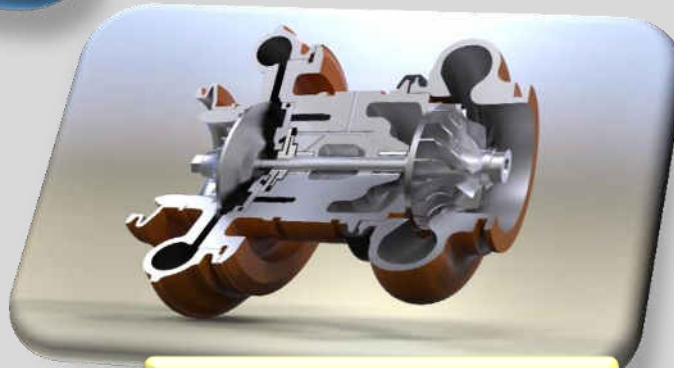
# Industries Catered



- Aerospace



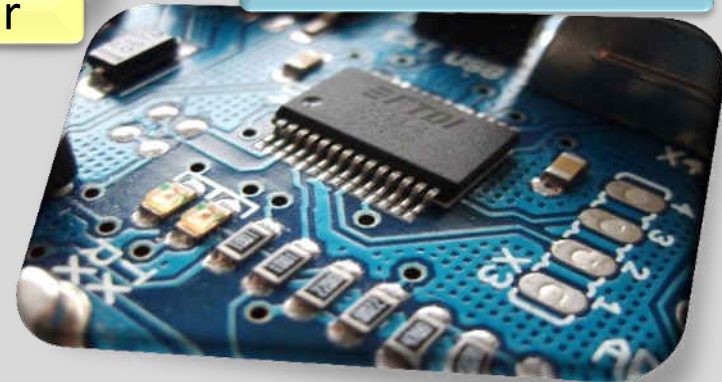
- Medical



- Turbocharger



- Defence



- Electronics

# Aerospace



Material : A356 T6  
Weight : 0.500 Kg  
Thickness : 3.00 mm Minimum  
Application : **Boeing Engine Part**

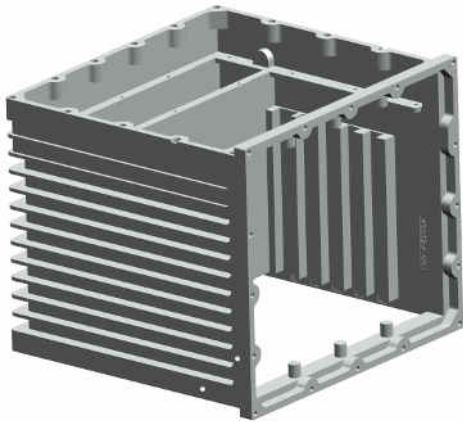
Material : MSRR 6527 (S.S.)  
Weight : 0.100 Kg  
Thickness : 1.50 mm minimum  
Application : **Rolls Royce Engine Part**



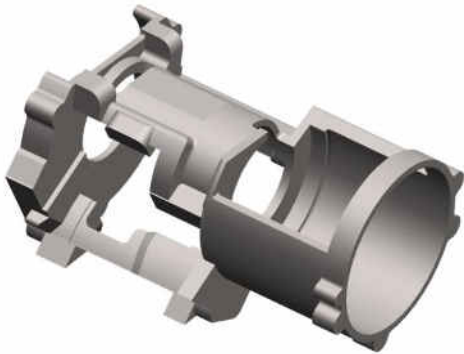
Material : L 169 (A357 T6)  
Weight : 0.700 Kg  
Thickness : 2.50 mm minimum  
Application : **Air Bus Fuel Pump Part**



# Defence



Material : A356 T6  
Weight : 0.100 Kg  
Thickness : 1.50 mm minimum  
Application : **Defence Part**



Material : A356 T6  
Weight : 5 Kg  
Thickness : 2.50 mm Minimum  
Application : **TIFCS (Army Tank)**



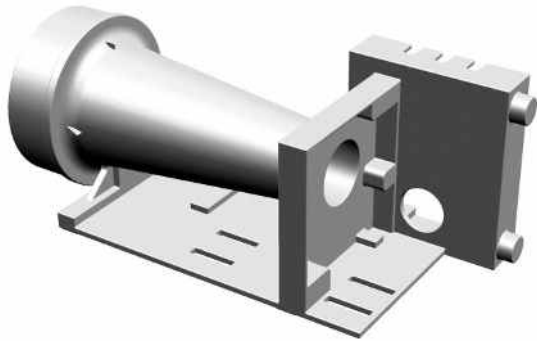
Material : 17-4 PH  
Weight : 1.400 Kg  
Thickness : 2.50 mm minimum  
Application : **Light Machine Gun Part**



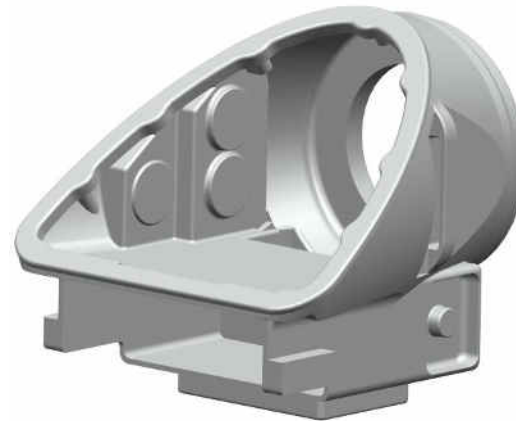
# Defence



Material : A356 T6  
Weight : 0.180 Kg  
Thickness : 1.50 mm minimum  
Application : **Defence Part**

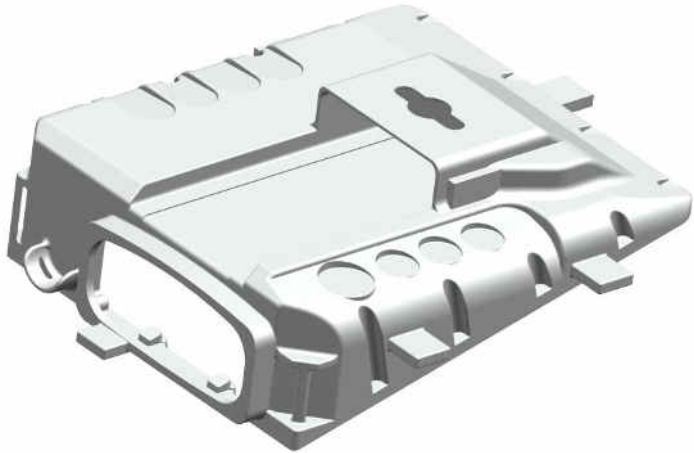


Material : A356 T6  
Weight : 0.170 Kg  
Thickness : 1.50 mm Minimum  
Application : **Defence Part**



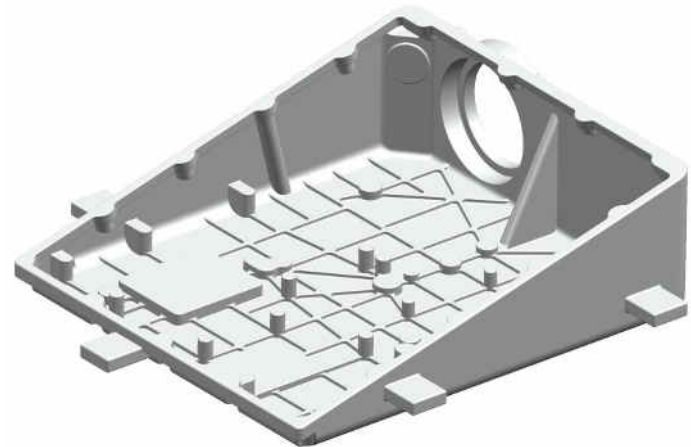
Material : A356 T6  
Weight : 0.290 Kg  
Thickness : 1.5mm minimum  
Application : **Electro Optical Part**

# Defence



Material : A356 T6  
Weight : 0.610 Kg  
Thickness : 1.50 mm Minimum  
Application : **Defence Part**

Material : A356 T6  
Weight : 0.670 Kg  
Thickness : 1.50 mm minimum  
Application : **Defence Part**



# Medical



Material : AISI 316L  
Weight : 0.850 Kg  
Thickness : 1.50 mm minimum  
Application : **Medical Part**



Material : Al. Alloy A360  
Weight : 1.700 Kg  
Thickness : 2.00 mm Minimum  
Application : **Medical Part**

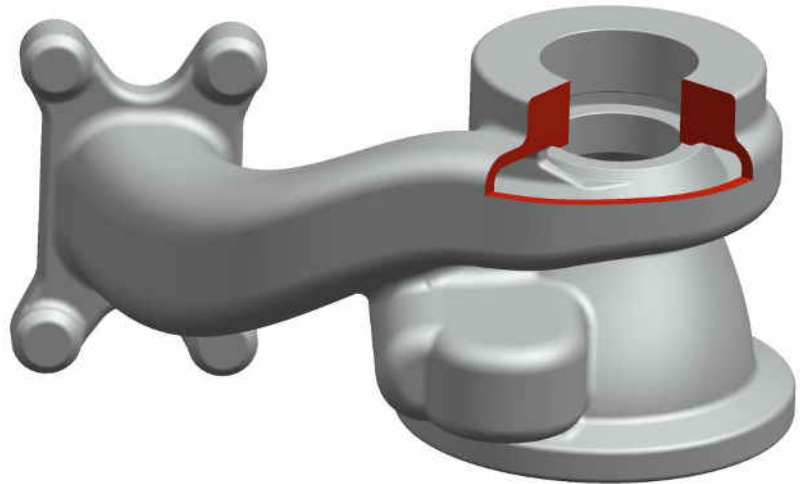


Material : A356 T6  
Weight : 8 Kg  
Thickness : 1.50 mm minimum  
Application : **Medical Part**

# Turbo Charger

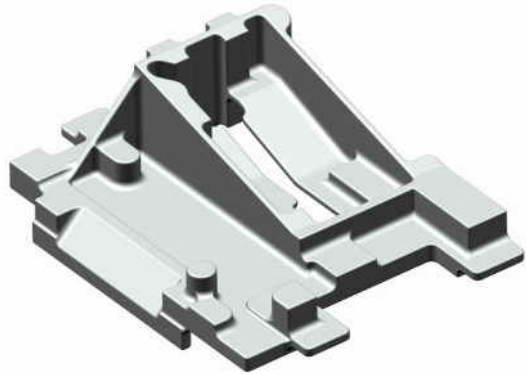


Material : Austenitic Heat Resistant Steel  
Weight : 3.600 Kg  
Thickness : 2.50 mm Minimum  
Application : **Turbo Charger Part**



Material : Austenitic Heat Resistant Steel  
Weight : 3.600 Kg  
Thickness : 2.50 mm Minimum  
Application : **Turbo Charger Part**

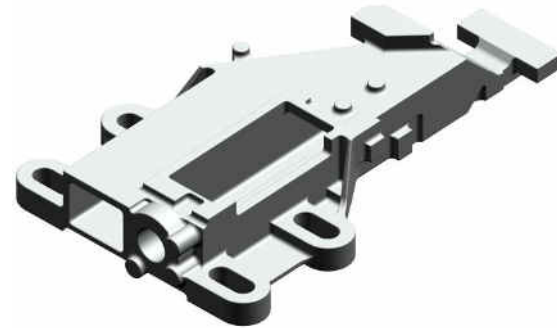
# Electronics



Material : A356 T6  
Weight : 0.300 Kg  
Thickness : 1.60 mm minimum  
Application : **Semi-conductor Part**



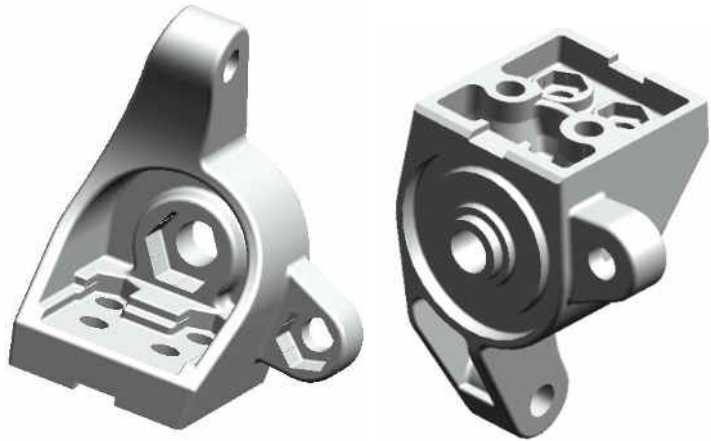
Material : A356 T6  
Weight : 0.075 Kg  
Thickness : 1.50 mm minimum  
Application : **Semi-conductor Part**



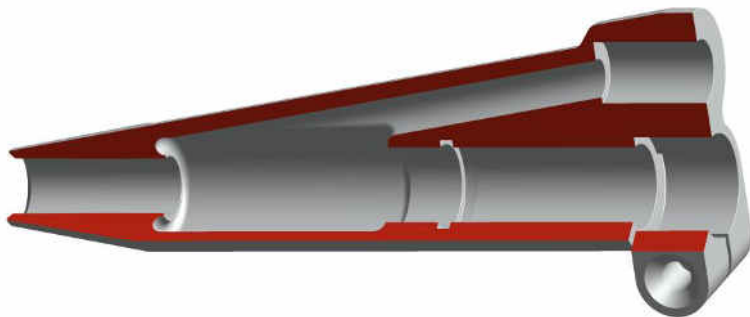
Material : Low Alloy Steel  
Weight : 0.100 Kg  
Thickness : 1.50 mm minimum  
Application : **Electronics Part**



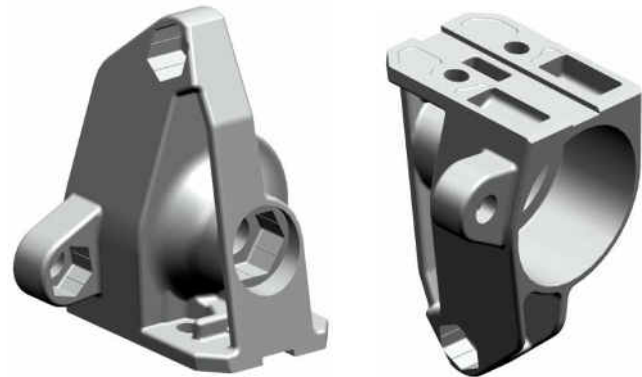
# Aluminum Alloy



Material : A356 T6  
Weight : 0.060 Kg  
Thickness : 1.50 mm minimum  
Application : Renewable Energy

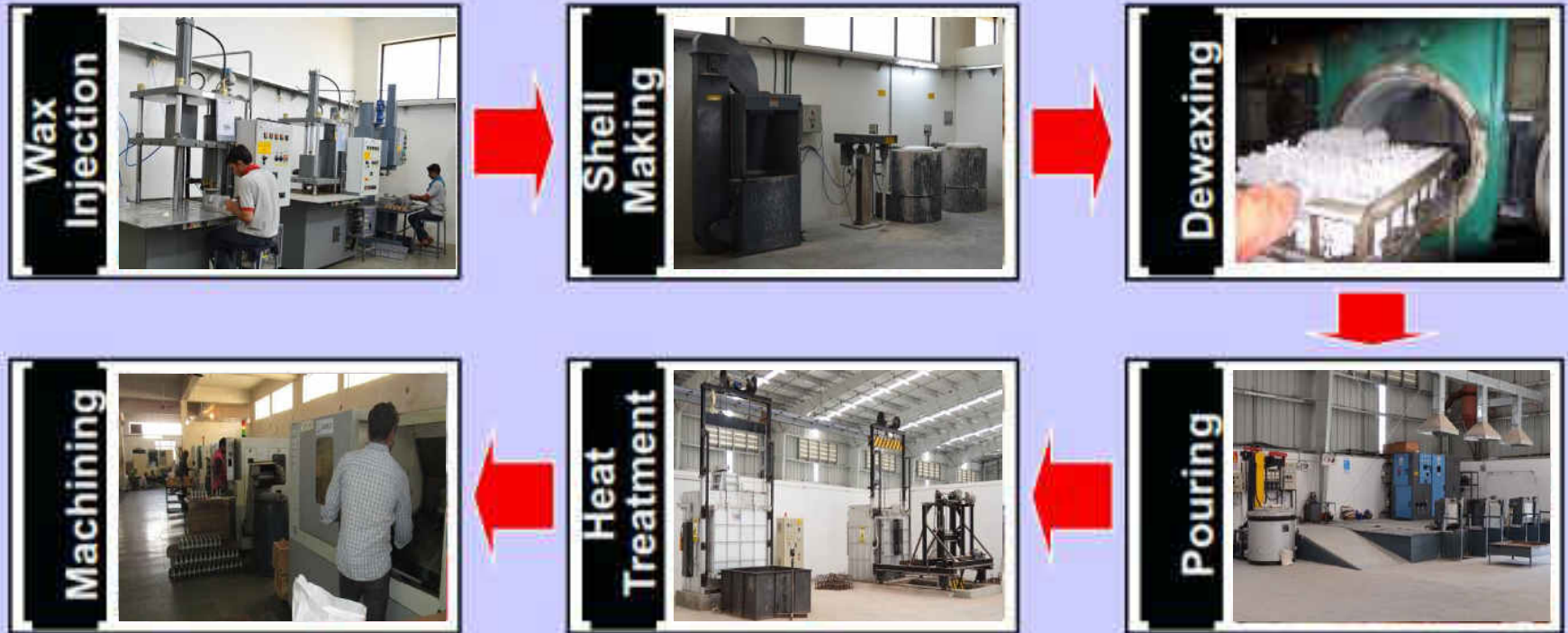


Material : A356 T6  
Weight : 0.060 Kg  
Thickness : 1.50 mm minimum  
Application : Renewable Energy



Material : A356 T6  
Weight : 0.100 Kg  
Thickness : 2.00 mm minimum  
Application : Renewable Energy

# Production Facilities



# Surface Treatment

**Turbo** Cast (India) Pvt.Ltd.

Turbo owns a variety of surface treatment methods and facilities.



**Electro Polishing**



**Tumble Blasting**



**Sand Blasting**



**Pickling & Passivation**

**In House**



**Powder Coating**



**Phosphating**



**Blackening**



**Painting**

**Out Sourced**



**Zinc Coating**



**Mirror Polishing**



**Anodizing**



**Chromate Conversion**

# Special Techniques

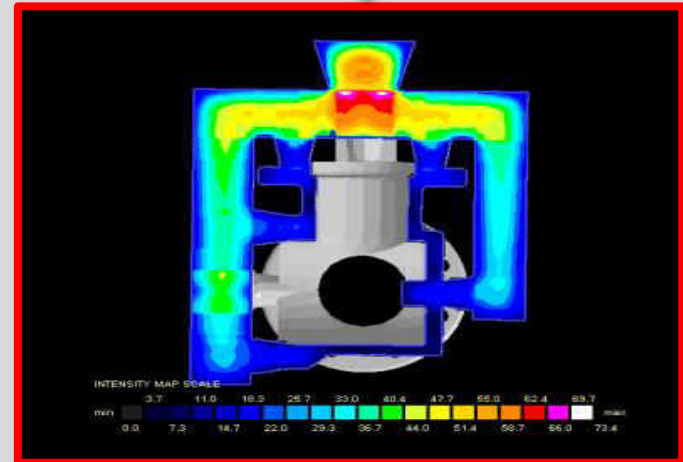
Special Techniques Enable Turbo Cast to Be Competent with Those Difficulties at Wax Injection stage When Mfg the Parts with Inner-Sophisticated-Structures.

In House

Soluble Wax Core



Simulation



## Special Techniques

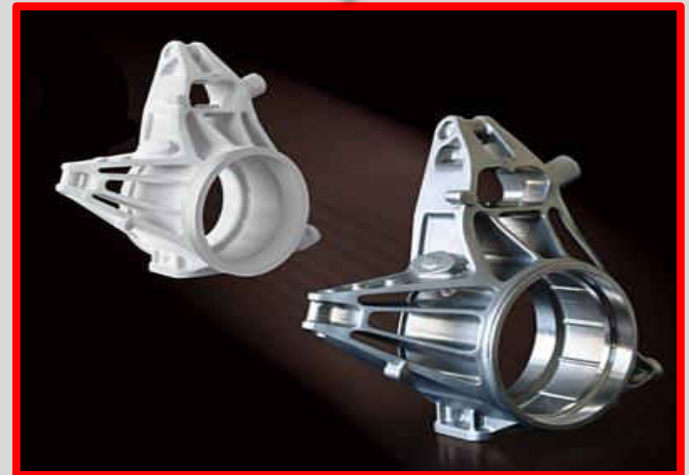
Special Techniques Enable Turbo Cast to Be Competent during Wax Pattern Development Without Tooling & with Those Difficulties at Shell Making stage When Mfg the Parts with Inner-Sophisticated-Structures.

Out Sourced

**Ceramic Core**



**Rapid Proto Typing**





# Testing & Inspection Facilities

**Turbo** Cast (India) Pvt.Ltd.



Hardness Tester



CMM (700X700X600)



U.T.M.



Impact Machine



Metallurgical Microscope



Spectrometer  
(Spectro GmbH)

➤ 1) **FPI (Fluorescent Penetrant Inspection)**

- Semi Automatic System as per NADCAP Requirement

➤ 2) **MPI (Magnetic Particle Inspection)**

- Prod Type Magnetic Particle Testing Machine

In House

➤ 3) **Radiography Testing**

**NABL Approved (Local)**

- ISO/ IEC 17025: 2005 Certified
- ASNT Person Qualification

**NADCAP Appd. (Bangalore)**

- AC7004 Certified
- NAS 410 Person Qualification

Out Sourced

## Heat Treatment Facility

**Turbo** Cast (India) Pvt.Ltd.

- Normalizing

- Annealing

- Solution Annealing

- Tempering

- Precipitation Hardening

- Hardening

In House

- Drop bottom type Heat treatment Furnace for Alloy

- Water Quenching & Polyalkylene Glycol Quenchant Solution

In House  
From 2017

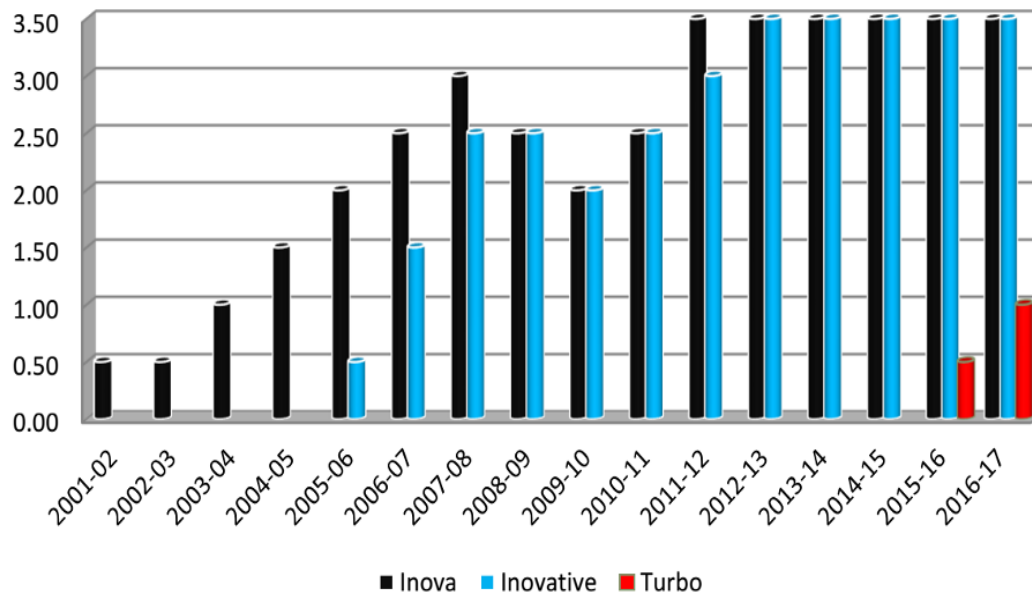
- NADCAP Approved (Bangalore)

- Hardening / Oil Quenching (Local)

Out Sourced

## Turnovers in the Last years

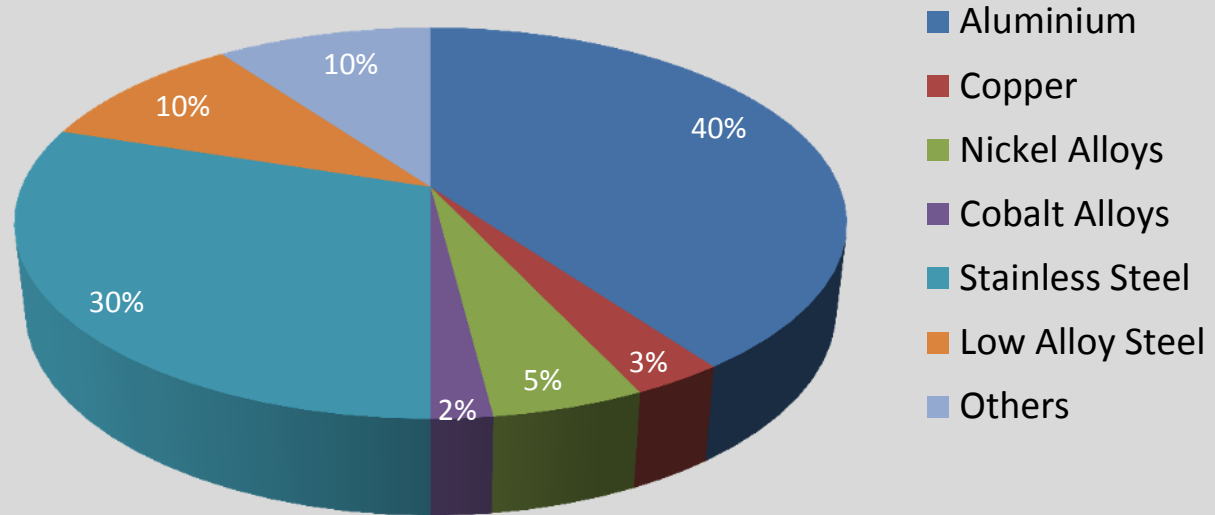
Turn over in Million USD



2001-02	\$ 0.50 M
2002-03	\$ 0.50 M
2003-04	\$ 1.00 M
2004-05	\$ 1.50 M
2005-06	\$ 2.50 M
2006-07	\$ 4.00 M
2007-08	\$ 5.50 M
2008-09	\$ 5.00 M
2009-10	\$ 4.00 M
2010-11	\$ 5.00 M
2011-12	\$ 6.50 M
2012-13	\$ 7.00 M
2013-14	\$ 7.00 M
2014-15	\$ 7.00 M
2015-16	\$ 7.00 M
2016-17	\$ 7.00 M

## Alloy of Products

**Turbo** Cast (India) Pvt.Ltd.



➤ Aluminum Alloys	A201, A206, A356, A357, A359, C355, C357, F357, L51, L92, L119, L169, etc.
➤ Stainless Steel	1.4308, 1.4408, 1.4581, CK3MCuN, CN7M, CH-20, CF3M, 17-4 PH, etc.
➤ Loy Alloy Steel	1.7744.5, etc.
➤ Nickel Alloys	CW12MW, CZ-100, M35-1, CW6MC, CU5MCuC, N12MV, Inconel, etc.
➤ Copper Alloys	Aluminum Bronze, Tin Bronze, Phosphorus Bronze, etc.
➤ Cobalt Alloys	Stellite-6, Stellite-12, etc.



## Industry Catered

**Turbo** Cast (India) Pvt.Ltd.



Aerospace



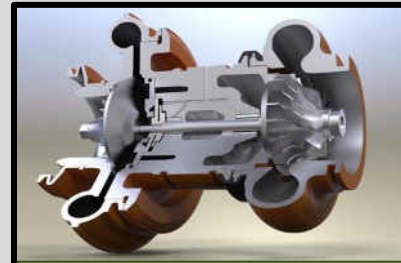
Defence



Medical



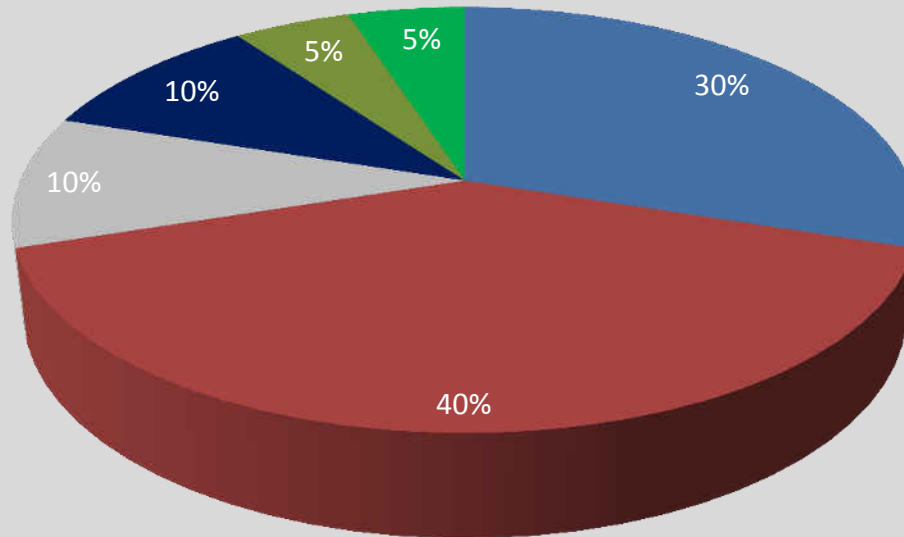
Electronics



Turbocharger



Renewable Energy



- Aerospace
- Defence
- Medical
- Electronics
- Turbocharger
- Renewable Energy

# Quality Accreditation Certificates



AS 9100 Certificate



ISO 9001 Certificate

# Customer Appreciation Letter



## भारत इलेक्ट्रॉनिक्स लिमिटेड

(भारत सरकार का उद्यम, रक्षा मंत्रालय)  
नयम्बाकम, चन्नई - 600 089, भारत.

**BHARAT ELECTRONICS LIMITED**  
(A Govt. of India Enterprise, Ministry of Defence)  
Nandambakkam, Chennai - 600 089 INDIA

Phone :

Fax :

E-mail :

9<sup>th</sup> January 2016

To,

Turbo Cast (India) Pvt. Ltd.

Rajkot

### Excellent Supplier Performance

Dear Mr. Mavani,

I take this opportunity to thank you and the Turbo Cast team for the outstanding support you have provided to Bharat Electronics Ltd., Chennai during the year 2015. You have displayed a high level of professionalism in understanding the job and offering excellent, cost-saving solutions in the shortest time.

In particular, we have succeeded in incorporating your precision Aluminium Investment Castings in the TIFCS (Thermal Imager Fire Control Systems) project for Army Tank supplied to our overseas counterpart M/s Elbit Systems, Israel. We thank you for the support you have extended to develop the product, providing immediate response and meeting the quality requirement for this very important project at BEL.

We look forward to continued co-operation with your esteemed organization.

With Regards,

R. Srinivasan

AGM (Production)

Bharat Electronics Ltd., Chennai

अ. श्रीनिवासन / R. SRINIVASAN

Staff No. CHE 200318

कार्य प्रबन्धक (उत्पादन)

Addl. General Manager (Production)

संज्ञाभाषा हिन्दी - राष्ट्रीयता का प्रतीक

पंजीकृत और कारपोरेट ऑफिस : नागवरा, आउटर रिंग रोड, बेंगलूर - 560 045, भारत  
Reg. & Corporate Office : Nagavara, Outer Ring Road, Bangalore - 560 045 India

ISO 9001 and ISO 14001 Certified Company

8914 041 009 95 S

## KUN AEROSPACE PVT. LTD.



10th January, 2016

To,

Turbo Cast (India) Pvt. Ltd.

Rajkot

### Supplier Performance

Dear Mr. Mavani,

Turbo-Cast (India) Pvt. Ltd., Rajkot, has supported our company with its Aerospace grade precision Investment Castings in Aluminium alloys during year 2015.

We have succeeded in supplying 100% Radiography Quality Critical Fuel Filter part to Our Boeing Tier-1 Supplier in USA.

Your excellent support extends from product development, close interface with our technical team, immediate response to service questions, on-time delivery, and a superb level of quality for this key project at Kun Aerospace.

We look forward to receive your similar co-operation in year 2016.

With Regards,

G. Srinivasan Rao

Business Unit Head,

Kun Aerospace Pvt. Ltd., Chennai

Reg. Office:  
C-48, 6 Avenue,  
Anna Nagar East,  
Chennai - 600 132,  
India

Works:  
No-22 & 23,  
Ambattur Industrial Estate,  
Ambattur,  
Chennai - 600 059,  
India

Telephone:  
91 +4 3342 3005

Telefax:  
91 +4 3342 3001

Web:  
www.kunaircrafts.com

BEL, Chennai - 2015

KUN Aerospace - 2015

## Our Valued Customers



Starlinger

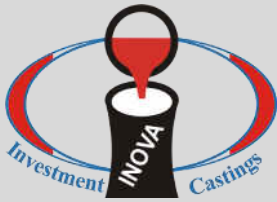


TURBOTeCH



SCHNEIDER  
INTERNATIONAL

## Our Associate Group Companies



Inova Cast Pvt. Ltd.

Survey No. 202, Village:- Veraval (Shapar),  
Dist. Rajkot - 360 024, Gujarat State, India  
Phone No. : + 91-2825-252282 / 252283  
Fax. : +91-2827-253984

Inovative Technocast Pvt. Ltd.

Survey No. 204, Village:- Veraval (Shapar),  
Dist. Rajkot - 360 024, Gujarat State , India  
Phone No. : +91-2825-254501 / 254502  
Fax. : +91-2827-254503



Email :- [info@inovacast.com](mailto:info@inovacast.com)

Website :- [www.inovacast.com](http://www.inovacast.com)





**Turbo Cast (India) Pvt. Ltd.**

Address

Survey No. 21, Village :- Biliyala, Rajkot - Gondal National Highway,  
B/h Pan Agri Export, Rajkot - 360311, Gujarat, India

Phone No.

+91 - 2825 - 280301 / 280302

E-mail

[info@turbo-cast.com](mailto:info@turbo-cast.com)

Website

[www.turbo-cast.com](http://www.turbo-cast.com)