



Investment Casting Terms and Conditions;

Investment casting is a lengthy process from start to finish product. Be prepared for any project to take up to a year to complete. Although average time for any given project is much shorter than that, approx 4-8 months, we are not responsible for delays from our manufacture and will not compensate because of lost time and delays. Revisions to tooling may be needed and therefore we recommend getting a rapid prototype of the solid works drawing for fitment and finish before we purchase the tooling. Revision to tooling are expensive and is sometimes the cost of the initial purchase of tooling itself. Tooling belongs to YOU. We will not sell or distribute parts using your tooling to any customer including Treadstone unless otherwise noted. We gladly sign non disclosure agreements when necessary. Changes to initial prototype will incur a min desktop time of 1 hour @ \$60 per hour rate

Average cost and time for prototyping

1.) **Solid works Drawing fees.** Manifolds consist 2 to 3 flanges; A head flange, turbo inlet flange and wastegate flange.

- 3 cylinder manifolds, Log \$550 to \$650
- 3 cylinder manifolds, Tubular \$700 to \$800
- 4 cylinder manifolds, Log \$650 to \$750
- 4 Cylinder manifolds, Tubular \$850 \$1000
- V8 headers LOG \$900 and up
- V8 headers, Tubular \$1100 and up
- Merge collector \$300 and up
- Head flanges, \$300 and up
- Desktop time for revisions/small parts \$60/hour

2.) **Investment casting Tooling Costs**

- 4 Cylinder manifold \$2500 and up
- Tubular style 4cyl manifolds \$3500 and up
- Larger V8 headers \$3500 and up
- Larger V8 tubular headers \$4000 and up
- Merge Collectors \$1500 and up
- Smaller parts \$1000 and up

3.) **Rapid prototyping.** Largely depends on volume of part

Average 4 cylinder manifold \$700 and up

Tubular style manifold \$900 and up

Merge collectors and smaller parts \$300 and up

4.) **Lead Times**

2-4 Weeks Solid works design

1-2 weeks rapid prototyping

After confirmation of rapid prototype, working sample lead time 6-8 weeks

After confirmation of sample, mass manufacturing 6-8 weeks

Delivery to our facility, packaging, cleaning, degreasing, machining 6-8 weeks

5.) **Min Order Quantity**

30-50 Piece min on turbo manifolds

Smaller cast parts 100 pieces min

6.) **Price Per Part**, largely depends on weight

304 or 347 stainless can be used

Price includes machining

Small log manifolds average price \$150 to \$200

Small Tubular style manifolds average price \$200 to \$250

Merge Collectors \$70 per piece and up

Head flanges \$50 per piece and up