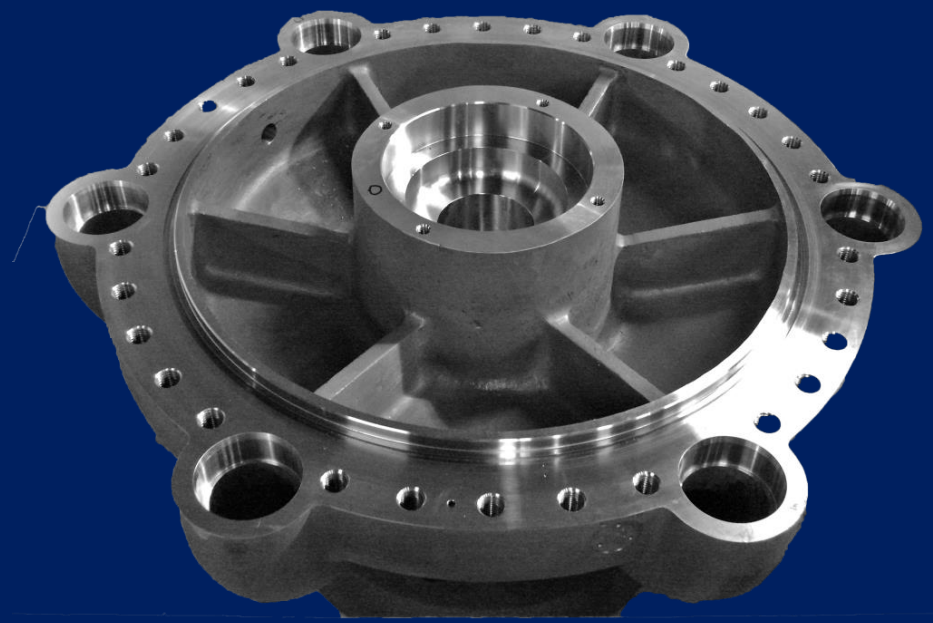
CANADIAN SPECIALTY CASTINGS

A Division of Canadian Babbitt Bearings Ltd. A Russell Industries Company

Engineered Casting Solutions



Capability Overview

We Make Sand Castings &...

Canadian Specialty Castings is a leader in supplying high quality, rapid delivery and cost effective Sand Castings to the Industrial and Marine marketplace.

Known for our skills in producing cost effective castings with complex geometry such as impellors and pump bodies, CSC provides innovative solutions to industry problems from bar stock to finished machined components and assemblies

HYDRO ENERGY

POWER GENERATION

MOTORS & GENERATORS

NUCLEAR

MINING

OIL & GAS

FOOD PROCESSING

MARINE

STEEL

PULP & PAPER

About Us

Canadian Specialty Castings based in Niagara Falls, Ontario is a division of Canadian Babbitt Bearings Ltd., A Russell Industries Company. Through a combination of performance, skill and dedication to quality we have become the fastest growing sand casting foundry in Canada. We provide a wide range of services and products to our customers. Companies all over North America choose CSC for their stainless steel and copper-based alloys needs. We provide full service, value-added solutions to our customers from pattern design through casting simulation, high quality sand castings plus finish machining.

Russell
INDUSTRIES CORP

CSC CANADIAN SPECIALTY CASTINGS

Committed to our Customers

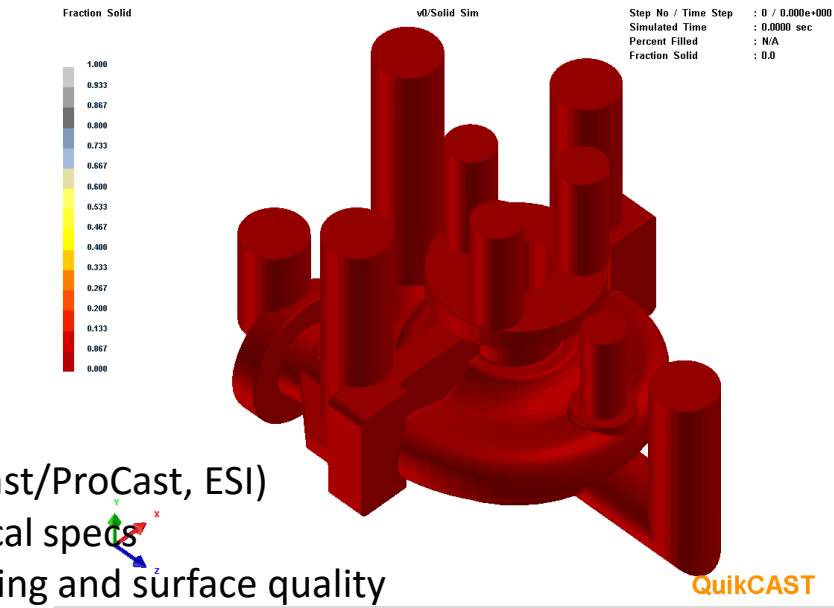
Expect faster lead times: casings and impellers to rings and bushings we are quicker than our competition without sacrifice to the quality of our products.

Rapid Response Centre >>>

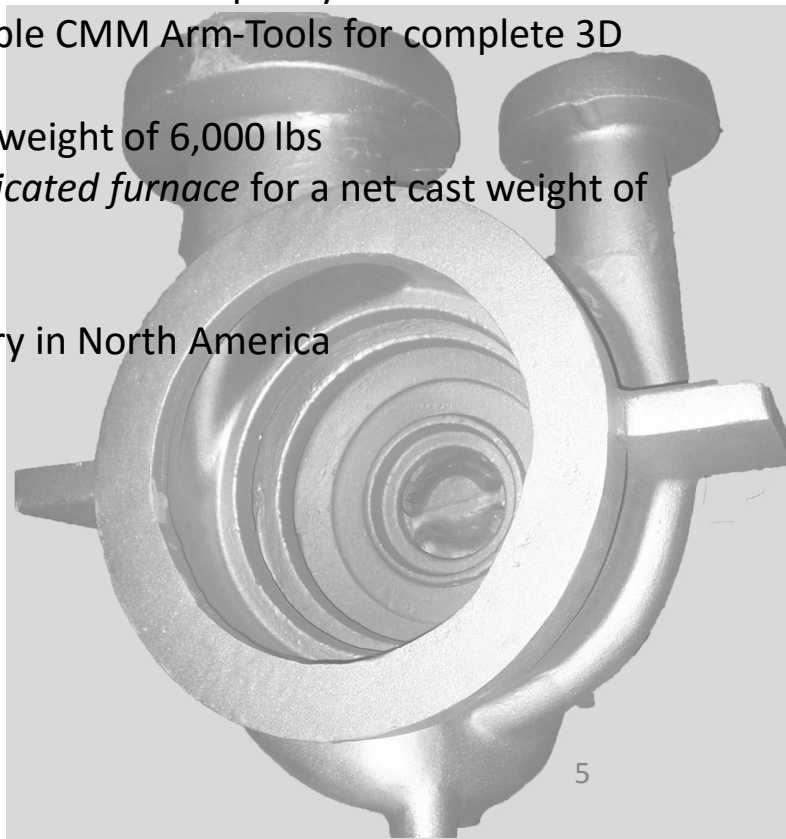
We offer 24/7 emergency service to everyone - not only our customers. We provide service on all products, even the ones we didn't manufacture all with an expedited delivery service.

The CSC Difference

Customers choose CSC for:

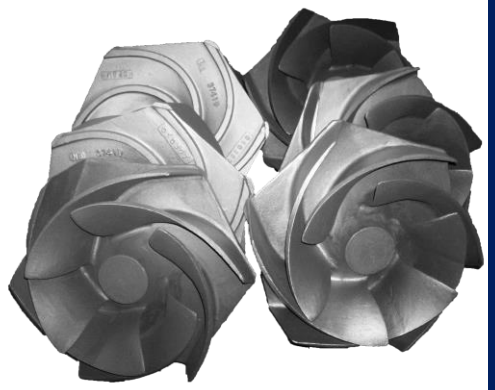


- Engineering solutions starting with 3D part modelling and casting simulations (QuckCast/ProCast, ESI)
- On staff metallurgical engineers to ensure full compliance of both chemical and physical specs
- Market advantage with cutting edge In-House gating technologies for unmatched casting and surface quality
- 3D capabilities from 2D with most advanced Reverse Engineering Technologies i.e. portable CMM Arm-Tools for complete 3D model
- One of the largest steel pouring capacity in the region capped at 9,000 lbs. with net cast weight of 6,000 lbs
- We have the largest Aluminum Bronze pouring capacity capped at 10,000 lbs. with a *dedicated furnace* for a net cast weight of 6,000 lbs.
- Strategic partnerships with market leader outside vendors and suppliers.
- We recycle 90% of our sands making us arguably most environmentally compliant foundry in North America
- Unparalleled customer service, dedication and satisfaction
- Market leaders with technical innovation
- Dedication to product and service excellence
- Highly trained and dedicated workforce
- Ability to pour 300 alloys all under one roof
- Fast and efficient 24/7 emergency service
- Our expansive state-of-the-art facilities



CSC CANADIAN SPECIALTY CASTINGS

The CSC Difference



Over 300 alloys under one roof and counting:

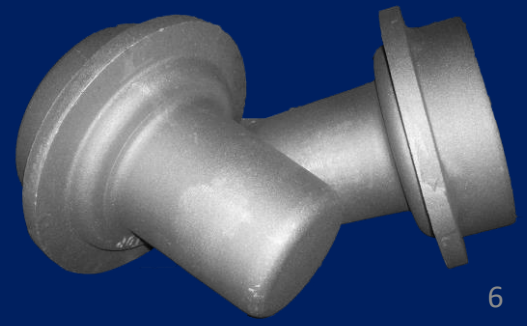
- Duplex and Super Duplex Stainless Steel
- Exotic and Nickel Base Alloys
- Heat Resistant Stainless Steel
- Carbon and Low Alloy Steels
- Aluminum
- Bronze
- Aluminum Bronze
- Brass
- Copper
- Customers' Modified Grades

CSC offers a full line of cast rings and shapes, including:

- Bushings
- Bearings
- Gear Blanks
- Round and Bars
- Half Rings
- Segments

CSC services a wide range of industries and markets including:

- Pumps, valves, compressors and other pressure retaining and rotating equipment
- Hydro gas and steam turbines
- Marine Industries
- Metal and miscellaneous process equipment
- Combustion and thermal resistant equipment
- Agricultural and Mining industries
- Cryogenic Applications



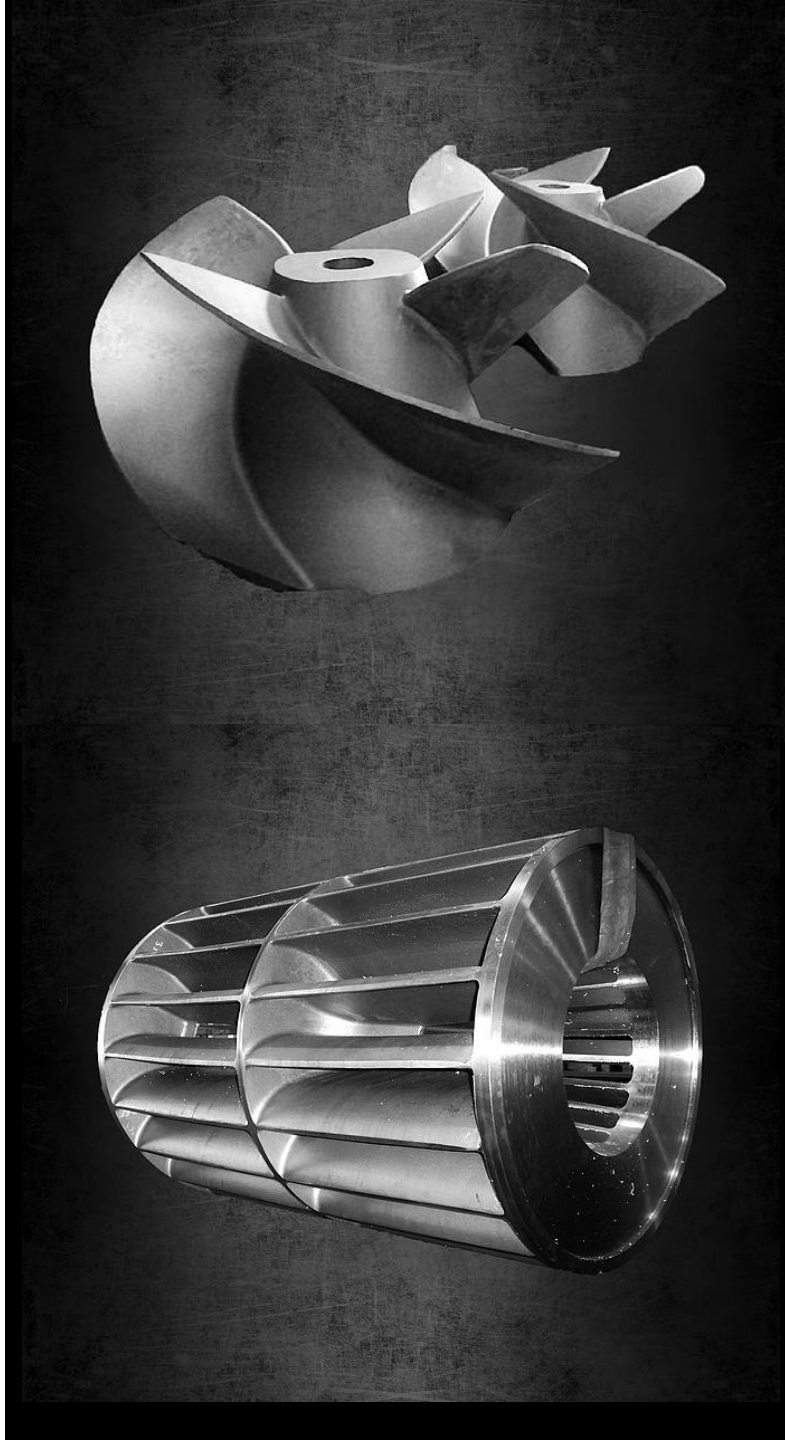
CSC CANADIAN SPECIALTY CASTINGS

Quality Processes

CSC's engineering services including reverse engineering provides prompt turnaround into casting production. Send your drawing, CAD model, pattern or part, CSC will do the rest.

Standard 2-week delivery for pattern ready castings

- *As little as HOURS for simple bronze shapes such as Rings and Bushings*
- *2 weeks commercial grade castings delivery*
- *1 to 4 weeks pattern construction depending on complexity*
- *Full NDE provided*
- *Rough and/or Finish Machining, Pressure Testing and Dynamic Balancing upon receipt of CAD*

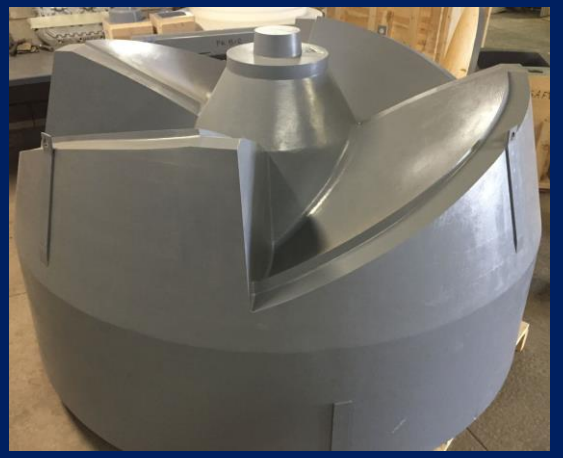


CSC CANADIAN SPECIALTY CASTINGS

Quality Processes

Patterns

- One time Disposable Patterns: Choose from Styrofoam, MDF and more.
  - Lower cost, extremely fast turnaround (days not weeks)— less expensive than traditional pattern and construction materials such as wood, metal and plastic
  - One-off, custom engineered castings, quick prototyping/sampling, emergency repair/replacements and parts/spares
- Standard wood, metal or plastic Patterns available to order
- **Full** Pattern Management, storage and maintenance available
- CSC uses simulation technology to optimize the casting process. This facilitates high quality production in our Lean production process

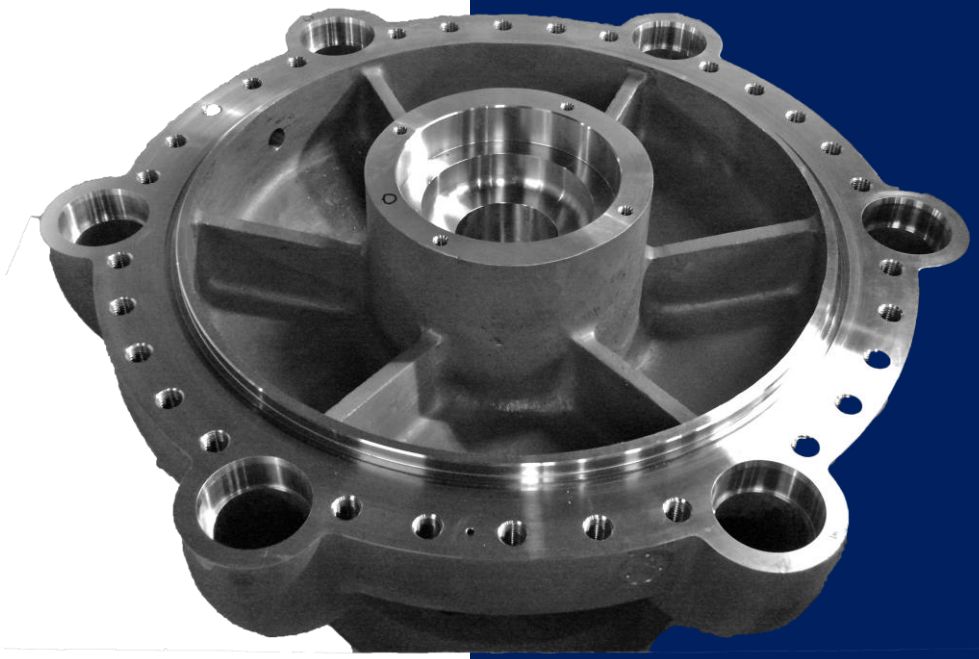


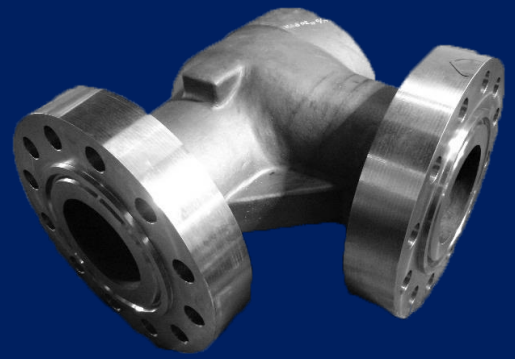
Quality Processes

Machining and Value Added Services

CSC offers clients more services, including:

- Full service rough and finished machining
- Fabrication/welding and assembly
- Media Blasting, Painting and Coating
- Balancing
- Pressure Testing
- N.D.E. (PT, MPI, UT and Radiography)
- Reverse Engineering providing 2D & 3D data





Quality Processes

CSC facilities and in-house equipment include:

- 4x20 ton overhead cranes plus other 15 multi capacity cranes at different process centers
- Total melting/pouring capacity of 10,400 Aluminum Bronze and 9,000 Steel & Stainless grades (lbs. per heat), through 9 melting centers, ferrous and non-ferrous
  - Steels/Stainless Steel max net cast weight is 6,000 pounds; gross pour weight is 9,000 pounds
  - Leaded Tin Bronzes net cast weight is 1,800 pounds; gross pour weight is 2,600 pounds
  - Aluminum Bronze net cast weight is 6,000 pounds; gross pour weight is 10,400 pounds
  - Aluminum net cast weight is 250 pounds; gross pour weight is 350 pounds

Quality Processes

CSC facilities and in-house equipment include:

- Certified Material Test Reports with full physical and chemical testing as well as Charpy, corrosion testing, PMI and Ferrite content
- 8-foot diameter Wheelabrator charged with steel shot for better surface finish as well as a separate fully enclosed blast booth with specialize blasting media for Stainless steels, bronze and Aluminum.
- 100% NO-BAKE furan base air-set sand
- 3D SLA print available for cores and mold packages for reduced costs for one off parts or extremely smooth finishes and intricate core assemblies
- Unconventional core strength technology borrowed from Concrete Application
- Gudgeon *Thermfire* thermal sand reclamation system that efficiently reclaims 98% of sand
- Portable CMM and Laser Scan

CERTECH

Lloyd's Register

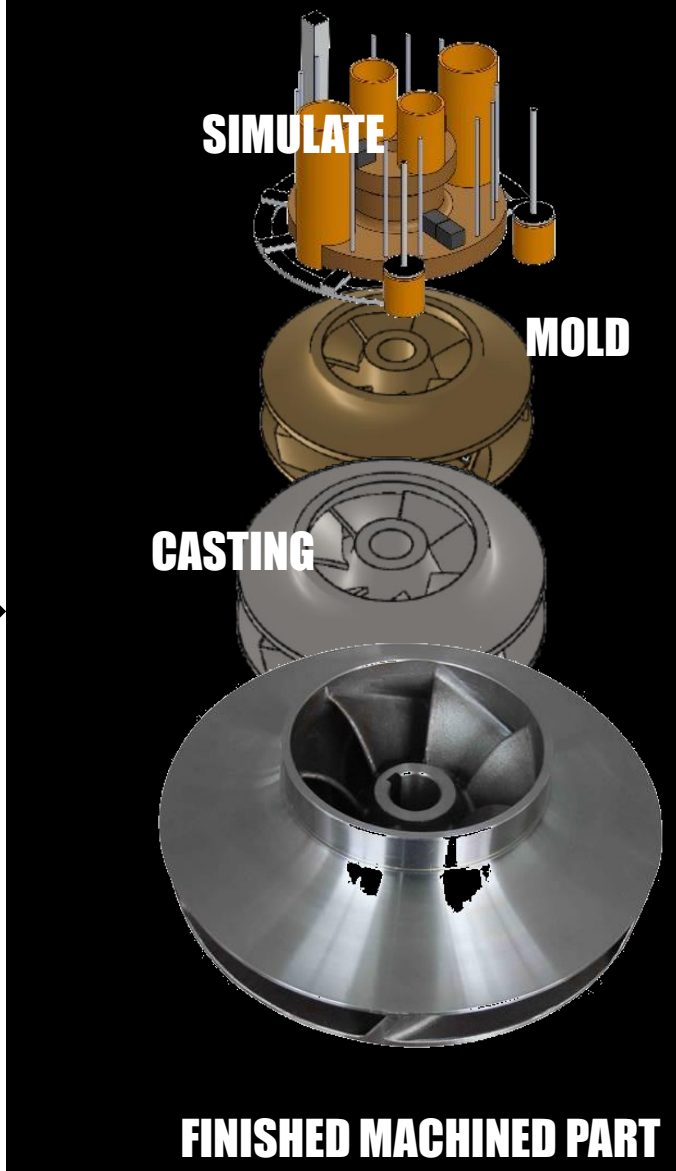
CSC is certified to

- ISO 9001:2008
- Lloyds for:
  - → Bronze, Phosphor Bronze & Gunmetal
  - → Carbon Alloy & Stainless Steel
  - → Copper Alloy for Valves, Liners, Bushes & Fittings

Engineered Casting Solutions

Canadian Specialty Castings welcomes all casting projects, small to large. We will be more than pleased to quote on your next project. Please contact us below.

Send us your PDF Drawing/3D Model/CAD File we will do the rest



CSC

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