



**Castings**

**Forgings**

**Machined Components**

# **P**recision Cast and Forge

High Quality.

Experienced.

Reliable.

Trustworthy.



Your trusted partner in the design,  
manufacture, and supply of  
engineered metal components

# Global Sourcing



# The PCF Advantage

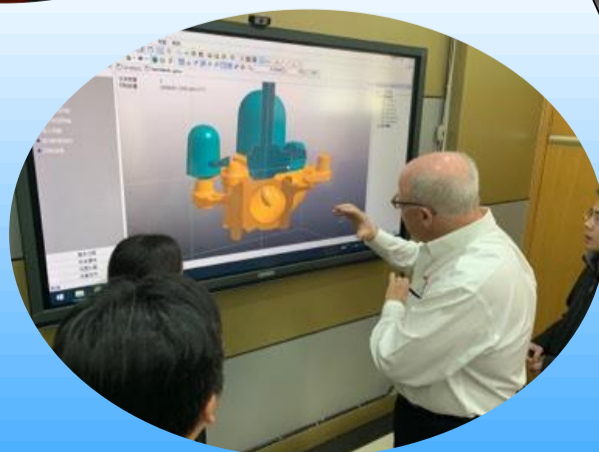
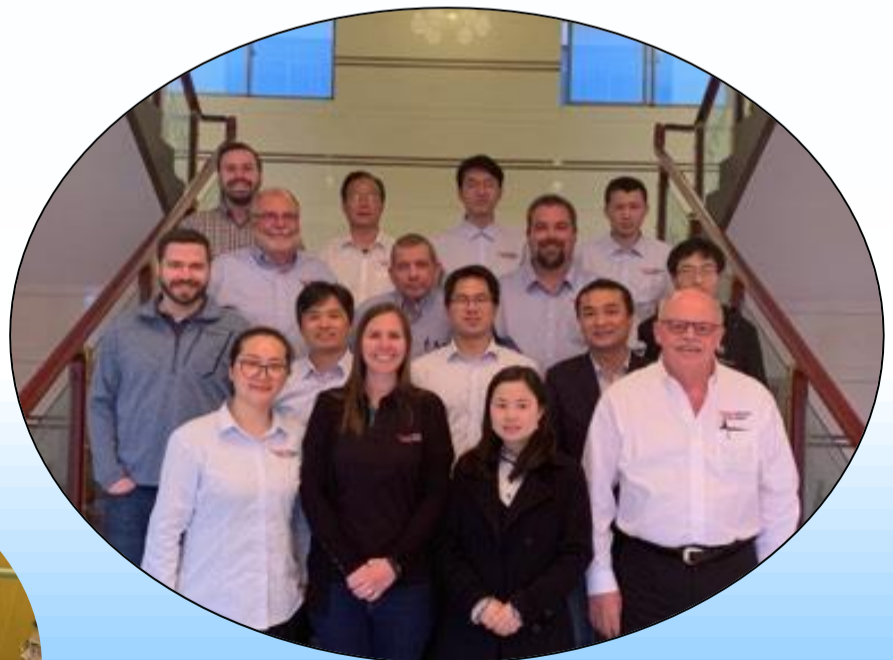
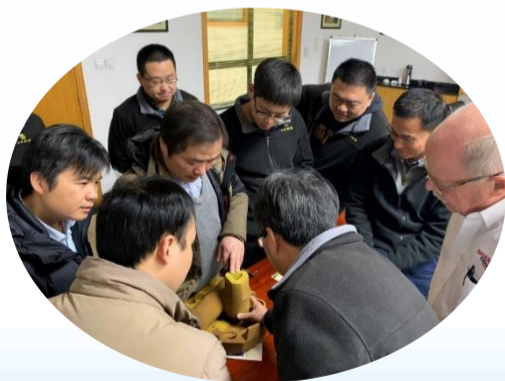
Precision Cast and Forge (PCF) is a Division of H.G. Carroll & Associates, Ltd. A sales and engineering company founded in 1998 by career foundryman, Howard G. Carroll. This business is an evolution of the G&C Foundry Company - Sandusky, OH, founded in 1916 by John J. Carroll, the Great Great Grandfather of Current President, Andrew G. Carroll.

With over 100 combined years of foundry operations and management experience, we are your source for domestic and offshore high quality and affordably priced finished castings, forgings, and machined components.

We are the exclusive North American sales team for multiple world-class manufacturing facilities in Asia

## Services Include:

- Casting design for manufacturability
- **Solidification modeling**
- Advanced quality planning
- **Rapid prototyping**
- Program management
- **Supply chain and logistics, including warehousing and distribution**





# Industries Served

Automotive



Hydraulics



Commercial Heavy  
Truck



Agricultural



Industrial



Construction



Pumps



Motorcycle, ATVs



# We provide the Big 3

**Quality** – We work with the finest suppliers throughout the World to provide our customers with superior quality. We routinely audit each supplier and share best practices among them.

**Cost** – We provide superior value to our customers with affordable pricing and flawless service. We save you money with superior engineering support and project management.

**Delivery** – We are very proud to offer warehousing, safety stocking, Kanban delivery options, and reliable sourcing.



Grey and Ductile Iron Castings

High Pressure Die Castings

Permanent Mold and Sand Castings

Gears, Shafts, Pulleys

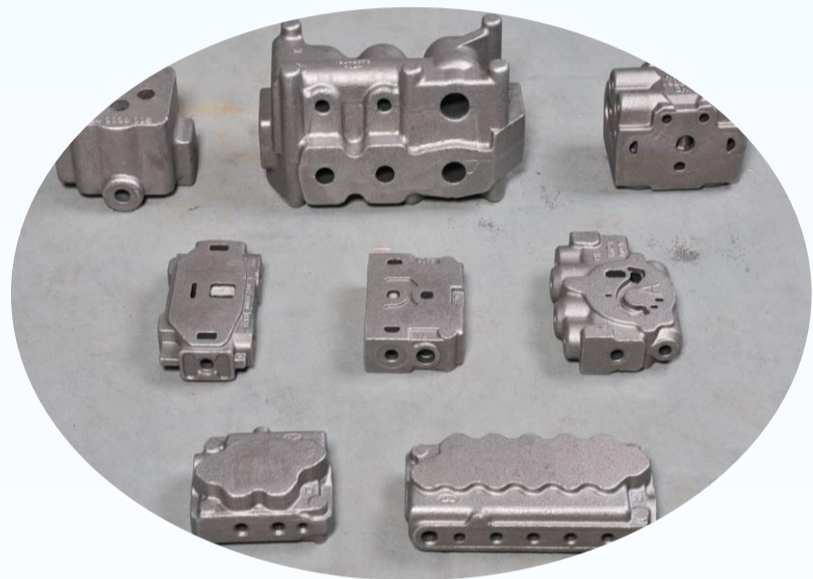
Axles, Links, Studs

Small Engine Components

# Gray and Ductile Iron Castings



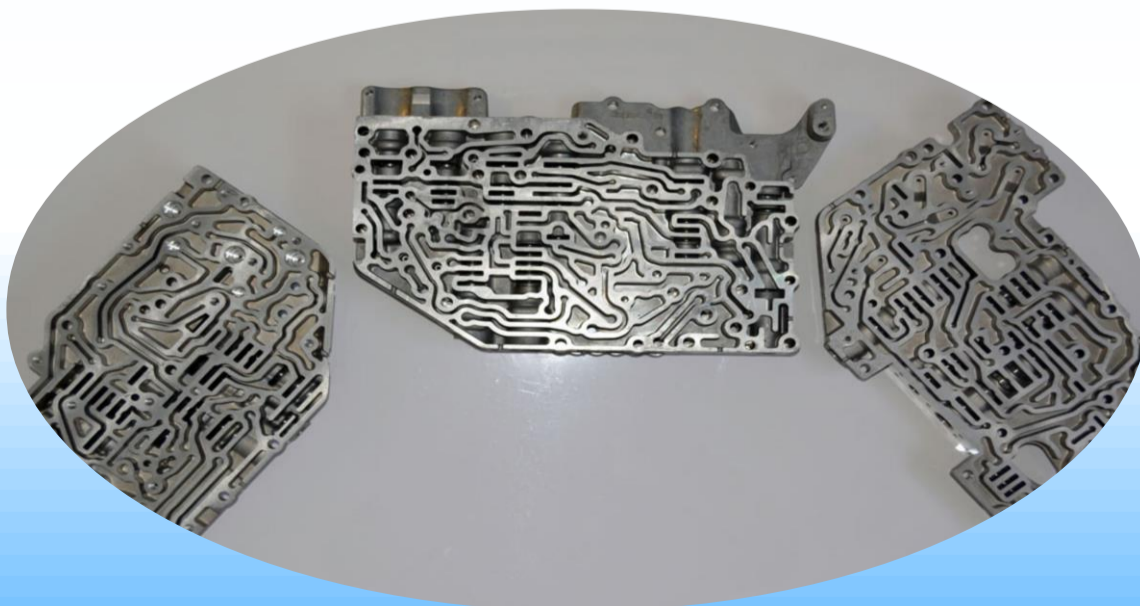
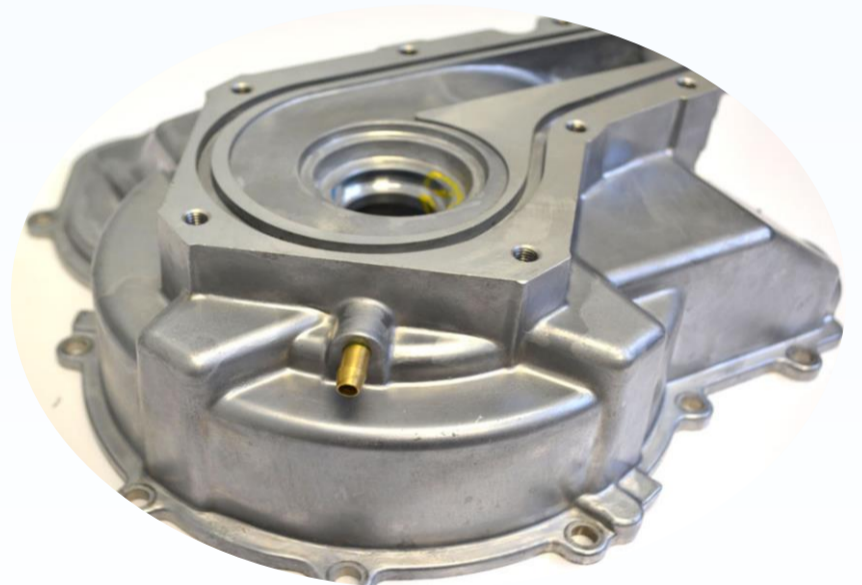
- Production Capabilities: Green Sand, Air Set, Shell Mold, Resin Sand, Coating
- Material: Gray Iron Class 30, 35, 40, 45; Ductile 65-45-12, 60-40-18, 80-55-06, 100-70-03; Austempered Ductile and Compacted Graphite





# High Pressure Die Castings

- Aluminum Die Casting
- Production Capabilities: Aluminum Die Cast with technologies of Vacuum, Local Squeezing, Jet Cooling, and Low-Speed Injection, CNC Machining, Pressure Test, Shot Blast, Assembly, Impregnation, Passivation, Powder Coat, Anodizing, Spray Painting, E-Coat
  - Material: A380, A383, A360, A363, A390, ADC14, ADC12, ADC10, B390, EN AC 46000
- Magnesium Die Castings
  - Production Capabilities: Die Casting Tooling, Magnesium Die Cast, Machining, Pressure Test, Shot Blast, Assembly, Impregnation, Passivation, Powder Coat
  - Material: AE44-2, AM50, AM60, AZ91D



# Aluminum Permanent Mold and Sand Castings

- Production Capabilities: Aluminum Permanent Mold Cast, T6 Heat Treatment, Machining, Pressure Test, Shot Blast, Assembly, Impregnation, Passivation, Powder Coat, Anodizing, Painting
- Material: A356, A357, ZL107, ZL117, ZL111



# Investment Castings

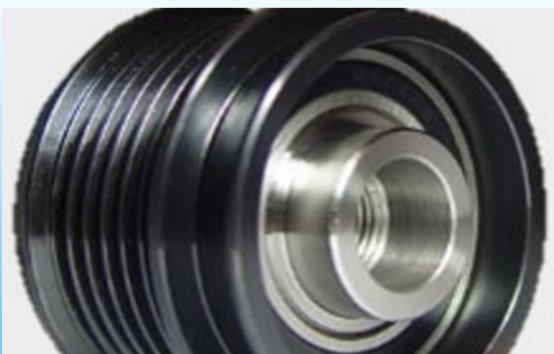
- Ferrous & Non-ferrous
- Production Capabilities: Silica Sol Loss Wax Technology, Combined Water Glass and Silica Sol Technology, Machining, Shot Blast, Sand Blast, Passivation, Painting, Heat Treatment
- Material: Carbon, Stainless Steel, Low or High Alloy Steel, Perception Hardening CRES and Heat Resistant Steel





# Gears, Shafts, Pulleys

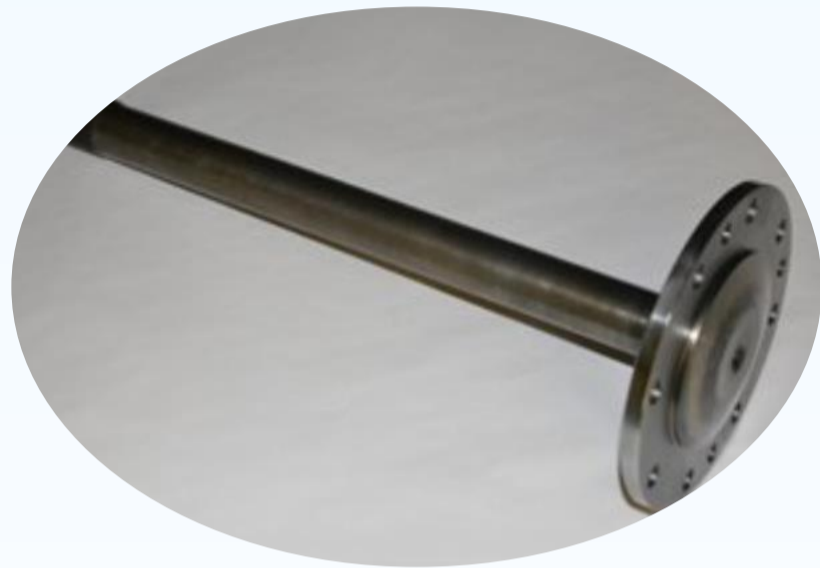
- Production Capabilities: Machining (turning, milling, drilling, gear hobbing, shaping, and grinding), Sub-Micron Grade Capability, Heat Treatment
- Material: Q235, Q275, 1035, 4140, 4150, 1050, 40Cr, 40MnB, 30CrMnSi, 35CrMo, 40CrNiMo, 20Cr, 20CrMnTi, 9Mn2v, GCr15, 50CrMoA



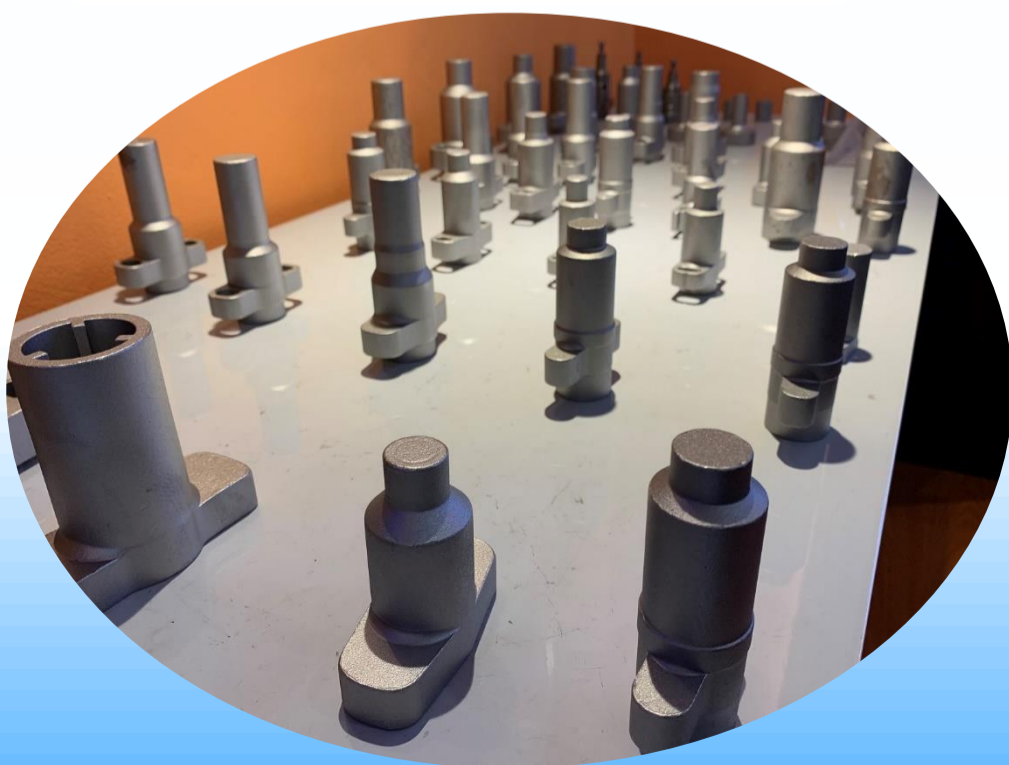
# Forgings

- Steel and Aluminum – all grades
- Hot and Cold Forming

## Axles



## Links

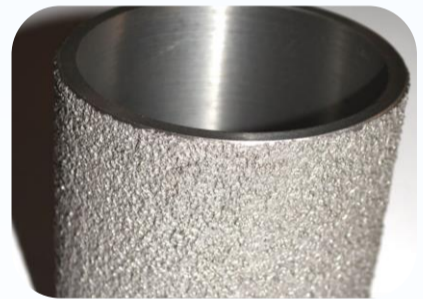


## Studs



# Small Engine Components

- Crankshafts, Camshafts, Rods, Pistons, Magnetos
- Bearings, Clutches, Cylinder Liners





For additional information contact:



Andy Carroll, President

Mobile: +1-419-357-1015

Email: [acarroll@precisioncastandforge.com](mailto:acarroll@precisioncastandforge.com)



119 E. Bogart Rd., Sandusky, OH 44870, U.S.A.

Find us on the web at [www.precisioncastandforge.com](http://www.precisioncastandforge.com)