

Precision **Cast and Forge**

A Division of H. G. Carroll & Associates, Ltd.

Castings | Forgings | Machined Components

Your single-source partner for engineered metal components — domestic expertise, global value, 100+ years of foundry heritage.

Contact Us

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119 E. Bogart Rd., Sandusky, OH 44870

Our Story

110 years of foundry heritage — and counting

Founded on Foundry DNA

G&C Foundry, Sandusky OH — founded in 1916 by John J. Carroll.

Brothers Howard, John, and Charles Carroll ran G&C until 1996.

H.G. Carroll & Associates founded 1998 by career foundryman Howard G. Carroll.

Andrew G. Carroll, great-great-grandson of the founder, leads PCF — A division of H.G. Carroll & Associates today as President.

Global Reach, Local Expertise

Since 2002, PCF has owned manufacturing operations in the U.S. and overseas.

Exclusive North American sales representative for multiple world-class foundries.

100+ combined years of foundry operations and management experience.

Competitive global pricing without compromising supply chain security.

What We Do

Contract manufacturing: castings, forgings, machined components.

Design for manufacturability — solidification modeling, APQP.

Rapid prototyping and program management.

Warehousing and distribution.

Why Precision Cast and Forge?

Quality • Cost • Delivery — the foundation of every program we run

QUALITY

Audited, world-class global supplier network.

Engineering support at every stage — solidification modeling, APQP, PPAP.

Routine supplier audits with shared best practices.

Rapid prototyping to validate design before production launch.

COST

Domestic and offshore tooling options — your choice.

Better upfront design means fewer rejects and less rework.

One partner for casting, machining, and logistics.

Competitive pricing without compromising quality.

DELIVERY

Warehousing and distribution.

Safety stocking and Kanban programs available.

Small-quantity shipments on your schedule.

Reliable sourcing through exclusive global supplier relationships.

Industries Served

Serving the most demanding sectors in industrial manufacturing

Automotive

Engine blocks, transmission housings, brackets, pulleys, structural castings

Hydraulics & Fluid Power

Valve bodies, manifolds, pump housings, end caps, spools

Commercial Heavy Truck

Axles, brake components, drivetrain and suspension parts

Agricultural Equipment

Gearbox housings, hydraulic fittings, structural castings

Industrial Equipment

Machine bases, gear housings, custom machined components

Construction Equipment

Structural castings, wear parts, forged links and pins

Pumps & Compressors

Pump bodies, impellers, housings, seal components

Motorcycle & ATV

Engine cases, cylinder heads, crankshafts, small engine parts

Gray and Ductile Iron Castings

Production Capabilities

- Green Sand
- Air Set
- Shell Mold
- Resin Sand
- Coating / Painting

Materials

- Gray Iron: Class 30, 35, 40, 45
- Ductile Iron: 65-45-12, 60-40-18, 80-55-06, 100-70-03
- Austempered Ductile Iron (ADI)
- Compacted Graphite Iron (CGI)

Typical Applications

Valve bodies | Pump housings | Hydraulic manifolds | Brake components



High Pressure Die Castings

Aluminum Die Castings

Production Capabilities:

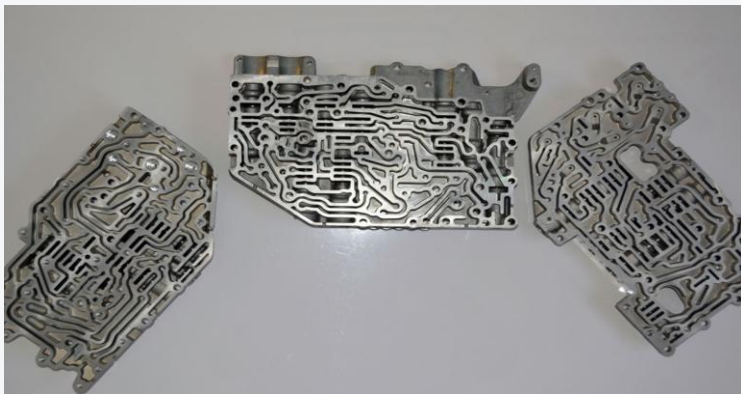
Vacuum, Local Squeezing, Jet Cooling, Low-Speed Injection

CNC Machining, Pressure Test, Shot Blast, Assembly

Impregnation, Passivation, Powder Coat, Anodizing, E-Coat

Materials:

A380, A383, A360, A363, A390, ADC10, ADC12, ADC14, B390, EN AC 46000



Magnesium Die Castings

Production Capabilities:

Die Casting Tooling, Machining, Pressure Test

Shot Blast, Assembly, Impregnation

Passivation, Powder Coat

Materials:

AE44-2, AM50, AM60, AZ91D



Permanent Mold, Sand, & Investment Castings

Aluminum Permanent Mold & Green Sand Casting

Capabilities:

Aluminum Permanent Mold Cast

T6 Heat Treatment

Machining, Pressure Test, Shot Blast

Anodizing, Powder Coat, Painting

Materials:

A356, A357, ZL107, ZL111, ZL117



Investment Castings – Ferrous & Non-Ferrous

Capabilities:

Silica Sol Lost-Wax Technology

Combined Water Glass & Silica Sol

Machining, Shot Blast, Passivation, Heat Treatment

Materials:

Carbon Steel, Stainless Steel, Low/High Alloy Steel, Precipitation Hardening CRES, Heat Resistant Steel



Gears, Shafts & Pulleys

Production Capabilities

Turning, milling, drilling

Gear hobbing, shaping, and grinding

Sub-micron grade capability

Heat treatment

Materials

Q235, Q275, 1035, 1050

4140, 4150, 40Cr, 40MnB

30CrMnSi, 35CrMo, 40CrNiMo

20Cr, 20CrMnTi, GCr15, 50CrMoA

Typical Parts

Spur gears | Helical gears | Bevel gears | Spline shafts | Pulleys | Sprockets



Forgings

Hot & Cold Forgings

Steel and Aluminum — all grades

Typical Products

Axles

Links and tie-rods

Studs and fasteners

Shafts

Flanges

Structural brackets and arms

Industries

Automotive | Agricultural | Heavy Truck | Construction | Industrial



Small Engine Components

Components We Supply

Crankshafts

Camshafts

Connecting rods

Pistons

Magnetos / stators

Bearings

Clutch components

Cylinder liners

Engine blocks and heads

Industries

Lawn & garden | Motorcycle & ATV | Marine | Power generation



Let's Work Together

Send us an RFQ or reach out to start a conversation.

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Our Capabilities

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High Pressure Die Castings

Aluminum Permanent Mold & Sand Castings

Investment Castings

Forgings — Hot & Cold

Gears, Shafts & Pulleys

Small Engine Components

CNC Machining