

TIANHUI MACHINE

Casting | Forging | CNC Machining | Inspection

P060 - Cast Brackets and Duct Components

P063 - Forged Bent Control Levers

P074 - Automotive Crossmembers and Cast Gear Housings

P080 - Cast Pipe Bracket Housings

P110 - Forged Automotive Rocker Arms

P111 - Precision Automotive Valve and Lever Components

P112 - Cast Automotive Rocker Arms

P113 - Automotive Pivot Pins

PRODUCT CAPABILITY PDF

Automotive Components

Custom metal components for automotive systems and vehicle-related assemblies.

Drawing-Based

OEM Production

Casting + CNC

Coordinated Process

Inspection

Project Specific

thcastings.com

Manufacturing Review

Prepared for OEM buyers evaluating custom metal component manufacturing routes.

01 / COMPONENT SCOPE

What We Manufacture for Automotive Components

Casting, forging and CNC machining for drawing-based automotive parts.

01

Exhaust outlet housings

02

Intake and exhaust duct housings

03

Engine housings and covers

04

Rocker arms and levers

05

Automotive shafts

06

Pulley and splined components

07

Ball stud and socket inserts

08

Cast brackets and pipe housings

Important note

Most components are produced according to customer drawings, samples or existing parts. Material, tolerance, surface treatment and inspection scope should be confirmed during the manufacturing review instead of assumed from a product image.

02 / MANUFACTURING ROUTES

Choose the route around geometry, material and volume

The same product category can include casting, forging, CNC machining or a combined process. The final route should follow the part drawing and production requirements.

01

Investment casting

Investment casting for smaller complex steel components

02

Sand casting

Sand casting for larger housings and duct parts

03

Forging

Forging for high-load levers, shafts and rocker arms

04

CNC machining

CNC machining for bores, threads, faces and interfaces

PROCESS SELECTION

The drawing decides the process.

Before quotation, Tianhui reviews part geometry, alloy, annual volume, tolerance, surface condition, machining allowance and inspection requirements to decide the practical manufacturing route.

03 / PRODUCT EXAMPLES

Representative Components from the Image Library

These examples are grouped from the current product photo library. Exact material and final application should be verified against customer drawings or samples.



P002
Exhaust Outlet Housings

Custom exhaust outlet housings featuring curved hollow cast housings with multiple mounting flanges and bolt holes. The likely manufacturing...

Confidence: High



P055
Exhaust and Intake Housings

Custom exhaust and intake housings featuring thin-wall cast duct and pipe housings with flanges and curved flow paths. The likely manufacturing rout...

Confidence: High



P058
Intake and Exhaust Duct Housings

Custom intake and exhaust duct housings featuring curved cast duct bodies and flange housings for gas or air flow. The likely manufacturing...

Confidence: High



P110
Automotive Rocker Arms

Custom automotive rocker arms featuring forged rocker/lever geometries with pivot bores, pads and branch features. The likely...

Confidence: High



P112
Automotive Rocker Arms

Custom automotive rocker arms featuring dark cast/forged rocker arm bodies with large pivot openings and reinforced ribs. The likely...

Confidence: High



P113
Pivot Pins

Custom pivot pins featuring stepped metal pins with central collars for guided rotational joints. The likely manufacturing route is cnc turning...

Confidence: High

04 / QUALITY & CUSTOMIZATION

From image review to controlled production

Production is organized around approved drawings, technical requirements and inspection expectations.

01

Dimensional checks on mounting and assembly interfaces

02

Material verification when specified by the drawing

03

Surface and visual inspection for cast or forged parts

04

Machined bore, thread and flange verification

RFQ INFORMATION

What to send for a useful quotation

- 2D drawing, 3D model, sample or clear product photos
- Material grade or preferred alloy
- Estimated quantity and annual demand
- Critical dimensions, tolerances or assembly interfaces
- Surface finish, coating or heat-treatment requirements
- Inspection documents, testing or traceability requirements

05 / PROJECT PROOF

Related manufacturing experience

Relevant project direction: forged cam and eccentric shaft case studies show spline machining, heat treatment and NDT experience that can support precision vehicle-related components.

Additional example parts



Eccentric and Crank Shafts



Automotive Shafts



Engine Housings and Covers



Exhaust Manifolds and Pipes



Exhaust Flanges and Adapters



Pulley and Splined Components

NEXT STEP

Send your drawing for manufacturing review

Email: seo@cn-tianhui.com | Website: www.thcastings.com