



RICO AUTO

Corporate Presentation

December 2011

RICO Corporate Presentation

Company Profile, Joint Ventures, Customers & Products

- Manufacturing Capabilities and Product Range
- Engineering and R&D Capabilities
- Our Vision

Leading Integrated Supplier of Automotive Components & Assemblies

**Ferrous &
Aluminium**

**Casting &
Machining**

**Dies &
Moulds**

**Design &
Development**



**OEM
Supplier**

**ISO-TS
16949**

**ISO
14001**

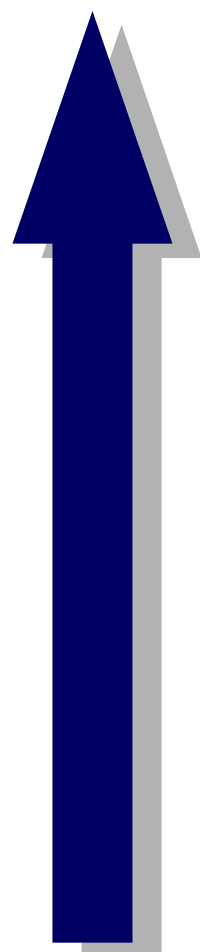
**OHSAS
18001**

**FORD
Q1**

**CAT-SQEP
Bronze**

RICO Group Combined Turnover \$374 Million

History & Milestones



2010-11	Added new facilities/Plants – At Bawal, Bhiwadi, Sanand, Chennai & Haridwar.	
2007-09	JV with CONTINENTAL Automotive Systems (Hydraulic Brakes) JV with MAGNA Powertrain (Oil Pump, Water Pump) JV with Jinfei China (Aluminum Alloy Wheels – 2 Wheelers) Added Customers – JATCO, Mann & Hummel, Magna, Renault, BMW	FORD Q1 CAT SQEP-Bronze
2004-06	R&D Center Started Added Customers – NISSAN, TATA (Small Car Project), Perkins	
2003-04	Enhanced Ferrous and Aluminium Capacity Added Customers – GM, Caterpillar, Honeywell, Detroit Diesel, Volvo	
2000-02	Full Service Engineering Design Development Added Customers – FORD, LandRover, Jaguar	TS 16949 ISO 14001 OHSAS 18001
1999-00	Aluminium Die Casting & Machining (<i>Gurgaon</i>)	QS 9000
1994-96	JV (50:50) FCC RICO (Clutch Assembly) Started Exports – GM, Eaton, Cummins	
1990-92	International Market OEM Supplier – MEC Japan Ferrous Casting & Machining (<i>Gurgaon</i>) Focus – Maruti Suzuki	ISO 9000
1985-86	Technical Collaboration FCC Japan Commercial Production Started (1986) Aluminium Die Casting & Machining (<i>Dharuhera</i>) Focus – Hero Honda & Maruti Suzuki	

RICO Group Joint Ventures & Subsidiaries



FCC RICO

50% FCC
50% RICO

Clutch Assembly
Two Wheelers &
Four Wheelers

**CONTINENTAL
RICO**

50% CONTINENTAL
50% RICO

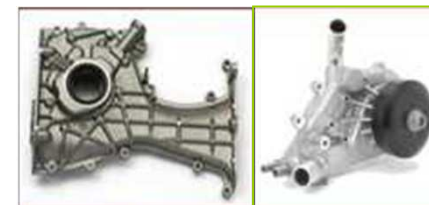
Hydraulic Brake
Products & Services
Vehicles of all Classes



**MAGNA
Powertrain RICO**

50% MAGNA
Powertrain
50% RICO

Oil Pump
Water Pump
(Automotive Engines)
(India & Europe)



RICO JINFEI

7.5% JINFEI
92.5% RICO

Aluminum Alloy Wheels
Two Wheelers

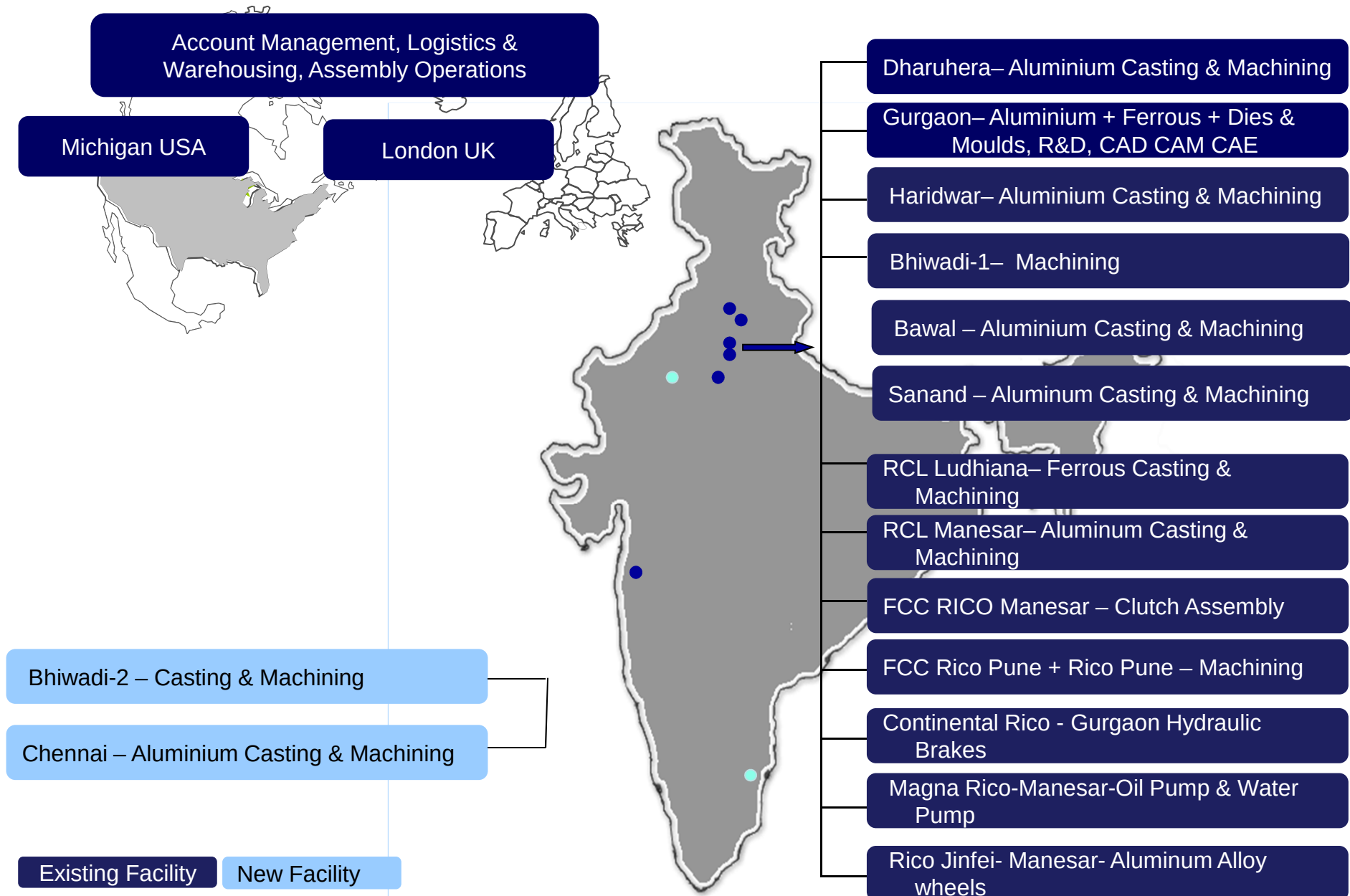


RICO USA & UK

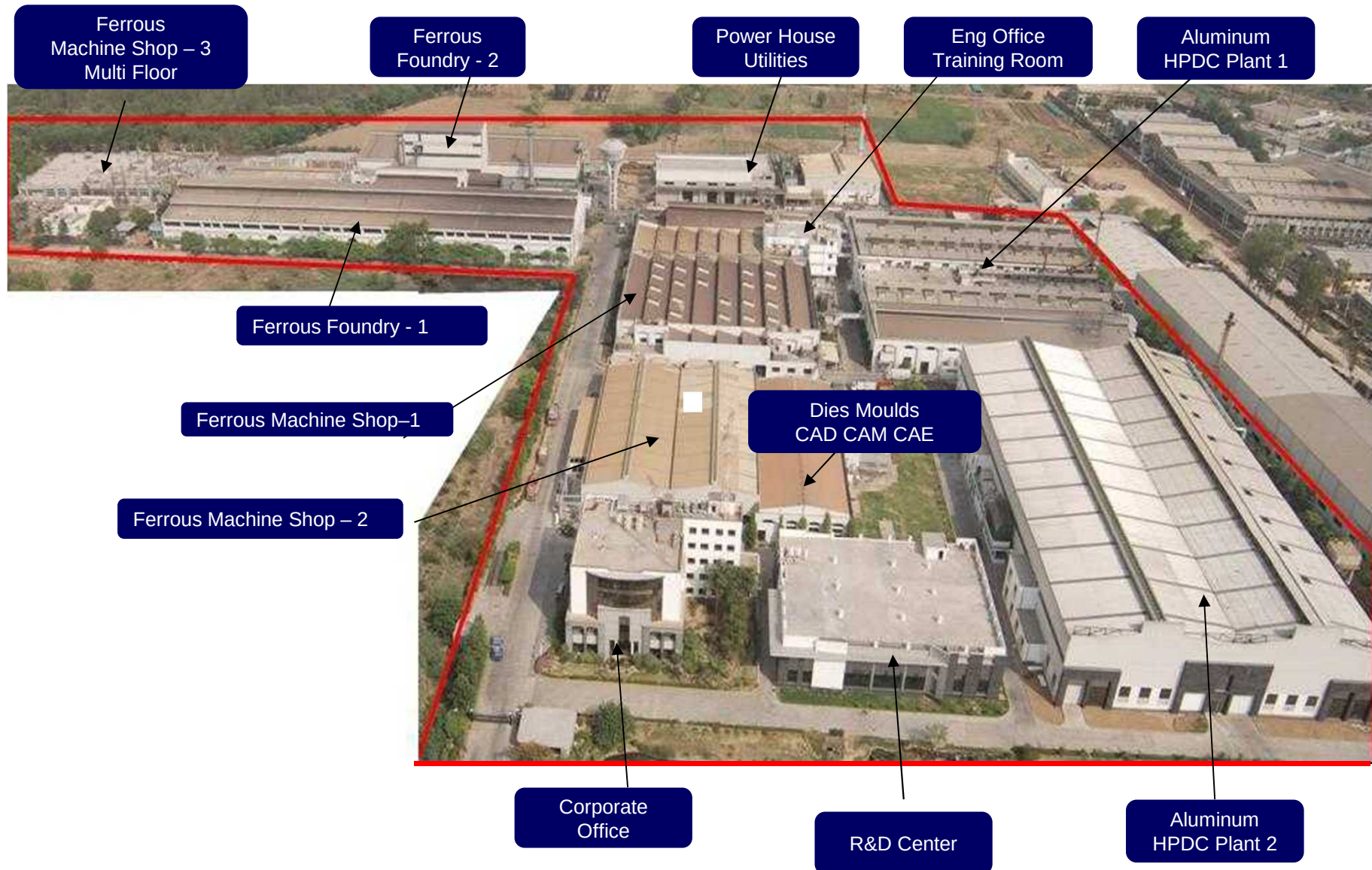
Wholly Owned
Subsidiary
100% RICO

Assembly, Logistics
Customer Support

RICO Group-Plant & Facilities-Locations



RICO Group-Gurgaon Campus



RICO Group – Other Plants & facilities



Rico - Dharuhera
Aluminum Casting & Machining



Rico – Manesar
Alloy Wheels & Aluminum Parts



RICO Bhiwadi 1 (New Plant)
Machining (Aluminum +
Ferrous)



Rico – Haridwar (New Plant)
Aluminum casting & Machining



WIP - RICO Sanand



12/5/2011

WIP – RICO Bawal



8

WIP-RICO Chennai



9

RICO Group – Joint Venture's facilities



CONTINENTAL RICO (JV) – Gurgaon
Hydraulic Brake System



FCC Rico (JV) – Clutch System
Manesar



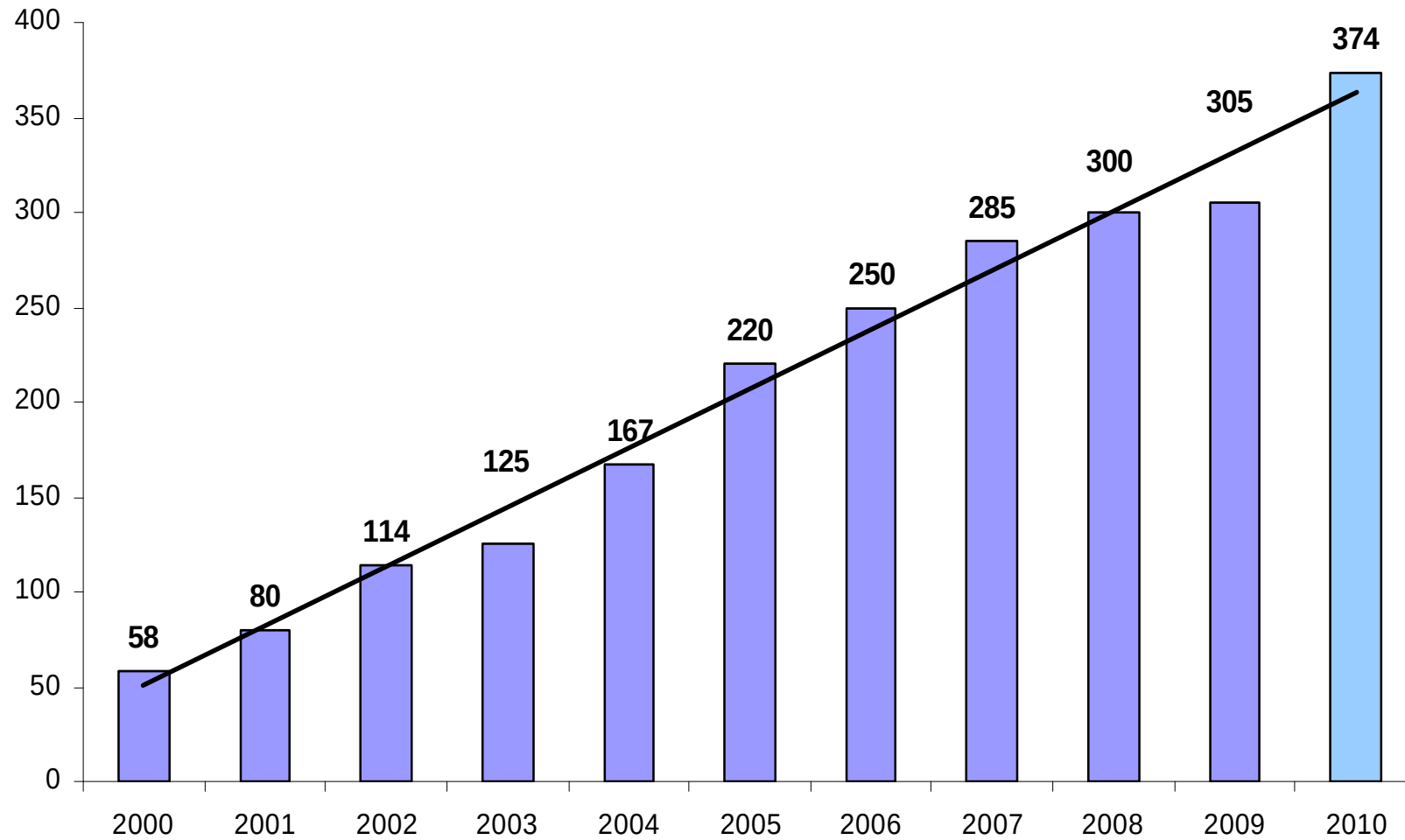
RICO JINFEI Manesar
Alloy Wheels



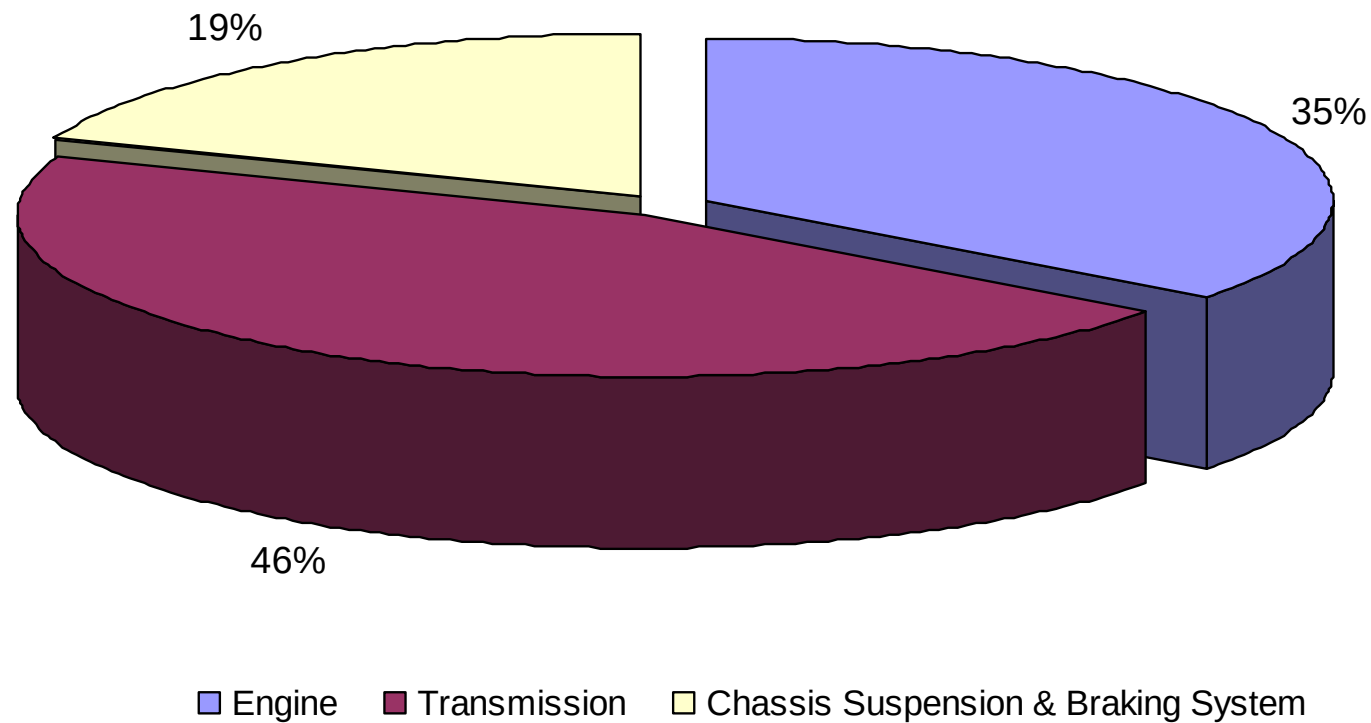
MAGNA Rico Powertrain (JV) – Oil & Water
Pumps – Manesar



Group Turnover (us \$ Million)



Group Revenue-Product Segment Wise



Product Range-Product & Assemblies



Engine



- Oil Pump Assembly
- Fuel System Parts
- Lube Oil Filter head
- Exhaust Manifolds
- Turbine Housings
- Center Housings
- Crank Cases & Covers
- Cylinder Head Cover
- Oil Pan
- Intake Manifold Cover
- Engine Front Cover
- Valve Cover
- Side Cover
- Balance Shaft Assembly
- Gear Housing
- Main Bearing Caps
- Water & Air Connections
- Flywheel Assembly
- Timing Cases
- Oil Filter Adaptor
- Engine Brackets
- Cylinder Block (Aluminum)
- Cylinder Head (Aluminum)
- EGR Housing
- Rocker base

Transmission



- Clutch Assembly
- Transmission Support Assembly
- Differential Case
- Gear Shift Forks
- Intermediate Plate
- Pressure Plate
- Rear Case
- Transmission Case
- Front Transmission Housing

Chassis Suspension & Braking System



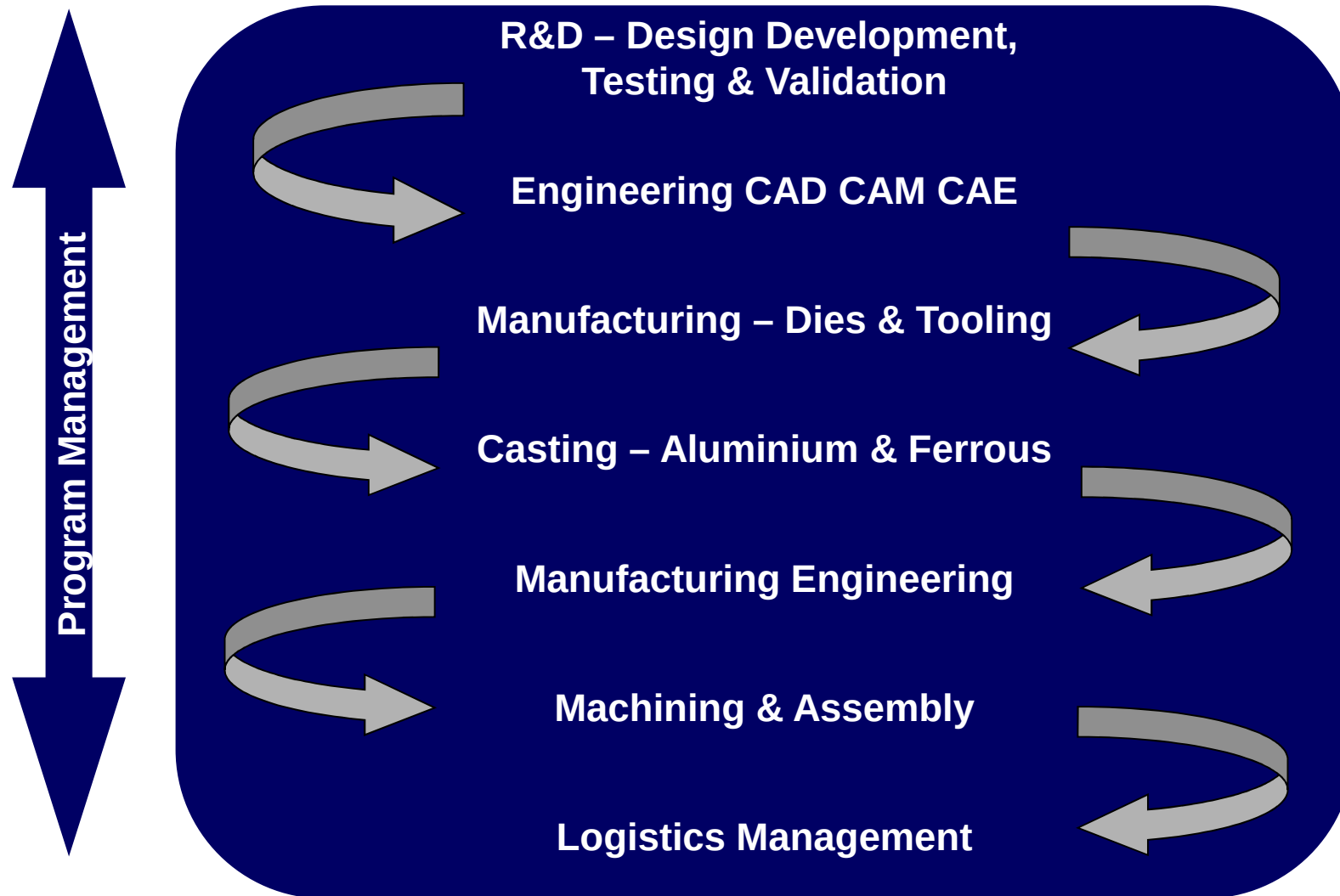
- Wheel Hub Assembly
- Brake Panel Assembly
- Brake Disc
- Brake Drums & Rotors
- Knuckles
- Caliper & Anchor
- TMC Tandem Master Cylinder

Current Global Customer Base



	North America	Europe	India	Japan/ ASEAN
Two Wheelers			 	
Passenger Cars		 	 	
Commercial Vehicles	 	 	 	
System Suppliers				

Our Integrated Services-Product to deliveries



RICO Corporate Presentation

- Company Profile, Joint Ventures, Customers & Products

Manufacturing Capabilities and Product Range

- Engineering and R&D Capabilities
- Our Vision

Aluminium-Infrastructure



Over 100 High Pressure Die Casting Machines (135 – 1800 Tns Locking Force)
Largest High Pressure Die Casting Capacity in India



Future Strategy: Expand 2500- 3000 Tns

Gravity & Low pressure Die Casting

Current facility at Gurgaon for LPDC & GDC and at Manesar for GDC include stationary and tilting type machines



Future Strategy: Independent facility for GDC & LPDC Operations

Ferrous - Infrastructure



4 Moulding Lines - 2 DISA & 2 Horizontal (SINTO & DISA)
Vertical Size (650 * 535 * 130~330) & Horizontal Size (610 * 510 * 200+200)
Material: Gray (FC), Ductile (FCD), SiMo, SiMo Chrome



Machining & Assemblies



Over 1,500 Machines (CNCs & SPMs) +
One of the Largest Machining Facility in India



We Machine All Our Castings
Over 50% of Our Product Range is with Assemblies

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Engineering and R&D Capabilities

- Our Vision

Engineering CAD CAM, CAE



Competitive Advantage: Manufacturing Experience Combined with Engineering
CAD CAM CAE Center



Capabilities (Over 60 Seats)

- CAD CAM Computer Aided Design & Manufacturing
- Unigraphics, Pro E, Catia, C3P, Ideas, Vericut
- *CAE Computer Aided Engineering*
- Magmasoft, FEA, CFD, Ansys, FCX, GT Suite, MSC Fatigue

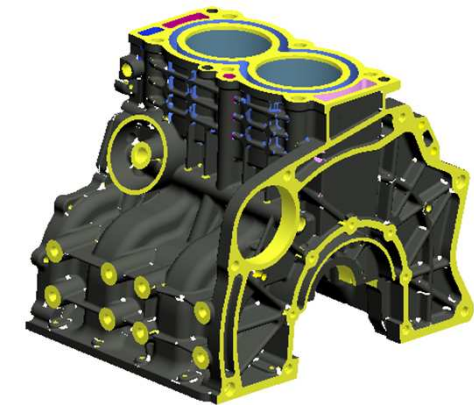
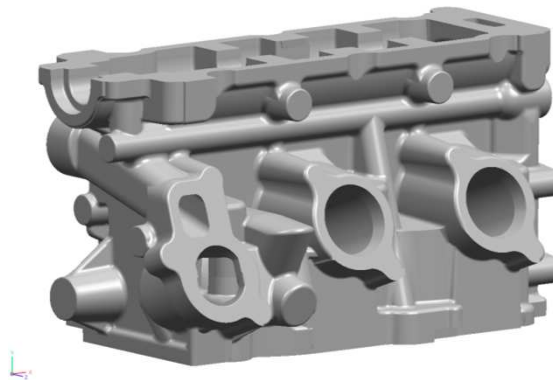
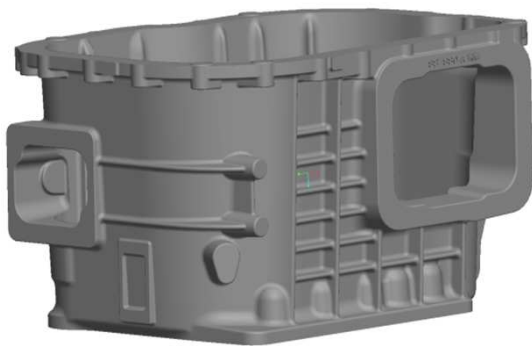
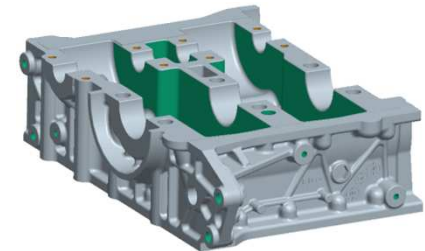
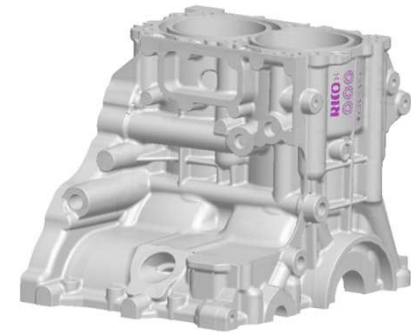
Advantages

- Concurrent engineering with customers.
- Co-Design with Customers.
- Shorter development time.
- Cost advantage.
- Inhouse designing, Modifications & product design optimization.

Recent Projects



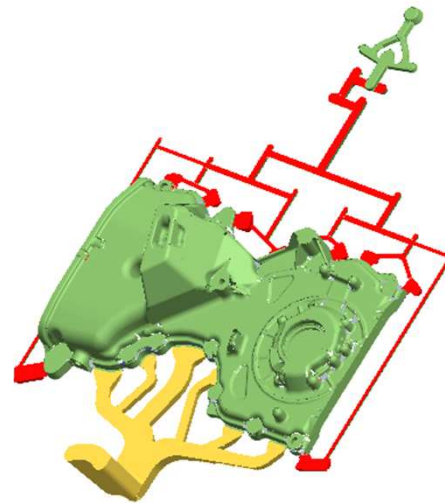
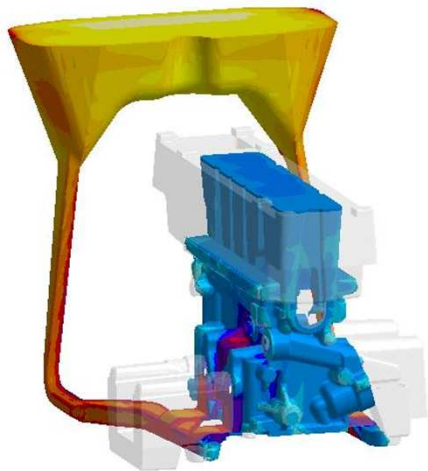
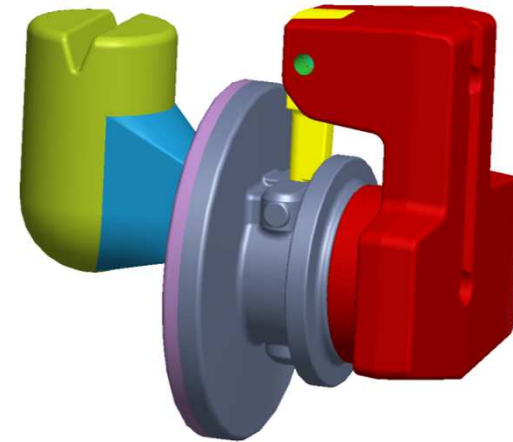
- Engine Block & Bed Plate in HPDC Process
- Oil Pump in Vacuum HPDC Process
- Bracket with Local Squeeze HPDC process
- Cylinder Head in GDC Process
- Transmission Housing in LPDC Process
- Engine Block in Ferrous Disa Vertical
- Turbocharger Parts in Shinto Horizontal



Process Development / Improvement



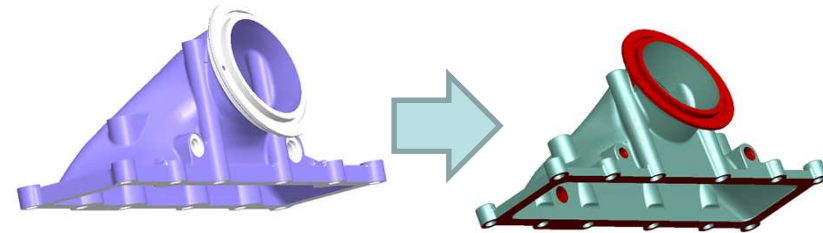
- Process Optimization
- Process Change
- Cycle Time Reduction



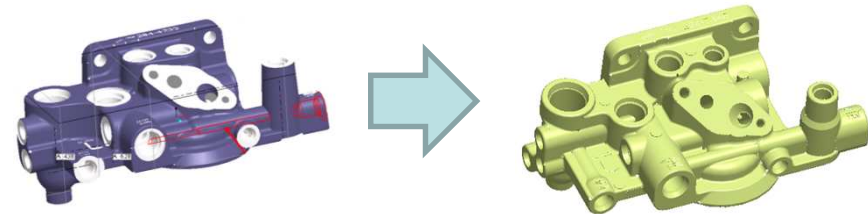
Product Cost Optimization



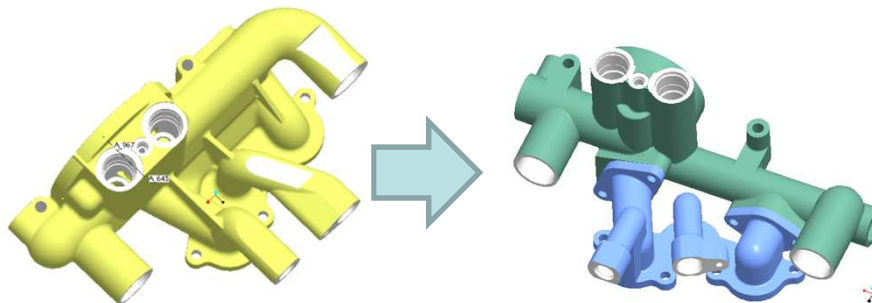
- Process Change
- Weight Reduction
- Quality Improvement
- Machining elimination



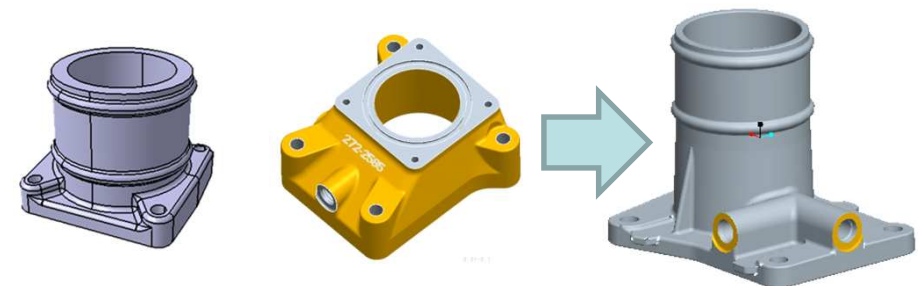
Process Change – GDC to HPDC
Weight Reduction – 0.55 Kg



Quality Improvement
Weight Reduction – 0.50 Kg



Process Change – GDC to HPDC
Weight Reduction – 1.80 Kg



Process Change – GDC to HPDC
Weight Reduction – 0.85 Kg
Machining Elimination

Tooling & Die Manufacturing



In-House Dies & Pattern Design & Manufacturing

Manufacture over 200 Dies & Patterns and 600 Die Inserts Annually



Recent Projects completed

- Design & development of Dies for Engine Blocks, Bed Plates, Cylinder head
- Designing & Manufacturing of Dies for 1600 ton & 1800 ton die casting machines.
- Designing & Manufacturing of LPDC & GDC dies.

Aluminium Products - Motorcycles

RICO

Clutch Assemblies

Annual Capacity: 7 Million
Supply Location : India

**HERO
HONDA**

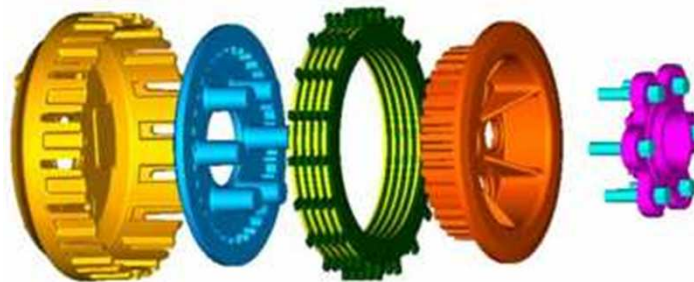
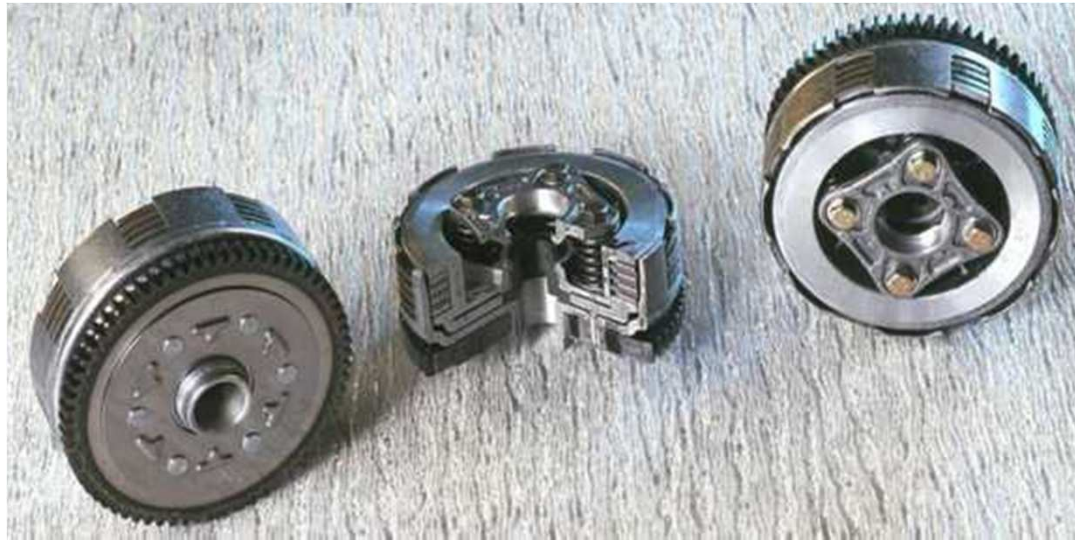
BAJAJ

TVS

HONDA

SUZUKI

YAMAHA



Aluminium Products - Motorcycles



Crank Cases

Annual Capacity: 2.5 Million

Supply Location : India



Aluminium Products - Cars



Oil & Water Pump Housing & Assemblies



Annual Capacity: 2 million

Supply Location : India , Italy



Aluminium Products - Cars

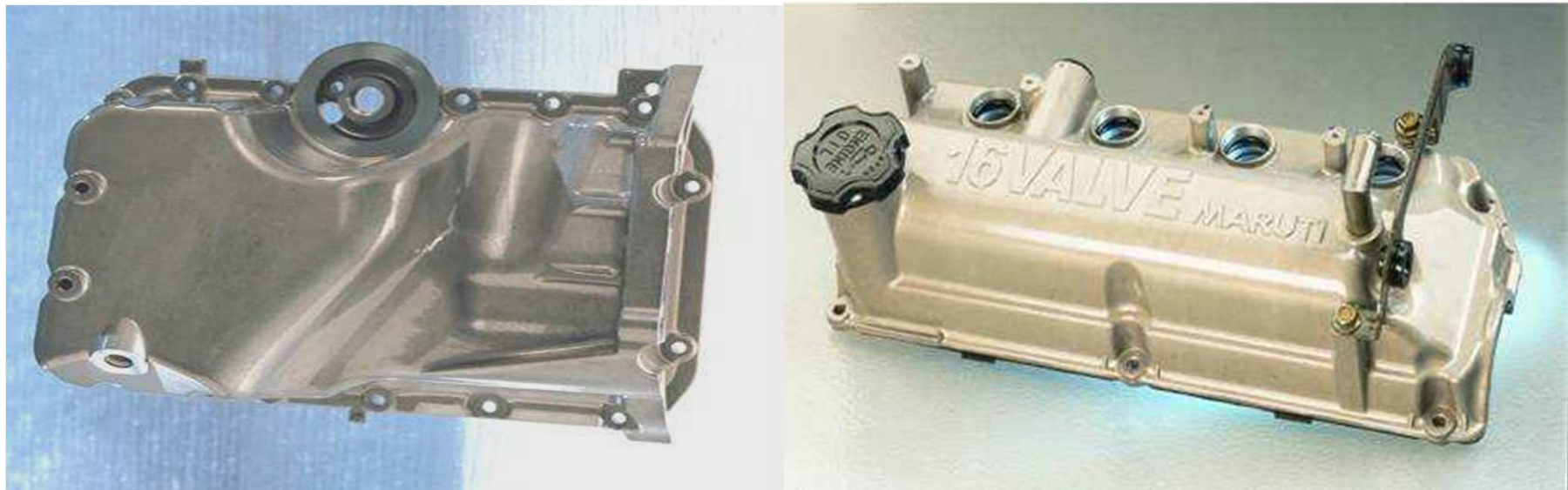


Cylinder Head Covers Assembly & Oil Pans



Annual Capacity: 350,000

Supply Location: India

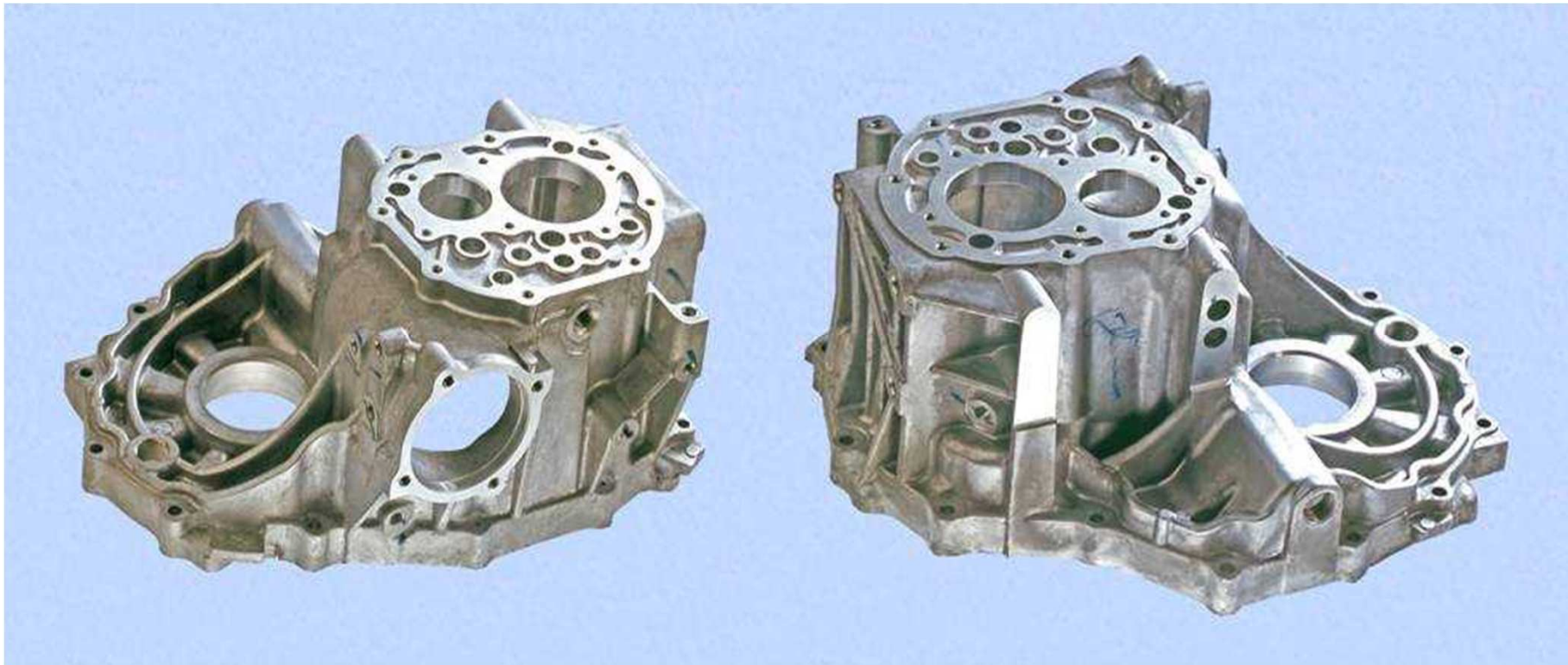


Aluminium Products - Cars

Transmission Case (Maruti)

Annual Capacity: 300,000

Supply Location: India



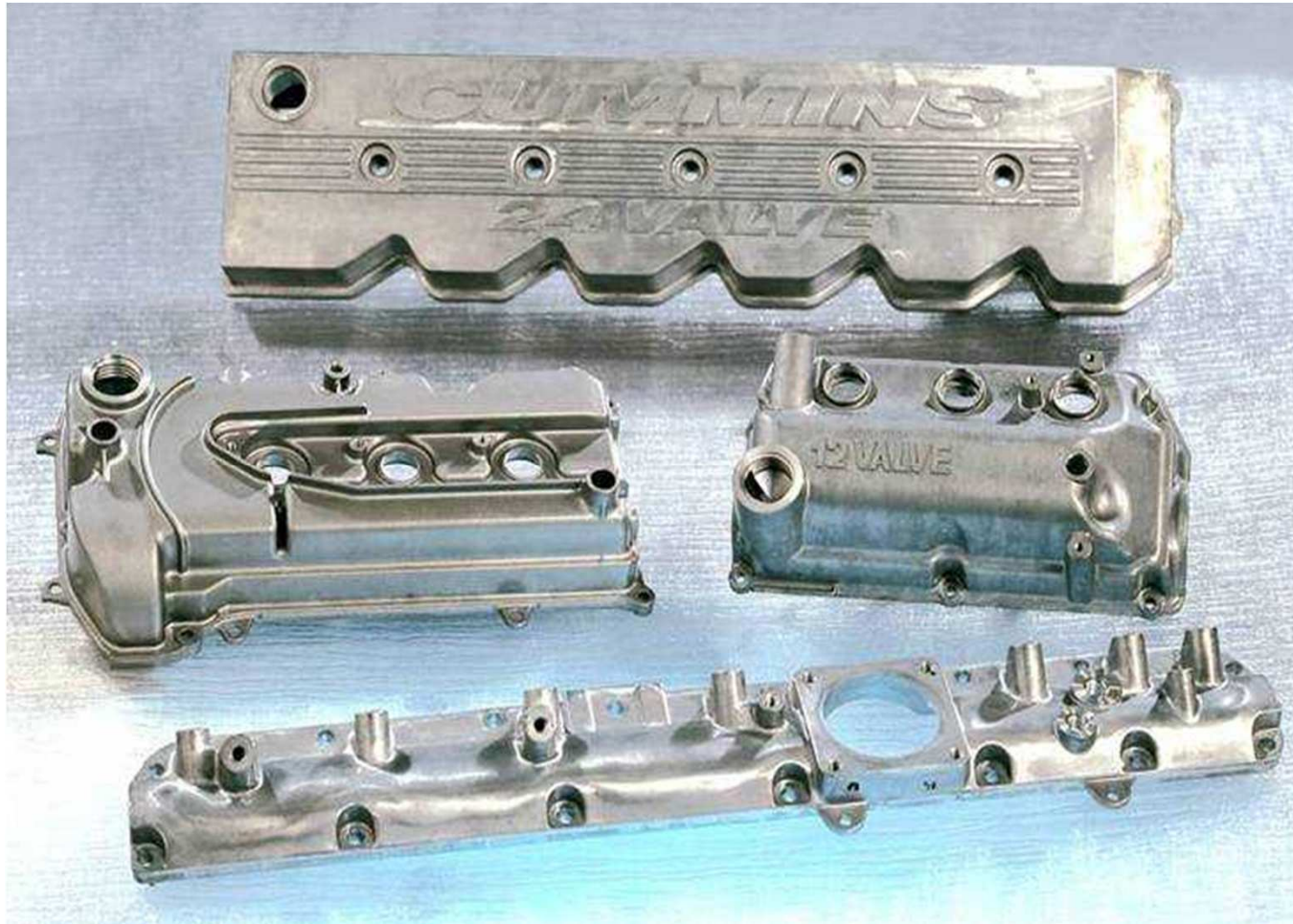
Aluminium Products – HCV & Cars



Cylinder Head Covers

Annual Capacity: 350,000 Supply

Location: India, Europe & USA

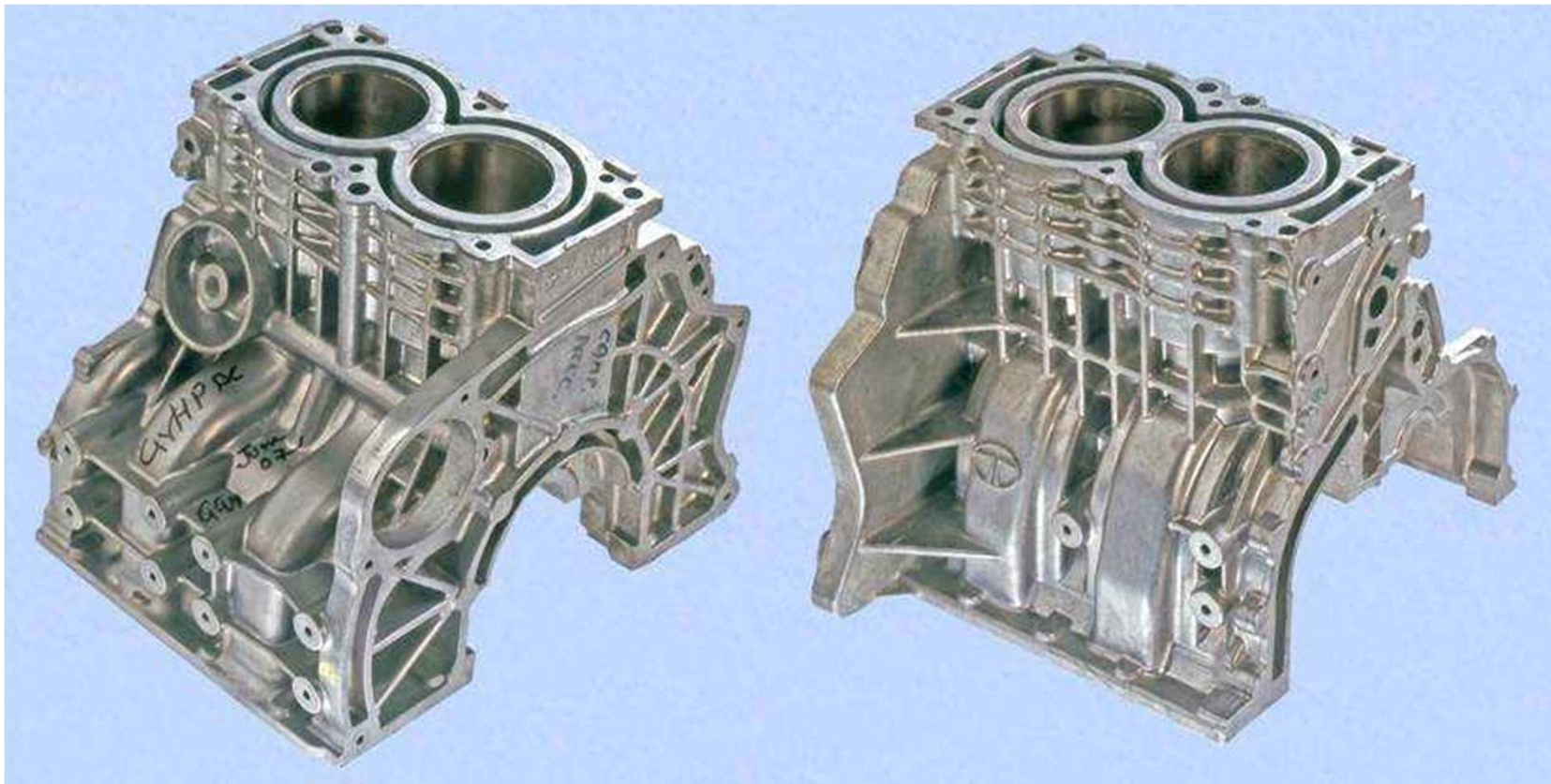


Aluminium Products – Cars

Cylinder Block (Petrol & Diesel)

Annual Capacity: 500.000

Supply Location: India



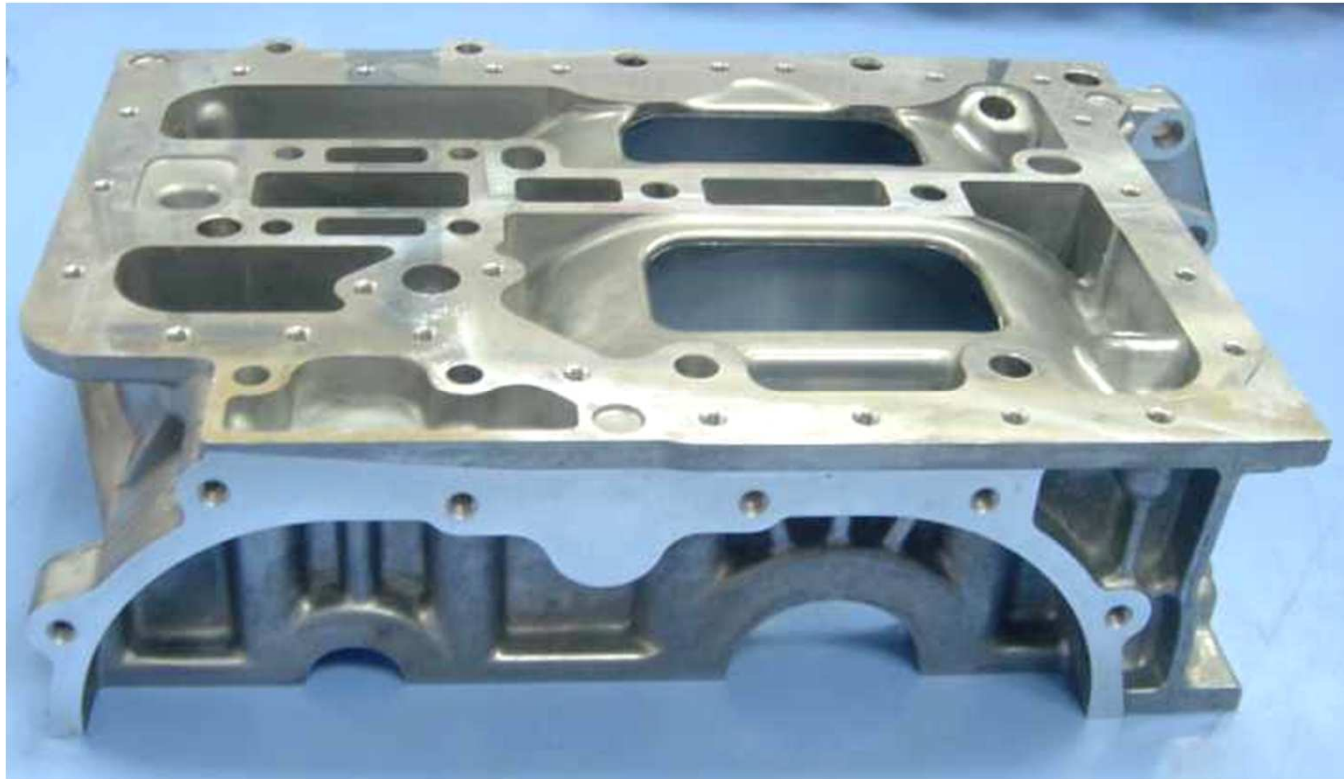
Aluminium Products – Cars



Bed Plate (Aluminum HPDC)

Annual Capacity: 100,000

Supply Location: India



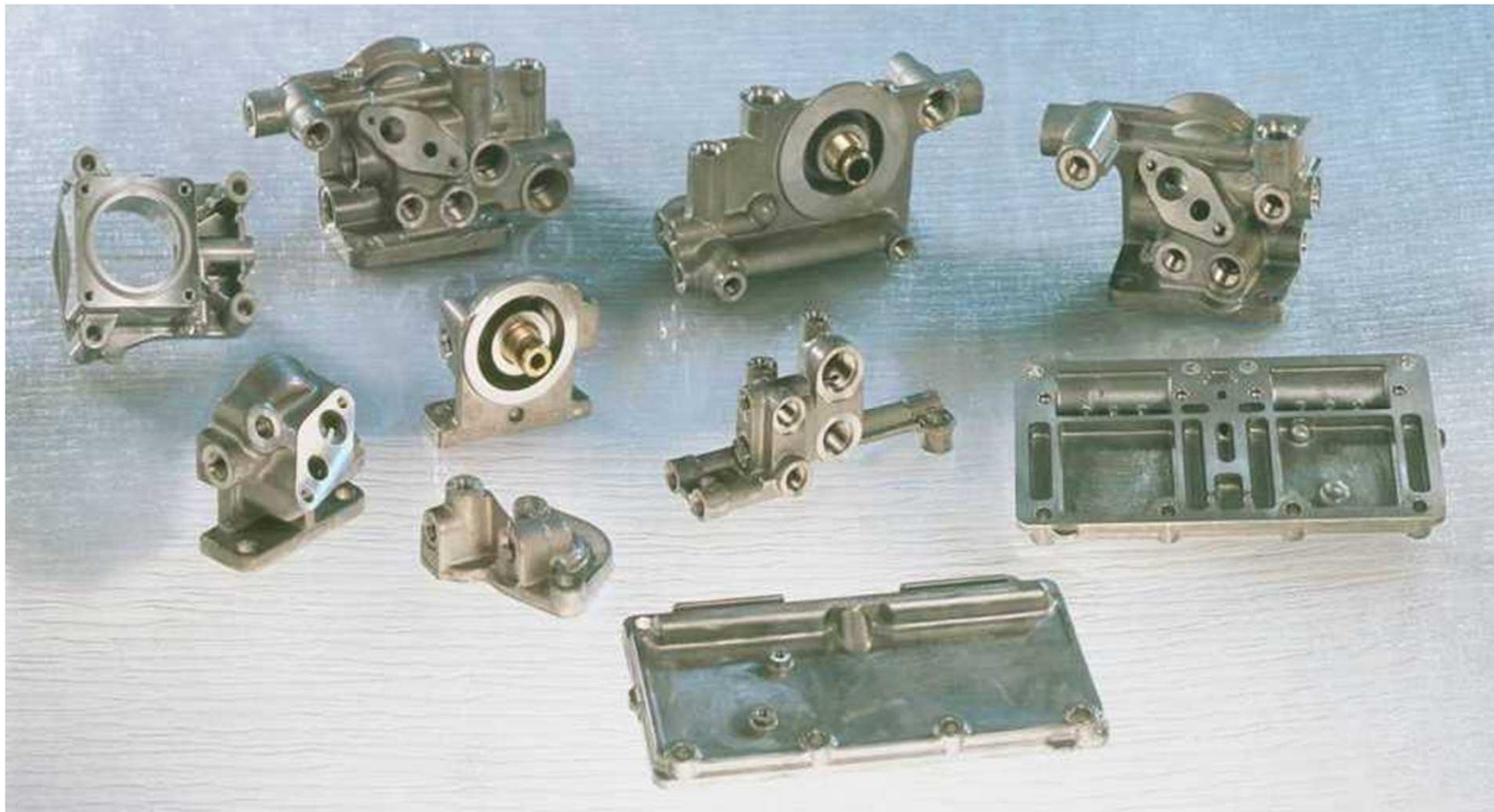
Aluminium Products – HCV's



Fuel System Components

Annual Capacity: 250,000

Supply Location: USA, Europe China & India



Aluminium Products – Engines

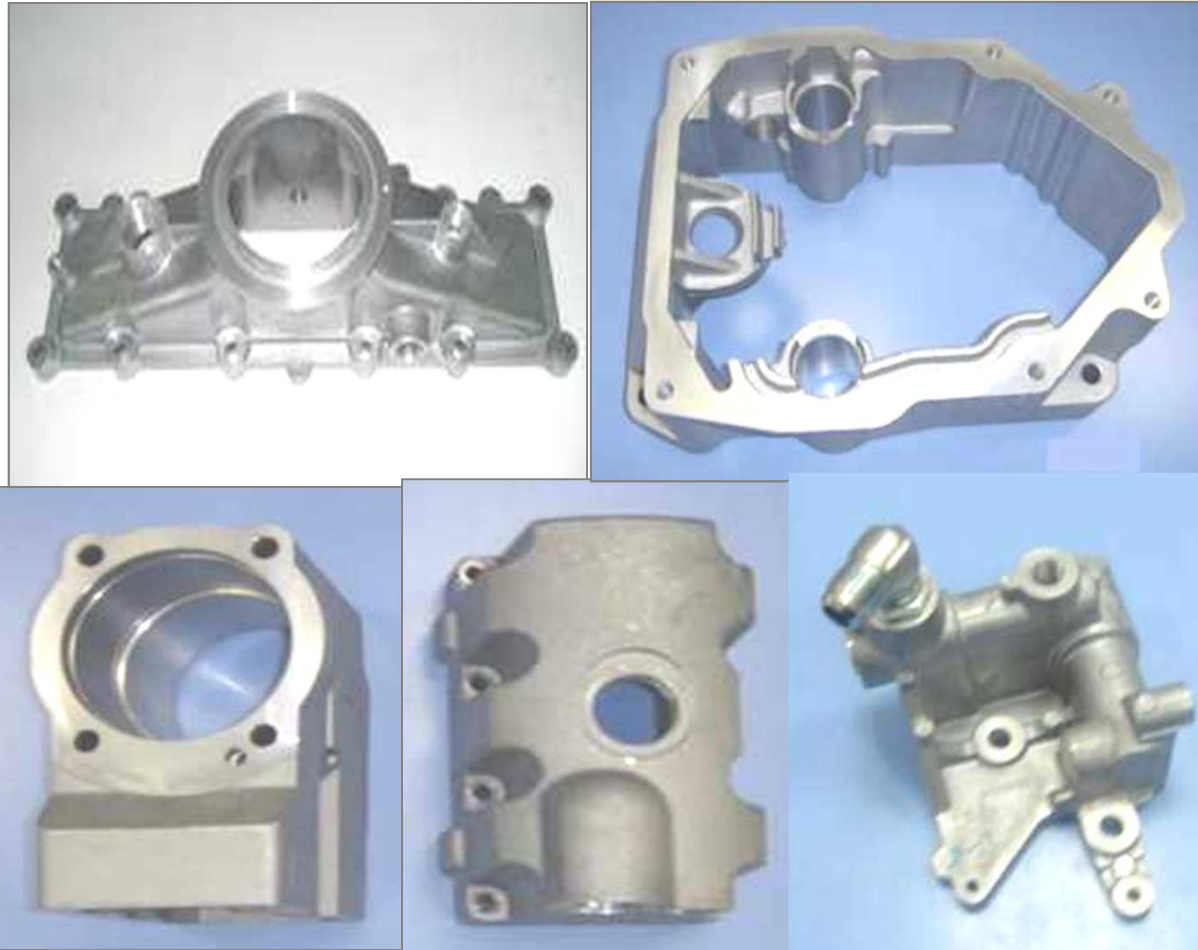


Fuel System Components



Annual Capacity: 350,000

Supply Location: USA



Aluminium Products - Engines



Timing Cases

Annual Capacity: 150,000

Supply Location: Europe



Aluminium Products - Motorcycles



Hubs & Brake Panel Assemblies



Annual Capacity: 2 Million
Supply Location: India

Annual Capacity: 5 Million
Supply Location: India



Aluminium Products - Cars



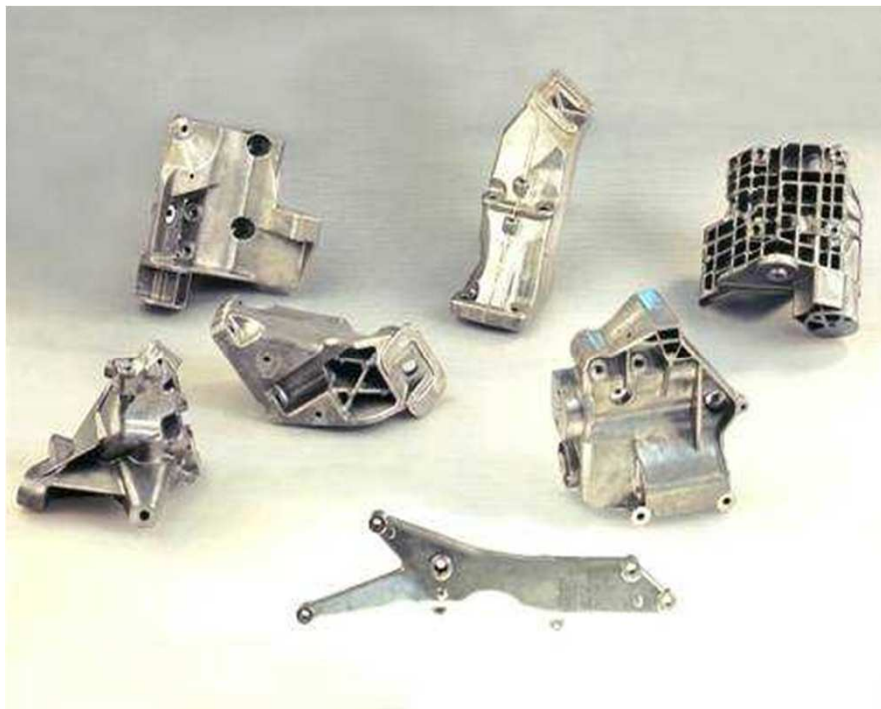
Brackets

Annual Capacity: 7.5 Million

Supply Location: India, Europe, Asia & USA



VOLVO



Aluminium Products – Cars / Engines



Annual Capacity: 500,000

Supply Location: India

Annual Capacity: 60,000

Supply Location: Europe



Annual Capacity: 450,000

Supply Location: India



Aluminium Products (GDC Process)– Engines



EGR System & Tandem Master Cylinder

Annual Capacity: 300,000

Supply Location: Europe & India



Ferrous Products (Cars)



Balance Shafts

Annual Capacity: 120,000

Supply Location: India & USA



Ferrous Products - Cars



Differential Cases

Annual Capacity: 1.2 million
Supply Location: India & Europe



Ferrous Products – HCV's



Main Bearing Caps

Annual Capacity: 2 Million

Supply Location: India, Europe & USA



RENAULT



DETROIT DIESEL



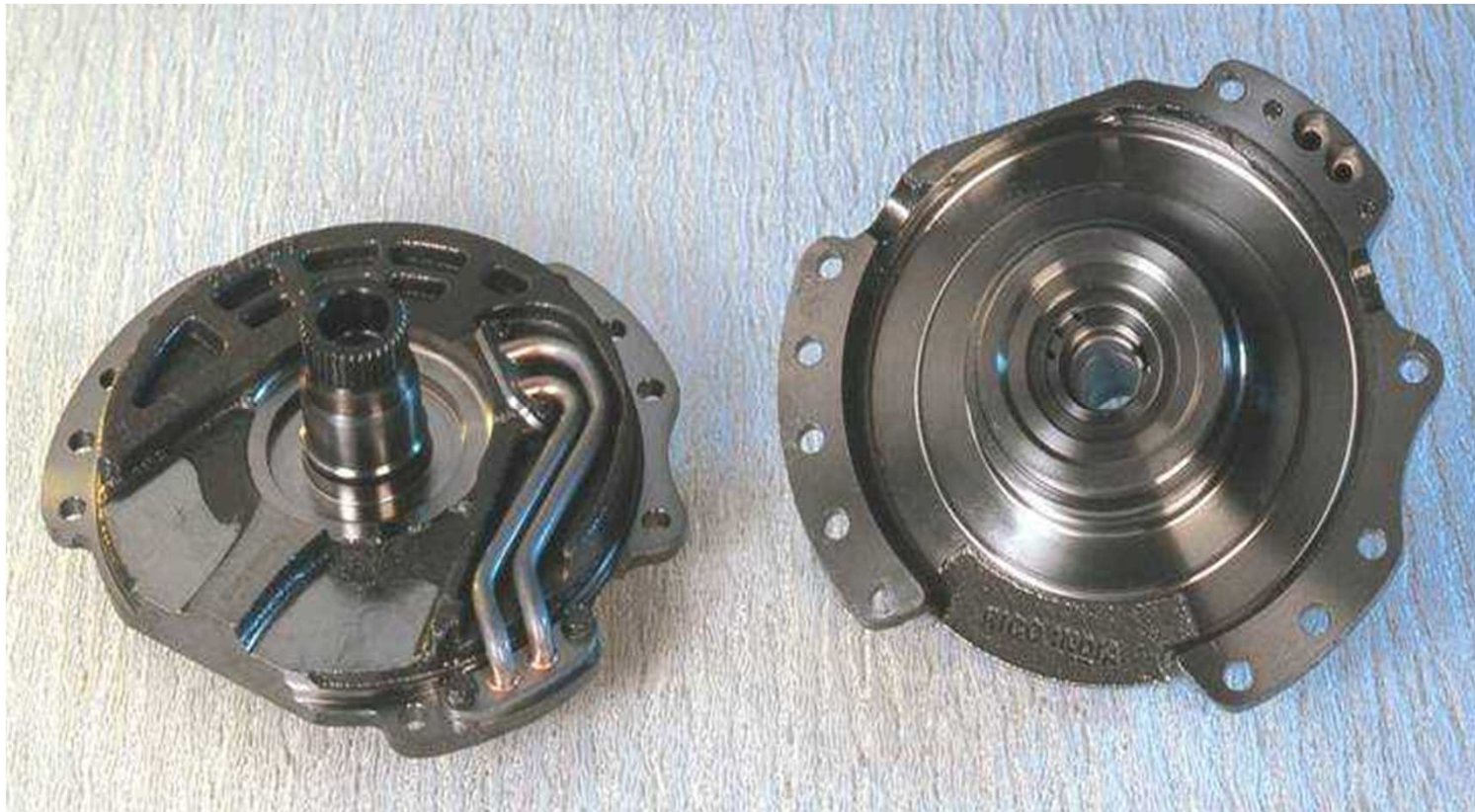
Ferrous Products - Cars



Automatic Transmission Support Assembly

Annual Capacity: 1 million

Supply Location: USA



Ferrous Products - Cars



Retainer Bearing Assembly

Jatco

Annual Capacity: 200,000

Supply Location: Japan



Ferrous Products - Cars

RICO

Exhaust Manifolds

Annual Capacity: 1 million

Supply Location: India, Europe & Asia



Turbo Charger Parts



Turbine Housings

Annual Capacity: 1 million

Supply Location: India & Europe



PSA PEUGEOT CITROËN



Turbo Charger Parts



Center Housings

Annual Capacity: 500,000

Supply Location: India & Europe



Ferrous Parts- Engines parts



Anchor & Caliper Housings



Annual Capacity: 320,000

Supply Location: India



Ferrous Products - Engines



Clutch Parts (Intermediate Plate & Pressure Plate) & Rear Cases



Annual Capacity: 200,000

Supply Location: USA



Ferrous Products - Cars



Brake Discs & Drums

Annual Capacity: 2 Million

Supply Location: India



Sub Supplier Management

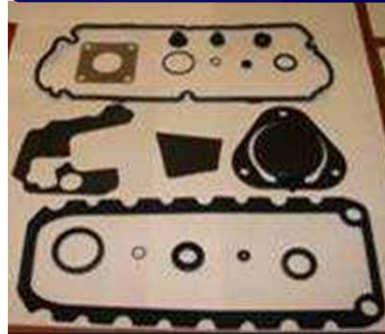


Currently Manage Over 40 Suppliers
Over 200 Million Volume ~ US \$ 50 m

Sintered



Rubber Seal



Sheet Metal



Friction Material



Precision Machined



Bearings



Springs



Fabricated



RICO Corporate Presentation

- Company Profile, Joint Ventures, Customers & Products
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Our Vision

Vision & Goal

Our Vision

“To be preferred supplier to OEMs across the globe”

Overall Strategies

Strategic Alliances

**Move from Components to
Systems**

**Continuous Focus on Quality &
Cost**

Acquisitions & Joint Ventures

Expand Manufacturing Presence

**Manufacturing Footprint in
Low Cost Countries**

World Class Human Resources & Plants