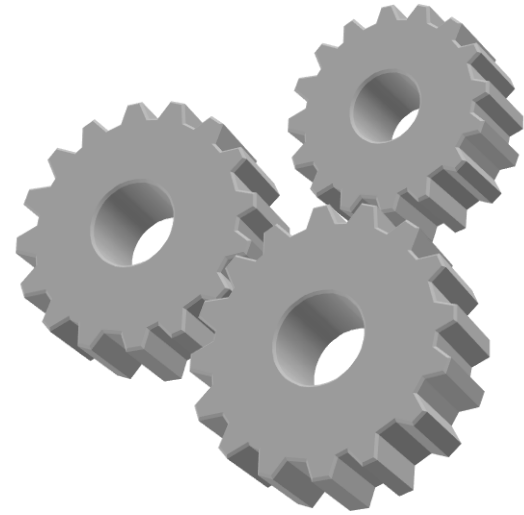


KKR GROUP OF COMPANIES

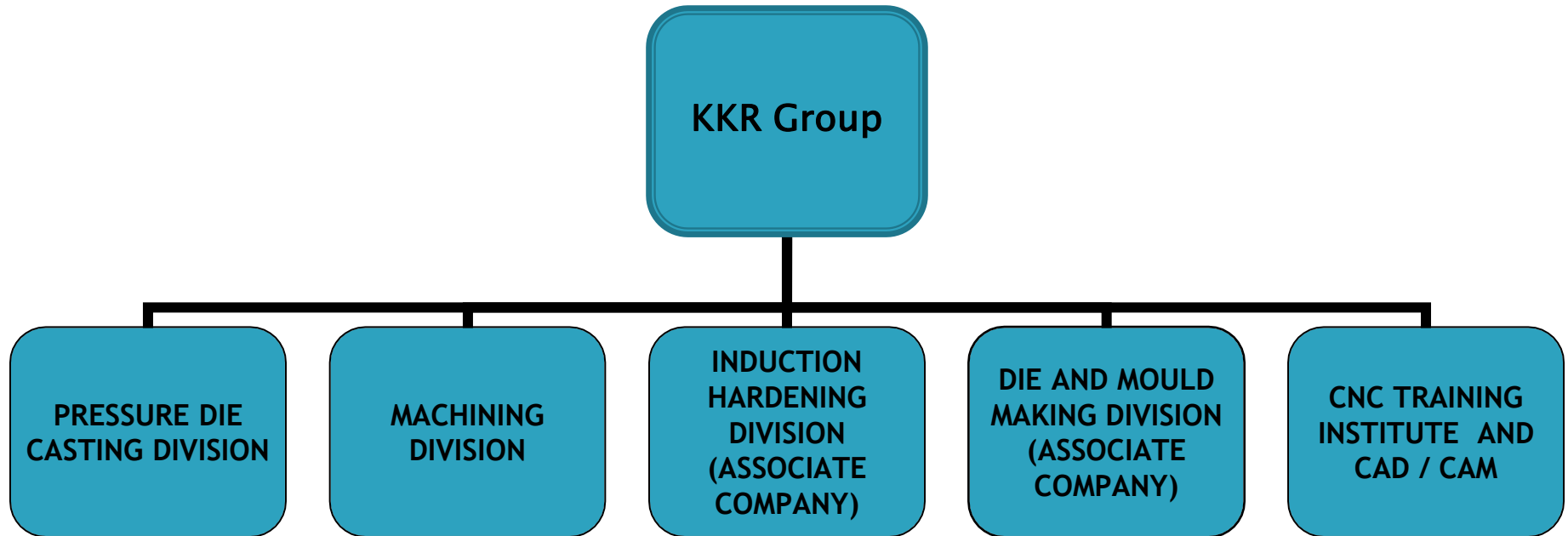


THE HISTORY



A 31 year old company established in the year 1986 as ARUNA PUMPS PVT LTD to manufacture Liners for Tractor Engines and later on expanded and diversified by Mr. K.K.Ramesh, as KKR METAL COMPONENTS from the year 1995 for manufacturing high precision components for Automotive and other industries.

THE GROUP



FUTURE EXPANSION PLAN

EXPANSION PLAN

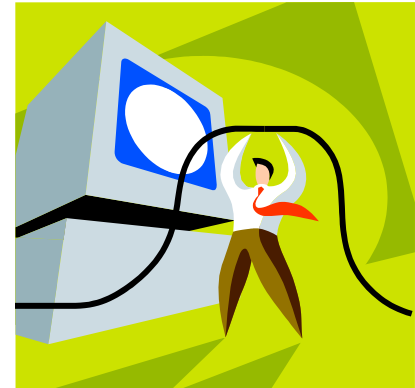
Higher Tonnage
Die Casting
Machine

Aluminum Alloy
Plant


Sub assembly
facility

Cold Forging
Unit

New plant in
Uttaranchal state
of Northern India



MILESTONES

- 1986 ► **Liner making for TRACTORS of MAHINDRA & MAHINDRA through India Pistons**
 - 1990 ► **Liner making for HCV of TATA MOTORS (TELCO) through India Pistons**
 - 1992 ► **Liner making for HCV of ASHOK LEYLAND through India Pistons**
 - 1995 ► **CNC Machined Precision Components supply to Indian Defense service**
 - 1998 ► **Part development for Stanadyne along with India piston**
 - 1999 ► **Fuel Injection systems components supply to LUCAS-TVS**
- 

MILESTONES (Contd)

- 2001 ► **Transmission Products components supply to BONFIGLIOLI Group**
- 2002 ► **QS 9000:1998 Certification**
- 2003 ► **Fuel Injection Pump parts supply to DELPHI-TVS**
- 2004 ► **CNC Training Institute established**
- 2005 ► **Aluminum Pressure Die Casting, Shot blasting, Vibro finishing and Anodizing facilities established**
- 2006 ► **ISO 9001:2000 Certification. Standards Lab established**
- 2007 ► **We have entered in to the international market.
ISO/TS 16949:2000 Certificated from TUV**
- 2008 ► **We have gone for own power generation with 250KVA Wind mill**
- 2009 ► **We have planned for the expansion our factory in Ambattur.**
- 2010 ► **We have added one more 250KVA Wind mill**
- 2010 ► **We have added one more 250KVA Wind mill**
- 2011 ► **Plant expansion at Ambattur - Plant 3**

MILESTONES (Contd)

- 2013 ► **SIPL volume based business started**
- 2014 ► **PPAP got approved for sleeve blank and part production started**
- 2014 ► **PPAP got approved for three variant of TP Regulator and part production started**
- 2015 ► **KKR precision product (Unit -IV) new plant inaugurated and dedicated to GM through SFL SEZ unit for the SUNGEAR project**
- 2016 ► **KKR metal started to supply TP Regulator to Stanadyne-JACKSONVILLE(US)**
- 2016 ► **KKR metal started machining of pump housing to SIPL**
- 2016 ► **KKR metal started new project EX- TP Regulator for to Stanadyne-JACKSONVILLE(US)**
- 2017 ► **KKR metal started new part Development for Sleeve and Barrel for SIPL**

PLANT LOCATION

KKR METAL COMPONENTS is located in Ambattur Industrial Estate of Chennai (Madras), one of the four metropolitan cities in India and the so called “Detroit of India”.

Address:

- Plant-I** No.355, SIDCO Industrial Estate,
Ambattur, Chennai- 600 098.
Tamilnadu
- Plant -2** No. 368 SIDCO Industrial Estate
Ambattur, Chennai -600098
- Plant - 3**
No 1, Vanagaram Road
Ambattur, Chennai 600058
Tamilnadu

Tel: +91 44 26253567, +91 44 26257634

Fax: 91 44 26247962

E mail: marketing@kkrmetalcomponent.com

Email : kkrmetal@gmail.com

Web site: www.kkrmetalcomponents.com



PLANT CAPACITY

Land & Building

Land area : 11,500 Sq.m
Built up area : 6000 Sq.m

Utilities

Power Supply : 675 kw Continuous
Genset capacity : 600 kw(Auto change facility)

Production Capacity

Aluminum casting : 1500 tons per year
CNC machining : 7,09,540 m/c hrs per year
Conventional machining : 3,27,000 m/c hrs per year

Spare capacity available : 30 %

LAND LOCATION

KKR METAL COMPONENTS Forecast the feature expansion of the company and invested on land in various Industrial Areas

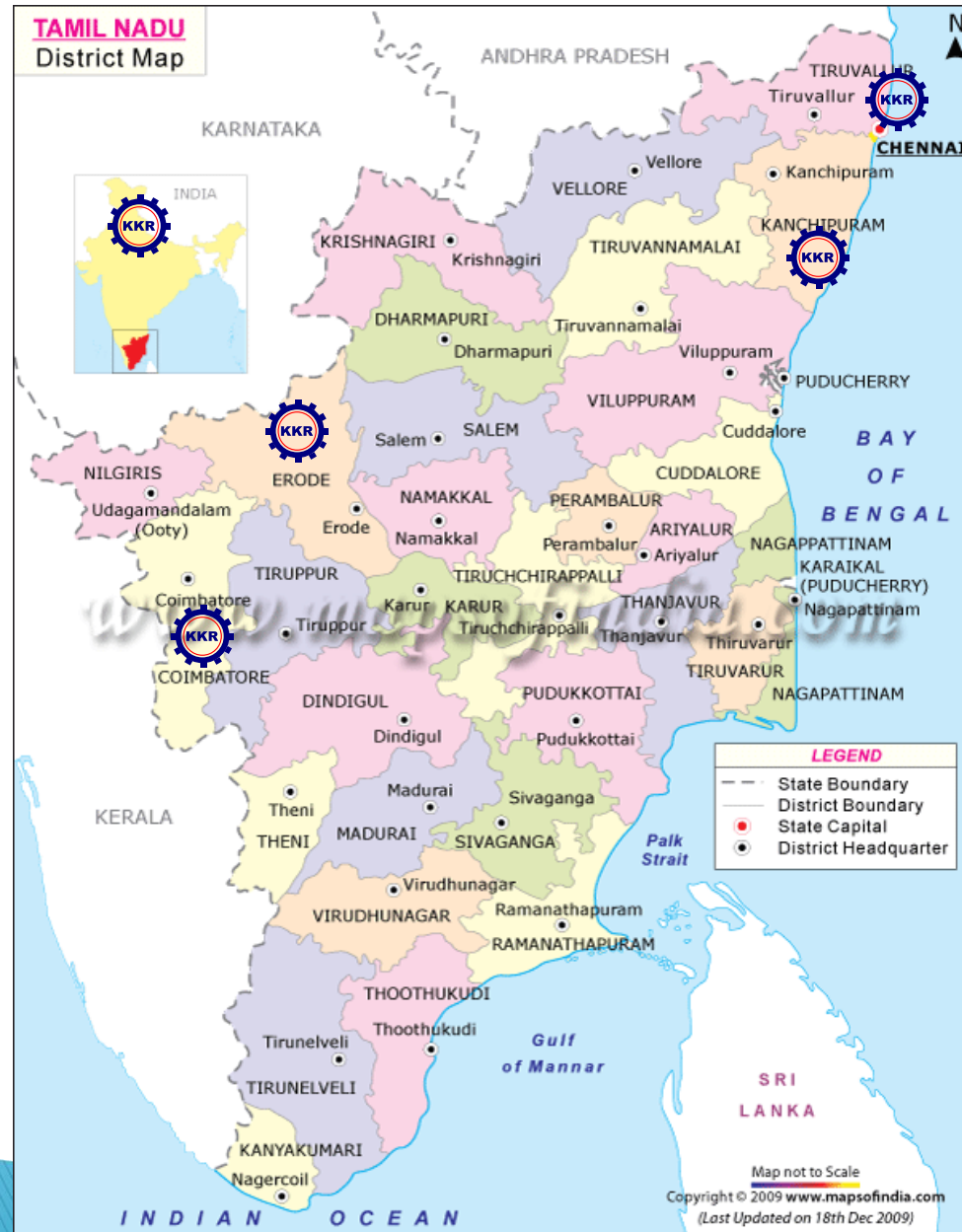
Uttarakhand - 1 Acres (North India)

Coimbatore - 5 Acres (South India)

Erode - 5 Acres (South India)

Sriperumbudur - 4 Acres (Near Chennai)
Kanchipuram

Chennai (ahipattu) - 1.50 Acres



QUALITY POLICY

KKR METAL COMPONENTS is committed to Manufacture and Supply Products of Superior Quality that satisfy customer needs consistently by way of strict conformance to specifications at agreed price and meeting the delivery schedules on time.



**Realization of
outstanding quality**

CERTIFICATION

Quality Certification

Certified for IATF TS 16949 -2016
by TUV NORD CERT

SCOPE Unit – 1 & 2

Manufacture of pressure die Casted and
Machined Precision Ferrous and Non
Ferrous Components and Sub assemblies
For Automobile and Engineering Industries

SCOPE -Unit - 3

Manufacturing of Machined Component for
auto motive application



TUV NORD

CERTIFICATE

Management system as per
IATF 16949:2016
(1st edition, 2016-10-01)

Evidence of conformity with the above standard has been furnished and is certified for

KKR Metal Components
355 & 368, SIDCO Industrial Estate,
Ambattur, Chennai - 600 098,
Tamilnadu,
India

with the extended manufacturing sites according to appendix

Scope

Manufacture of Pressure Die Castings and Machining of Components
without product design responsibility (according to section 8.3)

IATF Registration No. 0346566
Certificate Registration No. 44 111 181843 001

Issue date: 2018-12-18
Expiry date: 2021-12-18

V. S. an oldt
Certification body
at TÜV NORD CERT GmbH

Essen, 2018-12-18

This certification was conducted in accordance with the IATF "Rules for achieving and maintaining IATF recognition".

TÜV NORD CERT GmbH Langemannstraße 20 45141 Essen www.tuv-nord-cert.de



02-IAG-QMC 01021 page 1/2 A13F201e rev. 80/01.17

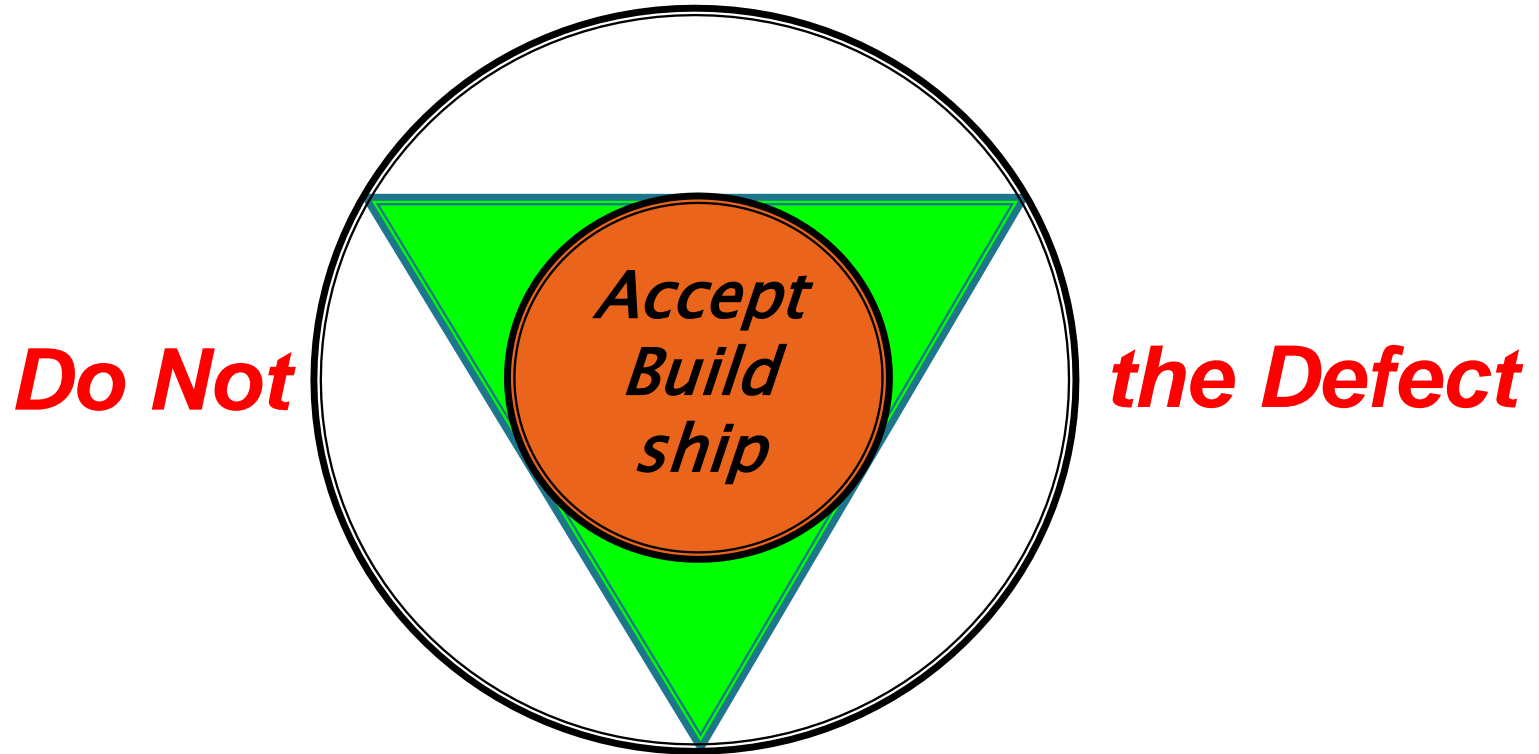
BIQS

Built **I**n **Q**uality **S**ystem

Together **E**veryone **A**ccomplishes **M**ore

Built-in Quality Motto

*Solve the problems through ...
Systematic Approach & Teamwork!*



Customer Delight

Built-in Quality Motto

*Solve the problems through ...
Systematic Approach & Teamwork!*



Target for the Year 2019- 2020



Achieve Zero PPM by ...

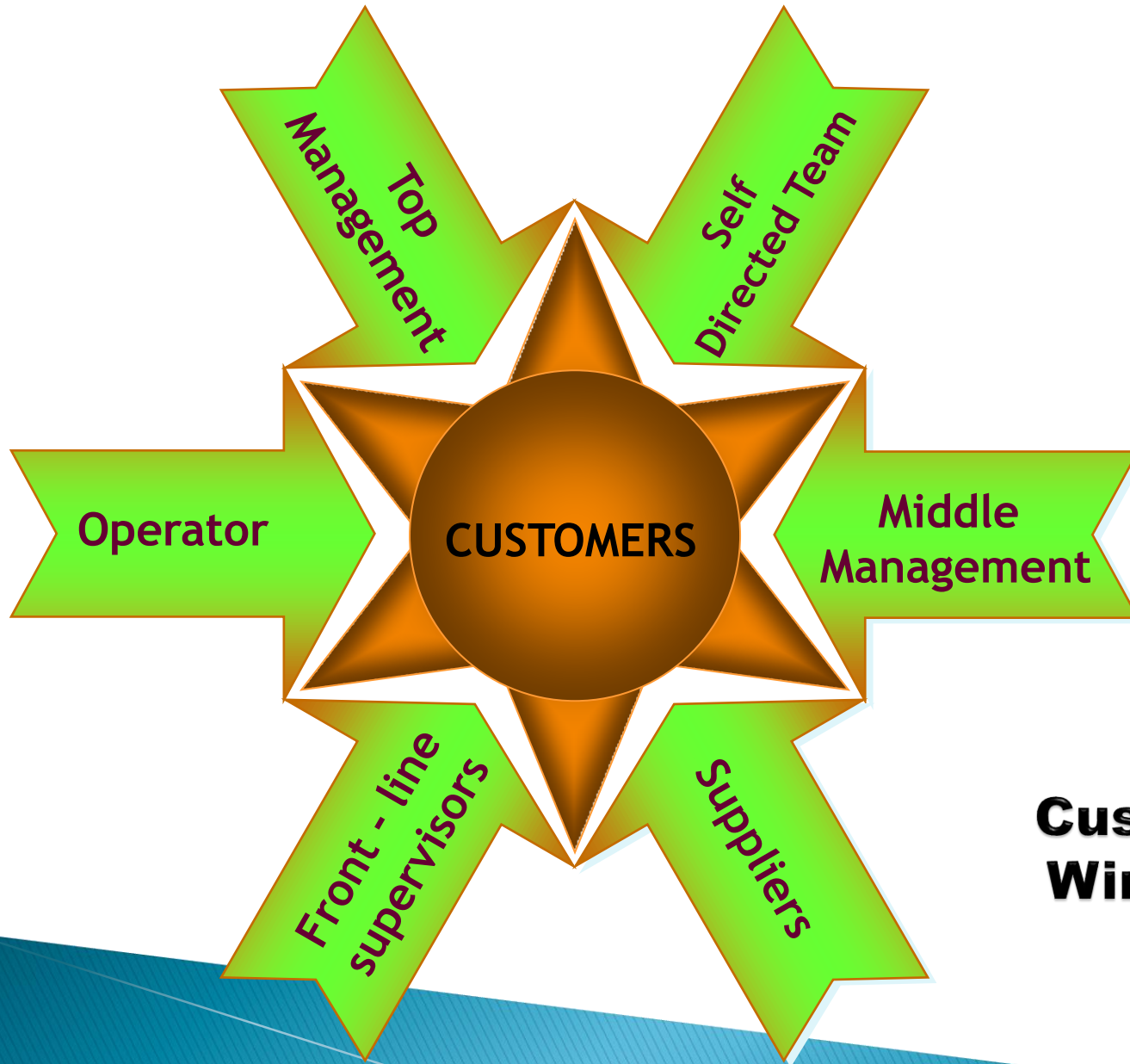
- 1. Implementing Producer Quality Concept (PQC)**
- 2. Utilized the core tool Effectively**
- 3. Ensure the Systems in place**
- 4. Eliminate incoming, internal rejection**
- 5. Ensure the First Time Quality**
- 6. Kaizens-continual improvement.**
- 7. Proactive Kaizens**
- 8. Horizontal Deployment**

Zero Rejection - Make Customer Delight

Traditional



Our Company Customer Centric Approach



**Customer cell &
Window person
concept**

PLANT FACILITY

CNC MACHINES

CNC TURNING MACHINE	: 22
CNC TURNING MAZAK MACHINE	: 12
VERTICAL MACHINE CENTER	: 75
CNC PRESSURE DIE CASTING	: 3

CONVENTIONAL MACHINES

CENTER LATHES

DRILLING MACHINES

CIRCULAR SAWS

SHOT BLASTING MACHINE

VIBRO FINISHING MACHINE

CUTTING MACHINE (CNC)

Make	Made in	Model	Axis	Bed Length / Day light
Brother	Japan	TC -S2C	4 Axis	X-800 Y -320 Z-550
Brother	Japan	TC-R2B	4 Axis	X-540,Y-400, Z-430
Brother	Japan	Speedio S700X1	4 Axis	X-700,Y-400, Z-430
FANUC	Japan	FANUC ROBO D 21 LiA	5 Axis	X 850 Y 410 Z- 730
FANUC	Japan	FANUC ROBO D 21 LiA	4 Axis	X 850 Y 410 Z- 730
MAKINO	Japan	Slim 3n	5 Axis	X 600 Y 400
HAAS	USA	DT 1	4 Axis	X-620 Y 380, Z-520
HAAS	USA	VF2SS	4 Axis	X-1000 Y 500 Z -600
Hartford	Taiwan	VMC- 560AP	4 Axis	X-710, Y-440, Z520
AMS	India	DELITE MCV - 300	4 Axis	X-800, Y-400,Z-450
AMS	India	MCV 400XL	4 Axis	X-900, Y-450 Z-600
AMS	India	MCV-300 WINNER	4 Axis	X-630, Y-350,Z-450
AMS	India	MCV - 300	4 Axis	X-630 Y-350, Z-450
AMS	India	M10-202	4 Axis	X-630, Y-350,Z-450
BFW	India	BFS	4 Axis	X-1000 Y-500 Z-1000
BFW	India	BFS	4 Axis	X-630 Y-350, Z-700
Zitai	Taiwan	100 Ton PDC Machine	Automated	
Zitai	Taiwan	150 Ton PDC Machine	Automated	
Zitai	Taiwan	250 Ton PDC Machine	Automated	
Chitshun	China	400 Ton PDC machine	Automated	

Machine Details

KKR Group of Companies Business Model

Input Material

Process

Out Put

Customer

Aluminum
Pressure Die
casting Pats

- Machining
- Anodizing
- Chromating
- Aging Treatment
- Impregnation
- Leak test

Bar Route Pats

HOT & Cold
Forging Pats

- CNC Bar Cutting
- Turning Process
- VMC Machining
- Profile Milling
- Heat Treatment
- Surface cleaning
- Honning
- Lapping
- Cyl.Grinding
- Centerless Grinding
- Solvent cleaning
- Sub Assembly
- Testing

- Finished Part
- Sub Assembly Product
- Assembled & Tested product

- OEM Customer
- Export Customer
- Tier 1 Customer

FACILITY - PDC

**COLD CHAMBER PRESSURE DIE
CASTING MACHINES- 100T, 150T
250 T 400T CAPACITY INHOUSE UP
TO 850T GROUP COMPANY**



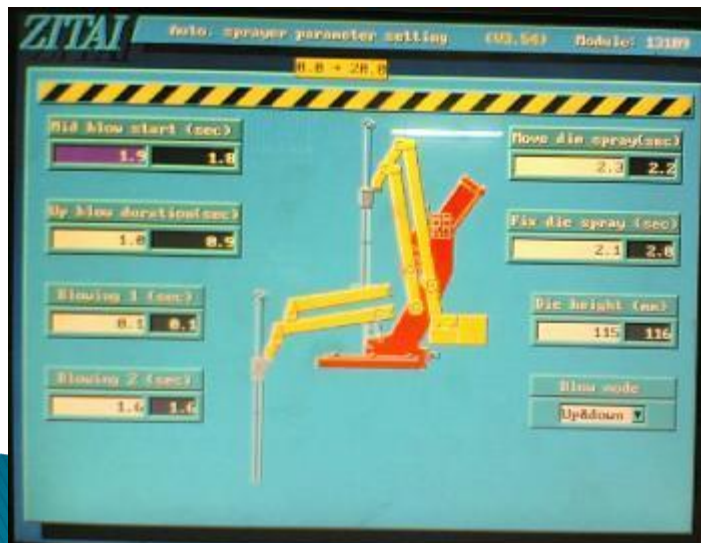
PDC - COMPUTERISED DATA'S



SHOT PARAMETERS



CASTING PARAMETERS



AUTO SPRAYER PARAMETERS



SHOT PROFILE

S1 – SUNGEAR LINE



S2 – SUNGEAR LINE



Stanadyne Line



Lucas TVS Line



FACILITY - CNC TURNING



FACILITY - VMC



VMC- M/C'S

FACILITY – Final Inspection



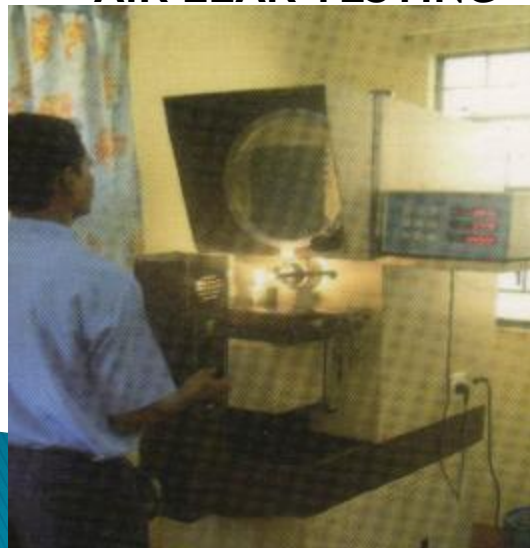
TESTING FACILITY



AIR LEAK TESTING



2 D MEASURING



PROFILE PROJECTOR



Manual CMM

TESTING FACILITY



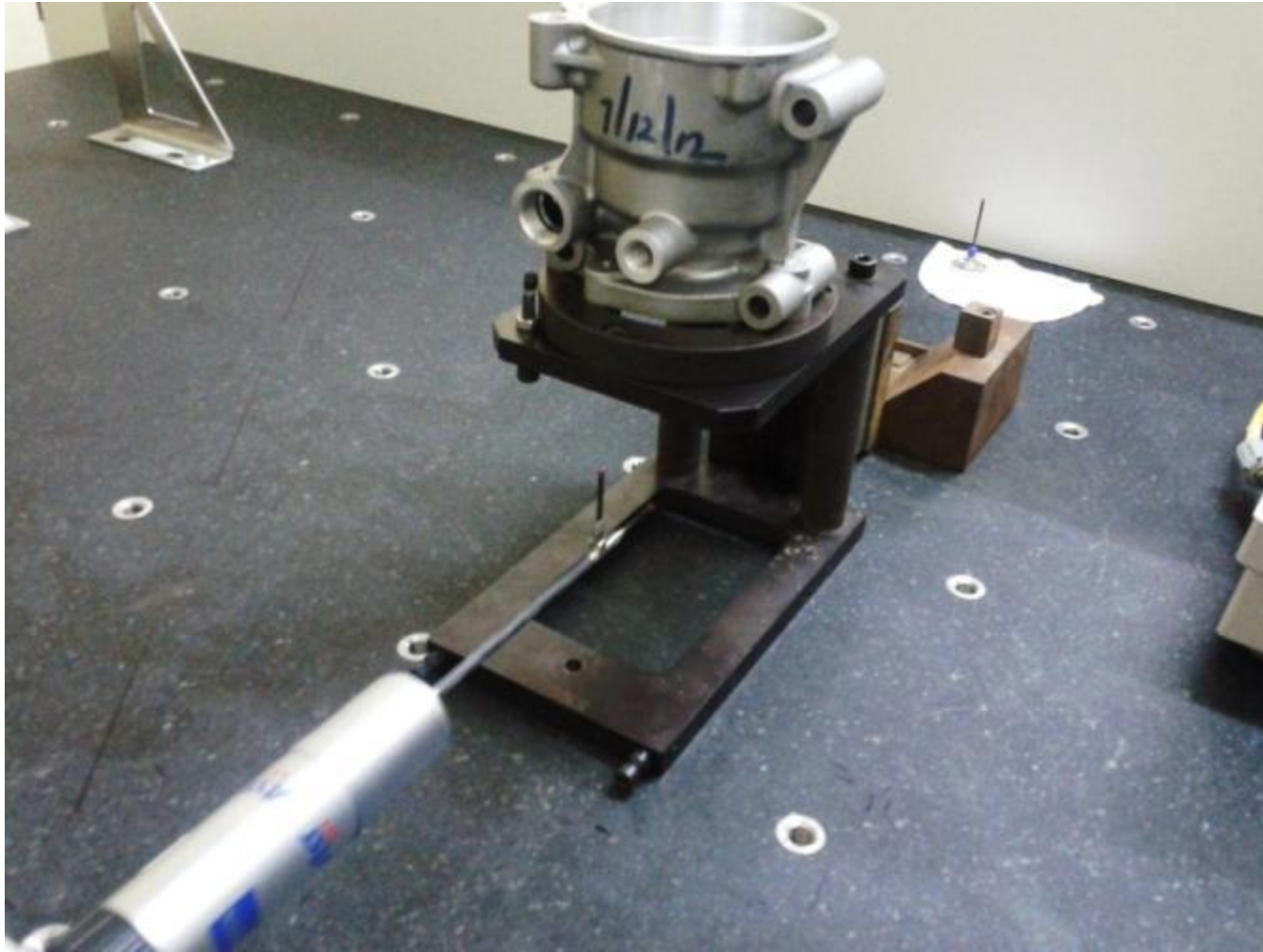
VIDEO SCOPIC MACHINE

Standard Room & Clean Lab



CMM With Indexing Probe Head and Scanning



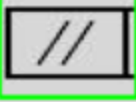


STANDARD ROOM



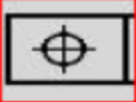

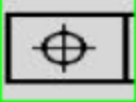
Pump housing Measurement on CMM With Indexing Probe Head

CMM Report

Plan Name	Operator Master	Time 1:23:35 pm	Date February 24, 2013	
-----------	--------------------	--------------------	---------------------------	--

	Actual	Nominal	Upper Tol.	Lower Tol.	Deviation
 A-4 Per0.05 Wrt T1@B-G	0.0281	0.0000	0.0500		0.0281
 A-4 Per0.05 Wrt T2@B-G	0.0257	0.0000	0.0500		0.0257
 A-4 Par 0.05 Wrt S@B-G-QCI	0.0084	0.0000	0.0500		0.0084
 A-4 Distance 23± 0.2_Z	23.0851	23.0000	0.2000	-0.2000	0.0851
 C-4 Runout 0.05 wrt B-G @ LIPSEAL	0.0039	0.0000	0.0500		0.0039

DETAIL T

 D-1 Pos 0.15_M4_1 wrt A	0.1755	0.0000	0.1500		0.0255
R	33.4122	33.5000			-0.0878
Angle	180° 0' 0"	180° 0' 0"			-0° 0' 0"
 D-1 Per 0.05 M4_1 wrt F2	0.0337	0.0000	0.0500		0.0337
 D-1 Pos 0.15_M4_2 wrt A	0.0384	0.0000	0.1500		0.0384
R	33.5172	33.5000			0.0172
Angle	69°59' 7"	70° 0' 0"			-0° 0'53"

Standard Room & Clean Lab



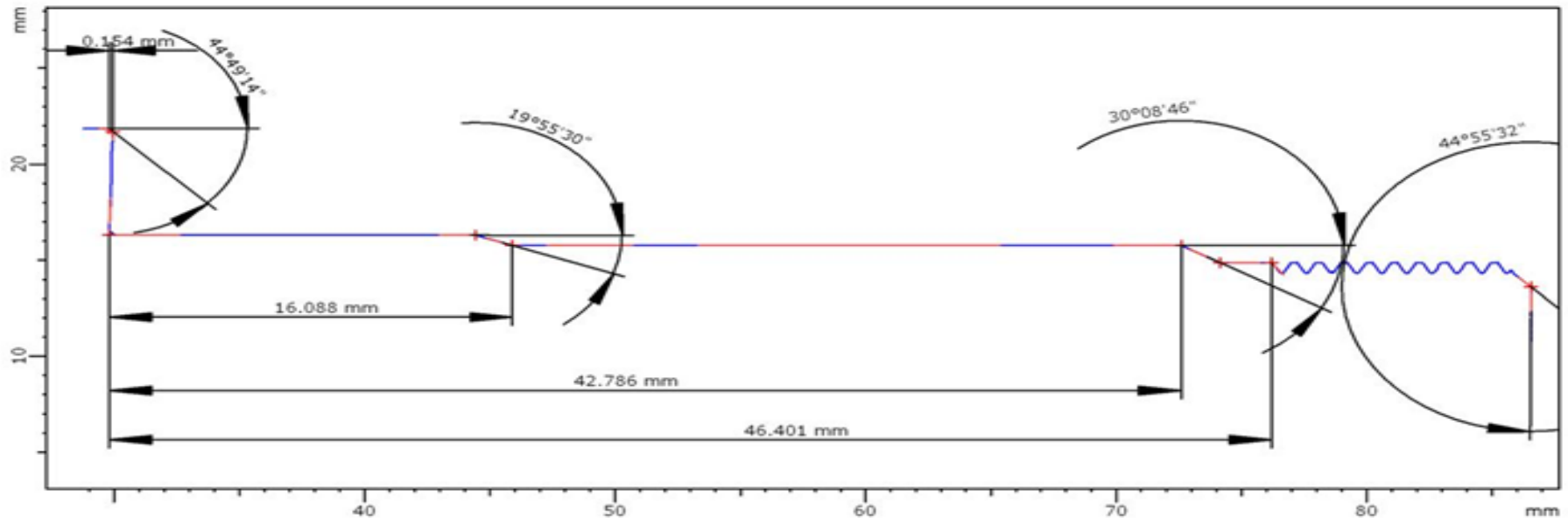
MAHR Surf Contour

Contour Report

Mahr	MarWin 5.00-09 SP 2	KKR Metal Ambattur Chennai	1/11/2013 1 13:53:23 Inspector: Signature:
	Part:	Drawing n°:	Machining operation:
	Comment:		

Meas. instrument: MarTalk
Drive unit: DriveUnit.CD 120
Probe: PCV 350 x 21 mm 2
Lt: 58.85 mm
Ls:
VB: $\pm 26038.5 \mu\text{m}$
Vt: 0.80 mm/s
Points: 58774

X:2.96; Z:2.96; 12.76°



Standard Room & Clean Lab



Millipore Test

INSTRUMENT & EQUIPMENT FACILITY

- **OIL PUMP TEST RIG**
- **2 D MEASURING**
- **PROFILE PROJECTOR**
- **CMM MITTUTOYO**
- **VIDEO SCOPIC INSPECTION FOR SLEEVE**
- **MULTI GAUGE -SUNGEAR**
- **ENGRAVING-SCANNER(TRACABILTY)**
- **ZEISS CMM AUTOMATIC PROGRAM CONTROL**
- **MAHR CONTOUR MEASUREMENT**
- **MITTUTOYO SURFACE FINISH TESTER**
- **BORO SCOPE**

TOOL ROOM-ASSOCIATED



VIEW OF TOOL ROOM



WIRE CUTTING M/C



DESIGN - PRO-E , SOLID WORKS



HIGH SPEED MILLING

MEMBERSHIP IN..

- ▶ **INDO-US CHAMPER OF COMPONENTS**
- ▶ **INDO-JAPAN ORGANISATION – (ABK-AOTS)**
- ▶ **AMBATTUR INDUSTRIAL ESTATE MANUFACTURERS ASSOCIATION – (AIEMA)**
- ▶ **ALUCAST ASSOCIATION**

COMPONENT TYPES

INDUSTRIES SERVED



- AUTOMOTIVE
- OFF-ROAD ENGINE PARTS
- POWER TRANSMISSION
- PNEUMATICS
- ENGINES
- TELECOMMUNICATION

DOMESTIC CUSTOMERS

OE CUSTOMER

- ROYAL ENFIELD : TWO WHEELER PARTS
- VST TILLERS& TRACTORS : OIL PUMP & ENGINE PARTS
- SONALICA TRACTORS : OIL PUMP AND ENGINE PARTS
- MITSUBISHI DIESEL ENGINES : DIESEL ENGINES

• OTHER CUSTOMER

- SUNDARAM FASTENERS : TRANSMISSION PARTS
- STANADYNE : FUEL INJECTION SYSTEM
- LUCAS -TVS : AUTO ELECTRICALS
- BRAKES INDIA : BRAKE PARTS
- SUNDARAM CLAYTON : AUTOMOTIVE BRAKES
- SAME TRACTORS : TRACTORS
- DELPHI -TVS Plant 1 : FUEL INJECTION SYSTEM
- DELPHI -TVS Plant 3 : CR FUEL INJECTION SYSTEM
- BRIDGESTONE : SUSPENSION PARTS

CUSTOMER BASE

EXPORT CUSTOMERS

- STANADYNE USA : FUEL INJECTION PARTS TO STANADYNE
- MHI-JAPAN : MITSUBISHI DIESEL ENGINE
- SPAIN : SUSPENSION PARTS Thro' ROOTS GROUP
- BRAZIL : STARTOR MOTOR PARTS Thro' MITSUBA
SICAL INDIA
- ITALY : TELECOMMUNICATION PARTS TO SAIE
- AUSTRALIA : CONSTRUCTION COMPONENT
- USA : TRANSMISSION PARTS TO GENERAL MOTORS
Thro' SFL

END CUSTOMERS

OUR PARTS ARE USED BY



Tata Motors Ltd



Mahindra & Mahindra Ltd



Maruti Udyog Ltd



ROYAL
ENFIELD



Honda Sael Cars India Ltd.



JOHN
DEERE



Ford India.



Honda Motorcycle
& Scooter India Ltd



Hyundai Motors India



Mitsubishi Diesel
Engines



GM India Ltd



International
Tractors



VST TILLERS &
TRACTORS LIMITED

VST Tiller & Tractors

13 Cr. Sun Gear Project

SFL – SEZ , General Motors

Automatic Transmission



Sun Gear

**8000 No's /Day
Capacity**

**Current Free capacity :
7 MAZAK Machine available**

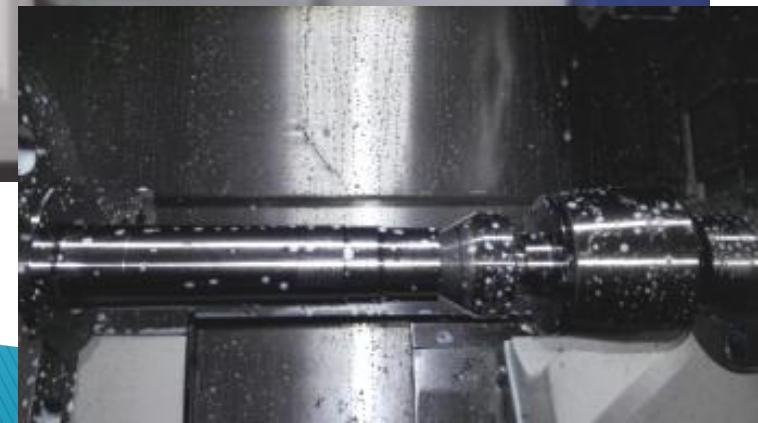
MAZAK Machine



MAZAK Machine with Steady Rest



MAZAK Machine with Programmable Tailstock



3 Cr. Turbine Shaft Project

SFL – SEZ , General Motors

Automatic Transmission

Turbine shaft 1000 No's /Day



3 Cr. Top yoke Project

Royal Enfield New J1 Project

J1A Top Yoke 500 No's /Day



Hot Forging → Machining →
CED & Powder Coating

4 Cr. Bottom yoke Project

Royal Enfield New J1 Project

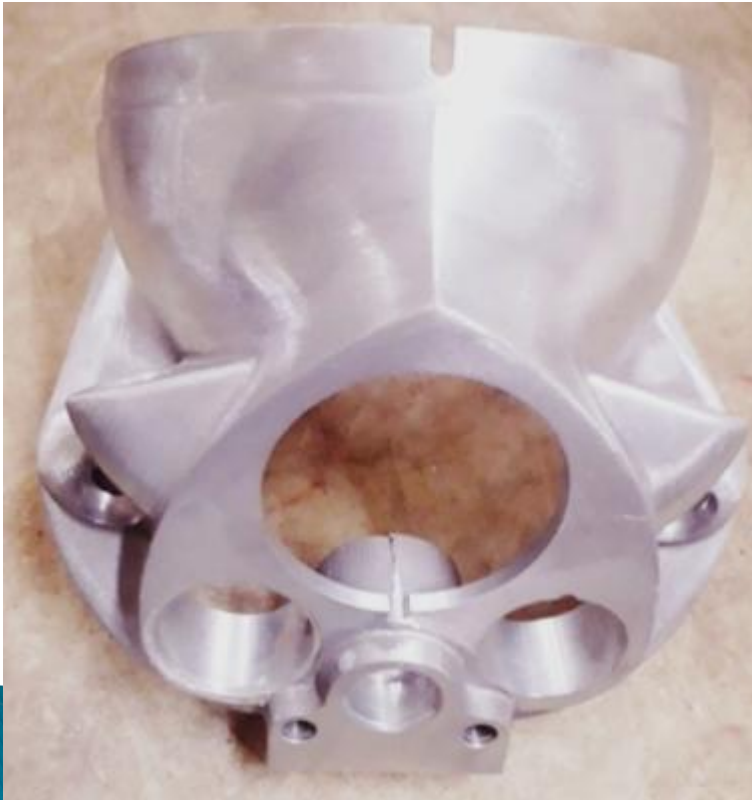
J1C Bottom Yoke 800 No's /Day



**Hot Forging → Machining →
Buffing**

7 Cr. Head Lamp Casing Project For Royal Enfield

Head Lamp Casing 550 No's /Day



EV and Auto Eletrical Part



**High Precision Die Casting Powder Coated Part – Supply
to Four & Two Wheeler Domestic & Export**

Diesel Pump Part



High Precision Diesel Solenoid Controlled Pump – Supply to Fuel Injection Equipment Part Domestic & Export

Tele Communication Part



High Precision Die Casting Component – Supply to Tele Communication Mobile Tower Antenna parts Domestic & Export

Auto Fuel injection



**High Precision Diesel Fuel Injection Pump component –
Supply to Four Wheeler Diesel Car Domestic & Export**

Stanadyne Fuel injection



**High Precision Diesel Fuel Injection Pump component –
Sleeve 23 Variety- 4 hole, 6 Hole and 8 Hole**

Stanadyne Fuel injection



**High Precision Diesel Fuel Injection Pump component –
Pump Housing**

Stanadyne TP REGULATOR



**High Precision Diesel Fuel Injection Pump component –
T.P Regulator – 5 Variant**

T.P Regulator – Capability Report

K.K.R METAL CHENNAI -98 Quality Assurance	INITIAL SAMPLE INSPECTION REPORT		Report No:	1
	Process capability study		Date	06.05.2018
			Page :	1 to 1
From :	Part no : 32860/33039/42713/46770/46769	Description : TP-Regulator		
KKR Metal Component	Dra. Issue No & Date:-	Characteristic Studied	Dia 6.4084/6.4008	
Reason for Submission : MONTHLY REPORT		Criticality	NA	QCI
			QCI*	M*
Specifications				
Max Size	6.4084	Tolerance	Inspection Means	L.C
Min Size	6.4008	0.0076	Air Gauge	0.0005mm
Actual Dimensions				
6.4045	6.4040	6.4050	6.4045	6.4040
6.4050	6.4055	6.4045	6.4055	6.4055
6.4045	6.4050	6.4055	6.4060	6.4045
6.4040	6.4045	6.4050	6.4055	6.4050
6.4055	6.4055	6.4055	6.4055	6.4055
6.4055	6.4055	6.4055	6.4055	6.4055
6.4055	6.4055	6.4055	6.4055	6.4055
Actual Max	6.406	Std. Devn.	0.0006	Actual Mean
Actual Min	6.404	Range	0.002	6.4050
Cp	2.24	CpK	2.02	
Remarks				

K.K.R METAL CHENNAI -98 Quality Assurance	INITIAL SAMPLE INSPECTION REPORT		Report No:	1
	Process capability study		Date	06.05.2018
			Page :	1 to 1
From :	Part no : 32860/33039/42713/46770/46769	Description : TP REGULATOR		
KKR Metal Component	Dra. Issue No & Date :-	Characteristic Studied	Flatness:0.012 mm	
Reason for Submission : MONTHLY REPORT		Criticality	NA	QCI
			QCI*	M*
Specifications				
Max Size	0.012	Tolerance	Inspection Means	L.C
Min Size	0.000	0.012	CMM	0.0001
Actual Dimensions				
0.005	0.004	0.003	0.004	0.002
0.003	0.004	0.005	0.004	0.002
0.005	0.005	0.006	0.004	0.004
0.005	0.005	0.006	0.004	0.005
0.005	0.005	0.006	0.004	0.005
0.005	0.005	0.006	0.004	0.005
0.005	0.005	0.006	0.004	0.005
0.005	0.005	0.006	0.004	0.005
Actual Max	0.007	Std. Devn.	0.001	Actual Mean
Actual Min	0.001	Range	0.006	0.004
Cp	NA	CpK	1.84	
Remarks				

FUEL INJECTION PUMP COMPONENTS (Precision Parts)



**Common Rail Pump Housing
for four wheeler car**



**Control Housing –
Earth moving JCB**



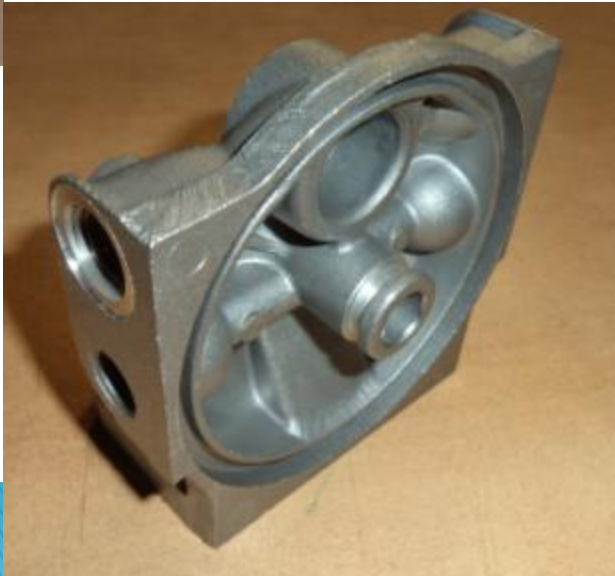
**Sleeve – Four
Wheeler Car**

PRODUCT PORTFOLIO



**Honda car -
Suspension
Holder**

**Diesel Filter Head-
for four wheeler
cars**



**Hyd. Sleeve for
Earth moving JCB**

PRODUCT PORTFOLIO (Brake Parts)

Orifice



**High Precision Brakes
component – Supply to
Four Wheeler Car**

LSPV



**Wheel
Cylinder**



High Precision Diesel Engine Parts – Supply to Mitsubishi Diesel Engine



Case thermostat



Cover thermostat

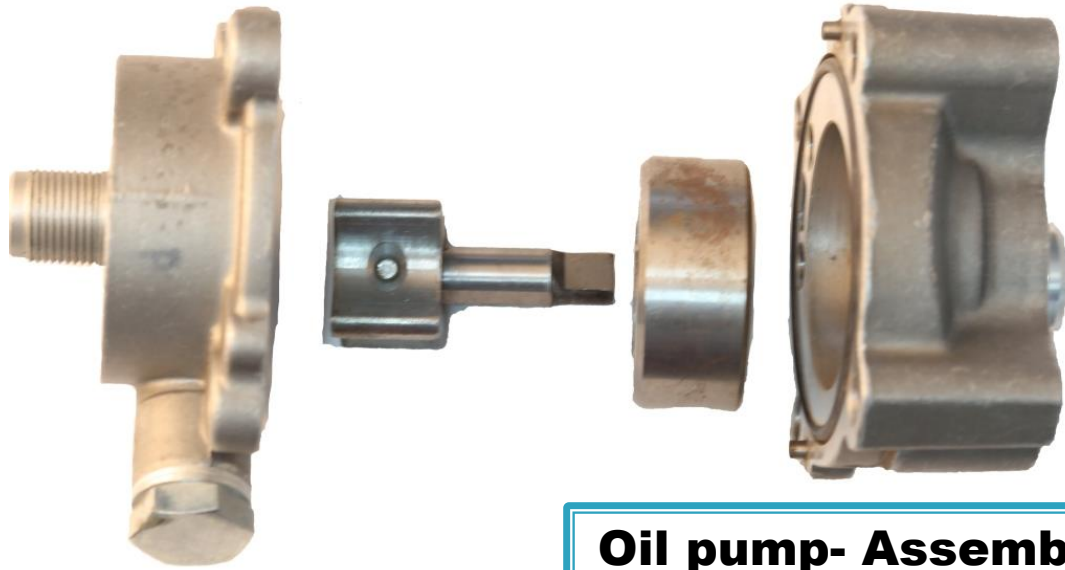


Pump Cover

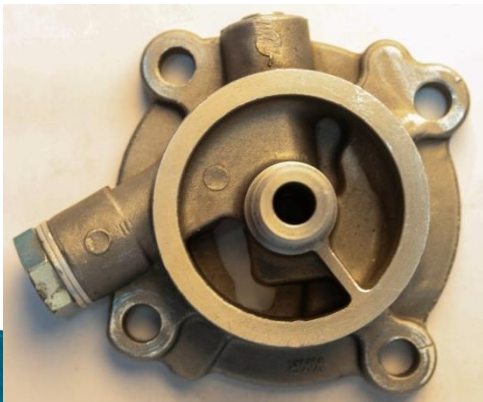
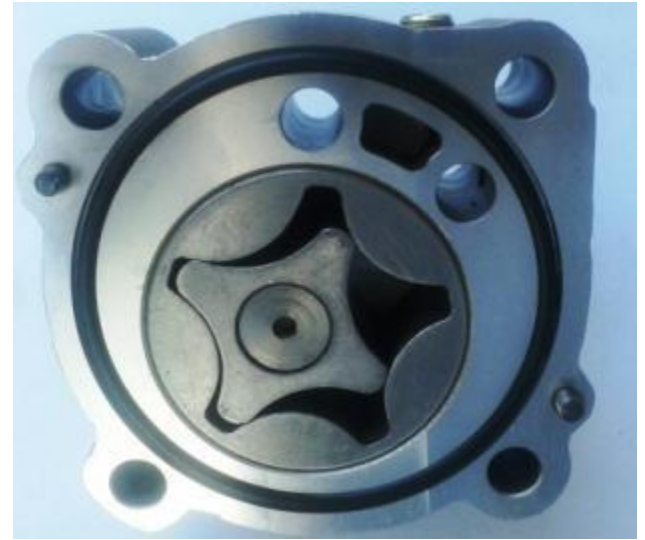


Cover Rocker

High Precision Diesel Engine Oil Pump – Supply to Mitsubishi Diesel Engine & VST Tillers



Oil pump- Assembly



Oil pump- Cover



Oil pump- Body

Critical PDC components



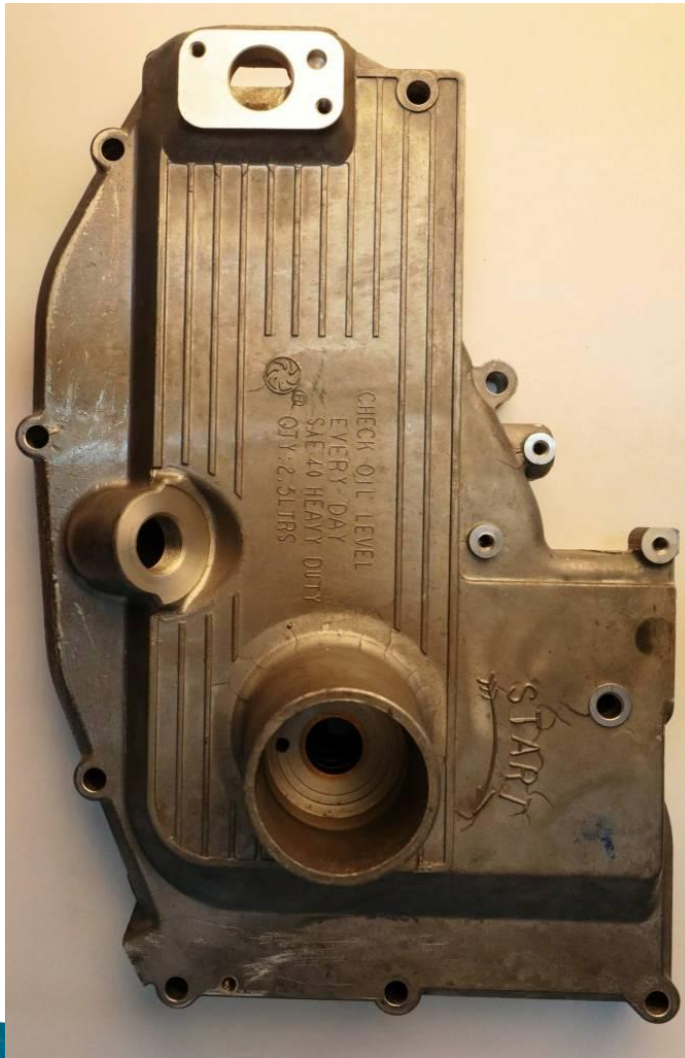
**6 cylinder Rocker Cover –Export to
Mitsubishi Heavy Industries – Japan**

Critical PDC components



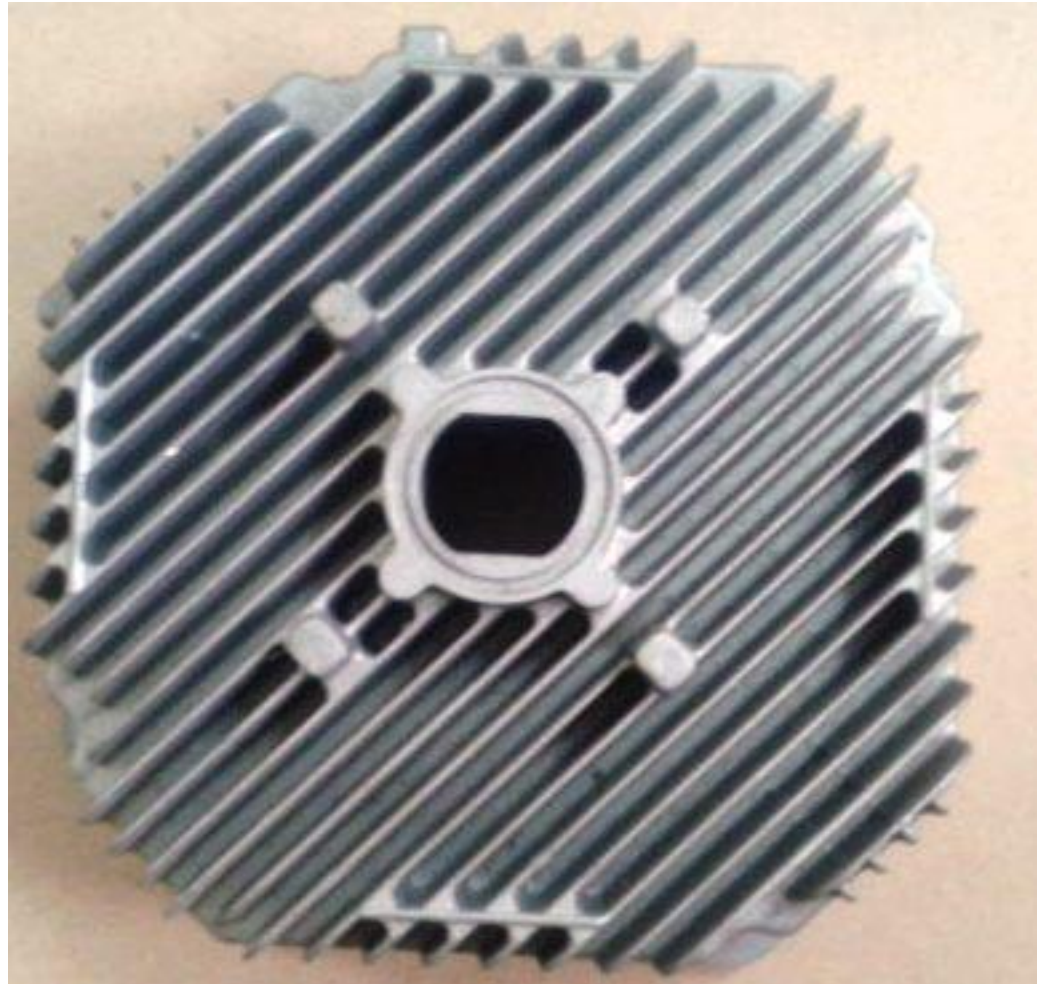
**3 cylinder Engine Gear Case –Supply
to Mitsubishi Engine**

Critical PDC components



**3 cylinder Engine Gear Case –Supply
to VST Tillers Engine**

Critical PDC componentes



**Container Casting – Tele
Communication**

PRODUCT PORTFOLIO (AUTO ELECTRICAL)

FOR 4 WHEELERS

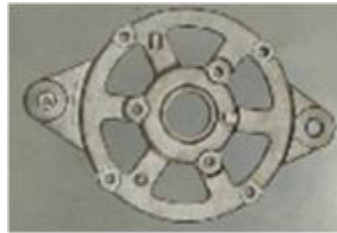
PASSENGER CARS

LCVs

HCVs



HONDA - CITY



Maruti Alto



PRODUCT PORTFOLIO (AUTO ELECTRICAL)

FOR 2 WHEELERS



HONDA
AMBITION



God's Gift

**Our customer's Some of
Recognition
and Appreciation**

Best Kaizen 2nd Price Award



Best Supplier Award -2018 from Mitsubishi Diesel Engines



Best Supplier Award from Stanadyne -Fastest Development, Best Improvement, On time Delivery and First Time Quality



Appreciation for Timely Production support During Chennai Flood



Letter of Appreciation

13th Jan 2016

Subject: Appreciation letter to vendor

Dear Mr.Ramesh,

I am writing this letter on behalf of M/s.BorgWarner Morse Systems India Private Limited. First of all I would like to take an opportunity to thank you for your services to our company. We appreciate “**M/s.KKR Metal Components**” for timely help at the time of crisis when our regular supplies were hindered from our regular supplier at the time of Chennai flood. Having business terms with professional vendors like you is indeed a positive verity for our firm

I am particularly writing to appreciate you for the recent delivery of Aluminium Tensioner Housing - Machined. We were highly impressed to see the quality of the products and the Timely delivery to support our line production which helped us to avoid the line stoppage at our OEM Customer end.

We acknowledge and appreciate your services and we look forward to have such excellence in near future as well.

Wish you all the best for your works.

Thanks!

Sincerely,

P.Saravanan

THANK YOU

K.K.R



A winning partnership ahead...