



## Future Plans

Bharat Cam Industries will be transformed into Pvt. Limited Company and will have existence in name **Ravi Cam Manufacturing Pvt. Ltd.** in near future. Bharat Cam will continue as brand name of company.

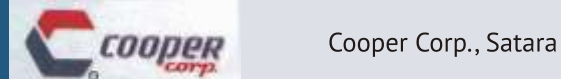
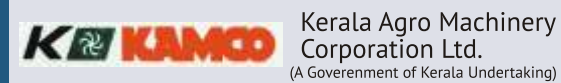
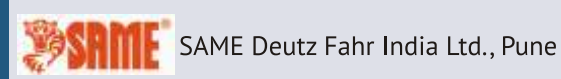
One CNC Cam Lobe grinding machine is on order with Junker, Germany which will be installed in October 2015 having admit between centre 1700 mm to manufacture camshafts for HCV, HHP.

Two Cam milling machines will be added in Oct 2015 to increase the capacity.

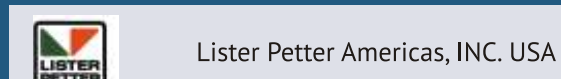


Manufacturers Of Engine Camshafts

## Domestic Customers



## International Customers



[www.bharatcam.in](http://www.bharatcam.in)



## Bharat Cam Industries

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## Production Facilities

We have developed production facilities with the view to manufacture camshafts and carry out all (maximum) critical operations involved in design of various camshafts in house.

However, certain specialized operations are out sourced to maintain quality of camshafts, to name few of them sand blasting, shot blasting, blackodising, phosphating and Heat Treatment etc.



### Range of Products

Engine Cam Shafts

Diameter Range : From 20 mm to 125 mm

Length Range : From 100 mm to 2020 mm

No. of Cylinders : From Single Cylinder to Sixteen

Cylinder "V" Engine Cam Shaft

Hardened & ground components : Drive Shafts & Other Shafts



### Cam Milling Machine :

We have introduced cam milling machine 700 mm between centre lengths.

### Cam Grinding Machines :

We have designed and developed two new cam grinding machines and started using them for profile grinding. These machines are capable of producing desired accuracies of camshafts. We can produce cam profile in tolerance band of 40 microns and on angles we can work in tolerance band of 010'.

### CNC Cam Grinding Machines :

We have 4 CNC Cam grinding machines from SRB Gaziabad, Maximum length we can accommodate on these machines is 2500 mm.

We also have two imported CNC Cam Lobe grinding machines,

1. Junker Germany with 700 mm admit between center
2. Schaudt Germany with 1200 mm admit between center

### Gun Drilling Machine :

We also have "In house" facility of Gun drilling to drill 1200 length up to 16mm diameter.



## Process Advantages

- ▶ CNC Cam Grinding Machine
- ▶ Form of Grooves and Radii
- ▶ Sharp Datum for Angles
- ▶ Minimum Allowance at H. T. Stage
- ▶ Base circle runout of Cams
- ▶ Consistency of Relative Angles
- ▶ Tolerance of Angles
- ▶ Master Cam Development
- ▶ Accuracy of Counters of both side

EZCAM, USA - COMPLETE CAMSHAFT  
MEASUREMENT AND ANALYSIS



## Tool Room

We have developed small tool room facilities needed for production of our tooling.

## Inspection Facilities

We have developed Inspection facilities with the view to measure all parameters of camshafts and to measure accuracy of required tooling for any of the camshafts. We have separate standard room for inspection & have also developed proper "In Process" inspection set up.



## Machines

### Cam Profile Tester

Recently we have also added 'Cam Profile Tester' to our inspection facilities, which proved very useful to us for improvement of quality of camshafts. w.r.t. profile and angular accuracies.

This instrument also we have developed ourselves with the help of angular encoder having least count of 00'04" and digital dial with 1 micron least count. The system is interfaced with computer and per degree or half degree results are recorded and compared against specifications.

It is also pertinent to mention here the results of profile measured on our tester are cross checked by Lombardini Italy, at their Rieti Plant in Italy on "Adcole Modell 1304" and they have confirmed that our facilities are adequate to measure camshaft profile.

Besides this we have also added various instruments to our inspection set up and developed separate standard room having complete inspection facilities to check all parameters of camshafts.

**We have EZ Cam Profile Tester from Andrews Products Inc. U.S.A. We also set support from them to.**

### CNC Turning Machines :

We have added 'Pinacho Smart Turn' Lathe ABC 2000 mm bet. center which can now take care of all linear dimensions radii and chamfers of any camshaft.

### CNC Cylindrical Grinding Machine :

Recently we have also acquired new CNC Cylindrical machine ABC 1000 mm bet. center which can take care of journals and shoulder grinding of any camshaft. We have cylindrical grinder with ABC 2000 is introduced to increase the capacity for long camshaft.



**BHARAT MACHINE TOOLS**

We are introducing activities of Bharat Machine Tools and will start manufacturing FLYWHEEL with ring gear fitment.

[www.beemtee.com](http://www.beemtee.com)

