



# KERALA AUTOMOBILES LIMITED

**GOVERNMENT OF KERALA UNDERTAKING**

AN ISO 9001:2015 CERTIFIED COMPANY

<https://kal.org.in/>



# High Precision Machining Facility

## ❑ ISRO Collaboration

- ▶ KAL has been closely associated with various centres of ISRO since 1988 such as VSSC, LPSC, IISU and Brahmos for the manufacturing of high precision aerospace components for ISRO's space programmes including ASLV, PSLV, GSLV, GSLV MKII, GSLV MKIII, SSLV, Chandrayaan, Gaganyaan, Mangalyaan etc



# Our Capabilities

- ▶ Expertise in High Precision Manufacturing
- ▶ Highly Skilled Workforce
- ▶ Professionally qualified and experienced engineers
- ▶ Dedicated team with extensive expertise
- ▶ Advanced Metal Forming Capabilities
- ▶ Sophisticated Machinery & Technologies for EV manufacturing as well as High Precision Aerospace Components Manufacturing
- ▶ Modern Pre Treatment and Painting Facility including 7 Tank System
- ▶ ISO 9001:2015 Certified system for stringent quality control
- ▶ Large plant with built up area of 1.5 Lakh Square Feet



# ISO 9001:2015 certified System for Stringent Quality Control



# Plant Facilities

- ▶ Location: Situated at Aralumoodu, about 16 kms south-east from the capital city of Thiruvananthapuram, adjacent to NH-66 ,Kerala
- ▶ Campus: 11 acres
- ▶ Factory Floor: Carpet area of about 1 Lakh square feet of covered area
- ▶ Total Area: Factory building including the office is about 1.5 Lakh square feet.
- ▶ State-of-the-Art Facility: Modern infrastructure designed to support high-precision manufacturing.
- ▶ Sophisticated Machinery: Equipped with cutting-edge machinery and advanced technologies.
- ▶ Fully Equipped for EV Manufacturing: Dedicated facilities for electric vehicle manufacturing.



# CNC MILLING MACHINE RDX 10 JYOTI



- Table size: 800 x 500 mm
- X: 600 mm Y: 450 mm Z: 510 mm
- Maximum spindle speed: 8000 rpm
- Number of tools in ATC: 20
- Input Power: 25 KW
- Control System: Siemens Sinumerik 828D

# CNC MILLING MACHINE RDX 20 JYOTI

- Table size: 1000 x 530 mm
- X: 820 mm Y: 510 mm Z: 510 mm
- Maximum spindle speed: 8000 rpm
- Input Power: 25 KW
- Control System: Siemens Sinumerik 828D





# CNC MILLING MACHINE VMC-1260DM JYOTI

- X: 1220 mm Y: 600 mm Z: 610 mm
- Spindle speed: 10000 rpm (max)
- Control System: Siemens Sinumerik 828D

# CNC MILLING MACHINE PX 10 JYOTI

- Table size: 660 x 360 mm
- X: 510 mm Y: 410 mm Z: 510 mm
- Maximum spindle speed: 6000 rpm
- Control System: Siemens Sinumerik 828D



# CNC MILLING MACHINE

## AGNI BMW45 TC24



- Table size: 900 x 450 mm
- X: 600 mm Y: 450 mm Z: 450 mm
- Spindle speed: 8000 rpm
- Number of tools in ATC: 24
- Input Power: 20 KW
- Control System: Fanuc Oi-MC



# CNC LATHE

## DX 200 JYOTI

- Swing over bed: 500 mm
- Maximum turning diameter: 320 mm
- Maximum turning length: 400 mm
- Maximum spindle speed: 4000 rpm
- X: 175 mm Z: 400 mm
- Power: 20 KW
- Control System: Siemens Sinumerik 828D



## CNC LATHE DX350 JYOTI

- Swing over bed: 740 mm
- Maximum turning diameter: 600 mm
- Maximum turning length: 1000 mm
- Maximum spindle speed: 2500 rpm
- X: 310 mm Z: 1000 mm
- Power: 40 KW
- Control System: Siemens Sinumerik 828D



# CNC LATHE ACE APOLLO



- Swing over bed: 425 mm
- Distance between centers: 250 mm
- Maximum turning diameter: 190 mm
- Maximum turning length: 224 mm
- Maximum spindle speed: 4000 rpm
- X: 114 mm Z: 224 mm
- Power: 10 KW
- Control System: Siemens Sinumerik 828D

# CNC LATHE STC25

- Maximum turning diameter: 200 mm
- Maximum turning length: 1000 mm
- Maximum spindle speed: 3500 rpm
- Number of tools in turret: 12
- Control System: Fanuc Oi-MC



# CNC WIRECUT EDM ULTIMA- 1F



- Table traverse: 500 x 300 mm
- Table size: 810 x 550 mm
- Max. Work piece height: 260 mm
- Resolution: 0.0005mm
- Max. Wire spool capacity: 8kg
- Control System: TURBO
- Dielectric fluid: De-ionized water
- Wire electrode diameter: 0.25 mm  
(std) 0.1, 0.15, 0.2, 0.3(optional)

# CNC SPARK EDM MACHINE EDM-SPARKONIX



- Work Table Size: 800 (L) x 500 (W)
- X: 800 mm Y: 500 mm Z: 300 mm
- Max. Drilling Depth: 300mm
- Electrode Pipe Dia.:0.3-3mm
- Dielectric fluid: Tap Water at Max 100 kg/ cm<sup>2</sup>

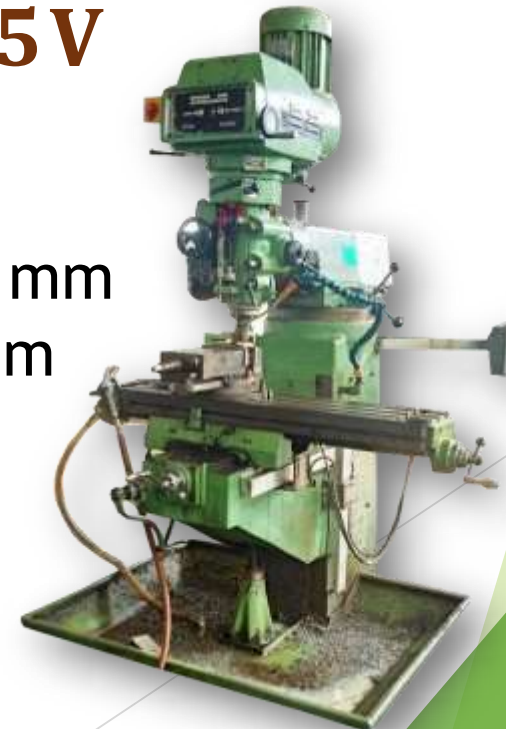
# VERTICAL MILLING MACHINE HMT-FN2V2



- Table size: 1520x310 mm
- Longitudinal movement: 800 mm
- Transverse movement: 265 mm
- Vertical movement: 400 mm
- Speed: 35-1800 rpm/Power: 5.5 KW

# VERTICAL MILLING MACHINE TRM-5V

- Table size: 1070x230 mm
- Centre distance: 63 mm
- Longitudinal movement: 760 mm
- Transverse movement: 305 mm
- Vertical movement: 400 mm
- Speed: 50-3500 rpm
- Power: 3.7 KW



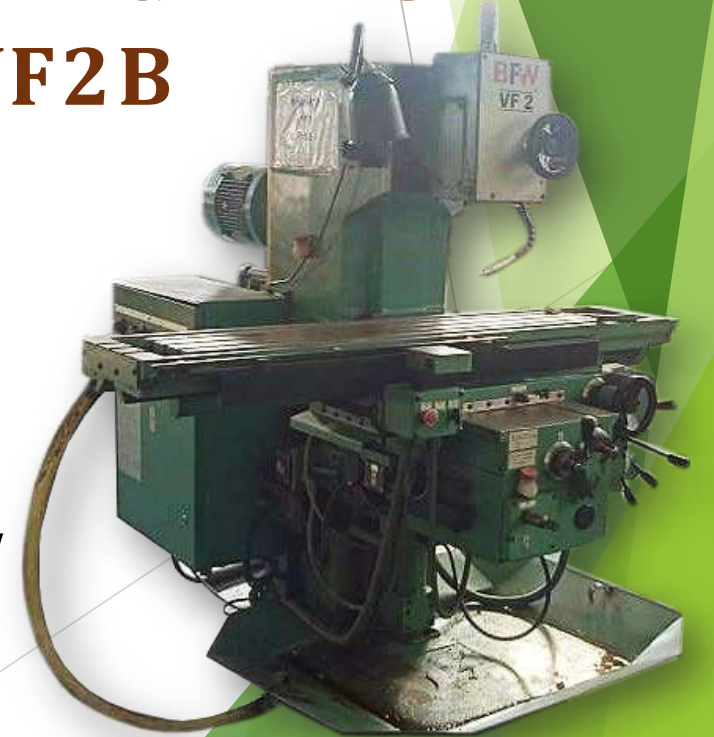
# VERTICAL MILLING MACHINE BFW-VF2A



- Table size: 1350x315 mm
- Longitudinal movement: 800 mm
- Transverse movement: 230 mm
- Vertical movement: 400 mm
- Speed: 45-2000 rpm
- Power: 5.5 KW

# VERTICAL MILLING MACHINE BFW-VF2B

- Table size: 1350x315 mm
- Longitudinal movement: 800 mm
- Transverse movement: 230 mm
- Vertical movement: 400 mm
- Speed: 45-2000rpm/ Power: 5.5 KW



# BROACHING MACHINE



- Supply: 3Phase, 415V
- Control Voltage: 220V
- Power Required: 6.5Kw
- Maximum Tractive force: 5000Kg
- Cutting speed: 1-10 m/min



# THREAD ROLLER



- Capacity: 45KW
- Min. Diameter of work: 1mm
- Max. Diameter of work: 50mm
- Maximum pitch: 4mm

# GEAR HOBBER

- Work table diameter: 400mm
- Max. Hob diameter: 186mm
- Max. Length of Hob: 180mm
- Hob Spindle Speed: 40-240rpm





# PROFILE PROJECTOR SIPCON SP-300

- Range: 200 x 200 mm
- Magnification: 10X, 20X & 50X

# DIGITAL HEIGHT GAUGE TRIMOS- VECTRA TOUCH

- Range: 0-600 mm
- Least count: 0.0001





**HARDNESS TESTING MACHINE  
ROCKWELL & BRINELL**



**UTM / COMPRESSION  
TEST MACHINE**

