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# Promoting your growth always...

Since our inception in 1979, we at Ace Designers have continually worked on leveraging state of the art technology to build a wide range of turning centres to suit the changing needs of our customers.

Ace Designers' foray into manufacturing tools started with building special purpose machines for the engine valve industry, followed by semi-automatic multi-slide lathes for the automobile industry. These modular machines, known as Auto Lathes went on to become the launch pad for our emergence as a leading manufacturer of CNC turning machines.

In 1986, we launched our first CNC Chucker LC 16 which bagged the

FIE Foundation award for best design at the following IMTEX.

Today, Ace Designers plays a pivotal role in the Indian machine tool industry by offering a comprehensive range of turning machines to cater to the needs to several industry segments. In addition to producing CNC lathes, we have also built capabilities in the field of application engineering and tooling solutions, thereby providing our customers a one stop shop for all their turning needs.

Our constant focus on ensuring customer delight has helped us sustain long lasting partnerships with several large corporations and emerging small and medium scale companies.

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# Infrastructure

It is well known that one of the main factors contributing to high quality products are high quality inputs. To ensure on time delivery and to maintain the quality of our machines, we have built expertise in design and production of our -

- critical subsystems. Over the years we have established state of the art manufacturing and assembly facilities spanning an area of more than 20 acres in Bangalore, India.



## Foundry

High quality castings are one of the fundamental requirements to build robust and reliable machines. The Ace Designers foundry division was established in 2013 to ensure availability of high quality casting required for machine building. With a capacity of 1000 tonnes per month, our foundry is capable of manufacturing medium to large castings. In addition to meeting internal requirements, the foundry caters to external customers. Machining of the castings is also offered as an added service. Some highlights of the foundry are:

- High volume fast loop moulding, pouring and cooling lines from IMF, Italy
- Floor moulding line for large castings
- Mechanized core shop
- 4 metric ton dual track induction furnace
- State of the art heat treatment and painting setup
- Well-equipped testing laboratory

## Component Manufacturing Division

Our component manufacturing division is equipped with top of the line mother machines and manufacturing systems like the

- Starrag Heckert FMS systems to ensure flexibility and unmanned operations
- High precision grinders from Studer, Nissin and Kellenberger for grinding of spindles and cartridges
- Faveretto slide way grinder for machining beds and guideways
- SNK 5 face machining centres for machining of heavy components



## Sheet Metal Division

The sheet metal division is equipped with world class machines to ensure high quality sheet metal required for machine guarding. The entire process has been designed to deskill sheet metal production and to ensure safety of our workmen. This division is equipped with machines like

- Amada laser cutting machine
- Amada bending and shearing machines
- Fanuc welding robots to perform hazardous operations in rapid and error free sequences

## Paint Shop

The environment friendly paint shop is equipped with pre-treatment and powder coating facilities to ensure the preservation and aesthetic appeal of the machines. Some of the features of the paint shop are

- Automated PLC controlled seven tank process with conveyors
- Automated powder coating equipment with a conveyor system capable of varying speeds to suit the complexity and size of the sheet metal.

## Flow Line Assembly

Taking a cue from the automotive manufacturing industry, we have evolved the flow line system of machine assembly for our standard machines. This methodology of machine building has resulted in reduced throughput time, improved productivity and ensure levelled production leading to on-time delivery of our machines. Some additional benefits of the flow line system are

- Streamlined material supply
- Work specialization
- Waste elimination
- Improved visibility of production status on the shop floor
- Improved output measurement



# Research and Development

Ace Designers has been granted recognition from the Department of Scientific and Industrial Research - Ministry of Science and Technology for research and development since 1993.

A dedicated team of over seventy engineers from various engineering disciplines are focused mainly on the development of over 100 models of high quality cost effective turning centres to cater to varied industry segments both in domestic and international markets. We are proud that all our products have been designed and developed indigenously without any external collaboration. Our team has endeavoured to continuously develop innovative customized solutions to enhance productivity and reliability of existing products. In addition to product design and development, our team also works on research projects to enhance understanding on CNC technology, FEM and automation. The R&D centre is equipped with state of the art software to enable an environment for world class innovation.

Some of the activities of our R&D Center are

## Design & development of

- CNC Turning machines
- High precision & high technology CNC Turning machines
- Special CNC Turning/Boring machines
- Gantry robot operated turning cells
- Tooling up CNC Turning machines

## R&D towards

- Machine validation & testing for CNC Turning machines product range
- CNC technology
- Structural Analysis & Optimisation using Finite Element Technique
- Technologies for next generation machines like robot technology

## Why Ace Designers ?

To summarize, Ace Designers is the perfect choice for high quality cost effective CNC lathes for the following reasons:

- Ace is India's largest CNC lathe manufacturing company since 1996.
- Over 25000 turning machines are in operation across the globe
- 5000+ satisfied customers from corporate, medium and small scale sector
- Experience of 35+ years in building high quality robust machines.
- Strong brand recall for high quality, cost effective, reliable products
- Comprehensive portfolio of products designed and produced with focus on value, quality, reliability, safety and ease of operation.
- Strong application knowledge built over years.
- Total solutions offered to suit specific applications
- Large sales and service network with an assurance of prompt support.

## Ace offers wide range of Products and Solutions





Standard 2 Axes Lathes

JOBBER SERIES



Ace's Jobber series has been the benchmark for standard CNC lathes in India, with more than 10,000 machines producing profits for satisfied owners.

Over the years, using Jobber machines, numerous small and medium entrepreneurs have grown to become successful suppliers of turned parts to auto component, hydraulic, pumps & valves, general engineering and other industries.

The enduring brand equity of the Jobber series is its world class reliability and accuracy through use of best in class inputs and standardised production and testing systems backed by years of experience of our strong team. The Jobber series machines are assembled on a conveyor line, in a lean environment, resulting in a highly efficient production system, to drive high volumes of machines with consistent quality, at optimal costs.

Some highlights of Jobbers are:

- Pre-tensioned ball screw assembly
- Rigid cartridge type thermally stabilized spindle
- Classical bearing configuration

Standard Accessories

- AC Spindle and axes drives
- Precision guide ways on both axes
- Heavy duty bi directional elctro-mechanical 8 station Turret
- Tailstock with live centre
- Automated centralized oil lubrication
- Hydraulic power operated chuck
- Air conditioner unit for electrical cabinet
- Programmable quill

Optional Accessories

- Voltage Stabiliser
- Chip conveyor -Side/rear
- 12 Station Turret
- Servo Turret
- Touch probe
- Parts catcher
- Auto Door
- Manual Guide I
- Collet system
- Bar feeder

Description	Units	Jobber Junior	Jobber XL ELite	Jobber LM Elite
Swing Over Bed	mm	450	500	500
Swing over carriage	mm	225	260	225
Distance between centres	mm	296	425	425
Maximum Turning Dia.	mm	320	320	320
Maximum Turning Length	mm	300*	400*	400*
Spindle Size		A2-5	A2-5	A2-5
Bore through Spindle	mm	52.5	52.5	52.5
Spindle Speed	rpm	5000	5000	5000
Spindle Motor Power (F/S)	kW	5.5/7	5.5/7	5.5/7
X-Axis stroke	mm	165	165	165
Z-Axis stroke	mm	320	400	400
X & Z axes rapid	m/min	30	20	30
No of Tools maximum		8/12	8/12	8/12
Tooling Type		25 x 25 / 20 x 20	25 x 25 /20 x 20	25 x 25/20 x 20
Over all Dimensions (LxWxH)	mm	1940x1640x1720	2470 x 2060 x1775	2470 x 2060 x1775

Super Jobber Elite	Super Jobber LM ELite	Super Jobber 500 ELite	Super Jobber 500 LM ELite	LT-2 LM 500 Plus
500	500	500	500	500
260	225	260	225	225
425	425	550	550	550
350	350	350	350	550
400*	400*	500*	500*	540
A2-6	A2-6	A2-6	A2-6	A2-6
63	63	63	63	63
5000	50000	5000	5000	3500
7.5/9	7.5/9	7.5/9	7.5/9	15/15
180	180	180	180	275
400	400	500	500	540
20	30	20	30	30
8 / 12	8 / 12	8 /12	8 / 12	8
25 x 25 / 20 x 20	25 x 25 / 20 x 20	25 x 25 / 20 x 20	25 x 25 / 20 x 20	25 x 25
2470x 1750 x1750	2470 x 2060 x1775	2620 x 2060 x 1770	2620 x 2060 x 1770	2430x1850x1800

XL- Box Guideways, LM-Linear Motion Guideways, (F/ S) - (FANUC/ Siemens), \*Machine available with similar specifications for Toolod up Solution as an option.

\* - Maximum Turning length depends on selection of workhodling

Owing to up-gradation of our products, the specification may change and be reconfirmed at the time of ordering



Cub/ Apollo/ Tutor

Colt/ SLC 16/ SLC 20

CHUCKER SERIES

CUB LM



APOLLO



TUTOR



COLT - LM



SLC - 16 LM



SLC - 20 LM



These machines are compact, high precision CNC turning centres mainly used for small components like engine valves, bearings, armature shafts, spaces and nuts.

The Tutor CNC lathe is primarily suitable for student training in academic institutions.

Standard Accessories

- AC spindle & axes drives
  - Precision guide ways on both the axes
  - Bi directional tool turret
  - Tailstock with live centre
  - Automatic centralized oil lubrication
  - Hydraulic power chuck
- AC unit for electrical cabinet #
  - Coolant system
  - Drain oil cooler #
  - OD tool holder clamping blocks 8 nos.
  - Boring bar 4 nos.
  - Facing tool holder 2 nos.

Optional Accessories

- Chip conveyor -Rear only
- Parts catcher
- Barfeeder

Standard Accessories

- AC Spindle Drive and axes motors
  - Table mounted gang tooling
  - Automatic centralised lubrication system
- Basic hydraulic system
  - Built-in lighting system
  - Coolant system
  - Drain line oil cooler
- OD turning tool holders 2 nos.
  - Boring bar holders 2 nos.
  - Parting tool holder 1 no.

Optional Accessories

- Voltage stabiliser
  - Chip conveyor
- TPM Trak -productivity monitoring system
  - Caps turn software

Description	Units	Cub LM	Apollo	Tutor
Swing Over Bed	mm	450	425	425
Swing over carriage	mm	125	165	165
Distance between centres	mm	280	225	225
Maximum Turning Dia.	mm	140	190	190
Maximum Turning Length	mm	200*	224*	200*
Spindle Size		Flat Ø 110	Flat Ø 110	Flat Ø 110
Bore through Spindle	mm	36	36	36
Spindle Speed	rpm	5000	5000	5000
Spindle Motor Power (F/S)	kW	3.7	3.7	3.7
X-Axis stroke	mm	87	114	114
Z-Axis stroke	mm	200	224	200
X & Z axes rapid	m/min	20	15	15
No of Tools maximum		8	8	8
Tooling Type		20 x 20	16 x16	16 x16
Over all Dimensions (LxWxH)	mm	1900 x 1225 x 1780	1720 x 1350 x 1700	1700 x 1350 x 1700

XL- Box Guideways, LM-Linear motion guideways, # - These options are not available in Tutor models, (F/ S) - (Fanuc/ Siemens)

\* - Maximum Turning length depends on selection of workhodling

Colt	Colt LM	SLC 16	SLC 16 LM	SLC 20	SLC 20 LM
280	280	180	180	180	180
170	170	480	480	480	480
		-	-	-	-
60	60	150	150	150	150
60*	60*	100*	100*	100*	100*
Flat Ø 110	Flat Ø 110	A2-5	A2-5	A2-6	A2-6
36	36	52.5	52.5	63	63
5000	5000	5000	5000	5000	5000
3.7	3.7	5.5/7	5.5/7	7.5/9	7.5/9
200	200	360	360	360	360
200	200	270	270	270	270
20	20	20	30	30	30
Based on workpiece	Based on workpiece	Based on workpiece	Based on workpiece	Based on workpiece	Based on workpiece
Gang tooling	Gang tooling	Gang tooling	Gang tooling	Gang tooling	Gang tooling
1475 x 1450 x 1680	1475 x 1450 x 1680	2450 x 1600 x 2450	2450 x 1600 x 2450	2450 x 1600 x 2450	2450 x 1600 x 2450

Owing to up-gradation of our products, the specification may change and be reconfirmed at the time of ordering



LT 2 Turn mill and Sub Spindle

LT-20 Classic

CLASSIC SERIES

LT-2 XL 500 M S



LT-2 LM 500 MSY



LT-20 CLASSIC



LT-2 Turnmill machines are robust CNC turning centres that combine versatility and productivity. The addition of the sub spindle option makes the machine suitable for components that require two operations in a single setup, thereby improving throughput.

The LT20-Classic machines are powerful, high precision turning centres suitable for medium sized components. Several premium features like robust ultra-precision spindle, safety clutches for both axes and high precision ball screws have been used.

This machine is available with Hardened & Ground Box or Linear motion (LM) Guideways

Standard Accessories (LT-2 Series & Classic Series)

- Turcite anti-slip stick liners on slide waysurfaces
- Tailstock with Add-on type live centre
- Automatic centralised oil lubrication
- Built-in lighting system & over load trip clutch for axes
- OD turning tool block (8 Nos)
- Boring bar holder (4 Nos)
- Facing tool holder (2 Nos)
- Set of sleeves
- Coolant system with side tray
- Programmable quill

Optional Accessories (LT-2 Series & Classic Series)

- Chip conveyor at side or rear
- A wide variety of power operated work-holding
- 12 station Turret
- Auto door, Tool touch probe
- Parts catcher, Bar feeder
- Programmable Tailstock
- Steady Rest
- VDI Disc on Turret
- A2-8 spindle
- Manual guide i
- Door interlock
- Built in live center for Tailstock
- Torque enhancement by star delta

Description	Units	LT 2 XL 500 M Elite	LT 2 XL 500 S	LT 2 XL 500 M S	LT 2 LM 500 M S Y
Swing Over Bed	mm	500	610	620	620
Swing Over Carriage	mm	260	350	350	350
Distance Between Centres	mm	550	NA	NA	NA
Maximum Turning Dia	mm	270	420	420	380
Maximum Turning Length	mm	500*	NA	NA	NA
Spindle Size		A2-6	A2-6	A2-6	A2-6
Bore through Spindle	mm	63	63	63	63
Main Spindle Speed	rpm	5000	5000	5000	5000
Main Spindle Motor Power ( F/S)	KW	9/11	9/11	9/11	9/11
Sub Spindle Speed	rpm	NA	6000	6000	6000
Sub Spindle Motor Power ( F/S)	kW	NA	5.5	5.5	5.5
X-Axis stroke	mm	193	220	220	198
Z-Axis stroke / (Y-Axis)	mm	500	500	500	500 / (+40/-40)
X & Z axes rapid	m/min	20	20	20	20
Turret Type		Rotary Tool Turret(A)	Rotary Tool Turret(A)	Rotary Tool Turret(A)	Rotary Tool Turret(A)
OD Turning tool size		20 x 20	20 x 20	20 x 20	20 x 20
No of tools maximum		12	12	12	12
Rotary tool motor power	kW	2.2	NA	2.2	2.2
Over all Dimensions (LxWxH)	mm	2560x2140x1780	3163x1800x1880	3163x1800x1880	3163x2050x1950

Description	Units	LT 20C Classic 500	LT 20C Classic	LT 20 Classic M
Swing Over Bed	mm	550	550	550
Swing Over Carriage	mm	290	290	290
Distance Between Centres	mm	500	740*	740*
Maximum Turning Dia	mm	370	370	250
Maximum Turning Length	mm	450*	670*	600*
Spindle Size		A2-6 /A2-8	A2-6 / A2-8	A2-6 / A2-8
Bore through Spindle	mm	63/84	63/84	63/84
Main Spindle Speed	rpm	4000/3500	4000/3500	4000/3500
Main Spindle Motor Power ( F/S)	kW	11/17	11/17	11/17
Sub Spindle Speed	rpm	NA	NA	NA
Sub Spindle Motor Power ( F/S)	kW	NA	NA	NA
X-Axis stroke	mm	205	205	192
Z-Axis stroke	mm	500	670	600
X & Z axes rapid	m/min	20	20	20
Turret Type		BTP 100	BTP 100	Rotary Tool Turret (A)
OD Turning tool size		25 x25	25x25	25 x 25
No of tools maximum		8 / 12	8 / 12	12
Rotary tool motor power	kW	NA	NA	4.5
Over all Dimensions (LxWxH)	mm	2498 X 1587 X 1705	3450 x 1650 x 1720	3450 x 1650 x 1720

XL- Box Guideways, LM-Linear Motion Guideways, (F/ S) - (FANUC/ Siemens), A-Axial,R-Radial M-Milling, S-subspindle, Y-Y axis  
\* - Maximum Turning length depends on selection of workholding, NA- Not Applicable

Owing to up-gradation of our products, the specification may change and be reconfirmed at the time of ordering  
\* Depends on work holding



Heavy Duty Horizontal Slant Beds and Turnmill

PREMIUM SERIES

LT - 30 630



LT - 30



LT - 40 (2000)



LT - 40 M



Accessories shown need not to be a part of standard

These machines are robust high precision turning centres, ideal for large sized components. Their robust construction includes a high speed spindle with large bore capacity, safety clutches and a slant bed. LT- 25 , LT -30 machines are available with 3 different machining lengths. These machines are also available in the turnmill version.

Standard Accessories

- Cartridge type spindle
  - AC spindle drives and axes drives
  - High speed bi-directional tool Turret
  - Hardened & ground guide way strips
  - Turcite anti-slip sticks liners on slide way surfaces
- Overload trip clutches on both axes
  - Failsafe brake for x axis
  - Programmable tailstock
  - Basic hydraulic system
  - Automatic centralised oil lubrication
  - Coolant system
- Built-in lighting system
  - OD turning tool blocks (8 No's)
  - Boring bar holders (4 No's)
  - Facing tool holders (2 No's)
  - Set of sleeves for boring bars

Optional Accessories

- Chip conveyor
  - VDI disc
  - 12 station turret
  - Tool touch probe
  - A2-11 spindle
- Steady rest
  - Auto door
  - Geared Headstock (with A2-8 Spindle - LT 30)
  - Geared Headstock (with A2-11 Spindle - LT 40)
- Torque enhancement by Star Delta feature
  - Door interlock
  - Manual guide

Description	Units	LT-30 630	LT-30	LT-30 1500
Swing Over Bed	mm	650	650	650
Swing Over Carriage	mm	415	415	415
Distance Between Centres	mm	630	1050	1500
Maximum Turning Dia	mm	480	480	480
Maximum Turning Length	mm	665*	1090*	1540*
Spindle Size		A2-8 (A2-11)	A2-8 (A2-11)	A2-8 (A2-11)
Bore through Spindle	mm	80 (105)	80 (105)	80 (105)
Main Spindle Speed	rpm	3000 (2000)	3000 (2000)	3000 (2000)
Main Spindle Motor Power ( F/S)	KW	18.5/25	18.5/25	18.5/25
X-Axis stroke	mm	255	255	255
Z-Axis stroke	mm	665	1090	1540
X & Z axes rapid	m/min	15	15	15
Turret Type		BTP-125	BTP-125	BTP-125
OD Turning tool size		25 x 25	25 x 25	25 x 25
No of tools maximum		8/12	8/12	8/12
Rotary tool motor power	kW	NA	NA	NA
Over all Dimensions (LxWxH)	mm	3475 x 1875 x 1990	4325 x 1875 x 1990	5000 x 1875 x 1990

LT-30M	LT-30 1500 M	LT-40 2000	LT-40 M
650	650	800	800
415	415	575	575
1050	1500	2300	2300
390	390	700	700
950*	1540*	2200*	2200*
A2-8(A2-11)	A2-8 (A2-11)	A2-11	A2-11
80(105)	80 (105)	132	132
3000(2000)	3000 (2000)	2000	2000
18.5/25	18.5/25	22/30	22/30
255	255	380	380
950	1540	2200	2200
15	15	15	15
Rotary Tool Turret (R)	Rotary Tool Turret (R)	BTP-160	Rotary Tool Turret ®
25 X 25	25 x 25	32x32	32 x 32
12	12	8/12	12
4.5	4.5	NA	5
4325 x 1875 x 1990	5000 x 1875 x 1990	6500 x 2300x 2350	6500 x 2300 x 2350

XL- Box Guideways, LM-Linear Motion Guideways, S-Short Stroke, M-Milling, ( F/ S) - (FANUC/ Siemens), Values mentioned in ( ) are optional.

\* - Maximum Turning length depends on selection of workhodling, NA- Not Applicable

Owing to up-gradation of our products, the specification may change and be reconfirmed at the time of ordering



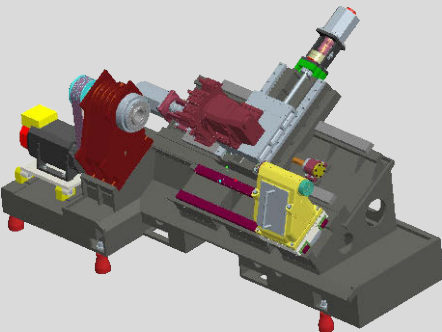
The Vantage

VANTAGE SERIES

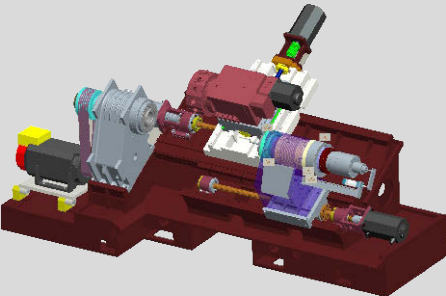
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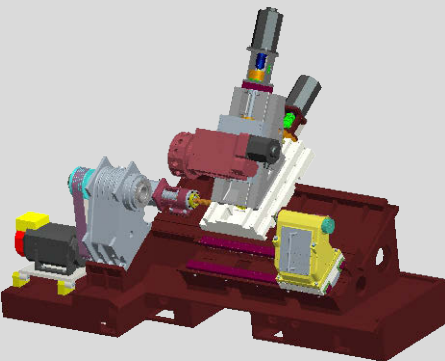
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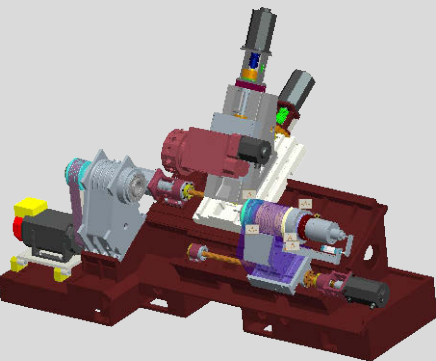
VANTAGE 800 MS



VANTAGE 800 MY



VANTAGE 800 MSY



Schematic structure of the machines

Vantage series turning centers combine power, rigidity and productivity. These are high precision CNC turning centers with C and Y axes capability to cater to wide variety of machining needs like milling, drilling, tapping and turning in a single setup.

All the stations are capable of driving milling, drilling and tapping head attachments. The spindle is designed for heavy duty cutting and provides precise circular orientation for effective live tooling.

Power up series motor can be offered for increased torque at lower spindle speeds.

C-Axis

C-axis provides bi-directional motion that can be interpolated with X and / or Z motion. The rotating cutters are mounted on the tool turret and they move in the same two axes of motion as the turning tools.

Y-Axis

Y-axis is a third linear axis which enables rotary cutters to machine across the spindle center line. To get Y-axis motion, an extra set of ways is used to move the live tool across the face of the spindle. Thereby production shops can realize quickly the production advantages of integrating Milling / drilling and turning operations. Full contouring movement of the work piece allows profiling cuts to be made using simultaneous X-Y-Z-axes motion with the C-axis.

Standard Accessories

- Cartridge type spindle
  - AC spindle drives
  - AC axes drives
- High speed bi-directional tool turret
  - Precision guide ways
  - Automatic centralised oil lubrication
- Built-in lighting system & over load trip clutch for axes

Optional Accessories

- Chip conveyor at side
  - Tool touch probe
  - Parts catcher
- A wide variety of power operated work-holding
  - Auto door

Description	Units	Vantage 800	Vantage 800 LM	Vantage 800M	Vantage 800 LM M
Swing Over Bed	mm	640	640	640	640
Swing Over Carriage	mm	400	390	400	390
Maximum Turning Dia	mm	580	580	400	400
Maximum Turning Length	mm	800*	800*	800*	800*
Distance Between Centres	mm	1025	1025	1025	1025
Spindle Size	A2-6	A2-6 (A2-8)	A2-6 (A2-8)	A2-6 (A2-8)	A2-6 (A2-8)
Bore through Spindle	mm	63 (86)	63 (86)	63 (86)	63 (86)
Main Spindle Speed	rpm	4000 (3500)	4000 (3500)	4000 (3500)	4000 (3500)
Main Spindle Motor Power ( F/S)	KW	11/17	11/17	11/17	11/17
X-Axis stroke	mm	300	300	300	300
Z-Axis stroke	mm	800	800	800	800
X & Z axes rapid	m/min	20	20	20	20
Turret Type	BTP-100	BTP-100	Rotary Tool Turret (R)	Rotary Tool Turret ®	BTP-100
OD Turning tool size		25 x 25	25 x 25	25 x 25	25 x 25
No of tools maximum		8 (12)	8 (12)	12	12
Rotary tool motor power	kW	NA	NA	4.5	4.5
Over all Dimensions (LxWxH)	mm	3690 x 1850 x 1860	3690 x 1850 x 1860	3691 x 1850 x 1860	3691 x 1850 x 1860

XL- Box Guideways, LM-Linear Motion Guideways, M-Milling, S-Subspindle, Y-Yaxis, (F/S)-(Fanuc/Siemens)

\* - Maximum Turning length depends on selection of workhodling, NA- Not Applicable

Description	Units	Vantage 800 MS	Vantage 800 MSY
Swing Over Bed	mm	640	640
Maximum Turning Dia	mm	400	400
Maximum Turning Length	mm	800*	800
Distance Between Centres	mm	NA	NA
Spindle Size		A2-8	A2-8
Bore through Spindle-Main	mm	86	86
Main Spindle Speed	rpm	3500	3500
Main Spindle Motor Power (F/S)	kW	11/17	11/17
Sub Spindle Speed	mm	4000	4000
Sub Spindle Motor Power (F/S)	kW	5.5	5.5
X-Axis stroke	mm	300	300
Z-Axis stroke	mm	800	800
Y-Axis stroke	mm	NA	+20/-75
X & Z axes rapid	m/min	20	20/ 10
Turret Type		Rotary Tool Turret (R)	Rotary Tool Turret (R)
No of tools maximum	Nos.	12	12
Rotary tool motor power	kW	4.5	4.5

Owing to up-gradation of our products, the specification may change and be reconfirmed at the time of ordering  
( )- Values mentioned in bracket are optional



Vertical lathes and Turn mills

VTL SERIES



Vertical turning lathes (VTL) are powerful, rigid and versatile with increased capacity. Wide access to the chuck zone, facilitates ease of loading and unloading of parts. Rapid traverse rates enable reduced cycle times and linear motion guideways on the X and Z axes ensure better positioning and repeatability.

This machine is ideal for turning heavy and large diameter components. This machine occupies less floor space compared to a horizontal machine for similar sized components.

Standard Accessories

- AC spindle & axes drives
  - Precision guide ways on both the axes
  - Bi directional tool turret
- Automatic centralized oil lubrication
  - Hydraulic power chuck
  - AC unit for electrical cabinet
  - Coolant system
- Drain oil cooler
  - OD tool holder clamping blocks 8 no's
  - Boring bar 4 nos.
  - Facing tool holder 2 nos.

Optional Accessories

- Chip conveyor at rear only
- Manual Guide I
- 12 station Turret
- Auto door
- ZF Gearbox

Description	Units	Vertical Lathes		
		VTL 25	VTL 25 -L	VTL 30/700
Swing Over Bed	mm	625	625	800
Swing Over Carriage	mm	300	300	240
Maximum Turning Dia	mm	400	400	500
Maximum Turning Length	mm	400*	400*	700*
Spindle Size	A2-6	A2-6	A2-8	A2-8
Bore through Spindle	mm	47	47	47
Spindle Speed	rpm	50 - 3000	50 - 3000	50 - 2500
Spindle Motor Power	kW	11	11	18.5
X-Axis stroke	mm	215	215	265
Z-Axis stroke	mm	400	400	700
X & Z axes rapid	m/min	20	20	20
Turret Type		BTP-100	BTP-100	BTP-125
OD Turning tool size	mm	25 x25	25 x25	25 x 25
No of tools maximum		8	8	8
Rotary tool motor power	kW	NA	NA	NA
Over all Dimensions (LxWxH)	mm	1600 x 1906 x 2550	1600 x 1906 x 2550	1840 x2035 x 2900

M-Turnmill, S-Subspindle, L-Left hand,M-turn mill

Vertical Turnmills		
VTL 40	VTL 30 M	VTL 40 M
1000	800	1000
500	240	500
800	425	920
800*	625*	800
A2-11	A2-8	A2-11
65	47	65
2000	50-2500	2000
22	18.5	22
500	300	500
800	625	800
20	20	20
BTP-160	Rotary Tool Turret (R)	Rotary Tool Turret (R)
32 x 32	25 x 25	25 x 25
8	12	12
NA	4.5	5
2210 x2560 x3250	1840 x 2035x2950	2210 x 2560 x 3250

Owing to up-gradation of our products, the specification may change and be reconfirmed at the time of ordering



# Twin Spindle Chucker's with Gantry LCXT SERIES

# CUSTOMISED SOLUTIONS

LCXT-12 G



LCT-12 G R



LTP-2LM 500 (Pipe Turning)



LT - 12 (Engine Valve Machining)

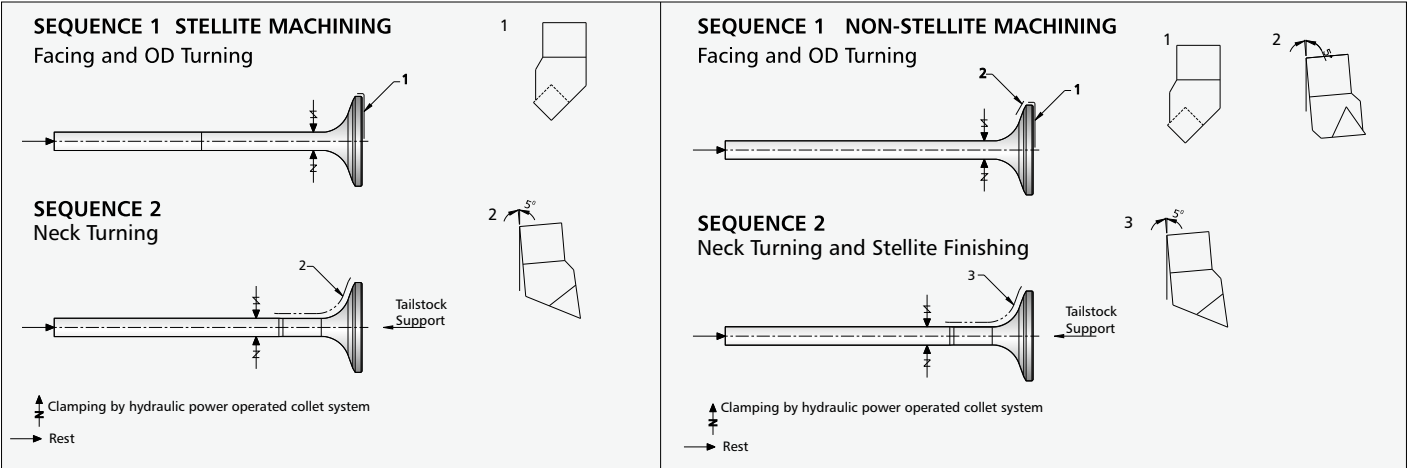


The LCXT machines are equipped with twin spindles and twin turrets to ensure increased productivity and accuracy while reducing cycle time within a compact footprint.

This machine is also available with a gantry loader as an option.

We special application machines on customer request. We have designed and developed machines for ring turning, valve machining, pipe turning & motor body machining.

## LT-12 Process



## Specifications

Description	Units	LCXT 12	LCXT 20
Standard Chuck Size	mm	Ø165	Ø254
Turret Station		8x2	10x2
Turret Type		Radial Servo	Radial Servo
X Axis Stroke	mm	130	190
Z Axis Stroke	mm	145	190
X & Z Axes Rapid	m/min	24	24
Spindle Power @ continous	kW	5.5	11
Spindle Speed	rpm	50-4500	50-3500
Spindle Nose		A2-5	A2-6
Front Bearing Dia	mm	80	100
Foot Print Dimension (LX B)	mm	1900 x 1871	2390 x 2220

## Gantry Specifications

Description	Units	LCXT 12 G	LCT 12 G R	LCXT 20 G
Work piece Weight	Kg	3x2	3x2	6x2
Work piece Size	mm	Ø120 x 85	Ø120 x 85	Ø200 x 120
U axis stroke	mm	3200	1430	4200
V axis stroke	mm	550	550	650
W axis stroke	mm	185	185	300
U axis Rapid	m/min	160	160	160
V axis Rapid	m/min	120	120	120
W axis Rapid	m/min	55	55	55

G - Gantry

Description	Units	Cub Automation LT-12	Pipe Turning Machine LTP-2LM 500 (110,160,180 Bore)
Swing Over Bed	mm	450	500
Swing Over Carriage	mm	125	225
Maximum Turning Dia	mm	140	270
Maximum Turning Length	mm	200	400
Spindle Size		Flat Ø 110	Flat nose
Bore through Spindle	mm	36	110
Main Spindle Speed	rpm	4000	50-700
Main Spindle Motor Power (F)	kW	3.7	5.5
X-Axis stroke	mm	87	150
Z-Axis stroke	mm	200	400
X & Z axes rapid	m/min	20	30
Turret Type		BTP-63	BTP-80
OD Turning tool size		20 x 20	25 x 25
No of tools maximum		8	8
Over all Dimensions (L x W x H)	mm	1900 x 1225 x 1880	2200 x 1750 x 1750

G-gantry, LM linear motion guideways

# TOOLED UP SOLUTIONS

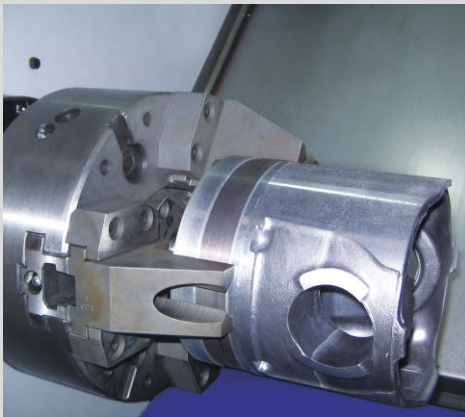
Eccentric collet system for Crank shaft pin turning



Special face clamping and ID collet for Alloy Wheel



3 Jaw Chuck for Piston locating seat and back center drilling



In addition to offering a wide range of standard turning centers which can be used for varied applications, Ace has built expertise to provide customized solutions to cater to the operation needs of specific components. Our dedicated team of engineers has extensive experience in process development, tooling, fixturing and programming of turning centers to provide the best machining solutions. Some of the solutions we offer comprises of:

- Work holdings
- Cycle time estimation
- Tool engineering
- Process layouts
- Cp/Cpk evaluation
- Component Trials

## Customer Specification:

- Understanding Customer requirements
- Analysis of customer requirements
- Definition of project objectives and scope of services.

## Solution Proposal

- Listing of scope of services.
- Machine selection
- Process proposal
- Budgetary offer
- Cycle time estimation

## Order acceptance

- Performance of detailed engineering,
- Preparation of tool layouts and production documents
- Work Holding drawings
- Customer approval for drawings

# AUTOMATION SOLUTIONS

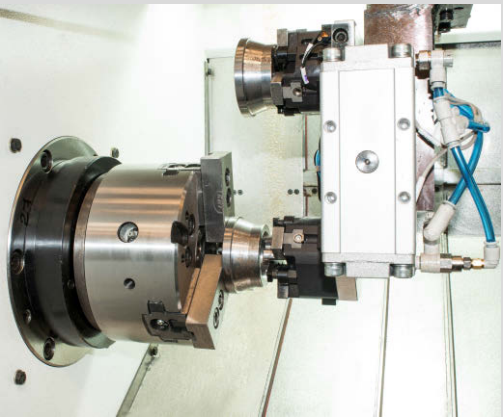
Robot Interface with Machine & Carousel



Stacker Type- Machine Tending Robot



Gantry Automation



With the rising unavailability of skilled workmen, there has been an increasing need for automation solutions to ensure production demands are met. In addition, automation enhances production efficiency and component quality. Ace has a dedicated team of experts to understand specific automation needs of the customer and their environment to implement cost effective solutions. Some of the automation solutions offered include

- Robot interface
- Gantry interface for a line of machines
- Other simpler automation solution specific to individual machines

## Manufacturing

- Mounting and assembly
- Tooling trials
- Process capability study
- Component proving out

## Inspection and Acceptance

- Internal inspection and functional test of all components
- Quality test and reports
- Receivables
- Packaging and delivery

## Reports and Documentation

- Creation of project documentation by engineers
- Documentation of all purchased parts
- Creation of test reports and acceptance certificates