



THE MOST IMPORTANT **ADVANCEMENT IN**  
**CNC TURNING IN INDIA**  
**IN LAST 10 YEARS**



**TWINTURN  
UBER**

**uber-**

/ˈuːbəl/

(adj.):

a person or thing that exceeds the norms or limits of its kind or class

**THE MACHINE FOR**

**SUPER-OPTIMIZED TURNING**

- 60 Degree Slant Bed
- Monoblock Casting with 'Harcrete'
- 5500 RPM & 30m/min. Rapids
- Upto 8 tools per spindle with
- **SmartFlow** (Patented) Coolant System

## THE FEATURES

### SmartFlow

(Patent Applied)

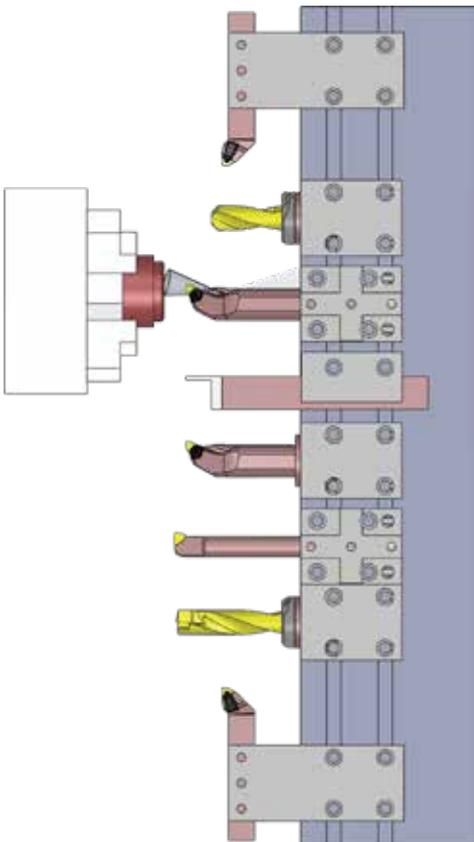
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**SmartFlow** ensures that the Block where tool is performing machining operation gets 100% of pump flow & pressure.

### UPTO 8 TOOLS PER SPINDLE

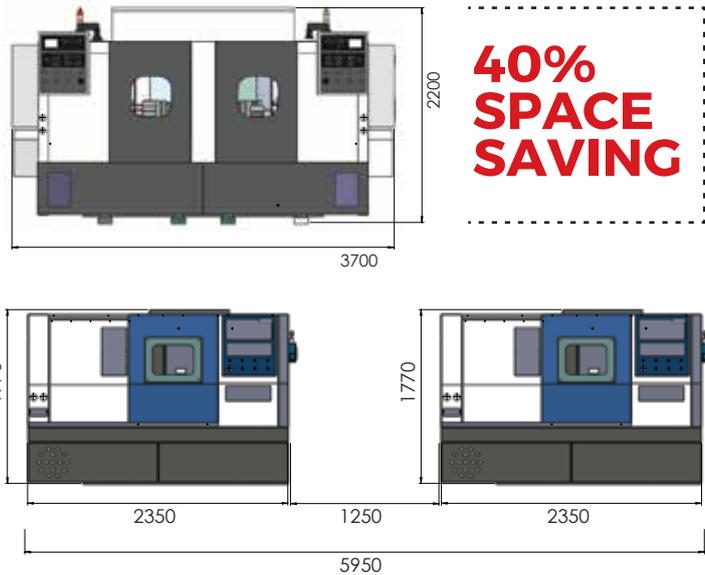
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#2

### MOST COMPACT FOOT PRINT

#### TWINTURN UBER



**40%  
SPACE  
SAVING**

COMPETITORS' SINGLE SPINDLE MACHINES

## TWINTURN UBER

has the highest specifications, features & performance among CNC chuckers.

#### CAPACITY

Swing Over Carriage Cover (mm)	360
Maximum Turning Dia. (mm)	250
Maximum Turning Length (mm)	160
Maximum Boring Length (mm)	150

#### MAIN SPINDLE

Spindle Nose (Standard)	A2-5
Front Bearing Bore (mm)	85
Maximum Bar Capacity (Std.) (mm)	38
Maximum Bar Capacity (Opt.) (mm)	42

#### SPINDLE DRIVE

Spindle Motor rated power (KW)	7.5/11
Inf. Variable speed range (Std.) (rpm)	100-4500
Inf. Variable speed range (Opt.) (rpm)	100-5500

#### LINEAR SLIDE

X-axis Stroke (mm)	500
Maximum No. of tools /side	8
Tool Shank Size	25x25
Maximum Tool Bore Size (mm)	40

#### RAPID TRAVERSE

STANDARD	
X-axis (m/min.)	30
Z-axis (m/min.)	30

#### POSITIONING REPEATABILITY

X-axis	± 1.5 microns
Z-axis	± 2.0 microns

CNC Controls: SIEMENS 808D / 828D / FANUC 0iTf

Weight (approx.) (Kg) 8000

Note : Product improvement is a continuous process at "Marshall". Design & Specifications are therefore, subject to change



**TWINTURN UBER** with *SmartLoad* has following advantages that makes it

**WORLD'S BEST AUTOMATED SYSTEM FOR CNC TURNING.**

**RELIABLE** MIN. NO. OF MOVING PARTS.

**COMPACT** SMALLEST FOOTPRINT.

**SAFE** MECHANISM INSIDE MACHINE. NO RISK TO HUMANS.

**FAST** FASTER LOAD/UNLOAD TIME.

**ECONOMICAL** APPROX. 50% THE COST OF GANTRY OR ROBOT BASED AUTOMATION.

#### UBER ADVANTAGES

over Single Spindle Machines with **TURRET**.

3 seconds saving in Tool to Tool time results in substantial saving in cycle time. (eg. if total 6 tools are used, then 5 tool changes take place and UBER saves 15 seconds compared to Turret based machine where time is wasted in moving to 'Safe Zone', indexing & moving back to the Job.)

Higher rigidity of Structure & Linear Tooling AND vibration damping (because of 'Harcrete' filling in structure) enables much better machining parameters resulting in higher productivity.

Availability of Medium Pressure Coolant, MPC (20 Bar) or High Pressure Coolant, HPC (70 Bar). Normal Turret does not permit coolant pressure more than 10 Bar.

MPC or HPC allows much better cutting parameters and increases Tool Insert Life.

#### UBER ADVANTAGES

over Single Spindle Machines with **Linear (GANG) Tooling**.

**UBER** (8000 Kg) is much heavier than 2 Nos. Single Spindle Linear Tooling Chuckers (2000-2500 Kg Each). This extra rigidity & AND vibration damping (because of 'Harcrete' filling in structure) enables much better machining parameters resulting in higher productivity.

It has upto 8 Tools per side as compared to 4 tools for single spindle chuckers.

**COOLANT FLOW & PRESSURE:** Patented *SmartFlow* on UBER ensures that all the coolant delivered by the pump flows only the tool called by the CNC for machining (ACTIVE Tool). In competitor Linear Tooling Chuckers, pump line is connected to all the blocks so irrespective of which tool is working, coolant flows out of ALL Blocks resulting in drop in flowrate & pressure at the point of machining.

*SmartFlow* on UBER ensure that there are no external pipes. So no pipes entangled with chips, no leakage because of cut pipes.

## SOME SUCCESS STORIES

Job	Cycle Time Competitor's Machine OP-10 + OP-20	Cycle Time TWINTURN UBER OP-10 + OP-20	Extra Output
Lock Collar	136	91	49%
Ertiga Hub	195	130	50%
Bush	60	34	76%
Sprocket Shaft	70	50	40%

**50% (AVERAGE) EXTRA PRODUCTIVITY**



## COMPARISON BETWEEN

### TWINTURN UBER DOUBLE SPINDLE CNC

### & OTHER 2 NOS. SINGLE SPINDLE MACHINE

#### EXTRA PROFITABILITY

(Job- Lock Collar)

Floor to floor time 91 sec compared to 136 seconds for 2 Nos. Single Spindle Machines

Machine  
Installment Cost

Space Cost

Manpower Cost

Tooling Cost

Misc. Cost

#### MACHINE RUNNING COST (2 Nos.)

Average cost per month:  
Rs. 1,60,000

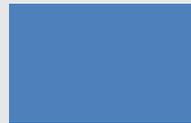


UBER cost per month:  
Rs. 1,60,000

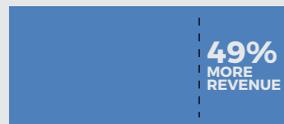


#### REVENUE

Average per month:  
Rs. 2,50,000



Average per month:  
Rs. 3,72,500

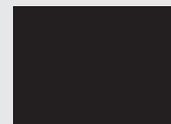


#### PROFIT

Rs. 90,000  
per month



Profit: Rs. 2,12,500  
per month



**EXTRA PROFIT PER TWINTURN UBER IS RS. 1,22,500/-**



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