Marshall *Presents*

uno

The #1 Single Spindle Chucker

#1

RIGIDITY
SPEED
PRODUCTIVITY
TOOL LIFE

- 60° Degree Slant Bed
- Monoblock Casting with 'Marcrete'
- 6000 RPM & 36m/min. Rapids
- Upto 8 tools per spindle with
- *SmartFlow* (Patented) Coolant System

#1 *uno* Basic Features

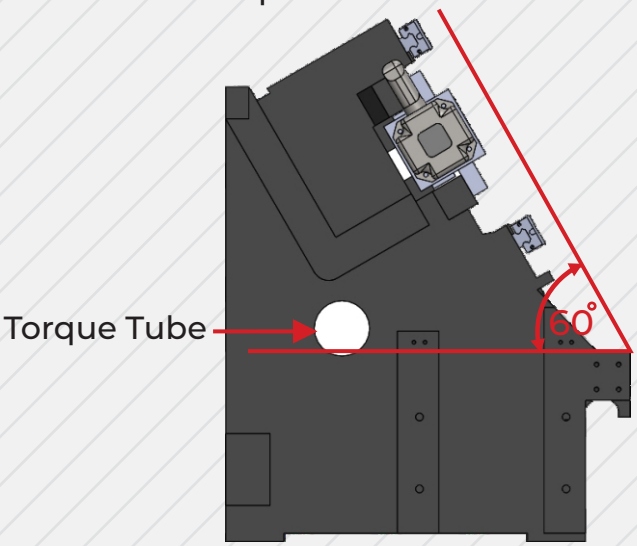
#1 Smart Flow

SmartFlow
(Patent Applied)

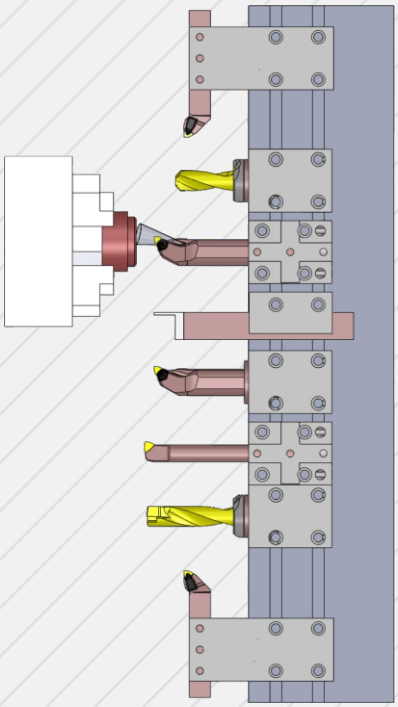
SmartFlow ensures that the Block where tool is performing machining operation gets 100% of pump flow & pressure.

#2 60° Slant Bed Structure

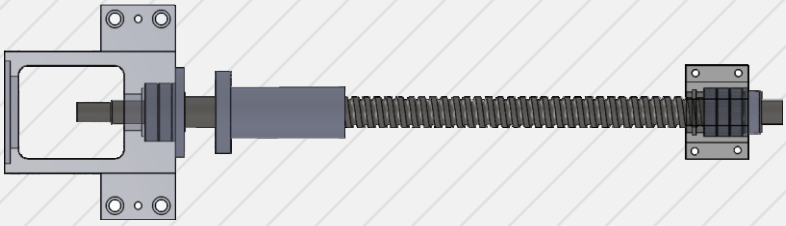
The Monoblock structure (Single piece casting) with 60 Slant angle & Torque tube design offers the following benefits
1. Very high rigidity.
2. Thermal Stability.
3. Excellent chip evacuation.



#3 Upto 8 Tools Per Spindle

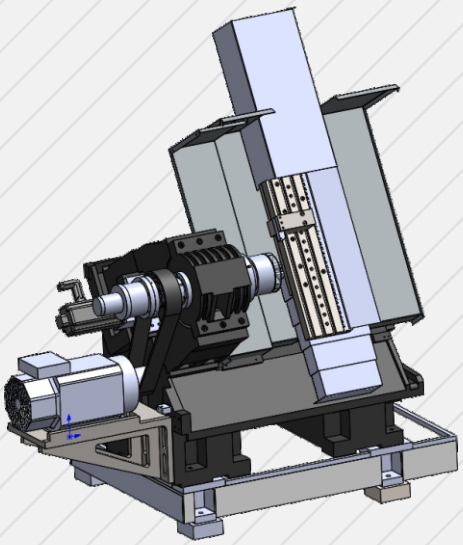


#4 Ball Screw Mounting



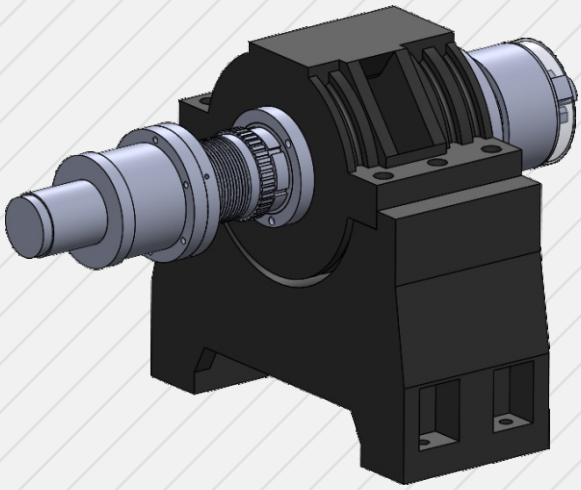
Both X and Z ball screw assemblies are fixed at both ends and pre-tensoined ensuring reduced thermal growth & class leading rapids of 36 m/min. (1417 Ipm)

#5 Compact Design



Extremely compact design for saving shop floor space.

#6 Head Stock



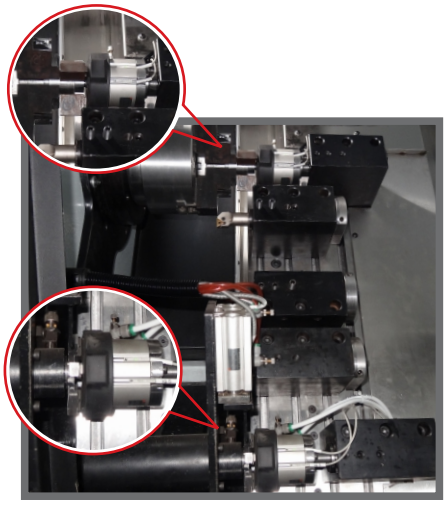
Symetric design of Head stock ensures equal thermal expansion in all direction and hence no displacement of spindle axis thereby ensuring stability of turned sizes.

Patented ***SmartLoad*** based on "TWIN GRIP TWIN RELEASE"

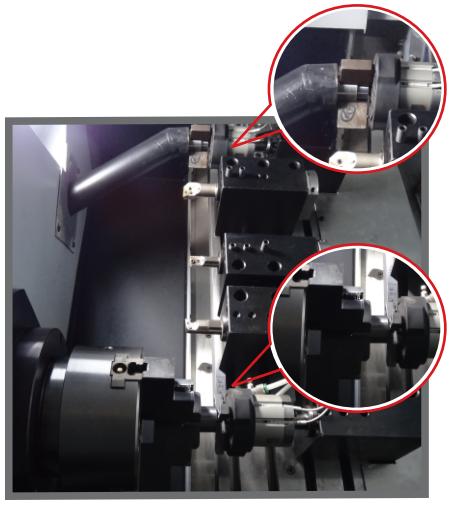
TWIN GRIP

Gripper 2
Grips Machined job in chuck

Gripper 1
Grips fresh job from infeed



TWIN RELEASE



Gripper 2
Releases machined job in chute.

Gripper 1
Releases job after chuck clamps.

uno with ***SmartLoad*** has following ***FIVE*** advantages

RELIABLE	Min. No. of moving parts.
COMPACT	Smallest footprint.
FAST	Faster load/unload time.
SAFE	No risk to humans.
ECONOMICAL	Approx. 50% the cost of gantry or robot based automation.

OPTIONS

Infeed

Vibratory Bowl Feeder

Outfeed

Belt Conveyor

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

CAPACITY

Swing Over Carriage Cover mm(In)	360 (14.17)
Maximum Turning Dia. mm(In)	200 (7.9")
Maximum Turning Length mm(In)	160 (6.30")
Maximum Boring Length mm(In)	150 (5.9")

SPINDLE

Chuck Size mm (In)	165 (6")
Spindle Speed (rpm)	6000
Motor (Max/Cont.) KW (HP)	15/11 (20/14.7")
Torque (Max/Cont.) N.m (lbf.ft)	95.5/70 (70.4/51.6")
Spindle Type	V-Ribbed Belt
Spindle Nose	A2-5

FEED

Travel (X / Z) mm(In)	500/180 (19.70/7")
Rapid Traverse Rate (X /Z) m/min(ipm)	36/36 (1.41"/1.41")
Slide Type	LM GUIDE

BLOCK TOOL

No. of Tools	8
Tool Size OD mm(In)	▫25 (▫1")
Tool Size ID mm(In)	32 (1.2")

TANK CAPACITY

Coolant Tank	120 (31.7)
Lubricating Tank	1.8 (0.5)

MACHINE

Floor Space (L x W)	2,160 x 1,600 (85" x 63")
Height mm (In)	2,200 (86.61")
Weight Kg. (lbs)	4000 (8818 lbs)

NC

Controller	SIEMENS 828D / FANUC 0iTF

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

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A cell of 4 Nos. CNC Lathes requires **4 Operators per shift.** Monthly cost of operator per machine per shift ***$ 4400.00***

Cell of 4 Nos. ***uno*** with ***SmartLoad*** requires **One Operator per shift.** Therefor Monthly cost of operator per machine per shift ***$ 1100.00***

Saving per month with Automated ***uno*** (Single shift basis) ***4400 - 1100 = $ 3300.00***

Approx cost of base version of ***SmartLoad*** is $20,000

(Single shift working)

$$\text{Payback} = \frac{20{,}000 \text{ (Cost)}}{3300 \text{ (Saving/month)}} = \textbf{6 Months.}$$

Payback Period (Three shift working) is *2 months only!*

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