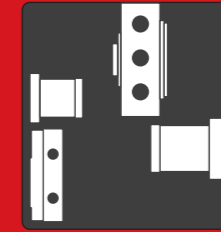


# Double Spindle Double Turret Multi-Tasking Turning Center



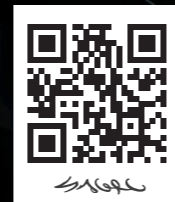
# DT42 DT52 DT65

-  Aerospace
-  Automotive
-  Electronics
-  Hydraulics
-  Medical
-  Pneumatics



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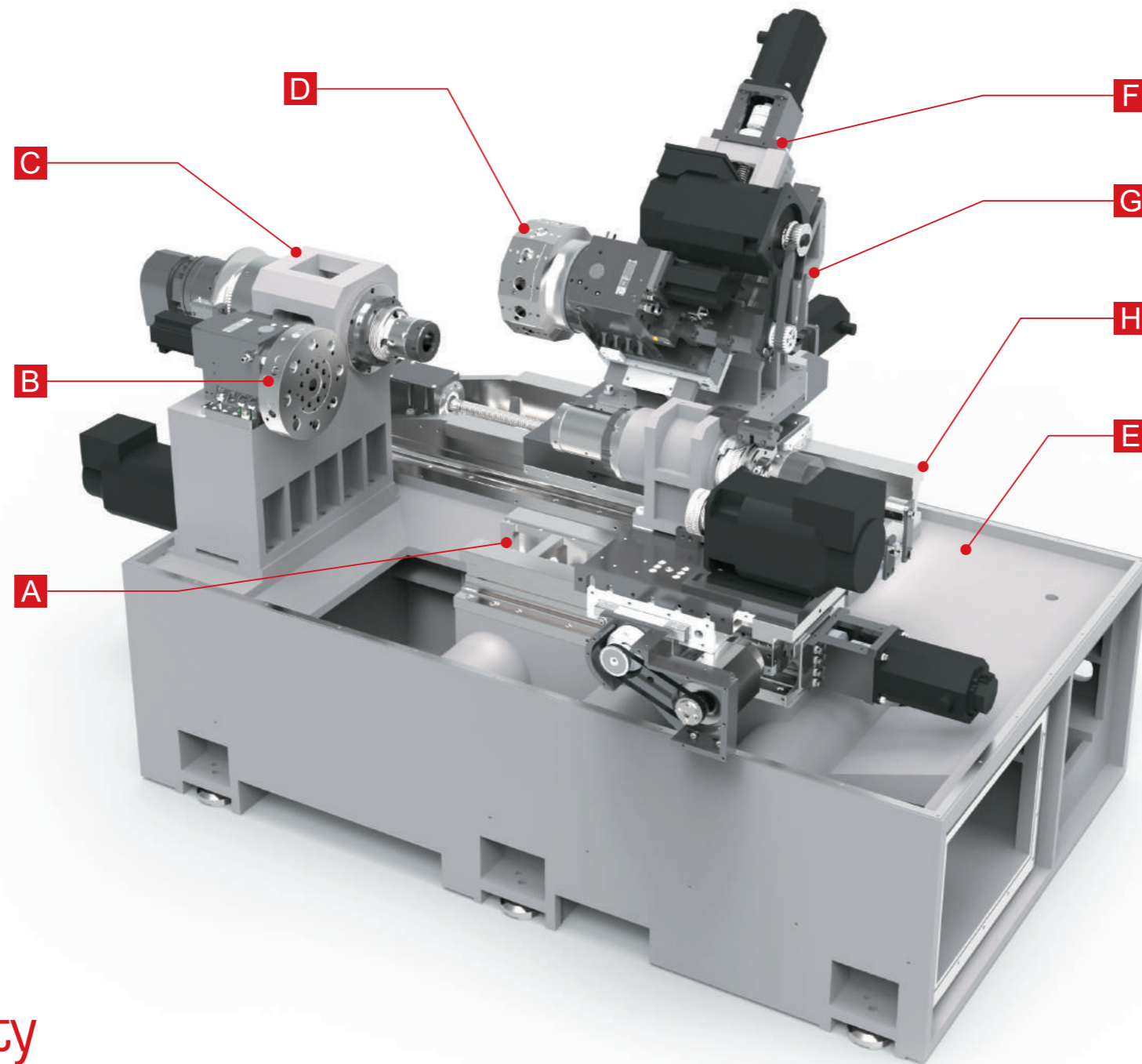
## Turning Precision Into Perfection

### Front Machining

- BMT45 12-Stations
- Up to 24 tools
- 7.5 / 11 kW Spindle Power
- 65 mm Through Hole

### Back Machining

- VDI 25 8-Stations Sub-Turret
- 3.7 / 5.5 kW Spindle Power
- 32 mm Through Hole



## Key Features

- A** Boxways on all axes are oversized and precision ground to a near mirror finish for smooth, fast precision movements providing dynamic rigidity and heavy-duty cutting ability
- B** The sub-turret for back machining can reduce cycle times significantly with superimposed cutting to complete parts in one setup. Driven tools at all 8 stations are possible
- C** Heavy-duty precision spindle design for enhanced thermal stability & power
- D** The main turret has 12 stations and with multi-tool holders up to 24 tools can be equipped. Driven tools at all 12 stations are possible
- E** Meehanite cast material is used and stress relieved to provide the best possible rigidity and vibration dampening base for machining parts with excellent surface finishes
- F** Y-axis travel +/- 35mm is supported by two slides, distributing the machining force evenly to ensure accuracy and rigidity
- G** 45 degree wedge design for fast chip flow and removal from the machining area for a thermally stable work platform
- H** Z-axis is equipped with precision high-rigidity 32mm ball screws and all other axes use 28mm ball screws to ensure fast feed rates and extended long-term durability for trouble free machining

## Capabilities

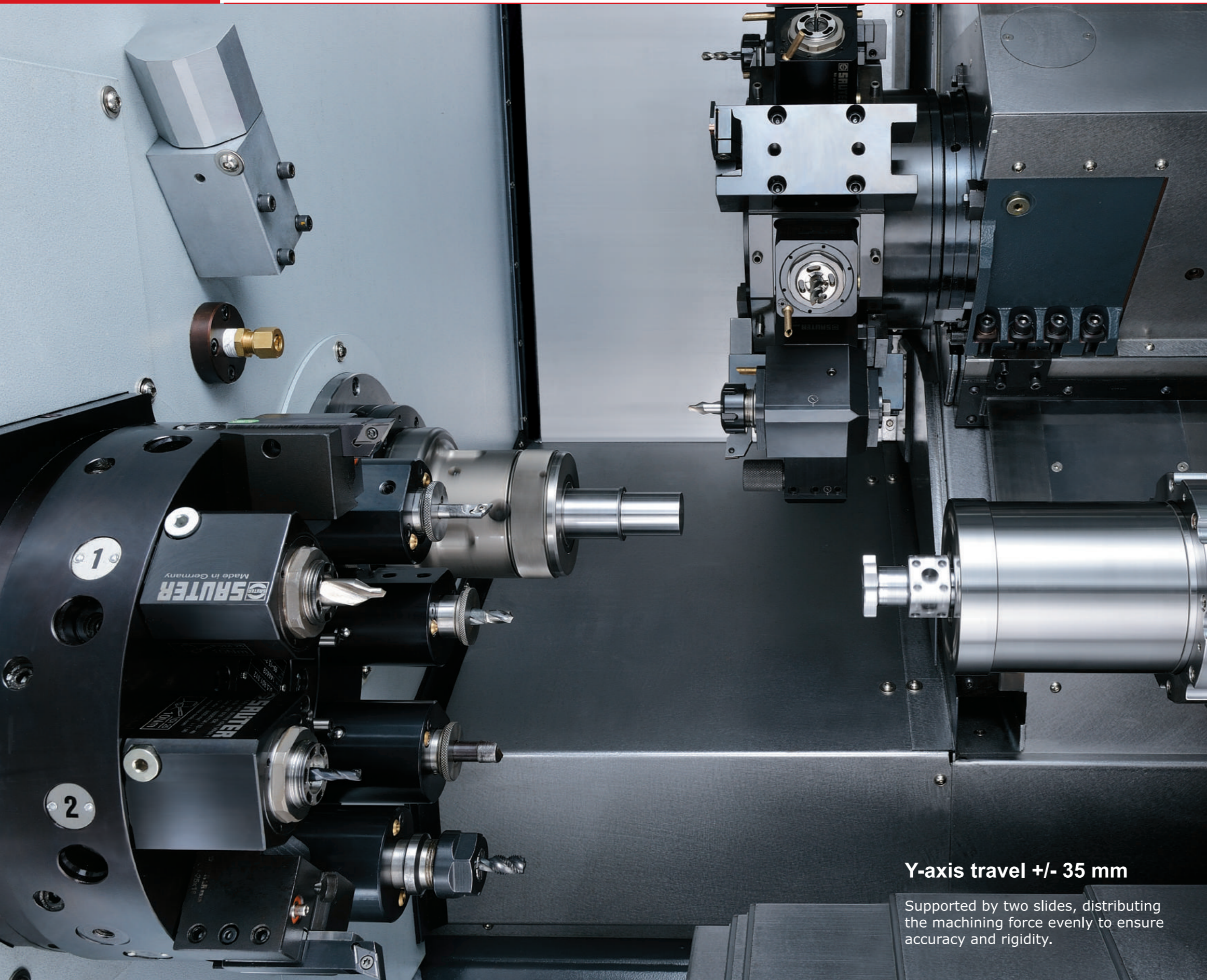
This multi-tasking turning center is an advanced machine designed for precision complex parts processed in one setup.

## Power & Versatility

It has Double Spindles and Turrets with back machining provided by an 8-station sub-turret and sub-spindle with a total tool capacity of up to 32 tools. This solution is a powerful combination of power, precision and versatility.







**Y-axis travel +/- 35 mm**

Supported by two slides, distributing the machining force evenly to ensure accuracy and rigidity.

### SAUTER BMT45-12 Stations Main Turret

The main turret has 12 stations, but with multi-tool holders up to 24 tools are possible. Fanuc Alpha 2 motors provide driven tools up to 6000 rpm with high power and speed. Bidirectional turret indexing allows the shortest path to the next tool for faster cycle times. A 20 bar high pressure coolant system provides fast chip removal and longer tool life.

#### BMT45

- Fanuc Alpha 2 Motor-High torque, resolution & precision
- Driven tools: 2.2/3.75 kW & 23.5 N.m
- Optional 50/100 bar High Pressure Coolant Systems

### SAUTER VDI 25-8 Stations Sub-turret

The sub-turret for back machining can help reduce idle time. Cycle times can also be significantly reduced with superimposed cutting utilizing the sub-spindle and sub-turret. Optional Sub Turret types: Power Turret, Servo Turret and Hydraulic Turret

#### VDI 25

- Fanuc Alpha 8 Motor-High torque, resolution & precision
- Driven tool power: 2.2 kW & 22 N.m
- Turrets designed for faster indexing time and outstanding thermal stability





Industry Aerospace  
 Material Aluminum 7005  
 Size 66 x 16 mm  
 Cycle time 240 sec  
 Operations Turning, Milling, Engraving, Back machining



Industry Machinery  
 Material SUS 340  
 Size 33 x 185 mm  
 Cycle time 720 sec  
 Operations Turning and Wrap Contour Milling

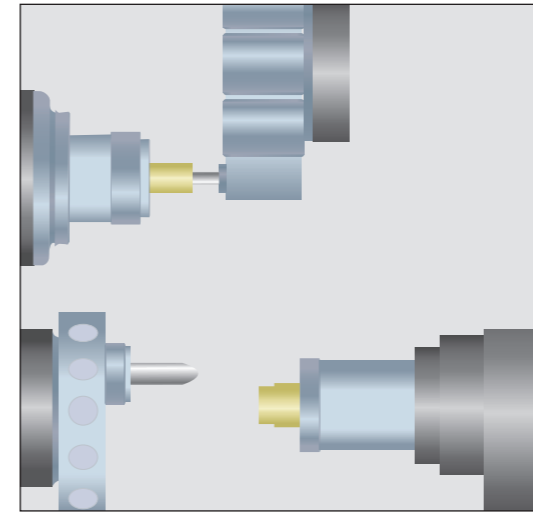


Industry Mechanical Parts  
 Material S45C  
 Size 11 x 31 mm  
 Cycle time 300 sec  
 Operations Turning, Milling, Back machining

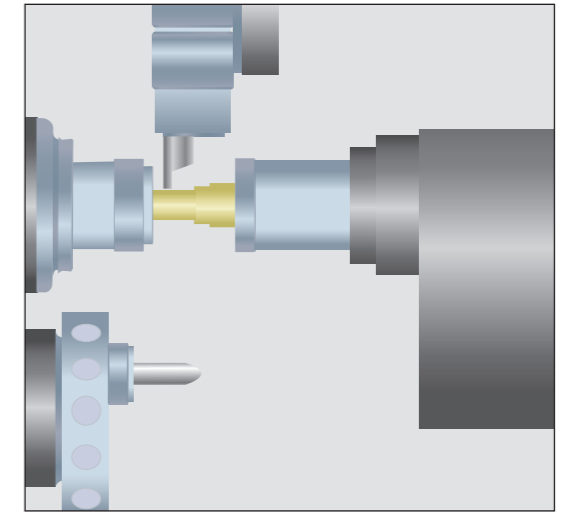


Industry Automotive  
 Material Aluminum 7005  
 Size 45 x 16 mm  
 Cycle time 540 sec  
 Operations Turning, Milling, Back machining

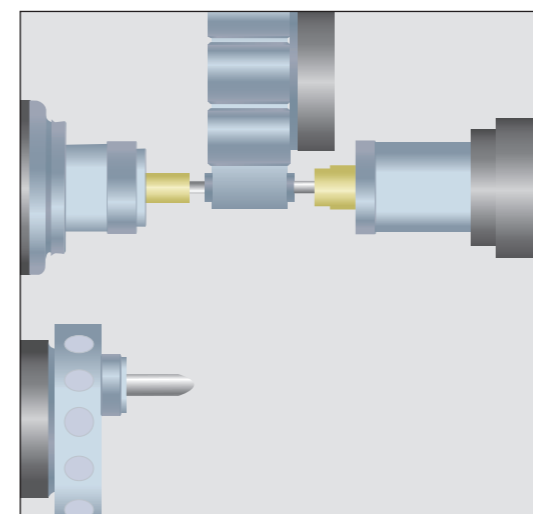
Spindle 1, Turret 1 ID Turning



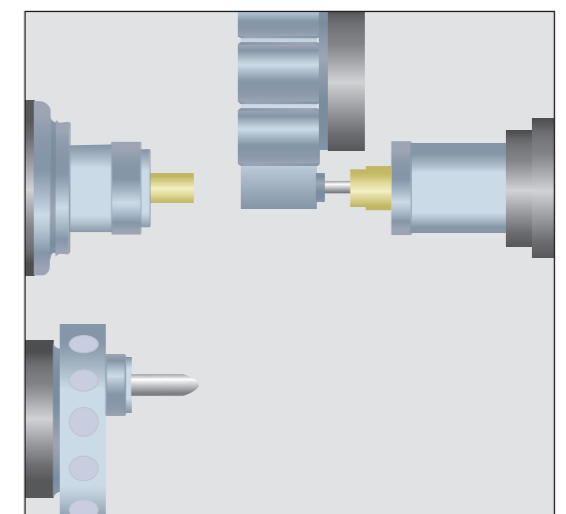
Cutoff & Transfer to Spindle 2



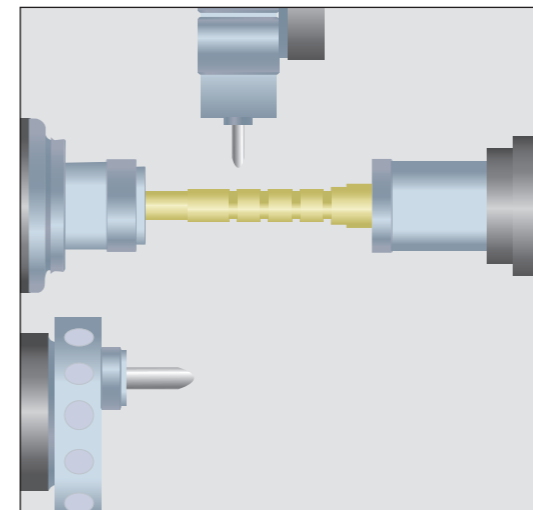
Superimposed Machining



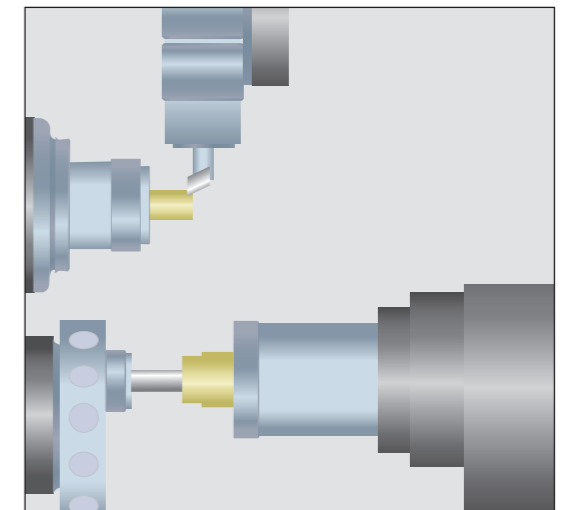
Turret 1 Back Machining



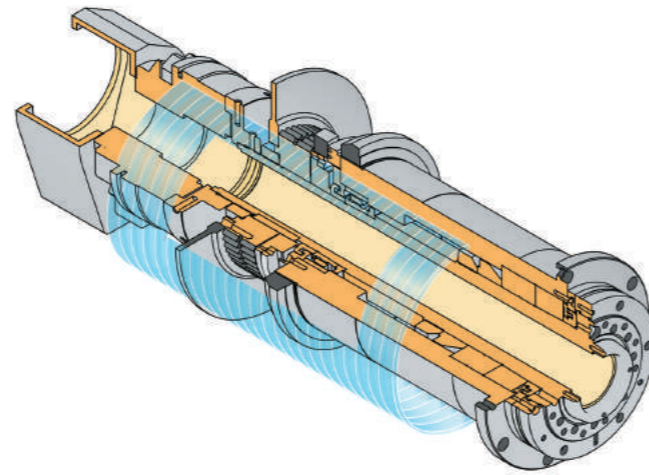
Spindle 1 & 2 Milling



Turret 1 OD Turning & Sub-turret Back Machining

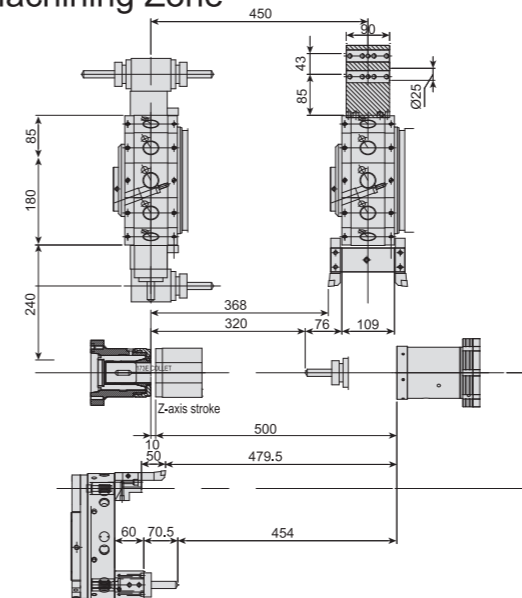


- Extremely rigid main and sub-spindles with purpose built roller bearings on the front and rear to concentrate power directly to the cutting surface and resist axial and radial forces
- Higher speeds and heavy-cuts are possible with this bearing arrangement
- Simultaneous independent machining of the front and back of the workpiece and C-axis with resolution of 0.001 degrees allows for complex contouring of parts

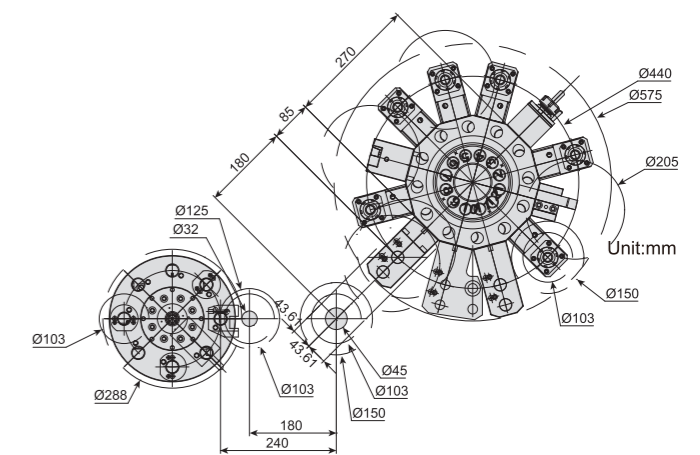


## Tool Interference Diagrams

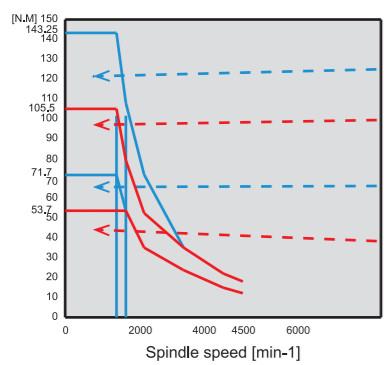
Machining Zone



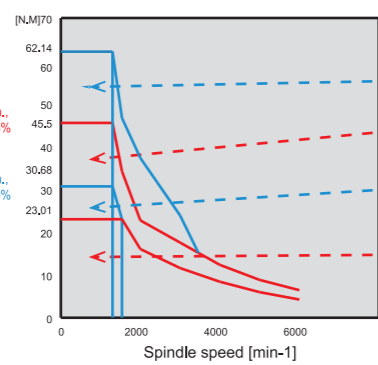
Tool Interference



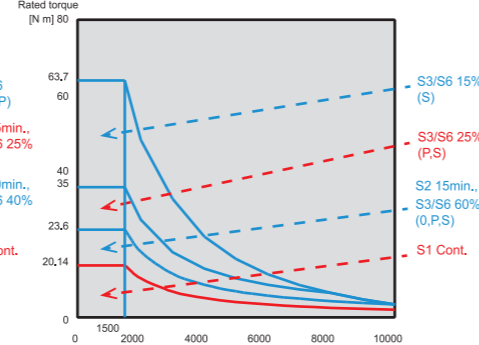
DT FANUC Spindle Motor Torque



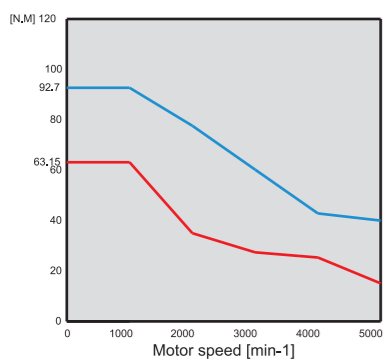
DT FANUC Sub-spindle Motor Torque



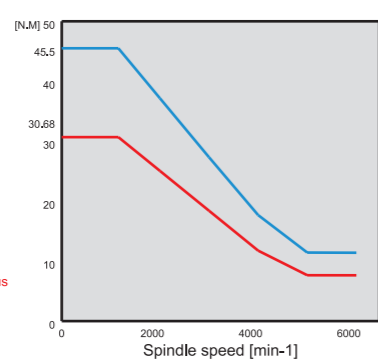
DT FANUC Main Turret Live Tool Torque



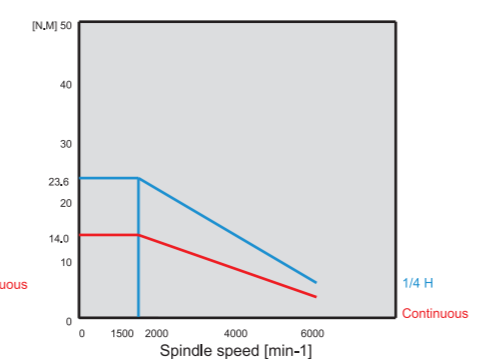
DT MITSUBISHI Spindle Motor Torque



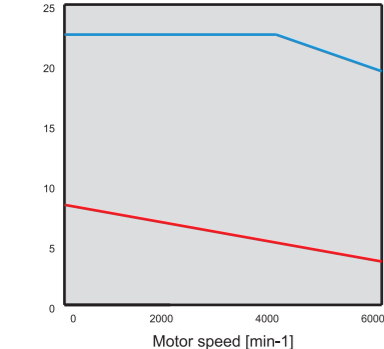
DT MITSUBISHI Sub-spindle Motor Torque



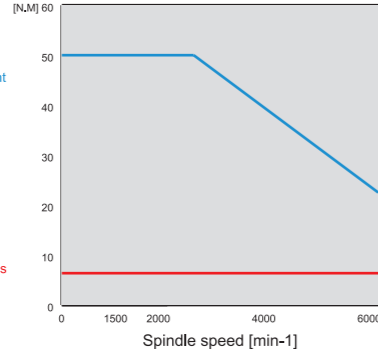
DT MITSUBISHI Main Turret Live Tool Torque



DT FANUC Sub-turret tool Torque

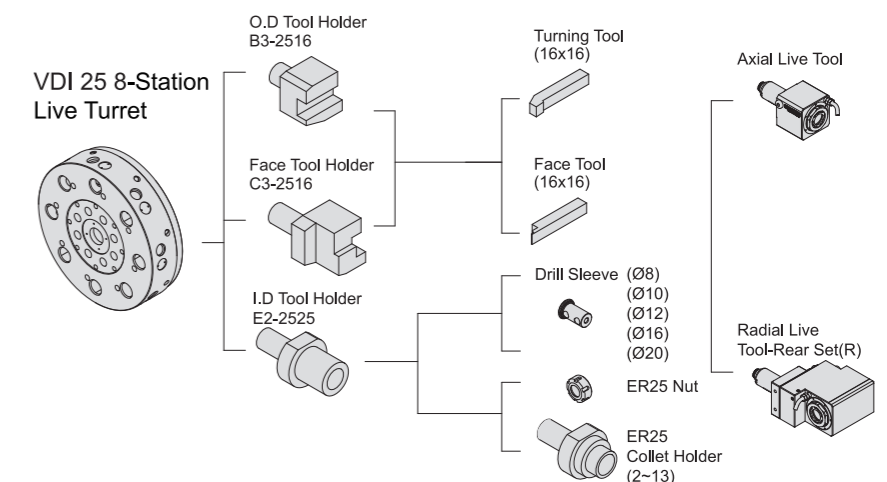


DT MITSUBISHI Sub-turret Live Tool Torque



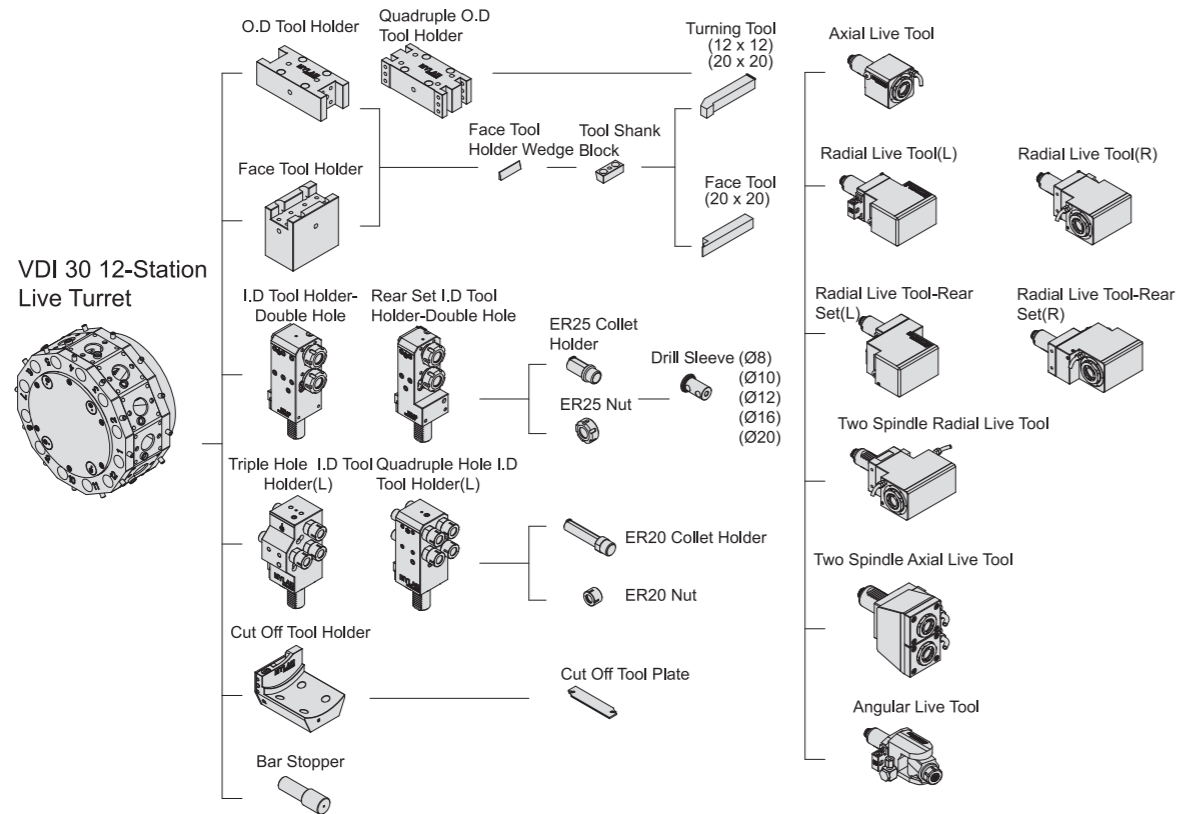
## Tooling System

VDI 25.8 Tooling System



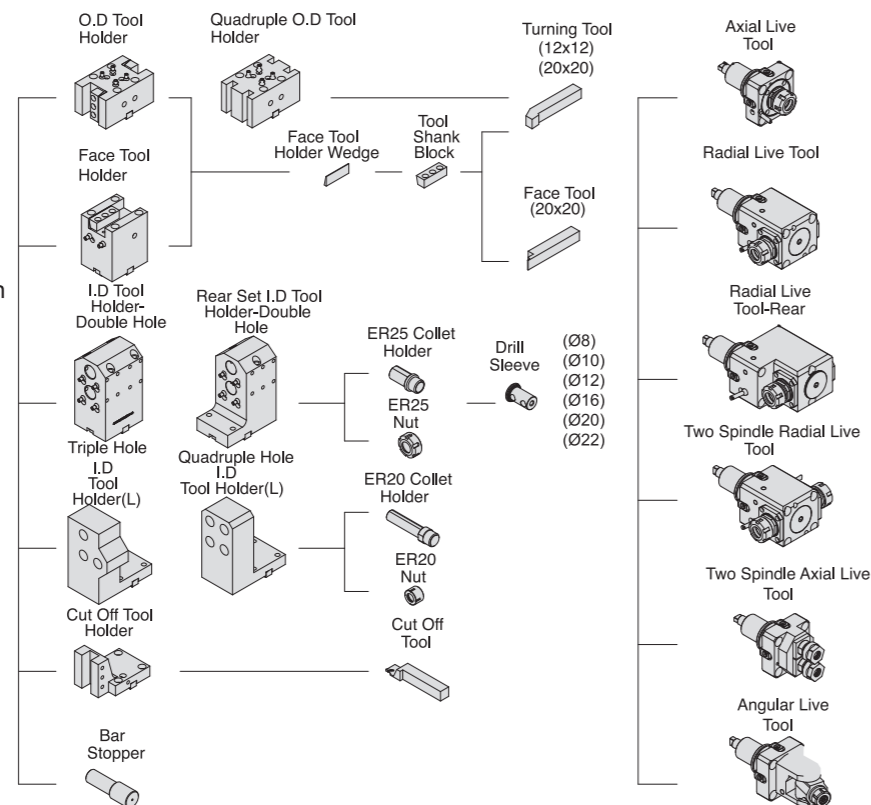
## VDI 30.12 Tooling System

Unit:mm



## BMT45. 12 Tooling System

### BMT45 12-Station Live Turret



Item	Unit	DT42	DT52	DT65	DT42 / 52 / 65
		Main Spindle	Main Spindle	Main Spindle	Sub spindle
<b>Capacity</b>					
Swing Over Saddle	mm	260	260	260	-
Chuck Type	mm	DIN173E	DIN177E	DIN185E	DIN171E
Max. Bar Turning Length	mm	135	150	150	60
Max. Turning Length	mm	350	350	350	-
Max. Turning	mm	150	150	150	135
Max. Turning Bar Diameter	mm	Ø42	Ø51	Ø65	Ø32
<b>Travel</b>					
X1 / X2 Axis Travel	mm	175 (X1)	175 (X1)	175 (X1)	240 (X2)
Z1 / Z2 Axis Travel	mm	450 (Z1)	450 (Z1)	450 (Z1)	500 (Z2)
Y1 Axis Travel	mm	±35 (Y1)	±35 (Y1)	±35 (Y1)	-
X1 / X2 Axis Rapid Traverse	mm/min	18 (X1)	18 (X1)	18 (X1)	18 (X2)
Z1 / Z2 Axis Rapid Traverse	mm/min	24 (Z1)	24 (Z1)	24 (Z1)	24 (Z2)
Y1 Axis Rapid Traverse	mm/min	18 (Y1)	18 (Y1)	18 (Y1)	-
<b>Spindle</b>					
Spindle Nose	type	A2-5	A2-6	A2-6	A2-4
Hole Through	mm	55	79	79	48
Spindle Speed	rpm	50 - 5000	50 - 4500	50 - 4000	50 - 5000
Spindle Motor Type	type	β8 / 12000i	β8/12000i	β8/12000i	β3 / 10000i
Spindle Motor (Cont./15min)	kW	7.5 / 11 / 15	7.5 / 11 / 15	7.5 / 11 / 15	3.7 / 5.5 / 7.5
<b>Turret</b>					
No.of Tool Stations	set	12	12	12	-
O.D. Tool Size	mm	20	20	20	-
I.D. of Boring Bar Holder	mm	25	25	25	-
Turret Indexing	sec	0.1 - 0.3	0.1 - 0.3	0.1 - 0.3	-
Tool Spindle Speed	rpm	6000	6000	6000	-
Tool Spindle Motor Type	type	α2 / 10000i	α2 / 10000i	α2 / 10000i	-
Tool Spindle Motor (Cont./30mins)	kW	2.2/3.7 (cont./30mins)	2.2/3.7 (cont./30mins)	2.2/3.7 (cont./30mins)	-
Tool Spindle Torque (Cont./30mins)	mm	14/23.5 (cont./30mins)	14/23.5 (cont./30mins)	14/23.5 (cont./30mins)	-
Drill Capacity	mm	Ø13	Ø13	Ø13	-
Endmill Capacity	mm	Ø13	Ø13	Ø13	-
Tap Capacity	mm	M8	M8	M8	-
<b>Sub-Turret</b>					
No.of Tool Stations	set	-	-	-	8
O.D. Tool Size	mm	-	-	-	20
I.D. of Boring Bar Holder	mm	-	-	-	20
Turret Indexing	sec	-	-	-	0.1 - 0.3
Tool Spindle Speed	rpm	-	-	-	6000
Tool Spindle Motor Type	type	-	-	-	α8 / 6000i
Tool Spindle Motor (Cont./30mins)	kW	-	-	-	2.2
Tool Spindle Torque (Cont./30mins)	mm	-	-	-	22
Drill Capacity	mm	-	-	-	Ø13
Endmill Capacity	mm	-	-	-	Ø13
Tap Capacity	mm	-	-	-	M8
<b>Motor Power</b>					
X1 / X2 Servo Motor	kW	1.8	1.8	1.8	1.2
Z1 / Z2 Servo Motor	kW	1.8	1.8	1.8	1.8
Y1 / Y2 Servo Motor	kW	1.8	1.8	1.8	-
Turret Servo Motor	kW	0.75	0.75	0.75	0.75
Coolant Pump	kW	0.9	0.9	0.9	0.9
High Pressure Cutting Fluid Pump	kW	0.4	0.4	0.4	-
Hydraulic Pump	kW	3.75	3.75	3.75	-
Parts Conveyor Motor	kW	0.03	0.03	0.03	-
Chip Conveyor Motor	kW	0.2	0.2	0.2	-
Lubrication Pump	kW	0.003	0.003	0.003	-
Oil Mist Collector	kW	0.75	0.75	0.75	-
<b>Tank Capacity</b>					
Hydraulic Capacity	Liter	55	55	55	-
Lubrication Tank Capacity	Liter	2	2	2	-
Coolant Tank Capacity	Liter	250	250	250	-
Machine Dimension (W x D x H)	mm	2750x1970x1850	2810x1970x1850	2810x1970x1850	-
Machine Weight	kg	5300	5350	5400	-

### Standard Accessories:

- Fanuc Controller
- Collet Chuck
- Workpiece Ejector
- 12-Station Power Turret
- 8-Station Sub Turret
- Auto Lubrication System
- Coolant System
- Sub-Spindle Inner Coolant & Air Blow
- Coolant Level Sensor
- Auto Power Shut-Off
- Signal Tower
- Parts Catcher
- Parts Conveyor

### Optional Accessories:

- Live Tool Holder
- Static Tool Holder
- 6" Power Chuck for SP1
- 5" Power Chuck for SP2
- High Pressure Coolant System (20 Bar / 50 Bar / 100 Bar)
- Chip Conveyor
- Oil Mist Collector
- Bar Feeder
- Transformer
- Regulator
- Mitsubishi Controller

We reserve the right to modify the above specifications without notice.