



# CNC Drill Tap Center

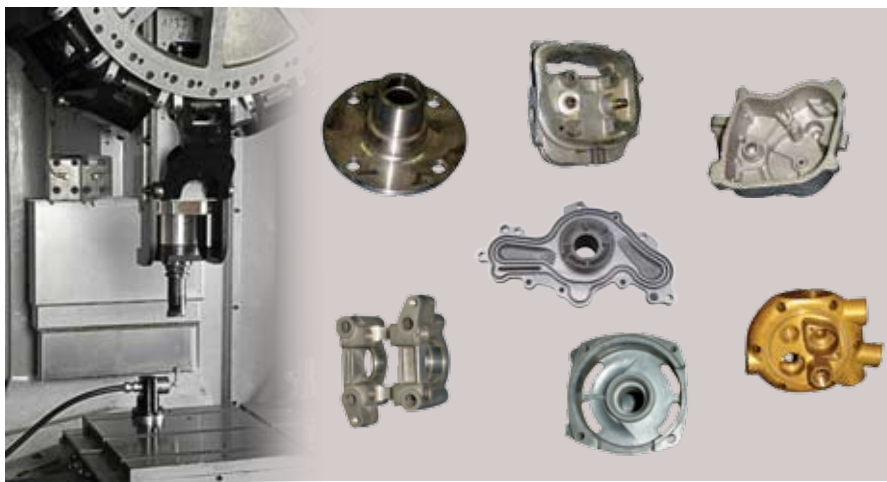
**Dhruva** variants HSTC 3035, HSTC 3050, HSTC 3070, HSTC 4050, and HSTC 4070



Fast tool change through automatic tool changer with turret type direct pick up

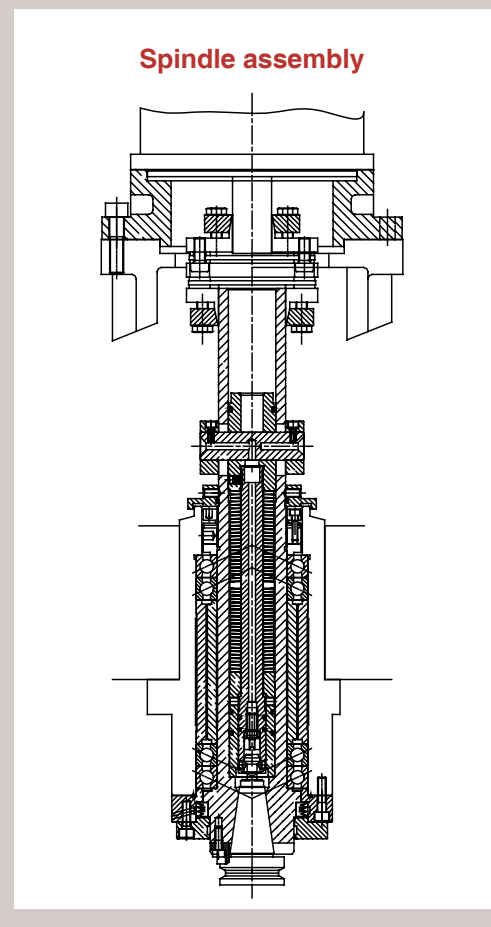
- High speed rigid tapping
- Tapping speed up to 5000 rpm

## Auto component machining

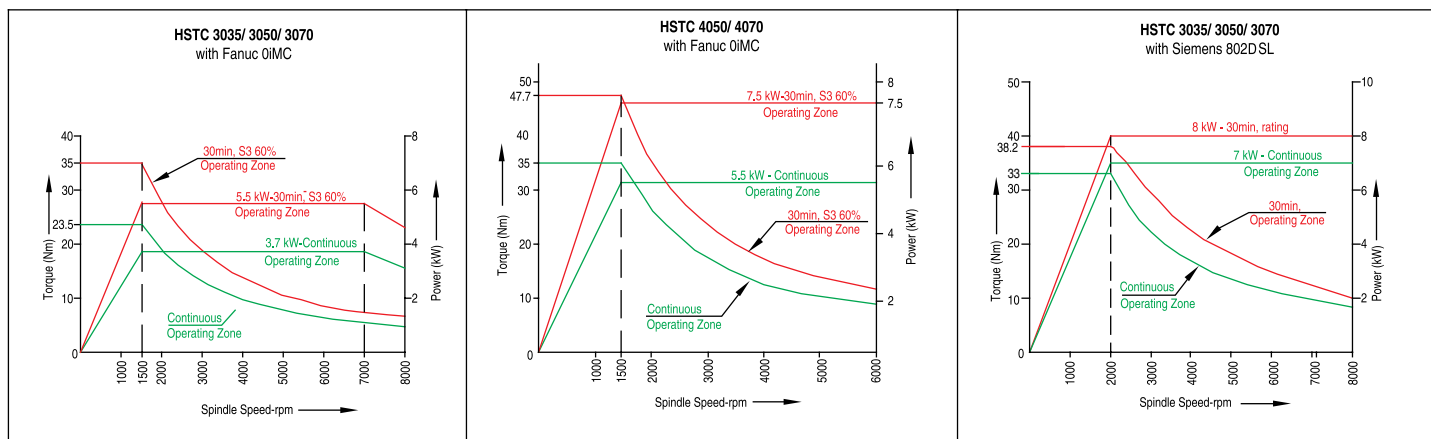


## Spindle assembly

- In-line type spindle drive with low inertia coupling
- Cartridge type spindle
- The spindle is supported on four precision angular contact ball bearings
- Tool clamping through disc spring
- Tool declamping through cam and lever



## Spindle output curve







TECHNICAL SPECIFICATIONS	UNIT	Dhruva	Dhruva+	Dhruva++	Dhruva+ <sup>BT40</sup>	Dhruva ++ <sup>BT40</sup>
		HSTC 3035	HSTC 3050	HSTC 3070	HSTC 4050	HSTC 4070
<b>Traverse</b>						
Long/ Trans./ Vert.-X/ Y/ Z	mm	350/ 300/ 350	500/ 400/ 350	700/ 400/ 350	500/ 400/ 310	700/ 400/ 310
Spindle nose to table top min/ max.	mm	150/ 500	150/ 500	150/ 500	150/ 460	150/ 460
Spindle center to column front	mm	400	400	400	400	400
Table height from floor	mm	900	900	900	900	900
Rapid traverse X/ Y/ Z	m/ min.	48/ 48/ 36	48/ 48/ 36	48/ 48/ 36	48/ 48/ 36	48/ 48/ 36
Feed rate	mm/ min.	1 - 10,000	1 - 10,000	1 - 10,000	1 - 10,000	1 - 10,000
<b>Spindle</b>						
Spindle power 30 min/ cont.	kW	5.5/ 3.7 (8/ 7)*			7.5/ 5.5	
Spindle taper	no.	BT30 (BBT30)			BT40	
Spindle speed	rpm	80-8000 (120-12000)	80-8000 (120-12000)	80-8000 (120-12000)	60-6000 (80-8000)	60-6000 (80-8000)
<b>Table</b>						
Table size	mm	630 x 350	650 x 400	850 x 410	650 x 400	850 x 410
T-slot (no. x size x pitch)	mm	3 x 14 x125	3 x 14 x125	3 x 14 x125	3 x 14 x125	3 x 14 x125
Maximum load on table	kg	200	250	250	250	250
<b>Automatic tool changer</b>						
Tool changing system		Direct pick-up				
Tool storage capacity	nos.	14	14	14	12	12
Tool shank type		BT30	BT30	BT30	BT40	BT40
Pull stud		MAS-403 P30T-I	MAS-403 P30T-I	MAS-403 P30T-I	MAS-403P40T-I	MAS-403P40T-I
Max. tool dia with all pockets full	mm	80	80	80	90	90
with adj pocket empty	mm	125	125	125	125	125
Maximum tool length	mm	200	200	200	200	200
Maximum tool weight	kg	3	3	3	6	6
Tool change time (T-T)	sec.	1.6	1.6	1.6	1.8	1.8
Tool change time (C-C)	sec.	2.5	2.5	2.5	2.7	2.7
<b>Accuracy</b>						
Positioning	mm	± 0.005	± 0.005	± 0.005	± 0.005	± 0.005
Repeatability	mm	± 0.003	± 0.003	± 0.003	± 0.003	± 0.003
<b>CNC system</b>		Fanuc Oi MC (Siemens 802D SL Pro)			Fanuc Oi MC (Siemens 802D SL Pro)	
<b>Machine installation data</b>						
Floor space (machine only)	mm x mm	1190 x 2700	1550 x 2700	2000 x 2700	1550 x 2700	2000 x 2700
Machine height	mm	2700	2700	2700	2700	2700
Basic machine weight	kg	2300	2500	2700	2600	2800
Total connected load	kVA	13	13	13	16	16
Power supply		415 V, 50Hz, 3 Phase				
Pneumatic supply		5 bar, 300 lpm			5 bar, 300 lpm	

\* with Siemens 802D SL Pro  
 Figures within brackets are for optional features

**Standard Features**

- LM guide-ways for all axes
- Ball screws for all axes
- Centralised lubrication system
- AC servo drive for all axes
- AC spindle drive
- Absolute encoder feedback for all axes
- Manual pulse generator
- Rigid tapping
- Air blast for spindle taper cleaning
- Machine guards

**Optional Features**

- Height block: 150 mm and 250 mm
- Provision for 4<sup>th</sup> and 5<sup>th</sup> axis
- Air gun
- Auto door
- Basic coolant system with bed wash and flood coolant
- Coolant gun
- Chip conveyor with chip trolley
- Chip conveyor and drum filtration
- Provision for hydraulic fixture
- Oil skimmer
- Air conditioner for electrical cabinet
- 3-tier lamp
- Voltage stabiliser
- Machine lamp
- Maintenance tool kit
- Coolant through spindle
- Tool breakage sensor

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