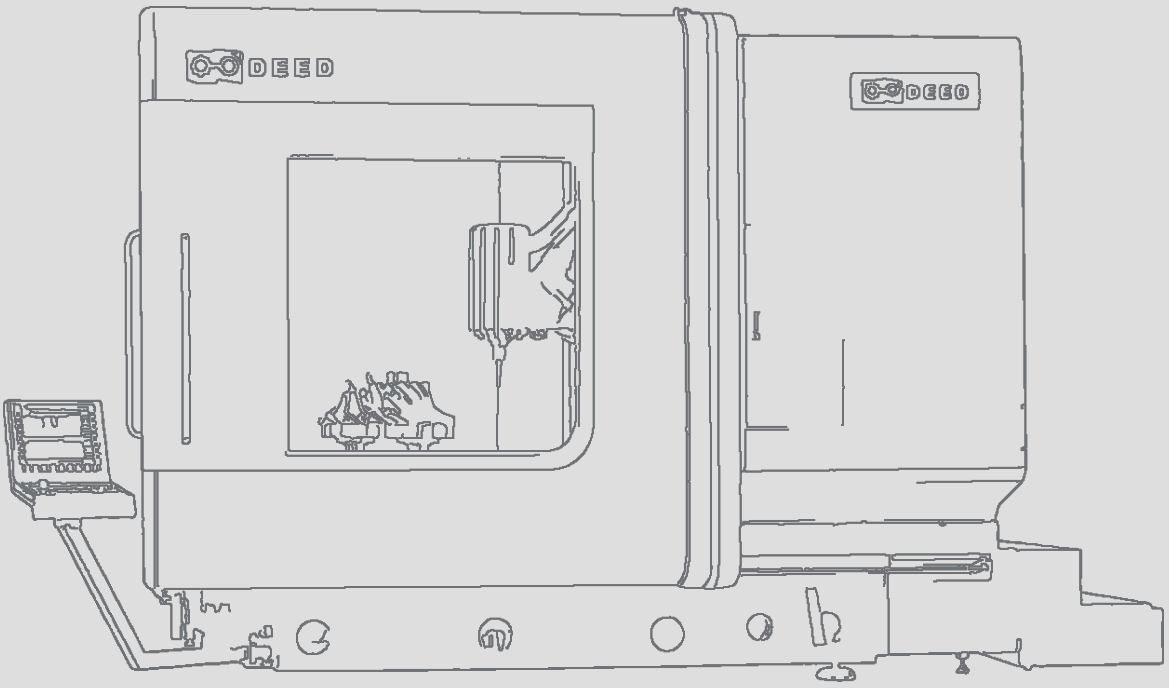
DEED BENELUX

DB-T SERIES

5-AXIS TURN-MILL MACHINING CENTER

ADVANCED GERMAN TECHNOLOGY WITH THE STRENGTH OF CHINESE MANUFACTURING



COMPANY PROFILE



Shandong Deed Precision Machine Tool Co., Ltd. is a high-end equipment enterprise integrating R&D, production and sales of high-end CNC machine tools, located in Yanzhou District, Jining City. The company takes high-speed vertical machining center, large scale gantry machining center, high-efficiency drilling & tapping machining center, high-precision turning center, high-precision five-axis linkage machining center, horizontal milling & boring machining center and horizontal machining center as the leading products, and serves a wide range of key industries such as aviation, aerospace, military, shipbuilding, automobile, construction machinery, rail transit, 5G, precision mold and others, both in the domestic and overseas markets. The company vigorously implements the development strategy of “going out and bringing in”, and has reached a comprehensive strategic cooperation with the well-known German CNC machine tool manufacturing enterprise ROTTLER to jointly develop high-grade precision machine tools of the world’s leading level and jointly explore the global high-end market. Establishing a high-end machine tool R & D center and manufacturing base in Germany - “Hipreed Technology GmbH”, fully implementing international operations and achieving the perfect combination of German technology and Chinese manufacturing. The company has five domestic and foreign R & D centers, with six provincial and municipal innovation platforms, with comprehensive R & D, experiment, testing, manufacturing advantages of high-grade machine tool research and development, new material development, advanced technology testing and reliability improvement. Through continuous innovation and breakthrough, it has undertaken 25 key government science and technology projects, obtained more than 200 intellectual property rights of various types, 15 scientific and technological achievement awards, and is in a leading position of the overall development and innovation ability in the industry. With strong technology and innovation advantages, the company has passed the ISO9001 quality management system certification, ISO14001 environmental management system certification and ISO45001 occupational health and safety management system certification. It has won more than 80 key awards such as the “National High-Tech Enterprise”, “National Specialized New Little Giant Enterprise”, the highest award of China’s machine tool industry the “ Spring Swallow Award”, “ Top 10 Product Quality of China’s Machine Tool Industry”, and “Chinese Machinery Industry Science & Technology Progress 2nd Award “ etc.

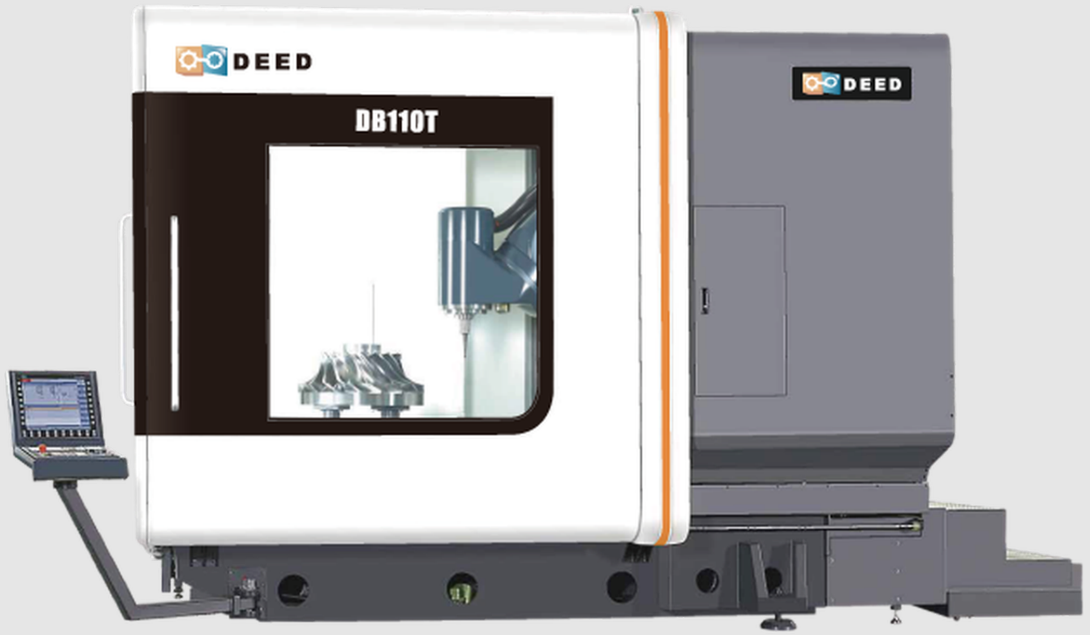
CATALOG

5 DB-T Series 5-axis turn-mill machining center

6 Product advantages

7 Technical parameters

DEED BENELUX



DB-T SERIES

5-AXIS TURN-MILL MACHINING CENTER

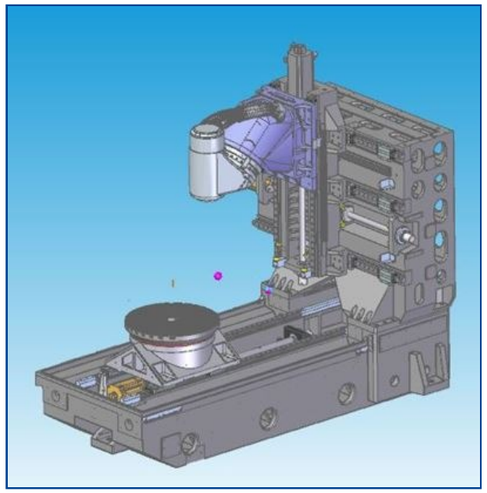
Milling and turning in one setup

CNC swivel head (B axis) and turn-mill table (C axis)

PRODUCT OVERVIEW

The DB-T series is a 5-axis machining center with integrated turning. A CNC swivel milling head (B axis, −15° to 180°) and a direct-driven turntable (C axis) for both milling and turning allow complex parts to be milled, drilled and turned in a single setup. Five sizes cover table diameters from Ø660 to Ø1700 mm and table loads up to 6000 kg, with HSK-T spindles, a 40-position tool magazine, Renishaw measuring and Siemens ONE control.

PRODUCT ADVANTAGES



- **Turn-mill table (C axis)**
  Turning and milling on one table, up to 500 rpm, 0.001° indexing and up to 10900 Nm.
- **CNC swivel head (B axis)**
  Swivel range −15° to 180°: vertical and horizontal machining with one head.
- **HSK-T spindle**
  HSK-T63 or HSK-T100 interface, designed for both milling and turning tools.
- **One setup, complete part**
  Milling, drilling, tapping and turning on 5 axes without re-clamping: shorter lead times and higher accuracy.
- **40-position tool magazine**
  Tool change in 4 s (tool to tool), tools up to Ø135 mm and 12 kg.
- **Measuring in the machine**
  Renishaw OMP60 infrared probe and NC4 F230 laser tool setter in the working area.
- **Accuracy to ISO 230-2 & VDI 3441**
  X/Y/Z positioning 0.006 mm, repeatability 0.004 mm; B/C axis 8″ / 4″.
- **Siemens ONE**
  Modern CNC control for complex 5-axis and turn-mill programs.

5-axis
Simultaneous milling and turning

Ø660–1700
Turntable diameter (mm)

0.001°
B/C axis indexing

40 T
Tool magazine, 4 s tool change

TECHNICAL PARAMETERS

DB-T Series 5-axis turn-mill machining center | standard configuration

Configuration / Model		Unit	DB60T-C	DB80T-C	DB100T-C	DB135T-C	DB170T-C
Travel	X axis travel	mm	600	800	1000	1450	1700
	Y axis travel	mm	800	1050	1150	1450	1700
	Z axis travel	mm	600	800	1000	1000	1200
	Spindle nose to table	mm	150–750	162–962	160–1160	160–1160	220–1420
	Horizontal milling head	mm	30–630	39–839	30–1030	30–1030	130–1330
	Rapid traverse / feed	m/min	40				
	Feed force	kN	10	10	10	10	15
Turntable (C axis)	Table size	mm	Ø660	Ø880	Ø1100	Ø1400	Ø1700
	Max. table load (milling)	kg	2000	3000	4000	4000	6000
	Max. table load (turning)	kg	1000	1500	2000	2000	3000
	Max. speed (turning + milling)	rpm	500	450	500	200	200
	Min. indexing angle	°	0.001				
	Rated / max. torque	Nm	807/1430	1140/1980	1330/2630	3230/5260	5760/10900
Swivel head (B axis)	Swivel range (0° = vertical)	°	−15 ~ 180				
	Rapid / feed speed	rpm	50	50	103	50	50
	Min. indexing angle	°	0.001				
	Rated / max. torque	Nm	743/1320	743/1320	1050/2130	1050/2130	2100/4000
Spindle	Max. spindle speed	rpm	12000	12000	10000	12000	7000
	Spindle power (S1/S6)	kW	54	34/42	42/58	48/71	50/70
	Spindle torque (S1/S6)	Nm	175/210	132/185	215/350	300/452	400/560
	Spindle taper	/	HSK-T63	HSK-T63	HSK-T100	HSK-T100	HSK-T100
Tool magazine	Tool magazine capacity	T	40				
	Max. tool dia. / length / weight	mm/ mm/kg	Ø85/300/8	Ø85/300/8	Ø135/300/12	Ø135/300/12	Ø135/300/12
	Tool change time (tool to tool)	s	4				
Accuracy*	X/Y/Z positioning	mm	0.006	0.006	0.006	0.006	0.008
	X/Y/Z repeatability	mm	0.004	0.004	0.004	0.004	0.006
	B/C positioning / repeatability	″	8 / 4				
General	Control system	/	Siemens ONE				
	Measuring	/	Renishaw OMP60 probe, NC4 F230 tool setter				
	Machine weight	kg	25000	30000	36000	–	–

* Values shown apply to the standard configuration. Options are available on request. *Accuracy according to ISO 230-2 & VDI 3441. The parameters are subject to the technical agreement.

Thanks to our direct contact with the factory, additional options and custom-made solutions are possible.
Please ask about the possibilities.

NOTES

CNC-SUPPLY
The World of Manufacturing

