



## TC series

HEAVY DUTY CNC SLANT BED LATHE



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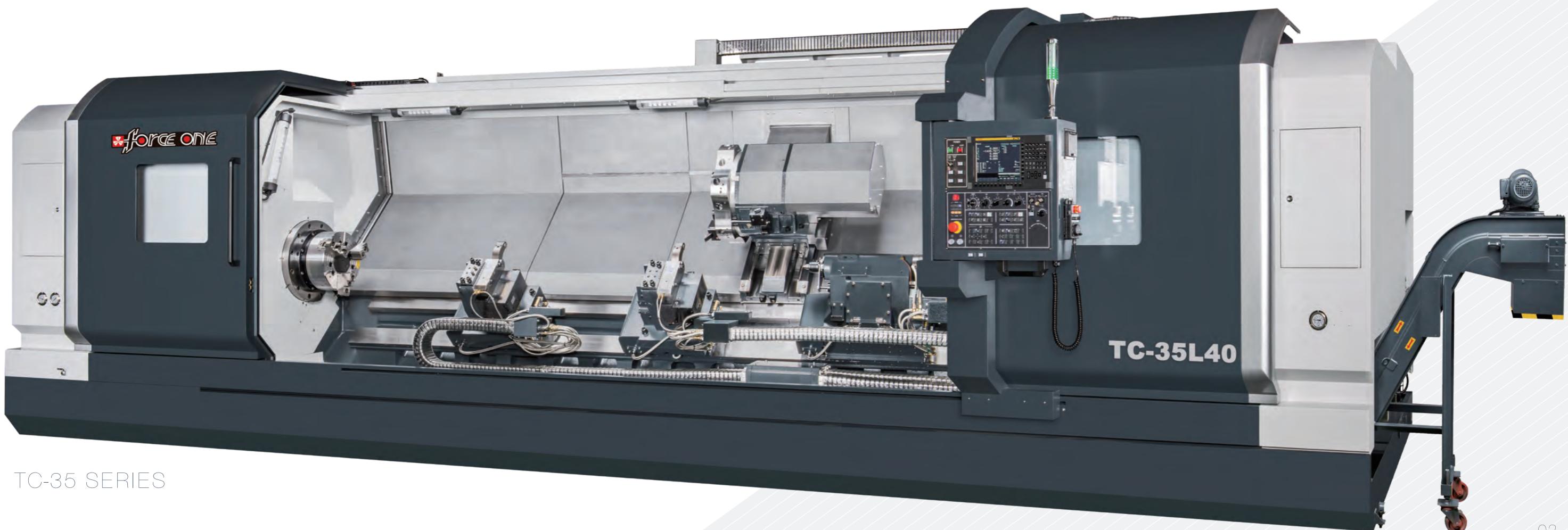
# TC series

## HEAVY DUTY CNC SLANT BED LATHE

The design concept of TC-35/40/45/50 series CNC lathes is to improve their heavy duty cutting capabilities and high efficiency. With large processing diameter and large spindle through hole design, it is suitable for cutting large pipes and shafts in the transportation and energy industries.



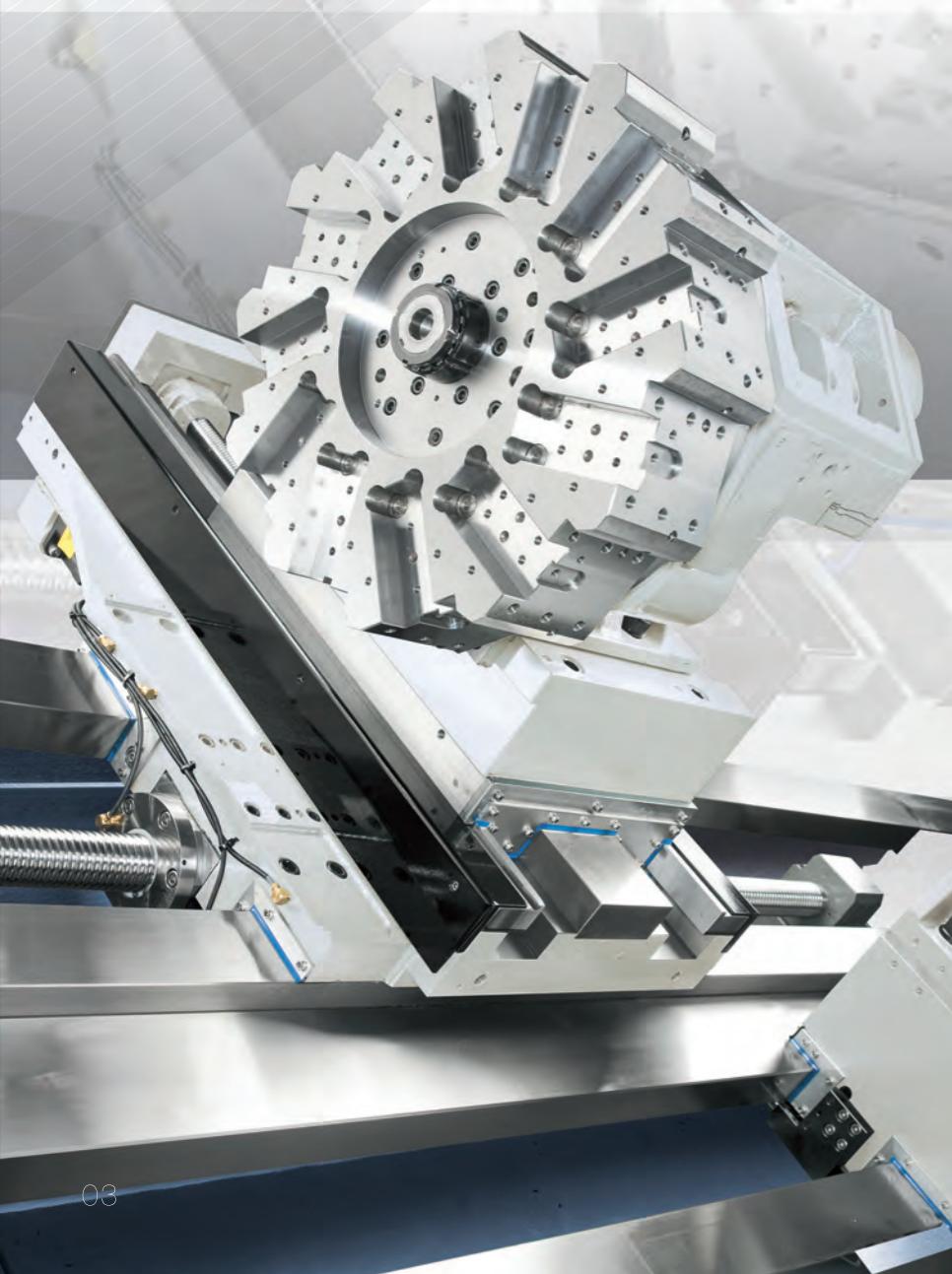
TC-40 SERIES



TC-35 SERIES

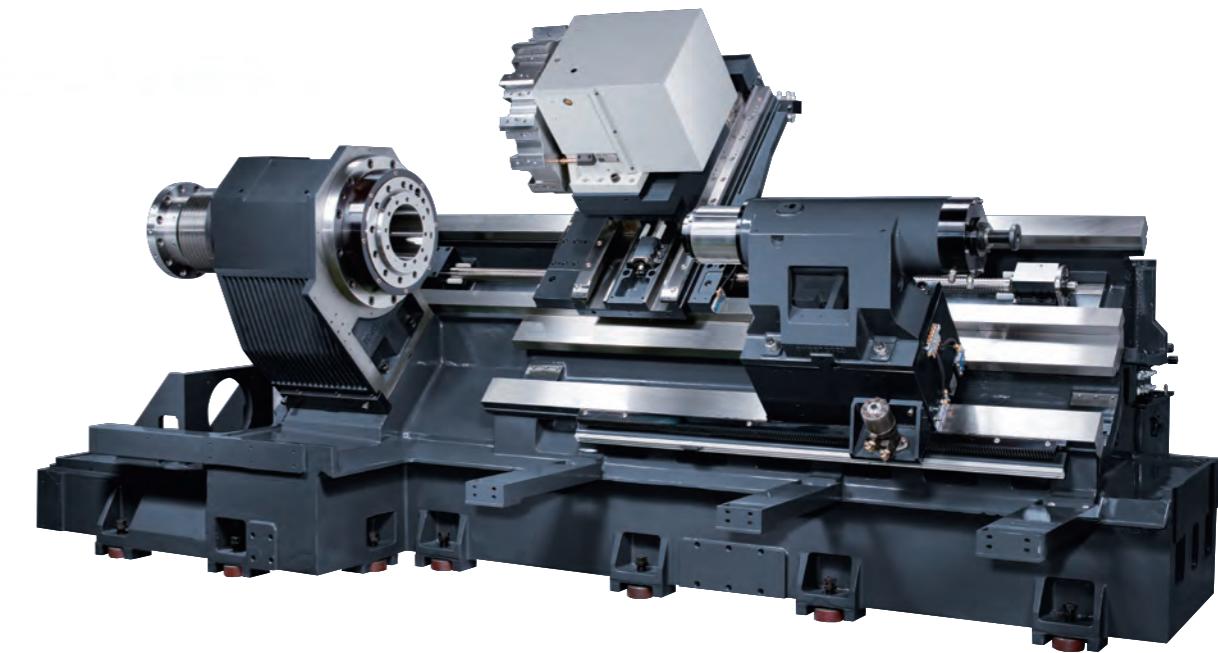
## SOLID CONSTRUCTION AND EXCELLENT RIGIDITY

- Box ways on X/Z axis exhibit outstanding accuracy and load resistance capacity.
- Rigid and stable construction throughout.
- One-piece constructed bed offers the optimal bending-resistance and torsion-resistance capabilities especially when performing heavy cutting on extra large workpiece.
- The spindles on TC-35/40 series are driven by gearbox with 1:4 gear ratio. Full power output is possible when spindle speeds range 208 ~ 2,500 rpm.
- The heavy duty headstock on TC-45/50 is of one piece casting, and it is with 3 or 4 speed gear head providing extra large torque output and making the machine ideal for heavy cutting.

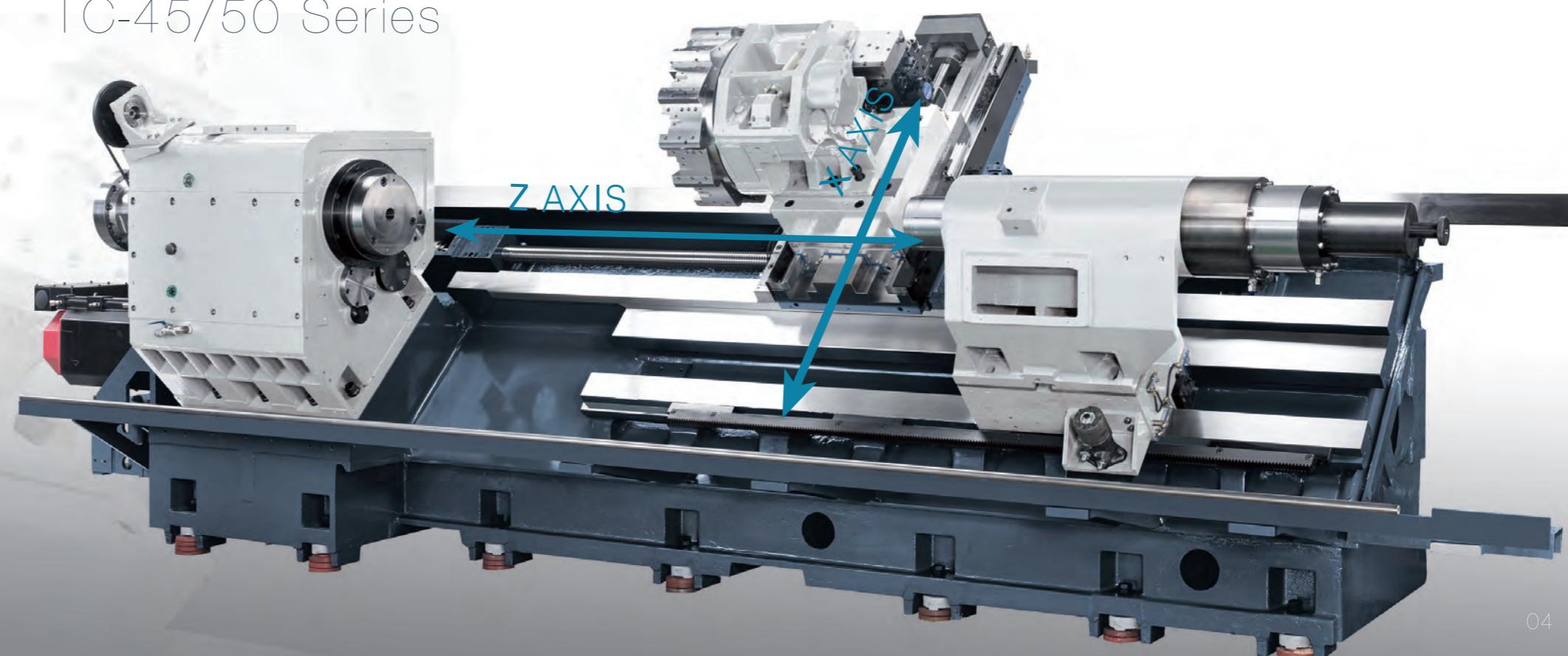


TC-45/50 Series

45 degrees slant bed construction features efficient chip removal and firm support. The major machine parts, such as the base, saddle, headstock, slide and tailstock are made of Meehanite cast iron and tempered to relieve stress thereby ensuring lifetime accuracy.



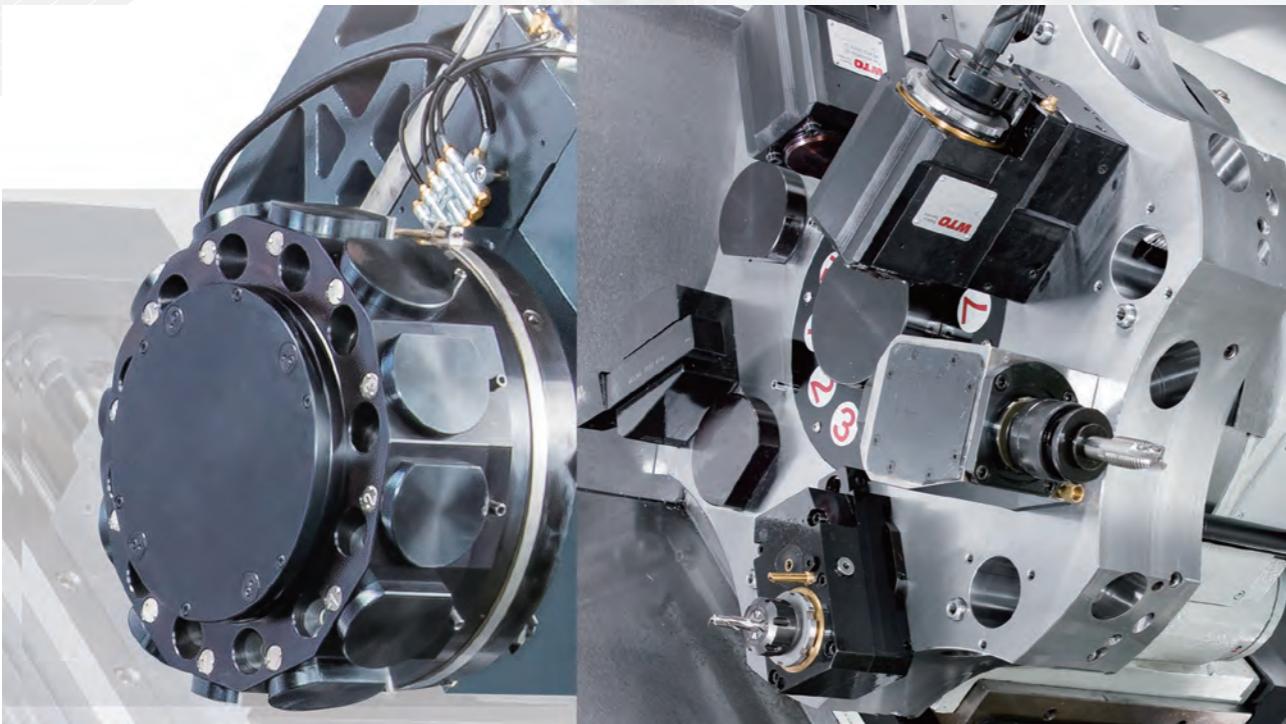
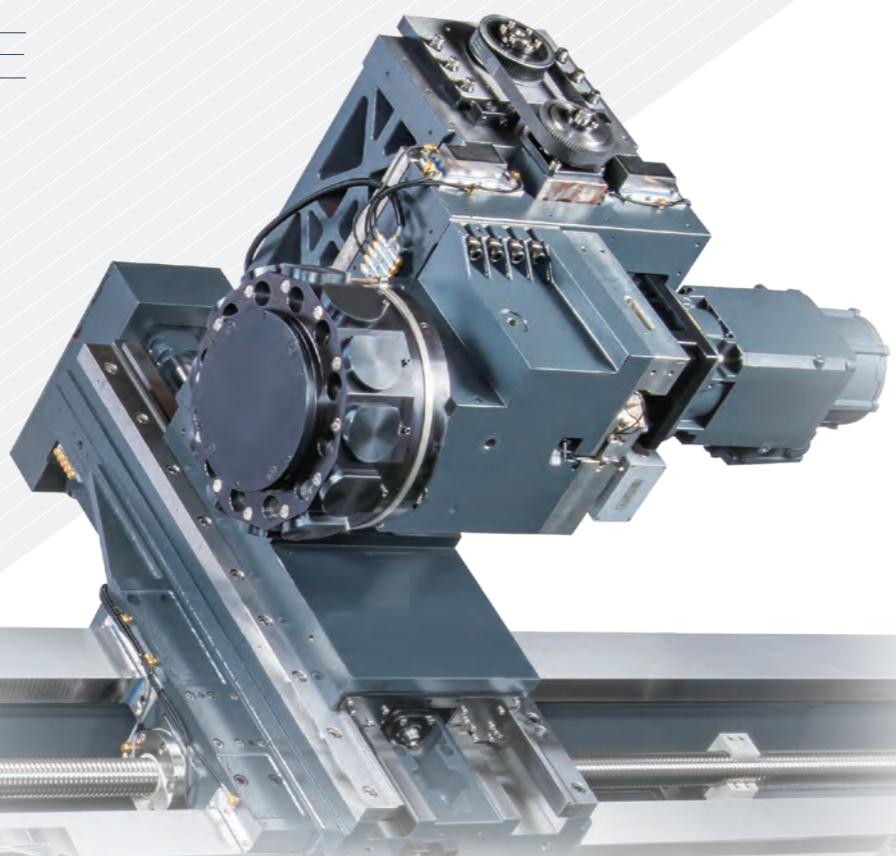
TC-35/40 Series



## MACHINE FEATURE

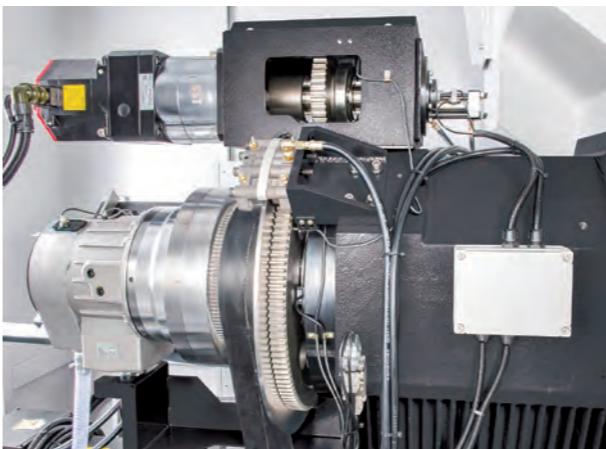
### Y AXIS TURRET (OPT.)

- One piece design of the Y axis base and X saddle for high-accuracy structure configuration.
- Fast indexing turret features with high repeat accuracy.
- High rigidity turret better for front and back machining.



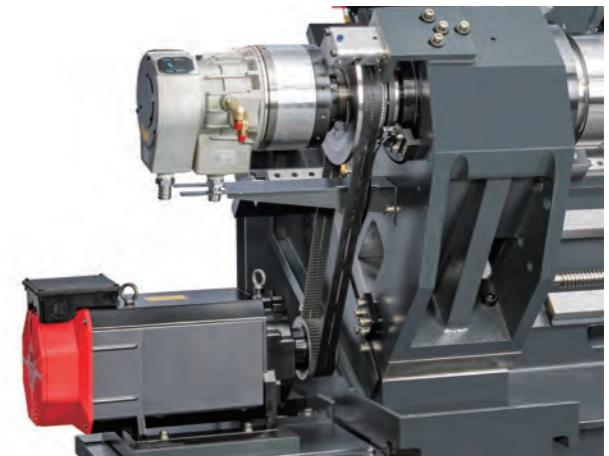
### POWER TURRET (OPT.)

- Employs VDI 50 axial turret disk, 12 position power turret. (Two PCD Inner PCD has 6 stations for milling. Outer PCD has 6 stations for turning.)
- High indexing resolution for contour/index control.
- Hydraulic disk brake locking provides maximum stability during milling and contouring.



### CF AXIS (OPT.)

CF axis with additional servo motor and gear box, it has better rigidity for simulation milling.



### CS AXIS (OPT.)

CS axis is driven by a servo spindle motor, it is suitable for spindle indexing and milling at position.

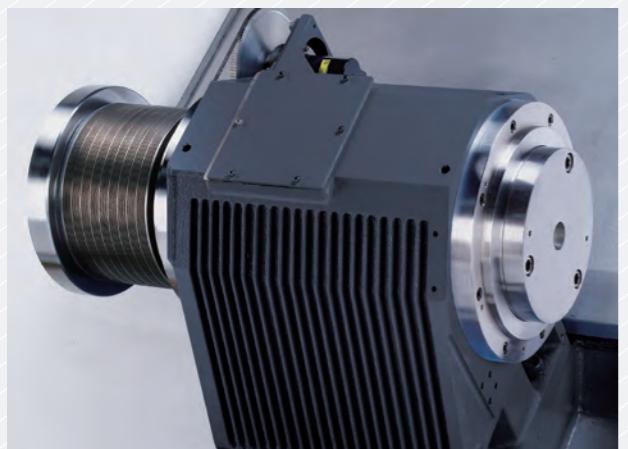


### REAR CHUCK (OPT.)



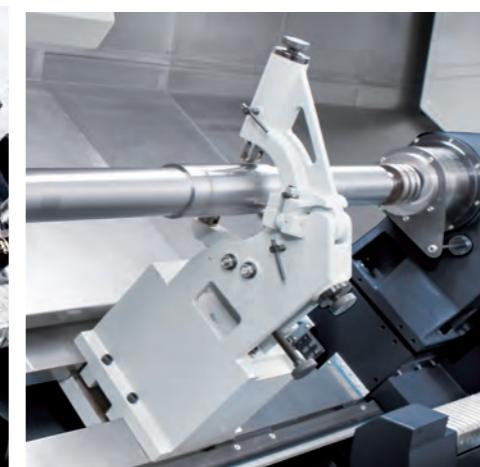
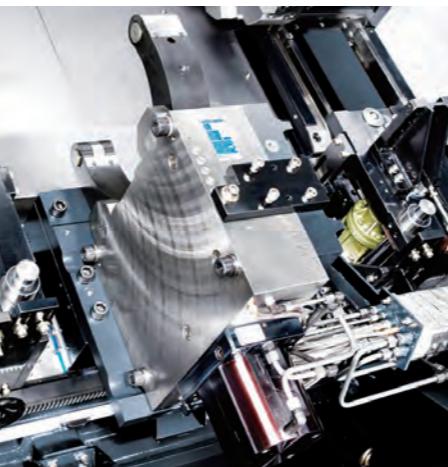
### THE TELESCOPIC RUBBER COVER(OPT.)

Provides superior micro-dust protection for the track and extends the lifespan of the cover during composite material grinding operations.



### POWERFUL HI-SPEED AND HI-RIGID SPINDLE (TC-35/40 series)

Spindle supported by cylindrical roller bearings and hi-speed angular thrust bearings marks the spindle faultless and ideal for heavy duty and high-speed turning.



### STEADY REST (OPT.)

The manual steady rest/hydraulic power unit offers a further level of customization, allowing the incorporation of a temporary toolpost and servo driven movement functionality (To be used in conjunction with the toolpost) to meet the specific machining requirements of our customers.



### 2-STAGES SPEED GEAR BOX (TC-35/40 series)

TC-35/TC-40 series equipped with "high precision" stages gearbox (Gear ratio 1:4) provides full horsepower cutting from 208 ~ 2,500 rpm. The maximum cutting torque is 660 NM.

### WORKPIECE PROBE



### TOOL MEASURE SYSTEM

Manual / Automatic swing arm.



### GEAR BOX (TC-45/50 series)

The headstock is with 3 or 4 speed gear head. Gears are precision ground for quiet running.

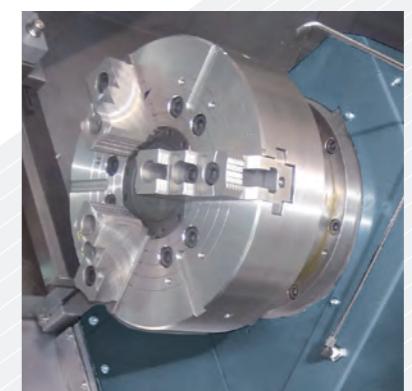


### INDEX CHUCK (OPT.)

Capable of turning multi-angle machining parts, such as tees and crosses, with automatic angle adjustment and complete processing in at one time.

### WORKPIECE MEASURE SYSTEM

Automatic measurement and correction of dimensions.



### SUB SPINDLE (OPT.)

Synchronization for main and sub spindle. The workpiece can be machining at one time.

### SPINDLE COOLER (OPT.)

The spindle cooler is designed for high-precision machining, ensuring stable temperature control to prevent overheating, which can compromise accuracy and cause equipment wear. Its efficient cooling system enhances machining stability, extends spindle lifespan, and improves productivity and product quality, making it an essential component for reliable machine operation.

## ESG (OPT.)



### AUTOMATIC GREASE LUBRICATION SYSTEM

It significantly reduces lubricant usage, effectively reduces coolant tank pollution, and improves coolant quality.

### AI (OPT.)



### VARIABLE FREQUENCY HYDRAULIC SYSTEM

Excellent energy saving effect, smaller fuel tank volume and temperature control.

### SMART POWER-OFF SYSTEM

Smart power-off system temporarily limits the use of power-hungry devices during standby. After processing is completed, the system can automatically power off the equipment.



## HOLLOW BALL SCREWS WITH COOLANT SYSTEM (OPT.)

The hollow ball screw cooling system can significantly reduce the thermal temperature rise position accuracy error caused by screw friction during machine movement, thereby improving the positioning accuracy of the machine.

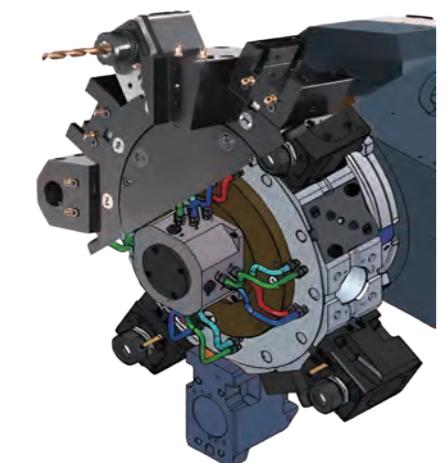


## COOLANT CONTROL SYSTEM (OPT.)

- High pressure coolant system 5/10/20/50/70 bar
- Oil skimmer
- Paper filter system
- Magnetic filter system

## SMART MACHINE MONITORING AND PREVENTION SYSTEM (OPT.)

Real-time spindle load monitoring is combined with artificial intelligence software technology to automatically construct a safe processing load zone, and includes intelligent tool performance management to monitor and prevent abnormalities during processing, eliminating the need for human supervision.



### BMT & AUTO TOOL CHANGE TURRET SOLUTION (OPT.)

The BMT interface turret features a more rigid structure, supporting a wide range of live tooling options and quick-change interfaces such as Capto, enabling efficient external tool management. Additionally, we offer a hydraulic turret auto-change solution, which, when combined with a robotic arm, enables automated turret tool changing functionality.



## DUST COLLECTOR (OPT.)

The dust collector is designed for efficient dust management, swiftly capturing fine particles and debris during machining to maintain a clean workspace, enhance machining accuracy, and improve operational safety. Its advanced filtration system ensures discharged air meets environmental standards, while also extending equipment lifespan, making it an ideal solution for maintaining a productive environment.



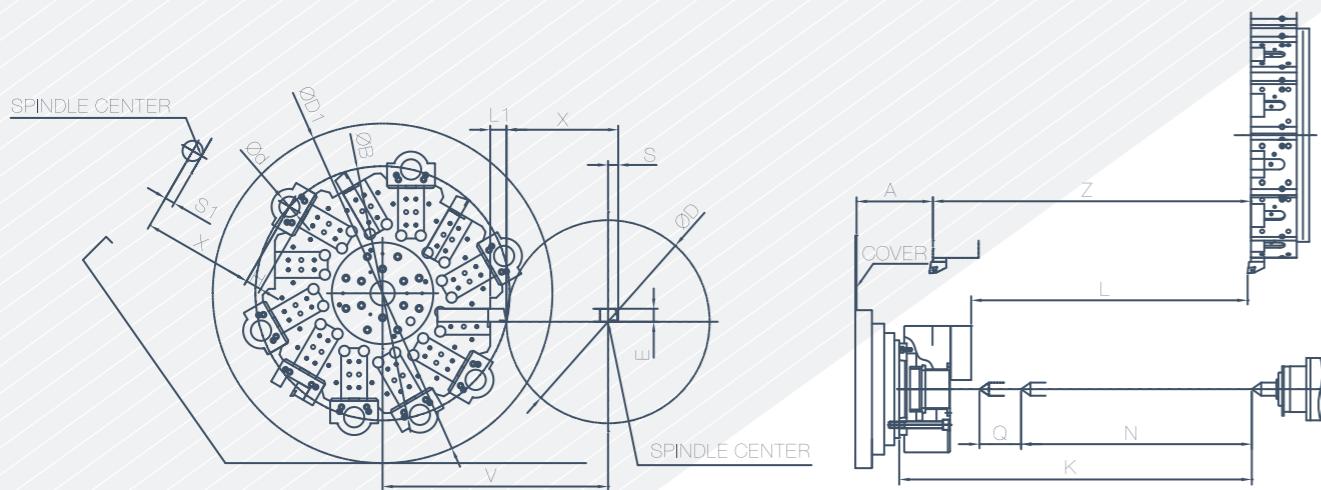
## OIL MIST COLLECTOR (OPT.)

The oil mist collector uses advanced separation technology to efficiently capture oil mist generated during machining, reducing air pollution and improving workshop environment quality. Recovered cutting fluids can be recycled, saving costs and extending equipment lifespan, making it the perfect blend of environmental and economic benefits.

## ROTATE QUILL TAILSTOCK (OPT.)

The higher rigidity rotate quill type tailstock has bigger bearings than live center.

## WORKING RANGE



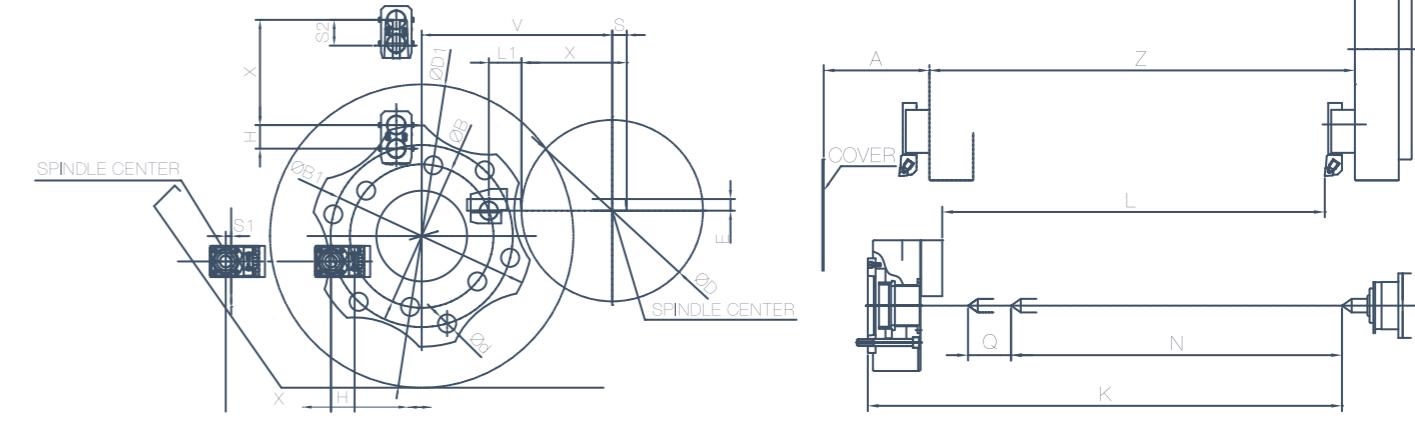
DIRECT TYPE TURRET STD.

UNIT:mm

MODEL	A	Turning D	D1	VDI d	E	H	K	Turning L	L1	N	Q	S	S1	V	Travel X	Z	B
TC-35L08	183.6	500	825	50	32	40	943	760	40	650	100	25	25	555	275	860	625.8
TC-35L15	183.6	500	825	50	32	40	1703	1520	40	1410	100	25	25	555	275	1620	625.8
TC-35L23	183.6	500	795	50	32	40	2463	2280	40	2170	100	25	25	555	275	2380	625.8
TC-35L30	183.6	500	795	50	32	40	3223	3040	40	2930	100	25	25	555	275	3140	625.8
TC-35L40	183.6	500	765	50	32	40	4223	4040	40	3930	100	25	25	555	275	4140	625.8
TC-35L50	183.6	500	735	50	32	40	5223	5040	40	4930	100	25	25	555	275	5140	625.8
TC-35L60	183.6	500	705	50	32	40	6223	6040	40	5930	100	25	25	555	275	6140	625.8
TC-35L70	183.6	500	705	50	32	40	7223	7040	40	6930	100	25	25	555	275	7140	625.8
TC-40L08	183.6	710	1025	50	32	40	943	760	40	650	100	25	25	660	380	860	625.8
TC-40L15	183.6	710	1025	50	32	40	1703	1520	40	1410	100	25	25	660	380	1620	625.8
TC-40L23	183.6	710	1025	50	32	40	2463	2280	40	2170	100	25	25	660	380	2380	625.8
TC-40L30	183.6	710	1025	50	32	40	3223	3040	40	2930	100	25	25	660	380	3140	625.8
TC-40L40	183.6	710	995	50	32	40	4223	4040	40	3930	100	25	25	660	380	4140	625.8
TC-40L50	183.6	710	965	50	32	40	5223	5040	40	4930	100	25	25	660	380	5140	625.8
TC-40L60	183.6	710	935	50	32	40	6223	6040	40	5930	100	25	25	660	380	6140	625.8
TC-40L70	183.6	710	935	50	32	40	7223	7040	40	6930	100	25	25	660	380	7140	625.8
TC-45L12	235	850	910	50	32	40	1569.5	1130	40	950	200	25	25	730	450	1250	625.8
TC-45L17	235	850	910	50	32	40	2060.5	1630	40	1450	200	25	25	730	450	1750	625.8
TC-45L22	235	850	910	50	32	40	2569.5	2130	40	1950	200	25	25	730	450	2250	625.8
TC-45L32	235	850	880	50	32	40	3529.5	3090	40	2910	200	25	25	730	450	3210	625.8
TC-45L42	235	850	850	50	32	40	4469.5	4030	40	3850	200	25	25	730	450	4150	625.8
TC-45L52	235	850	820	50	32	40	5469.5	5030	40	4850	200	25	25	730	450	5150	625.8
TC-45L62	235	850	790	50	32	40	6469.5	6030	40	5850	200	25	25	730	450	6150	625.8
TC-45L72	235	850	760	50	32	40	7469.5	7030	40	6850	200	25	25	730	450	7150	625.8
TC-50L22	192.5	1020	1120	50	32	40	2383	2150	40	1900	200	25	25	815	535	2260	625.8
TC-50L32	192.5	1020	1090	50	32	40	3373	3140	40	2900	200	25	25	815	535	3220	625.8
TC-50L42	192.5	1020	1060	50	32	40	4308	4075	40	3900	200	25	25	815	535	4090	625.8
TC-50L52	192.5	1020	1030	50	32	40	5290	5057	40	4900	200	25	25	815	535	5070	625.8
TC-50L62	192.5	1020	1000	50	32	40	6290	6057	40	5900	200	25	25	815	535	6070	625.8
TC-50L72	192.5	1020	970	50	32	40	7290	7057	40	6900	200	25	25	815	535	7070	625.8

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- The BMT Turret is available

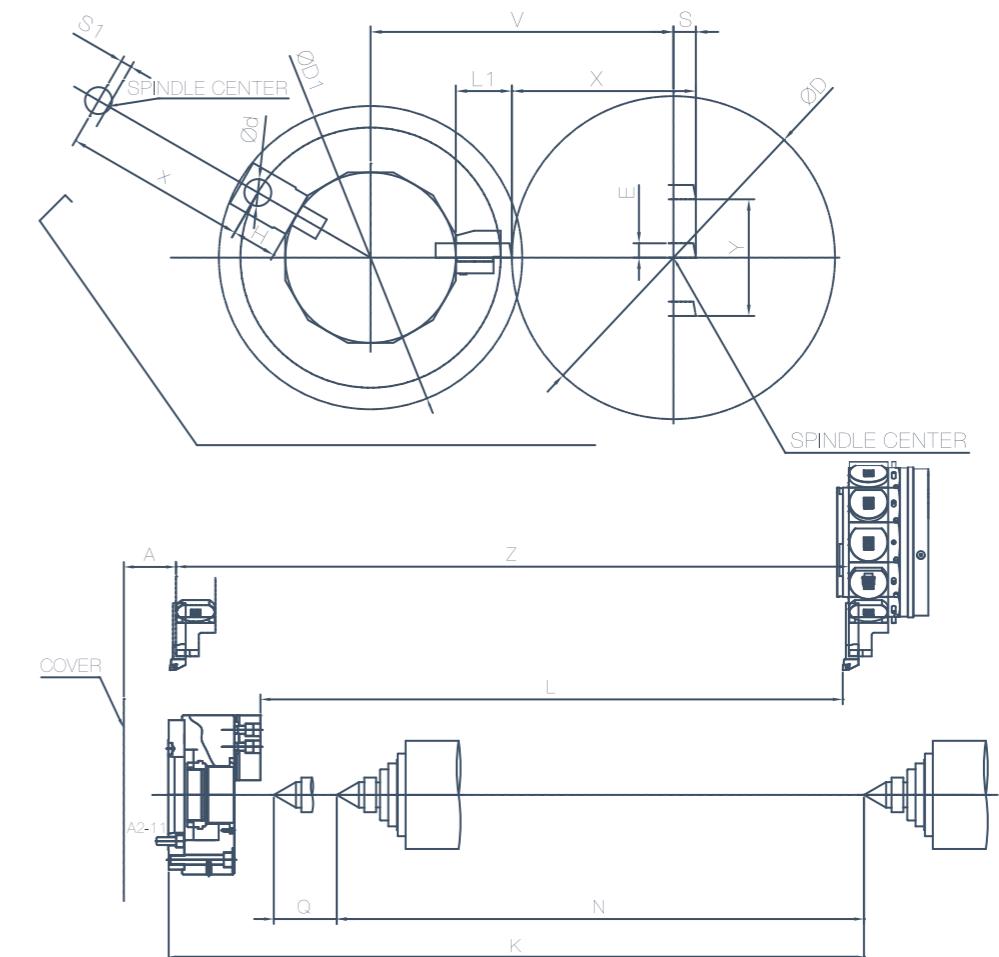
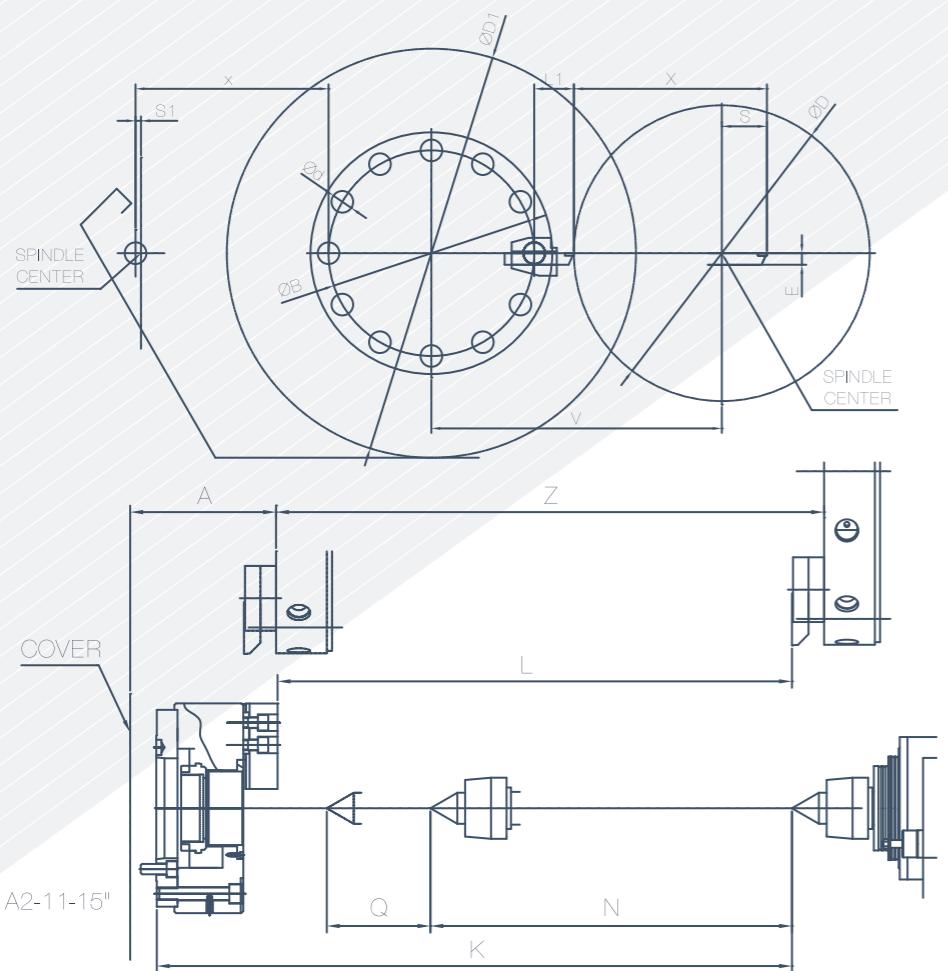


POWER TURRET VDI AXIAL MOUNTING OPT.

UNIT:mm

MODEL	A	Turning D	D1	VDI d	E	H	K	Turning L	L1	N	Q	S	S1	S2	V	Travel X	Z	B	B1
TC-35L08	245.7	500	825	50	32	65	919	706	90	596	100	40	15	71	525	290	806	395.6	501.9
TC-35L15	245.7	500	825	50	32	65	1679	1466	90	1356	100	40	15	71	525	290	1566	395.6	501.9
TC-35L23	245.7	500	795	50	32	65	2439	2226	90	2116	100	40	15	71	525	290	2326	395.6	501.9
TC-35L30	245.7	500	795	50	32	65	3199	2986	90	2876	100	40	15	71	525	290	3086	395.6	501.9
TC-35L40	245.7	500	765	50	32	65	4199	3986	90	3876	100	40	15	71	525	290	4086	395.6	501.9
TC-35L50	245.7	500	735	50	32	65	5199	4986	90	4876	100	40	15	71	525	290	5086	395.6	501.9
TC-35L60	245.7	500	705	50	32	65	6199	5986	90	5876	100	40	15	71	525	290	6086	395.6	501.9
TC-35L70	245.7	500	705	50	32	65	7199	6986	90	6876	100	40	15	71	525	290	7086	395.6	501.9
TC-40L08	245.7	710	1025	50	32	65	919	706	90	596	100	40	15	71	525	395	806	395.6	501.9
TC-40L15	245.7	710	1025	50	32	65	1679	1466	90	1356	100	40	15	71	630	395</td			

## WORKING RANGE



## POWER TURRET VDI AXIAL MOUNTING OPT.

TC-50L22 ~ TC-50L72

UNIT:mm

MODEL	A	Turning D	D1	d	E	H	K	L	L1	N	Q	S	S1	V	X	Z	B
TC-50L22	281.5	820	1120	60	32	-	2428	2195	47.5	1900	200	47.5	15	805	535	2260	570(mm)
TC-50L32	281.5	820	1090	60	32	-	3418	3185	47.5	2900	200	47.5	15	805	535	3220	570(mm)
TC-50L42	281.5	820	1060	60	32	-	4353	4120	47.5	3900	200	47.5	15	805	535	4090	570(mm)
TC-50L52	281.5	820	1030	60	32	-	5335	5102	47.5	4900	200	47.5	15	805	535	5070	570(mm)
TC-50L62	281.5	820	1000	60	32	-	6335	6102	47.5	5900	200	47.5	15	805	535	6070	570(mm)
TC-50L72	281.5	820	970	60	32	-	7335	7102	47.5	6900	200	47.5	15	805	535	7070	570(mm)

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- The BMT Turret is available

## POWER TURRET VDI AXIAL MOUNTING OPT.

UNIT: mm

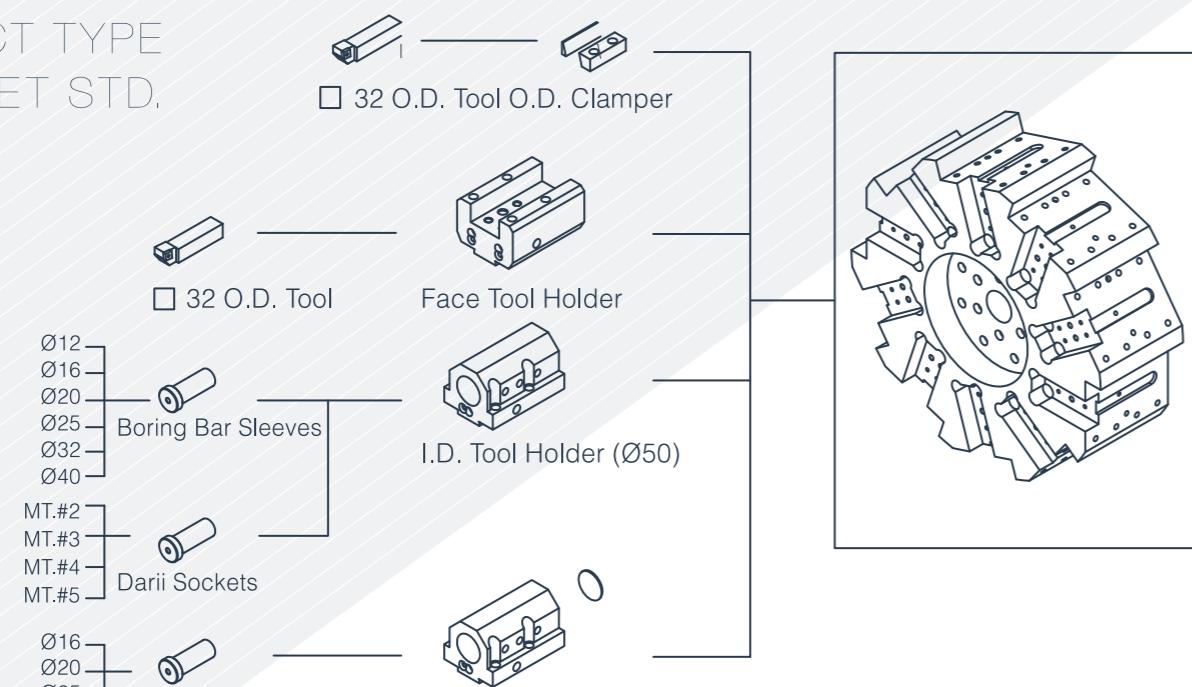
MODEL	A	Turning Dia D	D1	VDI d	E	H	K	Turning L	L1	N	Q	S	S1	V	Travel X	Z	Y
TC-40YL08	189.6	590	1025	40	25	100	943	682	120	512	100	40	20	575	335	783	+/-80
TC-40YL15	189.6	590	1025	40	25	100	1703	1442	120	1272	100	40	20	575	335	1543	+/-80
TC-40YL23	189.6	590	1025	40	25	100	2463	2202	120	2032	100	40	20	575	335	2303	+/-80
TC-40YL30	189.6	590	1025	40	25	100	3223	2962	120	2792	100	40	20	575	335	3063	+/-80
TC-40YL40	189.6	590	995	40	25	100	4223	3962	120	3792	100	40	20	575	335	4063	+/-80
TC-40YL50	189.6	590	965	40	25	100	5223	4962	120	4792	100	40	20	575	335	5063	+/-80
TC-40YL60	189.6	590	935	40	25	100	6223	5962	120	5792	100	40	20	575	335	6063	+/-80
TC-40YL70	189.6	590	935	40	25	100	7223	6962	120	6792	100	40	20	575	335	7063	+/-130
TC-45YL12	132.6	720	910	60	32	100	1569.5	980	125	840	160	50	25	675	410	1210	+/-130
TC-45YL17	132.6	720	910	60	32	100	2060.5	1480	125	1340	160	50	25	675	410	1710	+/-130
TC-45YL22	132.6	720	910	60	32	100	2569.5	1980	125	1840	160	50	25	675	410	2210	+/-130
TC-45YL32	132.6	720	880	60	32	100	3529.5	2940	125	2800	160	50	25	675	410	3170	+/-130
TC-45YL42	132.6	720	850	60	32	100	4469.5	3880	125	3740	160	50	25	675	410	4110	+/-130
TC-45YL52	132.6	720	820	60	32	100	5469.5	4880	125	4740	160	50	25	675	410	5110	+/-130
TC-45YL62	132.6	720	790	60	32	100	6469.5	5880	125	5740	160	50	25	675	410	6110	+/-130
TC-45YL72	132.6	720	760	60	32	100	7469.5	6880	125	6740	160	50	25	675	410	7110	+/-130

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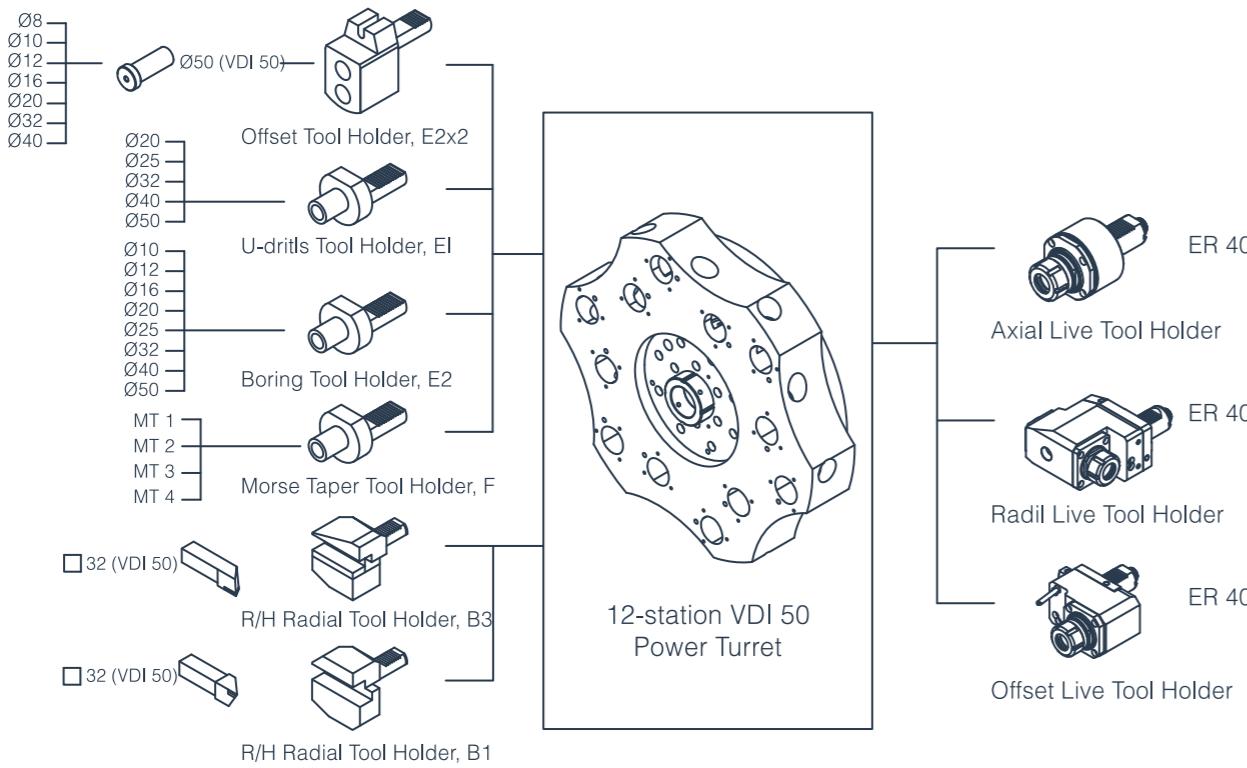
- The BMT Turret is available

# TOOLING SYSTEM

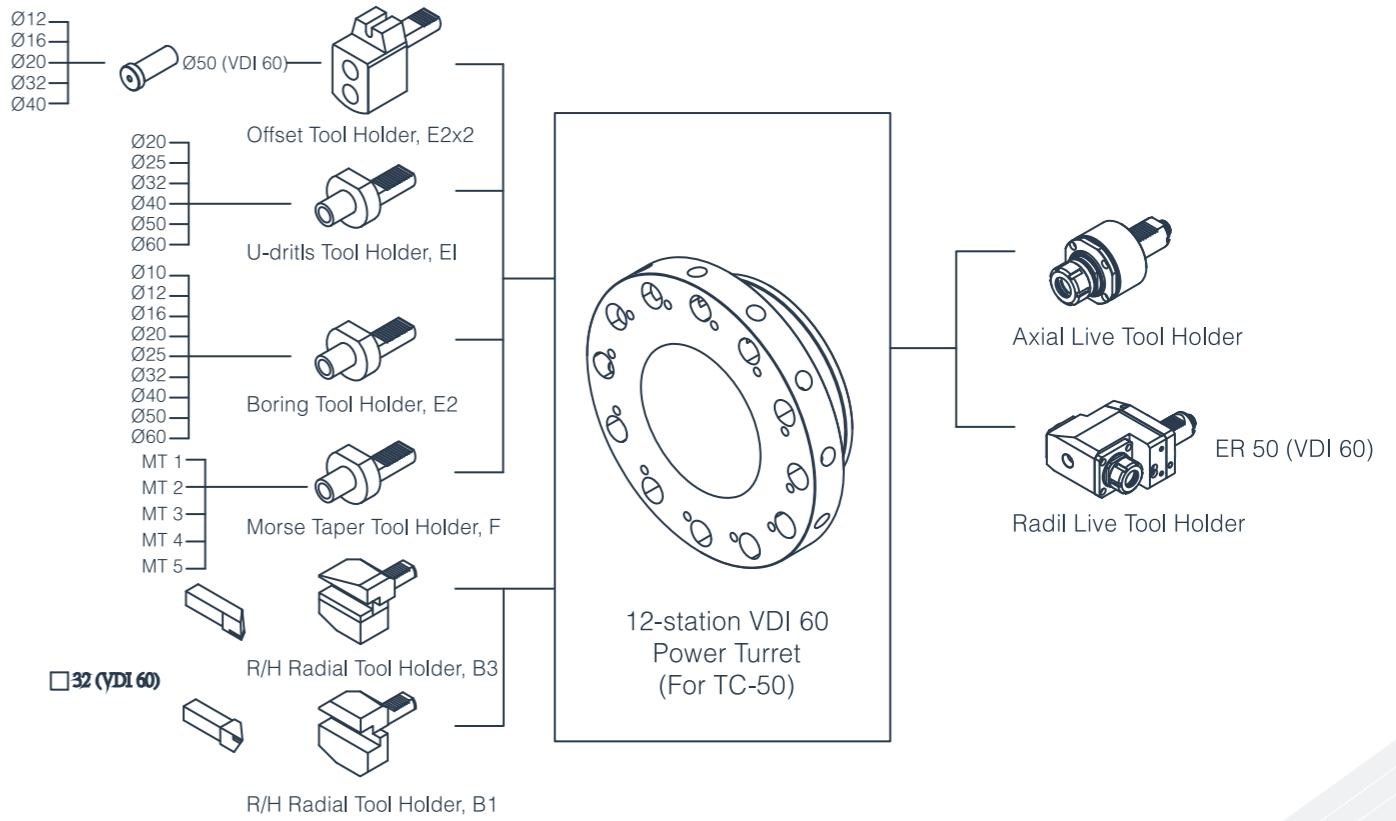
## DIRECT TYPE TURRET STD.



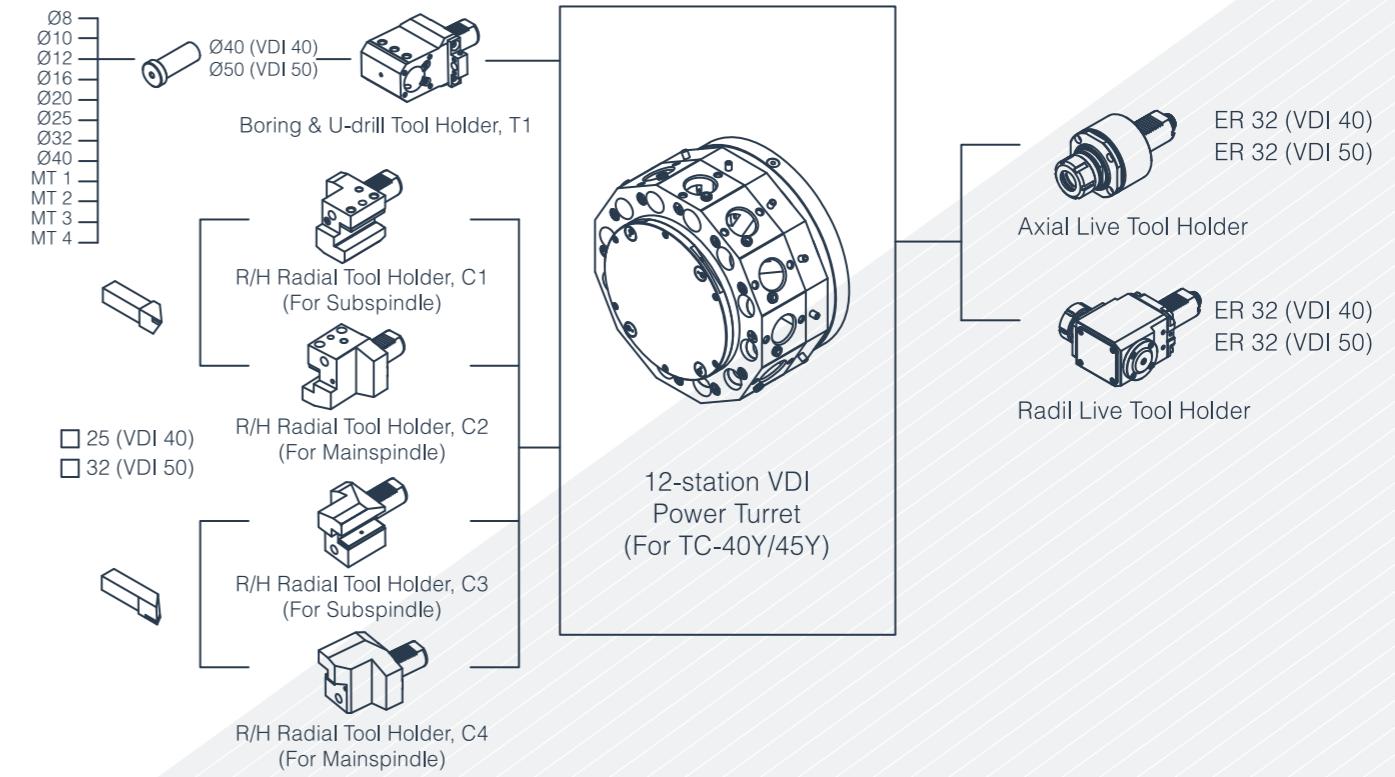
## VDI AXIAL TYPE OPT. FOR TC-35/TC-40/TC-45



## FOR TC-50



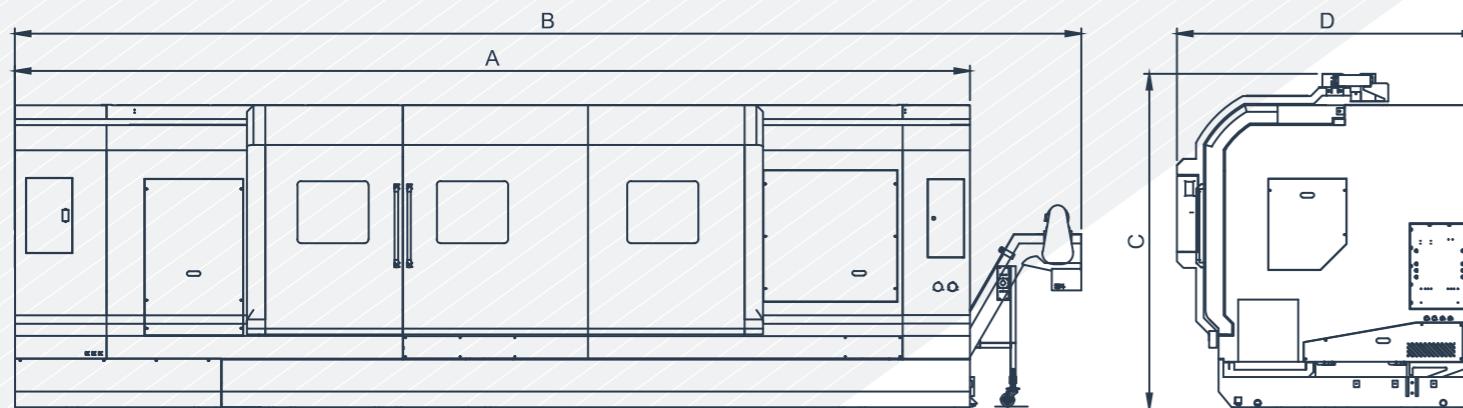
## VDI RADIAL TYPE OPT.



BMT TYPE OPT. The drawing will be provide by the requirement.

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## DIMENSIONAL DRAWINGS



MODEL	A (mm)	B (mm)	C (mm)	D (mm)	W (kg)
TC-35L08	5304	6154	2235	2130	10030
TC-35L15	6064	6914	2235	2130	11300
TC-35L23	6824	7674	2235	2130	13700
TC-35L30	7584	8434	2565	2290	16300
TC-35L40	8155	9005	2565	2290	17500
TC-35L50	9300	10150	2565	2290	19000
TC-35L60	10325	11215	2565	2290	21000
TC-35L70	11700	12590	2565	2290	24500
TC-40L08	5304	6154	2235	2130	11500
TC-40YL08	3800	4650	2650	2200	13000
TC-40L15	6064	6914	2235	2130	12100
TC-40YL15	4500	5350	2650	2200	14500
TC-40L23	6824	7674	2235	2130	15600
TC-40YL23	5300	6150	2650	2200	16000
TC-40L30	7584	8434	2565	2290	17900
TC-40YL30	6000	6850	3000	2550	17500
TC-40L40	8155	9005	2565	2290	19500
TC-40YL40	7000	7850	3000	2550	21000
TC-40L50	9300	10150	2565	2290	21200
TC-40YL50	8000	8850	3000	2550	24000
TC-40L60	10325	11175	2565	2290	23000
TC-40YL60	9000	9850	3000	2550	27000
TC-40L70	11700	12550	2565	2290	26500
TC-40YL70	10375	11225	3000	2550	30500

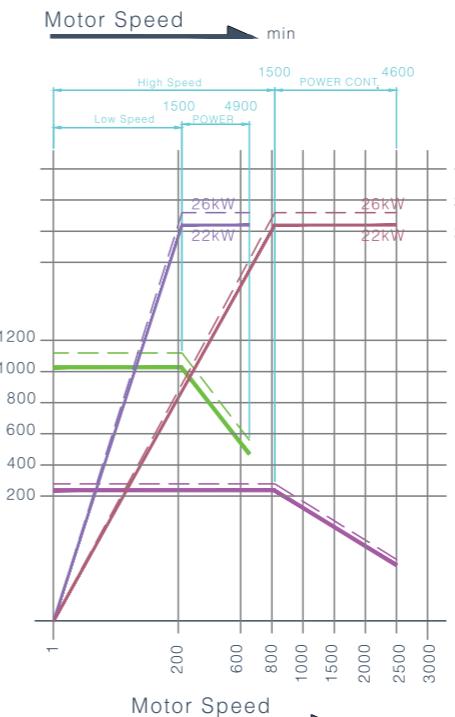
MODEL	A (mm)	B (mm)	C (mm)	D (mm)	W (kg)
TC-45L12	6160	7010	2445	2230	14200
TC-45YL12	5440	6290	2760	2250	14000
TC-45L17	6660	7510	2445	2230	14950
TC-45YL17	5940	6790	2760	2250	15550
TC-45L22	7160	8010	2445	2230	15700
TC-45YL22	6440	7290	3090	2250	17090
TC-45L32	8160	9010	2775	2390	18400
TC-45YL32	7440	8290	3090	2570	20200
TC-45L42	9160	10010	2775	2390	20100
TC-45YL42	8440	9290	3090	2570	23300
TC-45L52	10160	11010	2775	2390	21900
TC-45YL52	9440	10290	3090	2570	26400
TC-45L62	11160	12010	2850	2465	23700
TC-45YL62	10440	11290	3165	2645	29500
TC-45L72	12160	13010	2925	2540	25500
TC-45YL72	11440	12290	3240	2720	32600
TC-50L22	8700	9550	3050	3158	18000
TC-50YL22	6440	7290	3090	2570	18500
TC-50L32	9700	10550	3380	3318	23000
TC-50YL32	7440	8290	3090	2570	23500
TC-50L42	10700	11550	3380	3318	27000
TC-50YL42	8440	9290	3090	2570	27500
TC-50L52	11700	12550	3380	3318	32000
TC-50YL52	9440	10290	3090	2570	32500
TC-50L62	12700	13550	3455	3393	37000
TC-50YL62	10440	11290	3090	2570	37500
TC-50L72	13700	14550	3530	3468	42000
TC-50YL72	11440	12290	3090	2570	42500

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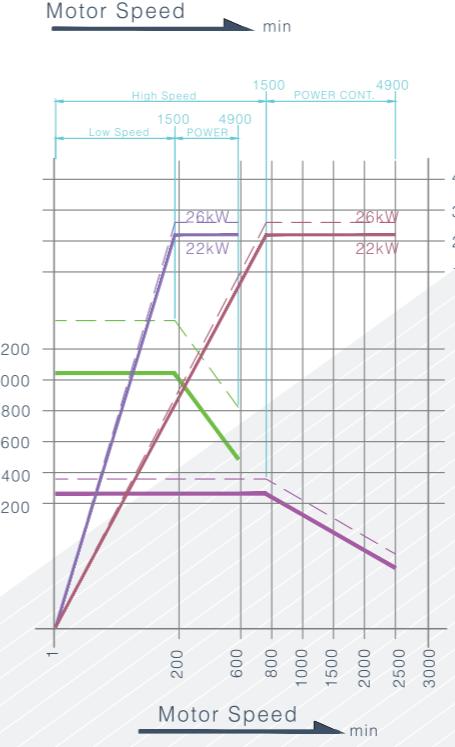
## SPINDLE OUTPUT / TORQUE DIAGRAM

TC-35  
TC-40

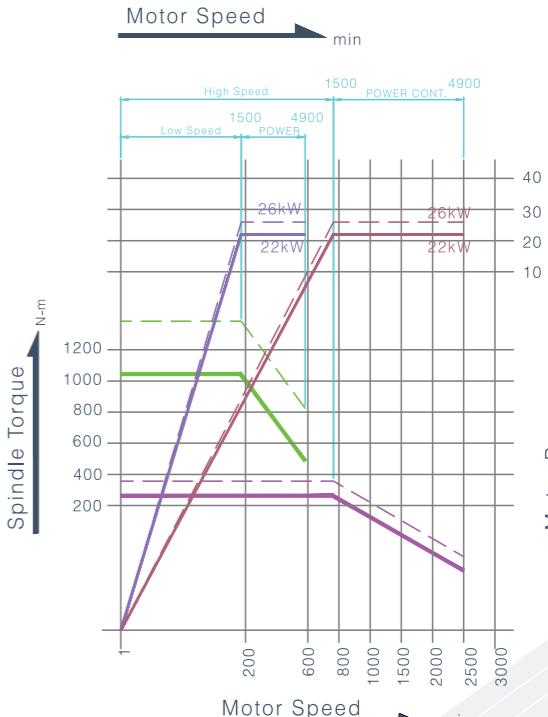
Spindle: A2-8  
Spindle bore:  $\Phi 105\text{mm}$   
Spindle gearbox: 2-speed  
Spindle motor:  $\alpha 22i(22/26\text{kW})$



Spindle: A2-15  
Spindle bore:  $\Phi 180\text{mm}$   
Spindle gearbox: 2-speed  
Spindle motor:  $\alpha 22i(22/26\text{kW})$



Spindle: A2-11  
Spindle bore:  $\Phi 131\text{mm}$   
Spindle gearbox: 2-speed  
Spindle motor:  $\alpha 22i(22/26\text{kW})$



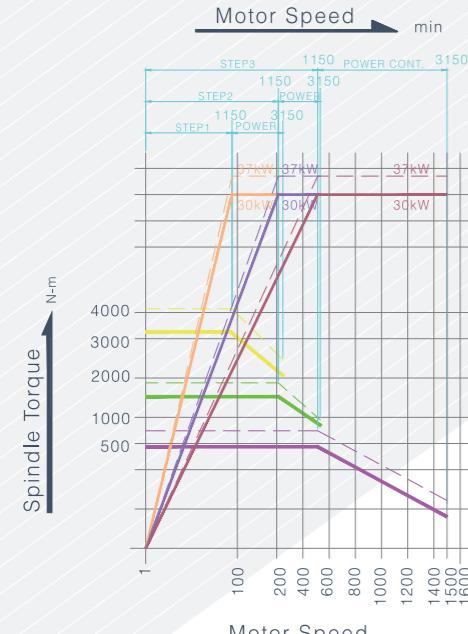
Spindle Torque  
Motor Speed  
Low speed 30min. operation zone  
High speed 30min. operation zone  
Low speed continuous operation zone  
High speed continuous operation zone

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## SPINDLE OUTPUT / TORQUE DIAGRAM

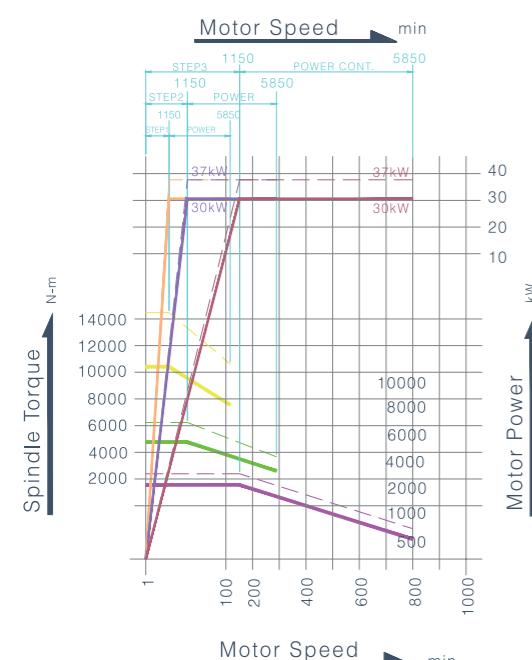
TC-45

Spindle: A2-11  
Spindle bore: Φ160mm  
Spindle gearbox: 3-speed  
Spindle motor: α30i(30/37kW)



TC-45

Spindle: A2-20  
Spindle bore: Φ320mm  
Spindle gearbox: 3-speed  
Spindle motor: α30i(30/37kW)

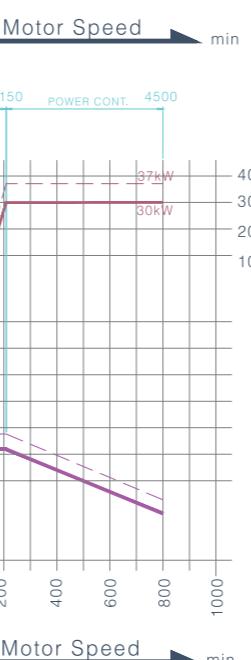


Spindle Torque  
Motor Power  
STEP1-30min. operation zone  
STEP2-30min. operation zone  
STEP3-30min. operation zone  
STEP4-Continuous  
STEP5-Continuous  
STEP6-Continuous

Spindle: A2-15  
Spindle bore: Φ230mm  
Spindle gearbox: 3-speed  
Spindle motor: α30i(30/37kW)



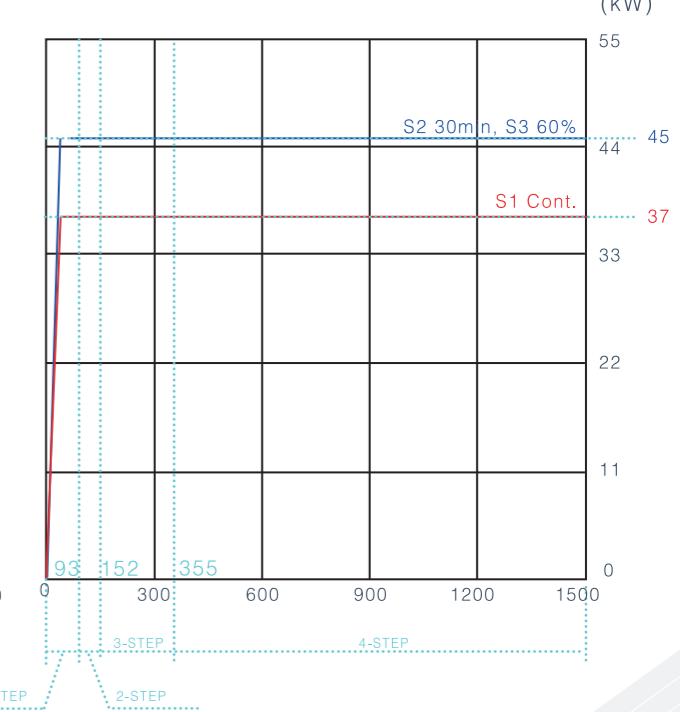
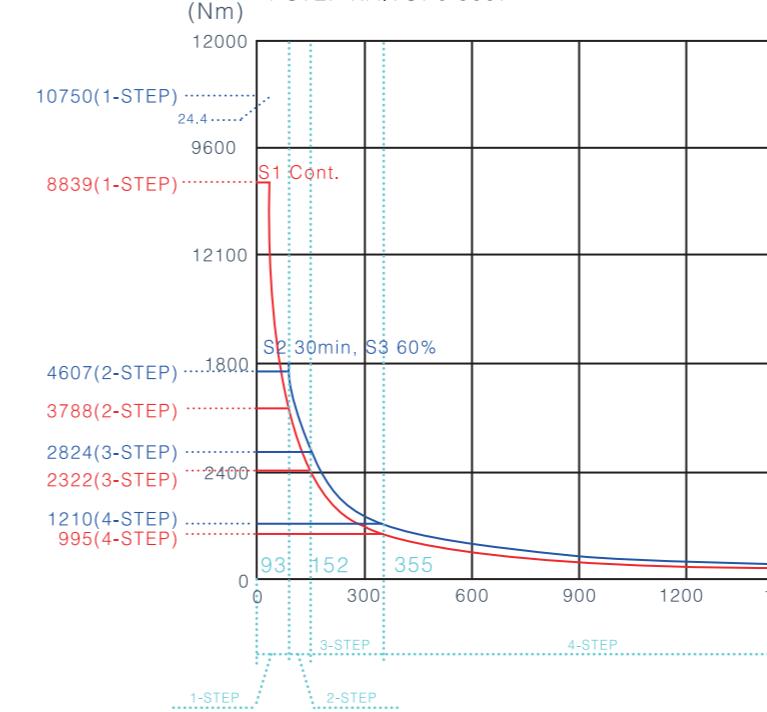
Spindle: A2-20  
Spindle bore: Φ360mm  
Spindle gearbox: 2-speed  
Spindle motor: α30i(30/37kW)



Spindle Torque  
Motor Power  
STEP1-30min. operation zone  
STEP2-30min. operation zone  
STEP3-30min. operation zone  
STEP4-Continuous  
STEP5-Continuous  
STEP6-Continuous

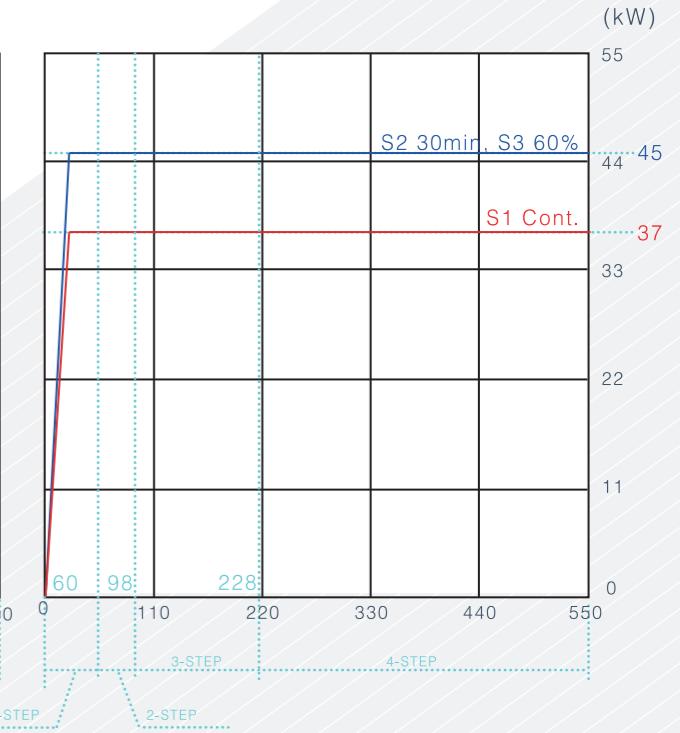
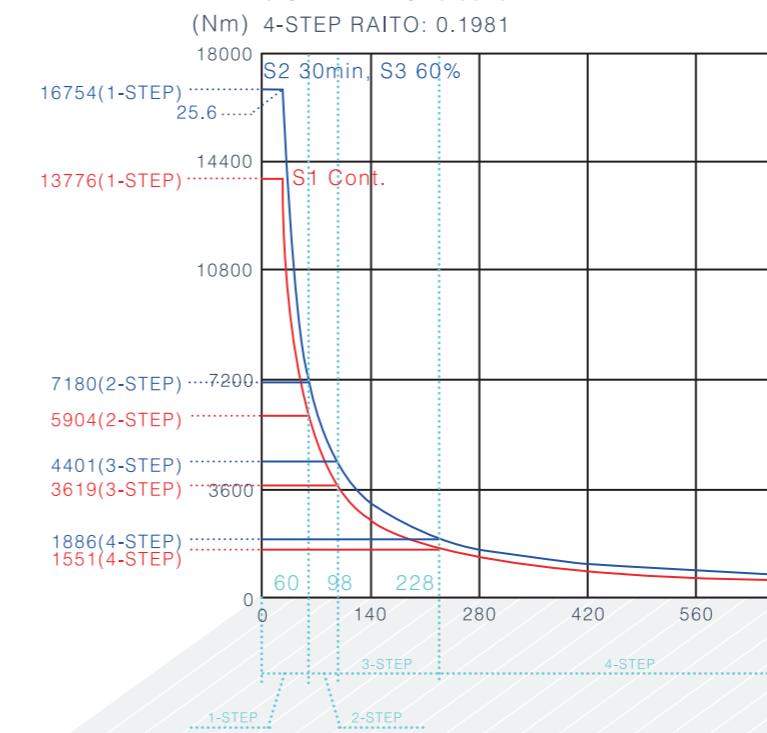
TC-50

A2-11 a40i+Gear box P-T Chat  
1-STEP RAITO: 0.0348  
2-STEP RAITO: 0.0811  
3-STEP RAITO: 0.1323  
4-STEP RAITO: 0.3087



SPINDLE SPEED (rpm)

A2-15 a40i+Gear box P-T Chat  
1-STEP RAITO: 0.0223  
2-STEP RAITO: 0.0520  
3-STEP RAITO: 0.0849  
4-STEP RAITO: 0.1981



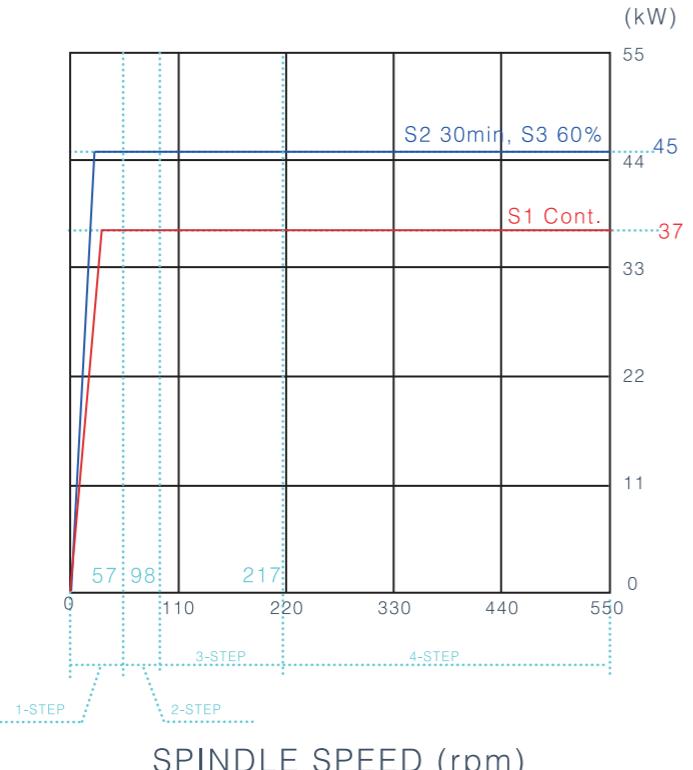
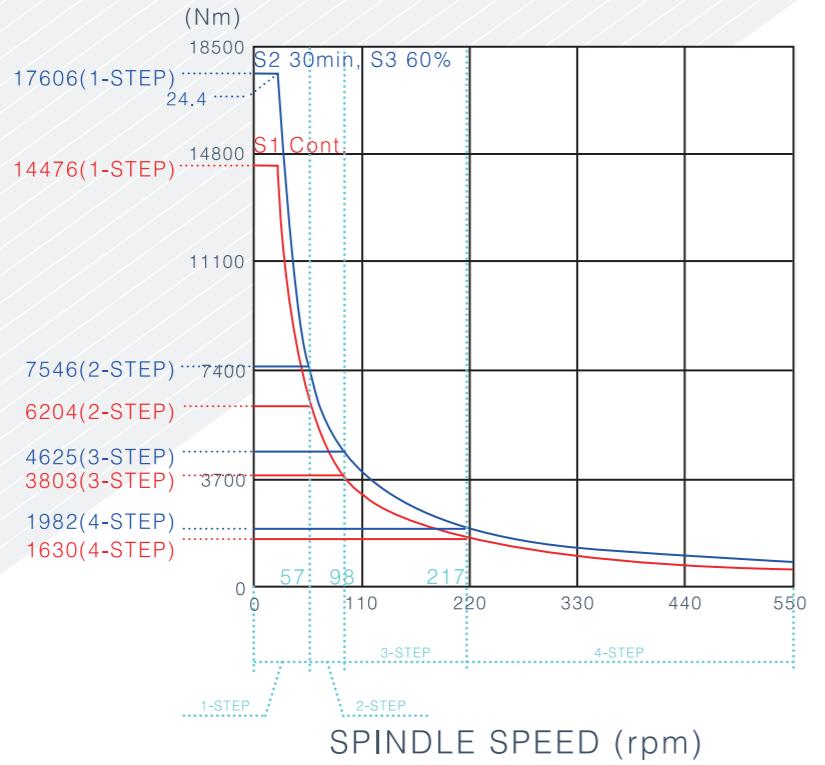
SPINDLE SPEED (rpm)

# SPINDLE OUTPUT / TORQUE DIAGRAM

TC-50

A2-20 a40i+Gear box P-T Chat

1-STEP RAITO: 0.0212  
2-STEP RAITO: 0.0495  
3-STEP RAITO: 0.0808  
4-STEP RAITO: 0.1885



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# TC SPECIFICATIONS

MODEL	ITEM	UNIT	TC-35		
			TC-35L08	TC-35L15	TC-35L23
Capacity	Swing over bed	mm(in)		Ø660 (25.98")	
	Swing over cross slide	mm(in)		Ø480 (18.9")	
	Max turning diameter	mm(in)		Ø500 (19.68")	
	Spindle nose between center	mm(in)	943 (37.13")	1703 (67.05")	2463 (96.85")
	Working length	mm(in)	Following working length are based on A2-8, 12" hydraulic 3 jaw hollow chuck		
Spindle			760 (29.92")	1520 (59.8")	2280 (89.76")
	Spindle nose	ISO	STD.: A2-8 / OPT.: A2-11		
	Spindle bore	mm(in)	STD.: Ø105 (4.13") / OPT.: A2-11: Ø131 (5.15"), Ø165 (6.5")		
	Bar capacity	mm(in)	STD.: Ø89 (3.5") / OPT.: A2-11: Ø117 (4.6"), Ø142 (5.6")		
	Max. spindle speed	rpm	STD.: 2500 / OPT.: 2000, 1650		
	Spindle gearbox step		2		
Chuck	Living tools speed	rpm	OPT.: 0 ~ 3000		
	Hydraulic chuck size	mm(in)	STD.: 12" / OPT.: 15", 15"		
Turret	Station	Station	STD.: 10 / OPT.: 12		
	O.D. tooling	mm(in)	STD.: 32 (1.25") / OPT.: 25 (1")		
	I.D. tooling	mm(in)	Ø50 (2")		
X/Z axis	X axis travel	mm(in)	250+25 (9.84"+1")		
	Z axis travel	mm(in)	860 (33.85")	1620 (63.78")	2380 (93.7")
	Rapid speed (X axis)	m/min	12		
	Rapid speed (Z axis)	m/min	15 / 15 / 15		
	Cutting feed rate	mm/min	0.001 ~ 500		
Motor	Spindle (cont. / 30 min.)	kW(HP)	22 (29.5) / 26 (34.9)		
	X axis	kW(HP)	4 (5.3)		
	Z axis	kW(HP)	4 (5.3)		
	Hydraulic pump	kW(HP)	2.2 (3)		
	Coolant pump	kW(HP)	0.75 (1)		
Tailstock	Type	—	Programmable		
	Tailstock travel	mm(in)	650 (25.59")	1410 (55.51")	2170 (85.43")
	Quill type	—	STD.: Stable / OPT.: Revolve		
	Quill stroke	mm(in)	100 mm (3.94")		
	Quill dia.	mm(in)	Ø110 mm (4.33")		
	Taper of center	MT	NO.5		
Tank capacity	Hydraulic	Litres	80		
	Coolant tank	Litres	480	580	680
Dimension	L*W*H	mm(in)	5304x2130x2235	6064x2130x2235	6824x2130x2235
			208.81"x83.85"x88"	238.74"x83.85"x88"	268.66"x83.85"x88"
	NW/GW	kgs	10030/11140	11300/13160	13700/15700

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# TC SPECIFICATIONS

MODEL	ITEM	UNIT	TC-35				
			TC-35L30	TC-35L40	TC-35L50	TC-35L60	TC-35L70
Capacity	Swing over bed	mm(in)	$\varnothing 660$ (25.98")				
	Swing over cross slide	mm(in)	$\varnothing 480$ (18.9")				
	Max turning diameter	mm(in)	$\varnothing 500$ (19.68")				
	Spindle nose between center	mm(in)	3223 (126.89")	4223 (166.26")	5223 (205.63")	6223 (245")	7223(284.37")
	Working length	mm(in)	Following working length are based on A2-8, 12" hydraulic 3 jaw hollow chuck				
Spindle			3040 (119.68")	4040 (159.05")	5040 (198.42")	6040 (237.79")	7040(277.16")
	Spindle nose	ISO	STD.: A2-8 / OPT.: A2-11				
	Spindle bore	mm(in)	STD.: $\varnothing 105$ (4.13") / OPT.: A2-11: $\varnothing 131$ (5.15"), $\varnothing 165$ (6.5")				
	Bar capacity	mm(in)	STD.: $\varnothing 89$ (3.5") / OPT.: A2-11: $\varnothing 117$ (4.6"), $\varnothing 142$ (5.6")				
	Max. spindle speed	rpm	STD.: 2500 / OPT.: 2000, 1650				
	Spindle gearbox step		2				
Chuck	Living tools speed	rpm	OPT.: 0 ~ 3000				
	Hydraulic chuck size	mm(in)	STD.: 12" / OPT.: 15", 15"				
Turret	Station	Station	STD.: 10 / OPT.: 12				
	O.D. tooling	mm(in)	STD.: 32 (1.25") / OPT.: 25 (1")				
	I.D. tooling	mm(in)	$\varnothing 50$ (2")				
X/Z axis	X axis travel	mm(in)	250+25 (9.84"+1")				
	Z axis travel	mm(in)	3140 (123.62")	4140 (163")	5140 (202.36")	6140 (241.73")	7140 (281.10")
	Rapid speed (X axis)	m/min	12				
	Rapid speed (Z axis)	m/min	12 / 8 / 8 / 8 / 8				
	Cutting feed rate	mm/min	0.001 ~ 500				
Motor	Spindle (cont. / 30 min.)	kW(HP)	22 (29.5) / 26 (34.9)				
	X axis	kW(HP)	4 (5.3)				
	Z axis	kW(HP)	4 (5.3)				
	Hydraulic pump	kW(HP)	2.2 (3)				
	Coolant pump	kW(HP)	0.75 (1)				
Tailstock	Type	—	Programmable				
	Tailstock travel	mm(in)	2930 (115.35")	3930 (154.72")	4930 (194.09")	5930 (233.46")	6930 (272.83")
	Quill type	—	STD.: Stable / OPT.: Revolve				
	Quill stroke	mm(in)	100 mm (3.94")				
	Quill dia.	mm(in)	$\varnothing 110$ mm (4.33")				
	Taper of center	MT	NO.5				
Tank capacity	Hydraulic	Litres	80				
	Coolant tank	Litres	780	910	1040	1170	1350
Dimension	L*W*H	mm(in)	7584x2290x2565	8155x2290x2565	9300x2290x2565	10325x2290x2565	11700x2290x2565
			298.58"x90.16"x100.98"	321.06"x90.16"x00.98"	366.14"x90.16"x100.98"	406.5"x90.16"x100.98"	460.5"x90.16"x100.98"
	NW/GW	kgs	16300/18700	17500/19200	19000/21000	21000/23000	24500/26500

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TC-40							
TC-40L08	TC-40L15	TC-40L23	TC-40L30	TC-40L40	TC-40L50	TC-40L60	TC-40L70
$\varnothing 850$ (33.45")					$\varnothing 660$ (26")		
$\varnothing 710$ (27.95")					Following working length are based on A2-8, 12" hydraulic 3 jaw hollow chuck		
943 (37.13")	1703 (67.05")	2463 (96.85")	3223 (126.89")	4223 (166.26")	5223 (205.63")	6223 (245")	7223 (284.37")
Following working length are based on A2-8, 12" hydraulic 3 jaw hollow chuck					760 (29.92")	1520 (59.8")	2280 (89.76")
STD.: A2-8 / OPT.: A2-11 / A2-15					STD.: $\varnothing 105$ (4.13") / OPT.: A2-11: $\varnothing 131$ (5.15"), $\varnothing 165$ (6.5") / A2-15: $\varnothing 180$ (7.08")		
STD.: $\varnothing 89$ (3.5") / OPT.: A2-11: $\varnothing 117$ (4.6"), $\varnothing 142$ (5.6") / A2-15: $\varnothing 166$ (6.53")					STD.: 2500 / OPT.: 2000, 1650 / 1300		
2					OPT.: 0 ~ 3000		
STD.: 12" / OPT.: 15", 15" / 18"					STD.: 10 / OPT.: 12		
STD.: 32 (1.25") / OPT.: 25 (1")					$\varnothing 50$ (2")		
355+25 (13.97"+1")					12		
860 (33.85")	1620 (63.78")	2380 (93.7")	3140 (123.62")	4140 (163")	5140 (202.36")	6140 (241.73")	7140 (281.10")
15 / 15 / 15 / 10 / 8 / 8 / 8 / 8					0.001 ~ 500		
22 (29.5) / 26 (34.9)					22 (29.5) / 26 (34.9)		
4 (5.3)					4 (5.3)		
4 (5.3)					4 (5.3)		
2.2 (3)					2.2 (3)		
0.75 (1)					0.75 (1)		
Programmable					Programmable		
650 (25.59")	1410 (55.51")	2170 (85.43")	2930 (115.35")	3930 (154.72")	4930 (194.09")	5930 (233.46")	6930 (272.83")
STD.: Stable / OPT.: Rvolve					100 mm (3.94")		
STD.: $\varnothing 110$ mm (4.33") / OPT.: $\varnothing 160$ mm (6.29")					NO.5		
80					80		
480	580	680	780	910	1040	1170	1350
5304x2130x2235	6064x2130x2235	6824x2130x2235	7584x2290x2565	8155x2290x2565	9300x2290x2565	10325x2290x2565	11700x2290x2565
208.81"x83.85"x88"	238.74"x83.85"x88"	268.66"x83.85"x88"	298.58"x90.16"x100.98"	321.06"x90.16"x100.98"	366.14"x90.16"x100.98"	406.5"x90.16"x100.98"	460.5"x90.16"x100.98"
11500/11950	12100/						

# TC SPECIFICATIONS

MODEL	ITEM	UNIT	TC-45					
			TC-45L12	TC-45L17	TC-45L22	TC-45L32	TC-45L42	TC-45L52
Capacity	Swing over bed	mm(in)	$\varnothing 970$ (38.1")					
	Swing over cross slide	mm(in)	$\varnothing 720$ (28.3")					
	Max turning diameter	mm(in)	$\varnothing 850$ (33.4")					
	Spindle nose between center	mm(in)	1570 (61.81")	2070 (81.5")	2570 (101.18")	3530 (138.98")	4470 (175.98")	5470 (215.35")
	Working length	mm(in)	Following working length are based on optional item A2-11, 15" hydraulic 3 jaw hollow chuck					
Spindle			1130 (44.48")	1630 (64.17")	2130 (83.85")	3090 (121.65")	4030 (158.66")	5030 (198.03")
	Spindle nose	ISO	STD.: A2-11 / OPT.: A2-15 / A2-20					
	Spindle bore	mm(in)	STD.: $\varnothing 160$ (6.3") / OPT.: A2-15: $\varnothing 230$ (9") / A2-20: $\varnothing 320$ (12.59"), $\varnothing 360$ (14.17")					
	Bar capacity	mm(in)	OPT.: A2-11: $\varnothing 142$ (5.6"), A2-15: $\varnothing 205$ (8.07") / A2-20: Deped. On Chuck					
	Max. spindle speed	rpm	STD.: 1500 / OPT: 700, 550, 450					
Chuck	Spindle gearbox step		3					
	Living tools speed	rpm	OPT.: 0 ~ 3000					
	Hydraulic chuck size	mm(in)	OPT.: 15" / 24" / --- , ---					
	Station	Station	12					
	O.D. tooling	mm(in)	32 (1.25")					
Turret	I.D. tooling	mm(in)	$\varnothing 50$ (2")					
	X axis travel	mm(in)	425+25 (16.7"+1")					
	Z axis travel	mm(in)	1250 (49.21")	1750 (68.89")	2250 (88.58")	3210 (126.37")	4150 (163.38")	5150 (202.75")
	Rapid speed (X axis)	m/min	12					
	Rapid speed (Z axis)	m/min	15 / 15 / 15 / 10 / 8 / 8					
X/Z axis	Cutting feed rate	mm/min	0.001 ~ 500					
	Spindle (cont. / 30 min.)	kW(HP)	30 (40) / 37 (39)					
	X axis	kW(HP)	4 (5.4)					
	Z axis	kW(HP)	7 (9.4)					
	Hydraulic pump	kW(HP)	3.75 (5)					
Motor	Coolant pump	kW(HP)	0.75 (1)					
	Type	—	Programmable					
	Tailstock travel	mm(in)	950 (37.4")	1450 (57")	1950 (76.7")	2910 (114.56")	3850 (151.57)	4850 (190.94)
	Quill type	—	STD.: Stable / OPT.: Revolve					
	Quill stroke	mm(in)	160 mm (6.3")					
Tailstock	Quill dia.	mm(in)	$\varnothing 160$ mm (6.3")					
	Taper of center	MT	NO.6					
	Hydraulic	Litres	80					
	Coolant tank	Litres	520	600	670	810	950	1050
	L*W*H	mm(in)	6160x2230x2445	6660x2230x2445	7160x2230x2445	8160x2390x2775	9160x2390x2775	10160x2390x2775
Dimension			242.5"x87.7"x96.2"	262.2"x87.7"x96.2"	281.1"x87.8"x96.2"	321"x94.09"x109.25"	360.1"x94.09"x109.25"	4001"x94.09"x109.25"
	NW/GW	kgs	14200/15000	14950/15700	15700/16700	18400/19900	20100/22100	21900/23700

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TC-45			TC-50					
TC-45L62	TC-45L72	TC-50L22	TC-50L32	TC-50L42	TC-50L52	TC-50L62	TC-50L72	
				$\varnothing 1100$ (43")				
				$\varnothing 940$ (37")				
				$\varnothing 1020$ (40")				
6470 (254.72")	7470 (294.1")	2380 (90.7")	3370 (132.68")	4300 (169.29")	5290 (208.27")	6290 (247.64")	7290 (287.01")	
Following working length are based on optional item A2-11, 15" hydraulic 3 jaw hollow chuck								
6030 (237.4")	7030 (276.77")	2150 (86.65")	3140 (123.62")	4075 (160.43")	5055 (199.02")	6055 (238.39")	7055 (277.76")	
		STD.: A2-11 / OPT.: A2-15 / A2-20						
		STD.: $\varnothing 160$ (6.3") / OPT.: A2-15: $\varnothing 230$ (9") / A2-20: $\varnothing 320$ (12.59"), $\varnothing 360$ (14.17")						
		OPT.: A2-11: $\varnothing 142$ (5.6"), A2-15: $\varnothing 205$ (8.07") / A2-20: Deped. On Chuck						
		STD.: 1500 / OPT.: 700, 550, 450						
		4						
		OPT.: 0 ~ 3000						
		OPT.: 15" / 24" / --- , ---						
		12						
		32 (1.25")						
		$\varnothing 50$ (2")						
		510+25 (20"+1")						
		6150 (242.13")	7150 (281.5")	2260 (88.97")	3220 (126.77")	4090 (161.02")	5070 (199.61")	6070 (238.98")
		12						
		8 / 8		15 / 10 / 8 / 8 / 8 / 8				
		500						
		37 (49.6) / 45 (60.3)						

# TC-Y SPECIFICATIONS

MODEL	ITEM	UNIT	TC-40Y		
			TC-40YL08	TC-40YL15	TC-40YL23
Capacity	Swing over bed	mm(in)		Ø850 (33.45")	
	Swing over cross slide	mm(in)		Ø660 (261")	
	Max turning diameter	mm(in)		Ø530 (20.87")	
	Spindle nose between center	mm(in)	943 (37.13")	1703 (67.05")	2463 (96.85")
	Working length	mm(in)	682 (26.85")	1442 (56.77")	2202 (86.69")
Spindle	Spindle nose	ISO	STD.: A2-8 / OPT.: A2-11 / A2-15		
	Spindle bore	mm(in)	STD.: Ø105 (4.13") / OPT.: A2-11: Ø131 (5.15"), Ø165 (6.5") / A2-15: Ø180 (7.08")		
	Bar capacity	mm(in)	STD.: Ø89 (3.5") / OPT.: A2-11: Ø117 (4.6"), Ø142 (5.6") / A2-15: Ø166 (6.53")		
	Max. spindle speed	rpm	STD.: 2500 / OPT.: 2000, 1650 / 1300		
	Spindle gearbox step		2		
Turret	Turret type	-	VDI 40		
	Tool station	-	12 Tools		
	O.D. Tooling	mm(in)	25 (1")		
	I.D. Tooling	mm(in)	40 (1.5")		
	Living tools speed	rpm	4000		
X/Y/Z axis	X axis travel	mm(in)	265+55 (10.43"+2.17")		
	Y axis travel	mm(in)	±80 (3.15")		
	Z axis travel	mm(in)	783 (30.83")	1543 (60.75")	2303 (90.67")
	Rapid speed (X axis)	m/min	12		
	Rapid speed (Y axis)	m/min	8		
	Rapid speed (Z axis)	m/min	15 / 15 / 15		
	Cutting feed rate	mm/min	0.001 ~ 500		
	Main Spindle (30 min. Rating)	kW(HP)	22 (29.5) / 26 (34.9)		
Motor	X Axis	kW(HP)	4 (5.3)		
	Z Axis	kW(HP)	4 (5.3)		
	Y Axis	kW(HP)	1.6 (2.15)		
	Hydraulic pump	kW(HP)	2.2 (3)		
	Coolant pump	W(HP)	0.75 (1)		
	Type	-	Programmable		
Tailstock	Tailstock travel	mm(in)	687 (27.05")	1447 (56.97")	2207 (86.89")
	Quill type	-	STD.: Stable / OPT.: Rvolve		
	Quill stroke	mm(in)	100 (3.94")		
	Quill dia.	mm(in)	STD.: Ø110 (4.33") / OPT.: Ø160 (6.29")		
	Taper of center	MT	NO.5		
	Hydraulic	Litres	80		
Tank capacity	Coolant tank	Litres	4800	580	680
	Dimension	L*W*H mm(in)	3800x2200x2650	4500x2200x2650	5300x2200x2650
			149.6"x86.6"x104.3"	177.2"x86.6"x104.3"	208.7"x86.6"x104.3"
	NW/GW	kgs	13000/13450	14500/16000	16000/17500

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TC-40Y				
TC-40YL30	TC-40YL40	TC-40YL50	TC-40YL60	TC-40YL70
		Ø850 (33.45")		
		Ø660 (261")		
		Ø530 (20.87")		
3223 (126.89")	4223 (166.26")	5223 (205.63")	6223 (245")	7223 (284.37")
2962 (116.61")	3962 (155.98")	4962 (195.35")	5962 (234.72")	6962 (274.09")
STD.: A2-8 / OPT.: A2-11 / A2-15				
STD.: Ø105 (4.13") / OPT.: A2-11: Ø131 (5.15"), Ø165 (6.5") / A2-15: Ø180 (7.08")				
STD.: Ø89 (3.5") / OPT.: A2-11: Ø117 (4.6"), Ø142 (5.6") / A2-15: Ø166 (6.53")				
STD.: 2500 / OPT.: 2000, 1650 / 1300				
		2		
		VDI 40		
		12 Tools		
		25 (1")		
		40 (1.5")		
		4000		
		265+55 (10.43"+2.17")		
		±80 (3.15")		
3063 (120.59")	4063(159.96")	5063 (199.33")	6063 (238.7")	7063 (278.07")
		12		
		8		
		8 / 8 / 8 / 8		
		0.001 ~ 500		
		22 (29.5) / 26 (34.9)		
		4 (5.3)		
		4 (5.3)		
		1.6 (2.15)		
		2.2 (3)		
		0.75 (1)		
		Programmable		
2967 (116.81")	3967 (156.18")	4967 (195.55")	5967 (234.92")	6967 (274.29")
STD.: Stable / OPT.: Rvolve				
		100 (3.94")		
		STD.: Ø110 (4.33") / OPT.: Ø160 (6.29")		
		NO.5		
		80		
780	910	1040	1170	1350
6000x2550x3000	7000x2550x3000	8000x2550x3000	9000x2550x3000	10375x2550x3000
236.2"x100.4"x118.11"	275.6"x100.4"x118.11"	315"x100.4"x118.11"	354.3"x100.4"x118.11"	408.46"x100.4"x118.11"
17500/19500	21000/23000	24000/25500	27100/29000	30600/32500

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# TC-Y SPECIFICATIONS

Model	Item	Unit	TC-45Y					
			TC-45YL12	TC-45YL17	TC-45YL22	TC-45YL32	TC-45YL42	TC-45YL52
Capacity	Swing over bed	mm(in)	$\varnothing 1020$ (40.16")					
	Swing over cross slide	mm(in)	$\varnothing 890$ (35")					
	Max turning diameter	mm(in)	$\varnothing 720$ (28.3")					
	Spindle nose between center	mm(in)	1570 (61.81")	2070 (81.5")	2570 (101.18")	3530 (138.98")	4470 (175.98")	5470 (215.35")
	Working length	mm(in)	9808 (38.58")	1480 (58.27")	1980 (77.95")	2940 (115.75")	3880 (152.76")	4880 (192.13")
Spindle	Spindle nose	ISO	STD.: A2-11 / OPT.: A2-15 / A2-20					
	Spindle bore	mm(in)	STD.: $\varnothing 160$ (6.3") / OPT: A2-15: $\varnothing 230$ (9") / A2-20: $\varnothing 320$ (12.59"), $\varnothing 360$ (14.17")					
	Bar capacity	mm(in)	OPT.: A2-11: $\varnothing 142$ (5.6"), A2-15: $\varnothing 205$ (8.07") / A2-20: Deped. On Chuck					
	Max. spindle speed	rpm	STD.: 1500 / OPT.: 700, 550, 450					
	Spindle gearbox step		3					
Turret	Turret type	-	VDI50					
	Tool station	-	12 Tools					
	O.D. tooling	mm(in)	32 (1.25")					
	I.D. tooling	mm(in)	$\varnothing 60$ (2.36")					
	Living tools speed	rpm	4000					
X/Y/Z axis	X axis travel	mm(in)	360+50 (14.1"+1.97")					
	Y axis travel	mm(in)	$\pm 130$ (5.12")					
	Z axis travel	mm(in)	1210 (47.64")	1710 (67.32")	2210 (87")	3170 (124.8")	4110 (161.81")	5110 (201.18")
	Rapid speed (X axis)	m/min	12					
	Rapid speed (Y axis)	m/min	8					
	Rapid speed (Z axis)	m/min	15 / 15 / 15 / 10 / 8 / 8					
	Cutting feed rate	mm/min	0.001 ~ 500					
Motor	Main spindle (Continuous)	kW(HP)	30 (40) / 37 (49)					
	Main spindle (30 min. Rating)	kW(HP)	30( 40) / 37 (49)					
	X axis	kW(HP)	4 (5.3)					
	Z axis	kW(HP)	7 (9.4)					
	Y axis	kW(HP)	4 (5.3)					
	Hydraulic pump	kW(HP)	3.75 (5)					
	Coolant pump	W(HP)	0.75 (1)					
Tailstock	Type	-	Programmable					
	Tailstock travel	mm(in)	900 (35.43")	1400 (55.11")	1900 (74.8")	2860 (112.6")	3800 (149.6")	4800 (188.97")
	Quill type	-	STD.: Stable / OPT.: Rvolve					
	Quill stroke	mm(in)	160 mm (6.3")					
	Quill dia.	mm(in)	$\varnothing 160$ mm (6.3")					
	Taper of center	MT	NO.6					
Tank capacity	Hydraulic	Litres	80					
	Coolant tank	Litres	520	600	670	810	950	1050
Dimension	L*W*H	mm(in)	5440x2250x2760	5940x2250x2760	6440x2250x3090	7440x2570x3090	8440x2570x3090	9440x2570x3090
			214.2"x88.6"x108.7"	233.9"x88.6"x108.7"	253.5"x88.6"x121.65"	292.9"x101.2"x121.65"	332.3"x101.2"x121.65"	371.7"x101.2"x121.65"
	NW/GW	kgs	14000/14500	15550/16260	17090/18060	20200/21670	23300/25270	26400/28870

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## STANDARD ACCESSORIES

- Spindle oil cooler (TC-45/50)
  - 2-stages speed gearbox (TC-35/ 40)
  - Three stages speed gear head (TC-45)
  - Four stages speed gear head (TC-50)
  - Servo turret + 12 stations direct type turret disc
  - Manual tailstock + Stable quill + living center (TC-35)
  - Programmable tailstoc k+ Stable quill + living center (TC-40/45/50)
  - Working lamp
  - Heat exchanger of electric box cabinet
  - 6 bar coolant pump
  - Lubrication system
  - Chip conveyor and bucket
  - Three color alarm light
  - Tool box and tool kits

## OPTIONAL ACCESSORIES

- Larger spindle
  - Transformer
  - Programmable tailstock + stable quill + living center (TC-35)
  - Programmable tailstock + Rotary quill + stable center (TC-35/40/45/50)
  - Automatic tool setter
  - Cs /Cf axis + power turret
  - Larger hydraulic chuck
  - 60" height chip conveyor and bucket
  - TS / CE / CSA / UKCA electric control
  - Air conditioner for electrical cabinet
  - Larger spindle motor
  - High pressure coolant pump
  - Oil mist collector
  - Oil skimmer
  - Manual / Hydraulic steady rest
  - Sub spindle

TC-45Y		TC-50Y											
TC-45YL62	TC-45YL72	TC-50YL22	TC-50YL32	TC-50YL42	TC-50YL52	TC-50YL62	TC-50YL72						
$\varnothing 1020$ (40.16")		$\varnothing 1100$ (43")											
$\varnothing 890$ (35")		$\varnothing 1000$ (39.3")											
$\varnothing 720$ (28.3")		$\varnothing 900$ (35.4")											
6470 (254.72")	7470 (294.09")	2570 (101.18")	3530 (138.98")	4470 (175.98")	5470 (215.35")	6470 (254.7")	7470 (294.1")						
5880 (231.5")	6880 (270.87")	2078 (81.81")	3038 (119.60")	3978 (156.61")	4978 (195.98")	5978 (235.35")	6978 (274.7")						
STD.: A2-11 / OPT.: A2-15 / A2-20		STD: A2-11 / OPT.: A2-15 / A2-20											
STD.: $\varnothing 160$ (6.3") / OPT: A2-15: $\varnothing 230$ (9") / A2-20: $\varnothing 320$ (12.59"), $\varnothing 360$ (14.17")													
OPT.: A2-11: $\varnothing 142$ (5.6"), A2-15: $\varnothing 205$ (8.07") / A2-20: Deped. On Chuck													
STD.: 1500 / OPT.: 700, 550, 450		STD.: 1500 / OPT.: 700, 550, 450											
3		4											
VDI50		BMT-75											
12 Tools		12 Tools											
32 (1.25")		32 (1.25")											
$\varnothing 60$ (2.36")		$\varnothing 80$ (3.14")											
4000		3000											
360+50 (14.1"+1.97")		450+50 (17.7"+1.97")											
$\pm 130$ (5.12")		$\pm 150$ (5.9")											
6110 (240.55")	7110 (279.92")	2210 (87")	3170 (124.8")	4110 (161.81")	5110 (201.18")	6110 (240.55")	7110 (279.92")						
12		12											
8 / 8		8											
15 / 15 / 15 / 10 / 8 / 8 / 8		15 / 15 / 15 / 10 / 8 / 8											
0.001 ~ 500		0.001 ~ 500											
30 (40) / 37 (49)		37 (49.6) / 45 (60.3)											
30( 40) / 37 (49)		37 (49.6) / 45 (60.3)											
4 (5.3)		7 (9.4)											
7 (9.4)		7 (9.4)											
4 (5.3)		4 (5.3)											
3.75 (5)		3.75 (5)											
0.75 (1)		0.75 (1)											
Programmable		Programmable											
5740 (255.98")	6740 (265.35")	1900 (74.8")	2860 (112.6")	3800 (149.6")	4800 (188.97")	5900 (228.35")	6900 (267.72")						
STD.: Stable / OPT.: Rvolve		STD.: Stable / OPT.: Rvolve											
160 mm (6.3")		200 mm (7.87")											
$\varnothing 160$ mm (6.3")		$\varnothing 1200$ mm (7.87")											
NO.6		NO.6											
80		80											
1150	1250	670	810	950	1050	1150	1250						
10440x2645x3165	11440x2720x3240	6440x2570x3090	7440x2570x3090	8440x2570x3090	9440x2570x3090	10440x2570x3090	11440x2570x3090						
411"x1004.1"x124.61"	371.7"x107.1"x127.65"	253.5"x88.6"x121.65"	292.9"x101.2"x121.65"	332.3"x101.2"x121.65"	371.7"x101.2"x121.65"	411"x101.2"x121.65"	450.4"x101.2"x121.65"						
29500/22470	32600/28870	18500/20000	23500/27000	27500/31000	32500/36000	27500/31000	32500/36000						

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