

**QUASER**

*we cut faster*

# UX SERIES

# Value model

## UX300

Offer max. value for small parts up to  
Ø300 x 300 mm / 100 kg



# Value model

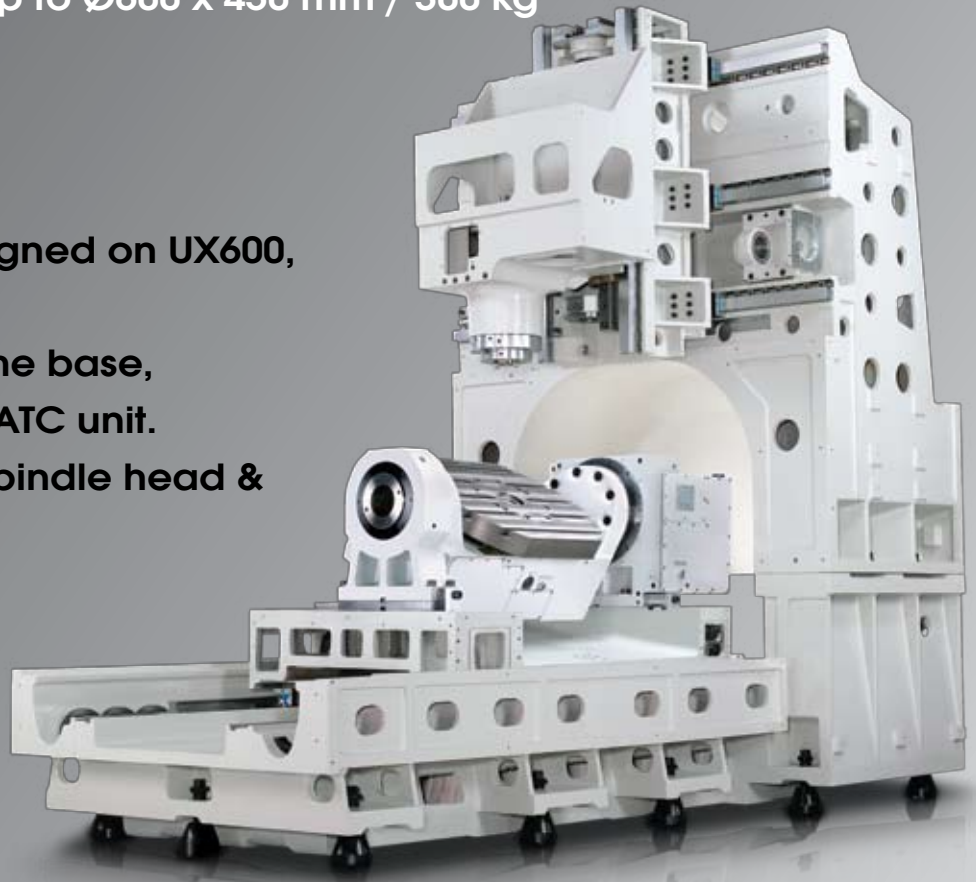
## UX600

equipped with proven mechanical swiveling-rotary table for working capacity up to  $\text{Ø}600 \times 450 \text{ mm}$  / 300 kg

Modular structure designed on UX600, UX730Dyn

All models use the same base, column, cross slider & ATC unit.

Major difference are spindle head & A/C axes table.



# Performance models

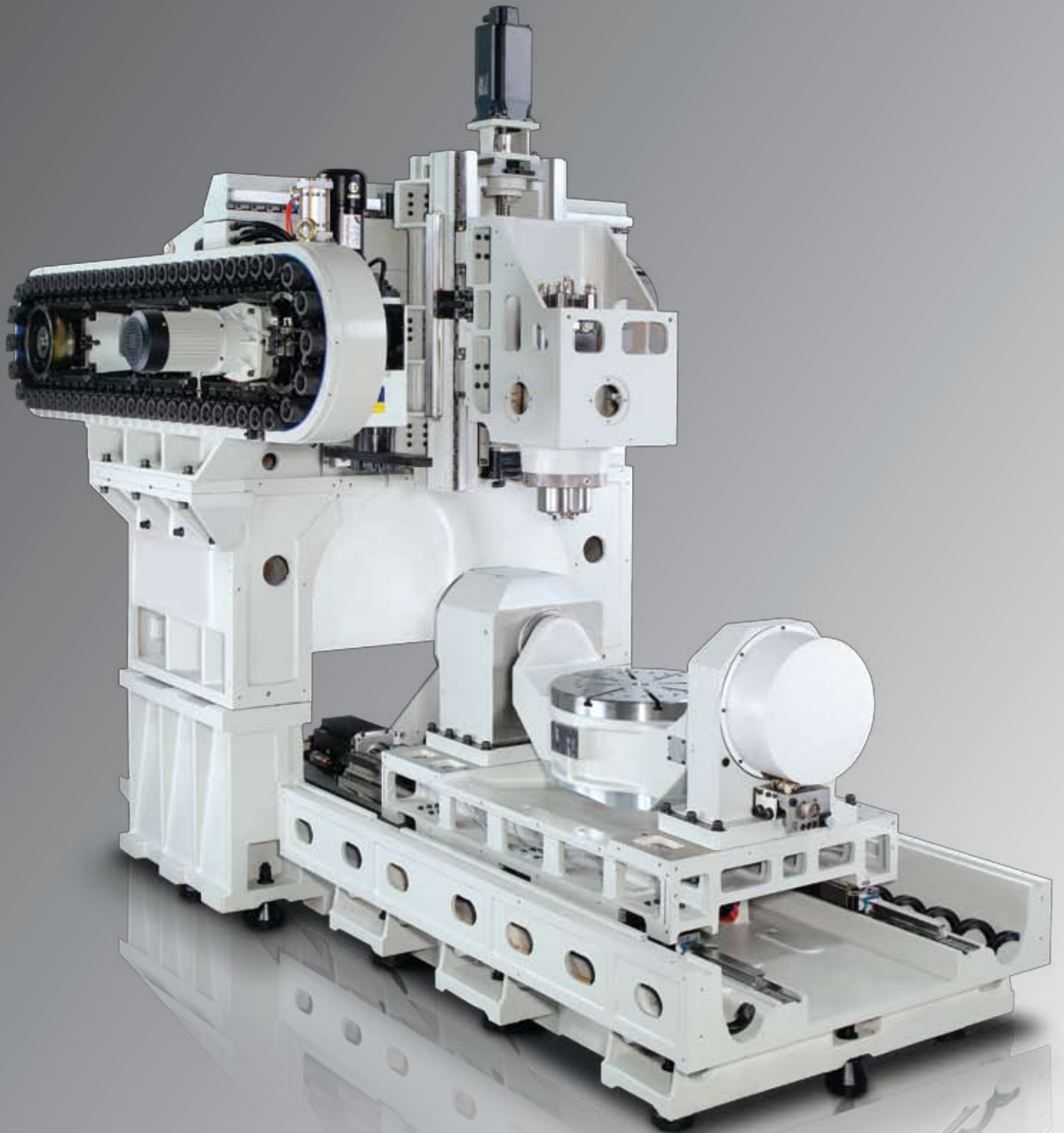
## UX730 Dyn

equipped with state-of-art torque motor on swiveling & rotary axes (joint developed with Kessler, de)

UX730Dyn:

Ø730 x 450 mm / 850 kg

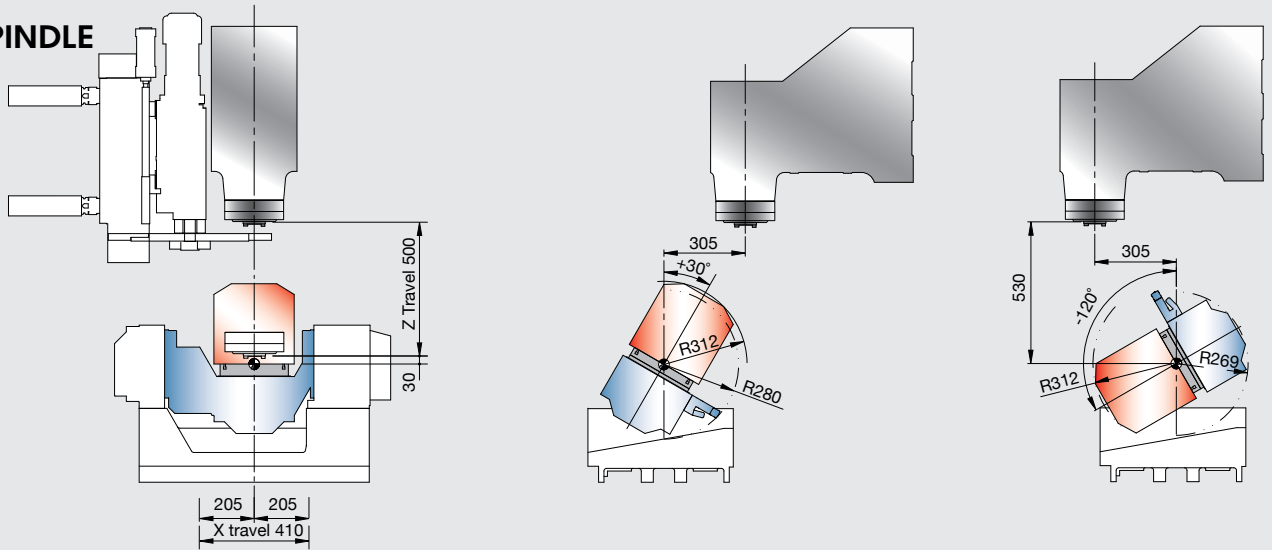




# Cutting area and interference

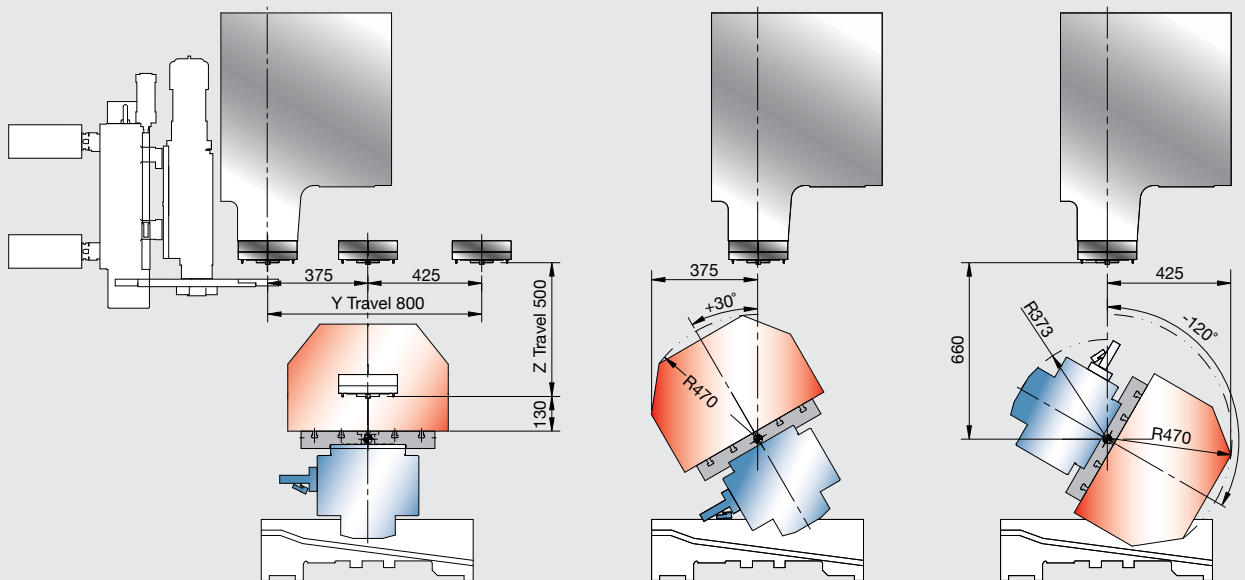
UX300

WB40R SPINDLE



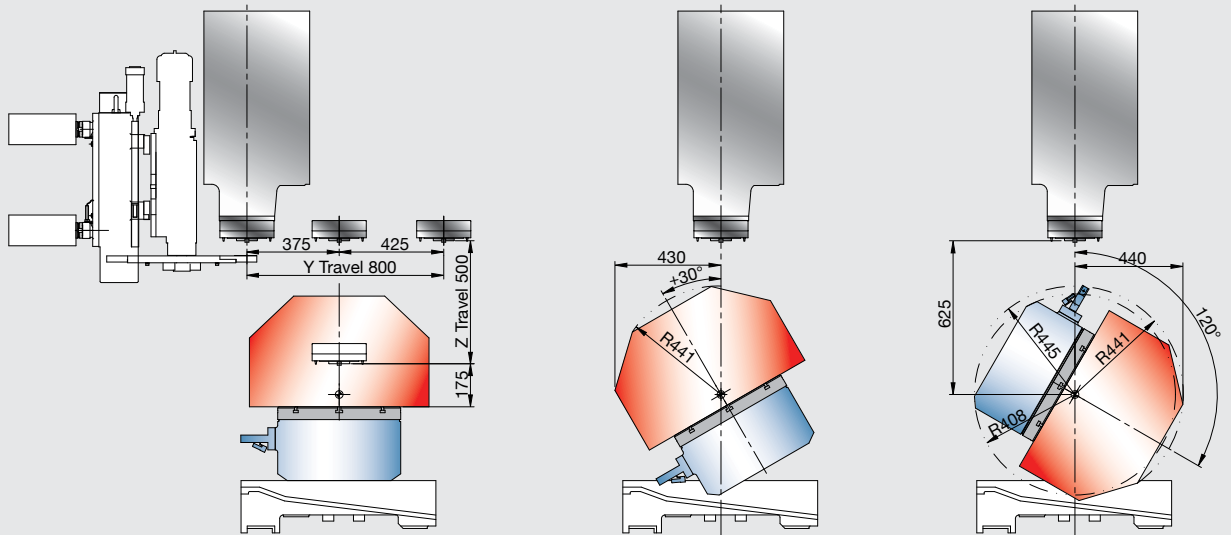
UX600

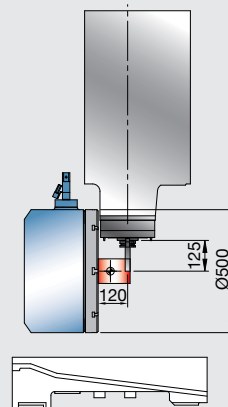
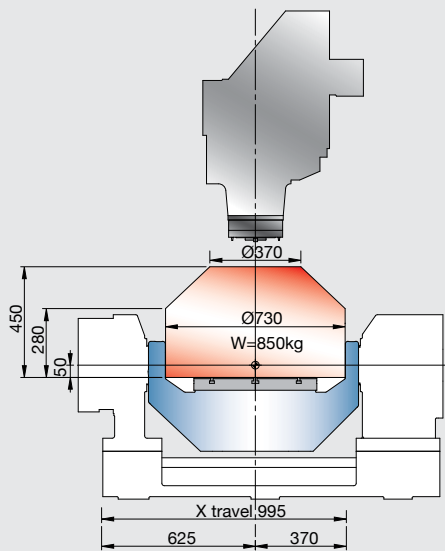
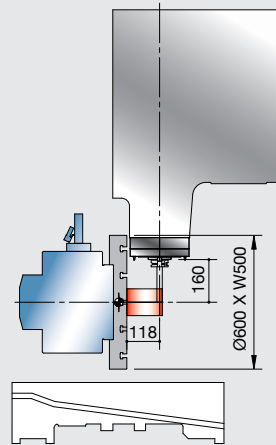
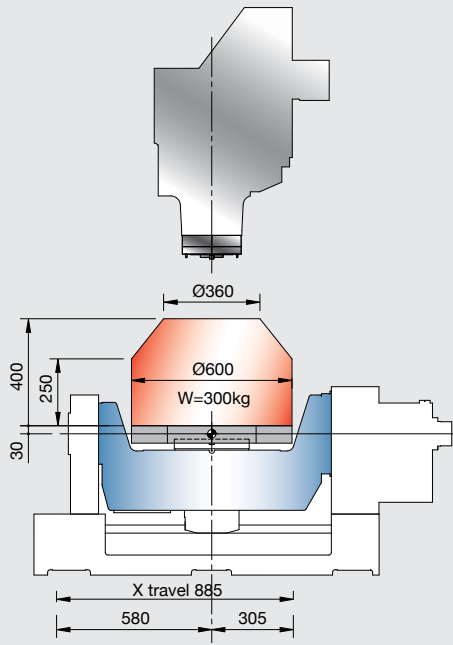
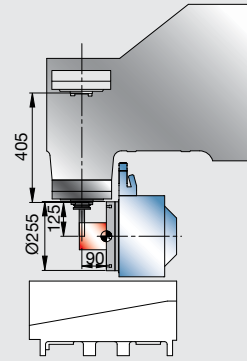
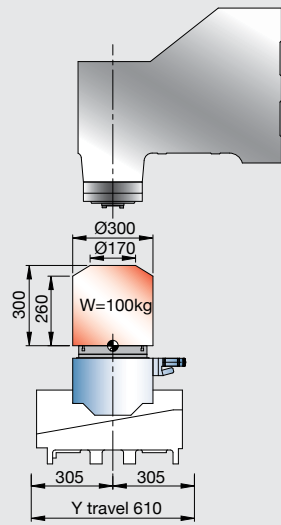
WB40R / NC40R SPINDLE



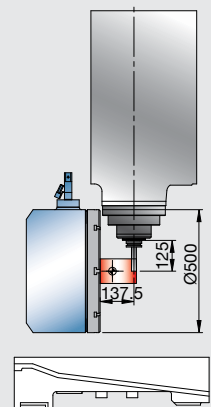
UX730Dyn

NC40R SPINDLE





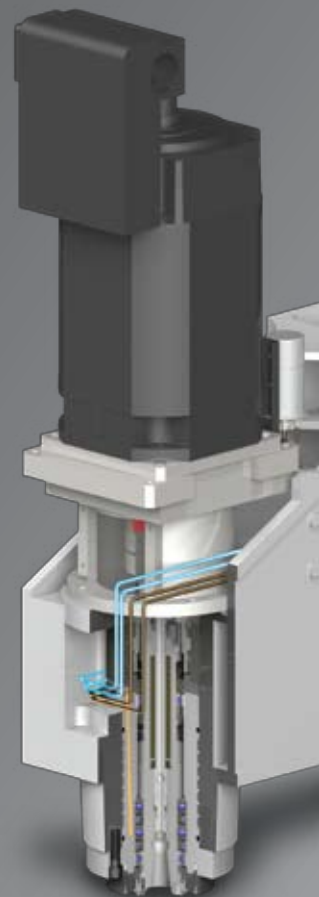
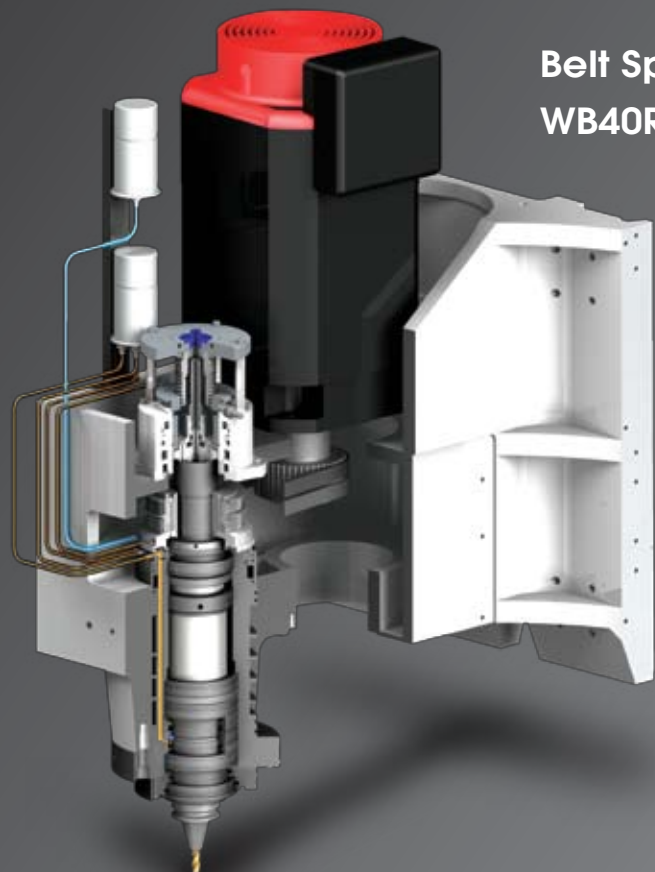
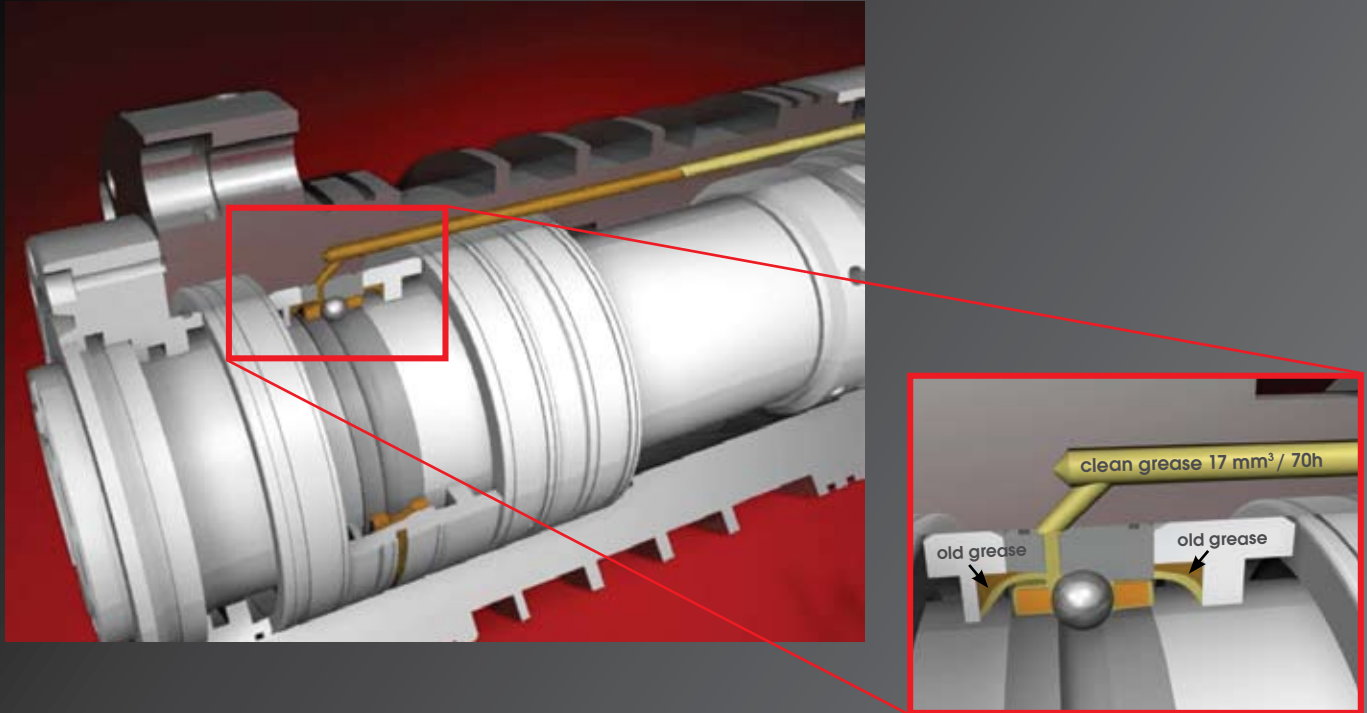
### BN15R/25R SPINDLE



# Unique spindle technology

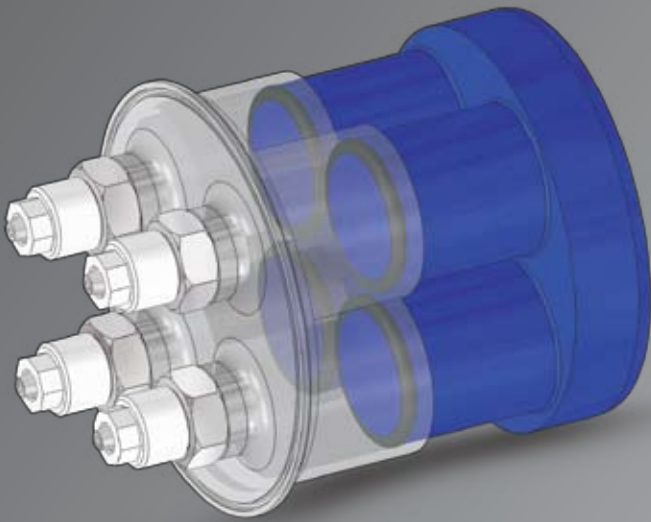
## Key principle

Use car industry re-greasing principle to supply “ clean grease”  
at 70 hr interval by  $17 \text{ mm}^3 / \text{shoot}$ .



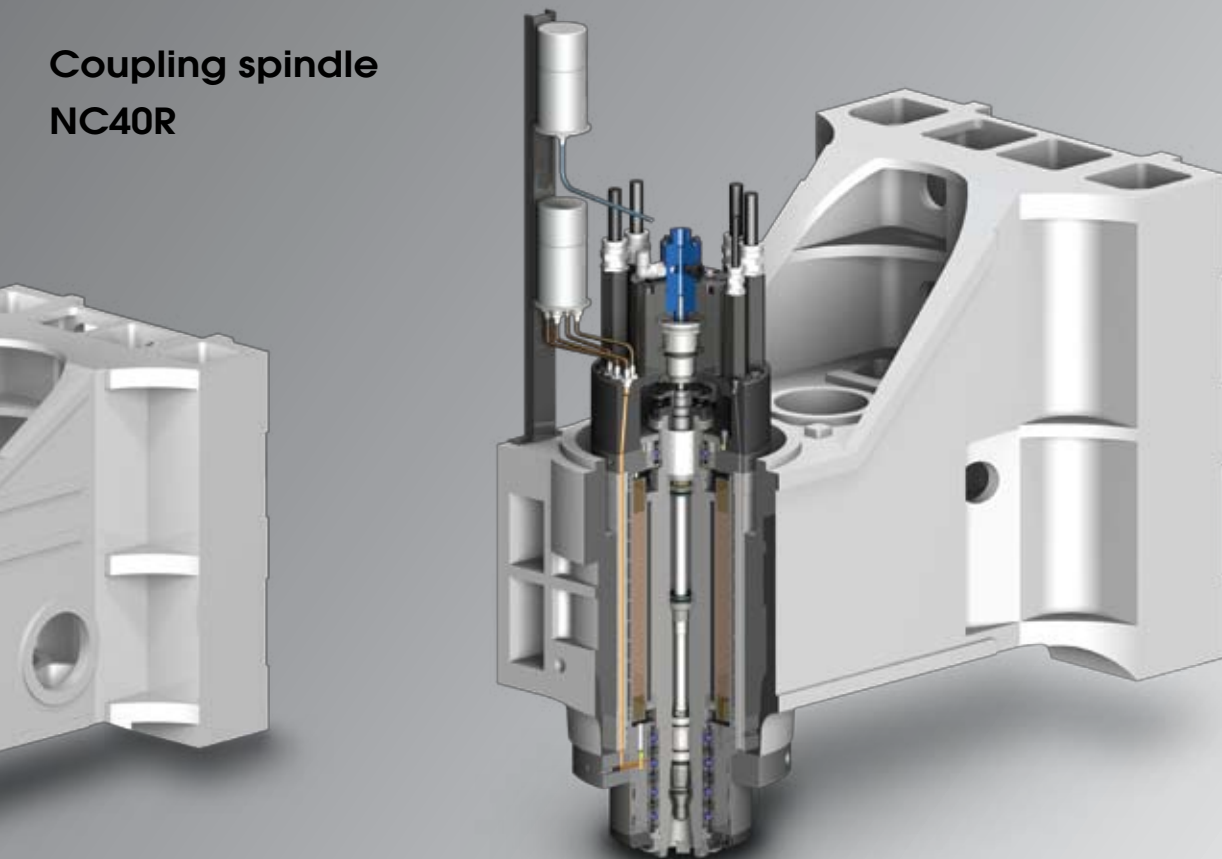


The grease chamber volume at 7.5 cm<sup>3</sup> can support 28,840 hr.  
This LUBCON unit service life at 3 years as minimum is guaranteed.



**Coupling spindle  
NC40R**

**Motor Spindle  
BN15R  
BN25R**

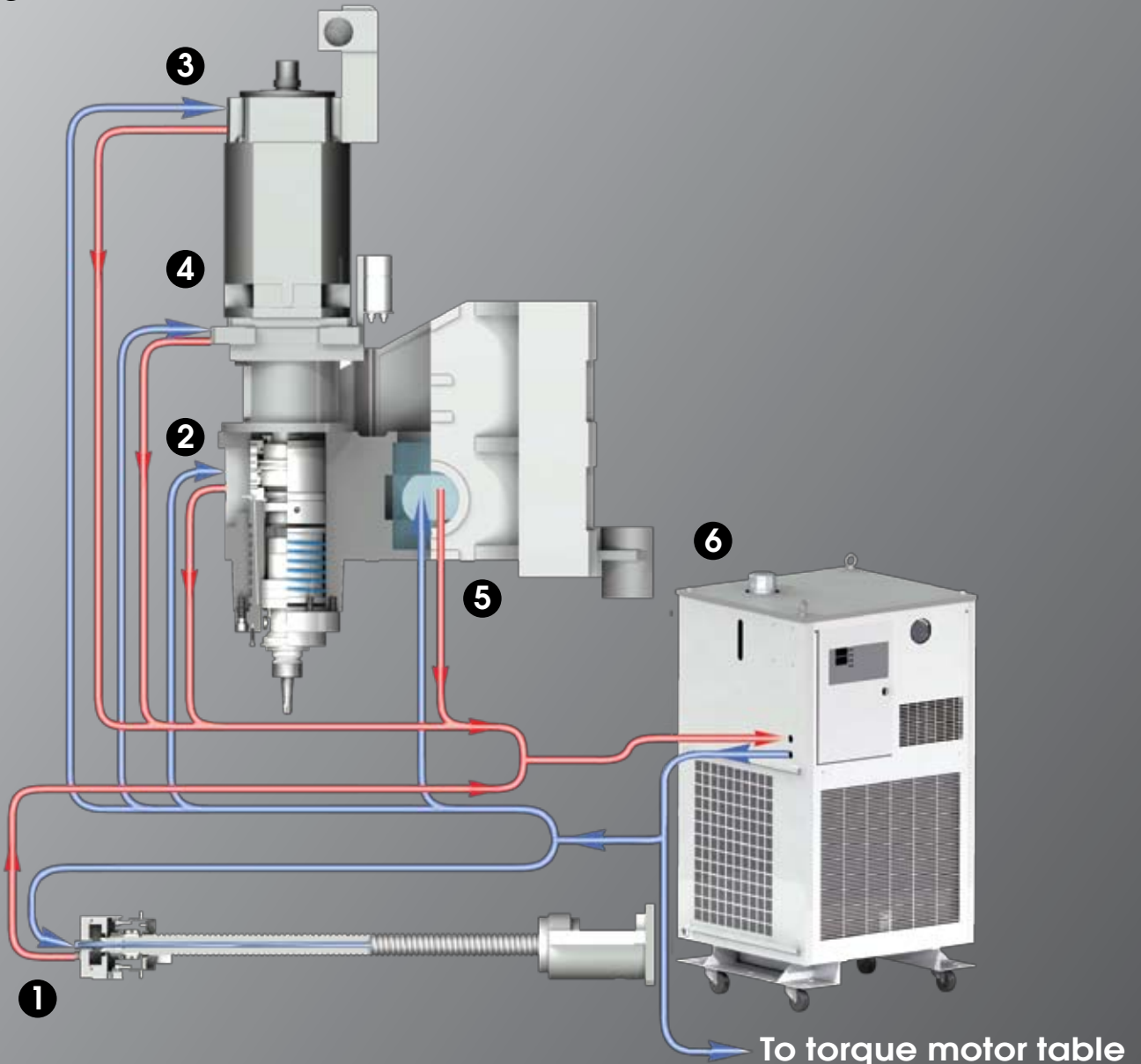


# Thermal management

To meet more and more severe “WORKING ACCURACY” requirements, our “THERMAL MANAGEMENT”:

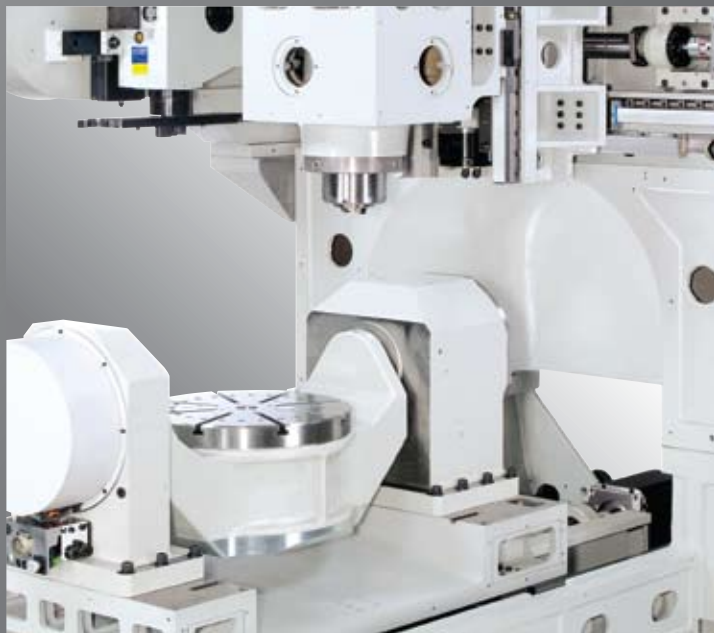
## LEVEL I - Standard

- ❶ Coolant through ball screw (CTB)  
To keep a). Under  $\pm 10 \mu\text{m}$  repeatability on X, Y & Z  
b). Stable rigidity on ball screw system
- ❷ Spindle cooling circuit
- ❸ Motor cooling circuit (for coupling spindle & motor spindle)
- ❹ Motor mounting block cooling circuit (for coupling spindle)
- ❺ Head stock cooling chamber (UX600, UX730)
- ❻ Large capacity oil cooler



## LEVEL II

- 7** Scale on X, Y, Z & C  
(Scale on A axis as standard)



- 8** Headstock thermal control X, Y & Z  $\pm 10 \mu\text{m}$

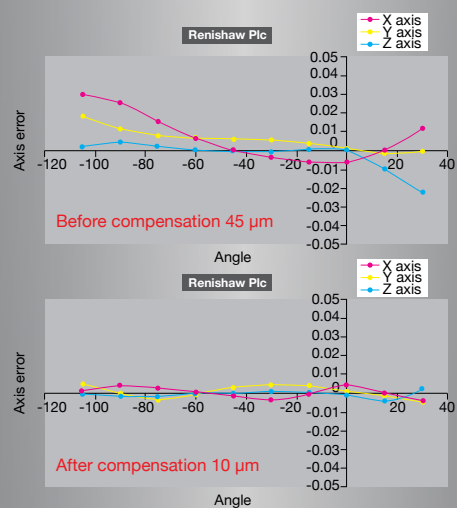


## LEVEL III

- 9** Laser measurement & compensation



- 10** Tilting volumetric compensation



# Work envelope

UX300	Rotary Axis (C - axis)	Tilting Axis (A - axis)	UX600	Rotary Axis (C - axis)	Tilting Axis (A - axis)
Max. swing (mm)	Ø300		Max. swing (mm)	Ø600	
Table load capacity (kg)	100		Table load capacity (kg)	300	
Maximum R.P.M	25 min <sup>-1</sup>	25 min <sup>-1</sup>	Maximum R.P.M	33.3 min <sup>-1</sup>	25 min <sup>-1</sup>
Indexing accuracy	15 sec (10 sec)	10 sec	Indexing accuracy	14 sec (10 sec)	10 sec
Repeatability	4 sec (2 sec)	4 sec	Repeatability	4 sec (2 sec)	4 sec
Clamping torque	686 Nm	1,372 Nm	Clamping torque	1,666 Nm	2,156 Nm

Note: () with optional absolute rotary encoder

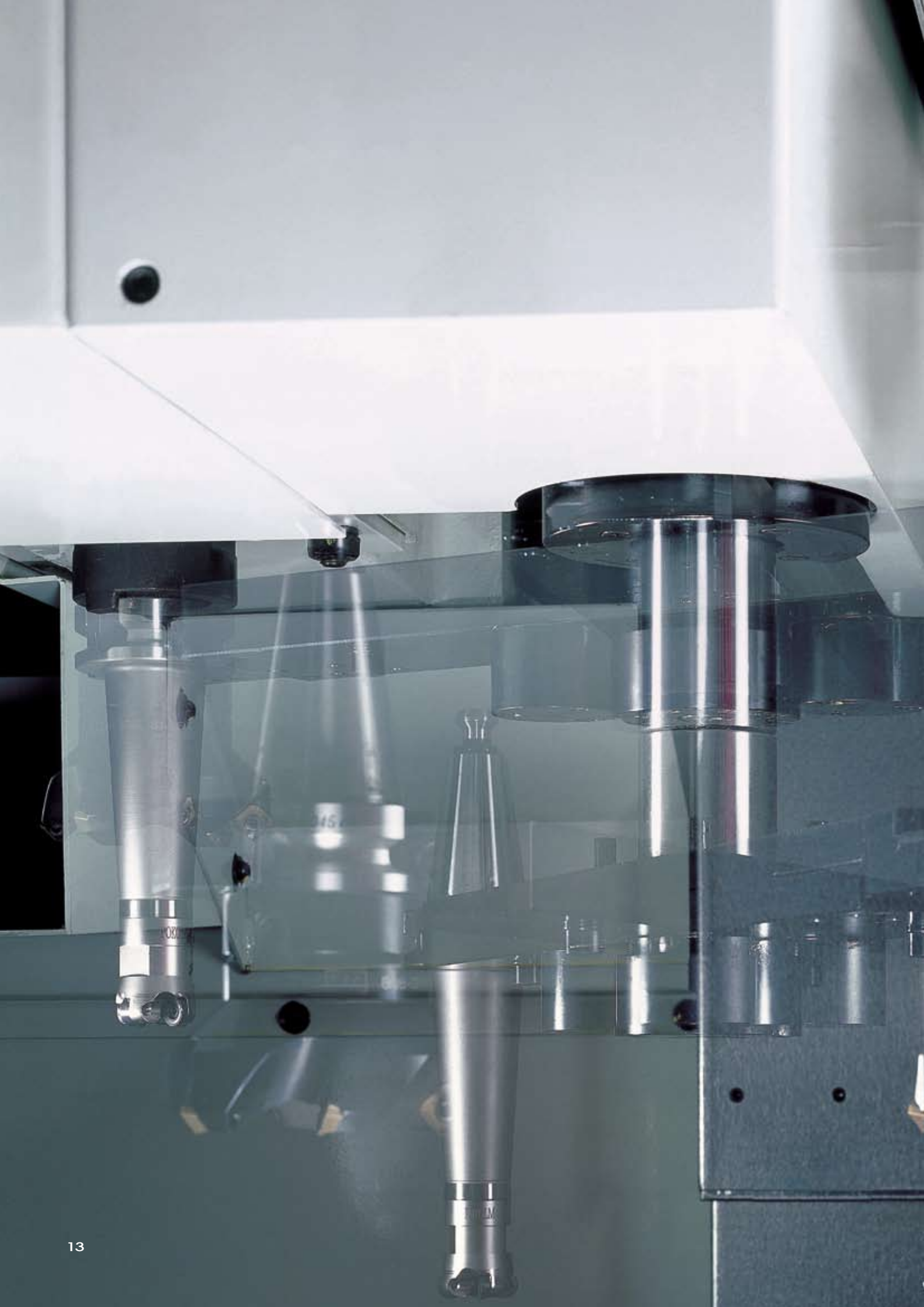


**MODEL UX300**

UX730Dyn	Rotary Axis (C - axis)	Tilting Axis (A - axis)
Max. swing (mm)	Ø730	
Table load capacity (kg)	850	
Maximum R.P.M	60 min <sup>-1</sup>	25 min <sup>-1</sup>
Indexing accuracy	5 sec	5 sec
Repeatability	5 sec	5 sec
Clamping torque	1,800 Nm	5,000 Nm



**MODEL UX600**





48ATC

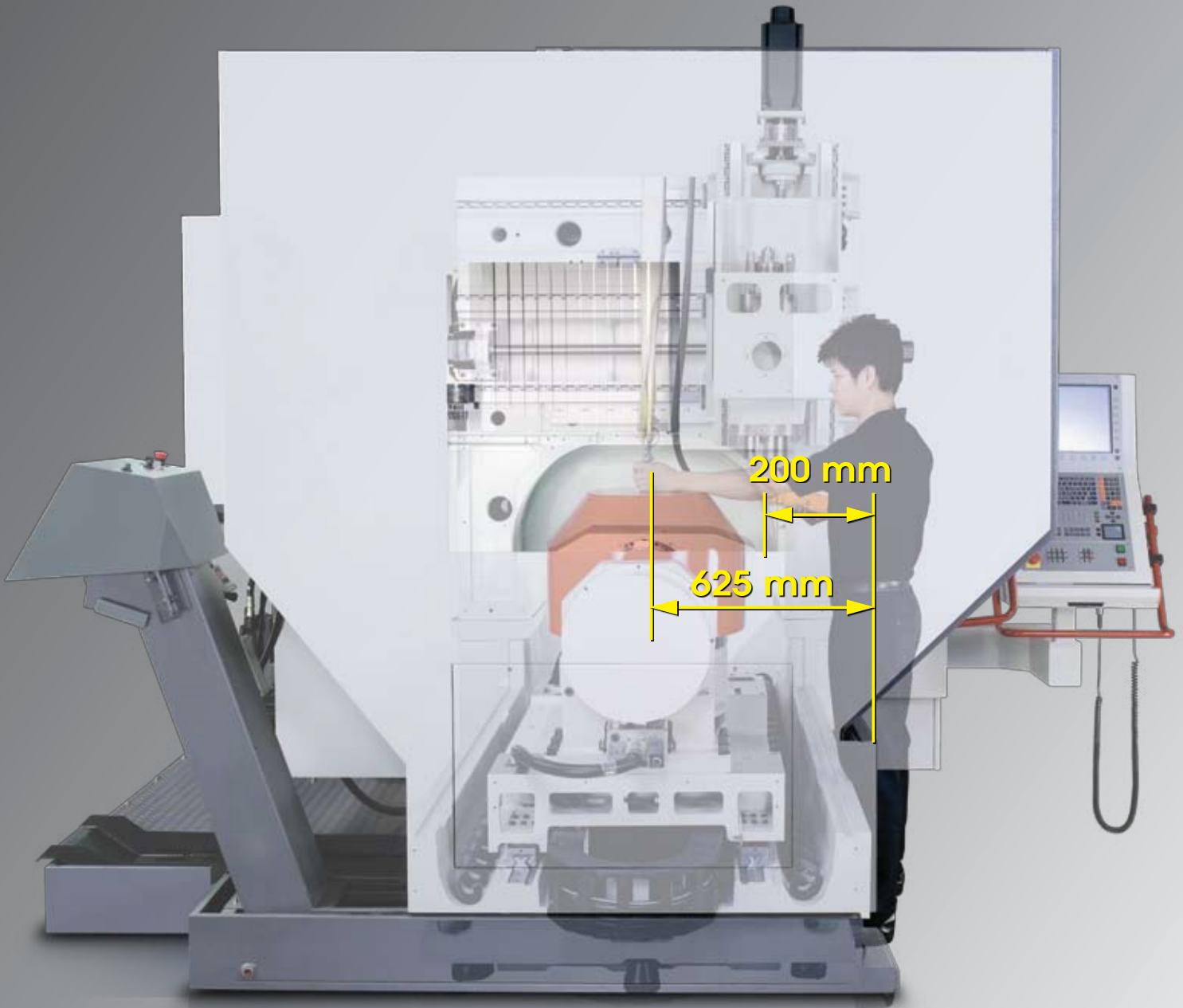
60ATC

# Ergonomic operation



MODEL UX300



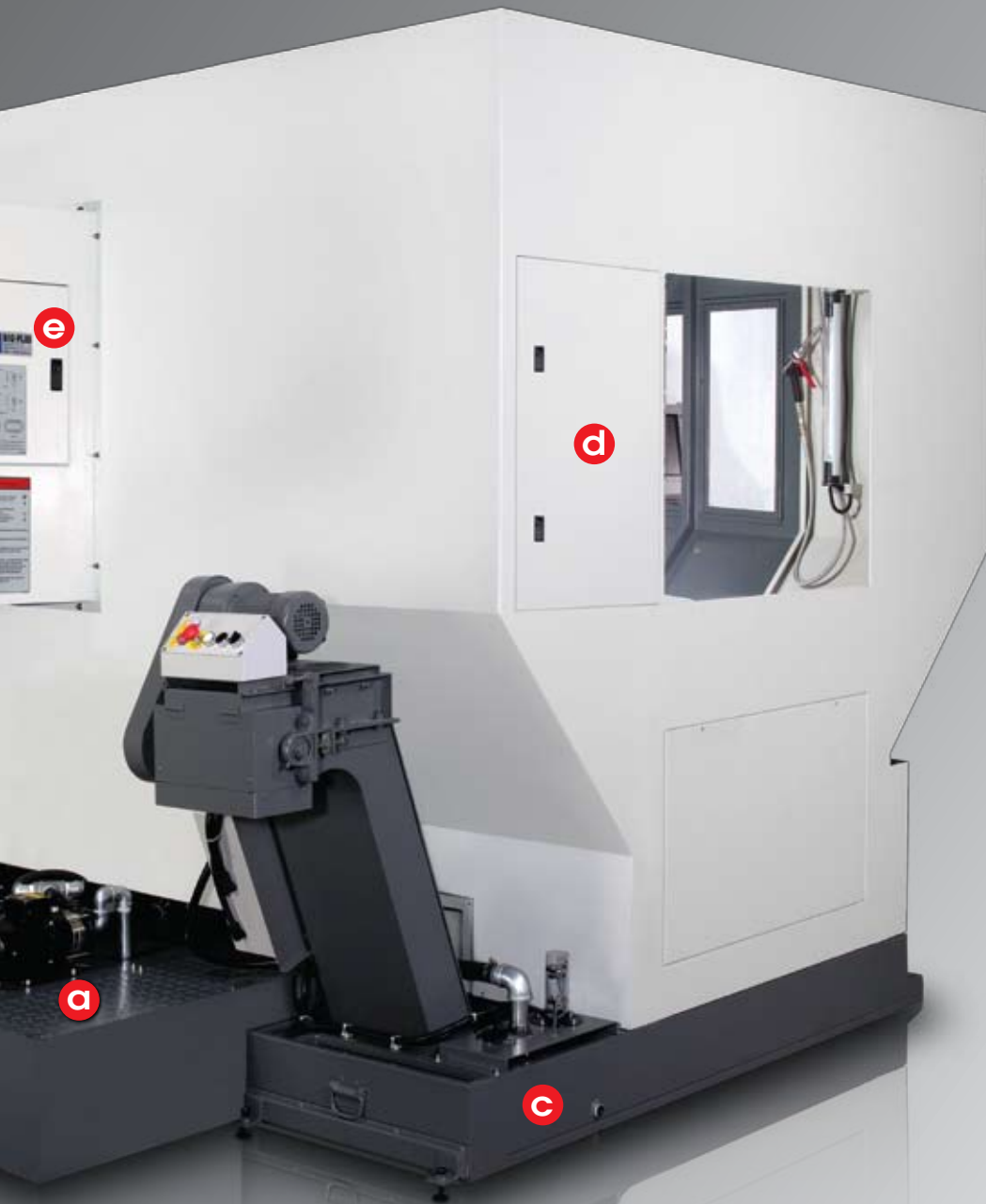


**MODEL UX600**  
**UX730Dyn**

# Chip management system

- a** 400 liter coolant tank with
  - Coolant through spindle: 20 bar
  - Spindle nozzle coolant: 3.5 bar (UX300)
  - Spindle nozzle coolant: 4 bar (UX600 / UX730Dyn)
- b** Dual augers
- c** Scraper or hinge type chip conveyor
- d** Documentation & hand tools shelf
- e** Tool loading / unloading on magazine side
- f** Swiveling operator panel





Technical data		UX300			
		/9B	/12B	/15B	15C
<b>Work range</b>					
Table size (mm)		Ø255			
Travel	X (mm)	410			
	Y (mm)	610 (±305)			
	Z (mm)	500			
	A (degree)	+30° ~ -120°			
	C (degree)	360° (Continuous)			
Max. swing (mm)		Ø300			
Table surface to spindle nose (mm)		30 ~ 530			
Spindle nose to tilting center at 90°		30 ~ 530			
Max. work piece size (mm)		Ø300 x 300			
Table load capacity (kg)		100			
<b>Feed drive</b>					
Feed force	X / Y / Z (N)	6,283 / 11,519 / 11,519 (F)			
		11,300 / 13,700 / 13,700 (T)			
Rapid movement	X / Y / Z (m / min)	36 / 36 / 32			
	A / C (min <sup>-1</sup> )	A = 25 / C = 25			
Acceleration	X / Y / Z (m/s <sup>2</sup> )	5.5 / 5.5 / 5.5 (F)			
		5 / 5 / 5 (T)			
Dia. & pitch of the ball screw		Ø45 / P = 12 / 12 / 12			
<b>Accuracy</b> Positioning / Repeatability					
ISO 230-2		0.008 / 0.004			
JIS 6338 (300 mm)		0.003 / ±0.002			
VDI3441		0.008 / 0.004			
<b>Main spindle</b>					
Spindle taper		BBT40			
Max. spindle speed		9,000	12,000	15,000	15,000
Spindle base speed	F	1,125	1,500	1,875	1,400
	T				1,500
Spindle output KW (S6-40%)	F	22*	22*	22*	22
	T	25	25	25	25
Spindle torque Nm (S6-40%)	F	187*	140*	112*	150
	T	212	159	127	159
Spindle transmission		Belt			Coupling
Spindle diameter (mm)		Ø70			
<b>Tool changer</b>					
Tool selection		Random			
Magazine positions		48 (std.) / 60 (opt.)			
Max. tool diameter (mm)		75			
w/o adjacent tool (mm)		125			
Max. tool length (mm)		280			
Max. tool weight (kg)		7			
CTC time-ISO 10791-9 (sec.)		4.6			
<b>Coolant system</b>					
Coolant tank capacity (Liter)		300			
Pump capacity					
- Nozzle coolant		20 L / min., 3.5 bar			
- Through spindle coolant		25 L / min., 20 bar			
- Wash down		60 L / min., 3.5 bar			
<b>Machine size</b>					
Height (mm)		3,065			
Floor space W x D (mm)		2,635 x 3,160			
Weight (kg)		8,100			
<b>Connections</b>					
Main power		220 V / 60 Hz or 400 V / 50 Hz			
Power consumption (KVA)		30 (F) 35 (T)			

Note: \*S3-25%  
\*\*S6-25%

## Main spindle

Belt spindle - 9,000 / 12,000 / 15,000 min<sup>-1</sup>  
 Coupling spindle - 15,000 min<sup>-1</sup>  
 Motor spindle - 15,000 / 25,000 min<sup>-1</sup>

## Control

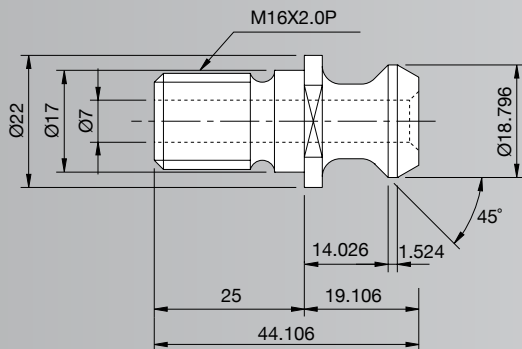
(T): HEIDENHAIN - iTNC530 (5 Axes)  
 (F): FANUC - 18iMB (5 Faces)

UX600				UX730 Dyn		
/9B	/12B	/15B	15C	/15C	/15M	/25M
Ø280 / Ø600 x W500				Ø500		
885 (580 + 305)				995 (625 + 370)		
800 (-375 ~ +425)				800 (-375 ~ +425)		
500				500		
+30° ~ -120°				+30° ~ -120°		
360° (Continuous)				360° (Continuous)		
Ø600				Ø730		
130 ~ 630				175 ~ 675		
160 ~ 660				125 ~ 625		
Ø600 x 400				Ø730 x 450		
300				850		
11,519 / 11,519 / 11,519 (F) 13,700 / 13,700 / 13,700 (T)				19,800 / 11,300 / 13,700		
36				36		
A = 25 / C = 33.3				A = 25 / C = 60		
5.5 / 5.5 / 5.5 (F)				5.5 / 5.5 / 5.5		
5 / 5.5 / 5.5 (T)				5.5 / 5.5 / 5.5		
Ø45 / P = 12 / 12 / 12				Ø45 / P = 12 / 12 / 12		
0.008 / 0.004				0.008 / 0.004		
0.003 / ±0.002				0.003 / ±0.002		
0.008 / 0.004				0.008 / 0.004		
BBT40				BBT40	BBT40	HSK A63
9,000	12,000	15,000	15,000	HSK A63	15,000	25,000
1,125	1,500	1,875	1,400	-	-	-
			1,500	1,500	2,000	5,830
22*	22*	22*	22	-	-	-
25	25	25	25	25	36 / 42**	51 / 61**
187*	140*	112*	150	-	-	-
212	159	127	159	159	172 / 201**	81 / 97**
Belt			Coupling	Coupling / Motor (opt.)		
Ø70				Ø70		Ø65
Random				Random		
48 (std.) / 60 (opt.)				48 (std.) / 60 (opt.)		
75				75		
125				125	75	
280				280	200	
7				7	4.5	
9				9	8	
400				400		
60 L / min., 4 bar				60 L / min., 4 bar		
25 L / min., 20 bar				25 L / min., 20 bar		
40 L / min., 2 bar				40 L / min., 2 bar		
3,100				3,100		
3,950 x 3,670				3,950 x 3,670		
12,100				12,700		
220 V / 60 Hz or 400 V / 50 Hz				220 V / 60 Hz or 400 V / 50 Hz		
35 (F) 35 (T)				40	55	65

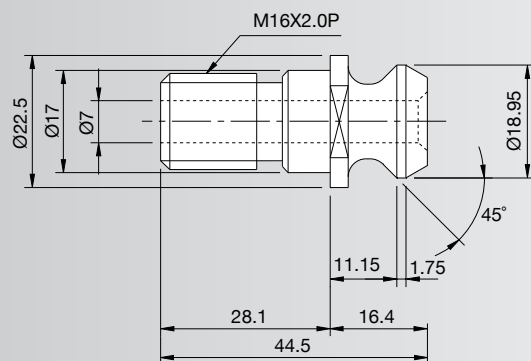
Standard / Option accessories	UX300			
	/9B	/12B	/15B	/15C
■ HEIDENHAIN iTNC530 (5 Axes) with Option 2	●	●	●	●
■ FANUC 18iMB (5 Faces)	●	●	●	●
■ Spindle oil chiller	●	●	●	●
■ 40 taper 9,000 min <sup>-1</sup> WB40R belt spindle	●	×	×	×
■ 40 taper 12,000 min <sup>-1</sup> WB40R belt spindle	×	●	×	×
■ 40 taper 15,000 min <sup>-1</sup> WB40R belt spindle	×	×	●	×
■ 40 taper 15,000 min <sup>-1</sup> NC40R coupling spindle	×	×	×	●
■ 40 taper 15,000 min <sup>-1</sup> BN15R motor spindle	×	×	×	×
■ 40 taper 25,000 min <sup>-1</sup> BN25R motor spindle	×	×	×	×
■ 40 taper / 48 position tool magazine	●	●	●	●
■ 40 taper / 60 position tool magazine	○	○	○	○
■ Pull stud for BT tooling system	●	●	●	●
■ X / Y / Z linear scale & C rotary encoder	○	○	○	○
■ Rotary encoder on A axes	●	●	●	●
■ Preparation of auto pallet system (EROWA or 3R)	○	○	○	○
■ Coolant through ball screw	●	●	●	●
■ Coolant system	●	●	●	●
■ 20 bar through spindle coolant	●	●	●	●
■ Coolant wash gun	●	●	●	●
■ Coolant wash down	●	●	●	●
■ Chip conveyor	●	●	●	●
■ Chip augers	○	○	○	○
■ Cutter air blast	●	●	●	●
■ Stainless steel chip pan & chip channel	●	●	●	●
■ Work light	●	●	●	●
■ Machine status light	●	●	●	●
■ CE & EMC	●	●	●	●
■ Laser tool measuring system	○	○	○	○

## Pull stud and applicable tools

BT 40 (QUASER SUPPLY)



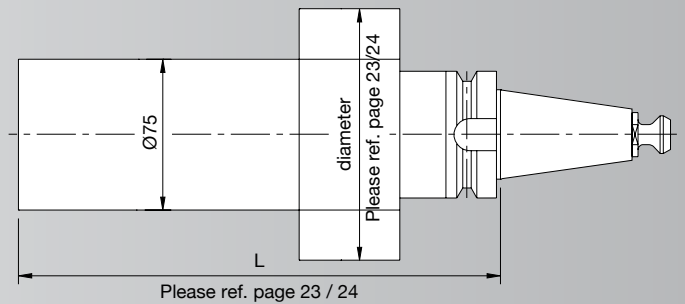
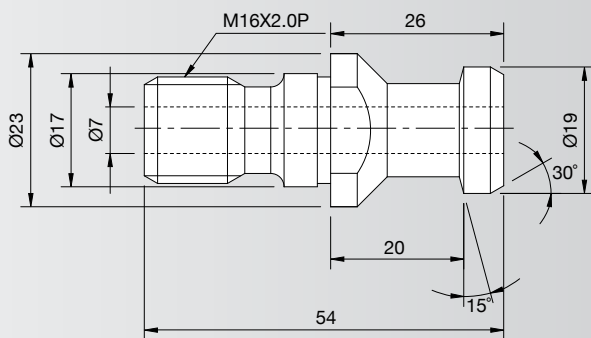
ISO (7388-B)



● = Standard ○ = Option ✕ = N / A

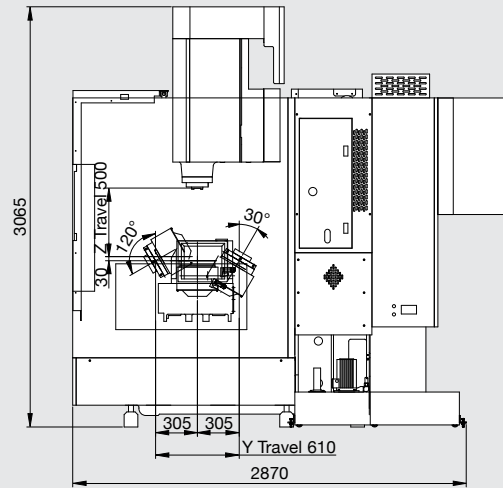
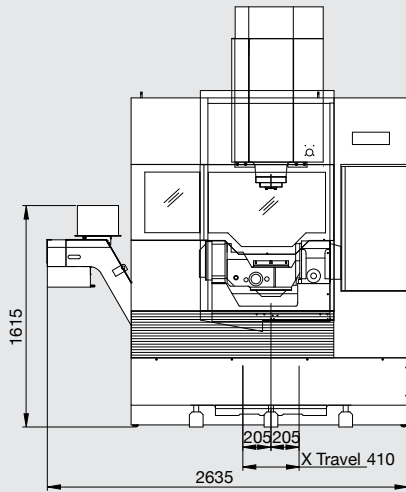
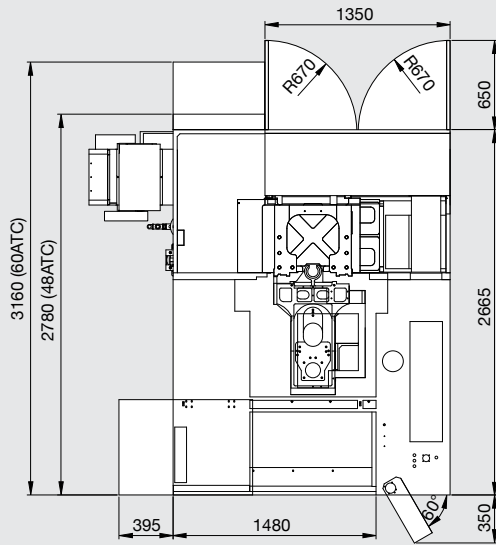
UX600				UX730 Dyn		
/9B	/12B	/15B	/15C	/15C	/15M	/25M
●	●	●	●	●	●	●
●	●	●	●	✕	✕	✕
●	●	●	●	●	●	●
●	✕	✕	✕	✕	✕	✕
✕	●	✕	✕	✕	✕	✕
✕	✕	●	✕	✕	✕	✕
✕	✕	✕	●	●	✕	✕
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✕	✕	✕	✕	✕	✕	●
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DIN (69872-A)



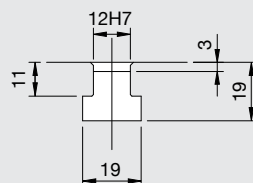
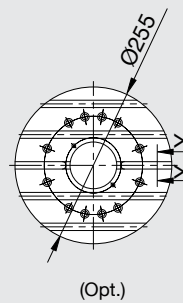
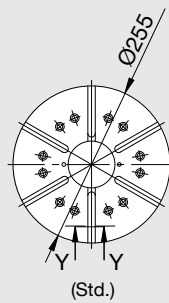
## Installation dimension

### UX300



## Table dimension

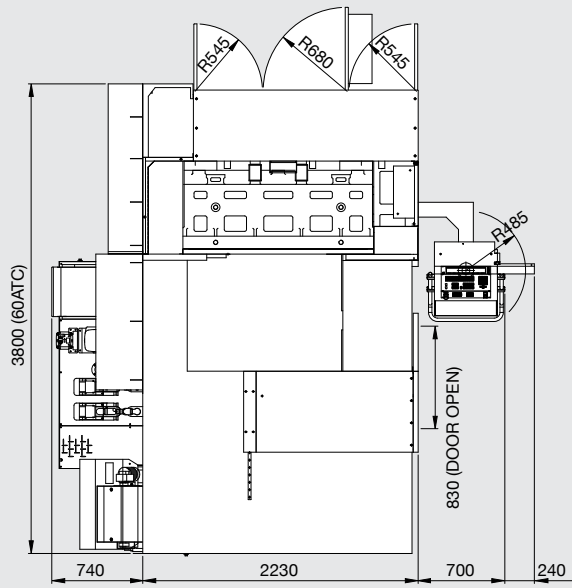
### UX300



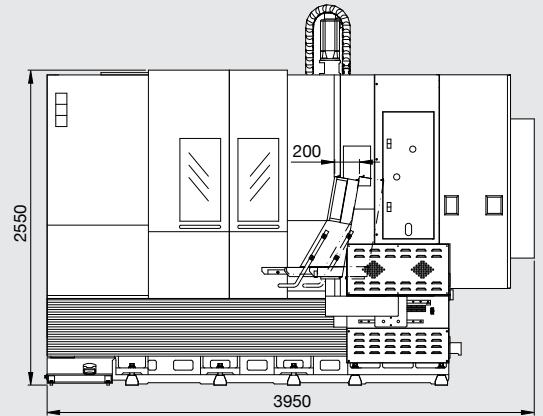
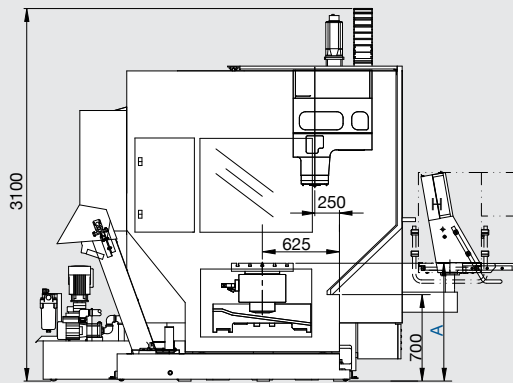


## Installation dimension

UX600  
UX730Dyn

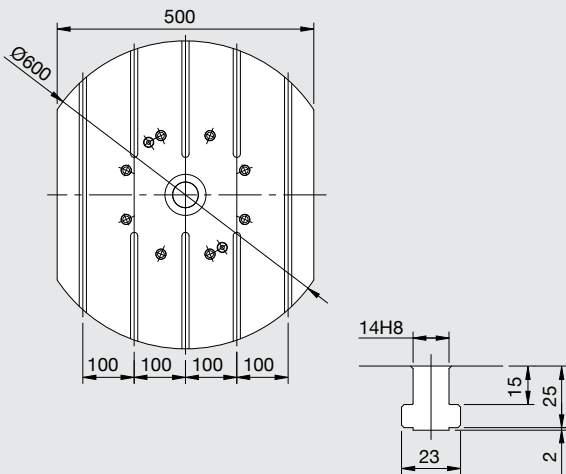


	UX600	UX730
A	954	908

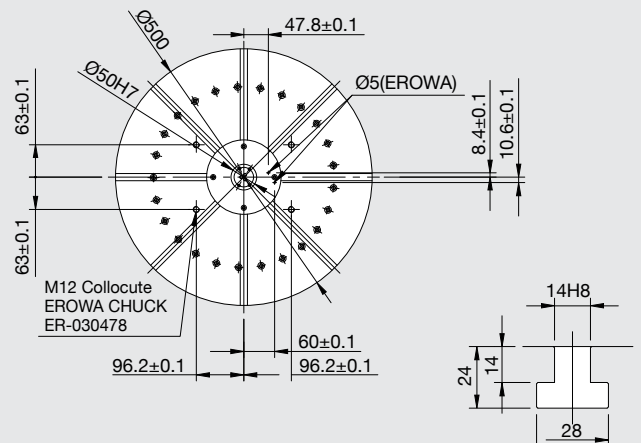


## Table dimension

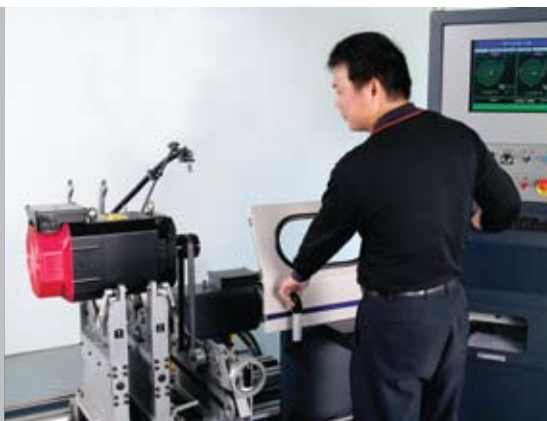
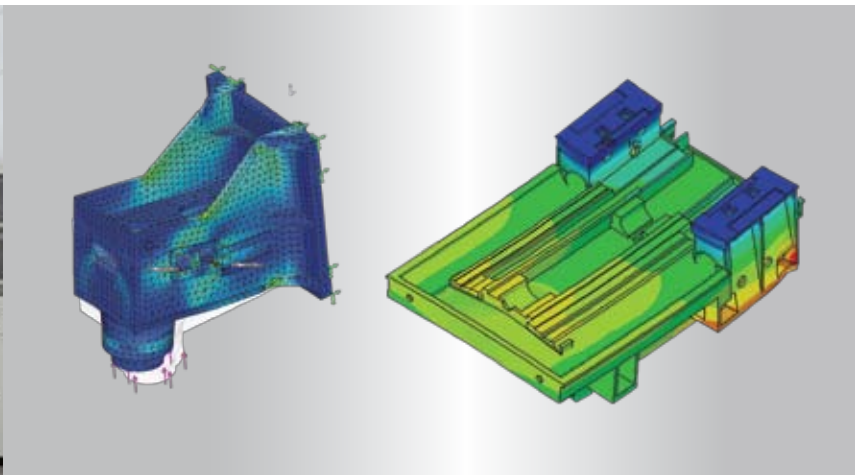
UX600



UX730Dyn



We build machines in a hybrid way -



**very classic craftsmanship combined with most advanced modern equipments in a clean environment...**





[www.quaser.com](http://www.quaser.com)

**Fold here for filing!**

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