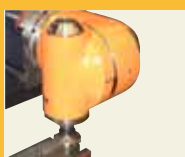
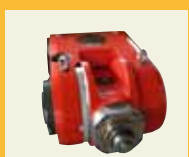


**350 big HEADS**  
DESIGNED AND MANUFACTURED



**MILLING HEADS**

**ISA**  
by **EUROMA** GROUP



# ISA

by **EUROMA**GROUP

## MILLING HEADS



This catalogue is for who wants to equip the machine tools with integral or accessory milling heads to increase the operative capacity.

**Authorised EUROMA distributors** grant a constant support to your projects.

Design and graphics by  
EUROMA MACCHINE S.r.l.

## KW2 HS - Electrospindle

**KW2 HS 62** = Max. spindle torque 62 Nm  
**KW2 HS 106** = Max. spindle torque 106 Nm

### KEY POINTS:

- Direct measuring on the axes by high resolution encoder
- Axis clamping device by components axially flexible and torsionally rigid

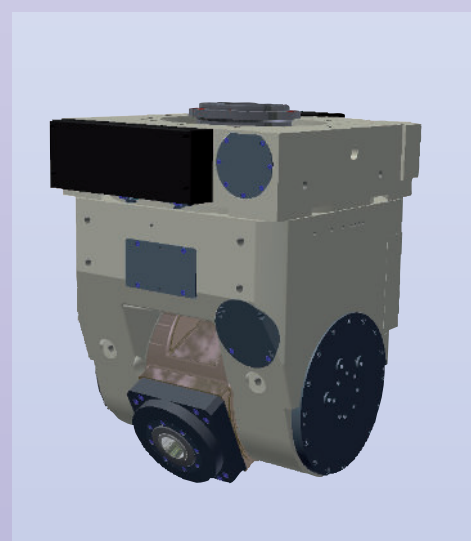
### NECESSARY INFORMATION:

Following data are essential to define the coupling plate for the RAM interface

- 1- Reference: How the milling head is referred to the machine
- 2- Clamping: How the milling head is fixed on the machine tool
- 3- Connection for: Mechanical power inlet, Electric Power and signals, Pneumatic, Hydraulic, Lubrication
- 4- Identification system (For accessory version only)
- 5- Antirotation system for static station (For accessory version only)
- 6- References for static station (For accessory version only)

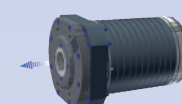
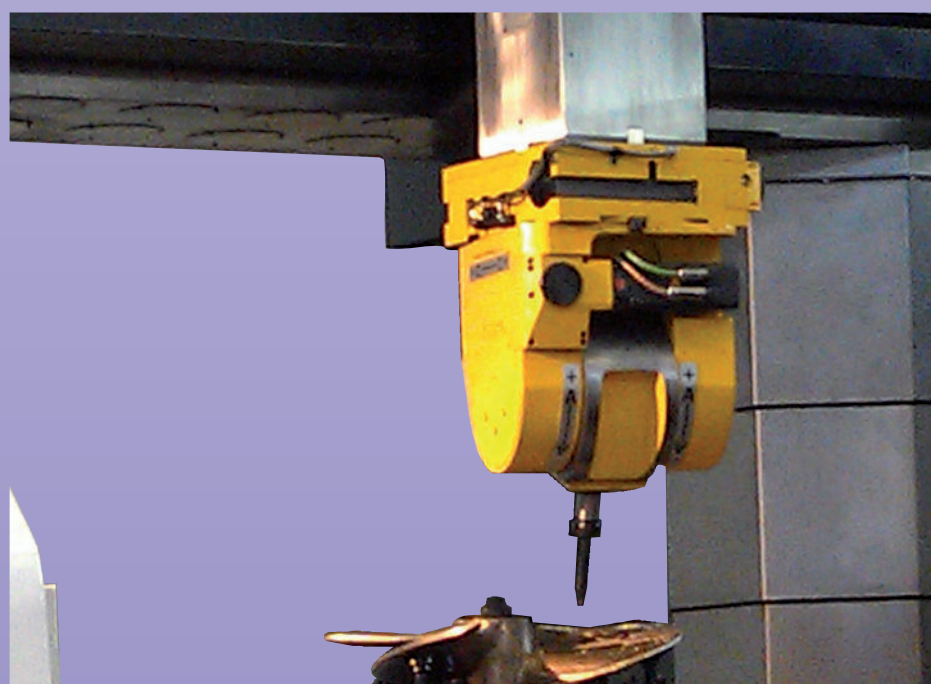
The 2 continuous axis milling head KW2 HS can be supplied in **2 versions**

- **Integral** = The machine tool is equipped with this head only
- **Accessory** = The machine tool is fitted with head changing device for different kind of machining



Model KW2 HS	Tool holder	Taper clamping force	Spindle nose - pivot point distance	Motor power	Max. spindle speed	Max. spindle torque	"A" axis			"C" axis			Approximate weight
							Rotation angle with encoder	Transmission ratio	Clamping pressure inlet	Rotation angle with encoder	Transmission ratio	Clamping pressure inlet	
-	-	N	mm	kW	rpm	Nm	-	-	bar	-	-	bar	kg
<b>62</b>	HSK 63A	18000	218	40	18000	62	±105°	400:1	180	±185°	600:1	180	500
<b>106</b>	HSK 63A	18000	306	33	16000	106	±105°	400:1	180	±185°	600:1	180	600

### OPTIONS



Coolant passage through spindle  
40 bar 20 l/1'

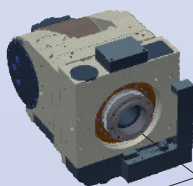


C-Axis N x 360°  
With slip ring

**THE 2 CONTINUOUS AXES MILLING HEAD KW2 HS CAN BE SUPPLIED IN 2 VERSIONS**



**Basic head  
KW2 HS**

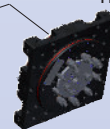
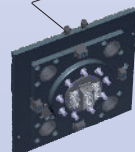


**Integral**

The machine tool is equipped with this head only

**Accessory**

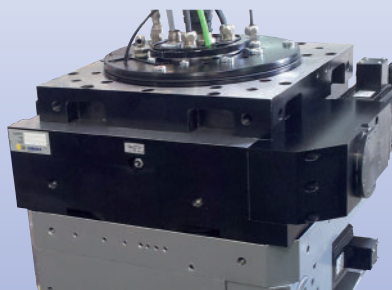
The machine tool is fitted with head changing device for different kind of machining



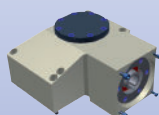
**KW2 HS INTEGRAL**

**NECESSARY COMONENTS**

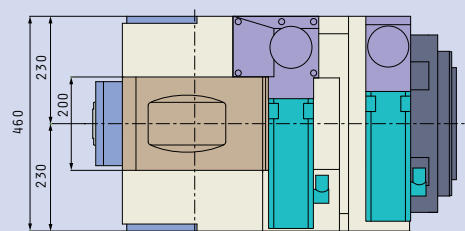
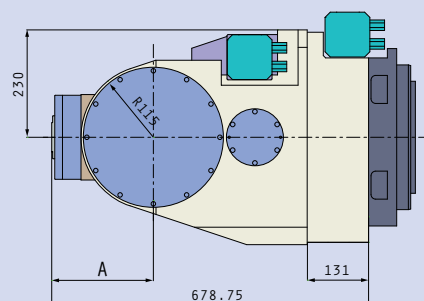
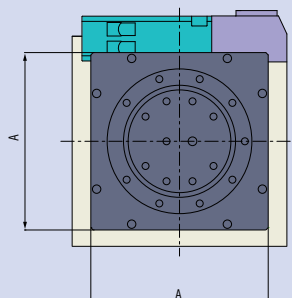
**Interface**



Prearrangement for servomotors



Our standard is for motors with:  
Centering  $\varnothing 110$   
Fixing M8 on  $\varnothing 130$   
Shaft  $\varnothing 24 \times 50$



**KW2 HS ACCESSORY**

**NECESSARY COMPONENTS**

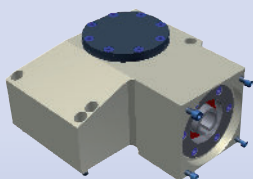
Coupling plate 380x380

Coupling plate 436x436

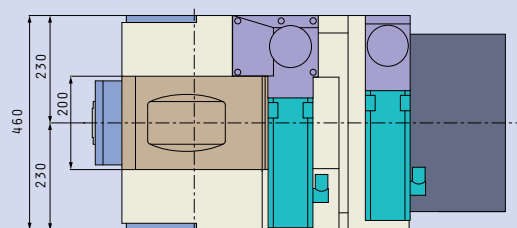
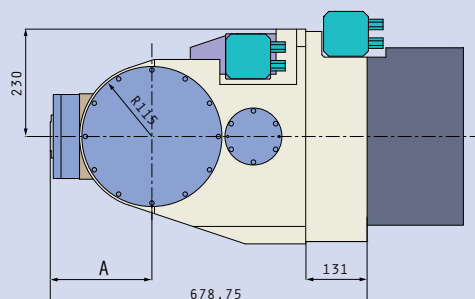
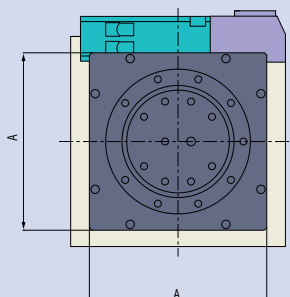
Coupling plate 480x480

Coupling plate 500x500

Prearrangement for servomotors



Our standard is for motors with:  
Centering  $\varnothing 110$   
Fixing M8 on  $\varnothing 130$   
Shaft  $\varnothing 24 \times 50$



TYPE	A
KW2 HS 62	218
KW2 HS 106	306

## ● KW2 HT - Mechanical spindle

### KEY POINTS:

- Direct measuring on the axes by high resolution encoder
- Axis clamping device by components axially flexible and torsionally rigid
- Transmission with Klingelnberg gear system

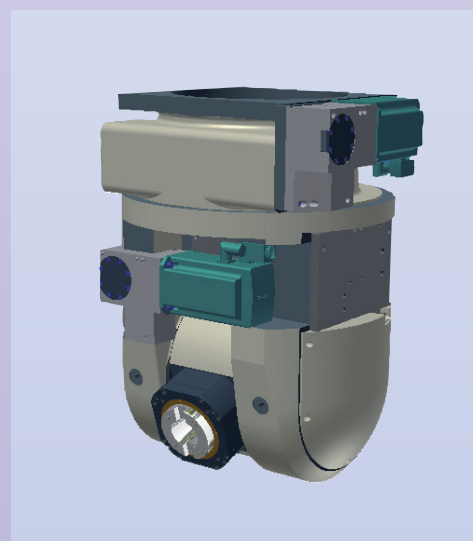
### NECESSARY INFORMATION:

Following data are essential to define the coupling plate for the RAM interface

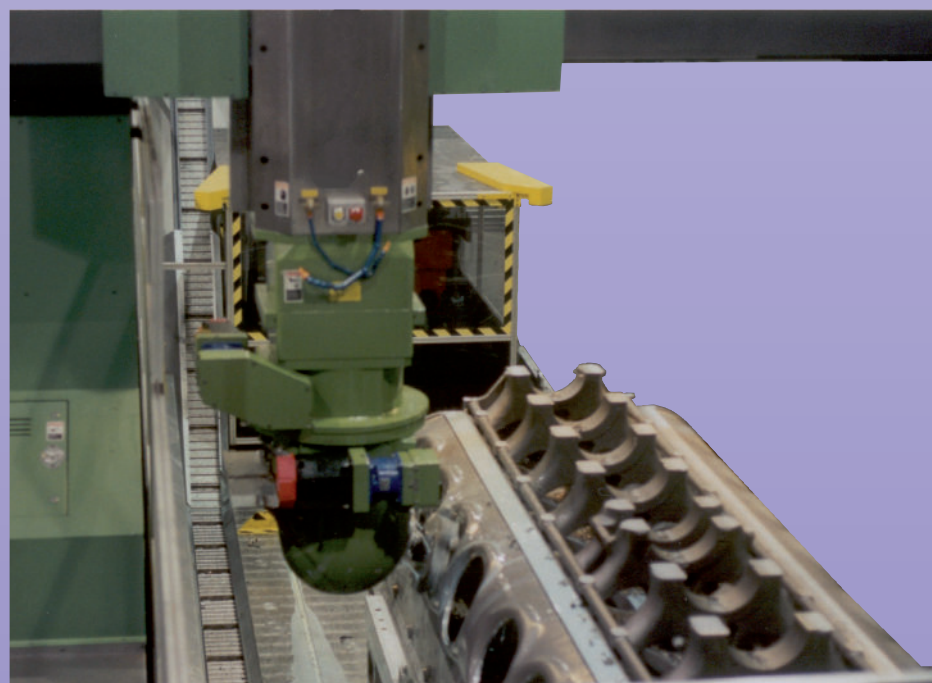
- 1- Reference: How the milling head is referred to the machine
- 2- Clamping: How the milling head is fixed on the machine tool
- 3- Connection for: Mechanical power inlet, Electric Power and signals, Pneumatic, Hydraulic, Lubrication
- 4- Identification system (For accessory version only)
- 5- Antirotation system for static station (For accessory version only)
- 6- References for static station (For accessory version only)

The 2 continuous axis milling head KW2 HT can be supplied in **2 versions**

- **Integral** = The machine tool is equipped with this head only
- **Accessory** = The machine tool is fitted with head changing device for different kind of machining



Tool holder	Taper clamping force	Spindle nose - pivot point distance	Motor power	Max. spindle speed	Max. spindle torque	"A" axis			"C" axis			Approximate weight
						Rotation angle with encoder	Transmission ratio	Clamping pressure inlet	Rotation angle with encoder	Transmission ratio	Clamping pressure inlet	
-	N	mm	kW	rpm	Nm	-	-	bar	-	-	bar	kg
ISO 50 MAS 403 BT 50	20000	278	37	3000	1500	±105°	780:1	180	±185°	780:1	180	1100



### OPTIONS



Ratio 1:2  
For low speed  
on basic unit



Tool taper  
HSK A100



Coolant passage  
through spindle  
40 bar 20 l/1'  
DIN 69871/A



Coolant passage  
through spindle  
40 bar 20 l/1'  
DIN 69871/B



C-Axis N x 360°  
With slip ring



4000 rpm  
(instead of 3000)  
with oil lubrication  
for gears



**THE 2 CONTINUOUS AXES MILLING HEAD KW2 HT CAN BE SUPPLIED IN 2 VERSIONS**

**Basic head  
KW2 HT**

**Accessory**

The machine tool is fitted with head changing device for different kind of machining

**Integral**

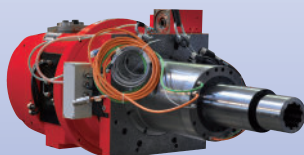
The machine tool is equipped with this head only

**KW2 HT INTEGRAL**

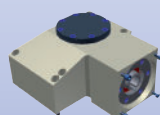
**NECESSARY COMPONENTS**

Short interface (up to 600mm)

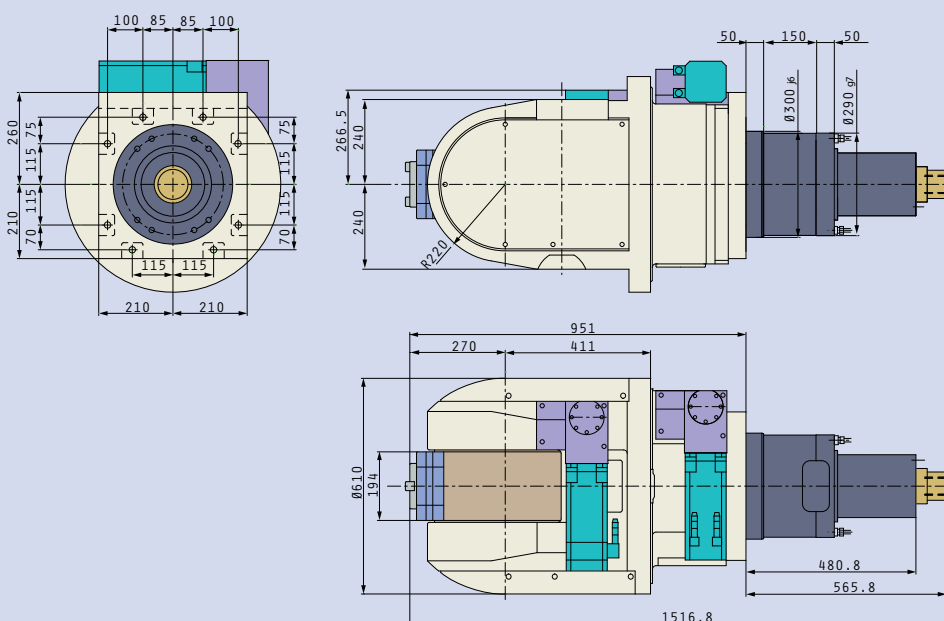
Long interface (over 600mm)



Prearrangement for servomotors



Our standard is for motors with:  
Centering  $\varnothing 110$   
Fixing M8 on  $\varnothing 130$   
Shaft  $\varnothing 24 \times 50$



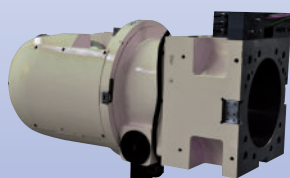
**KW2 HT ACCESSORY**

**NECESSARY COMPONENTS**

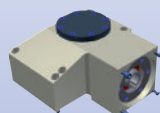
Coupling plate 480x480

Coupling plate 500x500

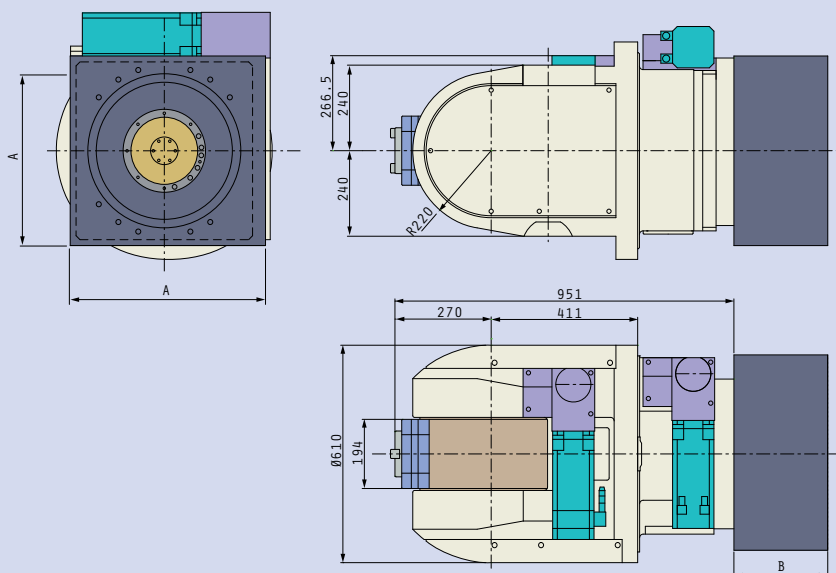
Coupling plate 600x600



Prearrangement for servomotors



Our standard is for motors with:  
Centering  $\varnothing 110$   
Fixing M8 on  $\varnothing 130$   
Shaft  $\varnothing 24 \times 50$



## ● KW2 HT Small - Mechanical spindle

### KEY POINTS:

- Direct measuring on the axes by high resolution encoder
- Axis clamping device by components axially flexible and torsionally rigid
- Transmission with Klingelnberg gear system

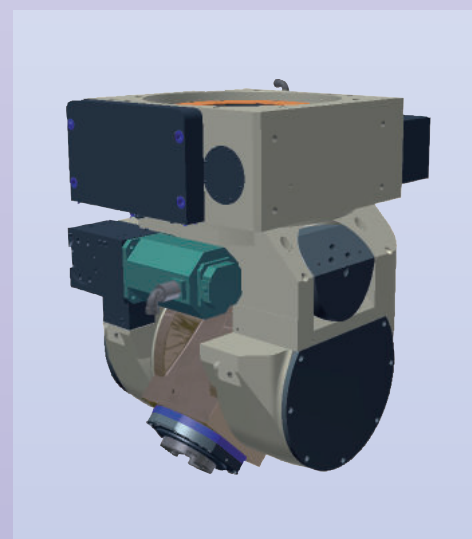
### NECESSARY INFORMATION:

Following data are essential to define the coupling plate for the RAM interface

- 1- Reference: How the milling head is referred to the machine
- 2- Clamping: How the milling head is fixed on the machine tool
- 3- Connection for: Mechanical power inlet, Electric Power and signals, Pneumatic, Hydraulic, Lubrication
- 4- Identification system (For accessory version only)
- 5- Antirotation system for static station (For accessory version only)
- 6- References for static station (For accessory version only)

The 2 continuous axis milling head KW2 HT small can be supplied in **2 versions**

- **Integral** = The machine tool is equipped with this head only
- **Accessory** = The machine tool is fitted with head changing device for different kind of machining



Tool holder	Taper clamping force	Spindle nose - pivot point distance	Motor power	Max. spindle speed	Max. spindle torque	"A" axis			"C" axis			Approximate weight
						Rotation angle with encoder	Transmission ratio	Clamping pressure inlet	Rotation angle with encoder	Transmission ratio	Clamping pressure inlet	
-	N	mm	kW	rpm	Nm	-	-	bar	-	-	bar	kg
ISO 50 MAS 403 BT 50	20000	270	30	3000	900	±105°	780:1	180	±185°	780:1	180	700



### OPTIONS



Tool taper  
HSK A100



Coolant passage  
through spindle  
40 bar 20 l/1'  
DIN 69871/A



Coolant passage  
through spindle  
40 bar 20 l/1'  
DIN 69871/B



C-Axis N x 360°  
With slip ring



4000 rpm  
(instead of 3000)  
with oil lubrication  
for gear



**THE 2 CONTINUOUS AXES MILLING HEAD KW2 HT CAN BE SUPPLIED IN 2 VERSIONS**

**Basic head  
KW2 HT Small**

**Accessory**

The machine tool is fitted with head changing device for different kind of machining

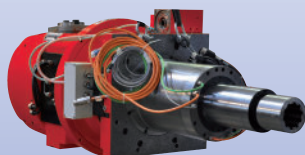
**Integral**

The machine tool is equipped with this head only

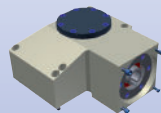
**KW2 HT Small INTEGRAL**

**NECESSARY COMPONENTS**

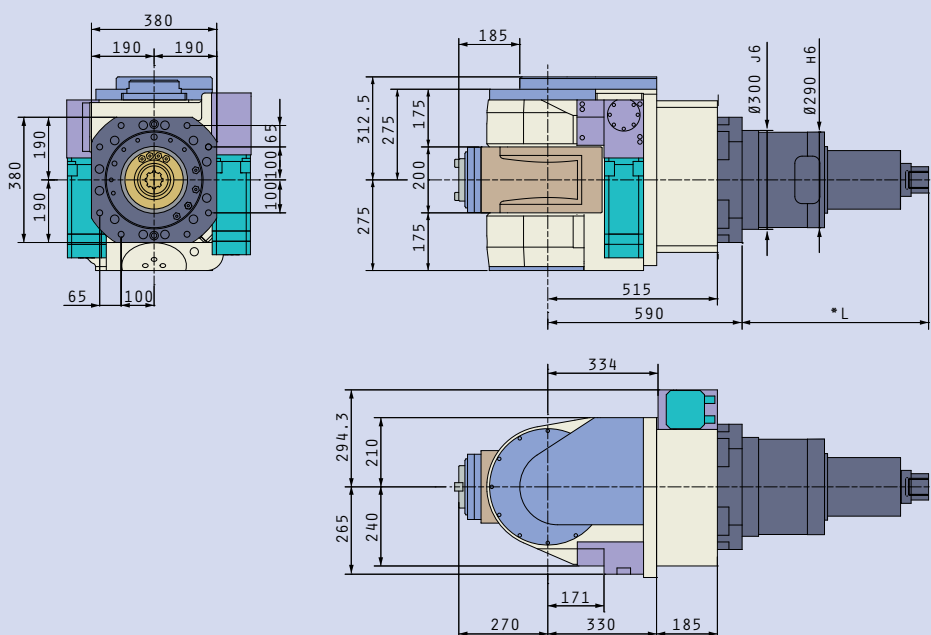
Short interface (up to 600mm)  
Long interface (over 600mm)



Prearrangement for servomotors



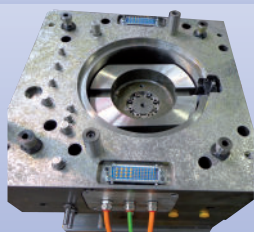
Our standard is for motors with:  
Centering  $\varnothing 110$   
Fixing M8 on  $\varnothing 130$   
Shaft  $\varnothing 24 \times 50$



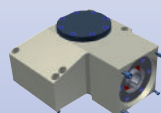
**KW2 HT Small ACCESSORY**

**NECESSARY COMPONENTS**

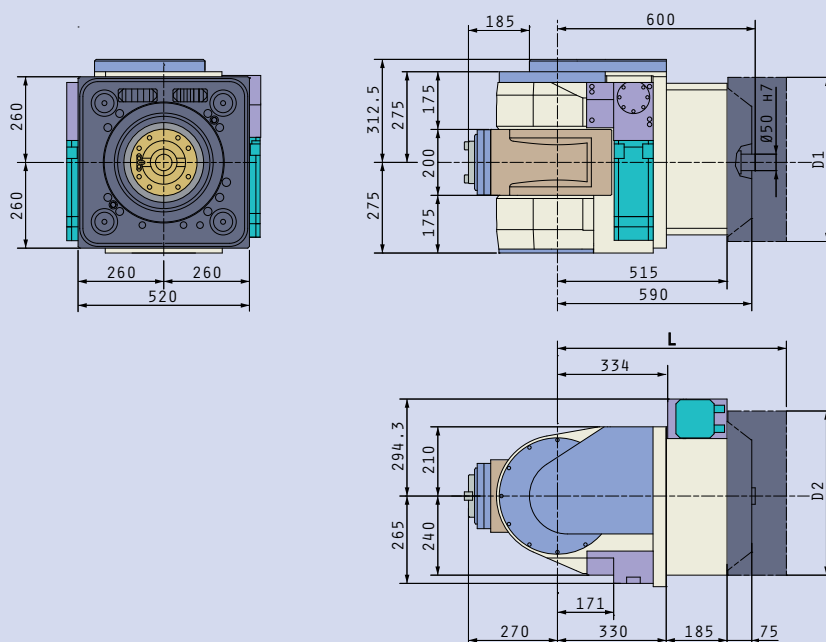
Coupling plate 480x480  
Coupling plate 500x500  
Coupling plate 600x600



Prearrangement for servomotors

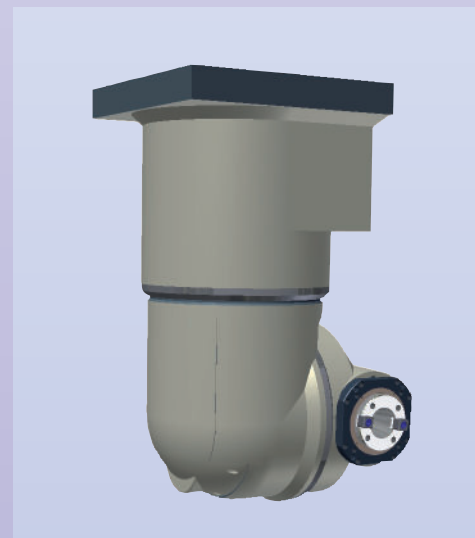


Our standard is for motors with:  
Centering  $\varnothing 110$   
Fixing M8 on  $\varnothing 130$   
Shaft  $\varnothing 24 \times 50$



## ● TX2 HT - Mechanical spindle

Tool holder	Taper clamping force	Spindle nose - pivot point distance	Motor power	Max. spindle speed	Max. spindle torque	"A" axis indexing step with Hirth coupling	"C" axis indexing step with Hirth coupling	Hirth coupling for "A" and "C" axis	Approximate weight
-	N	mm	kW	rpm	Nm	-	-	-	kg
ISO 50 MAS 403 BT 50	20000	250	37	3000	1500	2.5°	2.5°	Z.144	600



### KEY POINTS:

- Direct measuring on the axes by high resolution encoder
- Axis referred and clamped by Hirth gear coupling
- Transmission with Klingelnberg gear system

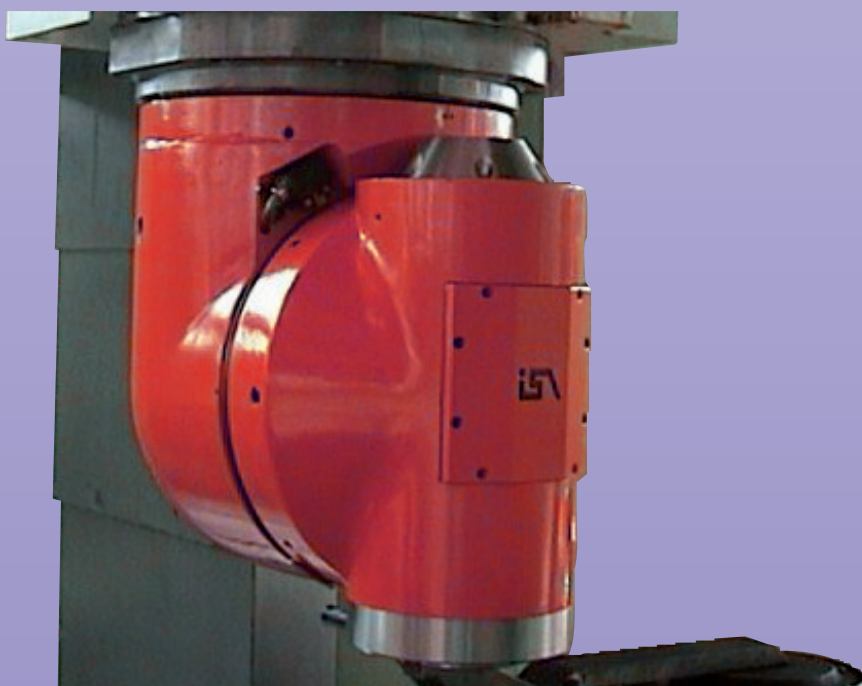
### NECESSARY INFORMATION:

Following data are essential to define the coupling plate for the RAM interface

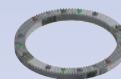
- 1- Reference: How the milling head is referred to the machine
- 2- Clamping: How the milling head is fixed on the machine tool
- 3- Connection for: Mechanical power inlet, Electric Power and signals, Pneumatic, Hydraulic, Lubrication
- 4- Identification system (For accessory version only)
- 5- Antirotation system for static station (For accessory version only)
- 6- References for static station (For accessory version only)

The 2 continuous axis milling head TX2 HT can be supplied in **2 versions**

- **Integral** = The machine tool is equipped with this head only
- **Accessory** = The machine tool is fitted with head changing device for different kind of machining



### OPTIONS



Indexing 1x1°  
Z= 360 with  
encoders



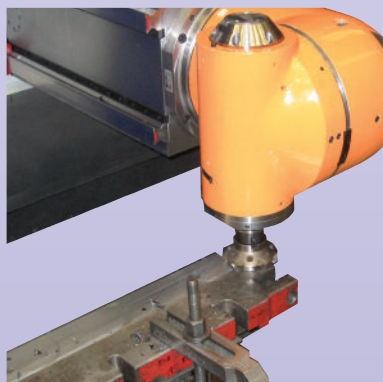
4000 rpm  
(instead of 3000)  
with oil lubrication  
for gear



Coolant passage  
through spindle  
40 bar 20 l/1'  
DIN 69871/A



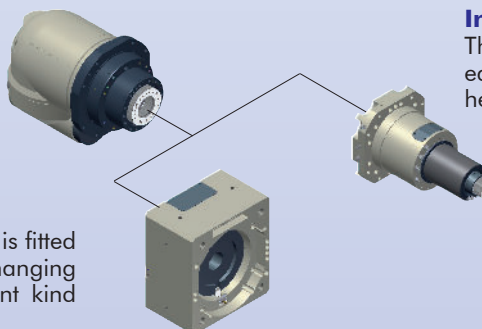
Coolant passage  
through spindle  
40 bar 20 l/1'  
DIN 69871/B



## THE 2 CONTINUOUS AXES MILLING HEAD TX2 HT CAN BE SUPPLIED IN 2 VERSIONS

### Basic head TX2 HT

**Accessory**  
The machine tool is fitted with head changing device for different kind of machining



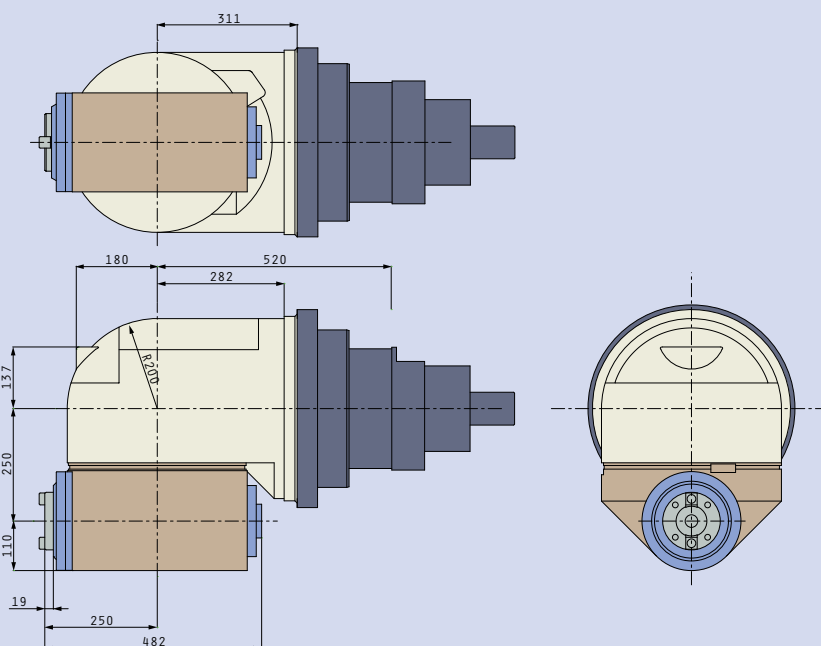
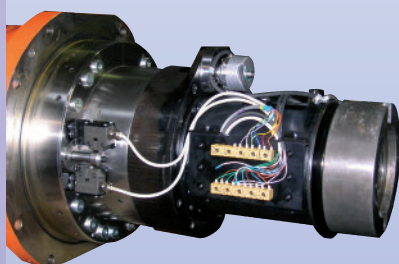
### Integral

The machine tool is equipped with this head only

### TX2 HT INTEGRAL

#### NECESSARY COMPONENT

Interface



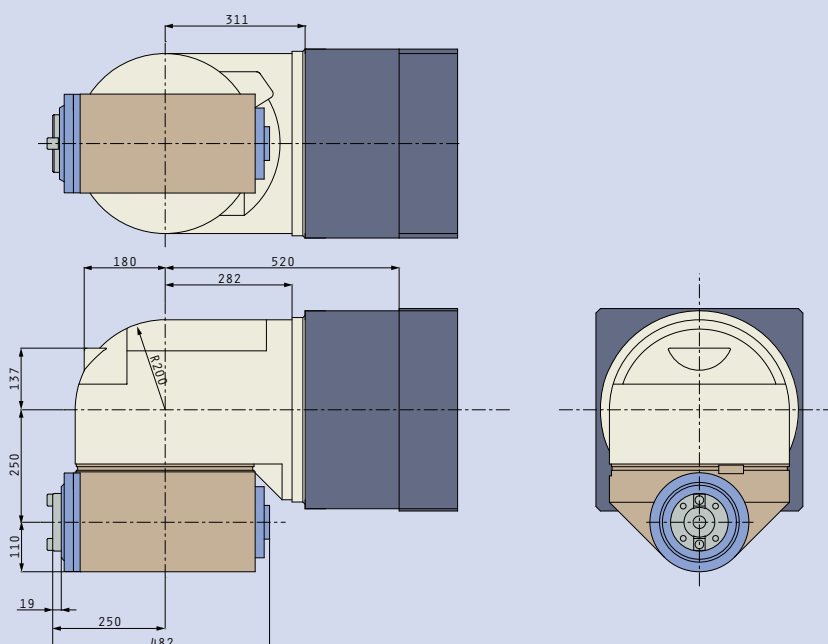
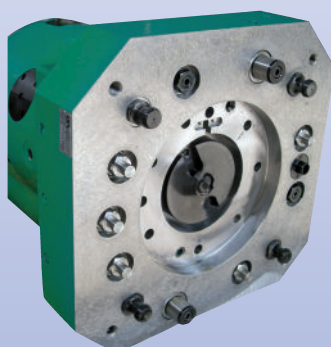
### TX2 HT ACCESSORY

#### NECESSARY COMPONENT

Coupling plate 480x480

Coupling plate 500x500

Coupling plate 600x600



## ● TX1 HT 900 - Mechanical spindle

Tool holder	Taper clamping force	Max. spindle power	Max. spindle speed	Max. spindle torque	"C" axis indexing step with Hirth coupling	Hirth coupling for "C" axis	Approximate weight
-	N	kW	rpm	Nm	-	-	kg
ISO 50 MAS 403 BT 50	20000	25	3000	900	2.5°	Z.144	300

### KEY POINTS:

- Axis referred and clamped by Hirth gear coupling
- Transmission with Klingelnberg gear system

### NECESSARY INFORMATION:

Following data are essential to define the coupling plate for the RAM interface

- 1- Reference: How the milling head is referred to the machine
- 2- Clamping: How the milling head is fixed on the machine tool
- 3- Connection for: Mechanical power inlet, Electric Power and signals, Pneumatic, Hydraulic, Lubrication
- 4- Identification system
- 5- Antirotation system for static station
- 6- References for static station

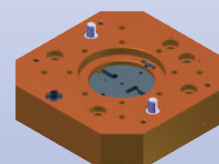
The indexing axis milling head TX1 HT 900 can be supplied as:

- **Accessory** = The machine tool is fitted with head changing device for different kind of machining



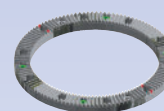
### NECESSARY COMPONENT

Coupling plate	436x436
Coupling plate	480x480
Coupling plate	480x520
Coupling plate	480x580



Interface

### OPTIONS



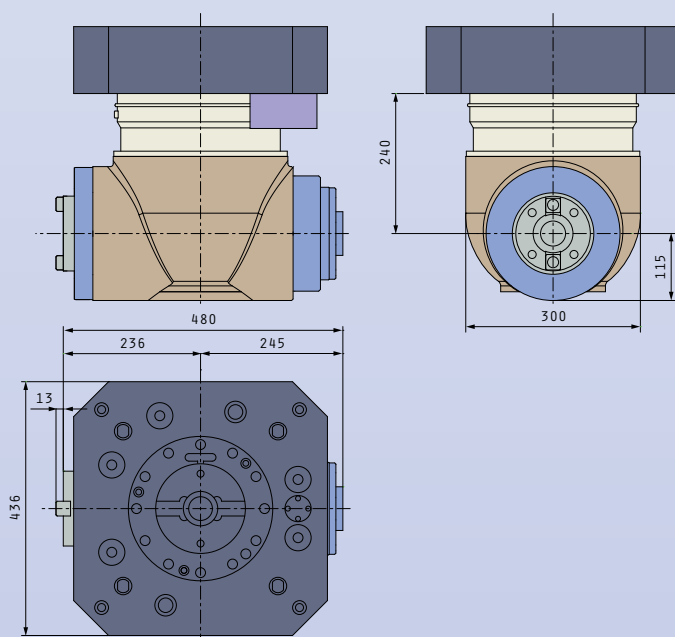
Indexing 1x1°  
Z= 360 with  
encoder



Coolant passage  
through spindle  
40 bar 20 l/1'  
DIN 69871/A



Coolant passage  
through spindle  
40 bar 20 l/1'  
DIN 69871/B



## ● TX1 HT 2000 - Mechanische spindel

Tool holder	Taper clamping force	Max. spindle power	Max. spindle speed	Max. spindle torque	"C" axis indexing step with Hirth coupling	Hirth coupling for "C" axis	Approximate weight
-	N	kW	rpm	Nm	-	-	kg
ISO 50 MAS 403 BT 50	24000	42	3000	2000	2.5°	Z.144	400

### KEY POINTS:

- Axis referred and clamped by Hirth gear coupling
- Transmission with Klingelnberg gear system

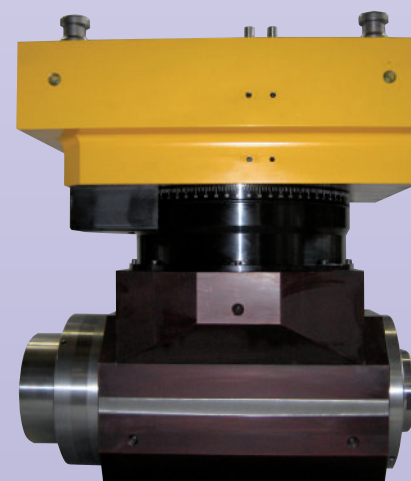
### NECESSARY INFORMATION:

Following data are essential to define the coupling plate for the RAM interface

- 1- Reference: How the milling head is referred to the machine
- 2- Clamping: How the milling head is fixed on the machine tool
- 3- Connection for: Mechanical power inlet, Electric Power and signals, Pneumatic, Hydraulic, Lubrication
- 4- Identification system
- 5- Antirotation system for static station
- 6- References for static station

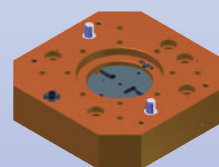
The indexing axis milling head TX1 HT 2000 can be supplied as:

- **Accessory** = The machine tool is fitted with head changing device for different kind of machining



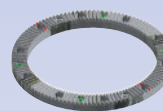
### NECESSARY COMPONENT

Coupling plate	480x480
Coupling plate	520x580



Interface

### OPTIONS



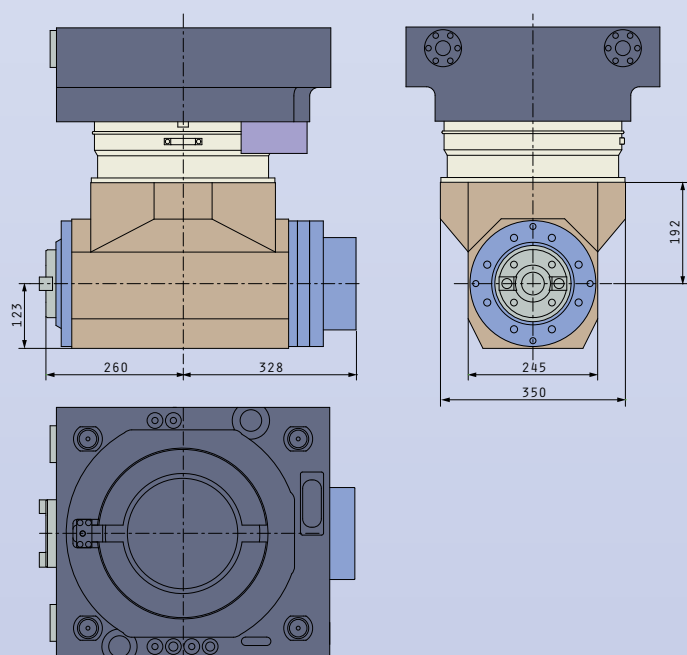
Indexing 1x1°  
Z= 360 with  
encoder



Coolant passage  
through spindle  
40 bar 20 l/1'  
DIN 69871/A



Coolant passage  
through spindle  
40 bar 20 l/1'  
DIN 69871/B



## ● TM1 EX HT - Mechanical spindle

Tool holder	Spindle axis coupling plate distance	Motor power	Max. spindle speed	Max. spindle torque	Rotation angle for "C" axis	Max. weight
-	mm	kW	rpm	Nm	-	kg
ISO 50 MAS 403 BT 50	775	25	1500	750	Nx360°	300



### KEY POINTS:

- Axis clamped manually on "T" slot
- Transmission with Klingelnberg gear system

### NECESSARY INFORMATION:

Following data are essential to define the coupling plate for the RAM interface

- 1- Reference: How the milling head is referred to the machine
- 2- Clamping: How the milling head is fixed on the machine tool
- 3- Connection for: Mechanical power inlet, Electric Power and signals, Pneumatic, Hydraulic, Lubrication

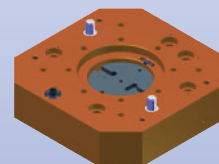
- 4- Identification system
- 5- Antirotation system for static station
- 6- References for static station

The indexing axis milling head TM1 EX HT can be supplied as:

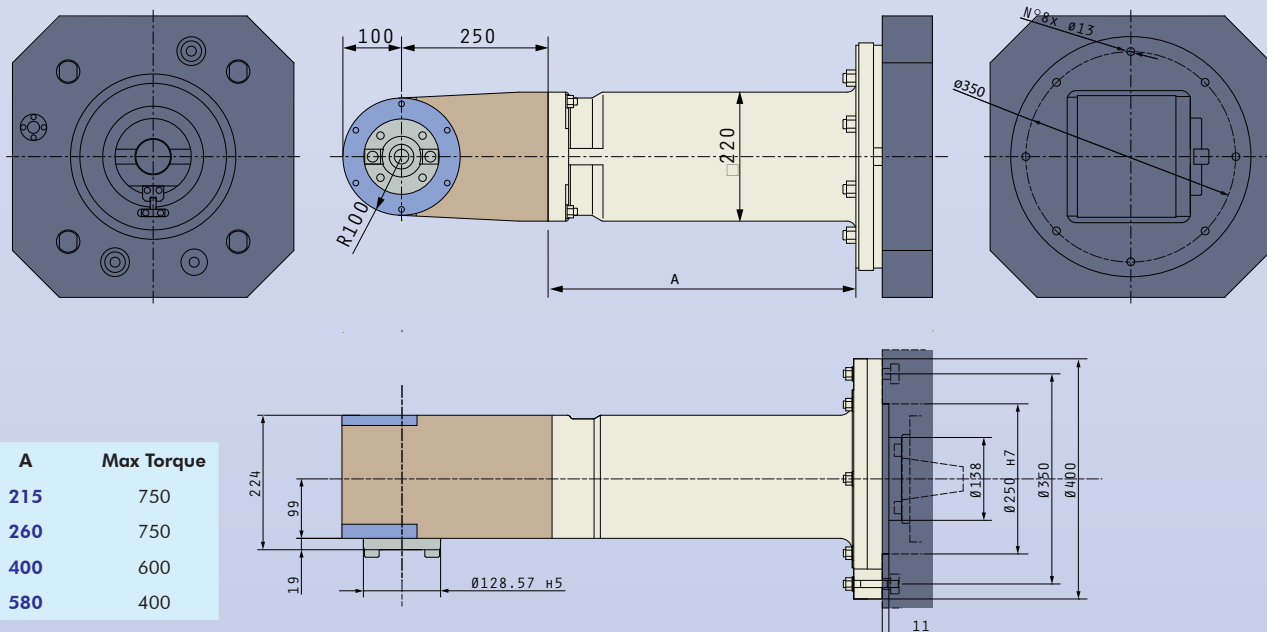
- **Accessory** = The machine tool is fitted with head changing device for different kind of machining

### NECESSARY COMPONENT

Coupling plate	480x480
Coupling plate	500x500
Coupling plate	600x600



Interface





## ● EX HT - Mechanical spindle

Tool holder	Taper clamping force	Motor power	Max. spindle speed	Max. spindle torque	Approximate weight
-	N	kW	rpm	Nm	kg
ISO 50 MAS 403 BT 50	20000	25	1500	1200	250



### NECESSARY INFORMATION:

Following data are essential to define the coupling plate for the RAM interface

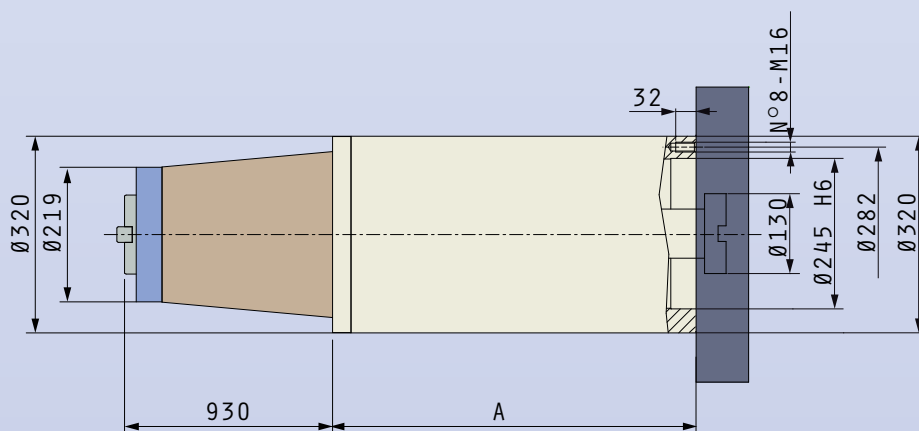
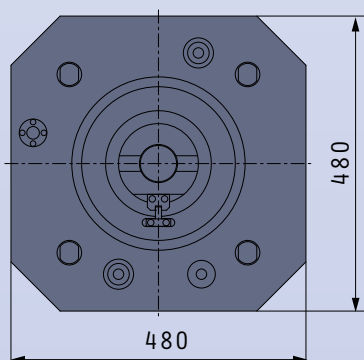
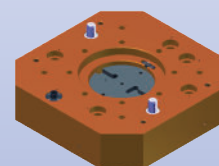
- 1- Reference: How the milling head is referred to the machine
- 2- Clamping: How the milling head is fixed on the machine tool
- 3- Connection for: Mechanical power inlet, Electric Power and signals, Pneumatic, Hydraulic, Lubrication
- 4- Identification system
- 5- Antirotation system for static station
- 6- References for static station

The indexing axis milling head EX HT can be supplied as:

- **Accessory** = The machine tool is fitted with head changing device for different kind of machining

### NECESSARY COMPONENT

Coupling plate	480x480
Coupling plate	500x500
Coupling plate	600x600



A	Max Torque
230	1200
560	750



Max load capacities are only indicative,  
They must therefore be always related  
to the real conditions of work.  
EUROMA will not be responsible for  
any damage caused by inadequate use  
of the data.



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