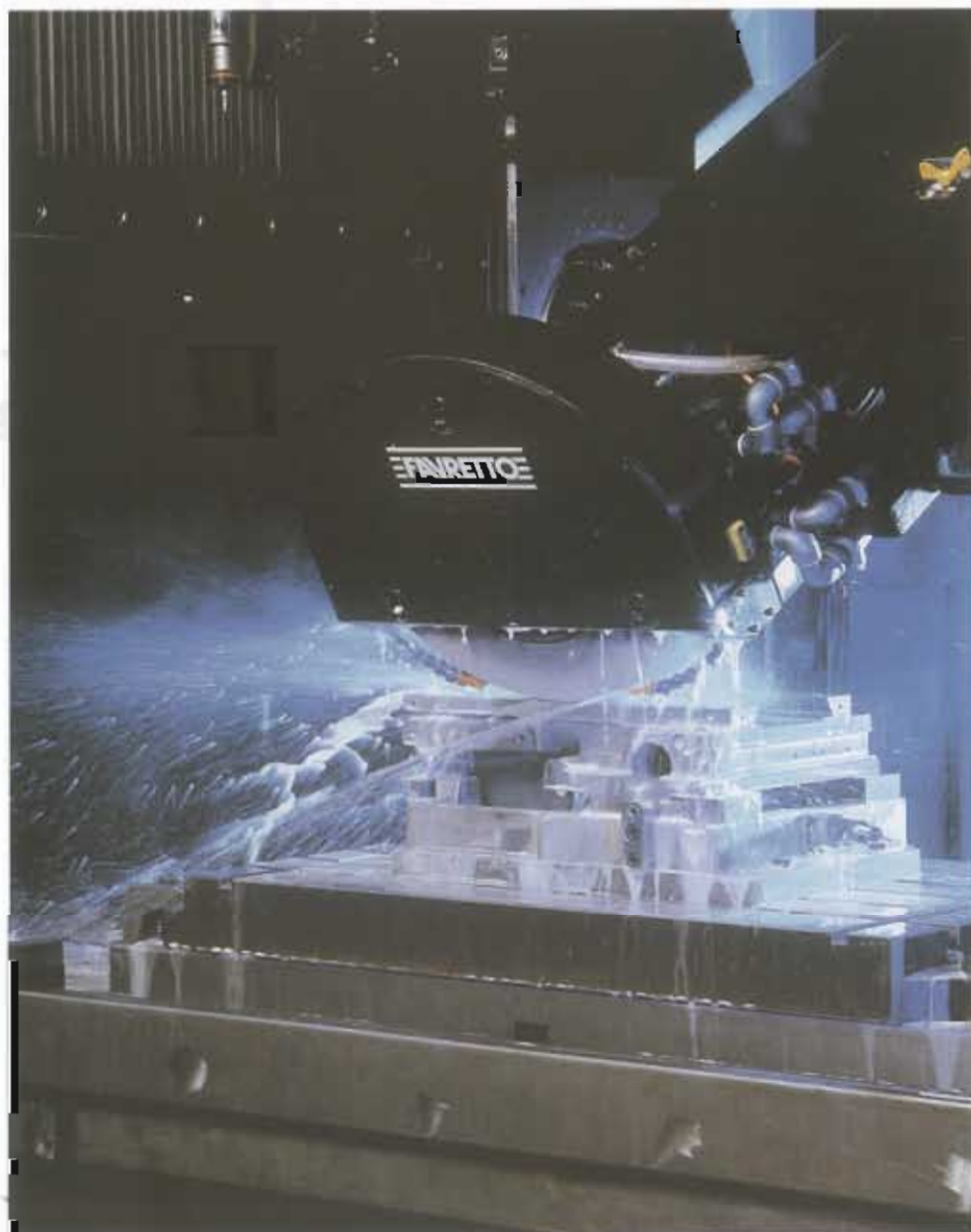


EFANRETTOE

*Surface and profile grinding
machines with Universal spindle*



Specialist since 1934

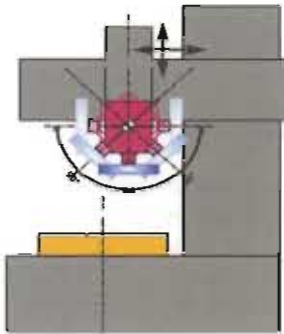


*Specialized in the manufacture of
surface and profile grinding machines
since 1934*

Summary

Single column machine with universal spindle and reciprocating table motion

Modulo Series MC/U

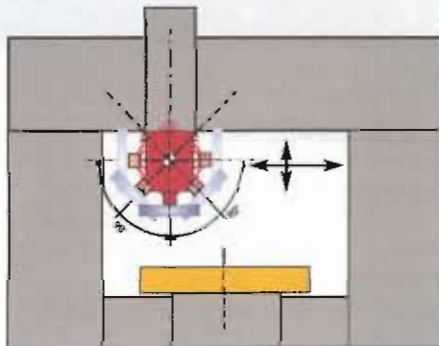


Main technical specifications:

- Cross transverse capacity : 500 mm.
- Vertical capacity : 575 mm.
- Longitudinal capacity : 1100 $\Rightarrow$ 3500 mm.
- Power of spindle motor : 7,5
- Wheel diameter : 406 mm.

Double column machines fixed rail with universal spindle and reciprocating table motion

Modulo Series ME/U-MF/U-MG/U-MH/U MIDI

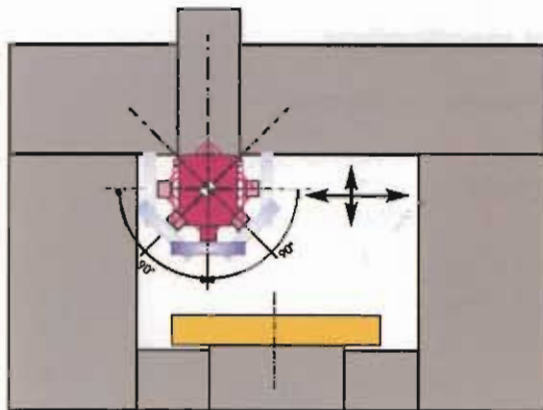


Main technical specifications:

- Cross transverse capacity : 1000 $\Rightarrow$ 1750 mm.
- Vertical capacity : 700 mm.
- Longitudinal capacity : 2000 $\Rightarrow$ 7000 mm.
- Power of spindle motor : 22 kW
- Wheel diameter : 508 mm.

Double column machines fixed rail with universal spindle and reciprocating table motion

Modulo Series ME/U-MF/U-MG/U-MH/U **MI/U-ML/U-MM/U-MN/U HP**

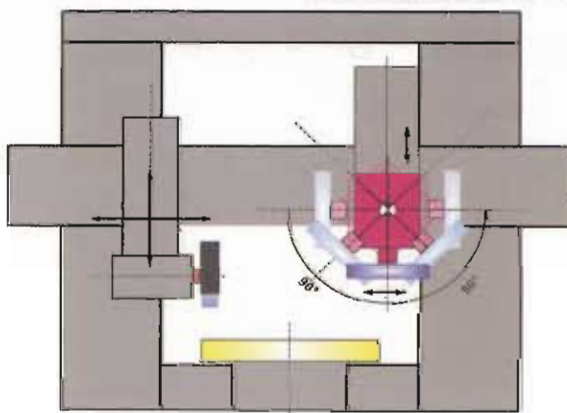


Main technical specifications:

- Cross transverse capacity : 1000 $\Rightarrow$ 3500 mm.
- Vertical capacity : 850 $\Rightarrow$ 1350 mm.
- Longitudinal capacity : 2000 $\Rightarrow$ 16000 mm.
- Power of spindle motor : 38 kW
- Wheel diameter : 610 mm.

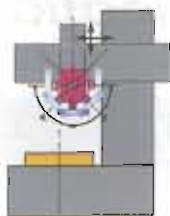
Double column machine with adjustable levelling rail, with horizontal and universal spindles and reciprocating table motion

Modulo Series TU/P



Main technical specifications:

- Cross transverse capacity : 2000 $\Rightarrow$ 3000 mm.
- Vertical capacity : 1500 $\Rightarrow$ 2500 mm.
- Longitudinal capacity : 3000 $\Rightarrow$ 16000 mm.
- Power of universal spindle motor : 38 kW
- Power of horizontal spindle motor : 50kW [Option 80kW]
- Universal wheel diameter : 610 mm.
- Horizontal wheel diameter : 610 $\Rightarrow$ 750 mm.



Universal spindle machine with reciprocating table motion

Modulo Series MC/U



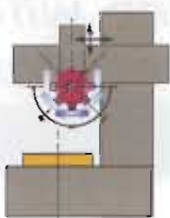
The equipment of the machine illustrated may differ from standard supply.

- **dgt_{cnc}** Digital electronic system with numerical control

Main technical specifications:

- Cross transverse capacity : 500 mm.
- Vertical capacity : 575 mm.
- Longitudinal capacity : 1100 ⇒ 3500 mm.
- Power of spindle motor : 7,5 kW
- Wheel diameter : 406 mm.

single column



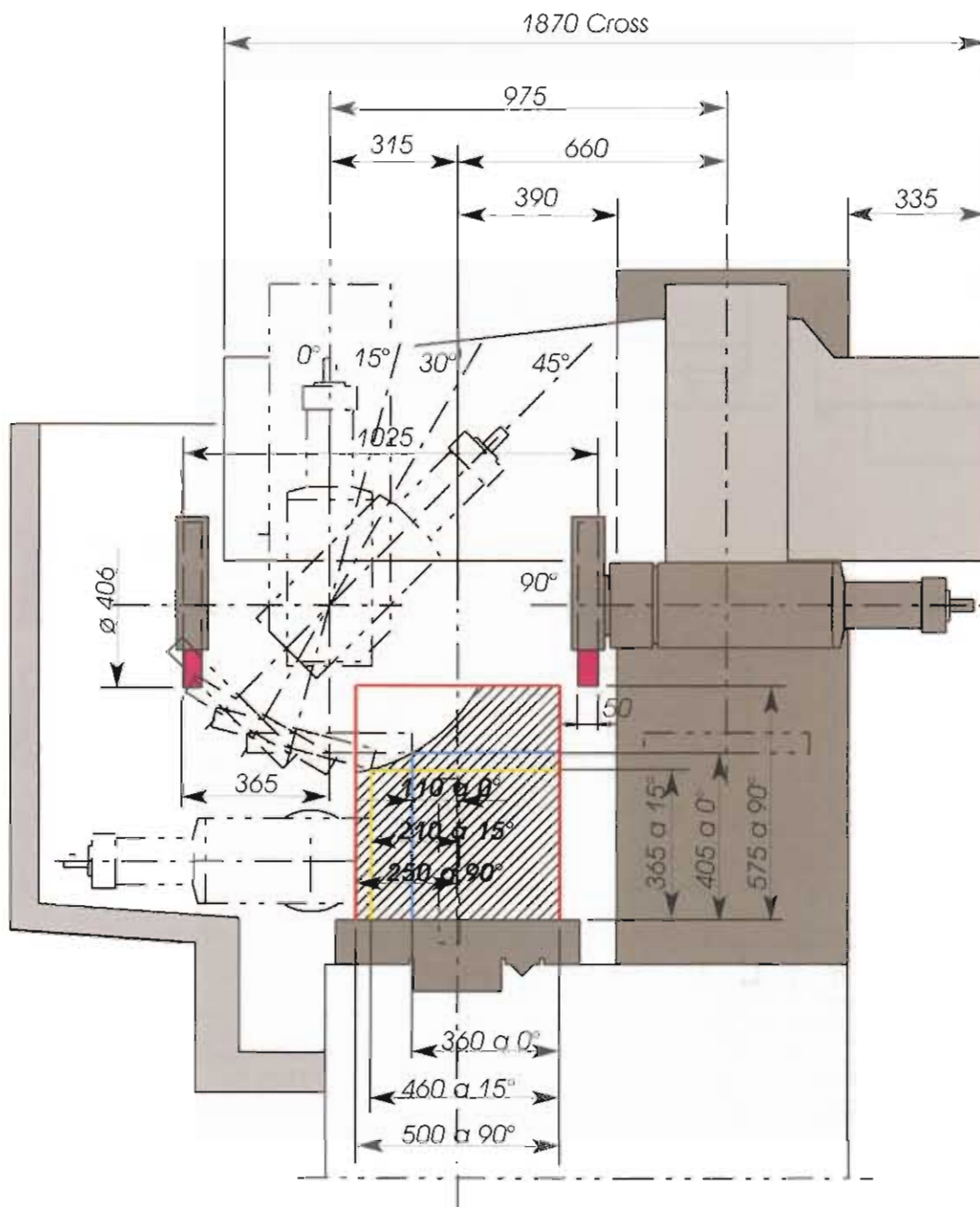
Single column technical specification

Modulo Series MC/U

			MC/U 110	MC/U 150	MC/U 200	MC/U 350
Working capacity	Max. grinding Length	mm	1100	1500	2000	3500
	Max. Grinding Width (see sketch at following page)	mm	500			
	Max. Grinding Height (see sketch at following page)	mm	575			
Spindle Head	Power	kW	7,5			
	Swivelling range	±°	90°			
	Grinding wheel size* (Diameter x bore x width)	mm	406 x 152,4 x 50			
	Wheel speed	rpm	1400			
Longitudinal axis table	Feed rate	m/min [†]	1 ÷ 40			
	Load capacity (max. without magn. chuck)	kg	1100	1500	2000	3500
	Load capacity (max. with magn. chuck)	Kg	800	1080	1440	2520
	Working surface	mm	1600 x 500	2000 x 500	2500 x 500	4000 x 500
	Working travel	mm	1100	1500	2000	3500
	Max. travel	mm	1720	2120	2620	4120
Cross axis head	Max. rapid speed	m/min	5			
	Grinding feed step-by-step	mm	1 ÷ 50			
	Grinding feed infinitely variable	mm/min	0 ÷ 2000			
	Min. programmable increment	mm	0,001			
	Working travel	mm	975			
	Max. travel	mm	1005			
Vertical axis head	Max. rapid speed	m/min	1,5			
	Min. programmable increment	mm	0,001			
	Working travel	mm	615			
	Max. travel	mm	645			
Dimensions	LENGTH	mm	5950	7050	8050	12050
	WIDTH	mm	4460			
	HEIGHT	mm	3100			
MACHINE WEIGHT		Kg. (approx)	15000	16200	17400	21000
POWER REQUIREMENT		Kw.(approx)	23			

Dimensions, weight, and Power may vary subject to optional equipment.

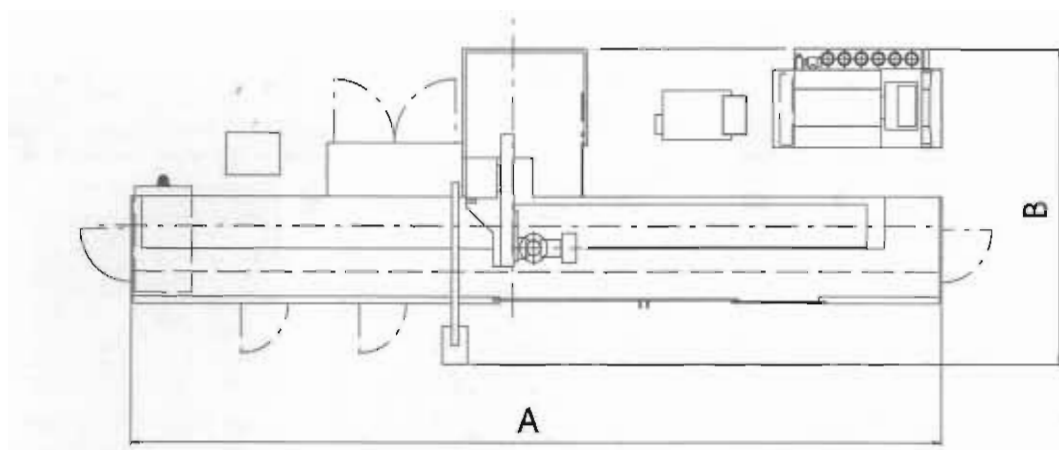
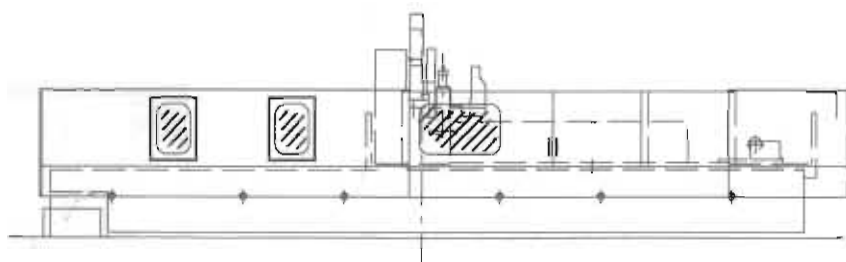
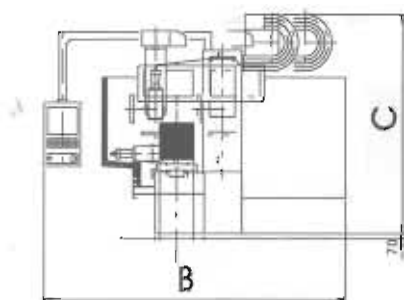
Machine Capacity series MC/U



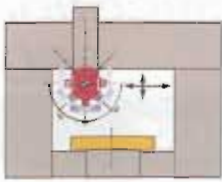
WORKING AREA

Single column technical specifications

Machine dimensions MC/U series



MODEL	A	B	C
MC/U 110	5950	4460	3100
MC/U 150	7050	4460	3100
MC/U 200	8050	4460	3100
MC/U 350	12050	4460	3100



**Fixed rail machines with universal spindle
and reciprocating table motion**

Modulo Series ME/U-MF/U- MG/U-MH/U



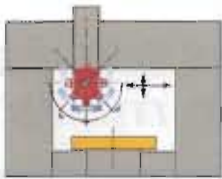
The equipment of the machine illustrated may differ from standard supply.

- **dgt_{cnc}** Digital electronic system with numerical control

Main technical specifications:

- Cross transverse capacity : 1000 ⇒ 1750 mm.
- Vertical capacity : 700 mm.
- Longitudinal capacity : 2000 ⇒ 7000 mm.
- Power of spindle motor : 22 kW
- Wheel diameter : 508 mm.

Double column MIDI



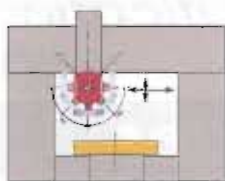
Double column technical specification

MIDI

Modulo ME/U Series

			ME/U 200	ME/U 300	ME/U 400	ME/U 500	ME/U 600
Working capacity	Max. Grinding Length	mm	2000	3000	4000	5000	6000
	Max. Grinding Width	mm	1000				
	Max. Grinding Height (see sketch at following page 14)	mm	700				
Spindle Head	Power	Kw	22				
	Swivelling range	±°	110°				
	Grinding wheel size (Diameter x bore x width)	mm	508 x 203,2 x 100				
	Wheel speed	rpm	1200 ÷ 3000				
Longitudinal axis table	Feed rate	m/min	1 ÷ 40				
	Load capacity (max. without magn. chuck)	Kg/lin.m	1500				
	Working surface	mm	2150 x 900	3150 x 900	4150 x 900	5150 x 900	6150 x 900
	Working travel	mm	2150	3150	4150	5150	6150
	Max. travel	mm	2500	3500	4500	5500	6500
Cross axis head	Max. rapid speed	m/min	5				
	Grinding feed step-by-step	mm	3 ÷ 50				
	Grinding feed infinitely variable	mm/min	0 ÷ 2000				
	Min. programmable increment	mm	0,001				
Vertical axis head	Max. rapid speed	m/min	5				
	Min. programmable increment	mm	0,001				
	Working travel	mm	750				
	Max. travel	mm	800				
Dimensions	LENGTH	mm	6700	8700	10700	12700	14700
	WIDTH	mm	3700				
	HEIGHT	mm	4500				
MACHINE WEIGHT		Kg. (approx)	24500	27500	31500	36000	39500
POWER REQUIREMENT		Kw.(approx)	70				

Dimensions, weight, and Power may vary subject to optional equipment.



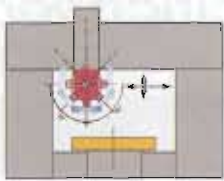
Double column technical specification

MIDI

Modulo MF/U Series

			MF/U 200	MF/U 300	MF/U 400	MF/U 500	MF/U 600
Working capacity	Max. Grinding Length	mm	2000	3000	4000	5000	6000
	Max. Grinding Width	mm	1300				
	Max. Grinding Height (see sketch at following page 14)	mm	700				
Spindle Head	Power	Kw	22				
	Swivelling range	±°	110°				
	Grinding wheel size (Diameter x bore x width)	mm	508 x 203,2 x 100				
	Wheel speed	rpm	1200 ÷ 3000				
Longitudinal axis table	Feed rate	m/min	1 ÷ 40				
	Load capacity (max. without magn. chuck)	Kg/lin.m	1500				
	Working surface	mm	2150 x 1100	3150 x 1100	4150 x 1100	5150 x 1100	6150 x 1100
	Working travel	mm	2150	3150	4150	5150	6150
	Max. travel	mm	2500	3500	4500	5500	6500
Cross axis head	Max. rapid speed	m/min	5				
	Grinding feed step-by-step	mm	3 ÷ 50				
	Grinding feed infinitely variable	mm/min	0 ÷ 2000				
	Min. programmable increment	mm	0,001				
Vertical axis head	Max. rapid speed	m/min	5				
	Min. programmable increment	mm	0,001				
	Working travel	mm	750				
	Max. travel	mm	800				
Dimensions	LENGTH	mm	6700	8700	10700	12700	14700
	WIDTH	mm	4000				
	HEIGHT	mm	4500				
MACHINE WEIGHT		Kg. (approx)	25500	28500	32500	38500	42000
POWER REQUIREMENT		Kw.(approx)	70				

Dimensions, weight, and Power may vary subject to optional equipment.



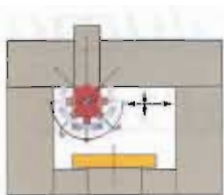
Double column technical specification

MIDI

Modulo MG/U Series

			MG/U 300	MG/U 400	MG/U 500	MG/U 600	MG/U 700
Working capacity	Max. Grinding Length	mm	3000	4000	5000	6000	7000
	Max. Grinding Width	mm	1500				
	Max. Grinding Height (see sketch at following page 14)	mm	700				
Spindle Head	Power	Kw	22				
	Swivelling range	±°	110°				
	Grinding wheel size (Diameter x bore x width)	mm	508 x 203,2 x 100				
	Wheel speed	rpm	1200 ÷ 3000				
Longitudinal axis table	Feed rate	m/min	1 ÷ 40				
	Load capacity (max. without magn. chuck)	Kg/lin.m	2000				
	Working surface	mm	3150 x 1350	4150 x 1350	5150 x 1350	6150 x 1350	7150 x 1350
	Working travel	mm	3150	4150	5150	6150	7150
	Max. travel	mm	3500	4500	5500	6500	7500
Cross axis head	Max. rapid speed	m/min	5				
	Grinding feed step-by-step	mm	3 ÷ 50				
	Grinding feed infinitely variable	mm/min	0 ÷ 2000				
	Min. programmable increment	mm	0,001				
Vertical axis head	Max. rapid speed	m/min	5				
	Min. programmable increment	mm	0,001				
	Working travel	mm	750				
	Max. travel	mm	800				
Dimensions	LENGTH	mm	10000	12000	14000	16000	18000
	WIDTH	mm	4200				
	HEIGHT	mm	4500				
MACHINE WEIGHT		Kg. (approx)	29000	32500	36000	39500	43000
POWER REQUIREMENT		Kw.(approx)	80				

Dimensions, weight, and Power may vary subject to optional equipment.



Double column technical specification

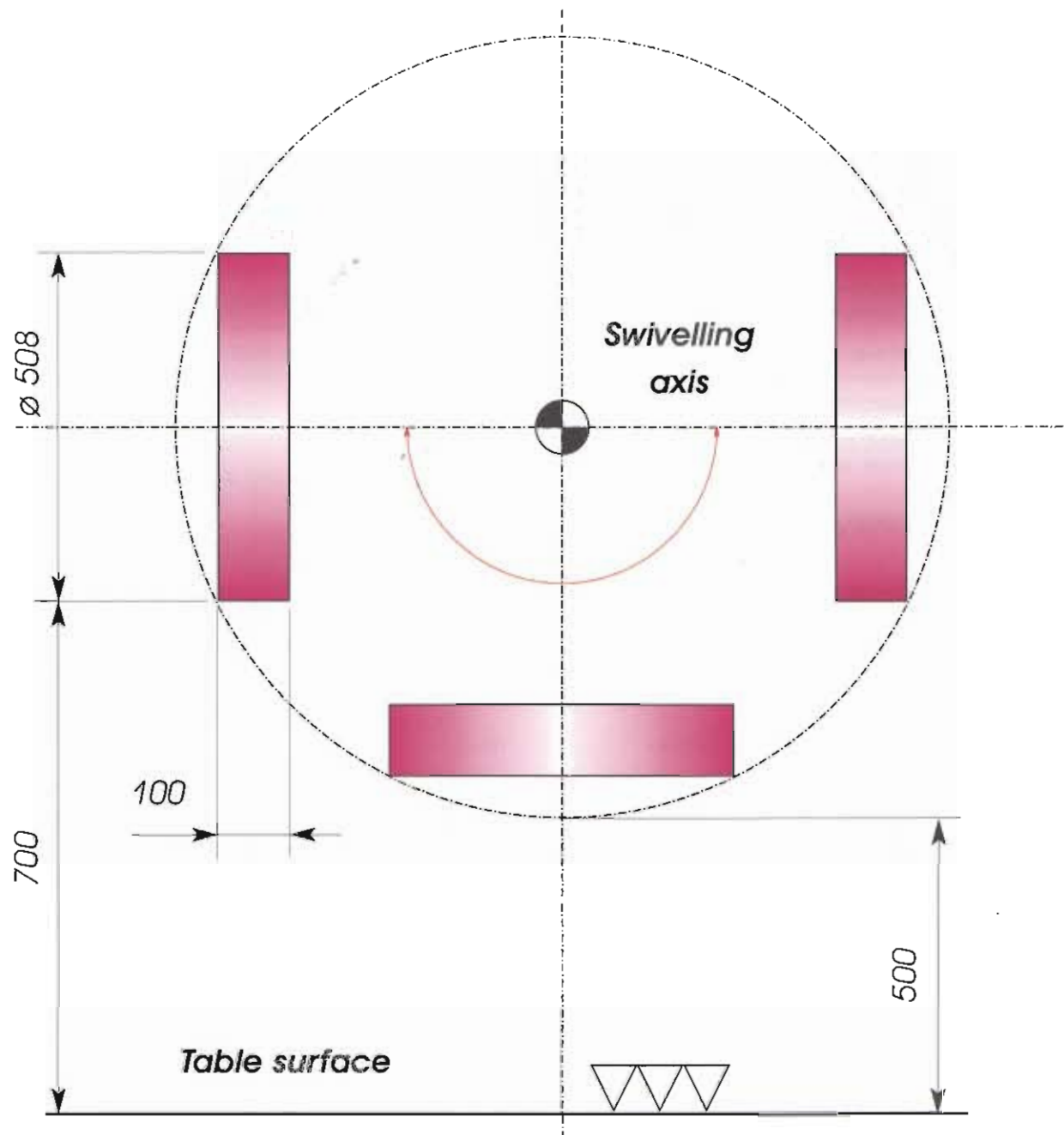
MIDI

Modulo MH/U Series

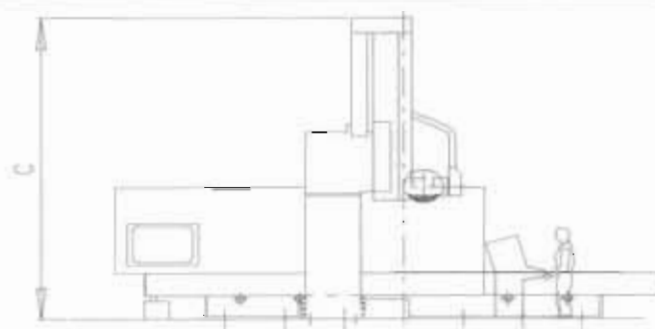
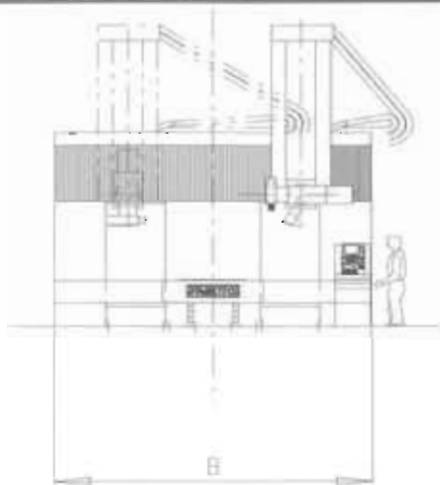
			MH/U 300	MH/U 400	MH/U 500	MH/U 600	MH/U 700
Working capacity	Max. Grinding Length	mm	3000	4000	5000	6000	7000
	Max. Grinding Width	mm	1750				
	Max. Grinding Height	mm	700				
	(see sketch at following page 14)	mm					
Spindle Head	Power	kW	22				
	Swivelling range	±°	110°				
	Grinding wheel size (Diameter x bore x width)	mm	508 x 203,2 x 100				
	Wheel speed	rpm	1200 ÷ 3000				
Longitudinal axis table	Feed rate	m/min	1 ÷ 40				
	Load capacity (max. without magn. chuck)	Kg/lin.m	2000				
	Working surface	mm	3150 x 1350	4150 x 1350	5150 x 1350	6150 x 1350	7150 x 1350
	Working travel	mm	3150	4150	5150	6150	7150
	Max. travel	mm	3500	4500	5500	6500	7500
Cross axis head	Max. rapid speed	m/min	5				
	Grinding feed step-by-step	mm	3 ÷ 50				
	Grinding feed infinitely variable	mm/min	0 ÷ 2000				
	Min. programmable increment	mm	0,001				
Vertical axis head	Max. rapid speed	m/min	5				
	Min. programmable Increment	mm	0,001				
	Working travel	mm	750				
	Max. travel	mm	800				
Dimensions	LENGTH	mm	10800	12800	14800	16800	18800
	WIDTH	mm	4450				
	HEIGHT	mm	4500				
MACHINE WEIGHT		Kg. (approx)	30200	33700	37200	40700	44200
POWER REQUIREMENT		Kw.(approx)	80				

Dimensions, weight, and Power may vary subject to optional equipment.

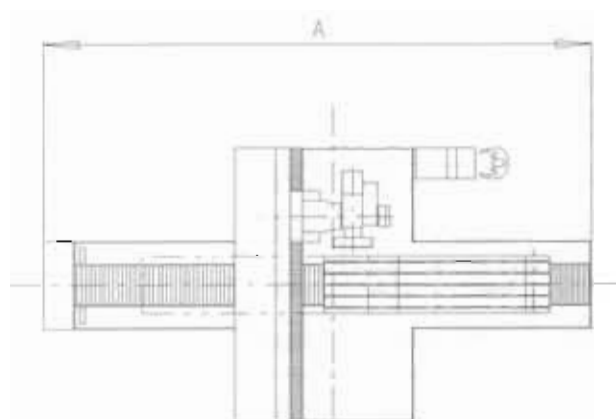
**Grinding capacity of double column
machine equipped with universal
grinding head**



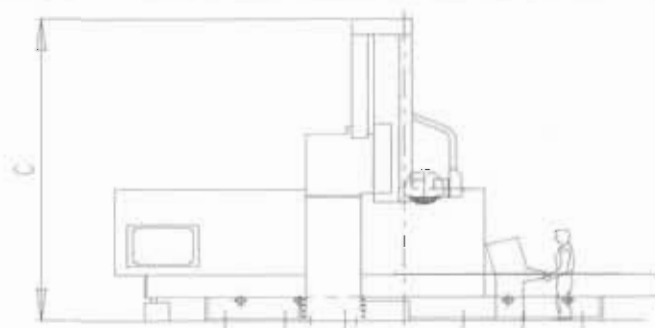
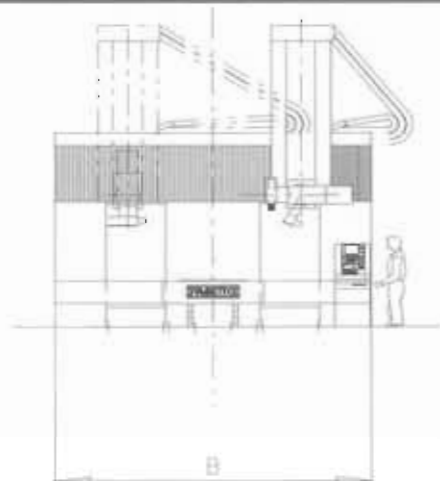
Machine dimensions ME/U series



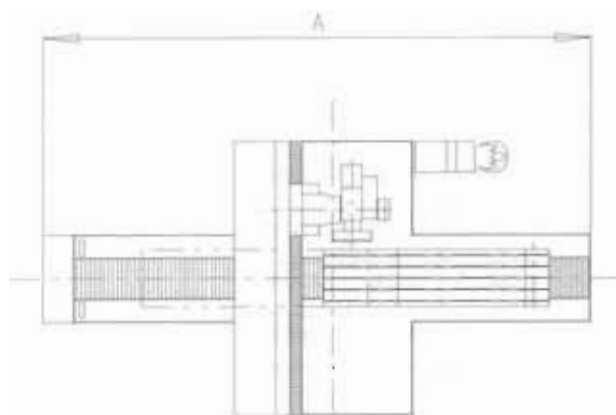
MODEL	A	B	C
ME/U 200	6700	3700	4500
ME/U 300	8700	3700	4500
ME/U 400	10700	3700	4500
ME/U 500	12700	3700	4500
ME/U 600	14700	3700	4500



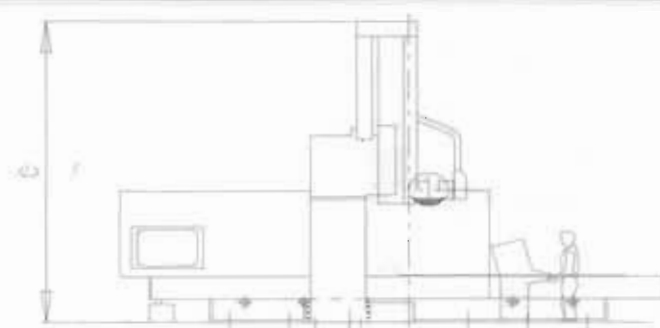
Machine dimensions MF/U series



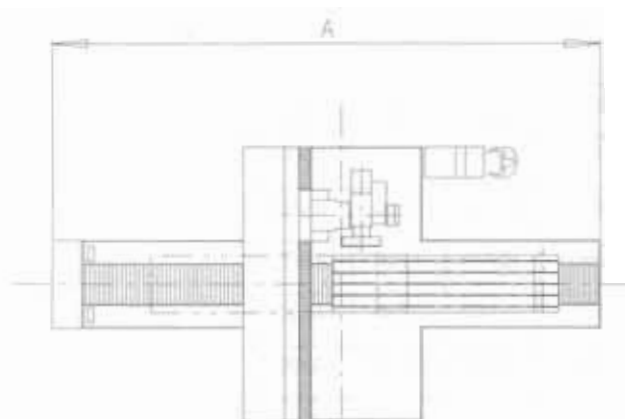
MODEL	A	B	C
MF/U 200	6700	4000	4500
MF/U 300	8700	4000	4500
MF/U 400	10700	4000	4500
MF/U 500	12700	4000	4500
MF/U 600	14700	4000	4500



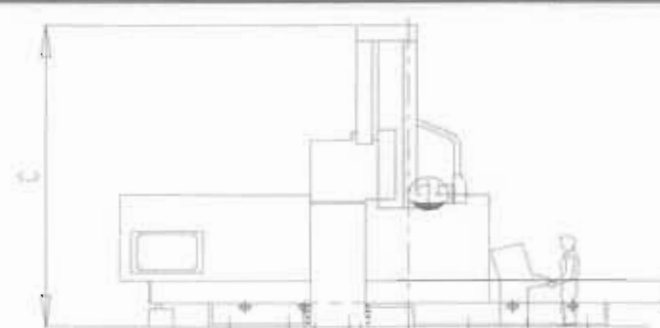
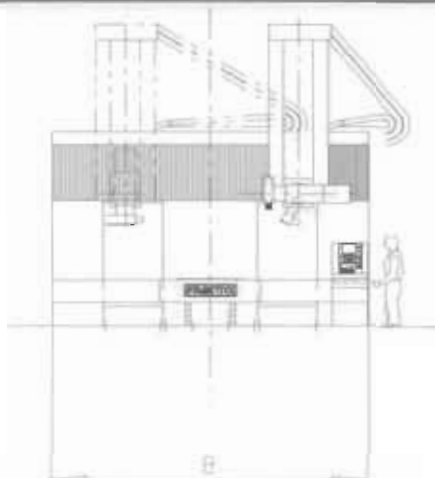
Machine dimensions MG/U series



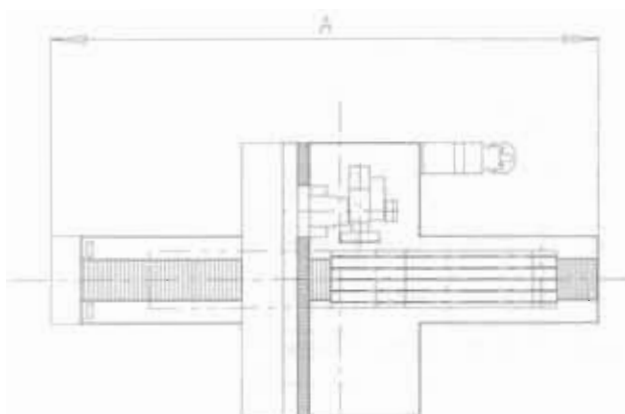
MODEL	A	B	C
MG/U 200	10000	4200	4500
MG/U 300	12000	4200	4500
MG/U 400	14000	4200	4500
MG/U 500	16000	4200	4500
MG/U 600	18000	4200	4500

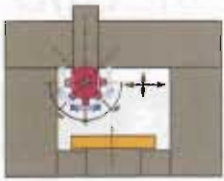


Machine dimensions MH/U series



MODEL	A	B	C
MH/U 300	10800	4450	4500
MH/U 400	12800	4450	4500
MH/U 500	14800	4450	4500
MH/U 600	16800	4450	4500
MH/U 700	18800	4450	4500





*Fixed rail machines with universal spindle
and reciprocating table motion*

***Modulo Series ME/U-MF/U-MG/U-MH/U-
MI/U-ML/U-MM/U-MN/U***

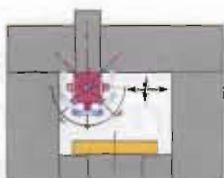


The equipment of the machine illustrated may differ from standard supply.

- **dgt_{cnc}** Digital electronic system with numerical control

Main technical specifications:

- Cross transverse capacity : 1000 ⇒ 3500 mm.
- Vertical capacity : 850 ⇒ 1350 mm.
- Longitudinal capacity : 2000 ⇒ 16000 mm.
- Power of spindle motor : 38 kW
- Wheel diameter : 610 mm.



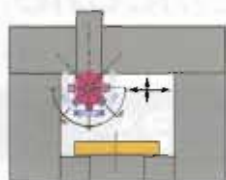
Double column technical specification

HP

Modulo ME/U Series

			ME/U 200	ME/U 300	ME/U 400	ME/U 500	ME/U 600
Working capacity	Max. Grinding Length	mm	2000	3000	4000	5000	6000
	Max. Grinding Width	mm	1000				
	Max. Grinding Height (see sketch at following page 26)	mm	Standard $\Rightarrow$ 850 Optional $\Rightarrow$ 1350				
Spindle Head	Power	kW	38				
	Swivelling range	$\pm^\circ$	110°				
	Grinding wheel size (Diameter x bore x width)	mm	610 x 304,2 x 100				
	Wheel speed	rpm	960 ÷ 3000				
Longitudinal axis table	Feed rate	m/min	1 ÷ 50				
	Load capacity (max. without magn. chuck)	Kg/lin.m	1500				
	Working surface	mm	2150 x 900	3150 x 900	4150 x 900	5150 x 900	6150 x 900
	Working travel	mm	2150	3150	4150	5150	6150
	Max. travel	mm	2500	3500	4500	5500	6500
Cross axis head	Max. rapid speed	m/min	10				
	Grinding feed step-by-step	mm	3 ÷ 75				
	Grinding feed infinitely variable	mm/min	0 ÷ 2000				
	Min. programmable increment	mm	0,001				
Vertical axis head	Max. rapid speed	m/min	10				
	Min. programmable increment	mm	0,001				
	Working travel	mm	Standard $\Rightarrow$ 920 Optional $\Rightarrow$ 1420				
	Max. travel	mm	Standard $\Rightarrow$ 1020 Optional $\Rightarrow$ 1520				
Dimensions	LENGTH	mm	9500	11500	13500	15500	17500
	WIDTH	mm	5500				
	HEIGHT	mm	Standard $\Rightarrow$ 4700 Optional $\Rightarrow$ 5700				
MACHINE WEIGHT		Kg. (approx)	31000	35000	39000	43000	47000
POWER REQUIREMENT		Kw.(approx)	120				

Dimensions, weight, and Power may vary subject to optional equipment.

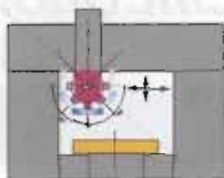


Double column technical specification HP

Modulo MF/U Series

			MF/U 200	MF/U 300	MF/U 400	MF/U 500	MF/U 600
Working capacity	Max. Grinding Length	mm	2000	3000	4000	5000	6000
	Max. Grinding Width	mm	1300				
	Max. Grinding Height (see sketch at following page 26)	mm	Standard ⇒ 850		Optional ⇒ 1350		
Spindle Head	Power	kW	38				
	Swivelling range	±°	110°				
	Grinding wheel size (Diameter x bore x width)	mm	610 x 304,8 x 100				
	Wheel speed	rpm	960 ÷ 3000				
Longitudinal axis table	Feed rate	m/min	1 ÷ 50				
	Load capacity (max. without magn. chuck)	Kg/lin.m	1500				
	Working surface	mm	2150 x 1100	3150 x 1100	4150 x 1100	5150 x 1100	6150 x 1100
	Working travel	mm	2150	3150	4150	5150	6150
	Max. travel	mm	2500	3500	4500	5500	6500
Cross axis head	Max. rapid speed	m/min	10				
	Grinding feed step-by-step	mm	3 ÷ 75				
	Grinding feed infinitely variable	mm/min	0 ÷ 2000				
	Min. programmable increment	mm	0,001				
Vertical axis head	Max. rapid speed	m/min	10				
	Min. programmable increment	mm	0,001				
	Working travel	mm	Standard ⇒ 920		Optional ⇒ 1420		
	Max. travel	mm	Standard ⇒ 1020		Optional ⇒ 1520		
Dimensions	LENGTH	mm	9500	11500	13500	15500	17500
	WIDTH	mm	5500				
	HEIGHT	mm	Standard ⇒ 4700		Optional ⇒ 5700		
MACHINE WEIGHT		Kg. (approx)	32000	35000	40000	44000	48000
POWER REQUIREMENT		Kw.(approx)	120				

Dimensions, weight, and Power may vary subject to optional equipment.



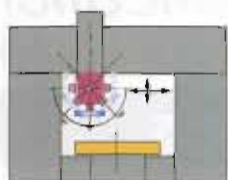
Double column technical specification

HP

Modulo MG/U Series

			MG/U 300	MG/U 400	MG/U 500	MG/U 600	MG/U 700
Working capacity	Max. Grinding Length	mm	3000	4000	5000	6000	7000
	Max. Grinding Width	mm	1500				
	Max. Grinding Height (see sketch at following page 26)	mm	Standard ⇒ 850		Optional ⇒ 1350		
Spindle Head	Power	kW	38				
	Swivelling range	±°	110°				
	Grinding wheel size (Diameter x bore x width)	mm	610 x 304,8 x 100				
	Wheel speed	rpm	960 ÷ 3000				
Longitudinal axis table	Feed rate	m/min	1 ÷ 50				
	Load capacity (max. without magn. chuck)	Kg/lin.m	2000				
	Working surface	mm	3150 x 1350	4150 x 1350	5150 x 1350	6150 x 1350	7150 x 1350
	Working travel	mm	3150	4150	5150	6150	7150
	Max. travel	mm	3500	4500	5500	6500	7500
Cross axis head	Max. rapid speed	m/min	10				
	Grinding feed step-by-step	mm	3 ÷ 50				
	Grinding feed infinitely variable	mm/min	0 ÷ 2000				
	Min. programmable increment	mm	0,001				
Vertical axis head	Max. rapid speed	m/min	10				
	Min. programmable increment	mm	0,001				
	Working travel	mm	Standard ⇒ 920		Optional ⇒ 1420		
	Max. travel	mm	Standard ⇒ 1020		Optional ⇒ 1520		
Dimensions	LENGTH	mm	10800	12800	14800	16800	18800
	WIDTH	mm	6000				
	HEIGHT	mm	Standard ⇒ 5000		Optional ⇒ 6000		
MACHINE WEIGHT		Kg. (approx)	40800	44400	48000	51600	55200
POWER REQUIREMENT		Kw.(approx)	130				

Dimensions, weight, and Power may vary subject to optional equipment.



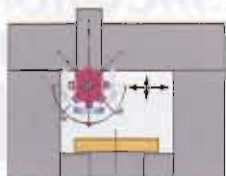
Double column technical specification

HP

Modulo MH/U Series

			MH/U 300	MH/U 400	MH/U 500	MH/U 600	MH/U 700
Working capacity	Max. Grinding Length	mm	3000	4000	5000	6000	7000
	Max. Grinding Width	mm	1750				
	Max. Grinding Height (see sketch at following page 26)	mm	Standard ⇒ 850		Optional ⇒ 1350		
Spindle Head	Power	kW	38				
	Swivelling range	±°	110°				
	Grinding wheel size (Diameter x bore x width)	mm	610 x 304,8 x 100				
	Wheel speed	rpm	960 ÷ 3000				
Longitudinal axis table	Feed rate	m/min	1 ÷ 50				
	Load capacity (max. without magn. chuck)	Kg/lin.m	2000				
	Working surface	mm	3150 x 1350	4150 x 1350	5150 x 1350	6150 x 1350	7150 x 1350
	Working travel	mm	3150	4150	5150	6150	7150
	Max. travel	mm	3500	4500	5500	6500	7500
Cross axis head	Max. rapid speed	m/min	10				
	Grinding feed step-by-step	mm	3 ÷ 50				
	Grinding feed infinitely variable	mm/min	0 ÷ 2000				
	Min. programmable increment	mm	0,001				
Vertical axis head	Max. rapid speed	m/min	10				
	Min. programmable increment	mm	0,001				
	Working travel	mm	Standard ⇒ 920		Optional ⇒ 1420		
	Max. travel	mm	Standard ⇒ 1020		Optional ⇒ 1520		
Dimensions	LENGTH	mm	10800	12800	14800	16800	18800
	WIDTH	mm	6000				
	HEIGHT	mm	Standard ⇒ 5000		Optional ⇒ 6000		
MACHINE WEIGHT		Kg. (approx)	42000	45600	49200	52800	56400
POWER REQUIREMENT		Kw.(approx)	130				

Dimensions, weight, and Power may vary subject to optional equipment.



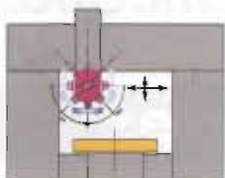
Double column technical specification

HP

Modulo MI/U Series

			MI/U 400	MI/U 500	MI/U 600	MI/U 700	MI/U 800	MI/U 900	MI/U 1000
Working capacity	Max. Grinding Length	mm	4000	5000	6000	7000	8000	9000	10000
	Max. Grinding Width	mm	2000						
	Max. Grinding Height (see sketch at following page 26)	mm	Standard ⇒ 850			Optional ⇒ 1350			
Spindle Head	Power	Kw	38						
	Swivelling range	±°	110°						
	Grinding wheel size (Diameter x bore x width)	mm	610 x 304,8 x 100						
	Wheel speed	rpm	960 ÷ 3000						
Longitudinal axis table	Feed rate	m/min	1 ÷ 50						
	Load capacity (max. without magn. chuck)	Kg/lin.m	2500						
	Working surface	mm	4300 x 1800	5300 x 1800	6300 x 1800	7300 x 1800	8300 x 1800	9300 x 1800	10300 x 1800
	Working travel	mm	4300	5300	6300	7300	8300	9300	10300
	Max. travel	mm	4600	5600	6600	7600	8600	9600	10600
Cross axis head	Max. rapid speed	m/min	10						
	Grinding feed step-by-step	mm	3 ÷ 50						
	Grinding feed infinitely variable	mm/min	0 ÷ 2000						
	Min. programmable increment	mm	0,001						
Vertical axis head	Max. rapid speed	m/min	10						
	Min. programmable increment	mm	0,001						
	Working travel	mm	Standard ⇒ 920			Optional ⇒ 1420			
	Max. travel	mm	Standard ⇒ 1020			Optional ⇒ 1520			
Dimensions	LENGTH	mm	12000	14000	16000	18000	20000	22000	24000
	WIDTH	mm	7000						
	HEIGHT	mm	Standard ⇒ 5250			Optional ⇒ 6250			
MACHINE WEIGHT		Kg. (approx)	54000	60000	66000	72000	78000	84000	90000
POWER REQUIREMENT		Kw.(approx)	150						

Dimensions, weight, and Power may vary subject to optional equipment.



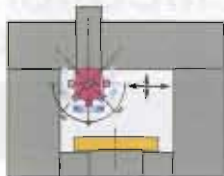
Double column technical specification

HP

Modulo ML/U Series

			ML/U 400	ML/U 600	ML/U 800	ML/U 1000	ML/U 1200	ML/U 1400	ML/U 1600
Working capacity	Max. Grinding Length	mm	4000	6000	8000	10000	12000	14000	16000
	Max. Grinding Width	mm	2500						
	Max. Grinding Height (see sketch at following page 26)	mm	Standard ⇒ 850			Optional ⇒ 1350			
Spindle Head	Power	Kw	38						
	Swivelling range	±°	110°						
	Grinding wheel size (Diameter x bore x width)	mm	610 x 304,8 x 100						
	Wheel speed	rpm	960 ÷ 3000						
Longitudinal axis table	Feed rate	m/min	1 ÷ 50						
	Load capacity (max. without magn. chuck)	Kg/lin.m	4000						
	Working surface	mm	4000 x 2300	6000 x 2300	8000 x 2300	10000 x 2300	12000 x 2300	14000 x 2300	16000 x 2300
	Working travel	mm	4500	6500	7500	10500	12500	14500	16500
	Max. travel	mm	5000	7000	8000	11000	13000	15000	17000
Cross axis head	Max. rapid speed	m/min	10						
	Grinding feed step-by-step	mm	3 ÷ 50						
	Grinding feed infinitely variable	mm/min	0 ÷ 2000						
	Min. programmable increment	mm	0,001						
Vertical axis head	Max. rapid speed	m/min	10						
	Min. programmable increment	mm	0,001						
	Working travel	mm	Standard ⇒ 920			Optional ⇒ 1420			
	Max. travel	mm	Standard ⇒ 1020			Optional ⇒ 1520			
Dimensions	LENGTH	mm	14000	18000	22000	26000	30000	34000	38000
	WIDTH	mm	7000						
	HEIGHT	mm	Standard ⇒ 5250			Optional ⇒ 6250			
MACHINE WEIGHT		Kg. (approx)	72000	90000	108000	126000	144000	162000	180000
POWER REQUIREMENT		Kw.(approx)	200				250		

Dimensions, weight, and Power may vary subject to optional equipment.



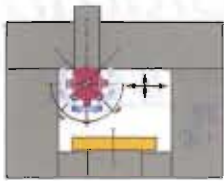
Double column technical specification

HP

Modulo MM/U Series

			MM/U 400	MM/U 600	MM/U 800	MM/U 1000	MM/U 1200	MM/U 1400	MM/U 1600
Working capacity	Max. Grinding Length	mm	4000	6000	8000	10000	12000	14000	16000
	Max. Grinding Width	mm	3000						
	Max. Grinding Height (see sketch at following page 26)	mm	Standard ⇒ 850			Optional ⇒ 1350			
Spindle Head	Power	Kw	38						
	Swivelling range	±°	110°						
	Grinding wheel size (Diameter x bore x width)	mm	610 x 304,8 x 100						
	Wheel speed	rpm	960 ÷ 3000						
Longitudinal axis table	Feed rate	m/min	1 ÷ 50						
	Load capacity (max. without magn. chuck)	Kg/lin.m	4000						
	Working surface	mm	4000 x 2500	6000 x 2500	8000 x 2500	10000 x 2500	12000 x 2500	14000 x 2500	16000 x 2500
	Working travel	mm	4500	6500	8500	10500	12500	14500	16500
	Max. travel	mm	5000	7000	9000	11000	13000	15000	17000
Cross axis head	Max. rapid speed	m/min	10						
	Grinding feed step-by-step	mm	3 ÷ 50						
	Grinding feed infinitely variable	mm/min	0 ÷ 2000						
	Min. programmable increment	mm	0,001						
Vertical axis head	Max. rapid speed	m/min	10						
	Min. programmable increment	mm	0,001						
	Working travel	mm	Standard ⇒ 920			Optional ⇒ 1420			
	Max. travel	mm	Standard ⇒ 1020			Optional ⇒ 1520			
Dimensions	LENGTH	mm	14000	18000	22000	26000	30000	34000	36000
	WIDTH	mm	7500						
	HEIGHT	mm	Standard ⇒ 5250			Optional ⇒ 6250			
MACHINE WEIGHT		Kg. (approx)	72000	90000	108000	126000	144000	162000	180000
POWER REQUIREMENT		Kw.(approx)	250				300		

Dimensions, weight, and Power may vary subject to optional equipment.



Double column technical specification

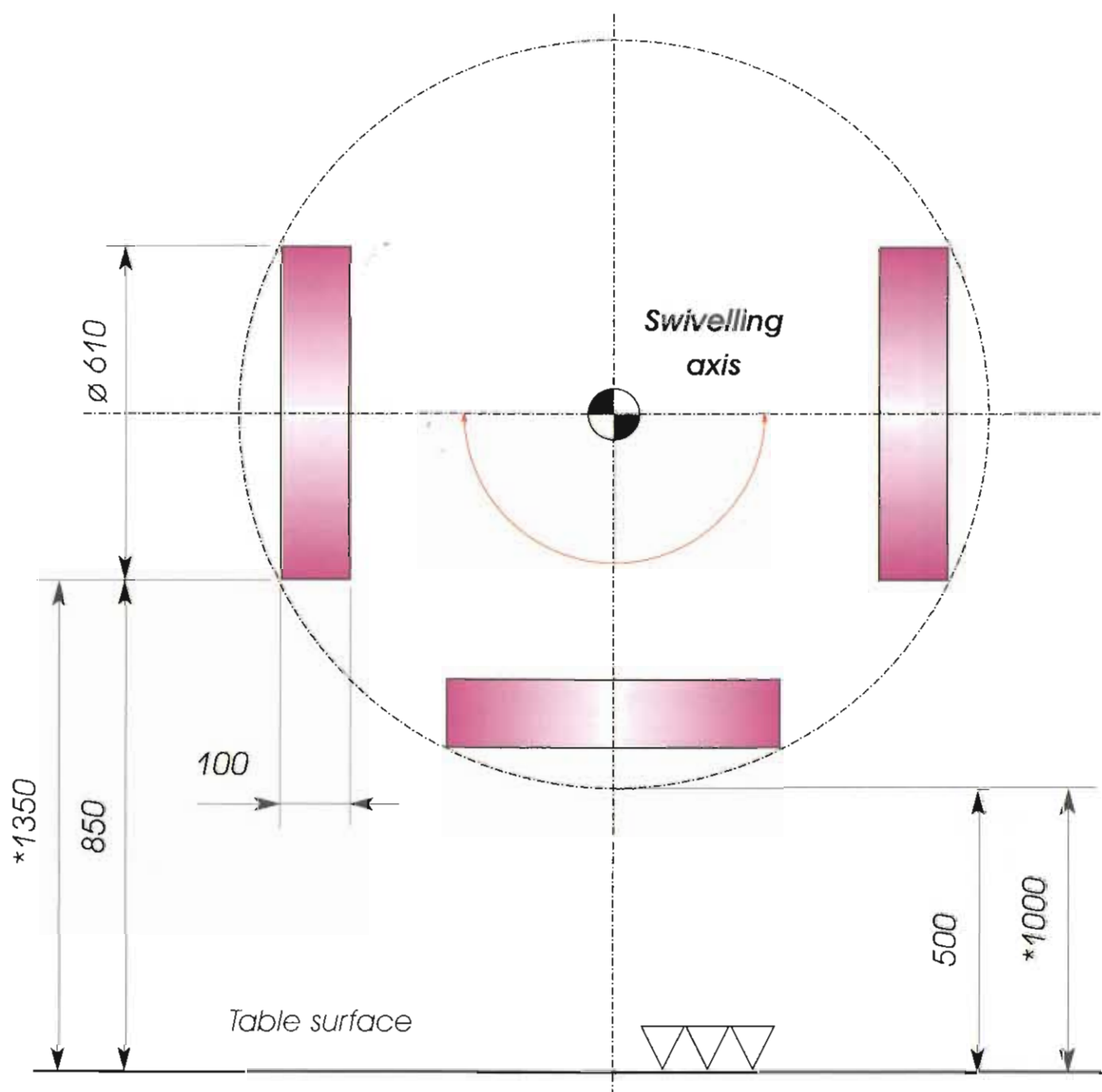
HP

Modulo MN/U Series

			MN/U 400	MN/U 600	MN/U 800	MN/U 1000	MN/U 1200	MN/U 1400	MN/U 1600
Working capacity	Max. Grinding Length	mm	4000	6000	8000	10000	12000	14000	16000
	Max. Grinding Width	mm	3500						
	Max. Grinding Height (see sketch at following page 26)	mm	Standard ⇒ 850			Optional ⇒ 1350			
Spindle Head	Power	kW	38						
	Swivelling range	±°	110°						
	Grinding wheel size (Diameter x bore x width)	mm	610 x 304,8 x 100						
	Wheel speed	rpm	960 ÷ 3000						
Longitudinal axis table	Feed rate	m/min	1 ÷ 50						
	Load capacity (max. without magn. chuck)	Kg/lin.m	4000						
	Working surface	mm	4000 x 2800	6000 x 2800	8000 x 2800	10000 x 2800	12000 x 2800	14000 x 2800	16000 x 2800
	Working travel	mm	4500	6500	8500	10500	12500	14500	16500
	Max. travel	mm	5000	7000	9000	11000	13000	15000	17000
Cross axis head	Max. rapid speed	m/min	10						
	Grinding feed step-by-step	mm	3 ÷ 50						
	Grinding feed infinitely variable	mm/min	0 ÷ 2000						
	Min. programmable increment	mm	0,001						
Vertical axis head	Max. rapid speed	m/min	10						
	Min. programmable increment	mm	0,001						
	Working travel	mm	Standard ⇒ 920			Optional ⇒ 1420			
	Max. travel	mm	Standard ⇒ 1020			Optional ⇒ 1520			
Dimensions	LENGTH	mm	14000	18000	22000	26000	30000	34000	36000
	WIDTH	mm	7500						
	HEIGHT	mm	Standard ⇒ 5450			Optional ⇒ 6450			
MACHINE WEIGHT		Kg. (approx)	72000	90000	108000	126000	144000	162000	180000
POWER REQUIREMENT		Kw.(approx)	250				300		

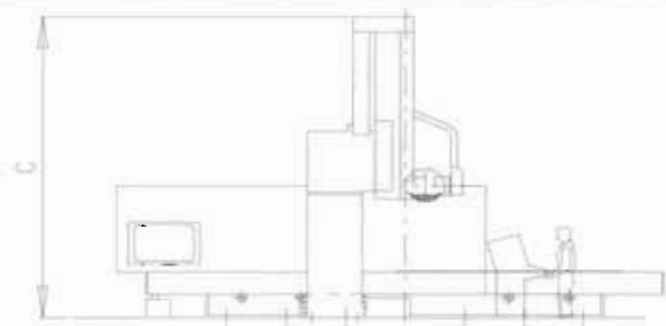
Dimensions, weight, and Power may vary subject to optional equipment, etc.

Grinding capacity of double column machine equipped with universal grinding head

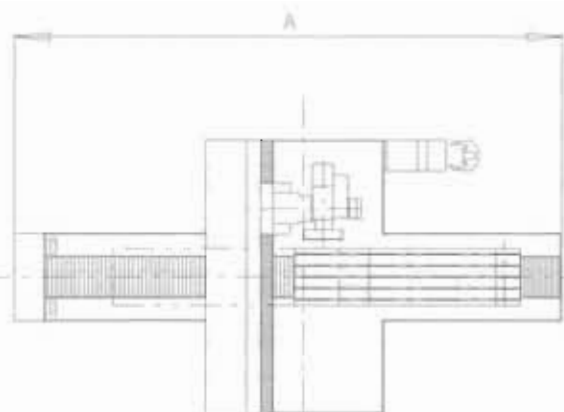


* *With option 402*

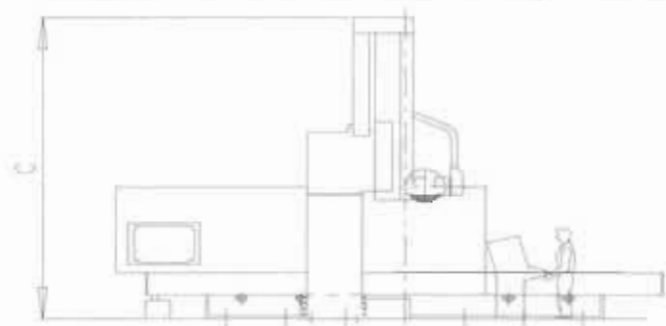
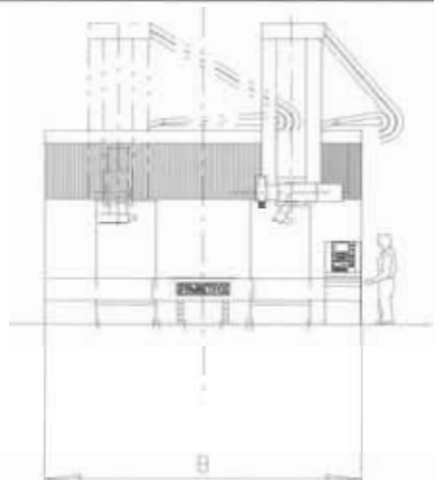
Machine dimensions ME/U series



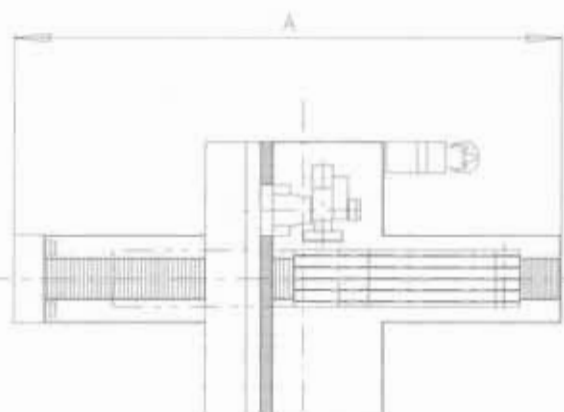
MODEL	A	B	C
ME/U 200	9500	5500	std 4700 - optional 5700
ME/U 300	11500	5500	std 4700 - optional 5700
ME/U 400	13500	5500	std 4700 - optional 5700
ME/U 500	15500	5500	std 4700 - optional 5700
ME/U 600	17500	5500	std 4700 - optional 5700



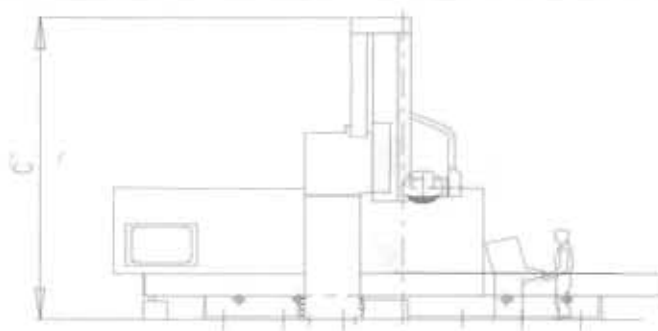
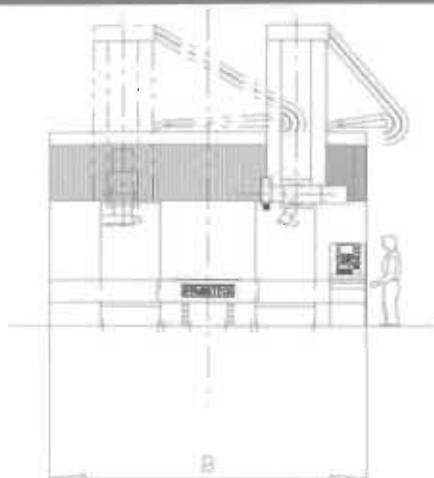
Machine dimensions MF/U series



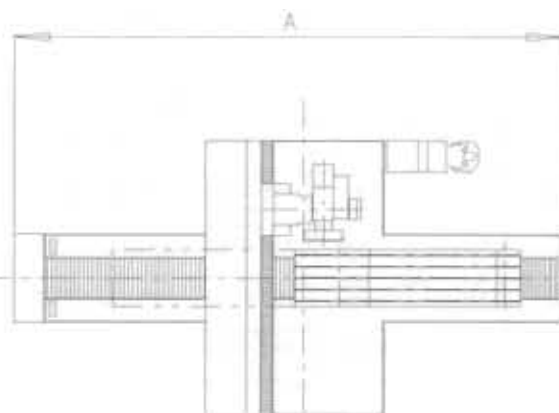
MODEL	A	B	C
MF/U 200	9500	5500	std 4700 - optional 5700
MF/U 300	11500	5500	std 4700 - optional 5700
MF/U 400	13500	5500	std 4700 - optional 5700
MF/U 500	15500	5500	std 4700 - optional 5700
MF/U 600	17500	5500	std 4700 - optional 5700



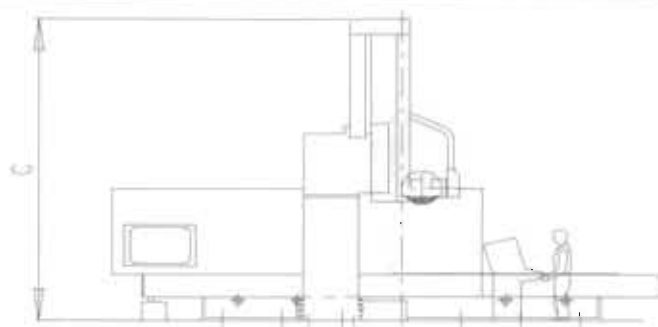
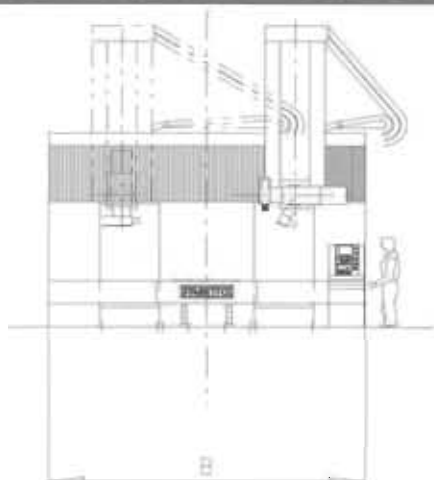
Machine dimensions MG/U series



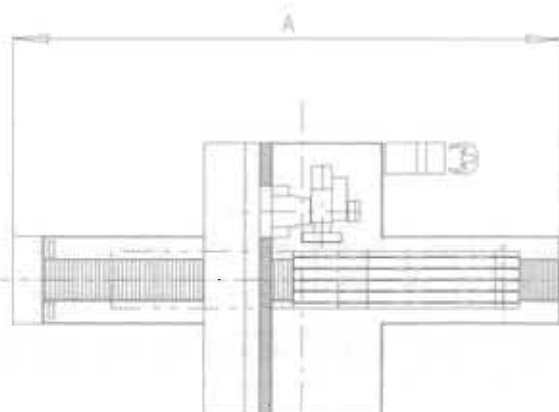
MODEL	A	B	C
MG/U 300	10800	6000	std 5000 - optional 6000
MG/U 400	12800	6000	std 5000 - optional 6000
MG/U 500	14800	6000	std 5000 - optional 6000
MG/U 600	16800	6000	std 5000 - optional 6000
MG/U 700	18800	6000	std 5000 - optional 6000



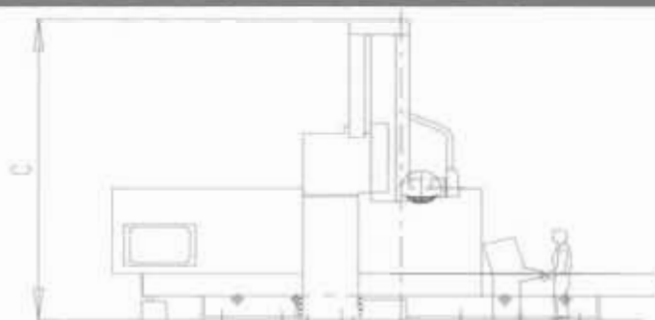
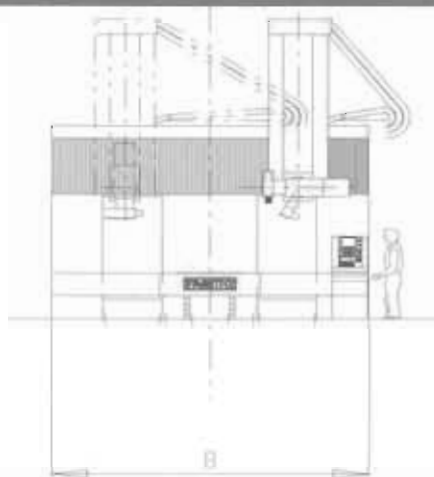
Machine dimensions MH/U series



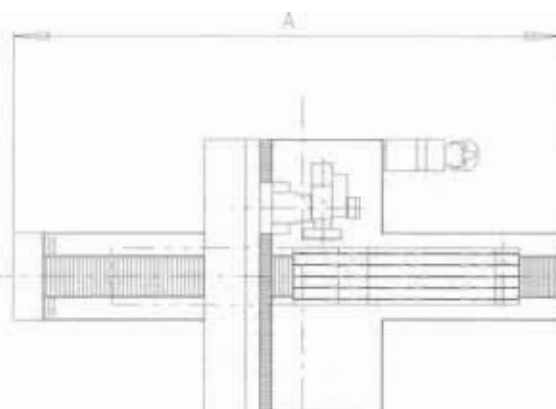
MODEL	A	B	C
MH/U 300	10800	6000	std 5000 - optional 6000
MH/U 400	12800	6000	std 5000 - optional 6000
MH/U 500	14800	6000	std 5000 - optional 6000
MH/U 600	16800	6000	std 5000 - optional 6000
MH/U 700	18800	6000	std 5000 - optional 6000



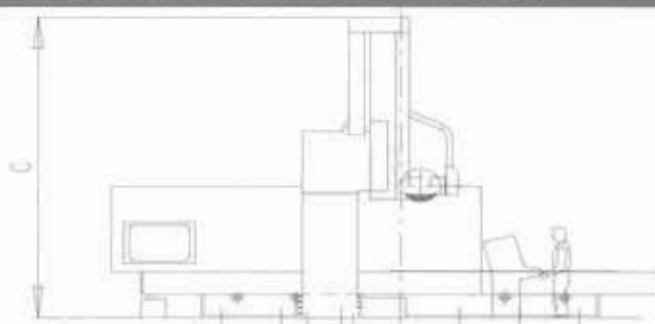
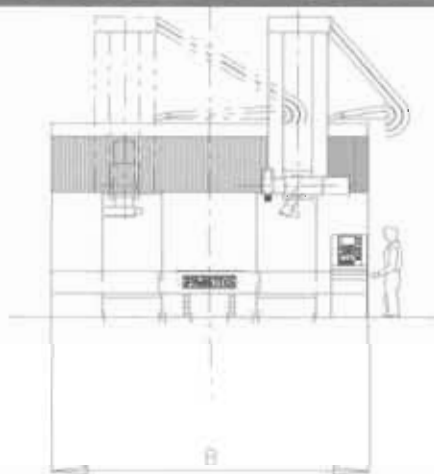
Machine dimensions MI/U series



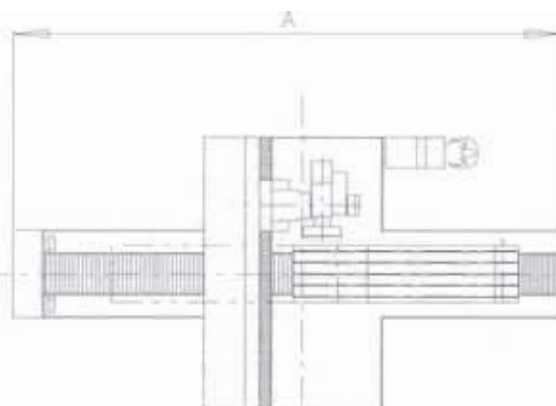
MODEL	A	B	C
MI/U 400	12000	7000	std 5250 - optional 6250
MI/U 500	14000	7000	std 5250 - optional 6250
MI/U 600	16000	7000	std 5250 - optional 6250
MI/U 700	18000	7000	std 5250 - optional 6250
MI/U 800	20000	7000	std 5250 - optional 6250
MI/U 900	22000	7000	std 5250 - optional 6250
MI/U1000	24000	7000	std 5250 - optional 6250



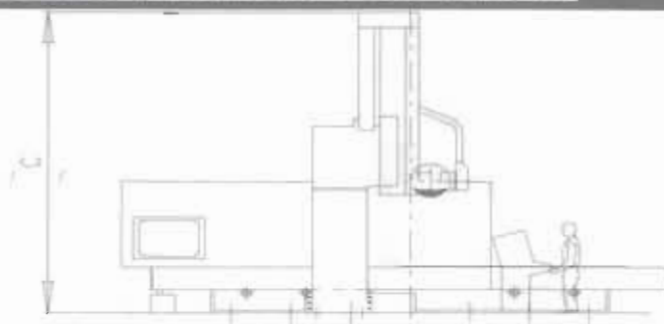
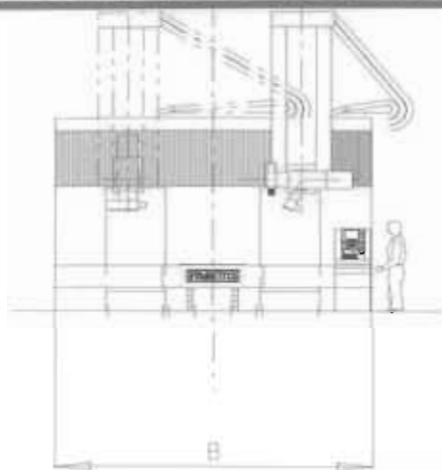
Machine dimensions ML/U series



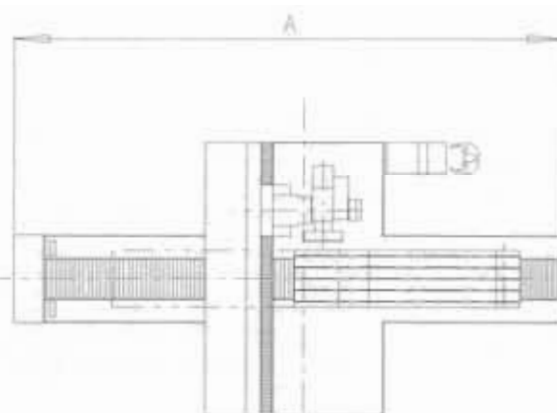
MODEL	A	B	C
ML/U 400	14000	7000	std 5250 - optional 6250
ML/U 600	18000	7000	std 5250 - optional 6250
ML/U 800	22000	7000	std 5250 - optional 6250
ML/U 1000	26000	7000	std 5250 - optional 6250
ML/U 1200	30000	7000	std 5250 - optional 6250
ML/U 1400	34000	7000	std 5250 - optional 6250
ML/U 1600	36000	7000	std 5250 - optional 6250



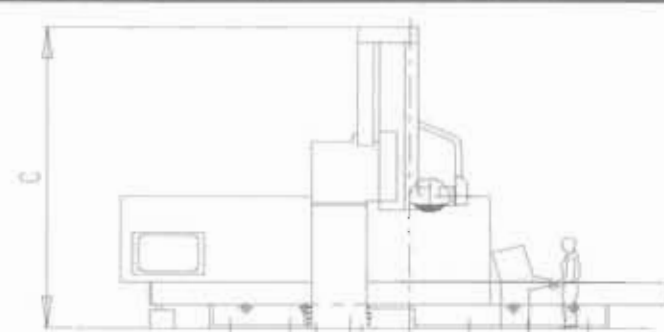
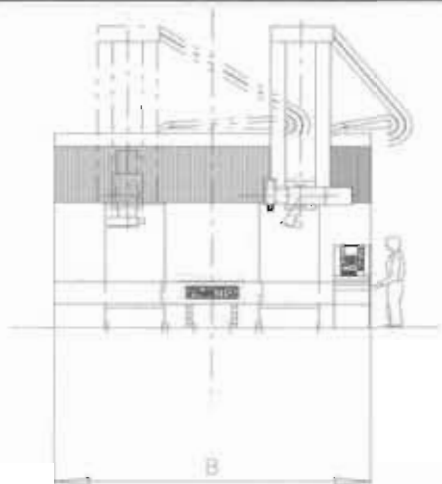
Machine dimensions MM/U series



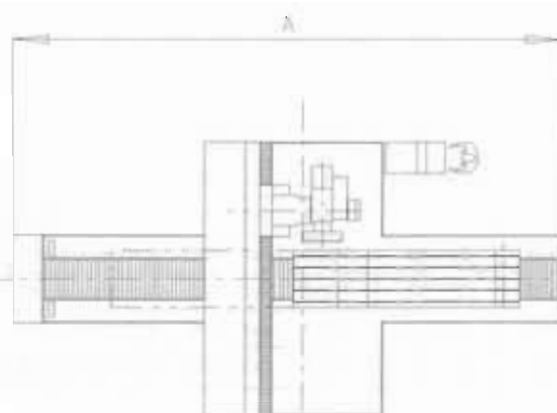
MODEL	A	B	C
MM/U 400	14000	7500	std 5250 - optional 6250
MM/U 600	18000	7500	std 5250 - optional 6250
MM/U 800	22000	7500	std 5250 - optional 6250
MM/U 1000	26000	7500	std 5250 - optional 6250
MM/U 1200	30000	7500	std 5250 - optional 6250
MM/U 1400	34000	7500	std 5250 - optional 6250
MM/U 1600	36000	7500	std 5250 - optional 6250



Machine dimensions MN/U series

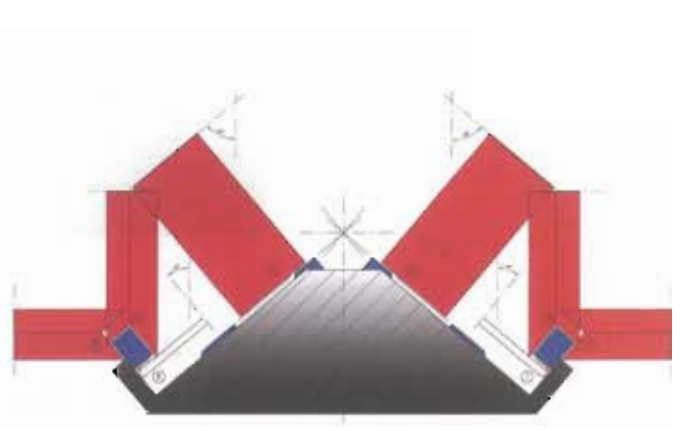
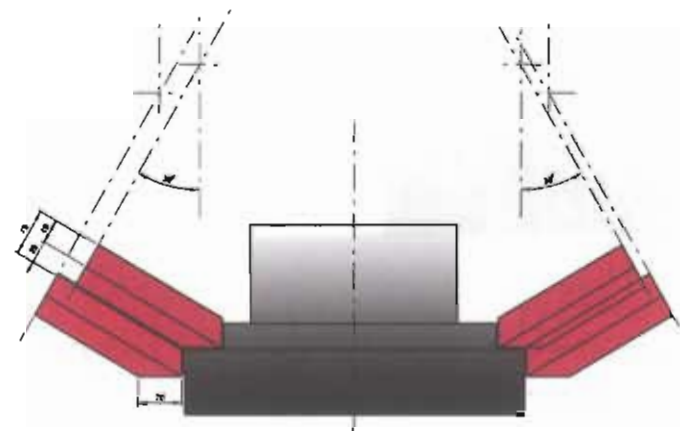
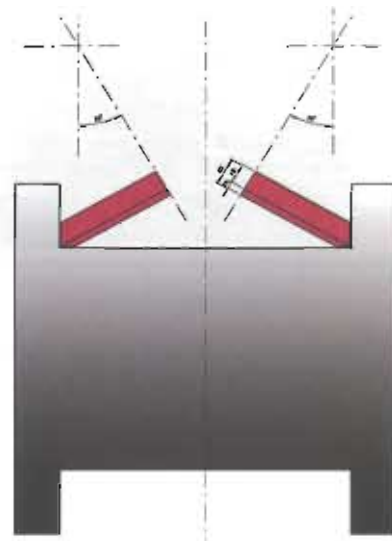
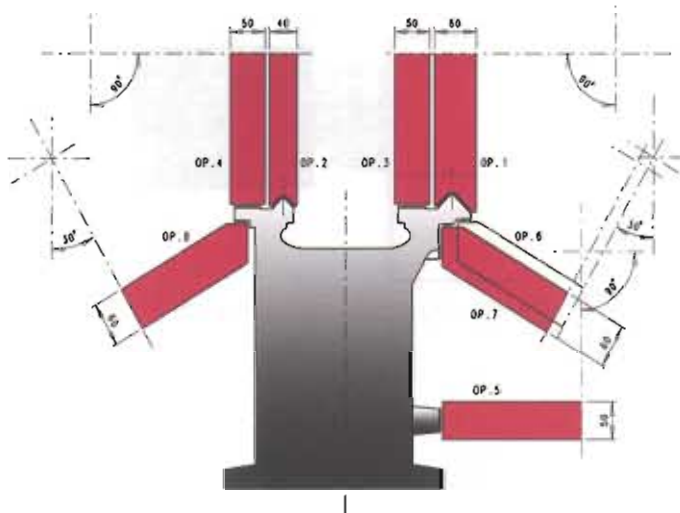
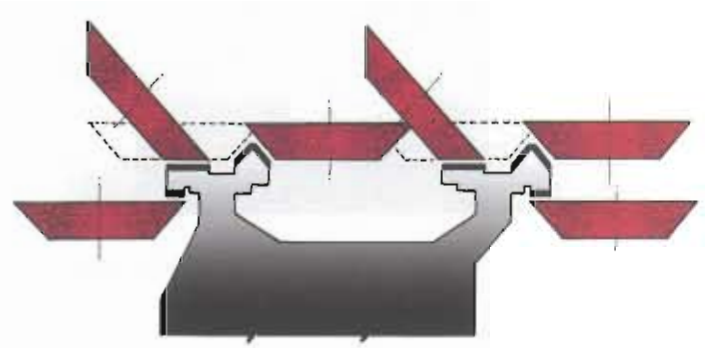
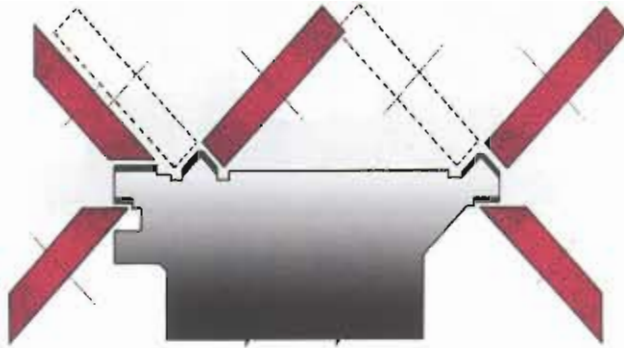


MODEL	A	B	C
MN/U 400	14000	7500	std 5450 - optional 6450
MN/U 600	18000	7500	std 5450 - optional 6450
MN/U 800	22000	7500	std 5450 - optional 6450
MN/U 1000	26000	7500	std 5450 - optional 6450
MN/U 1200	30000	7500	std 5450 - optional 6450
MN/U 1400	34000	7500	std 5450 - optional 6450
MN/U 1600	36000	7500	std 5450 - optional 6450

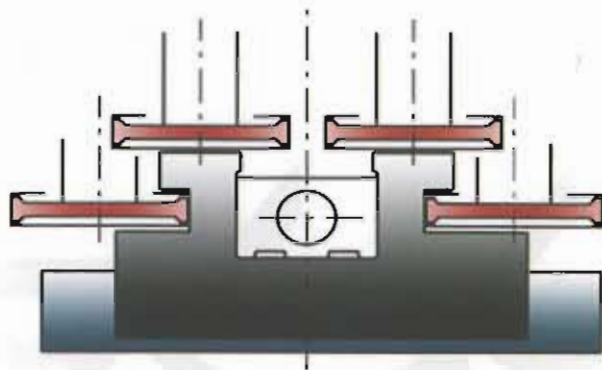


Working examples

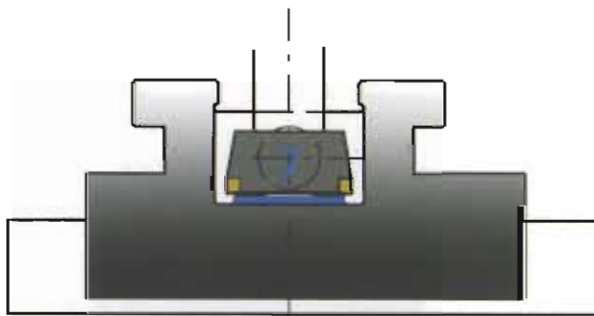
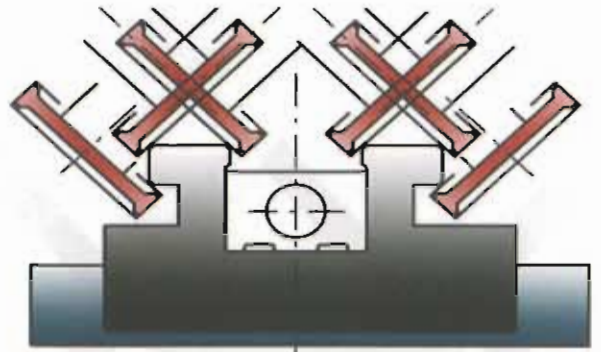
Examples of applications of the Universal wheelhead



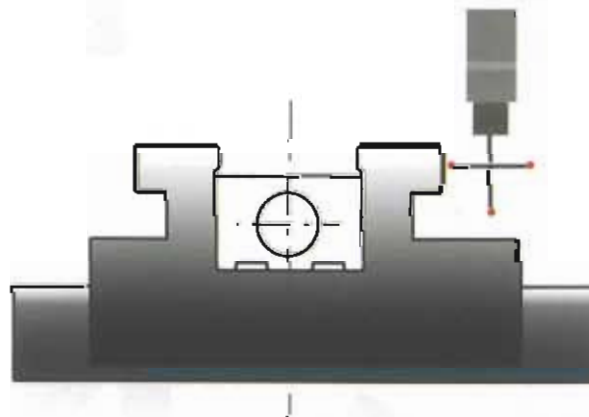
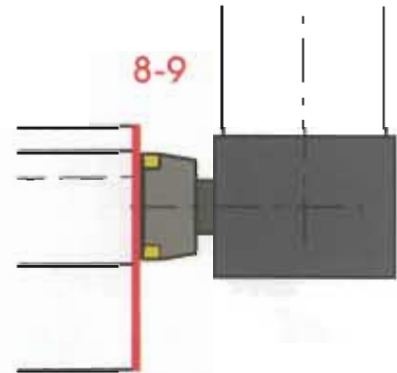
Examples of "Multitasking" application



Use of CBN wheels



Milling unit with automatic tool and head change

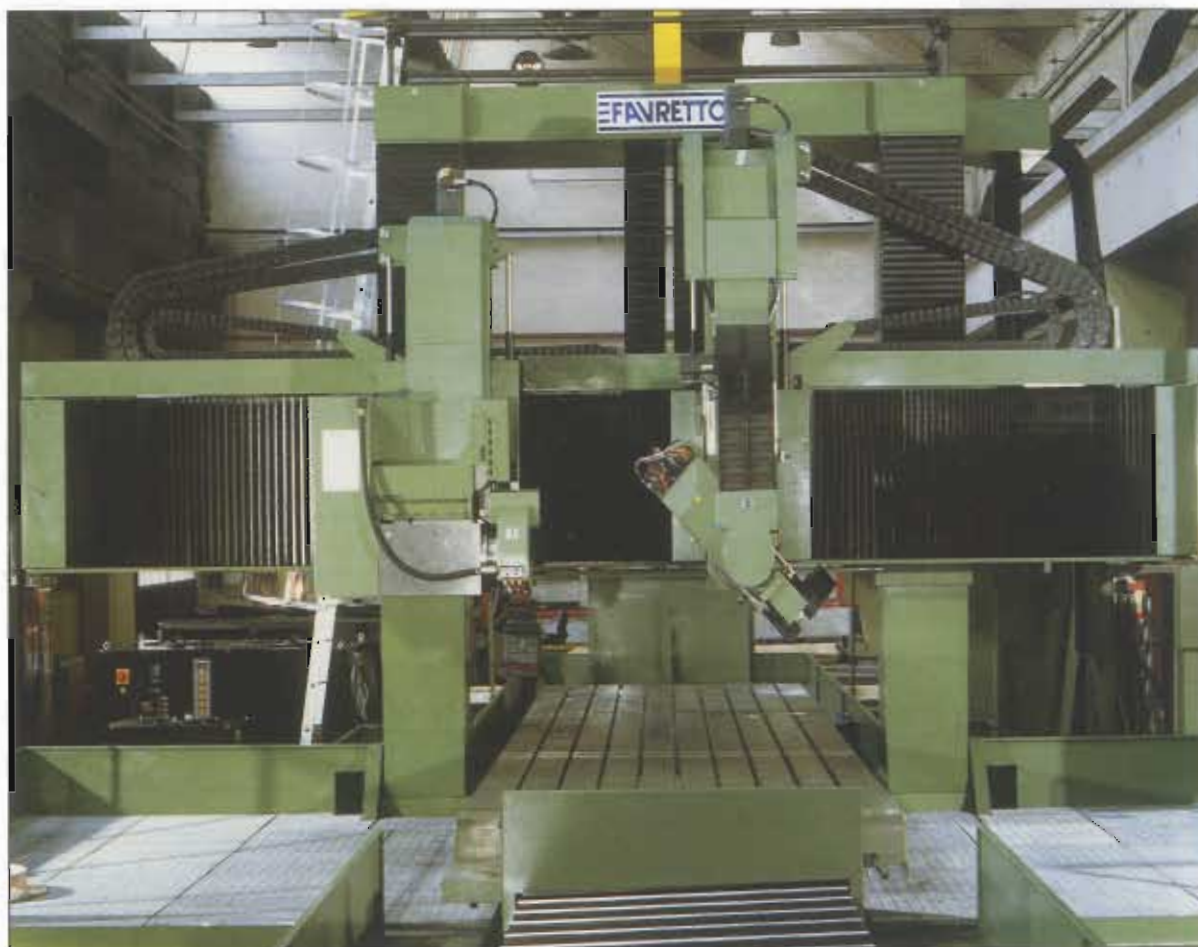


Automatic measuring system for dimensional part control and stock removal definition.



Adjustable levelling rail machine with horizontal and universal spindles and reciprocating table motion

Modulo TU/P Series



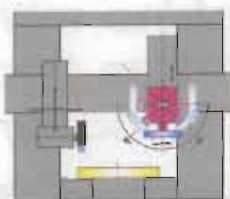
The equipment of the machine illustrated may differ from standard supply.

- **dgt_{cnc}** Digital electronic system with numerical control

Main technical specifications:

- Cross transverse capacity : 2000 ⇒ 3000 mm.
- Vertical capacity : 1500 ⇒ 2500 mm.
- Longitudinal capacity : 3000 ⇒ 16000 mm.
- Power of universal spindle motor : 38kW
- Power of horizontal spindle motor : 50kW ⇒ 80kW
- Universal Wheel diameter : 610 mm.
- Universal Wheel diameter : 610 ⇒ 750 mm.

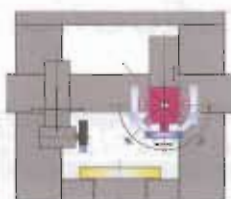
Double column



Double column technical specification

Modulo TU/P 200/150/400.....1000 Series

			TU/P 400	TU/P 500	TU/P 600	TU/P 700	TU/P 800	TU/P 900	TU/P 1000
Working capacity	Max. Grinding Length	mm	4000	5000	6000	7000	8000	9000	10000
	Max. Grinding Width	mm	2000						
	Max. Grinding Height	mm	1500						
Spindle Head Universal	Power	Kw	38						
	Swivelling range	±°	110°						
	Grinding wheel size (Diameter x bore x width)	mm	610 x 304,8 x 100						
	Wheel speed	rpm	960 ÷ 3000						
Spindle Head Tangential	Power	Kw	Standard ⇒ 50 Optional ⇒ 80						
	Grinding wheel size (Diameter x bore x width)	mm	Standard ⇒ 610 x 304,8 x 150 Optional ⇒ 750 x 304,8 x 200						
	Wheel speed	rpm	800						
Longitudinal axis table	Feed rate	m/min	1 ÷ 40						
	Load capacity	Kg/lin.m	2500						
	Working travel	mm	4300	5300	6300	7300	8300	9300	10300
	Max. travel	mm	4600	5600	6600	7600	8600	9600	10600
Cross Axis Head Tangential Universal	Max. rapid speed	m/min	10						
	Grinding feed step-by-step	mm	3 ÷ 100						
	Grinding feed infinitely variable	mm/min	0 ÷ 2000						
	Min. programmable increment	mm	0,001						
Vertical Axis Head Tangenzial Universal	Max. rapid speed	m/min	10						
	Min. programmable increment	mm	0,001						
	Working travel	TANGENTIAL HEAD mm	420						
		UNIVERSAL HEAD mm	920						
	Max. travel	TANGENTIAL HEAD mm	520						
		UNIVERSAL HEAD mm	1020						
Dimensions	LENGTH	mm	12000	14000	16000	18000	20000	22000	24000
	WIDTH	mm	8000						
	HEIGHT	mm	Standard ⇒ 5200 Optional ⇒ 6200						
MACHINE WEIGHT		Kg. (approx)	54000	60000	66000	72000	78000	84000	90000
POWER REQUIREMENT		Kw.(approx)	200						



Double column technical specification

Modulo TU/P 250/200/400.....1600 Series

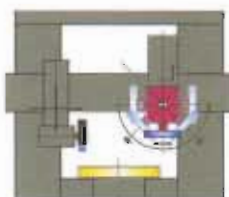
			TU/P 400	TU/P 600	TU/P 800	TU/P 1000	TU/P 1200	TU/P 1400	TU/P 1600
Working capacity	Max. Grinding Length	mm	4000	6000	8000	10000	12000	14000	16000
	Max. Grinding Width	mm	2500						
	Max. Grinding Height	mm	2000						
Spindle Head Universal	Power	Kw	38						
	Swivelling range	±°	110°						
	Grinding wheel size (Diameter x bore x width)	mm	610 x 304,8 x 100						
	Wheel speed	rpm	960 ÷ 3000						
Spindle Head Tangential	Power	kW	Standard ⇒ 50 Optional ⇒ 80						
	Grinding wheel size (Diameter x bore x width)	mm	Standard ⇒ 610 x 304,8 x 150 Optional ⇒ 750 x 304,8 x 200						
	Wheel speed	rpm	800						
Longitudinal axis table	Feed rate	m/min	1 ÷ 40						
	Load capacity	Kg/lin.m	4000						
	Working travel	mm	4500	6500	8500	10500	12500	14500	16500
	Max. travel	mm	5000	7000	9000	11000	13000	15000	17000
Cross Axis Head Tangential Universal	Max. rapid speed	m/min	10						
	Grinding feed step-by-step	mm	3 ÷ 100						
	Grinding feed infinitely variable	mm/min	0 ÷ 2000						
	Min. programmable increment	mm	0,001						
Vertical Axis Head Tangenzial Universal	Max. rapid speed	m/min	10						
	Min. programmable increment	mm	0,001						
	Working travel	TANGENTIAL HEAD	420						
		UNIVERSAL HEAD	920						
	Max. travel	TANGENTIAL HEAD	520						
		UNIVERSAL HEAD	1020						
Dimensions	LENGTH	mm	14100	18100	22100	26100	30100	34100	38100
	WIDTH	mm	8000						
	HEIGHT	mm	7020						
MACHINE WEIGHT		Kg. (approx)	90000	108000	126000	144000	168000	189000	210000
POWER REQUIREMENT		Kw. (approx)	250						



Double column technical specification

Modulo TU/P 300/200/400....1600 Series

			TU/P 400	TU/P 600	TU/P 800	TU/P 1000	TU/P 1200	TU/P 1400	TU/P 1600
Working capacity	Max. Grinding Length	mm	4000	6000	8000	10000	12000	14000	16000
	Max. Grinding Width	mm	3000						
	Max. Grinding Height	mm	2000						
Spindle Head Universal	Power	Kw	38						
	Swivelling range	±°	110°						
	Grinding wheel size (Diameter x bore x width)	mm	610 x 304,8 x 100						
	Wheel speed	rpm	960 ÷ 3000						
Spindle Head Tangential	Power	kW	Standard ⇒ 50 Optional ⇒ 80						
	Grinding wheel size (Diameter x bore x width)	mm	Standard ⇒ 610 x 304,8 x 150 Optional ⇒ 750 x 304,8 x 200						
	Wheel speed	rpm	800						
Longitudinal axis table	Feed rate	m/min	1 ÷ 40						
	Load capacity	Kg/lin.m	4000						
	Working travel	mm	4500	6500	8500	10500	12500	14500	16500
	Max. travel	mm	5000	7000	9000	11000	13000	15000	17000
Cross Axis Head Tangential Universal	Max. rapid speed	m/min	10						
	Grinding feed step-by-step	mm	3 ÷ 100						
	Grinding feed infinitely variable	mm/min	0 ÷ 2000						
	Min. programmable increment	mm	0,001						
Vertical Axis Head Tangenzial Universal	Max. rapid speed	m/min	10						
	Min. programmable increment	mm	0,001						
	Working travel	TANGENTIAL HEAD mm	420						
		UNIVERSAL HEAD mm	920						
	Max. travel	TANGENTIAL HEAD mm	520						
		UNIVERSAL HEAD mm	1020						
Dimensions	LENGTH	mm	14100	18100	22100	26100	30100	34100	38100
	WIDTH	mm	8000						
	HEIGHT	mm	7020						
MACHINE WEIGHT		Kg. (approx)	90000	108000	126000	144000	168000	189000	210000
POWER REQUIREMENT		Kw.(approx)	300						



Double column technical specification

Modulo TU/P 300/250/400.....1600 Series

			TU/P 400	TU/P 600	TU/P 800	TU/P 1000	TU/P 1200	TU/P 1400	TU/P 1600
Working capacity	Max. Grinding Length	mm	4000	6000	8000	10000	12000	14000	16000
	Max. Grinding Width	mm	3000						
	Max. Grinding Height	mm	2500						
Spindle Head Universal	Power	Kw	38						
	Swivelling range	±°	110°						
	Grinding wheel size (Diameter x bore x width)	mm	610 x 304,8 x 100						
	Wheel speed	rpm	960 ÷ 3000						
Spindle Head Tangential	Power	kW	Standard ⇒ 50 Optional ⇒ 80						
	Grinding wheel size (Diameter x bore x width)	mm	Standard ⇒ 610 x 304,8 x 150 Optional ⇒ 750 x 304,8 x 200						
	Wheel speed	rpm	800						
Longitudinal axis table	Feed rate	m/min	1 ÷ 40						
	Load capacity	Kg/lin.m	4000						
	Working travel	mm	4500	6500	8500	10500	12500	14500	16500
	Max. travel	mm	5000	7000	9000	11000	13000	15000	17000
Cross Axis Head Tangential Universal	Max. rapid speed	m/min	10						
	Grinding feed step-by-step	mm	3 ÷ 100						
	Grinding feed infinitely variable	mm/min	0 ÷ 2000						
	Min. programmable increment	mm	0,001						
Vertical Axis Head Tangenzial Universal	Max. rapid speed	m/min	10						
	Min. programmable increment	mm	0,001						
	Working travel	TANGENTIAL HEAD mm	420						
		UNIVERSAL HEAD mm	920						
	Max. travel	TANGENTIAL HEAD mm	520						
		UNIVERSAL HEAD mm	1020						
Dimensions	LENGTH	mm	14100	18100	22100	26100	30100	34100	38100
	WIDTH	mm	8000						
	HEIGHT	mm	7520						
MACHINE WEIGHT		Kg. (approx)	95000	113000	131000	149000	173000	194000	215000
POWER REQUIREMENT		Kw.(approx)	300						

CNC Technology Favretto **Innovative grinding** **solutions**



Standard specifications cnc technology Favretto

Standard specifications cnc technology Favretto

dgtcnc

Simple to use CNC control

- *The power of control*

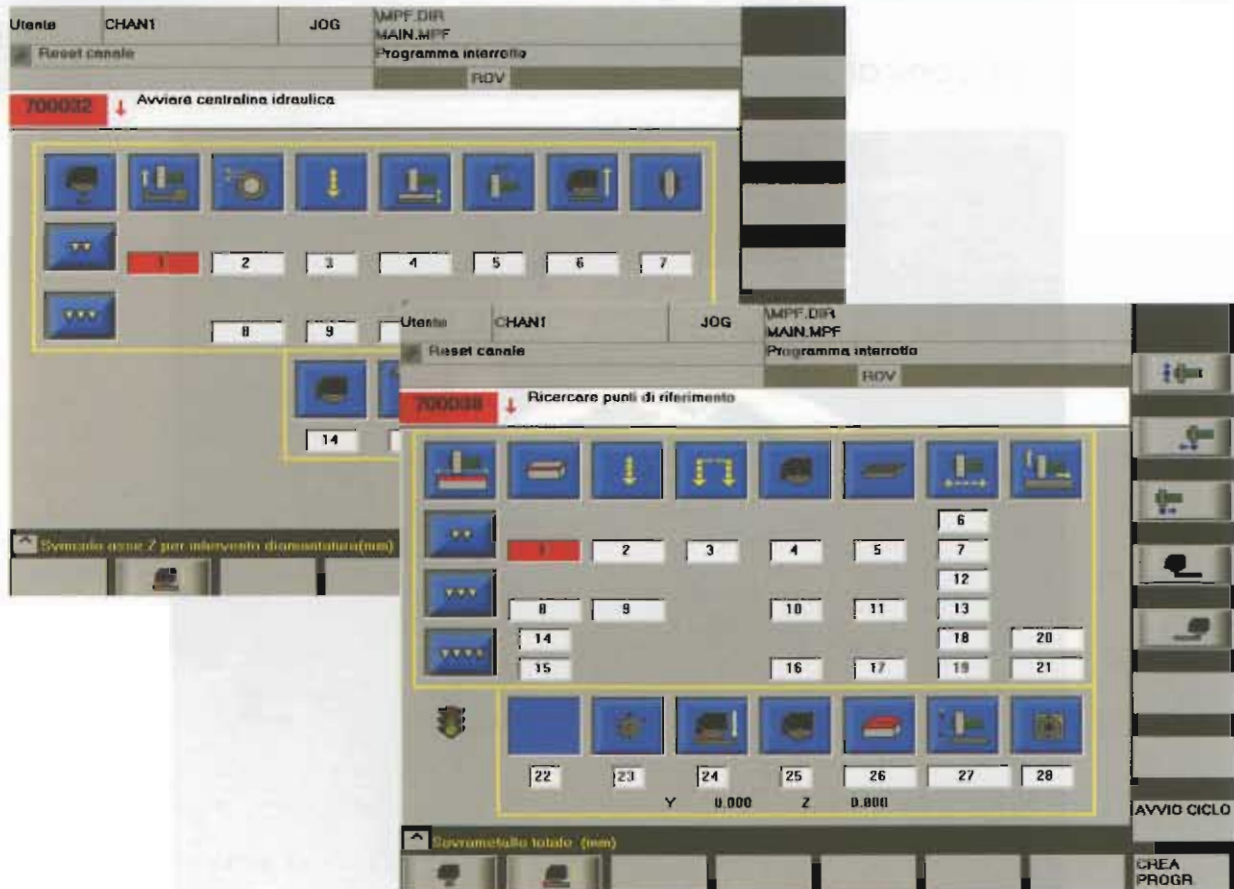


*In FAVRETTO philosophy, **Power of Control** is an essential factor for success.*

Power of Control

- *the use of the latest generation SIEMENS numeric control power allows advanced application software.*
- *it allows inexperienced operators to create and use formed wheels through extremely powerful graphical templates.*
- *It offers an easy and effective solution to all technical challenges with the simple combination of work cycles and the forming of wheels.*

- Guaranteed reliability



In FAVRETTO philosophy, Guaranteed Reliability is an indispensable factor for success.

Guaranteed Reliability -

is a result of the use of "reliable" materials, components and systems.

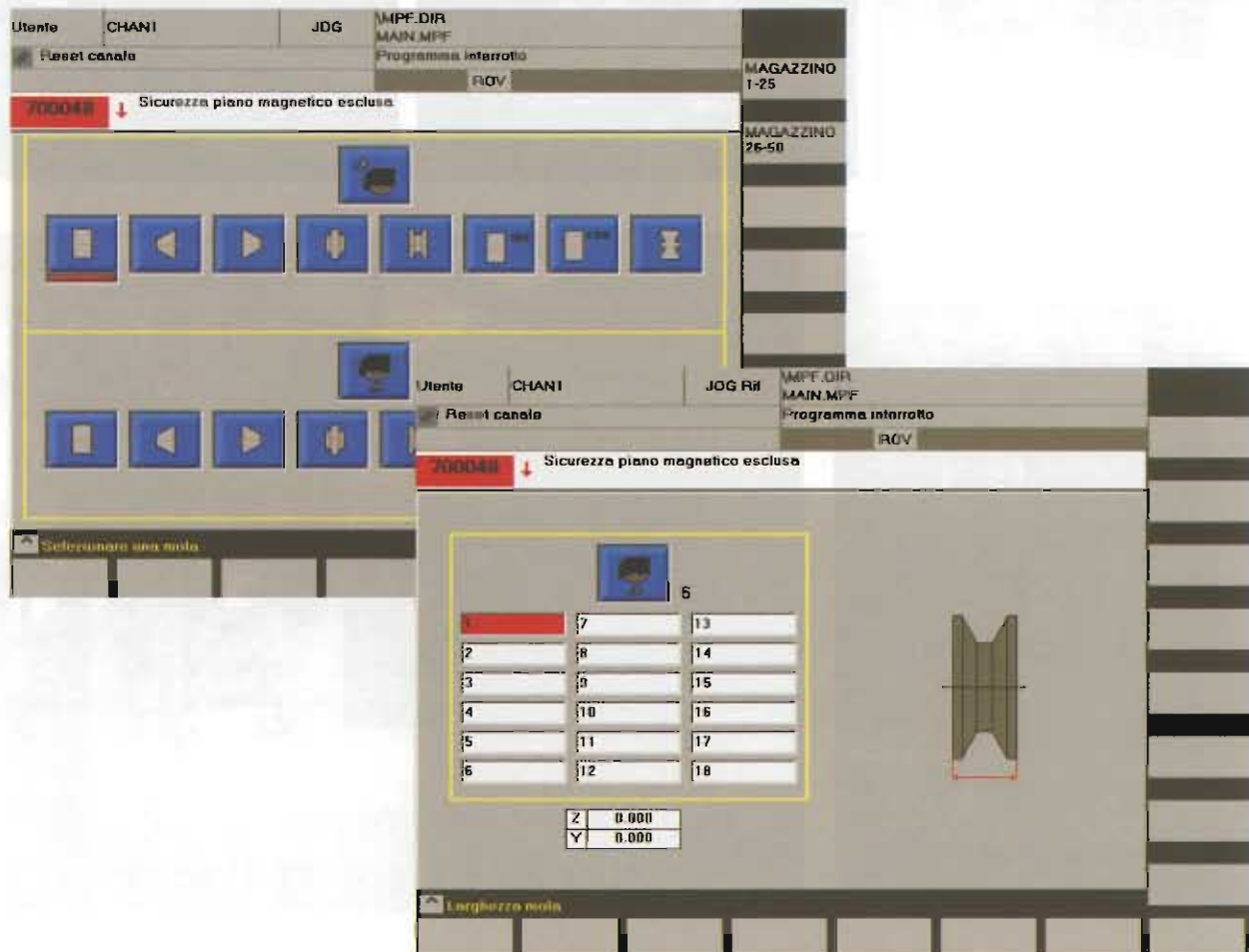
- it considers the machine tool as an element of the productive system, including the operator and the environment.
- it foresees and solves those situations representing a threat to the productive system.
- it also means:

Maximum comfort for the operator.

Availability of an easy solution for each problem.

Maximum operator's satisfaction for the results obtained by their work.

- Functional technology



In FAVRETTO philosophy, Functional Technology is an important factor for the success.

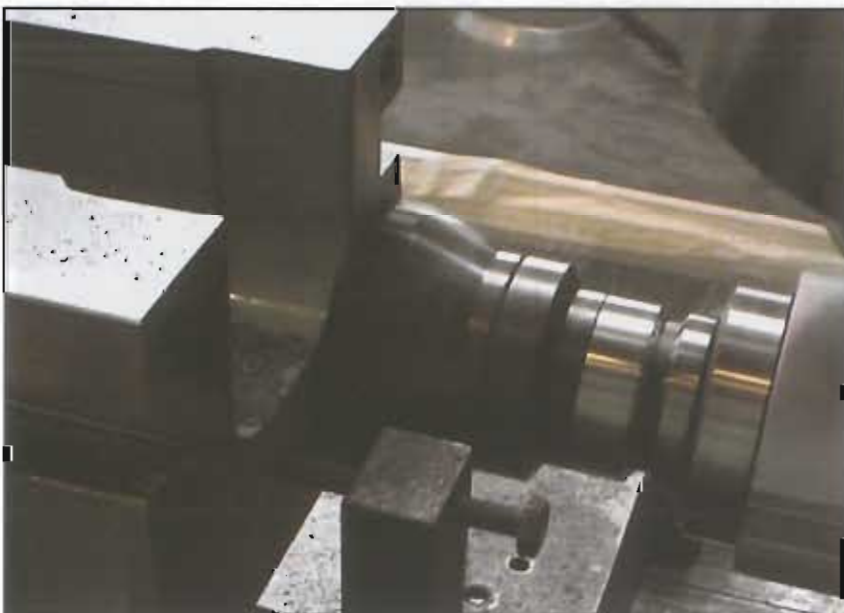
Functional technology

- makes the operator experience simple,
- makes advanced grinding cycles simple to achieve.
- makes changing a wide variety of parameters easy to achieve which enables maximum optimisation of any work cycle.

Working examples



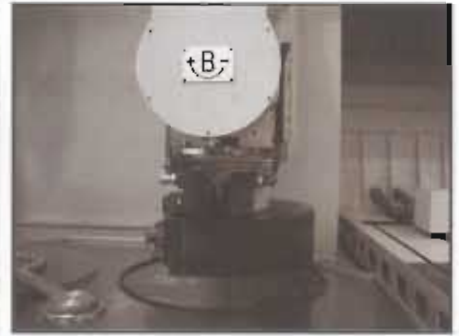
Working examples



Working examples



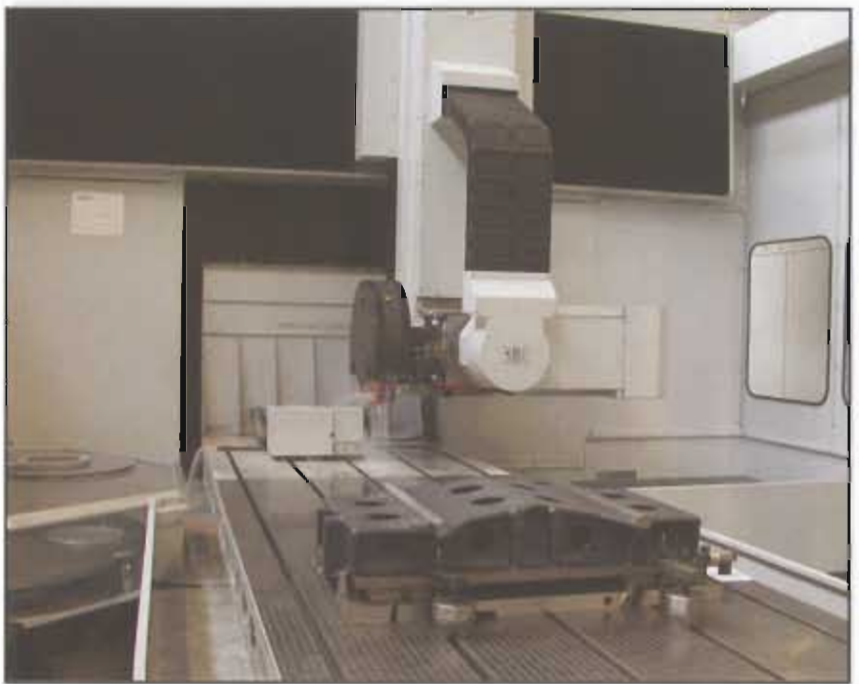
Tool Changer



Working examples



Working examples



Measurement



Favretto technical service



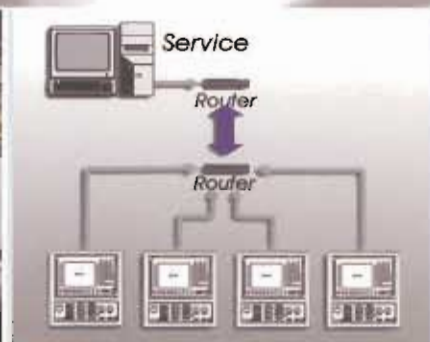
NET SERVICE

Contact our Specialists for immediate remote machine diagnostics. Our Engineers will identify problems and advise solutions, using high speed internet connections, reducing travelling and other costs.



SERVICE

Favretto offer immediate support in case of a machine breakdown. A quick telephone call will be enough to establish your needs and send the relevant components and Specialist Engineers to resolve the problems in a prompt and professional manner.



TELESERVICE

Favretto provide TELESERVICE support to worldwide Customers. By Teleservice connection Machines at the User Plant can be checked and operated by the Favretto Service Station. In this way it is easier and faster to provide service for operation, trouble shooting and maintenance.



INSTALLATION

We provide a complete service, not only installing and commissioning the machine, but our Specialists will remain with you to ensure that full training is carried out relative to your production requirements. Favretto believe the most efficient and professional method of installing machines is to leave only when the machine is functioning and producing your components.



USED MACHINES

Should you decide to acquire a used machine, Favretto can provide reliable machines which meet Favretto's high standards of quality, productivity, precision and reliability in a cost effective manner.



SPARE PARTS

Thanks to state of the art spares management software, we can identify and supply spare parts. This system is continually updated throughout the day to ensure that Favretto work on up to the minute stock positions enabling accurate and rapid order processing.

Notes



Notes

* The manufacturer reserves the right to modify the design, specifications, mechanism, etc.
to improve the performance of the machines without notice.

Dep. 02 - B 01/04/2007



*Specialized in the manufacture of surface and profile grinding since 1934
with over 20.000 machines produced and distributed world wide*



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Sales, Service and Parts

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