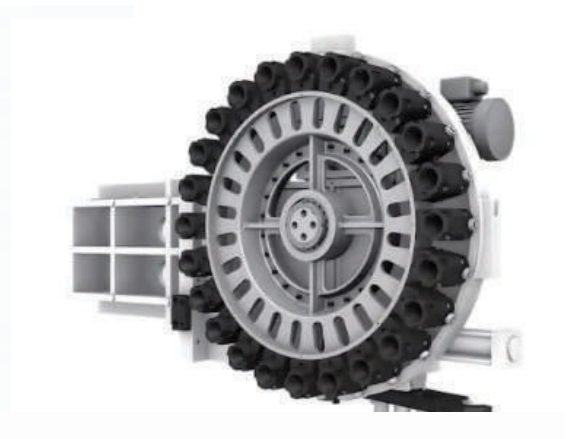
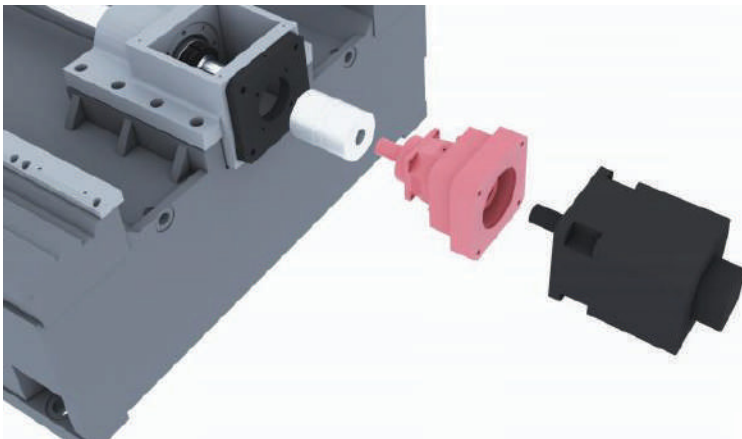


Double Column Machining Center

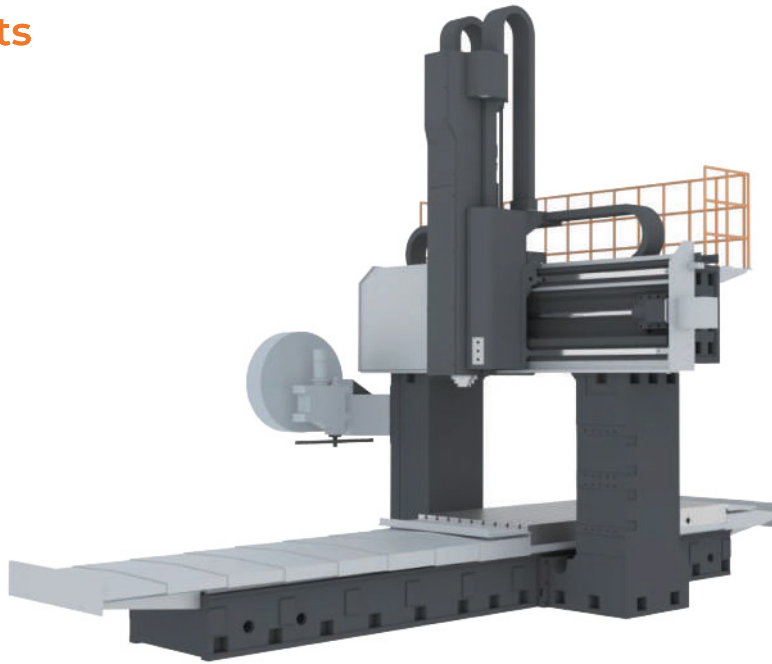


Standard Accessories

Dual screw type chip conveyor	Air gun
Front side chain type chip conveyor	Coolant gun
Semi enclosed splash guard	Tool box
Spindle oil cooler	Auto power off
MPG	Leveling blocks and bolts
Automatic lubrication system	Oil skimmer
Pneumatic system	Transformer
Schneider electric parts	Trip-colorLED warning light
Independent lubrication oil collector for 3 axes	Heat exchanger
Cutting fluid cooling system	Z-axis retract function at power failure
Fanuc Oi MF control system with β i motor	Foot switch for tool clamping
	Roller Guideways on X & Y axis, Box Guideways on Z axis



Main Parts



1. Spindle case

- With large cross section design, it improves spindle case rigidity by 20% compared with others.



2. Saddle

- Large contact surface standard guideway.
- Manual scrapped guideway and wedges.
- Inner side with regular hexagon design for higher rigidity.



- One piece of screw nut seat improve machine accuracy.



- Square lightening hole design not only reduce the weight but keep



3. Ram

- Ladder design makes the spindle center always vertical to worktable, which can improve the machining accuracy.



4. Worktable

- Groove is designed to prevent cutting fluid from flowing into inner side of the machine. So better slider accuracy can be guaranteed.



Main Configuration



1. Spindle

- The spindle is of short nose type, which has good rigidity. It can improve the machining efficiency and reduce tool costs.



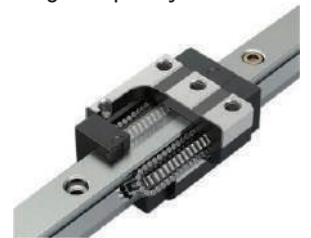
2. Double nuts

- The purpose of this design is to preload the two nuts against each other and achieve two-point contact on the balls. It eliminates axial clearance and helps build additional stiffness, keeping the nuts centered on the shaft.



3. Roller linear guide

- Higher load capacity & higher rigidity. The line contact formed by rollers provides higher rigidity than the point contact formed by balls. Benefit from the rigidity of roller rail guides, less deflection of the guide block means less deflection of the milling process, resulting in a higher quality machining.



4. Gear reducer

- Gear reducer provide 10 years of no maintenance operation with no oil leaks, no rust, and no water ingress. The total ratio is 1:4 which increase the torque of feeding axis.



5. Disc oil skimmer

- Disc skimmers work in a higher pick up rate by mounting to the top of the tank and running a large diameter disc into the coolant surface.



6. Spindle oil cooler

- It is helpful in extending the service life of machine tools and the cutting tools.



Optional Accessories



■ CTS



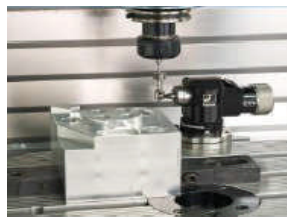
■ RENISHAW
Measurement Tools



■ HEIDENHAIN
Linear Scale



■ Chain Type Tool Magazine
32T/40T/60T



■ RENISHAW
Tool Probe



■ Siemens/Mitsubishi
CNC System



■ Manual Universal
Milling Head



■ Manual Right Angle
Milling Head



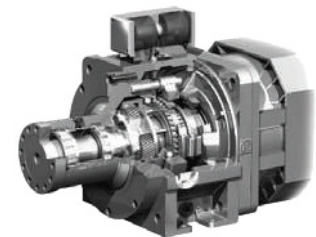
■ Semi-Automatic
Right Angle Milling Head



■ Automatic Right
Angle Milling Head



■ Semi-Automatic
2-Axis Milling Head



■ Gear Box (BF/BTP)

Semi-automatic head available on PDC 1426 onwards
Automatic head available on PDC 1832 onwards

Machine Specifications

DOUBLE COLUMN MACHINING CENTER		PDC 1116	PDC 1120	PDC 1426	PDC 1431	PDC 1626
Travel & Machining range						
X axis travel	mm	1650	2050	2600	3100	2600
Y axis travel	mm	1200	1200	1400	1400	1400
Z axis travel	mm	600	600	800	800	800
Distance from spindle end to worktable	mm	160-760	160-760	160-960	160-960	160-960
Distance from spindle center to column front	mm	765	765	775	775	775
Distance between two columns	mm	1250	1250	1400	1400	1650
Work table						
Worktable Length	mm	1600	2000	2500	3000	2500
Worktable Width	mm	1000	1000	1300	1300	1500
Max.loading bearing of worktable	kg	3000	3500	4000	5000	4000
T slot size (N*W*D)	mm	22*7*125	22*7*125	22*7*160	22*7*160	22*7*160
Feed						
Max.feed speed (X travel)	mm/min	20000	20000	10000	10000	10000
Max.feed speed (Y travel)	mm/min	20000	20000	10000	10000	10000
Max.feed speed (Z travel)	mm/min	12000	12000	10000	10000	10000
Screw size X axis (Dia*Pitch)	mm	Ø63*P20	Ø63*P20	Ø63*P16	Ø63*P16	Ø63*P16
Screw size Y axis (Dia*Pitch)	mm	Ø50*P12	Ø50*P12	Ø50*P16	Ø50*P16	Ø50*P16
Screw size Z axis (Dia*Pitch)	mm	Ø50*P20	Ø50*P20	Ø50*P16	Ø50*P16	Ø50*P16
Axis motor power (X/Y/Z)	kw	3/3/3	3/3/3	3/1.8/3	3/1.8/3	3/1.8/3
Standard spindle system specifications						
Spindle motor power	kw	15/18.5	15/18.5	15/18.5	15/18.5	15/18.5
Spindle speed (Vertical)	rpm	7000	7000	6000	6000	6000
Spindle torque	Nm	143	143	143	143	143
Spindle taper	#	50	50	50	50	50
Spindle clamping force	kgf	1800±10%	1800±10%	1800±10%	1800±10%	1800±10%
Spindle bearing size	mm	7016	7016	7018	7018	7018

Machine Specifications

DOUBLE COLUMN MACHINING CENTER		PDC 1631	PDC 1641	PDC 1820	PDC 1832	PDC 1832F
Travel & Machining range						
X axis travel	mm	3100	4100	2050	3200	3200
Y axis travel	mm	1650	1650	1850	1850	1850
Z axis travel	mm	800	800	1000	1000	1000
Distance from spindle end to worktable	mm	160-960	160-960	250-1250	250-1250	250-1250
Distance from spindle center to column front	mm	775	775	795	795	795
Distance between two columns	mm	1650	1650	2000	2000	2000
Work table						
Worktable Length	mm	3000	4000	2000	3000	3000
Worktable Width	mm	1500	1500	1800	1800	1800
Max.loading bearing of worktable	kg	5000	6000	6000	10000	10000
T slot size (N*W*D)	mm	22*7*160	22*7*160	22*11*160	22*11*160	22*11*160
Feed						
Max.feed speed (X travel)	mm/min	10000	10000	10000	10000	10000
Max.feed speed (Y travel)	mm/min	10000	10000	10000	10000	10000
Max.feed speed (Z travel)	mm/min	10000	10000	10000	10000	10000
Screw size X axis (Dia*Pitch)	mm	Ø63*P16	Ø80*P20	Ø63*P20	Ø80*P20	Ø80*P20
Screw size Y axis (Dia*Pitch)	mm	Ø50*P16	Ø50*P16	Ø50*P16	Ø63*P20	Ø63*P20
Screw size Z axis (Dia*Pitch)	mm	Ø50*P16	Ø50*P16	Ø50*P16	Ø50*P16	Ø50*P16
Axis motor power (X/Y/Z)	kw	3/1.8/3	3/1.8/3	3/3/3	3/3/3	4/4/4
Standard spindle system specifications						
Spindle motor power	kw	15/18.5	15/18.5	15/18.5	15/18.5	30/37
Spindle speed (Vertical)	rpm	6000	6000	6000	6000	6000
Spindle torque	Nm	143	143	143	143	1000
Spindle taper	#	50	50	50	50	50
Spindle clamping force	kgf	1800±10%	1800±10%	1800±10%	1800±10%	1800±10%
Spindle bearing size	mm	7018	7018	7018	7018	7020

Machine Specifications

DOUBLE COLUMN MACHINING CENTER		PDC 1842	PDC 1842F	PDC 2232	PDC 2232F	PDC 2242
Travel & Machining range						
X axis travel	mm	4200	4200	3200	3200	4200
Y axis travel	mm	1850	1850	2250	2250	2250
Z axis travel	mm	1000	1000	1000	1000	1000
Distance from spindle end to worktable	mm	250-1250	250-1250	250-1250	250-1250	250-1250
Distance from spindle center to column front	mm	795	795	795	795	795
Distance between two columns	mm	2000	2000	2400	2400	2400
Work table						
Worktable Length	mm	4000	4000	3000	3000	4000
Worktable Width	mm	1800	1800	2000	2000	2000
Max.loading bearing of worktable	kg	12000	12000	10000	10000	12000
T slot size (N*W*D)	mm	22*11*160	22*11*160	22*11*160	22*11*160	22*11*160
Feed						
Max.feed speed (X travel)	mm/min	10000	10000	10000	10000	10000
Max.feed speed (Y travel)	mm/min	10000	10000	10000	10000	10000
Max.feed speed (Z travel)	mm/min	10000	10000	10000	10000	10000
Screw size X axis (Dia*Pitch)	mm	Ø80*P20	Ø80*P20	Ø80*P20	Ø80*P20	Ø80*P20
Screw size Y axis (Dia*Pitch)	mm	Ø63*P20	Ø63*P20	Ø63*P20	Ø63*P20	Ø63*P20
Screw size Z axis (Dia*Pitch)	mm	Ø50*P16	Ø50*P16	Ø50*P16	Ø50*P16	Ø50*P16
Axis motor power (X/Y/Z)	kw	3/3/3	4/4/4	3/3/3	4/4/4	3/3/3
Standard spindle system specifications						
Spindle motor power	kw	15/18.5	30/37	15/18.5	30/37	15/18.5
Spindle speed (Vertical)	rpm	6000	6000	6000	6000	6000
Spindle torque	Nm	143	1000	560	1000	560
Spindle taper	#	50	50	50	50	50
Spindle clamping force	kgf	1800±10%	1800±10%	1800±10%	1800±10%	1800±10%
Spindle bearing size	mm	7018	7020	7018	7020	7018

Machine Specifications

DOUBLE COLUMN MACHINING CENTER		PDC 2242F	PDC 2262	PDC 2262F	PDC 2942
Travel & Machining range					
X axis travel	mm	4200	6200	6200	4200
Y axis travel	mm	2250	2250	2250	2900
Z axis travel	mm	1000	1000	1000	1000
Distance from spindle end to worktable	mm	250-1250	250-1250	250-1250	250-1250
Distance from spindle center to column front	mm	795	795	795	855
Distance between two columns	mm	2400	2400	2400	3000
Work table					
Worktable Length	mm	4000	6000	6000	4000
Worktable Width	mm	2000	2000	2000	2500
Max.loading bearing of worktable	kg	12000	14000	14000	16000
T slot size (N*W*D)	mm	22*11*160	22*11*160	22*11*160	28*11*200
Feed					
Max.feed speed (X travel)	mm/min	10000	10000	10000	10000
Max.feed speed (Y travel)	mm/min	10000	10000	10000	10000
Max.feed speed (Z travel)	mm/min	10000	10000	10000	10000
Screw size X axis (Dia*Pitch)	mm	Ø80*P20	Ø80*P20	Ø80*P20	Ø80*P20
Screw size Y axis (Dia*Pitch)	mm	Ø63*P20	Ø63*P20	Ø63*P20	Ø63*P20
Screw size Z axis (Dia*Pitch)	mm	Ø50*P16	Ø50*P16	Ø50*P16	Ø50*P16
Axis motor power (X/Y/Z)	kw	4/4/4	3/3/3	4/4/4	3/3/3
Standard spindle system specifications					
Spindle motor power	kw	30/37	22/26	30/37	22/26
Spindle speed (Vertical)	rpm	6000	6000	6000	6000
Spindle torque	Nm	1000	560	1000	560
Spindle taper	#	50	50	50	50
Spindle clamping force	kgf	1800±10%	1800±10%	1800±10%	1800±10%
Spindle bearing size	mm	7020	7018	7020	7018

Machine Specifications

DOUBLE COLUMN MACHINING CENTER		PDC 2942F	PDC 2962	PDC 2962F
Travel & Machining range				
X axis travel	mm	4200	6200	6200
Y axis travel	mm	2900	2900	2900
Z axis travel	mm	1000	1000	1000
Distance from spindle end to worktable	mm	250-1250	250-1250	250-1250
Distance from spindle center to column front	mm	855	855	855
Distance between two columns	mm	3000	3000	3000
Work table				
Worktable Length	mm	4000	6000	6000
Worktable Width	mm	2500	2500	2500
Max.loading bearing of worktable	kg	16000	20000	20000
T slot size (N*W*D)	mm	28*11*200	28*11*200	28*11*200
Feed				
Max.feed speed (X travel)	mm/min	10000	10000	10000
Max.feed speed (Y travel)	mm/min	10000	10000	10000
Max.feed speed (Z travel)	mm/min	10000	10000	10000
Screw size X axis (Dia*Pitch)	mm	Ø80*P20	Ø80*P20	Ø80*P20
Screw size Y axis (Dia*Pitch)	mm	Ø63*P20	Ø63*P20	Ø63*P20
Screw size Z axis (Dia*Pitch)	mm	Ø50*P16	Ø50*P16	Ø50*P16
Axis motor power (X/Y/Z)	kw	4/4/4	3/3/3	4/4/4
Standard spindle system specifications				
Spindle motor power	kw	30/37	22/26	30/37
Spindle speed (Vertical)	rpm	6000	6000	6000
Spindle torque	Nm	1000	560	1000
Spindle taper	#	50	50	50
Spindle clamping force	kgf	1800±10%	1800±10%	1800±10%
Spindle bearing size	mm	7020	7018	7020

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