

NC ROTARY
TABLE

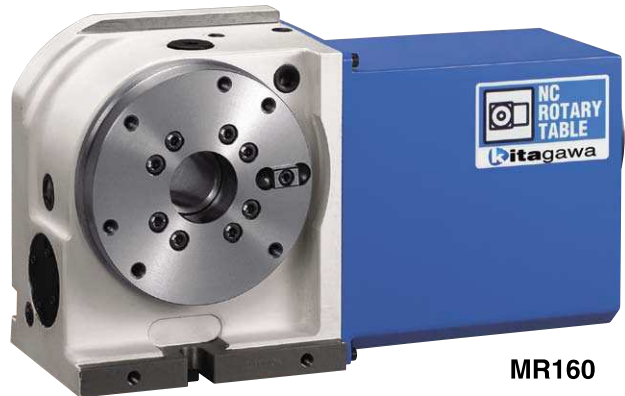
NC Rotary Table

MR series

MR120·MR160·MR200

Industry standard compact rotary table

- Minimum size in its class
 - Pneumatic spec
 - Powerful pneumatic clamping torque by triple disk brake system
 - High speed rotation
 - High accuracy
 - Rotary Joint built in as option
 - Ideal for compact machining centres
- * CE correspondence



MR160

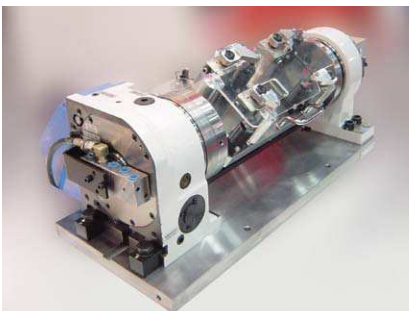


MR160R (L) V
(With Kitagawa own controller)



MR160R (L) V
(Rotary Joint built in as option)

Sample Application



▲ Various trunnion systems available.
(See P.95).



▲ Table with T-slot can also be offered.



▲ Only Kitagawa can offer this combination of NC Rotary Table and chuck

4th axis specifications

MR 160 L A * * *

Type Table Size
120・160・200

Design No.
Motor type
Clamping method
Only Pneumatic

Right/left hands
R: Right hand
L: Left hand

M signal specification

MR 160 R A V * *

Type Table Size
120・160・200

Design No.
Quinte specification
Clamping method
Pneumatic

R : Right hand
L : Left hand

Specifications

Model		MR120	MR160	MR200
Right hand		○	○	○
Left hand		○	○	○
Table dia (mm)		φ 128	φ 165	φ 202
Register diameter on Face Plate (mm)		φ 50H7	φ 50H7	φ 65H7
Spindle through hole diameter (mm)		φ 32	φ 40	φ 45
Centre Height (mm)		120	140	140
Clamping method		Pneumatic	Pneumatic	Pneumatic
Clamping torque (N・m) (In pneumatic 0.5MPa)		150	310	350
Motor axis reduced inertia (kg・m ²)		0.00004	0.00008	0.00017
Servomotor (for FANUC specification)		α iF 2/5000	α iF 2/5000	α iF 4/5000
Gear ratio		1/60	1/72	1/90
Max. spinde speed	FANUC specification (for min ⁻¹ /motor3000min ⁻¹)	50	41.6	33.3
	M signal specification (for min ⁻¹ /motor3000min ⁻¹)	50	41.6	33.3
Allowable work inertia (kg・m ²)		0.22	0.51	1.00
Indexing accuracy (sec)		20	20	20
Repeatability (sec)		4	4	4
Mass of product (kg)		33	41	61
Manual Tailstock (as an option・P89 reference)		MR120RN	MR160RN	MR200RN
Tail Spindle (as an option・P93 reference)		TSR121A	MSR142A	MSR142A
Rotary Joint (as an option・P97 reference)		RJ32-12Q04	RJ40H16Q	RJ40H20Q02
		Hydraulic/Pneumatic3-port	Hydraulic/Pneumatic4-port	Hydraulic/Pneumatic4-port
Allowable Load	Horizontal (kg)	120	160	200
	Vertical (kg)	60	80	100
Allowable load (When clamped to table)	F (kN)	8	10	17
	F×L (N・m)	350	600	1100
	F×L (N・m)	150	310	350
Allowable cutting torque	T (N・m)	180	220	270

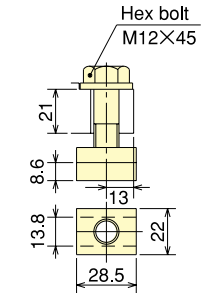
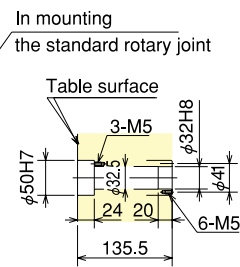
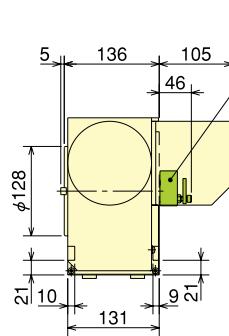
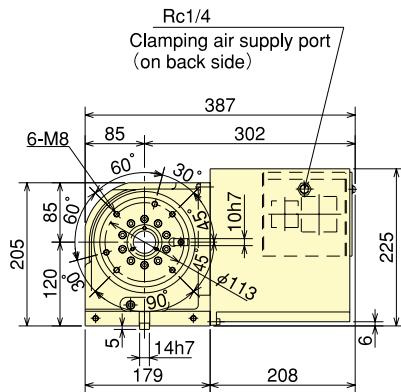
Note) 1. The switch for pressure checking is incorporated to all series except TC/DM of NC tables. 2. The solenoid valve for the table clamp is incorporated. 3. Neither cable nor hose is fitted between NC rotary table and machine tool... 4. In the port part on the table surface jig side of a rotary joint, MR120 or 200 is fixed to the rotary table side and MR160 to jig side. 5. Because a mounting pitch varies with the machines, refer to the pitch of the table spindle size drawing on P93. 6. Each product mass is determined by a Kitagawa M signal spec.



MR series MR120•MR160•MR200

■Dimensions [4th axis specifications]

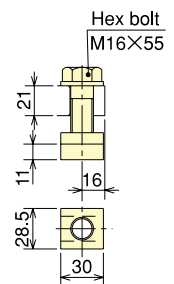
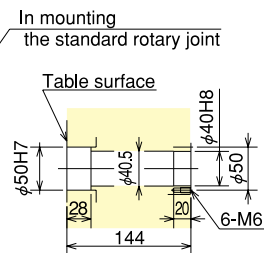
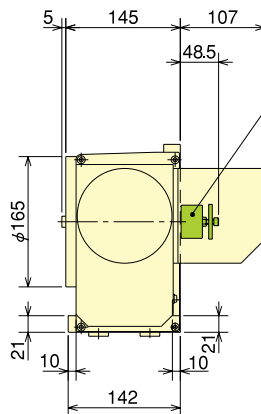
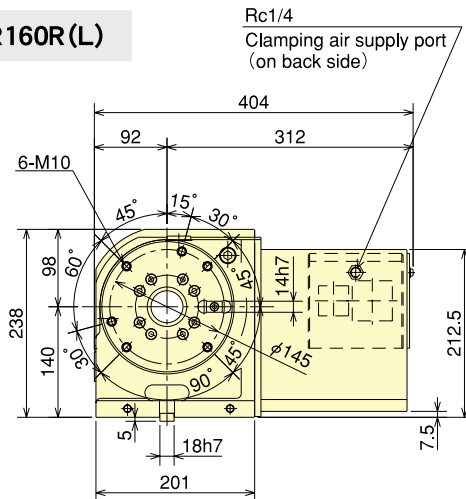
MR120R(L)



Thru-Hole Diameter

Clamping Device

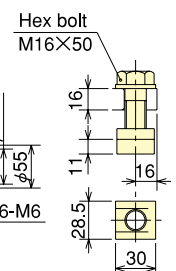
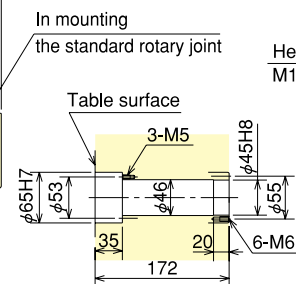
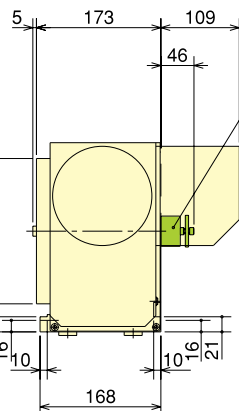
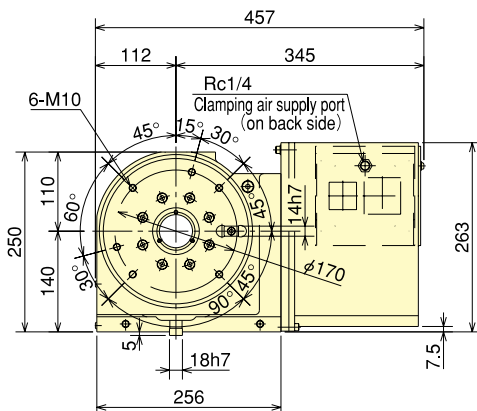
MR160R(L)



Thru-Hole Diameter

Clamping Device

MR200R(L)



Thru-Hole Diameter

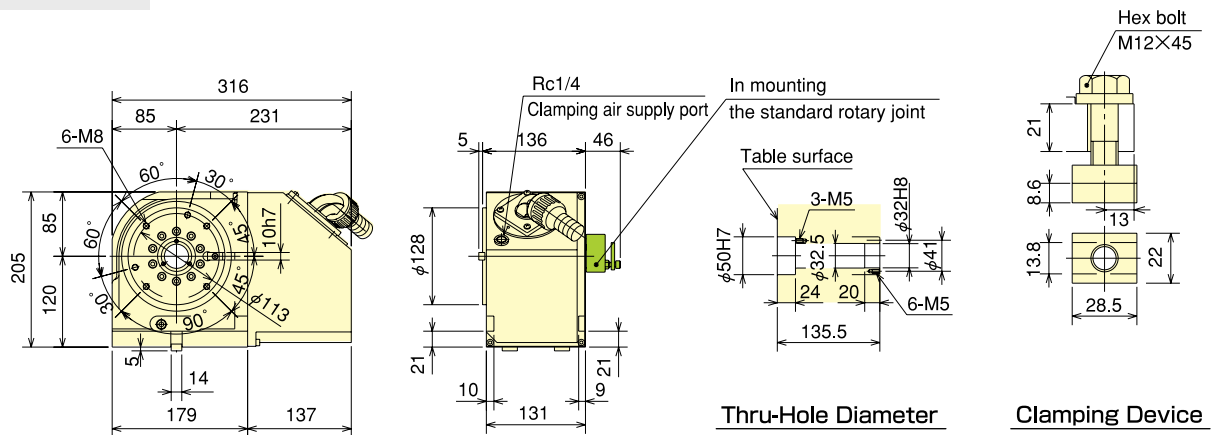
Clamping Device

※The above dimensions are the same as FANUC specifications.
Those dimensions may vary from motor to motor that is mounted.
R is a right hand spec, and L is a left hand spec.

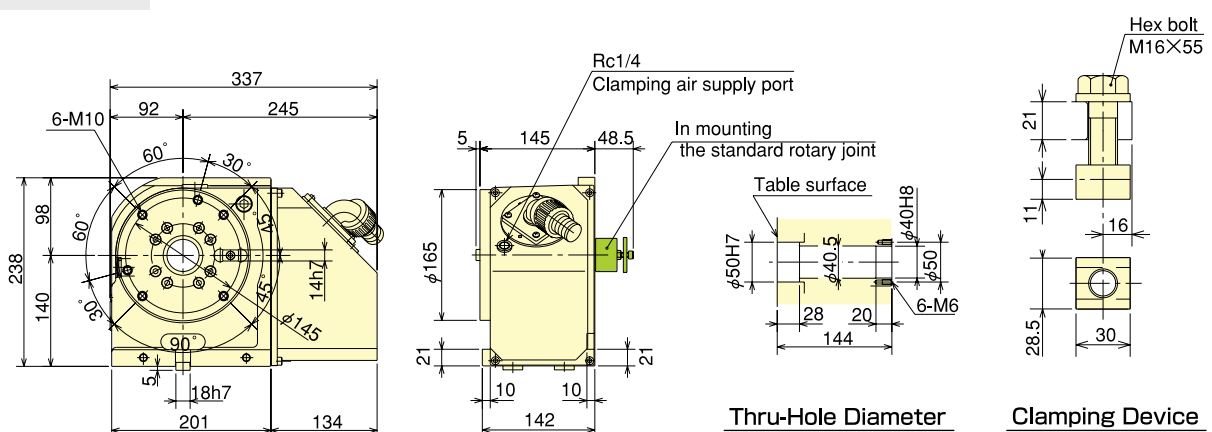
Dimensions [Kitagawa own controller]

*The dimensions may vary from motor to motor that is mounted.

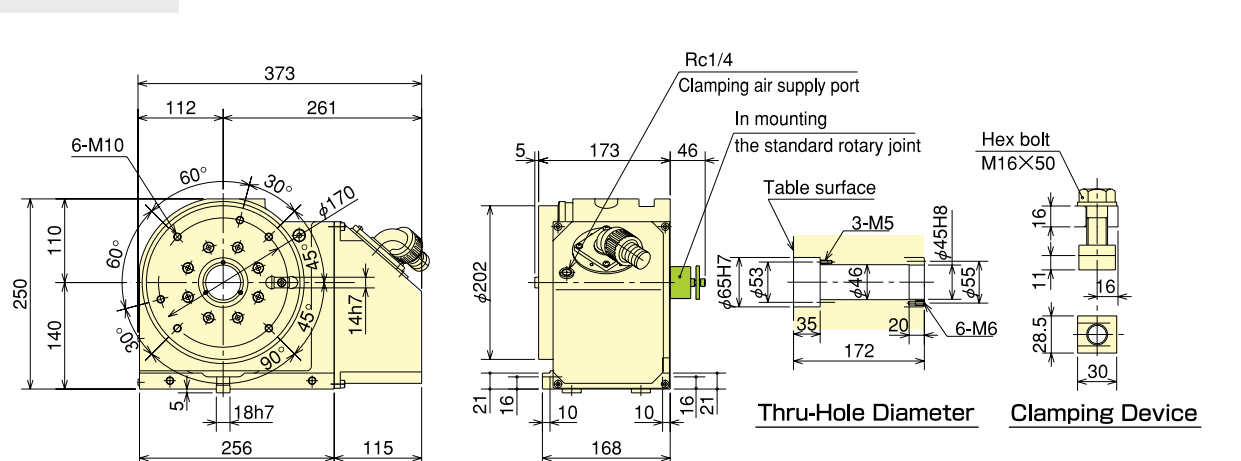
MR120R(L)



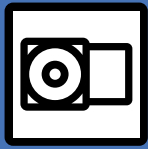
MR160R(L)



MR200R(L)



※R is a right hand spec. and L is a left hand spec.



NC ROTARY
TABLE

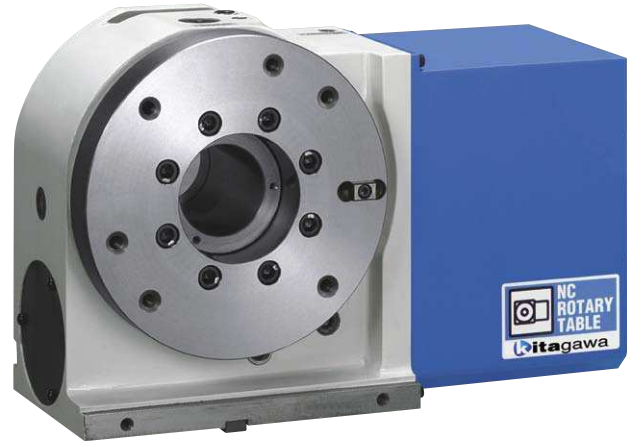
NC Rotary Table

MR series

MR250·MR320

Industry standard compact rotary table

- Compact design
 - Pneumatic spec
 - Powerful pneumatic clamping torque by triple disk brake system
 - High speed rotation
 - High accuracy
 - Rotary Joint built in as option
 - Ideal for compact machining centres
- * CE correspondence

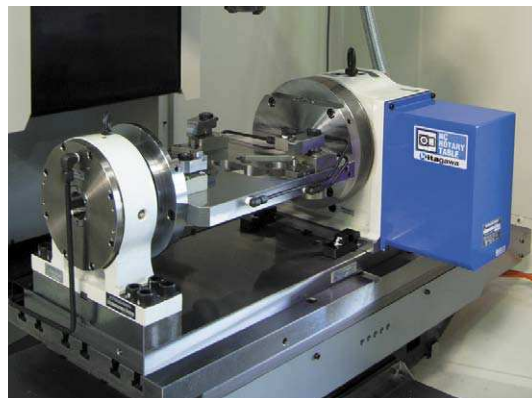


MR250



MRM250
(With Kitagawa own controller)

Sample Application



▲ Specialist trunnion systems allow for multi surface or simultaneous machining.

4th axis specifications

MR	250	L	A	*	*	*
Type	Table Size 250·320	Right/left hands R: Right hand L: Left hand		Design No. Motor type Clamping method Only Pneumatic		

M signal specification

MR	250	R	A	V	*	*
Type	Table Size 250·320	R : Right hand L : Left hand		Design No. Quinte specification Clamping method Pneumatic		

Specifications

Model		MR250	MR320
Right hand		○	○
Left hand		○	○
Table dia (mm)		φ 250	φ 320
Register diameter on Face Plate (mm)		φ 100H7	φ 130H7
Spindle through hole diameter (mm)		φ 70	φ 105
Centre Height (mm)		180	225
Clamping method		Pneumatic	Pneumatic
Clamping torque (N·m) (In pneumatic 0.5MPa)		600	1200
Motor axis reduced inertia (kg·m ²)		0.00031	0.00031
Servomotor (for FANUC specification)		α iF 4/5000	α iF 8/3000
Gear ratio		1/90	1/120
Max. spinde speed	FANUC specification (for min ⁻¹ /motor3000min ⁻¹)	33.3	25
	M signal specification	33.3 (3000min ⁻¹)	16.6 (2000min ⁻¹)
Allowable work inertia (kg·m ²)		1.95	4.49
Indexing accuracy (sec)		20	20
Repeatability (sec)		4	4
Mass of product (kg)		85	135
Manual Tailstock (as an option · P89 reference)		MR250RN	MR320RN
Tail Spindle (as an option · P93 reference)		TSR181A	TSR181A-45
Rotary Joint (as an option · P97 reference)		RJ70H25Q02	RJ70H32Q01
		Hydraulic/Pneumatic6-port	Hydraulic/Pneumatic6-port
Allowable Load	Horizontal (kg)	250	350
	Vertical (kg)	125	180
Allowable load (When clamped to table)	F (kN)	21	25
	F×L (N·m)	1600	2400
	F×L (N·m)	600	1200
Allowable cutting torque	T (N·m)	480	800

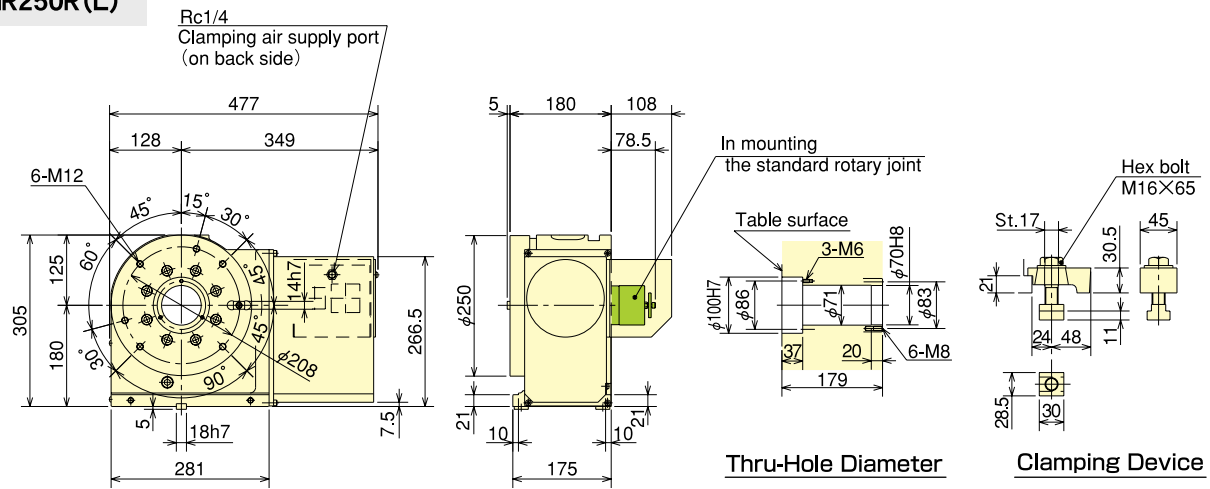
Note) 1. The switch for pressure checking is incorporated to all series except TC/DM of NC tables. 2. The solenoid valve for the table clamp is incorporated. 3. Neither cable nor hose is fitted between NC rotary table and machine tool... 4. In the port part on the table surface jig side of a rotary joint, MR120 or 320 is fixed to the rotary table side. 5. Because a mounting pitch varies with the machines, refer to the pitch of the table spindle size drawing on P93. 6. Each product mass is determined by a Kitagawa M signal spec.



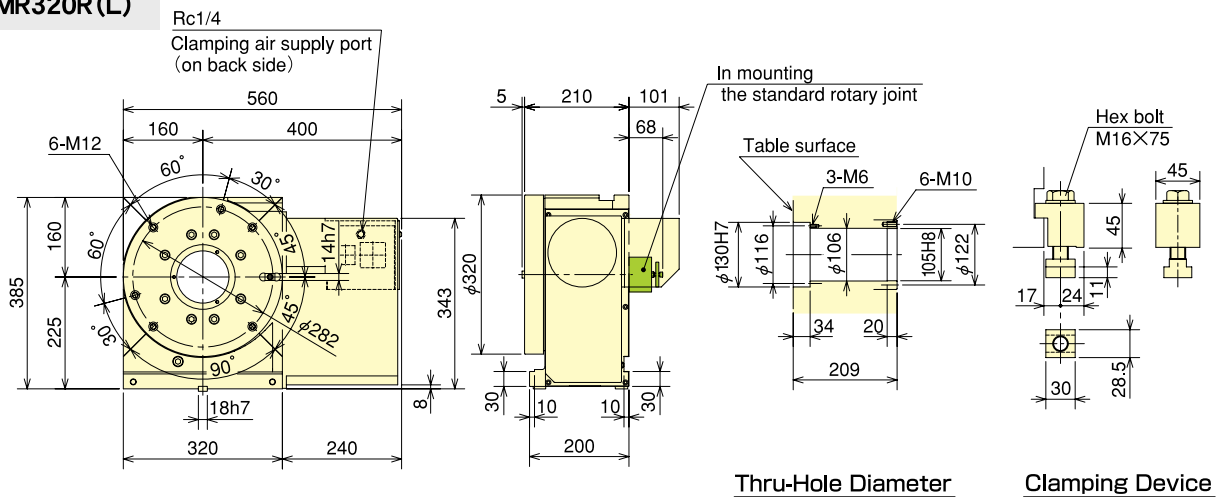
MR series MR250・MR320

■Dimensions [4th axis specifications]

MR250R(L)

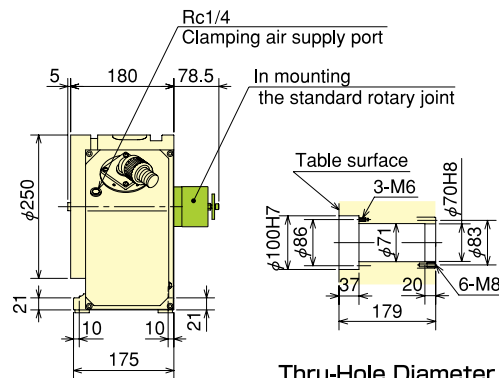


MR320R(L)

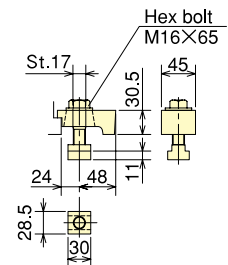


※The above dimensions are the same as FANUC specifications.
Those dimensions may vary from motor to motor that is mounted.
R is a right hand spec. and L is a left hand spec.

*The dimensions may vary from motor to motor that is mounted.



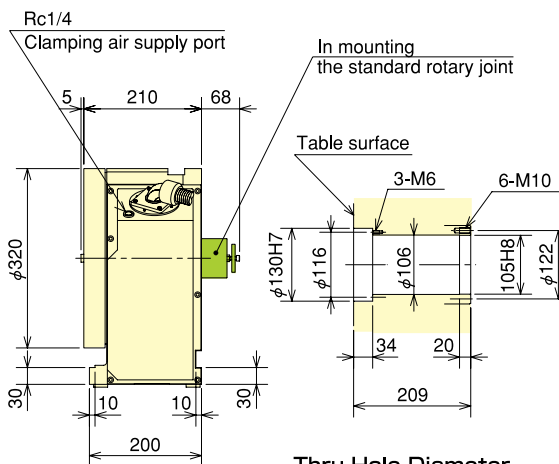
Thru-Hole Diameter



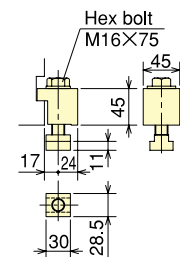
Clamping Device

Technical drawing of a circular mechanical component (likely a flange or base plate) showing dimensions and annotations:

- Overall Dimensions:**
 - Outer Diameter: 427
 - Inner Diameter: 320
 - Overall Width: 107
 - Overall Height: 147
- Internal Features and Dimensions:**
 - Central Hole: 18
 - Inner Ring Hole Diameter: 62
 - Inner Ring Hole Spacing: 107
 - Inner Ring Hole Diameter: 62
 - Inner Ring Hole Spacing: 107
 - Inner Ring Hole Diameter: 62
 - Inner Ring Hole Spacing: 107
 - Inner Ring Hole Diameter: 62
 - Inner Ring Hole Spacing: 107
 - Inner Ring Hole Diameter: 62
 - Inner Ring Hole Spacing: 107
 - Inner Ring Hole Diameter: 62
 - Inner Ring Hole Spacing: 107
- Annotations:**
 - 6-M12 (6 holes, M12 thread)
 - 60° (60 degree angle)
 - 30° (30 degree angle)
 - 45° (45 degree angle)
 - 90° (90 degree angle)
 - 147h7 (147 hole, h7 tolerance)
 - 5 (5 mm dimension)
 - 18 (18 mm dimension)
 - 320 (320 mm dimension)
 - 107 (107 mm dimension)
 - 147 (147 mm dimension)
 - 225 (225 mm dimension)
 - 160 (160 mm dimension)
 - 267 (267 mm dimension)
 - 427 (427 mm dimension)

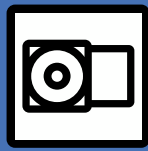


Thru-Hole Diameter



Clamping Device

※R is a right hand spec. and L is a left hand spec.



NC ROTARY
TABLE

High Clamping Torque NC Rotary Table

GT

series

GT200·GT250·GT320

NC Rotary Table suitable for heavy machining

*CE correspondence



GT200



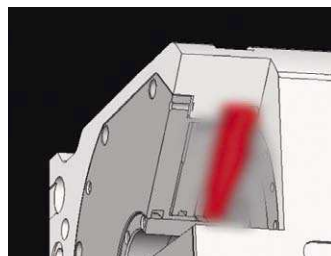
GT320

Sample Application

High Clamping Torque



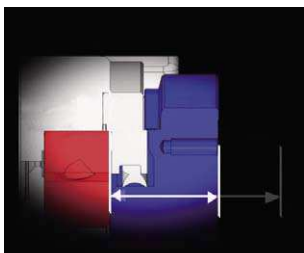
Piston designed at a maximum



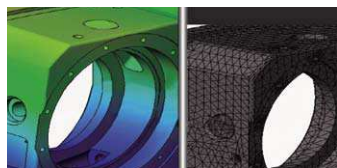
New Clamping Mechanism
(Patent pending)

Increased clamping torque is achieved by increased piston area and new clamping mechanism.

High rigidity



Moment loading reduced



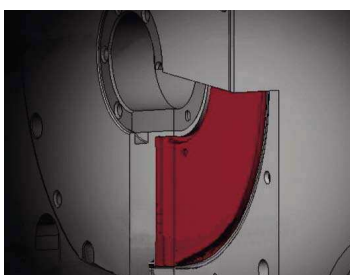
Perfect design



Best Clamping

Rigid Body Design allows heavy machining.
Improved Brake Piston design reduces distortion.

High speed



Air circuit improved

High clamping Torque allows increased machining speed.
Improved clamping speed reduces takt time.

4th axis specifications					M signal specification				
GT 200 L A * * *					GT 200 L A V * *				
Type	Table Size 200·250·320	Right/Left hand R: Right hand L: Left hand	Motor type Pneumatic	Design No.	Type	Table Size 200·250·320	R : Right hand L : Left hand	Clamping method Pneumatic	Design No.

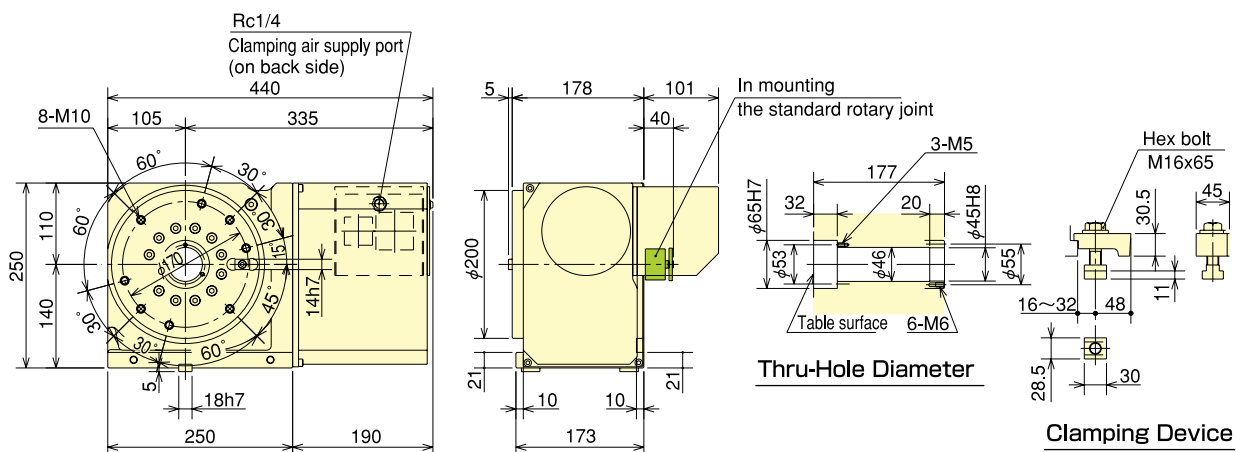
Specifications

Model		GT200	GT250	GT320
Right hand		○	○	○
Left hand		○	○	○
Table dia (mm)		φ 200	φ 250	φ 320
Register diameter on Face Plate (mm)		φ 65 H 7	φ 100 H 7	φ 130 H 7
Spindle through hole diameter (mm)		φ 45	φ 70	φ 105
Centre Height (mm)		140	180	225
Clamping method		Pneumatic	Pneumatic	Pneumatic
Clamping torque (N·m) (In pneumatic 0.5MPa)		820	1600	2800
Motor axis reduced inertia (kg·m ²)		0.00023	0.00036	0.00039
Servomotor		α iF 4/5000	α iF 4/5000	α iF 8/3000
Gear ratio		1/72	1/90	1/120
Max. spindle speed	FANUC specification (for min ⁻¹ /motor 3000min ⁻¹)	41.6	33.3	25
	M signal specification (for min ⁻¹)	41.6 (3000min ⁻¹)	33.3 (3000min ⁻¹)	16.6 (2000min ⁻¹)
Allowable work inertia (kg·m ²)		1.00	1.95	4.49
Indexing accuracy (sec)		20	20	20
Repeatability (sec)		4	4	4
Mass of product (kg)		64	87	145
Manual Tailstock (as an option · P89 reference)		MR200RN	MR250RN	MR320RN
Tail Spindle (as an option · P93 reference)		MSR142A	TSR181A	TSR181A-45
Rotary Joint (as an option · P97 reference)		RJ40H20J01	RJ70H25J01	RJ70H32J01
		Hydraulic/Pneumatic4-port	Hydraulic/Pneumatic6-port	Hydraulic/Pneumatic6-port
Allowable Load	Horizontal (kg)	200	250	350
	Vertical (kg)	100	125	180
Allowable load (When clamped to table)	F (kN)	17	21	26
	FXL (N·m)	1100	1600	2500
	FXL (N·m)	820	1600	2800
Allowable cutting torque	T (N·m)	310	480	800

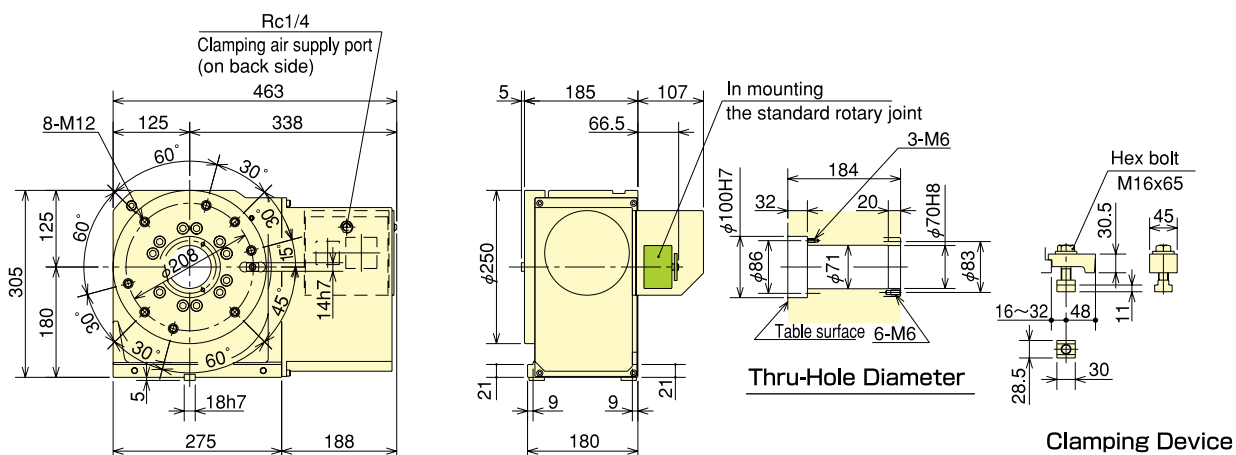
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■Dimensions [4th axis specifications]

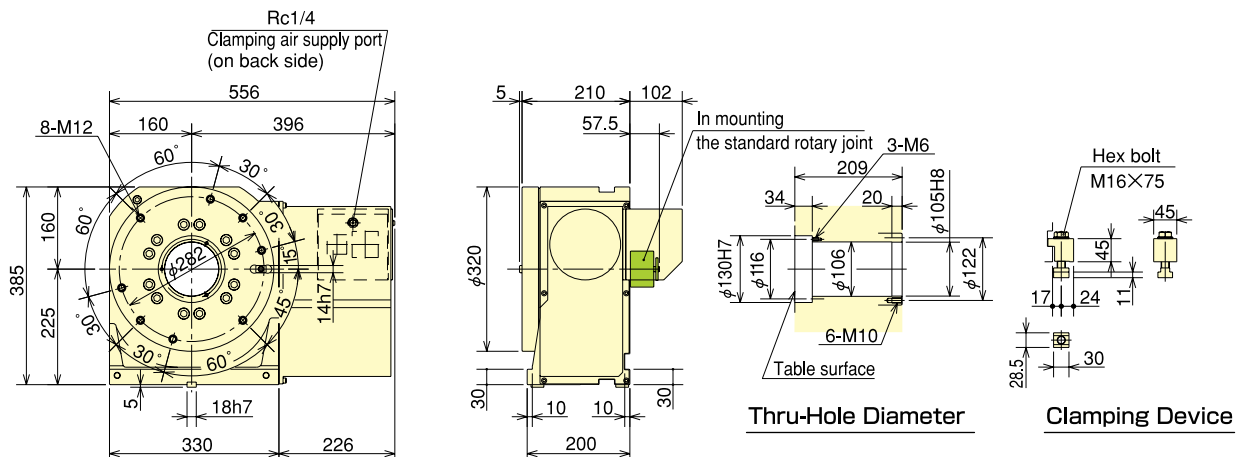
GT200R(L)



GT250R(L)



GT320R(L)

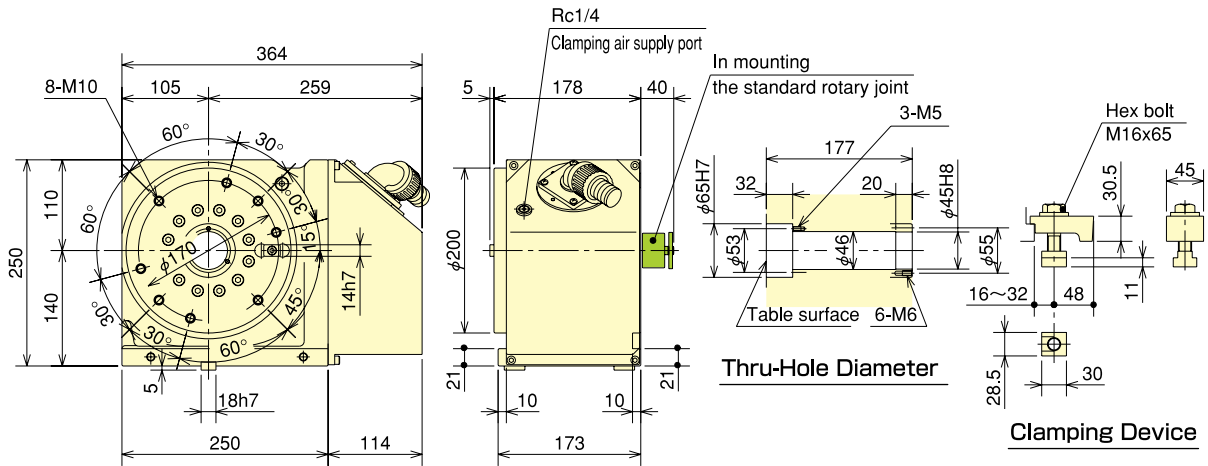


※The above outline dimensions are shown with FANUC motor specifications.
Those dimensions may vary from motor to motor that is mounted.
R is a right hand spec, and L is a left hand spec.

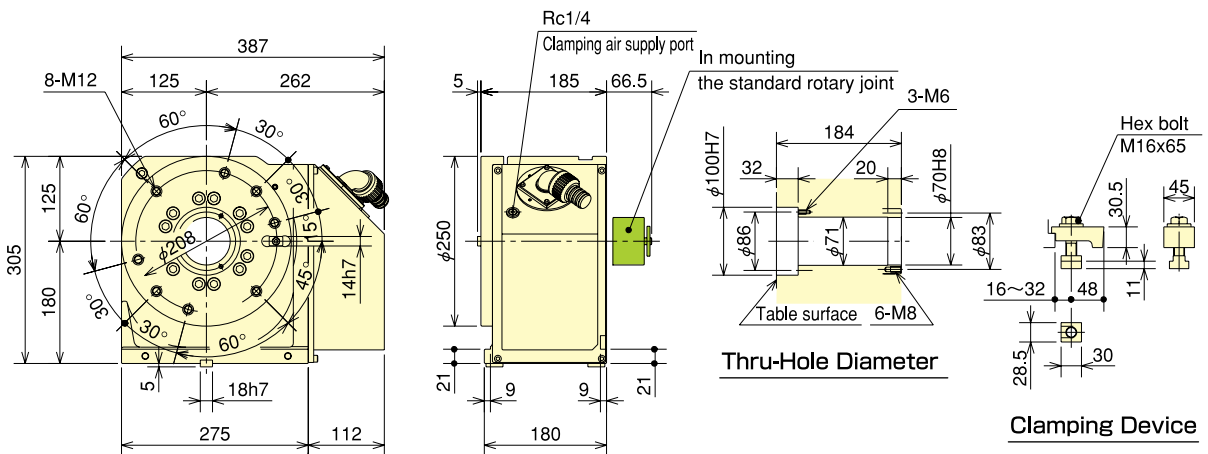
■Dimensions [Kitagawa own controller]

*The dimensions may vary from motor to motor that is mounted.

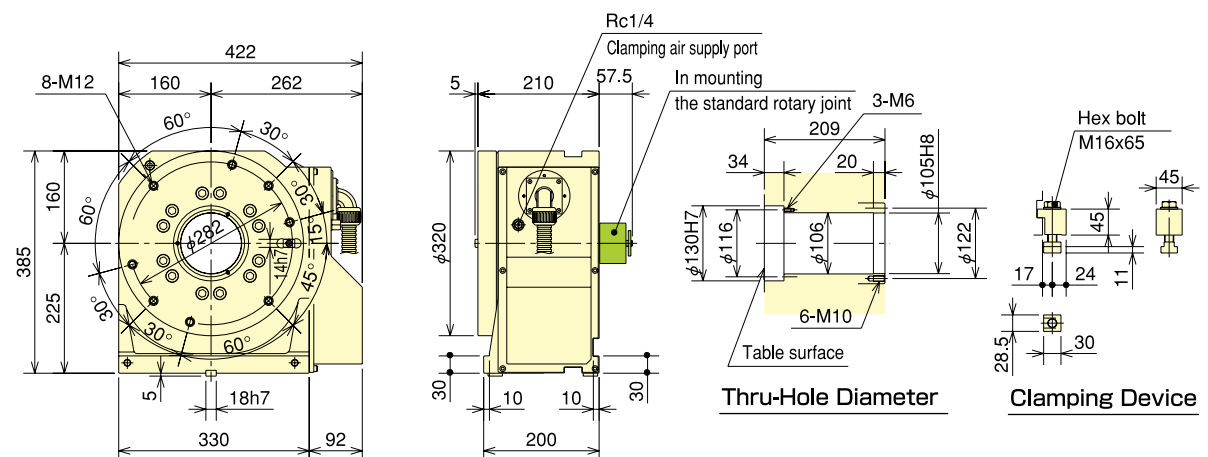
GT200R(L)



GT250R(L)



GT320R(L)



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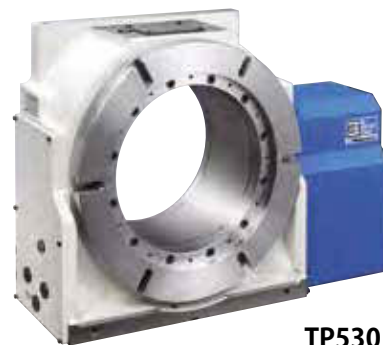


NC ROTARY
TABLE

大貫通穴NC円テーブル Mega Thru-Hole NC Rotary Table TP series

大物ワークの加工に最適 Suitable for machining large workpieces

- 油井管関係の部品加工をはじめ、大物ワーク等に適した設計
Suitable for machining large workpieces such as oil pipes
 - 高剛性で高精度加工
High accuracy heavy duty machining
 - 軽量化&コンパクト設計
Low weight and compact design
- *CE対応品 CE correspondence



TP530

仕様 Specifications

型 式 Model		TP430	TP530
右勝手 Right hand		○	
左勝手 Left hand		受注生産 Order production	
テーブル直径 Table dia (mm)		φ430	φ530
テーブル基準穴径 Register diameter on Face Plate (mm)		φ300H7	φ400H7
テーブル貫通穴径 Spindle through hole diameter (mm)		φ275	φ345
センタハイト Centre Height (mm)		280	310
クランプ方式 Clamping method		空油圧 Air-Hydraulic/油圧 Hydraulic	油圧 Hydraulic
クランプトルク Clamping torque (N·m)		4000	6100
モータ軸換算イナーシャ Motor axis reduced inertia (kg·m ²)		0.00246	0.00231
サーボモータ (FANUC仕様の場合) Servomotor (for FANUC specification)		αiF12/3000	αiS12/4000
減速比 Gear ratio	付加軸 4th axis	1/120	1/180
	M信号 M signal	1/120	1/180
最高回転速度 Max. spindle speed	FANUC仕様 (min ⁻¹ /モータ2000min ⁻¹ 時) FANUC specification (for min ⁻¹ /motor 2000min ⁻¹)	16.6	11.1
	M信号仕様 (min ⁻¹) M signal specification (for min ⁻¹)	16.6 (2000min ⁻¹)	8.33 (1500min ⁻¹)
許容ワークイナーシャ Allowable work inertia (kg·m ²)		5.78	12.29
割出精度 Indexing accuracy (sec)		20	
再現精度 Repeatability (sec)		4	
製品質量 Mass of product (kg)		276	350
手動テールストック (オプション・P107参照) Manual Tailstock (as an option-P107 reference)		—	TS500RN
テールスピンドル (オプション) Tail Spindle (Option)		受注生産 Order production	
ロータリジョイント (オプション) Rotary joint (Option)		受注生産 Order production	
許容積載質量 Allowable Load	タテ置き (kg) Vertical	250	350
	F (kN)	32000	50
	FXL (N·m)	4500	8000
	FXL (N·m)	4000	6100
許容切削トルク Allowable cutting torque		1895	2600

注) 1. 圧力確認用スイッチはNCテーブルのTC・DM・LRを除く全シリーズに内蔵しています。 2. 空油圧クランプ仕様の場合は、テーブルクランプ用ソレノイドバルブは内蔵しています。 3. 油圧クランプ仕様は、ソレノイドバルブを内蔵していません。従って、お客様にてご準備下さい。 4. NCテーブルと工作機械との間のケーブル及びホースは付属しておりません。 5. ロータリジョイント及びテールスピンドルは別途ご相談下さい。 6. 製品質量は弊社M信号仕様時の質量です。

Note) 1. The switch for pressure checking is incorporated to all series except TC/DM/LR of NC rotary tables. 2. In case of air-hyd. Clamp specification, the solenoid valve for table clamp is incorporated. 3. Solenoid valve is not incorporated in case of hydraulic clamp method. Consequently, customer shall prepare it. 4. Neither cable nor hose is fitted between NC rotary table and machine tool. 5. Contact to Kitagawa about rotary joint and tail spindle. 6. Each product mass is determined by Kitagawa M signal spec.

付加軸仕様 4th axis specifications

TP 430 R * * * *

機種
Type

テーブルサイズ
Table Size
430・530

デザイン番号
Design No.

モータ種類 Motor type

クランプ方式 Clamping method
B: 空油圧 Air-Hydraulic/Hydraulic
H: 油圧 Hydraulic

左右勝手 Left hand
R: 右勝手 Right hand
L: 左勝手 Left hand

M信号仕様 M signal specification

TP 430 R H V * *

機種
Type

テーブルサイズ
Table Size
430・530

デザイン番号
Design No.

クインテ仕様
Quinte specification

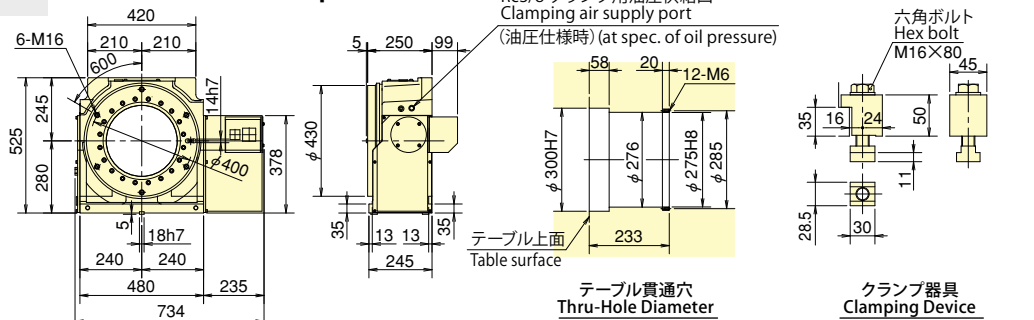
H: 油圧仕様 Hydraulic
B: プースタ仕様 Air-Hydraulic
(external air hydraulic booster)

R: 右勝手 Right hand
L: 左勝手 Left hand

■寸法図 Dimensions

TP430

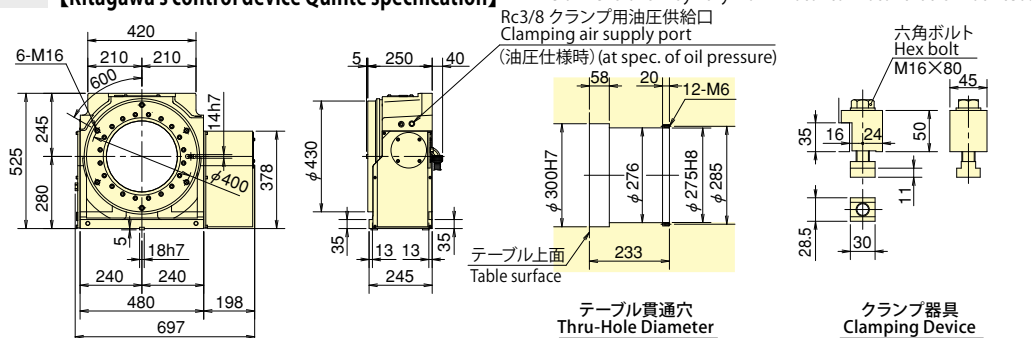
【付加軸仕様】【4th axis specifications】



TP430

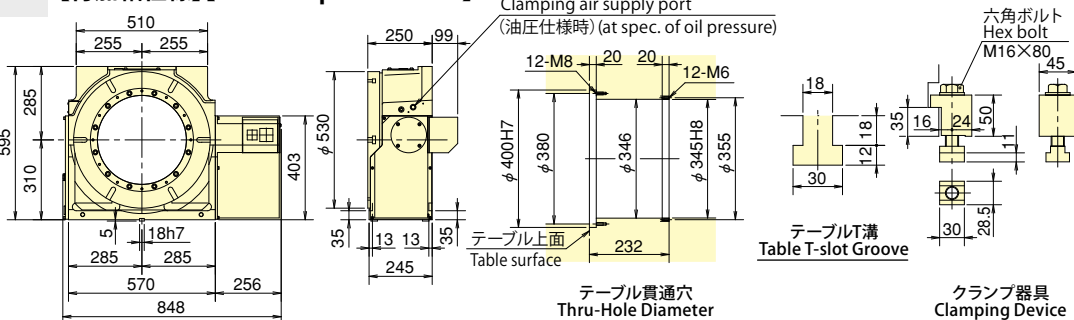
【北川専用コントローラ (Quinte) 仕様】
【Kitagawa's control device Quinte specification】

*モータの仕様により外形寸法が変わる可能性があります。
*The dimensions may vary from motor to motor that is mounted.



TP530

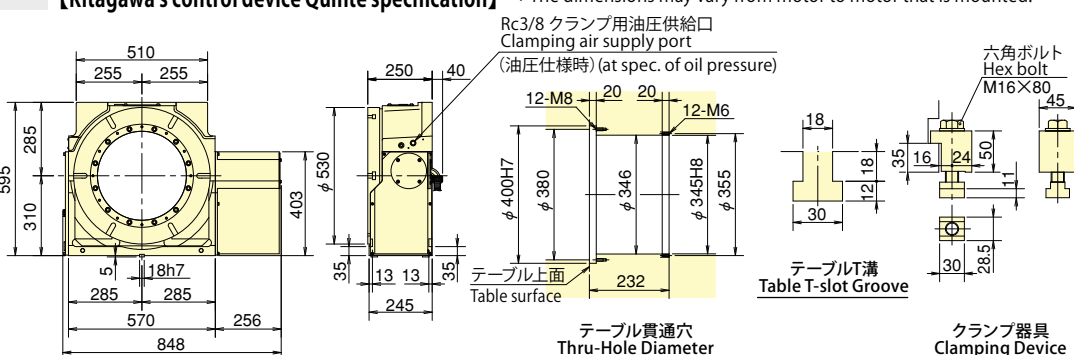
【付加軸仕様】【4th axis specifications】



TP530

【北川専用コントローラ (Quinte) 仕様】
【Kitagawa's control device Quinte specification】

*モータの仕様により外形寸法が変わる可能性があります。
*The dimensions may vary from motor to motor that is mounted.



TP



**NC ROTARY
TABLE**

Ultra Compact NC Rotary table

CK(R) series

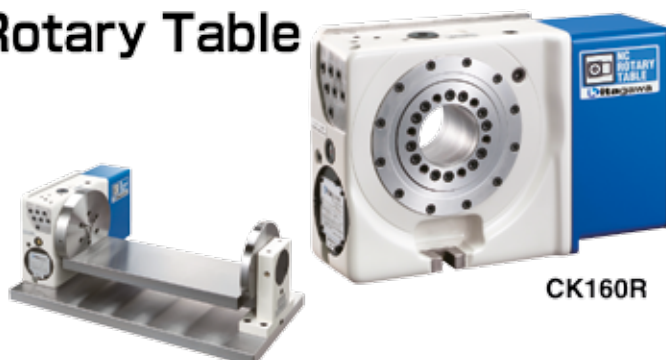
CK160・CKR160
CK200・CKR200

※1 CKR160/CKR200 : All ports are available for both pneumatic and hydraulic, not available for Coolant.

Ultra compact body Smallest-footprint NC Rotary Table

- Suitable for using with trunnion jig
- Block-less rotary joint※1
- Suitable for small-footprint machines

* CE correspondence



CK160R

Specifications

Model		CK160	CKR160	CK200	CKR200
Table dia (mm)		φ 114	φ 114	φ 130	φ 130
Register diameter on Face Plate (mm)		φ 65 H 7	φ 65 H 7	φ 65 H 7	φ 65 H 7
Spindle through hole diameter (mm)		φ 65	—	φ 65	—
Centre Height (mm)		140	140	150	150
Clamping method		Pneumatic	Pneumatic	Pneumatic	Pneumatic
Clamping torque (N·m) (In pneumatic 0.5MPa)		340	340	400	400
Motor axis reduced inertia (kg·m ²)		0.00009	0.00009	0.00017	0.00017
Servomotor (for FANUC specification)		α iF2/5000	α iF2/5000	α iF2/5000	α iF2/5000
Gear ratio		1/72	1/72	1/120	1/120
Max. spindle speed	FANUC specification (for min ⁻¹ /motor 3000min ⁻¹)	41.6	41.6	25	25
	M signal specification (for min ⁻¹ /motor 3000min ⁻¹)	41.6	41.6	25	25
Allowable work inertia (kg·m ²)		0.51	0.51	1.00	1.00
Indexing accuracy (sec)		20	20	20	20
Repeatability (sec)		4	4	4	4
Mass of product (kg)		40	41	47	49
Tail Spindle (as an option · P95 reference) Note)5		MSRC140/TSRC140 MSR142A/TSR142A	MSRC140/TSRC140 MSR142A/TSR142A	MSRC150 TSRC150	MSRC150 TSRC150
Rotary Joint (Maximum operating pressure 7Mpa)		—	※2 (Hydraulic/Pneumatic 7-port)	—	※2 (Hydraulic/Pneumatic 8-port)
Allowable Load	Horizontal (kg) 	160			
	Vertical (kg) 	80			
Allowable load (When clamped to table)	F (kN) 	10			
	FXL (N·m) 	600			
	FXL (N·m) 	340		400	
Allowable cutting torque 		220			

Note) 1. The switch for pressure checking is incorporated to all series except TC / DM/ LR series. 2. The solenoid valve for the table clamp is incorporated. 3. Neither cable nor hose is fitted between NC rotary table and machine tool... 4. Rotary joint is fixed to jig side. 5. Because a mounting pitch varies with the machines, refer to the pitch of the tail spindle size drawing on P95. 6. Each product mass is determined by a Kitagawa M signal spec.

4th axis specifications

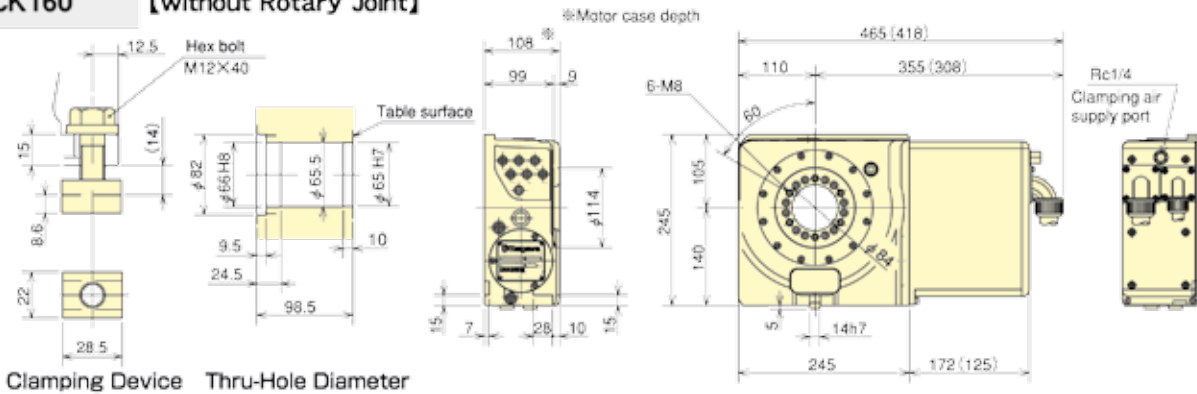
CK 160 R * * *	Design No.
Table Size 160·200	Motor type
Type CK: without rotary joint CKR: with rotary joint	Right/Left hand R: Right hand L: Left hand

M signal specification

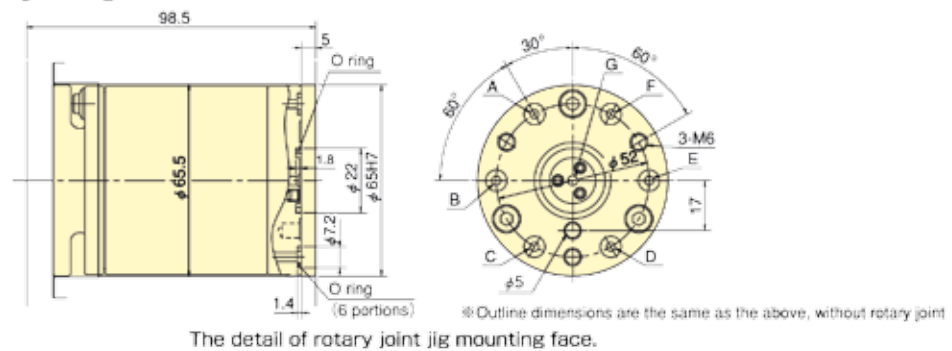
CK 160 R V * *	Design No.
Table Size 160·200	Quinte specification
Type CK: without rotary joint CKR: with rotary joint	Right/Left hand R: Right hand L: Left hand

■ Dimensions

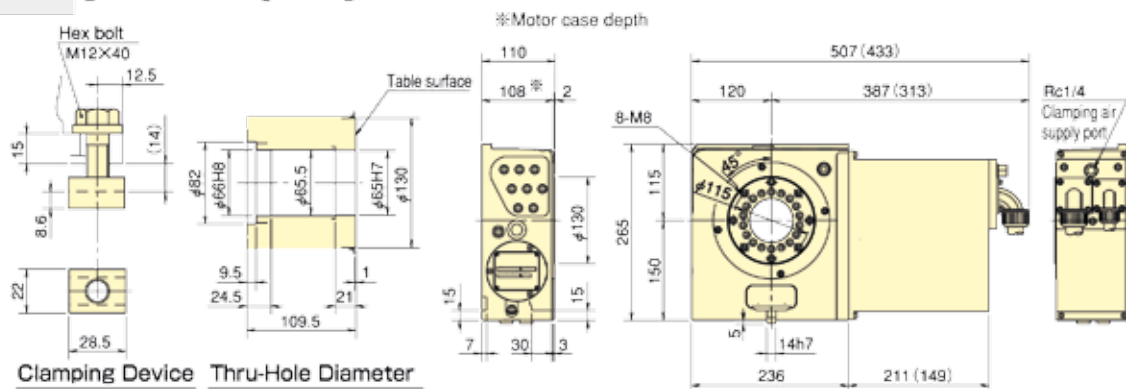
CK160 【without Rotary Joint】



CKR160 【with Rotary Joint】



CK200 【without Rotary Joint】



CKR200 【with Rotary Joint】

