

# RTV RTV-304 · 404 · 504 · 801

Main spindle with highly rigid bearings and table with high overall rigidity enable machining of hard materials such as aircraft components.

Vertical and horizontal setting types are available. Machining at a position closer to the face plate is made possible by inserting the workpiece through the large bore.



RTV-404 (Top motor application)



RTV-404 (Side motor application)

RNA  
RN

RNA-B  
RNCV-B

RNCM

RBA

RBA-K  
RNCK

RNC

RNCV

Multi-Spindle  
RN-N

RZ

TN

TTNC

THNC

Multi-Spindle  
TTNC-N

RC

RH

RUA

TSUA

RTV  
RTT

NC Controllers

Accessories

Options

Technical  
Information

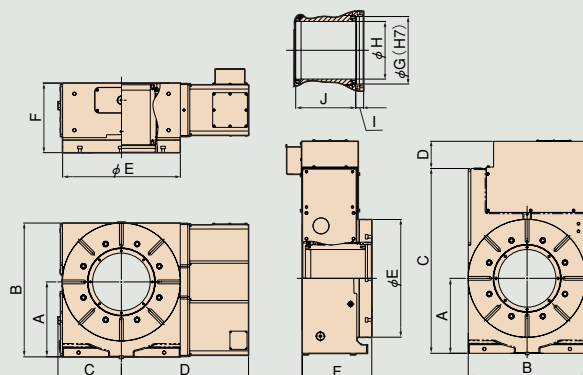
## Specifications

Unit : mm

		RTV-304	RTV-404	RTV-504	RTV-801
Handedness	R	○	○	○	○
	L	○	○	○	○
	Top	○	○	○	○
Table diameter		φ350	φ450	φ550	φ800
Center height		235	280	350	530
Center bore	Nose diameter	φ190H7	φ250H7	φ315H7	φ460H7
	Through-bore	φ160	φ209	φ269	φ420
Table T-slot width		14H7	14H7	18H7	18H7
Guide block width		18h7	18h7	18h7	22h7
Servo motors (for FUNAC)		αiF12	αiF22	αiF22	αiF12
Inertia converted into motor shaft ×10 <sup>-3</sup> kg·m <sup>2</sup> [×10 <sup>-3</sup> kgf·cm·sec <sup>2</sup> ]		2.7 [27.54]	4.05 [41.31]	6.01 [61.30]	4.35 [44.37]
Net weight kg		180	430	590	1,370
Speed reduction ratio		1/90	1/90	1/120	1/360
Table max. rpm (Motor rpm: 2,000min <sup>-1</sup> )		22.2	22.2	16.6	5.5
Indexing accuracy (the sum) sec		15	15	15	15
Repeatability arc sec		4	4	4	4
Clamp system		Hydraulic	Hydraulic	Hydraulic	Hydraulic
Clamp torque /hydraulic pressure 3.5MPa [35kgf/cm <sup>2</sup> ]		2,700 [102] N·m [kgf·m]	4,600 [469] N·m [kgf·m]	5,800 [591] N·m [kgf·m]	14,500 [1,479] N·m [kgf·m]
Strength of worm gears N·m [kgf·m]		1,370 [59]	2,630 [268]	4,200 [428]	7,840 [800]
Allowable work weight	Vertical setting ( ) : with tailstock	300 (500) kg	350 (700) kg	500 (1,000) kg	600 (1,500) kg
	Horizontal setting	500 kg	700 kg	1,000 kg	1,500 kg
Allowable load (when table is clamped)	F	29,400 [3,000] N [kgf]	45,000 [4,590] N [kgf]	54,000 [5,508] N [kgf]	64,400 [6,568] N [kgf]
	F×L	2,700 [275] N·m [kgf·m]	4,600 [469] N·m [kgf·m]	5,800 [591] N·m [kgf·m]	14,500 [1,479] N·m [kgf·m]
	F×L	3,626 [370] N·m [kgf·m]	8,000 [816] N·m [kgf·m]	15,132 [1,543] N·m [kgf·m]	27,000 [2,754] N·m [kgf·m]
Allowable work inertia	$J = \frac{W \cdot D^2}{8}$	10.0 [102] kg·m <sup>2</sup> [kgf·cm·sec <sup>2</sup> ]	20.0 [204] kg·m <sup>2</sup> [kgf·cm·sec <sup>2</sup> ]	30.0 [306] kg·m <sup>2</sup> [kgf·cm·sec <sup>2</sup> ]	120.0 [1,224] kg·m <sup>2</sup> [kgf·cm·sec <sup>2</sup> ]

## Dimensions

Side motor application    Top motor application



Unit : mm

	Motor position	A	B	C	D	E	F	G	H	I	J
RTV-304	Right or Left	235	435	221	481	350	265	190	160	22	234
	Top	235	423	668	123	350	265	190	160	22	234
RTV-404	Right or Left	280	525	266	577	450	300	250	209	30	256
	Top	280	510	748	133	450	300	250	209	30	256
RTV-504	Right or Left	350	625	296	594	550	325	315	269	30	280
	Top	350	554	863	134	550	325	315	269	30	280
RTV-801	Right	530	981	429	759	800	375	460	420	48	318