

Roller Gear Cam Drive
Tilting Rotary Table

RCF - 3 2 0 H

- roller cam drive
- five axis
- table diameter
- S

superior pneumatic clamp
- H

hydraulic clamp



- Worktable diameter Ø170, Ø210, Ø255, Ø320.
- Rolling contact reserves high rigidity, high speed and long endurance.
- Least drive energy wear-out and more than 80% transmission rate.
- Backlash-free from rolling motion achieves high accuracy.

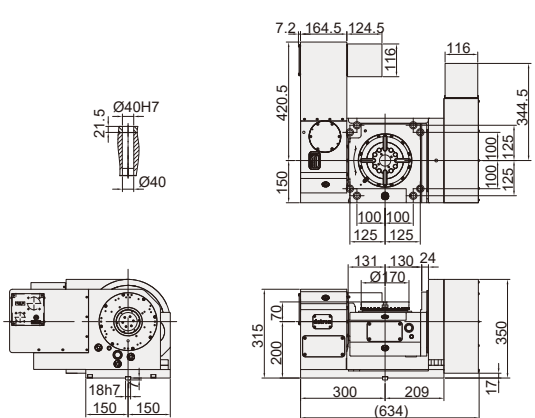
SPECIFICATIONS

MODEL		Unit	RCF-170S/H		RCF-210S/H		RCF-255H		RCF-320H		
Worktable diameter		mm / inch	Ø170 / Ø6.69		Ø210 / Ø8.27		Ø255 / Ø10.04		Ø320 / Ø12.59		
Center bore diameter		mm / inch	Ø40H7 / Ø1.57H7		Ø65H7 / Ø2.56H7		Ø140H7x15L/Ø5.51H7x15L		Ø140H7x15L/Ø5.51H7x15L		
Height of table (horizontal)		mm / inch	270 / 10.6		286 / 11.26		335 / 13.18		355 / 13.97		
Height of center (vertical)		mm / inch	200 / 7.87		210 / 8.27		235 / 9.25		255 / 10.03		
Width of T-slot		mm / inch	12H7 / 0.47H7		12H7 / 0.47H7		12H7 / 0.47H7		14H7 / 0.55H7		
Width of guide block		mm / inch	18 / 0.71		18 / 0.71		18 / 0.71		18 / 0.71		
Clamping method /pressure		MPa / psi	P:0.55~0.7/79.8~101.5 H:2.5/363		P:0.55~0.7/79.8~101.5 H:2.5/363		Hydraulic 5 / 725		Hydraulic 5 / 725		
Servo motor spec			refer to page 78								
Transmission ratio			R	T	R	T	R	T	R	T	
			1:60	1:90	1:60	1:90	1:60	1:90	1:60	1:48	
Max. table speed / at specified servo motor speed		min ⁻¹	50 / 3000	33.3 / 3000	50 / 3000	33.3 / 3000	44.4 / 3000	33.3 / 3000	44.4 / 2664	33.3 / 1600	
Clamping torque		N.m / ft. lbs.	300 / 221 600 / 443	400 / 295 700 / 516	400 / 295 600 / 443	600 / 443 800 / 590	1000 / 738	1270 / 937	1270 / 937	1600 / 1180	
Allowable loading capacity	In Horizontal 	kg / lb	75 / 165		100 / 220		120 / 265		200 / 440		
	In Tilting (0~90°) 	kg / lb	50 / 110		70 / 154		90 / 198		150 / 330		
Allowable unbalancing work moment	WxL 	N.m / ft. lbs.	40 / 29.5		62 / 45.7		92 / 67.8		130 / 95.8		
FxL When table clamped	F 	N / lbs	7000 / 1571		14000 / 3142		20000 / 4488		20000 / 4488		
	FxL 	N.m / ft. lbs.	300 / 221 600 / 443		400 / 295 600 / 443		1270 / 937		1270 / 937		
	FxL 	N.m / ft. lbs.	400 / 295 700 / 516		600 / 443 800 / 590		1270 / 937		1600 / 1180		
Standard loading inertia ($\frac{W.D^2}{8}$) 		kg.m ²	0.2		0.4		0.94		2.6		
Resolution		deg.	0.001		0.001		0.001		0.001		
Indexing accuracy		sec	20	60	20	60	20	50	20	50	
Repeatability		sec	6	8	6	8	6	8	6	8	
Tilting angle range		deg.	-30 ~ +120		-30 ~ +120		-30 ~ +120		-30 ~ +120		
Net weight (servo motor excluded)		kg / lb	221 / 487		250 / 551		355 / 782		488(3D)		
Cam allowable torque		N.m / ft. lbs.	280 / 207		280 / 207		800 / 590		800 / 590		
Allowable Max. rotary joint quantity		Port	4		4		6		6		

Note: 1. R: Rotary Axis T: Tilt Axis
2. FxL When table clamped is a reference data, the users should consider proper safety factor or contact detron for details.

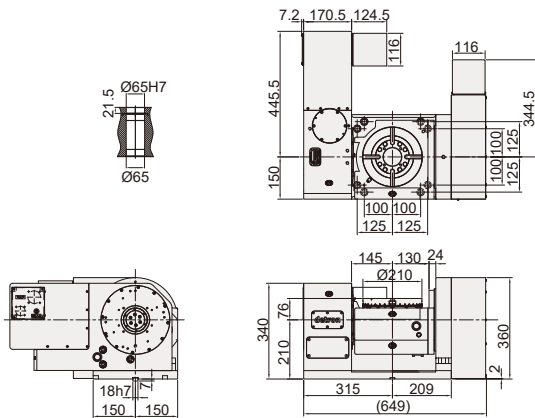
DIMENSIONAL DRAWINGS

RCF-170S/H

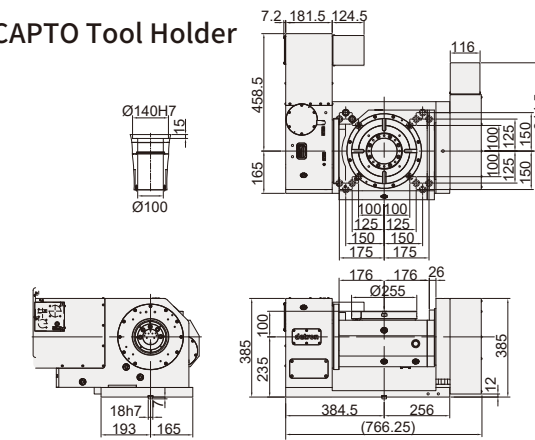


Unit : mm

RCF-210S/H



RCF-255H Optional Interface For BT / HSK / CAPTO Tool Holder



RCF-320H

