

NSV | ROTARY HIRTH COUPLING INDEX

- Ideal for deep cutting of highly rigid material
- Indexing Accuracy: $\pm 2''$
- No Lifting up of Table at Indexing Time. (Built-in 3 pieces of Hirth Coupling)
JAPAN : PAT.






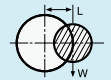
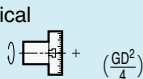



— MOTOR MOUNTED — — FACE PLATE — — M-SIGNAL METHOD —

R RIGHT HAND L LEFT HAND WITH FACE PLATE W/O FACE PLATE α21 CTRL EZ CTRL ADD. AXIS ACCURACY SPEC.

ROTARY JOINT ULTRA PRECISION SUPPORT TABLE TAIL STOCK SCROLL CHUCK POWER CHUCK CLAMP DEVICE T-NUT

Specifications

Item / Code No.		NSVZ180	NSVZ300	NSVX400	NSVX500	NSVX400T
Diameter of Table	φmm	180	300	400	500	400
Diameter of Spindle Hole	φmm	φ60H7 φ30	φ60H7 φ52	φ80H7	φ80H7	φ80H7
Center Height	mm	135	170	240	310	240
Width of T Slot	mm	12 ^{+0.018} ₀	12 ^{+0.018} ₀	14 ^{+0.018} ₀	14 ^{+0.018} ₀	14 ^{+0.018} ₀
Clamping System		Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Clamping Torque	N·m	910	2155	5880	5880	5880
Table Inertia at Motor Shaft ($\frac{GD^2}{4}$)	kg·m ² ×10 ⁻³	0.11	0.16	2.9	3.9	2.9
Servo Motor	min ⁻¹	α iF2·2000	α iF4·2000	α iF12·2000	α iF12·2000	α iF12·2000
MIN. Increment		1°	1°	1°*/0.001°	1°*/0.001°	1°*/0.001°
Rotation Speed	min ⁻¹	11.1	11.1	22.2	16.6	16.6
Total Reduction Ratio		1/180	1/180	1/90	1/120	1/120
Indexing Accuracy	sec	±3	±2	±2*	±2*	±2*
Net Weight	kg	60	150	325	410	350
MAX. Work Load on the Table	Vertical  kg	50	150	250	250	250
	Horizontal  kg	100	300	500	500	—
MAX. Thrust Load applicable on the Table	 N	23520	39200	58800	58800	58800
	*1  FXL N·m	911	2156	5880	5880	5880
	 FXL N·m	569	1421	3920	3920	3920
Guide Line of MAX. Unbalancing Load	*2  N·m	30	30	100	100	—
MAX. Work Inertia	Vertical  ($\frac{GD^2}{4}$) kg·m ²	0.14	1.0	6.4	6.4	11.5
Driving Torque	 N·m	—	—	432	576	576

*1 This is the strength of the clamping by the hirth coupling.
 *2 The guide line of MAX unbalancing load means the unbalancing load, when the rotary table is used with support table in vertical application. The guide line figure will be different according to the servo motor, please refer to P.57 for more detail.
 ★ NSVZ series are indexing table which is indexable at each 1°.
 ★ NSVX series are rotary and indexing table which clamped by hirth coupling (of high precision & high rigidity) at each 1°, also perform min. command incremental at 0.001° and profile milling.
 ★ αiF4/5000 motor can be mounted on NSVZ180 and NSVZ300.
 ★ The air-hydraulic booster is available, when NSVZ180 or NSVZ300 is used on the M/C without hydraulic source.
 ★ Please be careful that the centralizing of work piece or jig fixture should be done after indexing, not rotating.
 ★ The solenoid valve is installed inside the table for the indexing table with NIKKEN controller. The solenoid valve must be installed at the hydraulic tank for the indexing table of the additional axis control.

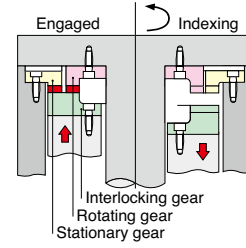
NSVZ180, 300, NSVX400, 400T, 500



No lift (Three pieces of Hirth Coupling)

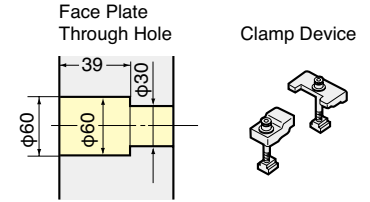
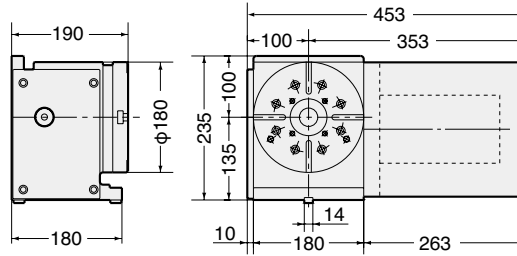
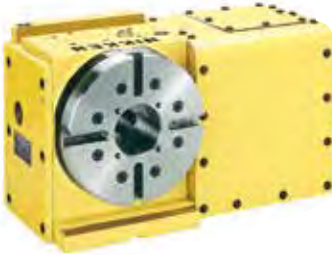
Three pieces of 360 division precision hirth coupling ensures smooth and fast indexing without table lifting.

- 3-piece Hirth coupling developed in-house by NIKKEN



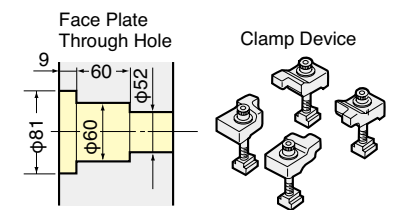
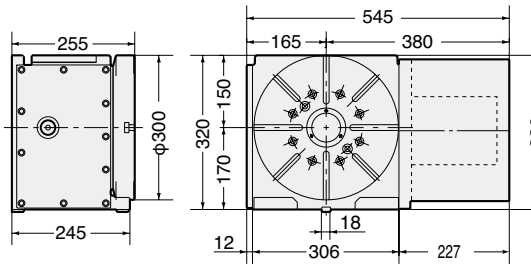
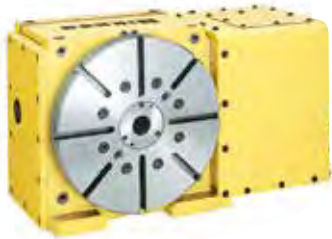
External dimensions depend on the type of the servo motor. Indicated dimensions are in case of FANUC. Please contact us for CAD files (2D:DXF, 3D:PARASOLID).

NSVZ180

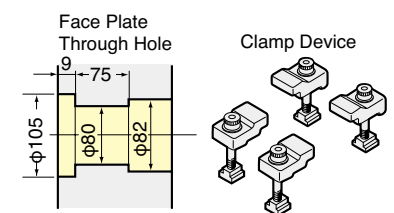
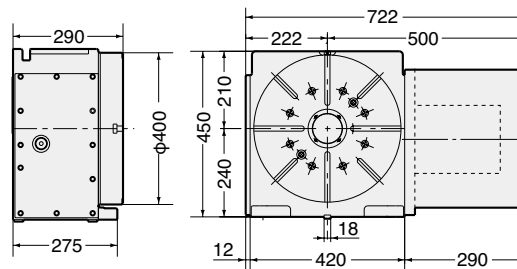


NSVZ300

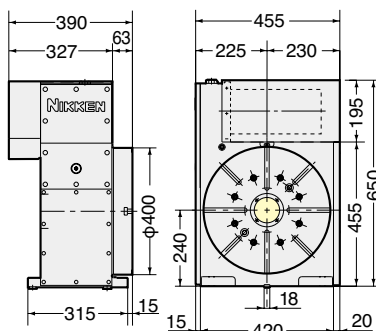
Photo with center socket. (optional)



NSVX400



NSVX400T



NSVX500

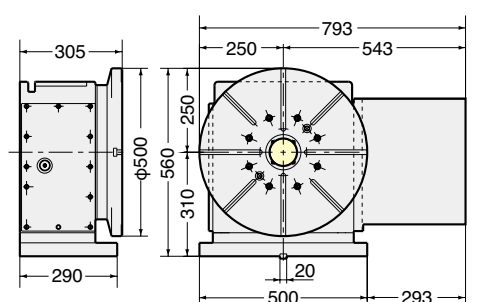
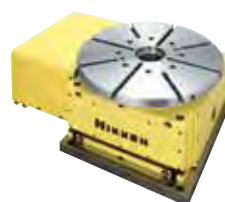


Photo : for horizontal use.
Please contact us for external dimension.

NSV