

ROTARY HIRTH COUPLING INDEX



NSVX400

INDEXING ACCURACY : $\pm 2''$

- High Rigidity
 - Indexing Accuracy : $\pm 2''$
 - No Lifting up of Table at Indexing Time. (Built-in 3 pieces of Hirth Coupling)
- JAPAN : PAT.

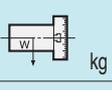
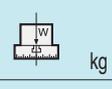


● Explanation of the Code No. (Example)

NSV X 400 F A - M

- No Letter: without motor M: with motor
- No Letter: DC servo motor A: AC servo motor
- Motor Maker \Rightarrow P.37
- A21: with NIKKEN α 21 controller
- F:FANUC M:MELDAS Y:YASNAC OSP:OSP
- T:TOSNUC N:NEC S:SANYO Z:SIEMENS
- I:INDRAMAT H:HEIDENHAIN X:ISOFLEX
- SEM:SEM B:BOSCH
- No Letter: Right hand mounted motor
- L: Left hand mounted motor
- T: Top mounted
- Diameter of Table 180, 300, 400, 500
- X: Rotary and indexing table (1° and 0.001°) Z: Indexing table (1°)
- Hirth coupling index table

Specifications

Item / Code No.		NSVZ180	NSVZ300	NSVX400	NSVX500	NSVX400T
Diameter of Table	ϕ mm	180	300	400	500	400
Diameter of Spindle Hole	ϕ mm	$\phi 60_{H7} \phi 30$	$\phi 60_{H7} \phi 52$	$\phi 80_{H7}$	$\phi 80_{H7}$	$\phi 80_{H7}$
Centre 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	3.5MPa	Hyd.	Hyd.	Hyd.	Hyd.	Hyd.
Clamping Torque	N·m	910	2155	5880	5880	5880
Table Inertia at Motor Shaft ($\frac{GD^2}{4}$)	$\text{kg}\cdot\text{m}^2 \times 10^{-3}$	0.11	0.16	2.9	3.9	2.9
Servo Motor	min^{-1}	α IF2/5000·2000	α IF2/5000·2000	α IF12/4000·2000	α IF12/4000·2000	α IF12/4000·2000
MIN. Increment		1°	1°	$1^*/0.001^\circ$	$1^*/0.001^\circ$	$1^*/0.001^\circ$
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	$\pm 2^*$	$\pm 2^*$	$\pm 2^*$
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  $F \times L$ N·m	911	2156	5880	5880	5880
	 $F \times L$ N·m	569	1421	3920	3920	3920
Guide Line of MAX. Unbalancing Load	*2  $\text{kg}\cdot\text{m}$	3.0	3.0	10.0	10.0	—
MAX. Work Inertia	Vertical  $\text{kg}\cdot\text{m}^2$	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 \Rightarrow P.37 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.
 ★ Rotary joint is available for all rotary tables, please refer \Rightarrow P.54. ★ α IF4/5000 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 refer \Rightarrow P.55.
 ★ The supplied hydraulic pressure is 3.5MPa for hydraulic clamping system. ★ 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.