

# STR SERIES Hollow Rotary Index Tables

## STR 100V 1-Stage and 2-Stage Specifications with VRB 090

Frame Size	100V									
Stage			1-Stage	2-Stage						
Ratio	Units	Notes	20	60	80	100	120	140	160	180
Nominal Torque	[Nm]	*1	330	330	330	330	330	330	330	330
Acceleration Torque	[Nm]	--	565	565	565	565	565	565	565	565
No Load Torque	[Nm]	*1	2.6	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Nominal Input Speed	[rpm]	*2	600	1800	2400	3000	3000	3000	3000	3000
Maximum Input Speed	[rpm]	*2	2000	6000	6000	6000	6000	6000	6000	6000
Reflected Inertia (Single)	[kg-m <sup>2</sup> x10 <sup>-4</sup> ]	*3	8.687	--	--	--	--	--	--	--
Reflected Inertia (≤Ø 8)	[kg-m <sup>2</sup> x10 <sup>-4</sup> ]	*3	--	--	--	--	--	--	--	--
Reflected Inertia (≤Ø 14)	[kg-m <sup>2</sup> x10 <sup>-4</sup> ]	*3	--	0.742	0.512	0.422	0.382	0.342	0.332	0.312
Reflected Inertia (≤Ø 19)	[kg-m <sup>2</sup> x10 <sup>-4</sup> ]	*3	--	1.222	0.972	0.882	0.842	0.812	0.792	0.782
Reflected Inertia (≤Ø 28)	[kg-m <sup>2</sup> x10 <sup>-4</sup> ]	*3	--	3.222	3.022	2.922	2.822	2.822	2.822	2.822
Backlash	[arc-min]	--	0	0	0	0	0	0	0	0
Angular Transmission Accuracy	[arc-min]	--	≤ 0.7	≤ 0.7						
Angular Repeatability Accuracy	[arc-min]	--	± 0.08	± 0.08						
Surface Runout	[µm (max)]	--	10	10	10	10	10	10	10	10
Weight	[kg]	--	21.5	25.2	25.2	25.2	25.2	25.2	25.2	25.2
Maximum Axial Load	[N]	--	3724	3724	3724	3724	3724	3724	3724	3724
Maximum Radial Load	[N]	--	3109	3109	3109	3109	3109	3109	3109	3109
Maximum Tilting Moment Load	[Nm]	--	284	284	284	284	284	284	284	284
Efficiency	[%]	--	82	78	78	78	78	78	78	78
Protection Class	IP54 (IP65)									

\*1) At nominal input speed

\*2) Speeds are at the actuator input. Limits when used with additional gearbox are higher

\*3) At input shaft

\*4) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details and our food grade options

## STR 100V 2-Stage and 3-Stage Specifications with VRB 090

Frame Size	100V									
Stage			2-Stage	3-Stage						
Ratio	Units	Notes	200	300	320	400	500	560	600	700
Nominal Torque	[Nm]	*1	330	330	330	330	330	330	330	330
Acceleration Torque	[Nm]	--	565	565	565	565	565	565	565	565
No Load Torque	[Nm]	*1	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nominal Input Speed	[rpm]	*2	3000	3000	3000	3000	3000	3000	3000	3000
Maximum Input Speed	[rpm]	*2	6000	6000	6000	6000	6000	6000	6000	6000
Reflected Inertia (Single)	[kg-m <sup>2</sup> x10 <sup>-4</sup> ]	*3	--	--	--	--	--	--	--	--
Reflected Inertia (≤Ø 8)	[kg-m <sup>2</sup> x10 <sup>-4</sup> ]	*3	--	0.152	0.172	0.152	0.142	0.162	0.122	0.142
Reflected Inertia (≤Ø 14)	[kg-m <sup>2</sup> x10 <sup>-4</sup> ]	*3	0.312	0.302	0.322	0.302	0.302	0.312	0.272	0.292
Reflected Inertia (≤Ø 19)	[kg-m <sup>2</sup> x10 <sup>-4</sup> ]	*3	0.772	0.742	0.762	0.742	0.732	0.752	0.722	0.732
Reflected Inertia (≤Ø 28)	[kg-m <sup>2</sup> x10 <sup>-4</sup> ]	*3	2.822	2.722	2.822	2.722	2.722	2.722	2.622	2.722
Backlash	[arc-min]	--	0	0	0	0	0	0	0	0
Angular Transmission Accuracy	[arc-min]	--	≤ 0.7	≤ 0.7						
Angular Repeatability Accuracy	[arc-min]	--	± 0.08	± 0.08						
Surface Runout	[µm (max)]	--	10	10	10	10	10	10	10	10
Weight	[kg]	--	25.2	25.7	25.7	25.7	25.7	25.7	25.7	25.7
Maximum Axial Load	[N]	--	3724	3724	3724	3724	3724	3724	3724	3724
Maximum Radial Load	[N]	--	3109	3109	3109	3109	3109	3109	3109	3109
Maximum Tilting Moment Load	[Nm]	--	284	284	284	284	284	284	284	284
Efficiency	[%]	--	78	74	74	74	74	74	74	74
Protection Class	IP54 (IP65)									

\*1) At nominal input speed

\*2) Speeds are at the actuator input. Limits when used with additional gearbox are higher

\*3) At input shaft

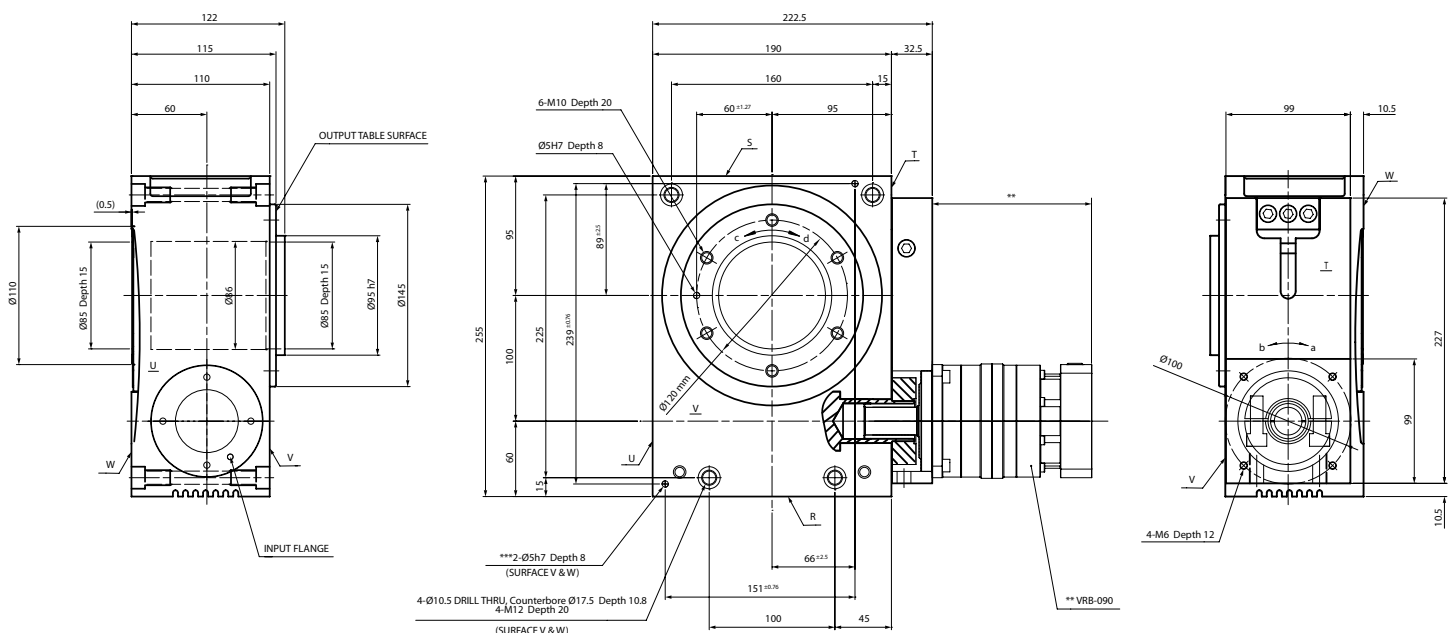
\*4) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details and our food grade options

## STR 100V 1-Stage and 3-Stage Specifications with VRB 090

Frame Size	100V									
			3-Stage							
Stage			800	900	1000	1200	1400	1600	1800	2000
Ratio	Units	Notes								
Nominal Torque	[Nm]	*1	330	330	330	330	330	330	330	330
Acceleration Torque	[Nm]	--	565	565	565	565	565	565	565	565
No Load Torque	[Nm]	*1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nominal Input Speed	[rpm]	*2	3000	3000	3000	3000	3000	3000	3000	3000
Maximum Input Speed	[rpm]	*2	6000	6000	6000	6000	6000	6000	6000	6000
Reflected Inertia (Single)	[kg·m <sup>2</sup> ×10 <sup>-4</sup> ]	*3	--	--	--	--	--	--	--	--
Reflected Inertia (≤Ø 8)	[kg·m <sup>2</sup> ×10 <sup>-4</sup> ]	*3	0.121	0.142	0.120	0.120	0.119	0.119	0.119	0.119
Reflected Inertia (≤Ø 14)	[kg·m <sup>2</sup> ×10 <sup>-4</sup> ]	*3	0.272	0.292	0.272	0.272	0.272	0.272	0.272	0.272
Reflected Inertia (≤Ø 19)	[kg·m <sup>2</sup> ×10 <sup>-4</sup> ]	*3	0.722	0.732	0.712	0.712	0.712	0.712	0.712	0.712
Reflected Inertia (≤Ø 28)	[kg·m <sup>2</sup> ×10 <sup>-4</sup> ]	*3	2.622	2.722	2.622	2.622	2.622	2.622	2.622	2.622
Backlash	[arc-min]	--	0	0	0	0	0	0	0	0
Angular Transmission Accuracy	[arc-min]	--	≤ 0.7							
Angular Repeatability Accuracy	[arc-min]	--	± 0.08							
Surface Runout	[µm (max)]	--	10	10	10	10	10	10	10	10
Weight	[kg]	--	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7
Maximum Axial Load	[N]	--	3724	3724	3724	3724	3724	3724	3724	3724
Maximum Radial Load	[N]	--	3109	3109	3109	3109	3109	3109	3109	3109
Maximum Tilting Moment Load	[Nm]	--	284	284	284	284	284	284	284	284
Efficiency	[%]	--	74	74	74	74	74	74	74	74
Protection Class	IP54 (IP65)									

- \*1) At nominal input speed
- \*2) Speeds are at the actuator input. Limits when used with additional gearbox are higher
- \*3) At input shaft
- \*4) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details and our food grade options

## STR 100 Dimensions with VRB 090



NOTE:  
 \*\* Refer to page 78, for VRB-090 dimensions  
 \*\*\* Optional

ROTATION:  
 a=d  
 a=c (upon special request)