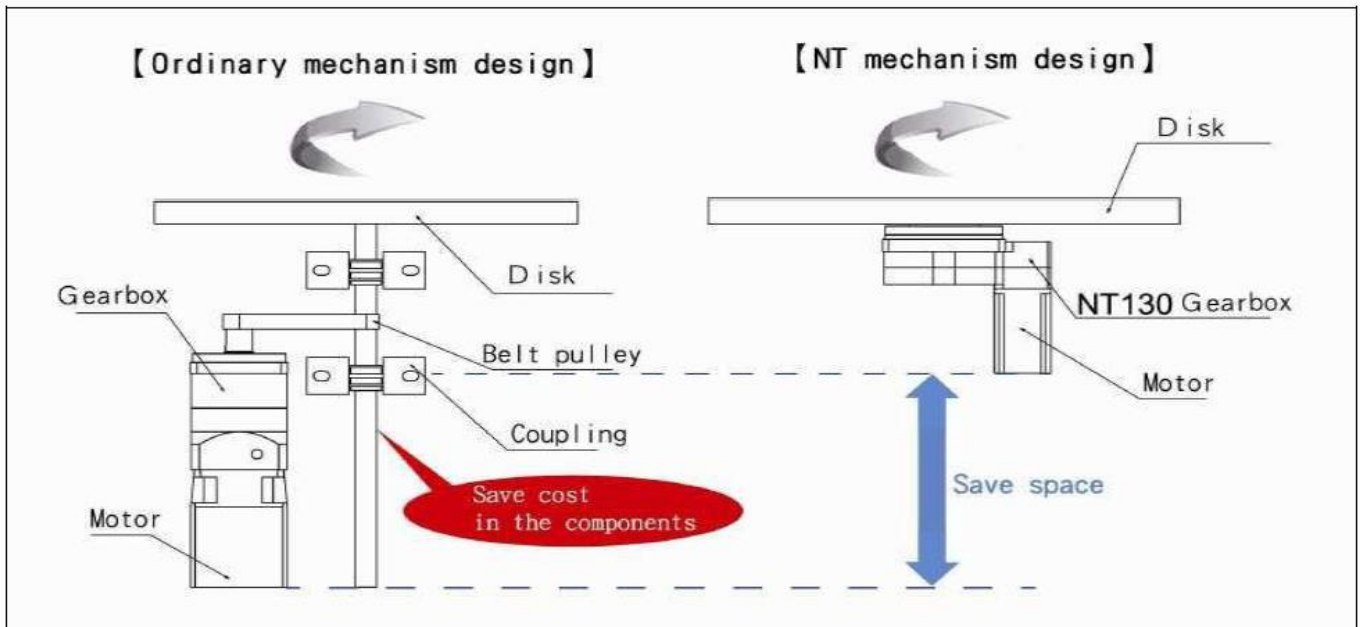


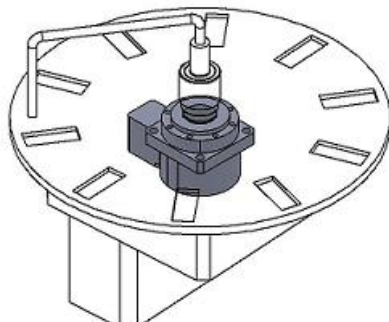
# NT Series Hollow-shaft Helical Gearboxes

## FEATURES

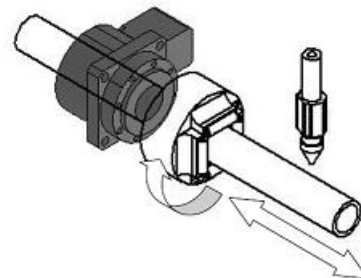
- Direct fixing arrangement with a simple and reliable design
- Large hollow rotary table for integrated throughput for application wiring and piping
- Low backlash with 30 arc-seconds
- Hollow bore for wiring or shafts, driven by your servo motor via large helical ring gear integrated in a rotating flange, which provides smooth, accurate, fast positioning and indexing
- Flange rotates on precision high capacity “cross roller” type bearing for positional accuracy, rigidity and heavy axial loads
- Larger reduction ratios achievable by fitting with a planetary gearbox (GNP series) or right angle gearbox (WS series)



## TYPICAL APPLICATIONS/INDUSTRIES



Index Table with wiring



CNC Laser cutting machine

- ▶ Precision Machine
- ▶ Robot Arms
- ▶ Waterjet Cutting Machine
- ▶ Inspection Machine
- ▶ Automation

## TECHNICAL SPECIFICATIONS

Performances		NT85	NT130	NT230
Nominal Output Torque	Lb-in	13.0	155	321
	Nm	1.47	17.5	36.2
Max Acceleration Torque	Lb-in/ Nm	3 times Nominal Output Torque		
Emergency Stop Torque <sup>(1)</sup>	Lb-in/ Nm	3.4 times Nominal Output Torque		
Permissible Input Speed	rpm	3000	3000	600 <sup>(2)</sup>
NT Gear ratio <sup>(3)</sup>	i	30	10	10
Standard Max Backlash	Arc-sec	30	30	30
Max Tilting moment-at flange face	Lb-in/	88	440	880
	Nm	10	50	100
Max radial load (perpendicular to axis)	Lbf	110	440	1840
	N	490	1961	8188
Max. axial force - along rotational axis	Lbf	55	220	920
	N	245	980	4094
Rated life <sup>(4)</sup>	Hours	>10,000		
Operating Temperature Range		-10°C to +40°C ambient -- 90°C max operating case temperature		
Lubrication		Lubricated for Life ( synthetic grease)		
Protection class		IP54		
Gearhead Inertia	Kg- cm <sup>2</sup>	0.02	0.2	2.3
Efficiency at full load	%	80%		
Weight	Kg	1.1	3.8 ~ 4.1	13.7
No-load running torque	Lb-in	0.44	0.44	4.51
	Nm	0.05	0.05	0.51

### Notes:

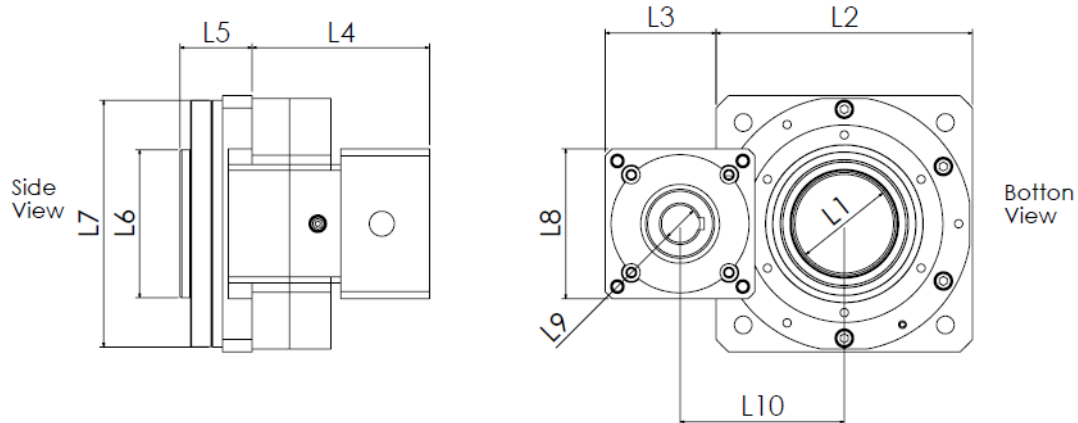
(1) For 1000 times max during life of gearhead

(2) Output limit speed at 60 rpm

(3) Larger reduction ratios possible by inputting with an In-line or right angle gearhead.

(4) At permissible input speed and Continuous Output Torque

## MECHANICAL DIMENSIONS



Item	Description (all dimensions in mm)	NT85	NT130	NT230
L1	Diameter of NT gearbox rotating hollow bore	35	50	105
L2	Square of flange for bolting NT gearbox to machine frame – has 4 mounting holes	85	130	235
L3	End of motor mounting housing	33.54	48.29	97.5
L4	Motor mounting housing length from bottom of square flange	8	5	35
L5	Height of rotating output flange from bottom of square flange	23	36.6	60
L6	Diameter of NT rotating flange (Precision threaded holes in face for fastening of customer features)	56	75	150
L7	Diameter of ring gear housing –does not rotate	80	125	230
L8	Square flange for attachment of power input to NT – a servomotor –alone or with gearhead	42	60	130
L9	Typical diameter of motor shaft associated with L8	8	14	19-24
L10	Center distance - Hollow bore to power input shaft	55.04	83.29	150

**Note:** The standard dimension diagram contemplates a “stand-alone” servo motor as the power input device. If In-line or right-angle gear ratios are required, we can provide input flanges for our GNP or WS gearboxes. Please contact our sales team for further details.