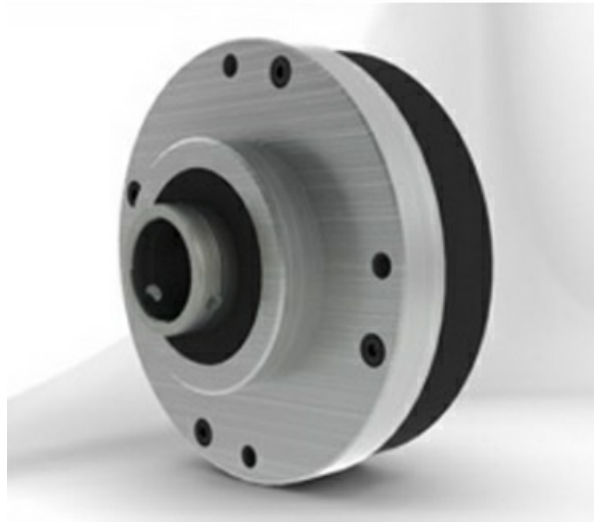


## SHG-25-50-2UH

Harmonic Drive Compact hollow shaft gearhead



### Technical sheet of SHG-25-50-2UH

#### What are the Benefits of choosing SHG-25-50-2UH bearings?

- **Zero backlash:** Flexible bearings combined with crossed rollers achieve backlash-free rolling, resulting in extremely high precision.
- **High load capacity and high rigidity:** A single crossed roller structure can withstand radial, axial, and overturning moments.
- **Compact and lightweight:** Thin-walled design achieves a high reduction ratio in confined spaces, reducing overall machine weight.
- **High dynamic response:** Low inertia moment and low starting torque make it suitable for frequent starts and stops and high-speed positioning.
- **Long life and reliable:** Optimized raceways and heat treatment ensure stable performance during high-speed reciprocating motion.

Type :	Harmonic drive reducer bearings	
Model :	<a href="#">SHG-25-50-2UH</a>	
M kg:	2.1	Mass
Cr kN:	21.8	Radial dynamic load rating
C0r kN:	35.8	Radial static load rating

#### Detailed parameters and installation dimensions:

Gear Number	SHG-25-50-2UH
Gear series	shg-2uh

Bearing Type	Harmonic Drive Compact hollow shaft gearhead
Units	metric
Series	SHG
Size	25
Ratio	50
Type	2UH
<b>Gear Performance</b>	
Gear Mass	2.1 kg   4.630 lb
Rated Torque L10	51 Nm
Limit for Average Torque	72 Nm
Limit for Repeated Peak Torque	127 Nm
Limit for Momentary Peak Torque	242 Nm
Backdriving Torque	34 Nm
Starting Torque	56 Ncm
Ave. Input Speed	3500 rpm
Standard Accuracy	1 arc min
<b>Torsional Stiffness</b>	
T1	14 Nm
T2	48 Nm
K1	25000 Nm/rad
K2	34000 Nm/rad
K3	44000 Nm/rad
<b>Bearing</b>	
Pitch Circle Diameter - $d_p$	0.08 m
Allowable Moment Load - $M_c$	258 Nm
Moment Stiffness - $K_m$	39.2 Nm/rad
Radial Dynamic Capacity - $C_r$	21800 N   4900 lbf
Radial Static Capacity - $C_{0r}$	35800 N   8047 lbf
Gear Features	Zero backlash' Large hollow thru bore High positioning accuracy Compact and simple design High torque capacity High torsional stiffness Shaft input units available

### What are the applications of the SHG-25-50-2UH bearing?

- **Robot joints (industrial/collaborative robots):** High precision, high rigidity, and lightweight design ensure repeatability and smooth movement.
- **Semiconductor equipment (wafer handling robots, precision alignment platforms):** Extremely high precision and low vibration meet micron-level processing requirements.
- **Precision medical/machine tools (surgical robots, precision measuring instruments, tool magazines, tool changing mechanisms):** Backlash-free drive and long lifespan guarantee equipment reliability and accuracy.

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