

# Compact Bilateral Gear Unit

NSK

A compact, high-torque dynamic reducer

New Products

Early Prototype



Compact bilateral  
Gear unit

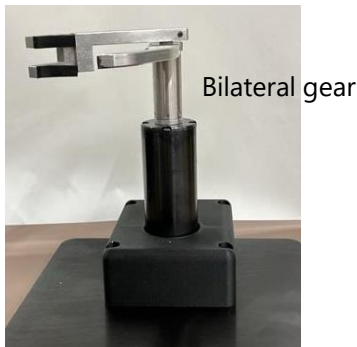
Patent pending



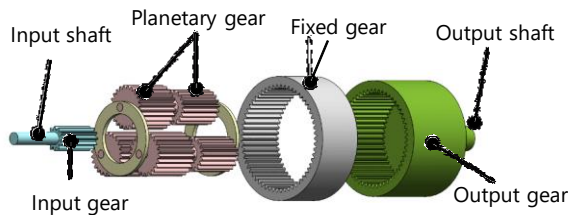
Application  
Example



Haptic gripper



Force-sensing gripper



## Key features

- ✓ Compact yet powerful  
OD:  $\Phi 15\text{mm}$ . Rated torque :1.0 Nm
- ✓ High efficiency, Low friction  
Efficiency:80%, Friction torque:0.01Nm

## Why NSK ?

Challenge of bilateral gear: large gear reaction force  
→ Leads to short bearing life and high friction



Solved using NSK's miniature bearing technology.

# Compact Bilateral Gear Unit



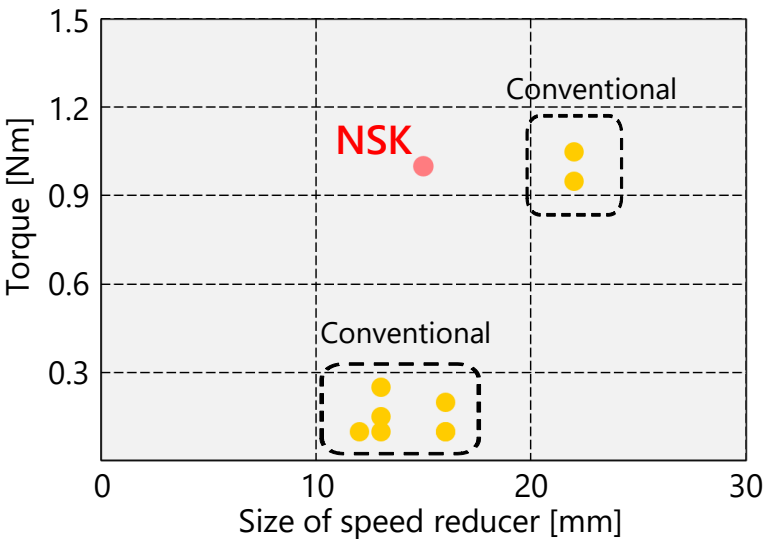
## ■ Specifications

Gear ratio	42.43
Rated torque	1.0 [Nm]
Back-driving torque	0.01[Nm]
Forward efficiency	80 [%]
Max speed	6000 [rpm]
Backlash	1.5[deg]

※ Specifications are subject to change during development

## ■ Key features

### ① Compact & high torque



### ② Wide dynamic range

