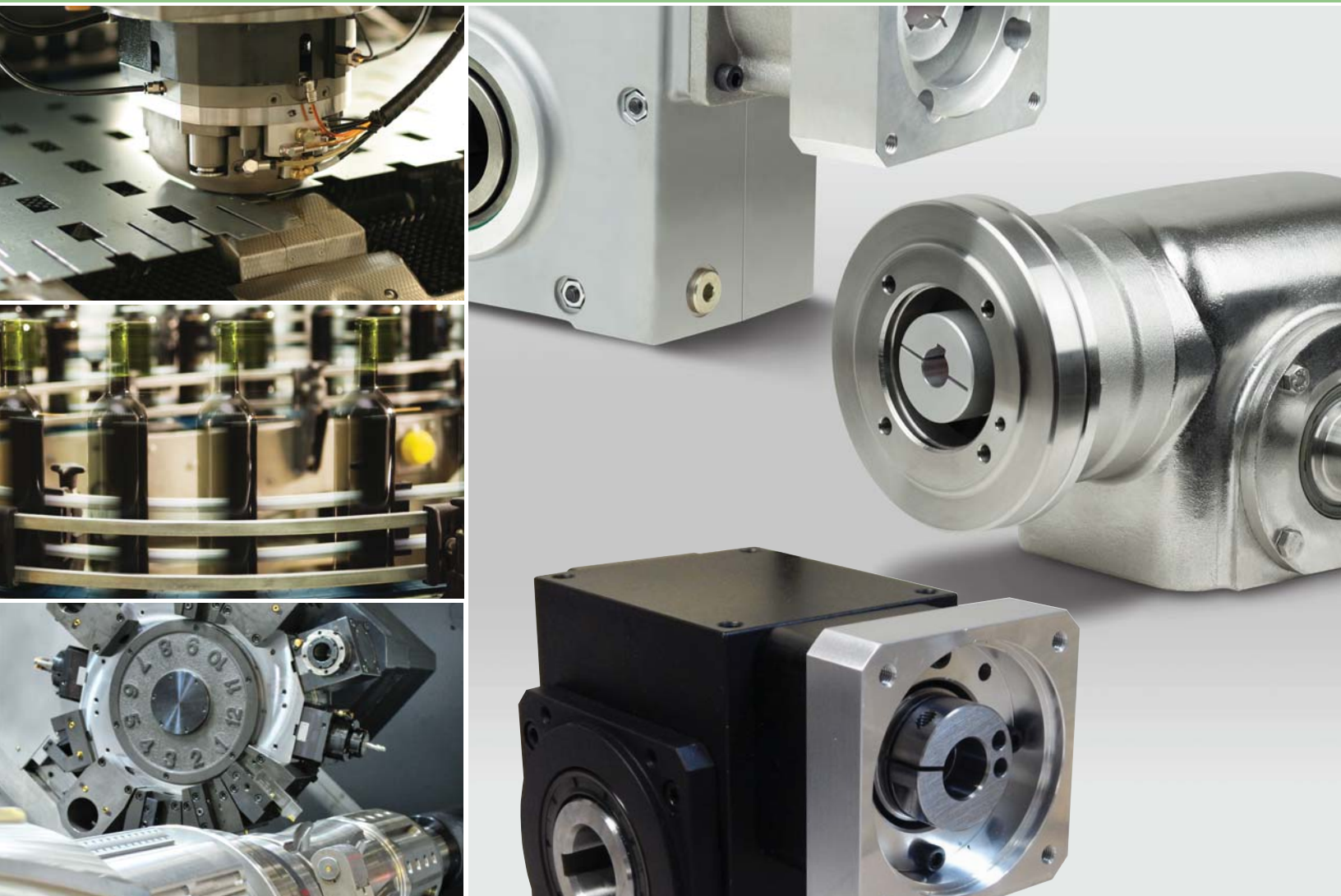


# Servo Worm Gear Technology

## EJ Product Group

*Unmatched Precision and Versatility for the Machine Builder*



*Improving the Speed of Industry*

A **Nidec** Group Company  
**SHIMPO**

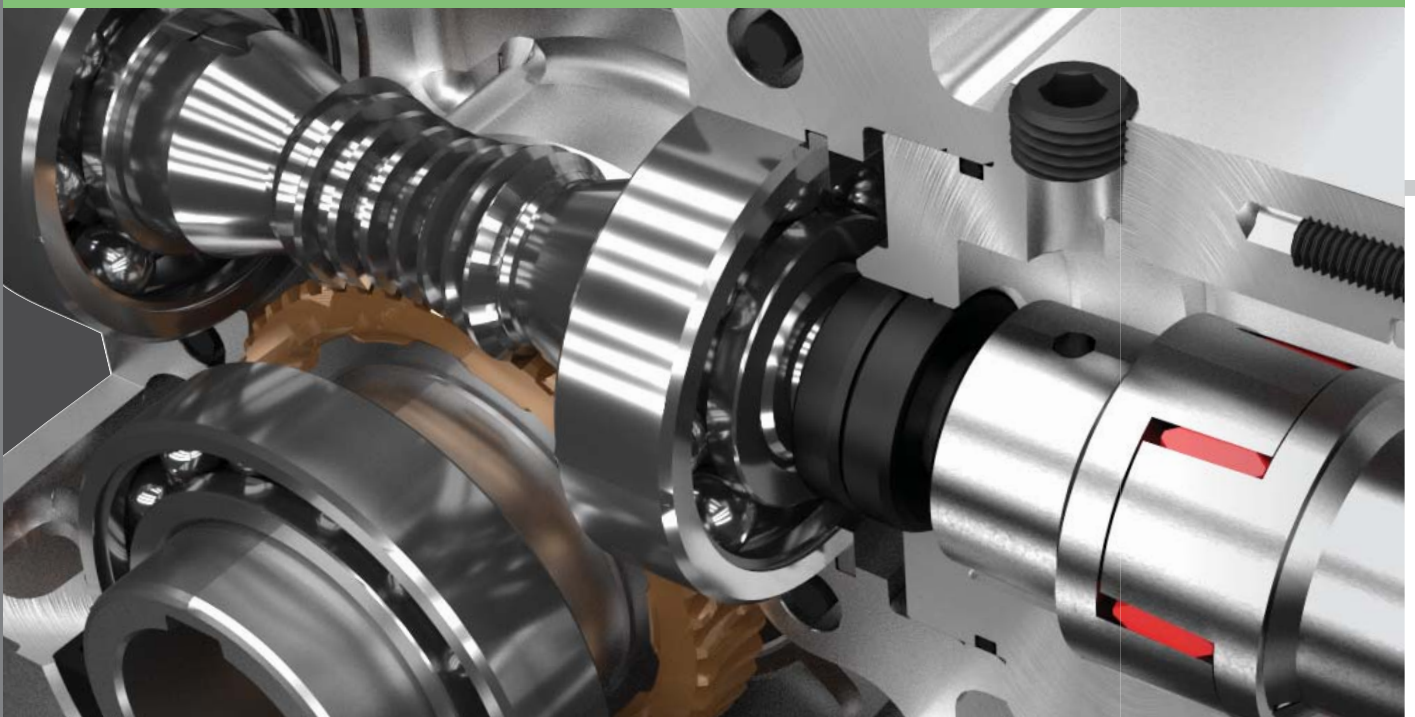
NIDEC-SHIMPO has been at the forefront of developing gear technology to fill the requirements of our OEM customers. Our close partnerships with our installed customer base provided much insight into their evolving need for more high-precision right-angle gearing options. In order to fill that need, NIDEC-SHIMPO expanded upon our right-angle product offering to include a variety of high-precision worm gearboxes, known as our EJ Series.

These servo grade gearheads are ideal for the most challenging of motion control applications. Each series incorporates a globoidal worm gear mesh design in order to achieve the torque handling capacity, shock load capability and level of precision that our customers have come to expect from us. The input design of the EJ product range applies the same concept of motor modularity that is common across our planetary product family, meaning our customers get the same level of flexibility, product variety, and overall availability that is unparalleled within our industry.

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### **Advantages of the EJ SERIES platform design**

- › *Quiet operation, in comparison to other competitive worm gearing*
- › *High shock load capacity*
- › *A reduced backlash feature, unique among right-angle gearheads*
- › *Wide range of output mounting options*
- › *Compact, lightweight construction*
- › *Exact gear reduction ratios simplify system tuning*
- › *Maintenance free, lubricated for life*



## ECONOMY CLASS

### EJM SERIES

#### Right-angle Worm Gearbox

General purpose servo reducer with globoidal worm gearing. Light-weight aluminum housing with coupling connection.

#### Series Features

- › Globoidal worm gear mesh
- › Economy leader of category
- › Aluminum housing
- › Standard backlash

|                              |  |
|------------------------------|--|
| Frame Sizes                  | 02, 03, 05, 06, 09, 11                 |
| Reduction Ratios             | 5, 7.5, 10, 15, 20, 25, 30, 40, 50, 60 |
| Nominal Torque (Nm)          | 29 – 614                               |
| Maximum Torque (Nm)          | 33 – 696                               |
| Max. Input speed (rpm)       | 4000                                   |
| Backlash (Arc-min)           | 12 – 41                                |
| Output Hollow Bore Size (mm) | Ø20 – 75                               |



## HEAVY INDUSTRIAL CLASS

### EJH SERIES

#### Right-angle Worm Gearbox

Globoidal worm gearing with high torque capacity, high-efficiency, quiet and smooth running. Standard, high-precision options with hollow or solid output shafts in a cost-effective package.

#### Series Features

- › Globoidal worm gear mesh
- › Strong internal structure
- › Robust cast iron housing
- › Standard, precision backlash

|                              |   |
|------------------------------|---|
| Frame Sizes                  | 15, 20, 25, 30, 35                            |
| Reduction Ratios             | 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 40, 50, 60 |
| Nominal Torque (Nm)          | 35 – 475                                      |
| Maximum Torque (Nm)          | 46 – 663                                      |
| Max. Input speed (rpm)       | 4000  |
| Backlash (Arc-min)           | 6 – 32  |
| Output Hollow Bore Size (mm) | Ø25 – 60                                      |



## HIGH PRECISION CLASS

### EJP SERIES

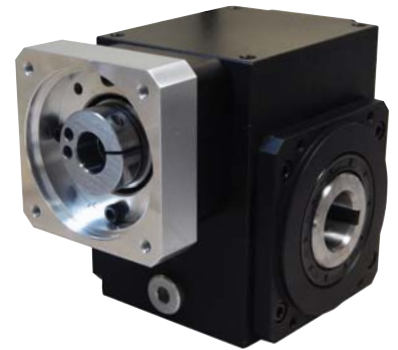
#### Right-angle Worm Gearbox

Globoidal worm gearing with high torque capacity, high-efficiency, quiet and smooth running. Low and zero backlash options with hollow or solid output shafts in a premium package.

#### Series Features

- › Globoidal worm gear mesh
- › Zero backlash available
- › Optimal sound characteristics
- › Performance leader of category

|                              |   |
|------------------------------|---|
| Frame Sizes                  | 38, 51, 64, 76, 89                            |
| Reduction Ratios             | 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 40, 50, 60 |
| Nominal Torque (Nm)          | 35 – 480                                      |
| Maximum Torque (Nm)          | 46 – 660                                      |
| Max. Input speed (rpm)       | 6000  |
| Backlash (Arc-min)           | 0 – 24  |
| Output Hollow Bore Size (mm) | Ø25 – 60                                      |



## HYGIENIC CLASS

### EJS SERIES

#### Right-angle Worm Gearbox

Stainless steel gearbox designed for sterile manufacturing environments. Smooth housing design allows for easy cleaning and bacteria free surfaces. Easy mounting to stainless steel servo or NEMA frame motors.

#### Series Features

- › Globoidal worm gear mesh
- › IP69K rated aseptic design
- › 316 stainless with food grade oil
- › Various output options

|                              |                                      |
|------------------------------|--------------------------------------|
| Frame Sizes                  | 39, 44, 50, 60, 76                   |
| Reduction Ratios             | 5, 7, 10, 15, 20, 25, 30, 40, 50, 60 |
| Nominal Torque (Nm)          | 41 – 396                             |
| Maximum Torque (Nm)          | 47 – 721                             |
| Max. Input speed (rpm)       | 3000                                 |
| Backlash (Arc-min)           | 4 – 24                               |
| Output Hollow Bore Size (mm) | Ø19 – 35                             |



## VERSATILE OUTPUT MOUNTING OPTIONS



Solid Shaft



Hollow Shaft



Shrink Disc



Flange Mount

Our right-angle servo grade gearboxes are ideal for applications within custom assembly and test systems, packaging equipment, metal cutting and metal forming machinery, general purpose automotive, among many others. If your application requires the compact footprint of a right-angle worm gear without sacrificing performance, contact NIDEC-SHIMPO about the EJ Series today.

[www.drives.nidec-shimpo.com](http://www.drives.nidec-shimpo.com)

A *Nidec* Group Company

**SHIMPO**

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