

# STR SERIES Hollow Rotary Index Tables

## STR o8oE 1-Stage and 2-Stage Specifications with EVB o6o

| Frame Size                     | 080E                                   |       |             |         |       |       |       |       |       |       |
|--------------------------------|--|-------|-------------|---------|-------|-------|-------|-------|-------|-------|
| Stage                          |  |       | 1-Stage     | 2-Stage |       |       |       |       |       |       |
| Ratio                          | Units                                  | Notes | 20          | 60      | 80    | 100   | 120   | 140   | 160   | 180   |
| Nominal Torque                 | [Nm]                                   | *1    | 113         | 113     | 113   | 113   | 113   | 113   | 113   | 113   |
| Acceleration Torque            | [Nm]                                   | --    | 202         | 202     | 202   | 202   | 202   | 202   | 202   | 202   |
| No Load Torque                 | [Nm]                                   | *1    | 1.3         | 0.4     | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   |
| Nominal Input Speed            | [rpm]                                  | *2    | 700         | 2100    | 2800  | 3000  | 3000  | 3000  | 3000  | 3000  |
| Maximum Input Speed            | [rpm]                                  | *2    | 2500        | 6000    | 6000  | 6000  | 6000  | 6000  | 6000  | 6000  |
| Reflected Inertia (Single)     | [kg-m <sup>2</sup> x10 <sup>-4</sup> ] | *3    | 3.066       | --      | --    | --    | --    | --    | --    | --    |
| Reflected Inertia (≤Ø 8)       | [kg-m <sup>2</sup> x10 <sup>-4</sup> ] | *3    | --          | 0.319   | 0.274 | 0.256 | 0.247 | 0.242 | 0.238 | 0.236 |
| Reflected Inertia (≤Ø 14)      | [kg-m <sup>2</sup> x10 <sup>-4</sup> ] | *3    | --          | 0.394   | 0.349 | 0.331 | 0.322 | 0.317 | 0.313 | 0.311 |
| Reflected Inertia (≤Ø 19)      | [kg-m <sup>2</sup> x10 <sup>-4</sup> ] | *3    | --          | 0.583   | 0.538 | 0.521 | 0.512 | 0.506 | 0.503 | 0.501 |
| 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]                                   | --    | 11.6        | 13.4    | 13.4  | 13.4  | 13.4  | 13.4  | 13.4  | 13.4  |
| Maximum Axial Load             | [N]                                    | --    | 3302        | 3302    | 3302  | 3302  | 3302  | 3302  | 3302  | 3302  |
| Maximum Radial Load            | [N]                                    | --    | 2819        | 2819    | 2819  | 2819  | 2819  | 2819  | 2819  | 2819  |
| Maximum Tilting Moment Load    | [Nm]                                   | --    | 210         | 210     | 210   | 210   | 210   | 210   | 210   | 210   |
| Efficiency                     | [%]                                    | --    | 80          | 72      | 72    | 72    | 72    | 72    | 72    | 72    |
| Protection Class               | --                                     | *4    | 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 Drive Technology for more details and our food grade options

## STR o8oE 2-Stage and 3-Stage Specifications with EVB o6o

| Frame Size                     | 080E                                   |       |             |         |       |       |       |       |       |       |
|--------------------------------|--|-------|-------------|---------|-------|-------|-------|-------|-------|-------|
| Stage                          |  |       | 2-Stage     | 3-Stage |       |       |       |       |       |       |
| Ratio                          | Units                                  | Notes | 200         | 300     | 320   | 400   | 500   | 560   | 600   | 700   |
| Nominal Torque                 | [Nm]                                   | *1    | 113         | 113     | 113   | 113   | 113   | 113   | 113   | 113   |
| Acceleration Torque            | [Nm]                                   | --    | 202         | 202     | 202   | 202   | 202   | 202   | 202   | 202   |
| No Load Torque                 | [Nm]                                   | *1    | 0.4         | 0.3     | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   |
| 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    | 0.235       | 0.081   | 0.087 | 0.079 | 0.079 | 0.085 | 0.070 | 0.078 |
| Reflected Inertia (≤Ø 14)      | [kg-m <sup>2</sup> x10 <sup>-4</sup> ] | *3    | 0.310       | 0.126   | 0.132 | 0.124 | 0.123 | 0.130 | 0.114 | 0.123 |
| Reflected Inertia (≤Ø 19)      | [kg-m <sup>2</sup> x10 <sup>-4</sup> ] | *3    | 0.499       | --      | --    | --    | --    | --    | --    | --    |
| 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]                                   | --    | 13.4        | 13.2    | 13.2  | 13.2  | 13.2  | 13.2  | 13.2  | 13.2  |
| Maximum Axial Load             | [N]                                    | --    | 3302        | 3302    | 3302  | 3302  | 3302  | 3302  | 3302  | 3302  |
| Maximum Radial Load            | [N]                                    | --    | 2819        | 2819    | 2819  | 2819  | 2819  | 2819  | 2819  | 2819  |
| Maximum Tilting Moment Load    | [Nm]                                   | --    | 210         | 210     | 210   | 210   | 210   | 210   | 210   | 210   |
| Efficiency                     | [%]                                    | --    | 72          | 68      | 68    | 68    | 68    | 68    | 68    | 68    |
| Protection Class               | --                                     | *4    | 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 Drive Technology for more details and our food grade options

## STR o8oE 3-Stage Specifications with EVB o6o

| Frame Size                     | 080E                                   |       |             |       |       |       |       |       |       |       |
|--------------------------------|--|-------|-------------|-------|-------|-------|-------|-------|-------|-------|
| Stage                          | 3-Stage                                |       |             |       |       |       |       |       |       |       |
| Ratio                          | Units                                  | Notes | 800         | 900   | 1000  | 1200  | 1400  | 1600  | 1800  | 2000  |
| Nominal Torque                 | [Nm]                                   | *1    | 113         | 113   | 113   | 113   | 113   | 113   | 113   | 113   |
| Acceleration Torque            | [Nm]                                   | --    | 202         | 202   | 202   | 202   | 202   | 202   | 202   | 202   |
| No Load Torque                 | [Nm]                                   | *1    | 0.3         | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   |
| 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    | 0.069       | 0.078 | 0.069 | 0.069 | 0.069 | 0.069 | 0.069 | 0.069 |
| Reflected Inertia (≤Ø 14)      | [kg·m <sup>2</sup> ×10 <sup>-4</sup> ] | *3    | 0.114       | 0.123 | 0.114 | 0.114 | 0.113 | 0.113 | 0.113 | 0.113 |
| Reflected Inertia (≤Ø 19)      | [kg·m <sup>2</sup> ×10 <sup>-4</sup> ] | *3    | --          | --    | --    | --    | --    | --    | --    | --    |
| 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]                                   | --    | 13.2        | 13.2  | 13.2  | 13.2  | 13.2  | 13.2  | 13.2  | 13.2  |
| Maximum Axial Load             | [N]                                    | --    | 3302        | 3302  | 3302  | 3302  | 3302  | 3302  | 3302  | 3302  |
| Maximum Radial Load            | [N]                                    | --    | 2819        | 2819  | 2819  | 2819  | 2819  | 2819  | 2819  | 2819  |
| Maximum Tilting Moment Load    | [Nm]                                   | --    | 210         | 210   | 210   | 210   | 210   | 210   | 210   | 210   |
| Efficiency                     | [%]                                    | --    | 68          | 68    | 68    | 68    | 68    | 68    | 68    | 68    |
| Protection Class               | --                                     | *4    | IP54 (IP65) |       |       |       |       |       |       |       |

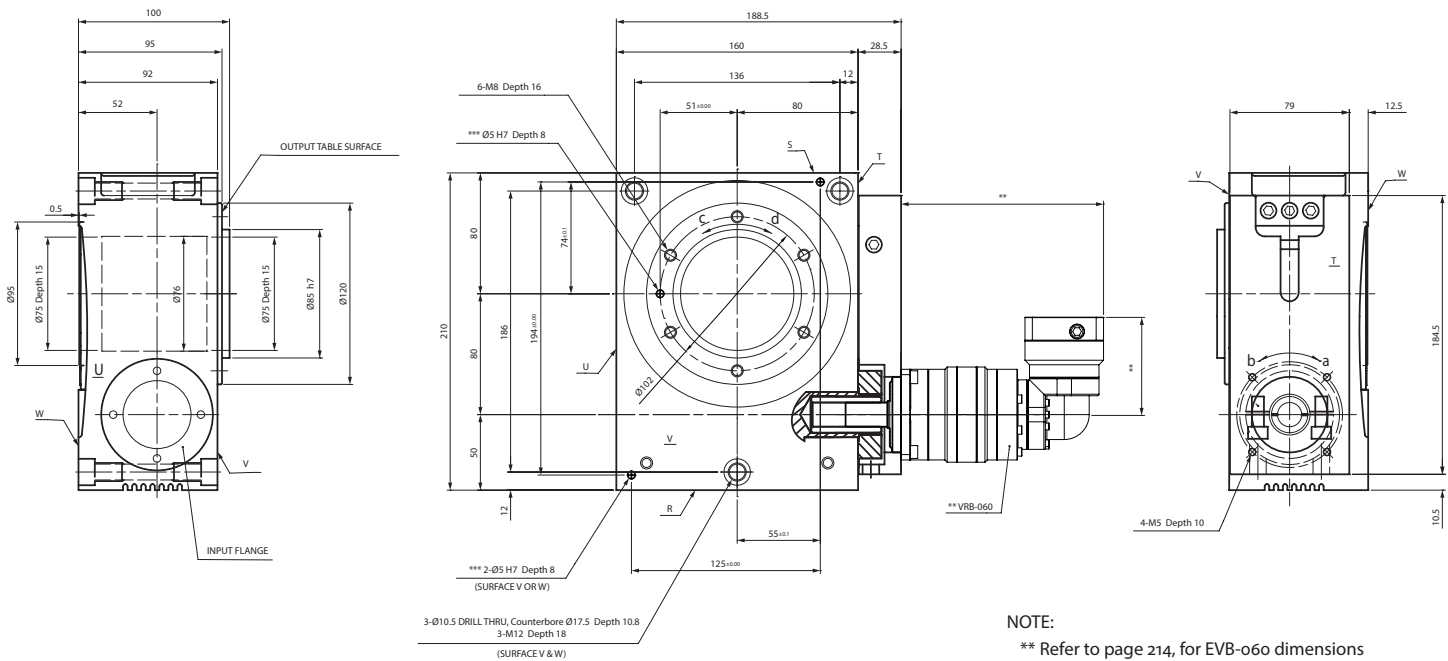
\*1) At nominal input speed

\*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 Drive Technology for more details and our food grade options

## STR o8oE Dimensions with EVB o6o



NOTE:

\*\* Refer to page 214, for EVB-060 dimensions

\*\*\* Optional

ROTATION:

a=d

a=c (upon special request)