WITH KEYWAY CONNECTION


## PROPERTIES

## FEATURES

- press fit design
- readily modified for custom dimensions
- low backlash (keyway)

MATERIAL

- Hubs: up to size 450 high strength aluminum; size 800 steel
- Elastomer: wear resistant thermally stable TPU


## DESIGN

Two concentrically machined hubs with curved jaws, keyways, and set screws.

Optional:
Conical bores for Fanuc motors and other tapered shafts available.


## MODEL MEL1

| SIZE |  | 2 |  |  | 5 |  |  | 10 |  |  | 20 |  |  | 60 |  |  | 150 |  |  | 300 |  |  | 450 |  |  | 800 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type (Elastomer insert) |  | A | B | C | A | B | C | A | B | C | A | B | C | A | B | C | A | B | C | A | B | C | A | B | C | A | B | C |
| Rated torque (Nm) | $\mathrm{T}_{\mathrm{KN}}$ | 2 | 2.4 | 0.5 | 9 | 12 | 2 | 12.5 | 16 | 4 | 17 | 21 | 6 | 60 | 75 | 20 | 160 | 200 | 42 | 325 | 405 | 84 | 530 | 660 | 95 | 950 | 1100 | 240 |
| Max. torque ( Nm ) | $\mathrm{T}_{\mathrm{K} \text { max }}$ | 4 | 4.8 | 1 | 18 | 24 | 4 | 25 | 32 | 6 | 34 | 42 | 12 | 120 | 150 | 35 | 320 | 400 | 85 | 650 | 810 | 170 | 1060 | 1350 | 190 | 1900 | 2150 | 400 |
| Overall length (mm) | A | 20 |  |  | 34 |  |  | 35 |  |  | 66 |  |  | 78 |  |  | 90 |  |  | 114 |  |  | 126 |  |  | 162 |  |  |
| Outside diameter (mm) | $B / B_{1}$ | 15 |  |  | 25 |  |  | 32 |  |  | 42 |  |  | 56 |  |  | 66.5 |  |  | 82 |  |  | 102 |  |  | 136.5 |  |  |
| Mounting length (mm) | C | 6.5 |  |  | 12 |  |  | 12 |  |  | 25 |  |  | 30 |  |  | 35 |  |  | 45 |  |  | 50 |  |  | 65 |  |  |
| Inside diameter (pilot bored) $(\mathrm{mm})$ | $\mathrm{D}_{\mathrm{v}}$ | 3 |  |  | 4 |  |  | 6 |  |  | 7 |  |  | 9 |  |  | 14 |  |  | 16 |  |  | 22 |  |  | 29 |  |  |
| Inside diameter range H7 (mm) | $\mathrm{D}_{1 / 2}$ | 3-9 |  |  | 6-15 |  |  | 6-18 |  |  | 8-25 |  |  | 12-32 |  |  | 19-38 |  |  | 20-45 |  |  | 28-60 |  |  | 32-80 |  |  |
| Inside diameter of elastomer $(\mathrm{mm})$ | $\mathrm{D}_{\mathrm{E}}$ | 6.2 |  |  | 10.2 |  |  | 14.2 |  |  | 19.2 |  |  | 26.2 |  |  | 29.2 |  |  | 36.2 |  |  | 46.2 |  |  | 60.5 |  |  |
| Set screws (DIN 916) | E | see table (depending on bore $\varnothing$ )** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Distance (mm) | G | 3 |  |  | 5 |  |  | 6 |  |  | 9 |  |  | 11 |  |  | 12 |  |  | 15 |  |  | 17 |  |  | 30 |  |  |
| Possible shortening length (mm) | H | 4 |  |  | 6 |  |  | 6 |  |  | 19 |  |  | 22 |  |  | 26 |  |  | 32 |  |  | 37 |  |  | 43 |  |  |
| Moment of inertia per hub $\left(10^{-3} \mathrm{kgm}^{2}\right)$ | $\mathrm{J}_{1} / \mathrm{J}_{2}$ | 0.0001 |  |  | 0.001 |  |  | 0.003 |  |  | 0.02 |  |  | 0.06 |  |  | 0.1 |  |  | 0.4 |  |  | 1.1 |  |  | 12 |  |  |
| Approx. weight (kg) |  | 0.008 |  |  | 0.03 |  |  | 0.08 |  |  | $0.15$ |  |  | 0.35 |  |  | 0.6 |  |  | $1.1$ |  |  | 1.7 |  |  | 11 |  |  |
| Speed standard ( $\mathrm{min}^{-1}$ ) |  | 15,000 |  |  | 15,000 |  |  | 13,000 |  |  | 12,500 |  |  | 11,000 |  |  | 10,000 |  |  | 9,000 |  |  | 8,000 |  |  | 4,000 |  |  |
| Speed balanced $\quad\left(10^{3} \mathrm{~min}^{-1}\right)$ |  | 60 | 67 | 45 | 57 | 65 | 43 | 53 | 63 | 40 | 45 | 60 | 35 | 31 | 31 | 25 | 22 | 26 | 18 | 22 | 26 | 16 | 16 | 17 | 12 | 13 | 13 | 8 |

For information on shaft misalignment, torsional stiffness, and other details about the elastomer inserts see pages $72+73$.



PROPERTIES

FEATURES

- press fit design
- readily modified for custom dimensions
- low backlash (keyway)

MATERIAL

- Hubs: GGG40
- Elastomer: wear resistant thermally stable TPU

DESIGN
Two concentrically machined hubs with curved jaws, keyways, and set screws.
Elastomer insert consist of 5 segments.


elastomer insert type A / B

## MODEL MEL1

| SIZE |  | 2500 |  | 4500 |  | 9500 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type (Elastomer insert) |  | A | B | A | B | A | B |
| Rated torque ( Nm ) | $\mathrm{T}_{\text {KN }}$ | 1950 | 2450 | 5000 | 6200 | 10000 | 12500 |
| Max. torque ( Nm ) | $T_{\text {Kmax }}$ | 3900 | 4900 | 10000 | 12400 | 20000 | 25000 |
| Overall length (mm) | A | 213 |  | 272 |  | 341 |  |
| Outside diameter (mm) | $B / B_{1}$ | 160 / 154 |  | 225 / 190 |  | 290 / 240 |  |
| Mounting length (mm) | C | 88 |  | 113 |  | 142 |  |
| Inside diameter (pilot bored) <br> (mm) | $\mathrm{D}_{\mathrm{v}}$ | 30 |  | 40 |  | 50 |  |
| Inside diameter range H7 (mm) | $\mathrm{D}_{1 / 2}$ | 30-95 |  | 40-130 |  | 50-170 |  |
| Inside diameter of elastomer(mm) | $\mathrm{D}_{\mathrm{E}}$ | 80 |  | 111 |  | 145 |  |
| Set screws (DIN 916) | E | see table (depending on bore $\emptyset$ )** |  |  |  |  |  |
| Distance (mm) | G | 25 |  | 30 |  | 40 |  |
| Possible shortening length (mm) | H | 69 |  | 89 |  | 110 |  |
| Moment of inertia per hub $\left(10^{-3} \mathrm{kgm}^{2}\right)$ | $J_{1} / J_{2}$ | 40 |  | 147 |  | 480 |  |
| Approx. weight (kg) |  | 12.5 |  | 25 |  | 53 |  |
| Speed standard ( $\mathrm{min}^{-1}$ ) |  | 3,500 |  | 3,000 |  | 2,000 |  |
| Speed balanced $\quad\left(10^{3} \mathrm{~min}^{-1}\right)$ |  | 10 | 10 | 8 | 8 | 6.5 | 6.5 |

For information on shaft misalignment, torsional stiffness, and other details about the elastomer inserts see pages $72+73$.

| ORDERING EXAMPLE | MEL1 | 2500 | A | 50.8 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Model |  |  |  |  |  |
| Size |  |  |  |  |  |
| Elastomer insert type |  |  |  |  |  |
| Bore D1 H7 |  |  |  |  |  |
| Bore D2 H7 |  |  |  |  |  |
| (e.g. special bore tolerance). |  |  |  |  |  |
| For custom features place an XX at the end of the part number and describe the special requirements (e.g. EK1 $/ 2500 / \mathrm{A} / 50.8 / 80 / \mathrm{XX} ; \mathrm{XX=stainless} \mathrm{steel)}$ |  |  |  |  |  |

