## COMPACT GEARBOX DUMMY



## DESCRIPTION

The tEVA110 is a gearbox dummy with changeable quill shaft，used in test beds for engines with original vehicle clutch or clutch dummies．

The modular design with replaceable quill shaft allows quick adaptation to different engines and couplings．The gearbox dummy comprises a solid housing with sensors for bearing temperature monitoring，an integrated bear－ ing and a quill shaft．The torsional stiffness can be opti－ mized by modifying the torsion bar geometry．

## OPERATING RANGE

Torque：up to 1000 Nm
Speed：up to 10000 rpm

## BENEFITS

－modular design
－fast exchange of quill shaft
－direct interface to the coupling
－adaptable use of coupling
－integrated temperature monitoring
－compact design
－optional：integrated pilot bearing


Exclusive Representative in Japan

515－5 Miyazawa－cho，Akishima city，Tokyo，Japan 196－0024
TEL：＋81－42－546－6500 FAX：＋81－42－546－6600
Email：sales＠tokyo－plant．co．jp

## tEVA110

COMPACT GEARBOX DUMMY

| tEVA110 |  |  |
| :--- | :--- | :--- |
| Mass | $[\mathrm{kg}]$ | 2.96 |
| Maximum speed | $[\mathrm{rpm}]$ | 10000 |
| Maximum torque ${ }^{1}$ | $[\mathrm{Nm}]$ | 1000 |
| Minimum torsional stiffness ${ }^{2}$ cT | $[\mathrm{Nm} / \mathrm{rad}]$ | 4500 |
| Engine-side inertiaJ ${ }_{1}$ | $\left[\mathrm{kgm}^{2}\right]$ | Customer-specific |
| Gearbox-side inertia $\mathrm{J}_{2}$ | $\left[\mathrm{kgm}^{2}\right]$ | Customer-specific |
| Minimum operating temperature | $\left[{ }^{\circ} \mathrm{C}\right]$ | -30 |
| Maximum operating temperature | $\left[{ }^{\circ} \mathrm{C}\right]$ | 100 |



The quill shaft geometry and composition is dependent on customer requirements and the engine type.
The quill shaft (drawn with dashed lines) is only shown for clarity.

| Gearbox dummy | Joint | $\begin{gathered} \text { D } \\ {[\mathrm{mm}]} \end{gathered}$ | B $[\mathrm{mm}]$ | b [mm] | c $[\mathrm{mm}]$ | e [mm] | $\mathbf{g}$ $[\mathrm{mm}]$ | $\begin{gathered} \mathbf{h} \\ (\mathrm{g} 6) \end{gathered}$ | k $[\mathrm{mm}]$ | n $[\mathrm{mm}]$ | $\mathbf{p}$ $[-]$ | q [-] | $\begin{gathered} \mathbf{t} \\ {[\mathrm{mm}]} \end{gathered}$ | $\begin{gathered} \mathbf{u} \\ (\mathbf{H} 7) \\ {[\mathrm{mm}]} \end{gathered}$ | $\mathbf{w}$ $[\mathrm{mm}]$ | x $[\mathrm{mm}]$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| tEVA110 | CV05 | 145 | 104.8 | 74 | 128 | 8.4 | 15 | 78 | 10 | 4.5 | M8 | M10 | 12 | 86 | 7 | 10 |
|  | CV15 | 145 | 104.8 | 94 | 128 | 8.4 | 15 | 78 | 10 | 2.5 | M10 | M10 | 12 | 108 | 7 | 10 |

The installed length $L$ is dependent on the application and is limited by the type of design and maximum speed.
2018-01-18 <11ca6f3781b6189621ba6bdece9d758440b4f036> DS EN 06

[^0]
[^0]:    ${ }^{1}$ The maximum torque must be the same as or larger than the maximum torque of the internal combustion engine, and is dependent on the geometry and the quill shaft material.
    ${ }^{2}$ The stiffness is dependent on the geometry and the material of the quill shaft.

