

## Kistler Torque Calibration

Type 9961T...

### Calibration >5 kN·m up to 100 kN·m

The highest precision of measurement in your process has the highest priority for us. Basics for precise and reliable measurement results is the calibration. To ensure the measurement precision of Kistler sensors and devices lifelong and to fulfill quality assurance criteria as well as product liability acts recalibration at regular intervals is recommended (the cycle varies depending on the device between 1 and 2 years). The world-wide availability of Kistler calibration services allows a fast procedure. A calibration certificate guarantees the availability for use and the traceability on national and international standards.

Continuous investments in the expansion of the calibration laboratory cares up to nowadays for highest precision and best possible fulfillment of growing customer requirements

- Accredited according to ISO 17025
- Accredited by the German Authority of Accreditation GmbH (DAkKS)

Our calibration service D-K-15127-02-00 offers traceable calibrations for torque sensors of all manufacturers.

Best possible measuring uncertainty of the machine:

- 1 kN·m – 20 kN·m: ±0.05% of measurement value
- > 20 kN·m – 100 kN·m: ±0.1% of measurement value

#### Definition of Calibration Terms:

**WKS 1:** Works calibration at 5 points right, 3 points left

**WKS 2:** Works calibration at 5 points right and left, and repeat series

**DAkKS:** Calibration per DIN 51309



#### Maximum Dimensions for the Calibration Device:

|                          |                              |
|--------------------------|------------------------------|
| Maximum Diameter Sensor: | Ø 550 mm                     |
| Length:                  | l min. 200 mm to max. 800 mm |
| Max. Weight:             | 1,000 kg                     |

#### Shaft Ends for ETP Hyloc:

|                    |                      |
|--------------------|----------------------|
| ETP TECHNO 110     |                      |
| Shaft Diameter (d) | 110 mm h7            |
| Shaft Length (L)   | 153 mm (ISO 2768-mH) |

|                    |                      |
|--------------------|----------------------|
| ETP TECHNO 180     |                      |
| Shaft Diameter (d) | 180 mm h7            |
| Shaft Length (L)   | 210 mm (ISO 2768-mH) |

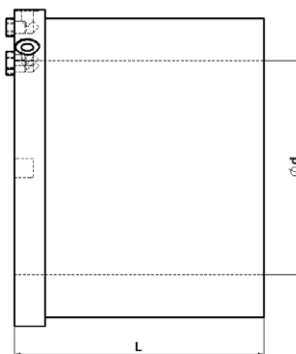
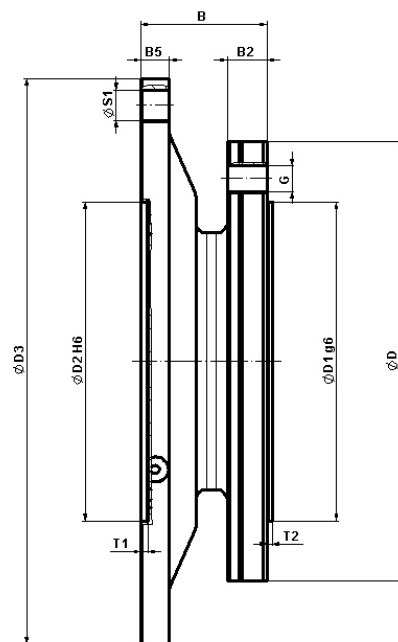
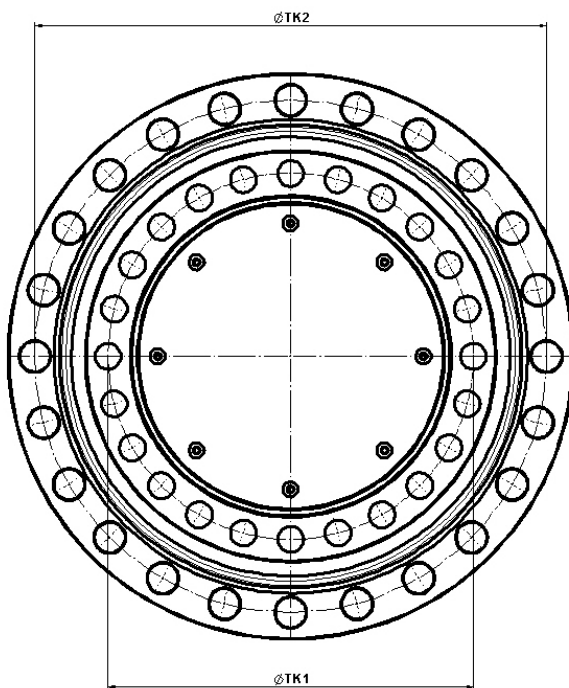


Figure 1:

| BGR                  | BGR 1   |    |    | BGR 2     |    |    | BGR 3   |    |    | BGR 4   |     |
|----------------------|---------|----|----|-----------|----|----|---------|----|----|---------|-----|
| $M_{nom}$ in<br>kN·m | 15      | 20 | 25 | 30        | 40 | 50 | 60      | 70 | 80 | 90      | 100 |
| $\varnothing D$      | 251     |    |    | 300       |    |    | 330     |    |    | 342     |     |
| $\varnothing D3$     | 326     |    |    | 390       |    |    | 425     |    |    | 432     |     |
| $\varnothing TK1$    | 206     |    |    | 250       |    |    | 275     |    |    | 285     |     |
| $\varnothing TK2$    | 288     |    |    | 350       |    |    | 385     |    |    | 392     |     |
| $\varnothing D1g6$   | 174     |    |    | 210       |    |    | 240     |    |    | 240     |     |
| $\varnothing D2H6$   | 174     |    |    | 210       |    |    | 240     |    |    | 240     |     |
| B                    | 73      |    |    | 85        |    |    | 95      |    |    | 100     |     |
| B2                   | 25      |    |    | 25        |    |    | 30      |    |    | 30      |     |
| B5                   | 15      |    |    | 18,5      |    |    | 21,5    |    |    | 23      |     |
| T1                   | 5,2     |    |    | 5,2       |    |    | 5,2     |    |    | 5,7     |     |
| T2                   | 3       |    |    | 4         |    |    | 4       |    |    | 4       |     |
| $\varnothing S1$     | 16x D19 |    |    | 24x D21,5 |    |    | 24x D23 |    |    | 24x D25 |     |
| G                    | 16x M18 |    |    | 24x M20   |    |    | 24x M22 |    |    | 24x M24 |     |



If the above listed calibration adapters cannot be used, adaptations must be supplied by the customer. Customer specific adapters can be manufactured if required. Storage must be on customers site.

## Ordering key

|      |                                 |                                 |                                |                               |                               |
|------|---------------------------------|---------------------------------|--------------------------------|-------------------------------|-------------------------------|
| 9961 | T-AC<br>(DakKS)                 | R1<br>(Single range)            | 03<br>(3 Measuring points)     | 12<br>(> 5 kN·m to 100 kN·m)  |                               |
|      |                                 |                                 |                                | 15<br>(> 20 kN·m to 100 kN·m) |                               |
|      |                                 |                                 | 05<br>(5 Measuring points)     | 12<br>(> 5 kN·m to 100 kN·m)  |                               |
|      |                                 |                                 |                                | 15<br>(> 20 kN·m to 100 kN·m) |                               |
|      |                                 |                                 | R2<br>(Dual range 1:1 and 1:5) | 03<br>(3 Measuring points)    | 16<br>(> 25 kN·m to 100 kN·m) |
|      |                                 |                                 |                                | 05<br>(5 Measuring points)    |                               |
|      |                                 | R2<br>(Dual range 1:1 and 1:10) | 03<br>(3 Measuring points)     | 16<br>(> 25 kN·m to 100 kN·m) |                               |
|      |                                 |                                 | 05<br>(5 Measuring points)     |                               |                               |
|      |                                 | T1-SC<br>(WKS 1)                | R1<br>(Single range)           | 12<br>(> 5 kN·m to 100 kN·m)  |                               |
|      | 15<br>(> 20 kN·m to 100 kN·m)   |                                 |                                |                               |                               |
|      | R2<br>(Dual range 1:1 and 1:5)  |                                 | 13<br>(> 10 kN·m to 100 kN·m)  |                               |                               |
|      |                                 |                                 | 15<br>(> 20 kN·m to 100 kN·m)  |                               |                               |
|      | R2<br>(Dual range 1:1 and 1:10) |                                 | 14<br>(20 kN·m)                |                               |                               |
|      |                                 |                                 | 15<br>(> 20 kN·m to 100 kN·m)  |                               |                               |
|      | T2-SC<br>(WKS 2)                |                                 | R1<br>(Single range)           | 12<br>(> 5 kN·m to 100 kN·m)  |                               |
|      |                                 |                                 |                                | 15<br>(> 20 kN·m to 100 kN·m) |                               |
|      |                                 |                                 | R2<br>(Dual range 1:1 and 1:5) | 13<br>(> 10 kN·m to 100 kN·m) |                               |
|      |                                 | 15<br>(> 20 kN·m to 100 kN·m)   |                                |                               |                               |
|      |                                 | R2<br>(Dual range 1:1 and 1:10) | 14<br>(20 kN·m)                |                               |                               |
|      |                                 |                                 | 15<br>(> 20 kN·m to 100 kN·m)  |                               |                               |

A single range sensor has only one measuring range, Mnom. A dual range sensor has a second separate measuring range which can be changed over. The sensor will then be calibrated on both ranges.

## Ordering Example

| Ordering Example         | Type     |
|--------------------------|----------|
| DakKS Calibration        | 9961T-AC |
| Single Range Calibration | R1       |
| 25 kN·m Sensor           | 15       |
| → 9961T-AC-R1-15         |          |

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