# Fluted grip, three-arm, wing knobs with torque limiting


DESIGNED
**FOR ENGINEERING**

# Torque limiting knob

**Technopolymer**

**KNOB BODY**
Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

**CENTRE CAP**
Polyamide-based (PA) technopolymer, RAL 7035 grey colour, matte finish.

**TORQUE LIMITING MECHANISM**
Hardened steel.

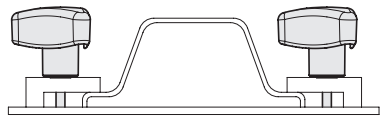
**STANDARD EXECUTIONS**
Zinc-plated steel boss with threaded blind hole.
- **VTD-AZ-2**: maximum torque 2Nm.
- **VTD-AZ-3**: maximum torque 3Nm.
- **VTD-AZ-4**: maximum torque 4Nm.
- **VTD-AZ-6**: maximum torque 6Nm.

**FEATURES AND APPLICATIONS**
VTD knob is used when the applied tightening torque must not exceed a certain value.
The transmission of the torque from the knob to the clamping element takes place by means of a spring system which, upon reaching the required torque, releases the knob. When the established torque is exceeded, a "click" will be heard to indicate that maximum tightening has been achieved.
By turning the knob anticlockwise the mechanism (Elesa patent) unlocks.
The knob has been tested up to 60000 tightening cycles and the values of the torque were unchanged.

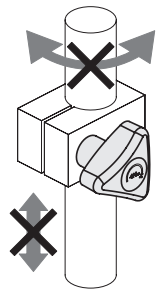
**SPECIAL EXECUTIONS ON REQUEST**
- Knobs with threaded screw.
- Knobs with different values of max. torque.
- Knobs with stainless steel metal parts and NBR synthetic rubber O-Ring.
- Knobs with cap supplied in other colours.

ELESA Original design reddot award 2019 winner

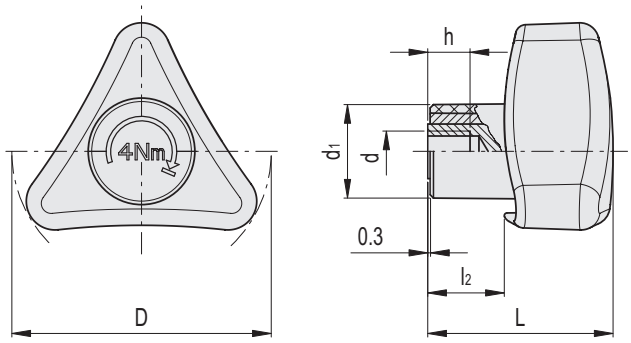
Application example



To prevent sheet deformation



Fastening of the tube to avoid damage to tube surfaces




| Code | Description | D | d | L | d1 | l2 | h | C# [Nm] | ⚖ |
|---|---|---|---|---|---|---|---|---|---|
| 35601-2N | VTD.60-AZ-M6-2Nm | 60 | M6 | 50.5 | 27.5 | 20 | 10 | 2 | 94 |
| 35601-3N | VTD.60-AZ-M6-3Nm | 60 | M6 | 50.5 | 27.5 | 20 | 10 | 3 | 94 |
| 35602-2N | VTD.60-AZ-M8-2Nm | 60 | M8 | 50.5 | 27.5 | 20 | 12 | 2 | 92 |
| 35602-3N | VTD.60-AZ-M8-3Nm | 60 | M8 | 50.5 | 27.5 | 20 | 12 | 3 | 92 |
| 35611-4N | VTD.80-AZ-M8-4Nm | 80 | M8 | 53.5 | 27.5 | 22 | 12 | 4 | 94 |
| 35611-6N | VTD.80-AZ-M8-6Nm | 80 | M8 | 53.5 | 27.5 | 22 | 12 | 6 | 94 |
| 35612-4N | VTD.80-AZ-M10-4Nm | 80 | M10 | 53.5 | 27.5 | 22 | 12 | 4 | 92 |
| 35612-6N | VTD.80-AZ-M10-6Nm | 80 | M10 | 53.5 | 27.5 | 22 | 12 | 6 | 92 |
| 35613-4N | VTD.80-AZ-M12-4Nm | 80 | M12 | 53.5 | 27.5 | 22 | 12 | 4 | 90 |
| 35613-6N | VTD.80-AZ-M12-6Nm | 80 | M12 | 53.5 | 27.5 | 22 | 12 | 6 | 90 |

**C#** Maximum torque

# Adjustable torque limiting knobs

**Technopolymer**

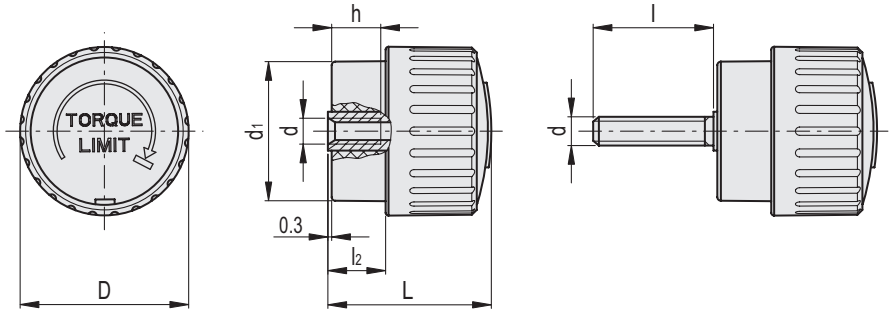

**MATERIAL**
Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

**CLOSING CAP**
Polyamide-based (PA) technopolymer, RAL 7035 grey colour, push-fit assembly.

**STANDARD EXECUTIONS**
- **MZD-A**: black-oxide steel boss, threaded blind hole.
- **MZD-p**: black-oxide steel threaded screw, chamfered flat end UNI 947 : ISO 4753.

**SPECIAL EXECUTIONS ON REQUEST**
Clamping element with threads and different lengths of stud.

**MZD-A** **MZD-p**




**MZD-A**

| Code | Description | D | d6H | L | d1 | l2 | h | ⚖ |
|---|---|---|---|---|---|---|---|---|
| 35501 | MZD.50-A-M6 | 47 | M6 | 44 | 39 | 15 | 12 | 75 |
| 35502 | MZD.50-A-M8 | 47 | M8 | 44 | 39 | 15 | 12 | 74 |

**MZD-p**

| Code | Description | D | d6g | L | d1 | l | l2 | ⚖ |
|---|---|---|---|---|---|---|---|---|
| 35511 | MZD.50-p-M6x30 | 47 | M6 | 44 | 39 | 30 | 15 | 82 |
| 35521 | MZD.50-p-M8x40 | 47 | M8 | 44 | 39 | 40 | 15 | 86 |

**FEATURES AND APPLICATIONS**

The knob MZD incorporates a mechanism (ELESA patent) which, screwing clockwise until locking, reaches the required torque value by releasing it from the clamping element (boss or threaded screw).
The knob is used when the applied tightening torque must not exceed a certain value.
The torque transmission from the knob to the clamping element occurs by means of a spring system that prevents the set torque from being exceeded. By rotating counterclockwise, the knob unlocks.
The maximum torque value that may be achieved in the clamping operation can be adjusted between 0.2 and 1 Nm (see table "Inclined planes").
The knob has been tested up to 60000 tightening cycles and the values of the torque were unchanged.

**TORQUE ADJUSTMENT**

1. Remove the cap by inserting a screwdriver in the special slot.
2. The factory setting of the knob is 0.5 Nm. To increase or decrease the torque value, axially change the position of the disc with graduations by moving the center screw by means of a hexagonal key (ch = 2.5). The torque value is read on the small inclined plane which is at the level of the disc in correspondence with the reference notch.
3. Re-fit the cap by inserting it into its seat with a slight pressure.

| Inclined planes | |
|---|---|
| Torque Nm | |
| Fig.1 | 0.2 – 0.4 (± 0.1Nm) |
| Fig.2 | 0.5 – 0.7 (+0.2 Nm) |
| Fig.3 | 0.8 – 1.0 (+0.3 Nm) |

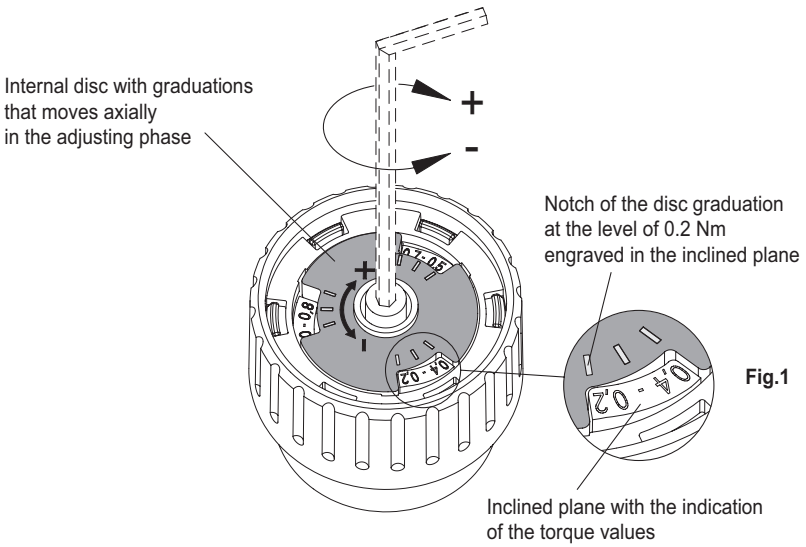



**Fig.1**

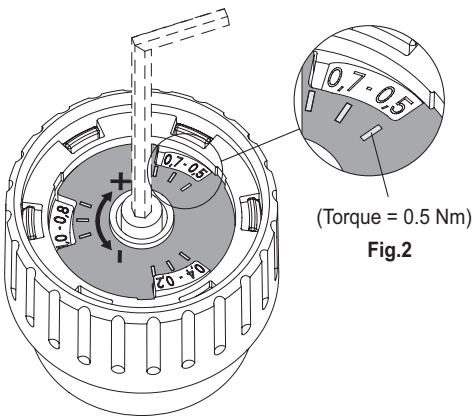
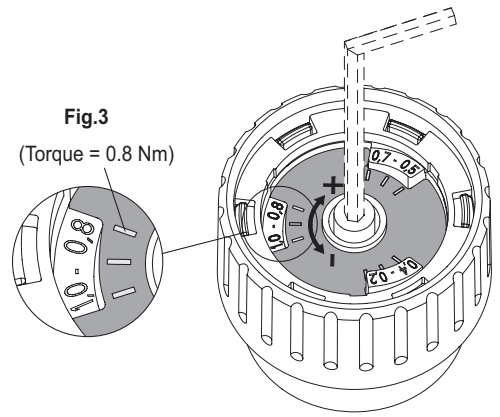



**Fig.2**



# GN 3663

## Torque knurled knobs / Torque knurled knob screws

### SPECIFICATION

Knob
Aluminium
black, anodized

Torque mechanism
Steel, hardened

Other parts
Steel, blackened

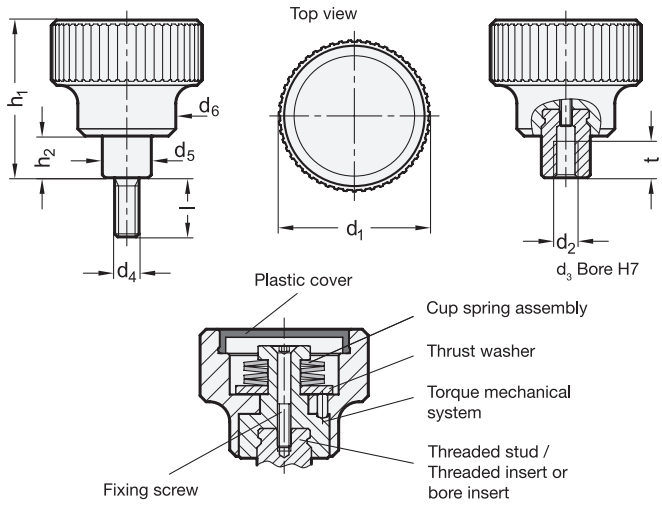
Cover cap
Plastic light grey

### INFORMATION

Torque knurled knobs / Torque knurled knob screws GN 3663 are used when the manually applied torque is to be limited.
When turned clockwise, the torque mechanical system of the knurled knob triggers an „over-engagement" as soon as the specified torque is reached. When turning anti-clockwise, the mechanical system locks such that the torque is not limited. When tightening, this will ensure that the maximum permissible torque is not exceeded. On the other hand, the torque necessary for releasing will always be transferred reliably.
After removing the cover and loosening the countersunk screw, the thread or bore insert can be dismantled.

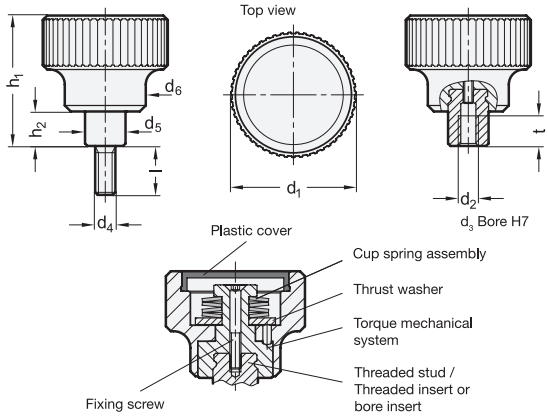
### ON REQUEST

- Other dimensions for inserts with bore, thread and threaded stud inserts analog GN 300
- Other dimenstions with special threaded studs analog GN 306
- Other torques
- Torques limiting turning anti-clockwise or turning anti-clockwise and clockwise



### GN 3663-with female thread

| Description | d1 | d2 | d3 H7 | d5 | d6 | h1 | h2 | t min. | Torque ±10% in Nm | ⚖ |
|---|---|---|---|---|---|---|---|---|---|---|
| GN 3663-27-B5-0,7 | 27 | - | B 5 | 10 | 19 | 35 | 9.5 | 7 | 0.7 | 41 |
| GN 3663-27-B5-1 | 27 | - | B 5 | 10 | 19 | 35 | 9.5 | 7 | 1 | 40 |
| GN 3663-27-B5-1,5 | 27 | - | B 5 | 10 | 19 | 35 | 9.5 | 7 | 1.5 | 40 |
| GN 3663-27-B6-0,7 | 27 | - | B 6 | 10 | 19 | 35 | 9.5 | 9 | 0.7 | 50 |
| GN 3663-27-B6-1 | 27 | - | B 6 | 10 | 19 | 35 | 9.5 | 9 | 1 | 50 |
| GN 3663-27-B6-1,5 | 27 | - | B 6 | 10 | 19 | 35 | 9.5 | 9 | 1.5 | 50 |
| GN 3663-34-B5-1 | 34 | - | B 5 | 10 | 21 | 37.5 | 9.5 | 7 | 1 | 57 |
| GN 3663-34-B5-1,5 | 34 | - | B 5 | 10 | 21 | 37.5 | 9.5 | 7 | 1.5 | 58 |
| GN 3663-34-B5-2,2 | 34 | - | B 5 | 10 | 21 | 37.5 | 9.5 | 7 | 2.2 | 59 |
| GN 3663-34-B6-1 | 34 | - | B 6 | 10 | 21 | 37.5 | 9.5 | 9 | 1 | 56 |
| GN 3663-34-B6-1,5 | 34 | - | B 6 | 10 | 21 | 37.5 | 9.5 | 9 | 1.5 | 57 |
| GN 3663-34-B6-2,2 | 34 | - | B 6 | 10 | 21 | 37.5 | 9.5 | 9 | 2.2 | 58 |
| GN 3663-42-B6-2 | 42 | - | B 6 | 13.5 | 27 | 43.5 | 11.5 | 11 | 2 | 108 |
| GN 3663-42-B6-2,5 | 42 | - | B 6 | 13.5 | 27 | 43.5 | 11.5 | 11 | 2.5 | 109 |
| GN 3663-42-B6-3,2 | 42 | - | B 6 | 13.5 | 27 | 43.5 | 11.5 | 11 | 3.2 | 110 |
| GN 3663-42-B8-2 | 42 | - | B 8 | 13.5 | 27 | 43.5 | 11.5 | 11 | 2 | 106 |
| GN 3663-42-B8-2,5 | 42 | - | B 8 | 13.5 | 27 | 43.5 | 11.5 | 11 | 2.5 | 107 |
| GN 3663-42-B8-3,2 | 42 | - | B 8 | 13.5 | 27 | 43.5 | 11.5 | 11 | 3.2 | 108 |
| GN 3663-52-B10-2,5 | 52 | - | B 10 | 19 | 32 | 54 | 15.5 | 17 | 2.5 | 208 |
| GN 3663-52-B10-3 | 52 | - | B 10 | 19 | 32 | 54 | 15.5 | 17 | 3 | 209 |
| GN 3663-52-B10-4 | 52 | - | B 10 | 19 | 32 | 54 | 15.5 | 17 | 4 | 210 |
| GN 3663-52-B12-2,5 | 52 | - | B 12 | 19 | 32 | 54 | 15.5 | 17 | 2.5 | 209 |
| GN 3663-52-B12-3 | 52 | - | B 12 | 19 | 32 | 54 | 15.5 | 17 | 3 | 210 |
| GN 3663-52-B12-4 | 52 | - | B 12 | 19 | 32 | 54 | 15.5 | 17 | 4 | 211 |
| GN 3663-62-B10-3 | 62 | - | B 10 | 19 | 33 | 54 | 15.5 | 17 | 3 | 241 |
| GN 3663-62-B10-4 | 62 | - | B 10 | 19 | 33 | 54 | 15.5 | 17 | 4 | 242 |
| GN 3663-62-B10-5,5 | 62 | - | B 10 | 19 | 33 | 54 | 15.5 | 17 | 5.5 | 243 |
| GN 3663-62-B12-3 | 62 | - | B 12 | 19 | 33 | 54 | 15.5 | 17 | 3 | 235 |
| GN 3663-62-B12-4 | 62 | - | B 12 | 19 | 33 | 54 | 15.5 | 17 | 4 | 236 |
| GN 3663-62-B12-5,5 | 62 | - | B 12 | 19 | 33 | 54 | 15.5 | 17 | 5.5 | 237 |
| GN 3663-27-M3-0,7 | 27 | M 3 | - | 10 | 19 | 35 | 9.5 | 7 | 0.7 | 150 |
| GN 3663-27-M3-1 | 27 | M 3 | - | 10 | 19 | 35 | 9.5 | 7 | 1 | 160 |
| GN 3663-27-M3-1,5 | 27 | M 3 | - | 10 | 19 | 35 | 9.5 | 7 | 1.5 | 200 |
| GN 3663-27-M4-0,7 | 27 | M 4 | - | 10 | 19 | 35 | 9.5 | 9 | 0.7 | 40 |
| GN 3663-27-M4-1 | 27 | M 4 | - | 10 | 19 | 35 | 9.5 | 9 | 1 | 41 |
| GN 3663-27-M4-1,5 | 27 | M 4 | - | 10 | 19 | 35 | 9.5 | 9 | 1.5 | 42 |
| GN 3663-27-M5-0,7 | 27 | M 5 | - | 10 | 19 | 35 | 9.5 | 9 | 0.7 | 39 |
| GN 3663-27-M5-1 | 27 | M 5 | - | 10 | 19 | 35 | 9.5 | 9 | 1 | 40 |
| GN 3663-27-M5-1,5 | 27 | M 5 | - | 10 | 19 | 35 | 9.5 | 9 | 1.5 | 41 |
| GN 3663-27-M6-0,7 | 27 | M 6 | - | 10 | 19 | 35 | 9.5 | 9 | 0.7 | 40 |
| GN 3663-27-M6-1 | 27 | M 6 | - | 10 | 19 | 35 | 9.5 | 9 | 1 | 41 |
| GN 3663-27-M6-1,5 | 27 | M 6 | - | 10 | 19 | 35 | 9.5 | 9 | 1.5 | 42 |
| GN 3663-34-M3-1 | 34 | M 3 | - | 10 | 21 | 37.5 | 9.5 | 7 | 1 | 58 |
| GN 3663-34-M3-1,5 | 34 | M 3 | - | 10 | 21 | 37.5 | 9.5 | 7 | 1.5 | 59 |
| GN 3663-34-M3-2,2 | 34 | M 3 | - | 10 | 21 | 37.5 | 9.5 | 7 | 2.2 | 59 |
| GN 3663-34-M4-1 | 34 | M 4 | - | 10 | 21 | 37.5 | 9.5 | 9 | 1 | 58 |
| GN 3663-34-M4-1,5 | 34 | M 4 | - | 10 | 21 | 37.5 | 9.5 | 9 | 1.5 | 59 |
| GN 3663-34-M4-2,2 | 34 | M 4 | - | 10 | 21 | 37.5 | 9.5 | 9 | 2.2 | 60 |
| GN 3663-34-M5-1 | 34 | M 5 | - | 10 | 21 | 37.5 | 9.5 | 9 | 1 | 57 |
| GN 3663-34-M5-1,5 | 34 | M 5 | - | 10 | 21 | 37.5 | 9.5 | 9 | 1.5 | 58 |
| GN 3663-34-M5-2,2 | 34 | M 5 | - | 10 | 21 | 37.5 | 9.5 | 9 | 2.2 | 59 |




### GN 3663-with female thread

| Description | d1 | d2 | d3 H7 | d5 | d6 | h1 | h2 | t min. | Torque ±10% in Nm | ⚖ |
|---|---|---|---|---|---|---|---|---|---|---|
| GN 3663-34-M6-1 | 34 | M 6 | - | 10 | 21 | 37.5 | 9.5 | 9 | 1 | 58 |
| GN 3663-34-M6-1,5 | 34 | M 6 | - | 10 | 21 | 37.5 | 9.5 | 9 | 1.5 | 59 |
| GN 3663-34-M6-2,2 | 34 | M 6 | - | 10 | 21 | 37.5 | 9.5 | 9 | 2.2 | 60 |
| GN 3663-42-M6-2 | 42 | M 6 | - | 13.5 | 27 | 43.5 | 11.5 | 11 | 2 | 109 |
| GN 3663-42-M6-2,5 | 42 | M 6 | - | 13.5 | 27 | 43.5 | 11.5 | 11 | 2.5 | 110 |
| GN 3663-42-M6-3,2 | 42 | M 6 | - | 13.5 | 27 | 43.5 | 11.5 | 11 | 3.2 | 111 |
| GN 3663-42-M8-2 | 42 | M 8 | - | 13.5 | 27 | 43.5 | 11.5 | 11 | 2 | 107 |
| GN 3663-42-M8-2,5 | 42 | M 8 | - | 13.5 | 27 | 43.5 | 11.5 | 11 | 2.5 | 108 |
| GN 3663-42-M8-3,2 | 42 | M 8 | - | 13.5 | 27 | 43.5 | 11.5 | 11 | 3.2 | 109 |
| GN 3663-52-M10-2,5 | 52 | M 10 | - | 19 | 32 | 54 | 15.5 | 17 | 2.5 | 208 |
| GN 3663-52-M10-3 | 52 | M 10 | - | 19 | 32 | 54 | 15.5 | 17 | 3 | 209 |
| GN 3663-52-M10-4 | 52 | M 10 | - | 19 | 32 | 54 | 15.5 | 17 | 4 | 210 |
| GN 3663-52-M12-2,5 | 52 | M 12 | - | 19 | 32 | 54 | 15.5 | 17 | 2.5 | 209 |
| GN 3663-52-M12-3 | 52 | M 12 | - | 19 | 32 | 54 | 15.5 | 17 | 3 | 210 |
| GN 3663-52-M12-4 | 52 | M 12 | - | 19 | 32 | 54 | 15.5 | 17 | 4 | 211 |
| GN 3663-62-M10-3 | 62 | M 10 | - | 19 | 33 | 54 | 15.5 | 17 | 3 | 240 |
| GN 3663-62-M10-4 | 62 | M 10 | - | 19 | 33 | 54 | 15.5 | 17 | 4 | 241 |
| GN 3663-62-M10-5,5 | 62 | M 10 | - | 19 | 33 | 54 | 15.5 | 17 | 5.5 | 242 |
| GN 3663-62-M12-3 | 62 | M 12 | - | 19 | 33 | 54 | 15.5 | 17 | 3 | 235 |
| GN 3663-62-M12-4 | 62 | M 12 | - | 19 | 33 | 54 | 15.5 | 17 | 4 | 236 |
| GN 3663-62-M12-5,5 | 62 | M 12 | - | 19 | 33 | 54 | 15.5 | 17 | 5.5 | 237 |

**GN 3663-with threaded bolt**

| Description | d1 | d4 | l | d5 | d6 | h1 | h2 | Torque ±10% in Nm | ⚖ |
|---|---|---|---|---|---|---|---|---|---|
| GN 3663-27-M4-12-0,7 | 27 | M 4 | 12 | 10 | 19 | 35 | 9.5 | 0.7 | 43 |
| GN 3663-27-M4-12-1 | 27 | M 4 | 12 | 10 | 19 | 35 | 9.5 | 1 | 44 |
| GN 3663-27-M4-12-1,5 | 27 | M 4 | 12 | 10 | 19 | 35 | 9.5 | 1.5 | 45 |
| GN 3663-27-M4-16-0,7 | 27 | M 4 | 16 | 10 | 19 | 35 | 9.5 | 0.7 | 44 |
| GN 3663-27-M4-16-1 | 27 | M 4 | 16 | 10 | 19 | 35 | 9.5 | 1 | 45 |
| GN 3663-27-M4-16-1,5 | 27 | M 4 | 16 | 10 | 19 | 35 | 9.5 | 1.5 | 46 |
| GN 3663-27-M4-20-0,7 | 27 | M 4 | 20 | 10 | 19 | 35 | 9.5 | 0.7 | 45 |
| GN 3663-27-M4-20-1 | 27 | M 4 | 20 | 10 | 19 | 35 | 9.5 | 1 | 46 |
| GN 3663-27-M4-20-1,5 | 27 | M 4 | 20 | 10 | 19 | 35 | 9.5 | 1.5 | 47 |
| GN 3663-27-M4-25-0,7 | 27 | M 4 | 25 | 10 | 19 | 35 | 9.5 | 0.7 | 46 |
| GN 3663-27-M4-25-1 | 27 | M 4 | 25 | 10 | 19 | 35 | 9.5 | 1 | 47 |
| GN 3663-27-M4-25-1,5 | 27 | M 4 | 25 | 10 | 19 | 35 | 9.5 | 1.5 | 48 |
| GN 3663-27-M4-32-0,7 | 27 | M 4 | 32 | 10 | 19 | 35 | 9.5 | 0.7 | 47 |
| GN 3663-27-M4-32-1 | 27 | M 4 | 32 | 10 | 19 | 35 | 9.5 | 1 | 48 |
| GN 3663-27-M4-32-1,5 | 27 | M 4 | 32 | 10 | 19 | 35 | 9.5 | 1.5 | 49 |
| GN 3663-27-M5-12-0,7 | 27 | M 5 | 12 | 10 | 19 | 35 | 9.5 | 0.7 | 44 |
| GN 3663-27-M5-12-1 | 27 | M 5 | 12 | 10 | 19 | 35 | 9.5 | 1 | 45 |
| GN 3663-27-M5-12-1,5 | 27 | M 5 | 12 | 10 | 19 | 35 | 9.5 | 1.5 | 46 |
| GN 3663-27-M5-16-0,7 | 27 | M 5 | 16 | 10 | 19 | 35 | 9.5 | 0.7 | 45 |
| GN 3663-27-M5-16-1 | 27 | M 5 | 16 | 10 | 19 | 35 | 9.5 | 1 | 46 |
| GN 3663-27-M5-16-1,5 | 27 | M 5 | 16 | 10 | 19 | 35 | 9.5 | 1.5 | 47 |
| GN 3663-27-M5-20-0,7 | 27 | M 5 | 20 | 10 | 19 | 35 | 9.5 | 0.7 | 46 |
| GN 3663-27-M5-20-1 | 27 | M 5 | 20 | 10 | 19 | 35 | 9.5 | 1 | 47 |
| GN 3663-27-M5-20-1,5 | 27 | M 5 | 20 | 10 | 19 | 35 | 9.5 | 1.5 | 48 |
| GN 3663-27-M5-25-0,7 | 27 | M 5 | 25 | 10 | 19 | 35 | 9.5 | 0.7 | 47 |
| GN 3663-27-M5-25-1 | 27 | M 5 | 25 | 10 | 19 | 35 | 9.5 | 1 | 48 |
| GN 3663-27-M5-25-1,5 | 27 | M 5 | 25 | 10 | 19 | 35 | 9.5 | 1.5 | 49 |
| GN 3663-27-M5-32-0,7 | 27 | M 5 | 32 | 10 | 19 | 35 | 9.5 | 0.7 | 48 |
| GN 3663-27-M5-32-1 | 27 | M 5 | 32 | 10 | 19 | 35 | 9.5 | 1 | 49 |
| GN 3663-27-M5-32-1,5 | 27 | M 5 | 32 | 10 | 19 | 35 | 9.5 | 1.5 | 50 |
| GN 3663-34-M5-12-1 | 34 | M 5 | 12 | 10 | 21 | 37.5 | 9.5 | 1 | 62 |
| GN 3663-34-M5-12-1,5 | 34 | M 5 | 12 | 10 | 21 | 37.5 | 9.5 | 1.5 | 63 |
| GN 3663-34-M5-12-2,2 | 34 | M 5 | 12 | 10 | 21 | 37.5 | 9.5 | 2.2 | 64 |
| GN 3663-34-M5-16-1 | 34 | M 5 | 16 | 10 | 21 | 37.5 | 9.5 | 1 | 63 |
| GN 3663-34-M5-16-1,5 | 34 | M 5 | 16 | 10 | 21 | 37.5 | 9.5 | 1.5 | 64 |
| GN 3663-34-M5-16-2,2 | 34 | M 5 | 16 | 10 | 21 | 37.5 | 9.5 | 2.2 | 65 |
| GN 3663-34-M5-20-1 | 34 | M 5 | 20 | 10 | 21 | 37.5 | 9.5 | 1 | 64 |
| GN 3663-34-M5-20-1,5 | 34 | M 5 | 20 | 10 | 21 | 37.5 | 9.5 | 1.5 | 65 |
| GN 3663-34-M5-20-2,2 | 34 | M 5 | 20 | 10 | 21 | 37.5 | 9.5 | 2.2 | 66 |
| GN 3663-34-M5-25-1 | 34 | M 5 | 25 | 10 | 21 | 37.5 | 9.5 | 1 | 65 |
| GN 3663-34-M5-25-1,5 | 34 | M 5 | 25 | 10 | 21 | 37.5 | 9.5 | 1.5 | 66 |
| GN 3663-34-M5-25-2,2 | 34 | M 5 | 25 | 10 | 21 | 37.5 | 9.5 | 2.2 | 67 |
| GN 3663-34-M5-32-1 | 34 | M 5 | 32 | 10 | 21 | 37.5 | 9.5 | 1 | 66 |
| GN 3663-34-M5-32-1,5 | 34 | M 5 | 32 | 10 | 21 | 37.5 | 9.5 | 1.5 | 67 |
| GN 3663-34-M5-32-2,2 | 34 | M 5 | 32 | 10 | 21 | 37.5 | 9.5 | 2.2 | 68 |
| GN 3663-34-M6-12-1 | 34 | M 6 | 12 | 10 | 21 | 37.5 | 9.5 | 1 | 63 |
| GN 3663-34-M6-12-1,5 | 34 | M 6 | 12 | 10 | 21 | 37.5 | 9.5 | 1.5 | 64 |
| GN 3663-34-M6-12-2,2 | 34 | M 6 | 12 | 10 | 21 | 37.5 | 9.5 | 2.2 | 65 |
| GN 3663-34-M6-16-1 | 34 | M 6 | 16 | 10 | 21 | 37.5 | 9.5 | 1 | 64 |
| GN 3663-34-M6-16-1,5 | 34 | M 6 | 16 | 10 | 21 | 37.5 | 9.5 | 1.5 | 65 |
| GN 3663-34-M6-16-2,2 | 34 | M 6 | 16 | 10 | 21 | 37.5 | 9.5 | 2.2 | 66 |

**GN 3663-with threaded bolt**

| Description | d1 | d4 | l | d5 | d6 | h1 | h2 | Torque ±10% in Nm | ⚖ |
|---|---|---|---|---|---|---|---|---|---|
| GN 3663-34-M6-20-1 | 34 | M 6 | 20 | 10 | 21 | 37.5 | 9.5 | 1 | 65 |
| GN 3663-34-M6-20-1,5 | 34 | M 6 | 20 | 10 | 21 | 37.5 | 9.5 | 1.5 | 66 |
| GN 3663-34-M6-20-2,2 | 34 | M 6 | 20 | 10 | 21 | 37.5 | 9.5 | 2.2 | 67 |
| GN 3663-34-M6-25-1 | 34 | M 6 | 25 | 10 | 21 | 37.5 | 9.5 | 1 | 66 |
| GN 3663-34-M6-25-1,5 | 34 | M 6 | 25 | 10 | 21 | 37.5 | 9.5 | 1.5 | 67 |
| GN 3663-34-M6-25-2,2 | 34 | M 6 | 25 | 10 | 21 | 37.5 | 9.5 | 2.2 | 68 |
| GN 3663-34-M6-32-1 | 34 | M 6 | 32 | 10 | 21 | 37.5 | 9.5 | 1 | 67 |
| GN 3663-34-M6-32-1,5 | 34 | M 6 | 32 | 10 | 21 | 37.5 | 9.5 | 1.5 | 68 |
| GN 3663-34-M6-32-2,2 | 34 | M 6 | 32 | 10 | 21 | 37.5 | 9.5 | 2.2 | 69 |
| GN 3663-42-M8-16-2 | 42 | M 8 | 16 | 13.5 | 27 | 43.5 | 11.5 | 2 | 93 |
| GN 3663-42-M8-16-2,5 | 42 | M 8 | 16 | 13.5 | 27 | 43.5 | 11.5 | 2.5 | 94 |
| GN 3663-42-M8-16-3,2 | 42 | M 8 | 16 | 13.5 | 27 | 43.5 | 11.5 | 3.2 | 95 |
| GN 3663-42-M8-20-2 | 42 | M 8 | 20 | 13.5 | 27 | 43.5 | 11.5 | 2 | 94 |
| GN 3663-42-M8-20-2,5 | 42 | M 8 | 20 | 13.5 | 27 | 43.5 | 11.5 | 2.5 | 95 |
| GN 3663-42-M8-20-3,2 | 42 | M 8 | 20 | 13.5 | 27 | 43.5 | 11.5 | 3.2 | 96 |
| GN 3663-42-M8-25-2 | 42 | M 8 | 25 | 13.5 | 27 | 43.5 | 11.5 | 2 | 95 |
| GN 3663-42-M8-25-2,5 | 42 | M 8 | 25 | 13.5 | 27 | 43.5 | 11.5 | 2.5 | 96 |
| GN 3663-42-M8-25-3,2 | 42 | M 8 | 25 | 13.5 | 27 | 43.5 | 11.5 | 3.2 | 97 |
| GN 3663-42-M8-32-2 | 42 | M 8 | 32 | 13.5 | 27 | 43.5 | 11.5 | 2 | 96 |
| GN 3663-42-M8-32-2,5 | 42 | M 8 | 32 | 13.5 | 27 | 43.5 | 11.5 | 2.5 | 97 |
| GN 3663-42-M8-32-3,2 | 42 | M 8 | 32 | 13.5 | 27 | 43.5 | 11.5 | 3.2 | 98 |
| GN 3663-42-M8-40-2 | 42 | M 8 | 40 | 13.5 | 27 | 43.5 | 11.5 | 2 | 100 |
| GN 3663-42-M8-40-2,5 | 42 | M 8 | 40 | 13.5 | 27 | 43.5 | 11.5 | 2.5 | 101 |
| GN 3663-42-M8-40-3,2 | 42 | M 8 | 40 | 13.5 | 27 | 43.5 | 11.5 | 3.2 | 102 |
| GN 3663-42-M10-20-2 | 42 | M 10 | 20 | 13.5 | 27 | 43.5 | 11.5 | 2 | 101 |
| GN 3663-42-M10-20-2,5 | 42 | M 10 | 20 | 13.5 | 27 | 43.5 | 11.5 | 2.5 | 102 |
| GN 3663-42-M10-20-3,2 | 42 | M 10 | 20 | 13.5 | 27 | 43.5 | 11.5 | 3.2 | 103 |
| GN 3663-42-M10-25-2 | 42 | M 10 | 25 | 13.5 | 27 | 43.5 | 11.5 | 2 | 102 |
| GN 3663-42-M10-25-2,5 | 42 | M 10 | 25 | 13.5 | 27 | 43.5 | 11.5 | 2.5 | 103 |
| GN 3663-42-M10-25-3,2 | 42 | M 10 | 25 | 13.5 | 27 | 43.5 | 11.5 | 3.2 | 104 |
| GN 3663-42-M10-32-2 | 42 | M 10 | 32 | 13.5 | 27 | 43.5 | 11.5 | 2 | 126 |
| GN 3663-42-M10-32-2,5 | 42 | M 10 | 32 | 13.5 | 27 | 43.5 | 11.5 | 2.5 | 127 |
| GN 3663-42-M10-32-3,2 | 42 | M 10 | 32 | 13.5 | 27 | 43.5 | 11.5 | 3.2 | 128 |
| GN 3663-42-M10-40-2 | 42 | M 10 | 40 | 13.5 | 27 | 43.5 | 11.5 | 2 | 128 |
| GN 3663-42-M10-40-2,5 | 42 | M 10 | 40 | 13.5 | 27 | 43.5 | 11.5 | 2.5 | 129 |
| GN 3663-42-M10-40-3,2 | 42 | M 10 | 40 | 13.5 | 27 | 43.5 | 11.5 | 3.2 | 130 |
| GN 3663-42-M10-50-2 | 42 | M 10 | 50 | 13.5 | 27 | 43.5 | 11.5 | 2 | 133 |
| GN 3663-42-M10-50-2,5 | 42 | M 10 | 50 | 13.5 | 27 | 43.5 | 11.5 | 2.5 | 134 |
| GN 3663-42-M10-50-3,2 | 42 | M 10 | 50 | 13.5 | 27 | 43.5 | 11.5 | 3.2 | 135 |
| GN 3663-52-M10-25-2,5 | 52 | M 10 | 25 | 19 | 32 | 54 | 15.5 | 2.5 | 150 |
| GN 3663-52-M10-25-3 | 52 | M 10 | 25 | 19 | 32 | 54 | 15.5 | 3 | 160 |
| GN 3663-52-M10-25-4 | 52 | M 10 | 25 | 19 | 32 | 54 | 15.5 | 4 | 165 |
| GN 3663-52-M10-32-2,5 | 52 | M 10 | 32 | 19 | 32 | 54 | 15.5 | 2.5 | 170 |
| GN 3663-52-M10-32-3 | 52 | M 10 | 32 | 19 | 32 | 54 | 15.5 | 3 | 175 |
| GN 3663-52-M10-32-4 | 52 | M 10 | 32 | 19 | 32 | 54 | 15.5 | 4 | 180 |
| GN 3663-52-M10-40-2,5 | 52 | M 10 | 40 | 19 | 32 | 54 | 15.5 | 2.5 | 170 |
| GN 3663-52-M10-40-3 | 52 | M 10 | 40 | 19 | 32 | 54 | 15.5 | 3 | 175 |
| GN 3663-52-M10-40-4 | 52 | M 10 | 40 | 19 | 32 | 54 | 15.5 | 4 | 180 |
| GN 3663-52-M10-50-2,5 | 52 | M 10 | 50 | 19 | 32 | 54 | 15.5 | 2.5 | 180 |
| GN 3663-52-M10-50-3 | 52 | M 10 | 50 | 19 | 32 | 54 | 15.5 | 3 | 185 |
| GN 3663-52-M10-50-4 | 52 | M 10 | 50 | 19 | 32 | 54 | 15.5 | 4 | 190 |

**GN 3663-with threaded bolt**

| Description | d1 | d4 | l | d5 | d6 | h1 | h2 | Torque ±10% in Nm | ⚖ |
|---|---|---|---|---|---|---|---|---|---|
| GN 3663-52-M10-63-2,5 | 52 | M 10 | 63 | 19 | 32 | 54 | 15.5 | 2.5 | 255 |
| GN 3663-52-M10-63-3 | 52 | M 10 | 63 | 19 | 32 | 54 | 15.5 | 3 | 256 |
| GN 3663-52-M10-63-4 | 52 | M 10 | 63 | 19 | 32 | 54 | 15.5 | 4 | 257 |
| GN 3663-52-M12-25-2,5 | 52 | M 12 | 25 | 19 | 32 | 54 | 15.5 | 2.5 | 243 |
| GN 3663-52-M12-25-3 | 52 | M 12 | 25 | 19 | 32 | 54 | 15.5 | 3 | 244 |
| GN 3663-52-M12-25-4 | 52 | M 12 | 25 | 19 | 32 | 54 | 15.5 | 4 | 245 |
| GN 3663-52-M12-32-2,5 | 52 | M 12 | 32 | 19 | 32 | 54 | 15.5 | 2.5 | 247 |
| GN 3663-52-M12-32-3 | 52 | M 12 | 32 | 19 | 32 | 54 | 15.5 | 3 | 248 |
| GN 3663-52-M12-32-4 | 52 | M 12 | 32 | 19 | 32 | 54 | 15.5 | 4 | 249 |
| GN 3663-52-M12-40-2,5 | 52 | M 12 | 40 | 19 | 32 | 54 | 15.5 | 2.5 | 252 |
| GN 3663-52-M12-40-3 | 52 | M 12 | 40 | 19 | 32 | 54 | 15.5 | 3 | 254 |
| GN 3663-52-M12-40-4 | 52 | M 12 | 40 | 19 | 32 | 54 | 15.5 | 4 | 256 |
| GN 3663-52-M12-50-2,5 | 52 | M 12 | 50 | 19 | 32 | 54 | 15.5 | 2.5 | 254 |
| GN 3663-52-M12-50-3 | 52 | M 12 | 50 | 19 | 32 | 54 | 15.5 | 3 | 255 |
| GN 3663-52-M12-50-4 | 52 | M 12 | 50 | 19 | 32 | 54 | 15.5 | 4 | 257 |
| GN 3663-52-M12-63-2,5 | 52 | M 12 | 63 | 19 | 32 | 54 | 15.5 | 2.5 | 260 |
| GN 3663-52-M12-63-3 | 52 | M 12 | 63 | 19 | 32 | 54 | 15.5 | 3 | 262 |
| GN 3663-52-M12-63-4 | 52 | M 12 | 63 | 19 | 32 | 54 | 15.5 | 4 | 264 |
| GN 3663-62-M10-25-3 | 62 | M 10 | 25 | 19 | 33 | 54 | 15.5 | 3 | 262 |
| GN 3663-62-M10-25-4 | 62 | M 10 | 25 | 19 | 33 | 54 | 15.5 | 4 | 263 |
| GN 3663-62-M10-25-5,5 | 62 | M 10 | 25 | 19 | 33 | 54 | 15.5 | 5.5 | 264 |
| GN 3663-62-M10-32-3 | 62 | M 10 | 32 | 19 | 33 | 54 | 15.5 | 3 | 266 |
| GN 3663-62-M10-32-4 | 62 | M 10 | 32 | 19 | 33 | 54 | 15.5 | 4 | 267 |
| GN 3663-62-M10-32-5,5 | 62 | M 10 | 32 | 19 | 33 | 54 | 15.5 | 5.5 | 268 |
| GN 3663-62-M10-40-3 | 62 | M 10 | 40 | 19 | 33 | 54 | 15.5 | 3 | 270 |
| GN 3663-62-M10-40-4 | 62 | M 10 | 40 | 19 | 33 | 54 | 15.5 | 4 | 271 |
| GN 3663-62-M10-40-5,5 | 62 | M 10 | 40 | 19 | 33 | 54 | 15.5 | 5.5 | 272 |
| GN 3663-62-M10-50-3 | 62 | M 10 | 50 | 19 | 33 | 54 | 15.5 | 3 | 276 |
| GN 3663-62-M10-50-4 | 62 | M 10 | 50 | 19 | 33 | 54 | 15.5 | 4 | 277 |
| GN 3663-62-M10-50-5,5 | 62 | M 10 | 50 | 19 | 33 | 54 | 15.5 | 5.5 | 278 |
| GN 3663-62-M10-63-3 | 62 | M 10 | 63 | 19 | 33 | 54 | 15.5 | 3 | 281 |
| GN 3663-62-M10-63-4 | 62 | M 10 | 63 | 19 | 33 | 54 | 15.5 | 4 | 282 |
| GN 3663-62-M10-63-5,5 | 62 | M 10 | 63 | 19 | 33 | 54 | 15.5 | 5.5 | 283 |
| GN 3663-62-M12-25-3 | 62 | M 12 | 25 | 19 | 33 | 54 | 15.5 | 3 | 269 |
| GN 3663-62-M12-25-4 | 62 | M 12 | 25 | 19 | 33 | 54 | 15.5 | 4 | 270 |
| GN 3663-62-M12-25-5,5 | 62 | M 12 | 25 | 19 | 33 | 54 | 15.5 | 5.5 | 272 |
| GN 3663-62-M12-32-3 | 62 | M 12 | 32 | 19 | 33 | 54 | 15.5 | 3 | 273 |
| GN 3663-62-M12-32-4 | 62 | M 12 | 32 | 19 | 33 | 54 | 15.5 | 4 | 274 |
| GN 3663-62-M12-32-5,5 | 62 | M 12 | 32 | 19 | 33 | 54 | 15.5 | 5.5 | 275 |
| GN 3663-62-M12-40-3 | 62 | M 12 | 40 | 19 | 33 | 54 | 15.5 | 3 | 278 |
| GN 3663-62-M12-40-4 | 62 | M 12 | 40 | 19 | 33 | 54 | 15.5 | 4 | 279 |
| GN 3663-62-M12-40-5,5 | 62 | M 12 | 40 | 19 | 33 | 54 | 15.5 | 5.5 | 280 |
| GN 3663-62-M12-50-3 | 62 | M 12 | 50 | 19 | 33 | 54 | 15.5 | 3 | 286 |
| GN 3663-62-M12-50-4 | 62 | M 12 | 50 | 19 | 33 | 54 | 15.5 | 4 | 287 |
| GN 3663-62-M12-50-5,5 | 62 | M 12 | 50 | 19 | 33 | 54 | 15.5 | 5.5 | 288 |
| GN 3663-62-M12-63-3 | 62 | M 12 | 63 | 19 | 33 | 54 | 15.5 | 3 | 295 |
| GN 3663-62-M12-63-4 | 62 | M 12 | 63 | 19 | 33 | 54 | 15.5 | 4 | 296 |
| GN 3663-62-M12-63-5,5 | 62 | M 12 | 63 | 19 | 33 | 54 | 15.5 | 5.5 | 297 |

# Torque limiting wing knobs

**Technopolymer**



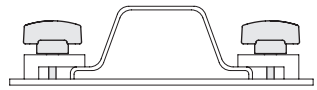
**MATERIAL**
Glass-fibre reinforced polyamide based (PA) technopolymer, black (C9) or orange (C2) colour, matte finish.

**TORQUE LIMITING MECHANISM**
Nickel-plated steel.

**STANDARD EXECUTIONS**
- **CTD-B-2**: nickel-plated steel boss with threaded blind hole, maximum torque 2Nm.
- **CTD-B-3**: nickel-plated steel boss with threaded blind hole, maximum torque 3Nm.
- **CTD-p-2**: nickel-plated steel threaded screw, maximum torque 2Nm.
- **CTD-p-3**: nickel-plated steel threaded screw, maximum torque 3Nm.

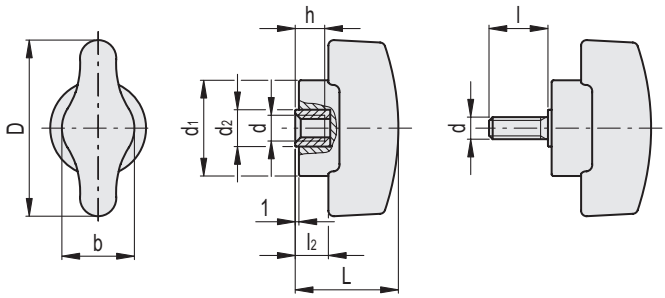
**FEATURES AND APPLICATIONS**
CTD wing knobs are used when the applied tightening torque must not exceed a preset value.
The torque transmission from the wing knob to the clamping element takes place by means of a spring system which prevents the overcoming of the established torque. Upon exceeding the established torque, a "click" sound will be heard to indicate that the maximum tightening has been reached. By turning the knob anticlockwise the mechanism unlocks.

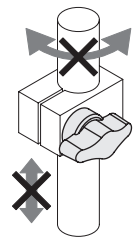
Application Examples



To prevent sheet deformation

**CTD-B** **CTD-p**



Fastening of the tube to avoid damage to tube surfaces

**CTD-B**

| Code | Description | Code | Description | D | d | L | d1 | d2 | l2 | b | h | C# [Nm] | ⚖ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 221901-C9 | CTD.48 B-M5-2-C9 | 221901-C2 | CTD.48 B-M5-2-C2 | 48 | M5 | 28 | 26 | 10 | 9 | 20 | 8 | 2 | 35 |
| 221902-C9 | CTD.48 B-M5-3-C9 | 221902-C2 | CTD.48 B-M5-3-C2 | 48 | M5 | 28 | 26 | 10 | 9 | 20 | 8 | 3 | 36 |
| 221905-C9 | CTD.48 B-M6-2-C9 | 221905-C2 | CTD.48 B-M6-2-C2 | 48 | M6 | 28 | 26 | 10 | 9 | 20 | 8 | 2 | 34 |
| 221906-C9 | CTD.48 B-M6-3-C9 | 221906-C2 | CTD.48 B-M6-3-C2 | 48 | M6 | 28 | 26 | 10 | 9 | 20 | 8 | 3 | 35 |

**CTD-p**

| Code | Description | Code | Description | D | d | L | d1 | d2 | l | l2 | b | C# [Nm] | ⚖ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 221951-C9 | CTD.48 p-M5x10-2-C9 | 221951-C2 | CTD.48 p-M5x10-2-C2 | 48 | M5 | 28 | 26 | 10 | 10 | 9 | 20 | 2 | 37 |
| 221952-C9 | CTD.48 p-M5x10-3-C9 | 221952-C2 | CTD.48 p-M5x10-3-C2 | 48 | M5 | 28 | 26 | 10 | 10 | 9 | 20 | 3 | 38 |
| 221955-C9 | CTD.48 p-M5x16-2-C9 | 221955-C2 | CTD.48 p-M5x16-2-C2 | 48 | M5 | 28 | 26 | 10 | 16 | 9 | 20 | 2 | 38 |
| 221956-C9 | CTD.48 p-M5x16-3-C9 | 221956-C2 | CTD.48 p-M5x16-3-C2 | 48 | M5 | 28 | 26 | 10 | 16 | 9 | 20 | 3 | 39 |
| 221961-C9 | CTD.48 p-M6x16-2-C9 | 221961-C2 | CTD.48 p-M6x16-2-C2 | 48 | M6 | 28 | 26 | 10 | 16 | 9 | 20 | 2 | 39 |
| 221962-C9 | CTD.48 p-M6x16-3-C9 | 221962-C2 | CTD.48 p-M6x16-3-C2 | 48 | M6 | 28 | 26 | 10 | 16 | 9 | 20 | 3 | 40 |
| 221965-C9 | CTD.48 p-M6x25-2-C9 | 221965-C2 | CTD.48 p-M6x25-2-C2 | 48 | M6 | 28 | 26 | 10 | 25 | 9 | 20 | 2 | 41 |
| 221966-C9 | CTD.48 p-M6x25-3-C9 | 221966-C2 | CTD.48 p-M6x25-3-C2 | 48 | M6 | 28 | 26 | 10 | 25 | 9 | 20 | 3 | 42 |

**C#** Maximum torque (±15%)

# Knobs with torque limiting

Elesa+Ganter torque limiting products allow for the regulation of the maximum tightening torque most suitable for your needs. They may be used in various sectors where a sufficiently high tightening torque is required in order to obtain fast and secure fastening, such as laboratory equipment, key duplicators, tool sharpening and sports equipment.

## A wide range of applicable torques

Elesa+Ganter torque limiting clamping elements cover a wide range of applicable torques, from 0.2Nm to 6Nm.

## Different shapes available for one optimal grip

Elesa+Ganter products have the most suitable shape to apply the required tightening torque, adapting to the operator's grip in order to facilitate tightening operation.

## Torque visibility

The maximum applicable torque is shown on each product (engraved on the cap or lasered on the product).

## Easy adjustment

The torque setting on the MZD knob is easy and intuitive and allows a quick variation of the maximum applicable torque between 0.2Nm and 1Nm.

## Resistance

The product tests show that the torque limiting mechanism is fully operational after thousands of cycles.

Find out more on **elesa-ganter.com**

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**ganter-griff.com**

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**FOR ENGINEERING**

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