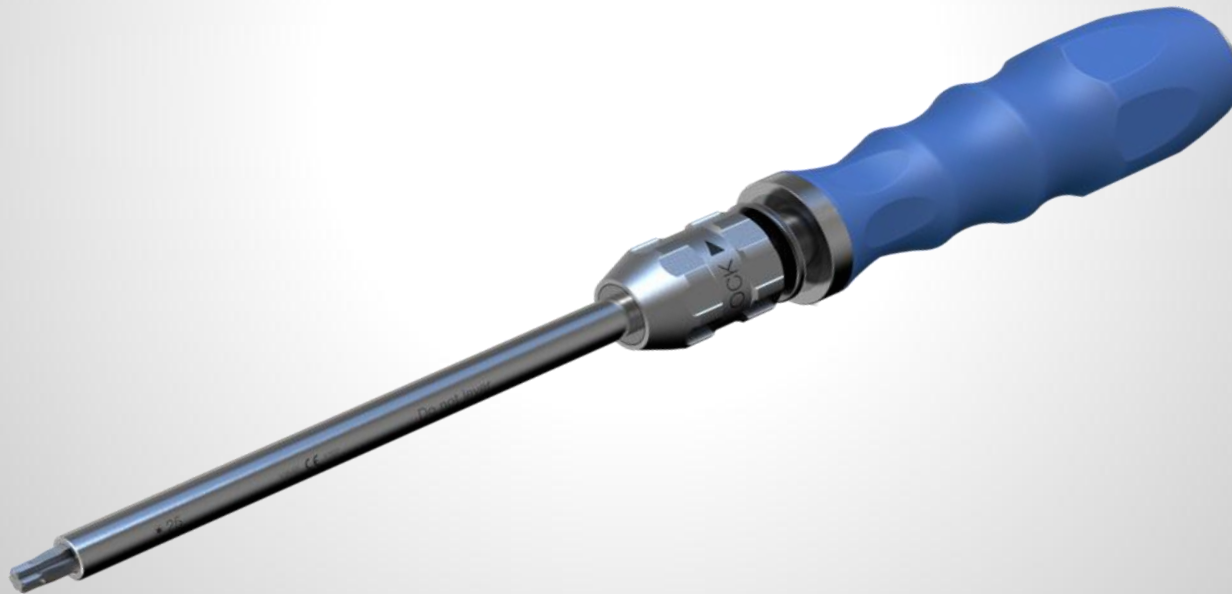


What is the product line

Selfretaining Screwdriver





We introduce ourselves

Medizin-Mechanik-Nord GmbH (MMN)

MMN has been developing and producing for 25 years.

Instruments for traumatology.

The production of individual parts and purchased parts is carried out by a network consisting of 15 companies.

MMN coordinates, checks and accompanies the processes within the network.

MMN assembles, tests, documents and delivers the instruments to the customer in accordance with DIN EN ISO 13485.



What is the product line

Medizin-Mechanik-Nord GmbH

The product line is self-retaining screwdrivers that firmly connect the screw = implant to the screwdriver. This means that the screw cannot be lost in the human skin when implanted in the human body.

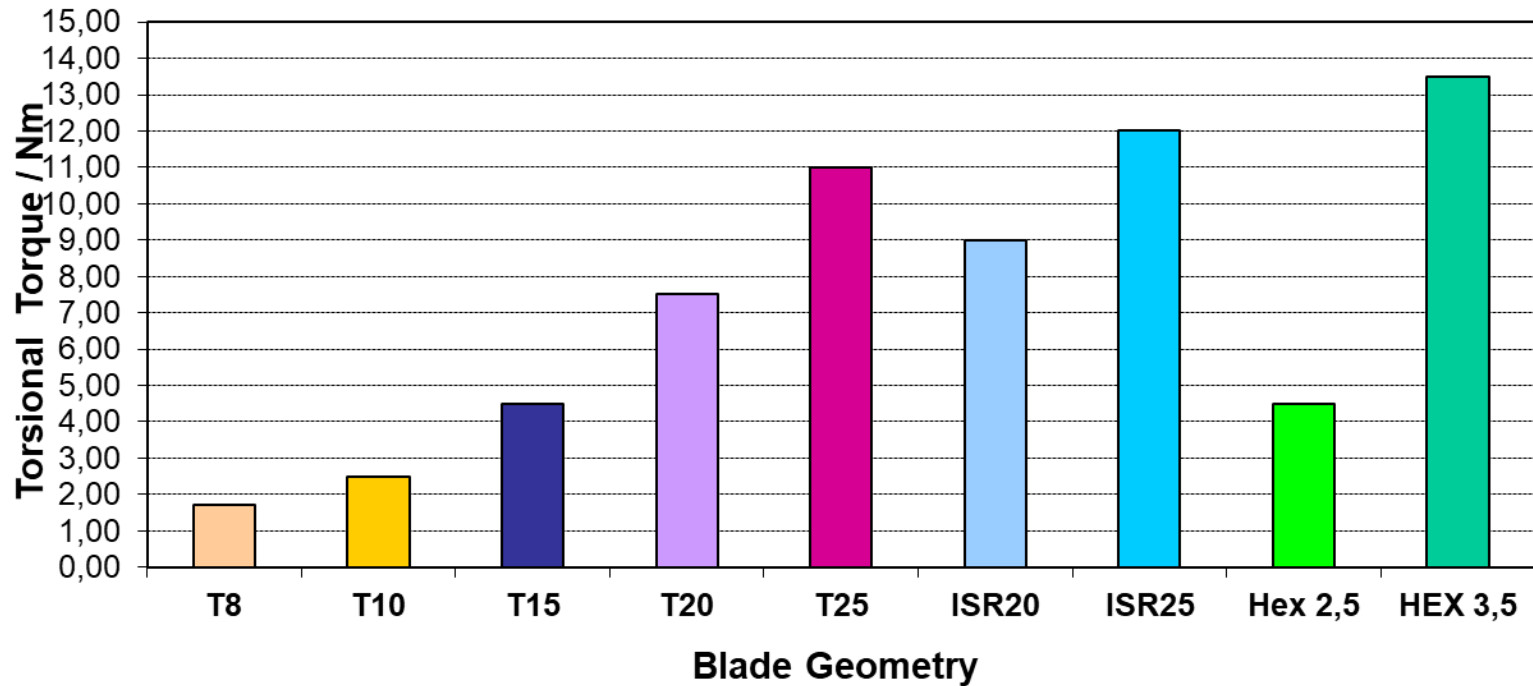
The self-retaining screwdriver can be designed with different drive and connection geometries with the same operating principle.

In addition to these geometries, lengths and diameters can vary.

Selfretaining Screwdriver MMN

| | | | | | | | | | |
|----------------|------|------|------|------|-------|-------|-------|---------|---------|
| Blade Geometry | T8 | T10 | T15 | T20 | T25 | ISR20 | ISR25 | Hex 2,5 | HEX 3,5 |
| Torque Maximum | 1,70 | 2,50 | 4,50 | 7,50 | 11,00 | 9,00 | 12,00 | 4,50 | 13,50 |

Maximum Permitted Torque





What are the technical characteristics

Selfretaining Screwdriver

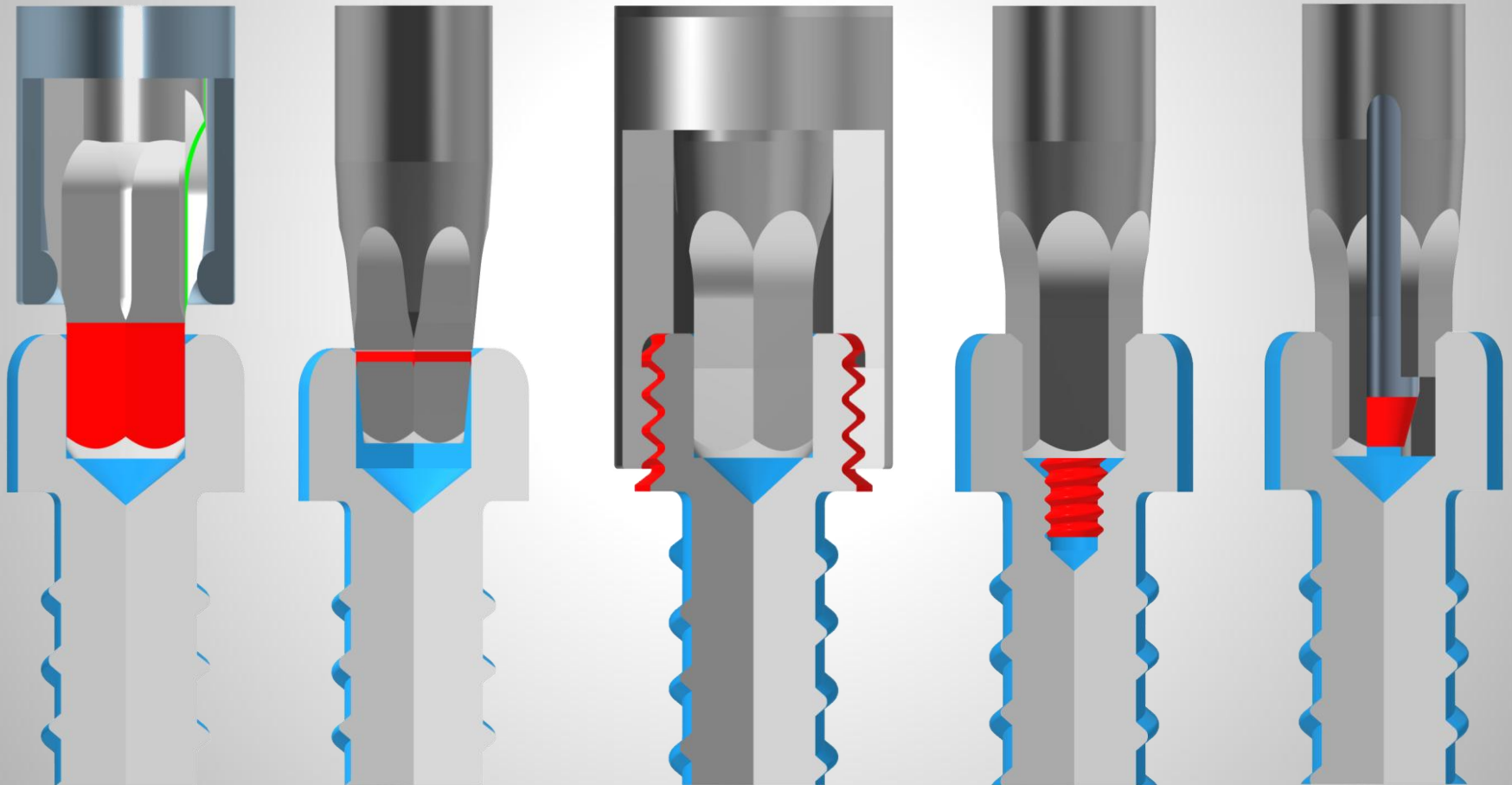


- Can be used for all screw geometries.
- Controlled implantation and explantation.
- One-hand locking.
- Long service life due to torque-controlled locking.
- Power-Tool suitable.
- Compensation of the inner geometry of the screw head to the outer geometry of the blades up to 0.2 mm.
- Variable design. (Connection / Adaptation / Handle)



What holding mechanisms are in the market?

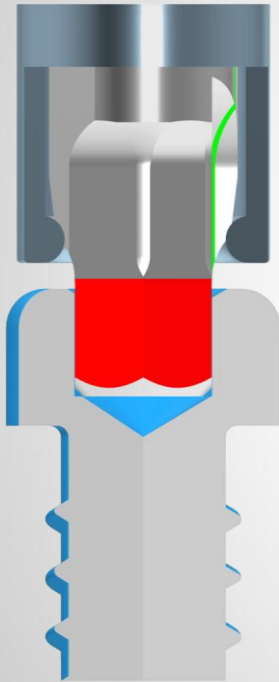
Selfretaining Screwdrivers





Medizin-Mechanik-Nord GmbH Design

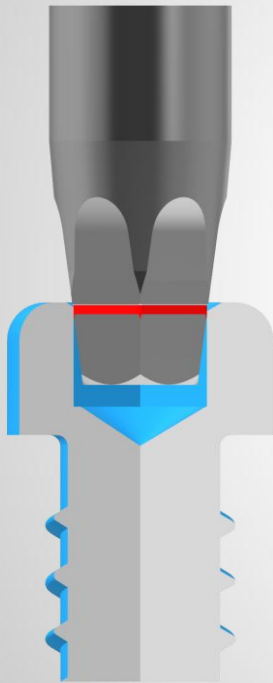
Selfretaining Screwdriver



- Universally applicable
- Large contact surfaces
- Wear-free
- High tolerance compensation
- High holding force
- Reproducible holding force
- Implant / Explant

Market comparison variant 1

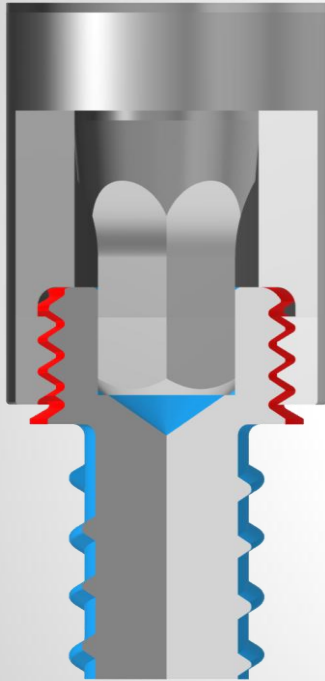
Selfretaining Screwdriver



- Notch effect
- Deformation
- Wear
- Ring loading
- Small contact surfaces
- Tolerance sensitive
- ...

Market comparison variant 2

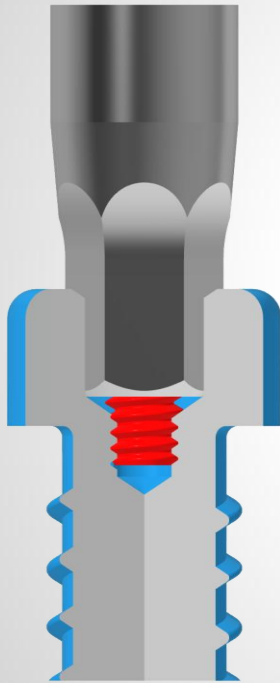
Selfretaining Screwdriver



- Special screws
- Implant bound
- Tissue damaging

Market Comparison Variant 3

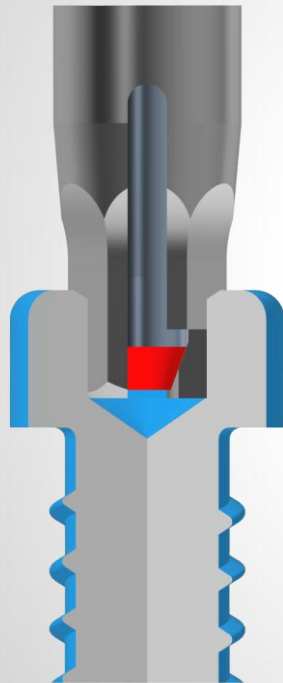
Selfretaining Screwdriver



- Special screws
- Implant bound
- High risk of breakage

Market comparison variant 4

Selfretaining Screwdriver



- Reduced torque
- Wear / plastic deformation
- Minimum size required (cannulation)
- Short service life
- Uncontrolled handling



Specifications-Summary

Selfretaining Screwdriver



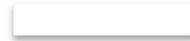
HEX 2,5 HEX 3,5



| | |
|----------------------------|-------------|
| Maximales Drehmoment (Nm) | 4,5 - 13 |
| Haltekraft (N) | ≥ 50 |
| Schaftlänge (mm) | 55 - 220 |
| Durchmesser der Hülse (mm) | 4,50 - 6,45 |
| Sterilisierbar | Ja |
| CE-Kennzeichnung | Ja |
| Adaption | AO-Small |



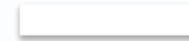
T15 T20 T25*



| | |
|----------------------------|-------------|
| Maximales Drehmoment (Nm) | 4,5 - 13 |
| Haltekraft (N) | ≥ 50 |
| Schaftlänge (mm) | 55 - 220 |
| Durchmesser der Hülse (mm) | 4,50 - 7,90 |
| Sterilisierbar | Ja |
| CE-Kennzeichnung | Ja |
| Adaption | AO-Small |



ISR 20 ISR 25*



| | |
|----------------------------|-------------|
| Maximales Drehmoment (Nm) | 9 - 13 |
| Haltekraft (N) | ≥ 50 |
| Schaftlänge (mm) | 55 - 220 |
| Durchmesser der Hülse (mm) | 6,45 - 7,90 |
| Sterilisierbar | Ja |
| CE-Kennzeichnung | Ja |
| Adaption | AO-Small |