

Insert tools for rectangular tool holders.

Directly from certified manufacturer.

For rectangular cavities sized 9 x 12 or 14 x 18 mm.

With depth gauges (s_k) for 9 x 12 mm = 17.5 mm, for 14 x 18 mm = 25 mm, other values are marked with *).



Customized insert tools.

MATADOR is first-level supplier of insert tools for numerous leading automobile manufacturers. Also special, extra flat insert ratchets with lever are part of our range.



We would be pleased to submit an individual offer to you based on your special requirements - either as hot formed forging parts, as cast parts or cut on modern CNC machines from solid material.

Please do not hesitate to contact us.

When do you have to calculate?

The calibration of a torque wrench is based on a fixed fulcrum (usually at the same level as the square drive). If the measure of length changes the original lever is no longer valid and the set torque value ($M \times W$) has to be adjusted by a correction factor.

The correct length is the crucial factor.

Especially when using insert tools the given depth gauge is to be considered. If the depth gauge of the torque wrench (s_k) is equal to the depth gauge of the insert tool (s) the indicated value corresponds to the value of the applied force.

Correction of the torque value.

Insert tools with different depth gauges (s) are marked with a * in the respective table.

In these cases and also when using adapters the desired tightening torque (M_A) has to be corrected by the linear factor with the help of the following formula:

Example:

Correction of the set torque value:

Desired tightening torque $M_A = 180 \text{ N}\cdot\text{m}$:

$$180 \cdot \frac{435}{442,5} = \frac{78.300}{442,5} = 176,95 \text{ N}\cdot\text{m}$$

| Art-Nr. | Typ | Stk. | Einl. | Einl. | Einl. | Einl. | Einl. | Einl. | Einl. | Einl. | Einl. | Einl. | Einl. | Einl. | Einl. | Einl. | Einl. | Einl. | Einl. |
|---------|------|--------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0100001 | 9x12 | 1x40 | 4x20 | 1,25 | 20 | 113 | 220 | 416 | 1 | 0100010 | 14x18 | 25 | 25,0 | 50 | 50 | 1 | 1 | 1 | 1 |
| 0100002 | 9x12 | 8x100 | 8x75 | 1,58 | 1 | 1 | 1 | 1 | 1 | 0100011 | 14x18 | 20 | 25,0 | 50 | 50 | 1 | 1 | 1 | 1 |
| 0100003 | 9x12 | 20x100 | 20x70 | 1,18 | 1 | 1 | 1 | 1 | 1 | 0100012 | 14x18 | 20 | 25,0 | 50 | 50 | 1 | 1 | 1 | 1 |
| 0100004 | 9x12 | 8x100 | 8x70 | 1,18 | 1 | 1 | 1 | 1 | 1 | 0100013 | 14x18 | 20 | 25,0 | 50 | 50 | 1 | 1 | 1 | 1 |
| 0100005 | 9x12 | 18x100 | 18x70 | 1,18 | 1 | 1 | 1 | 1 | 1 | 0100014 | 14x18 | 20 | 25,0 | 50 | 50 | 1 | 1 | 1 | 1 |
| 0100006 | 9x12 | 25x100 | 25x70 | 1,18 | 1 | 1 | 1 | 1 | 1 | 0100015 | 14x18 | 20 | 25,0 | 50 | 50 | 1 | 1 | 1 | 1 |

$$M_{xW} = \frac{M_A \times I_k}{I_k + (s - s_k)}$$