

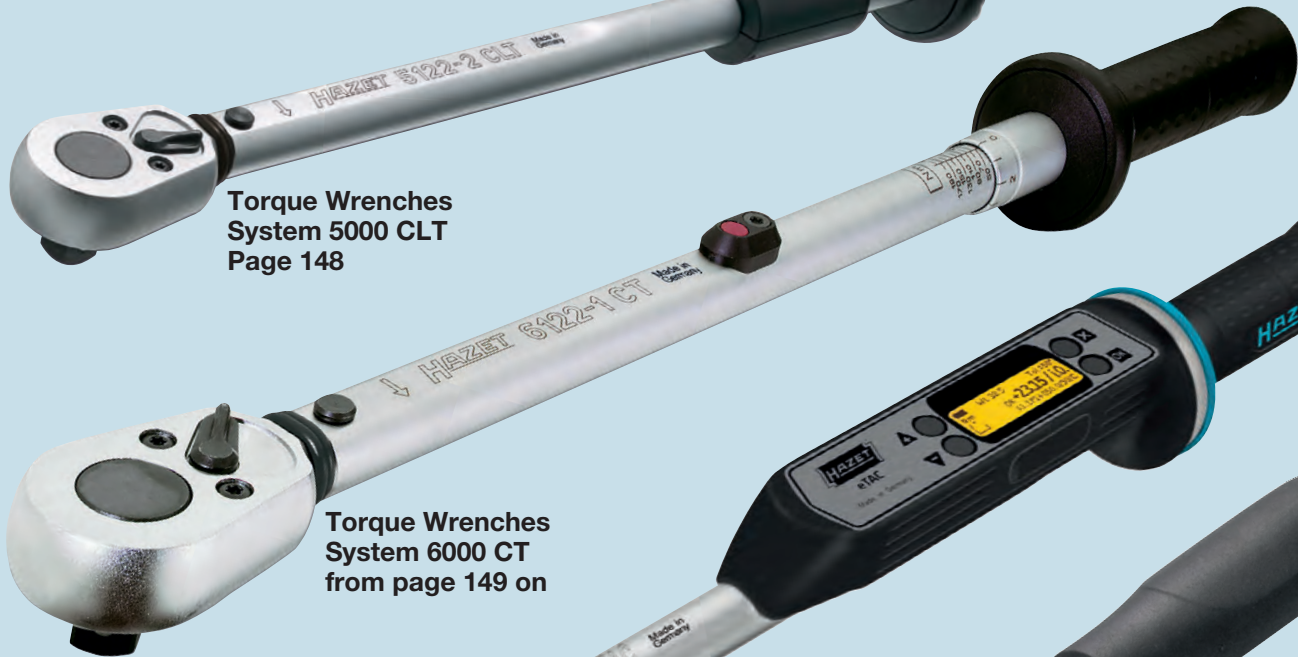
# Torque Technology



**Torque Wrenches  
System 5000 CT  
from page 146 on**



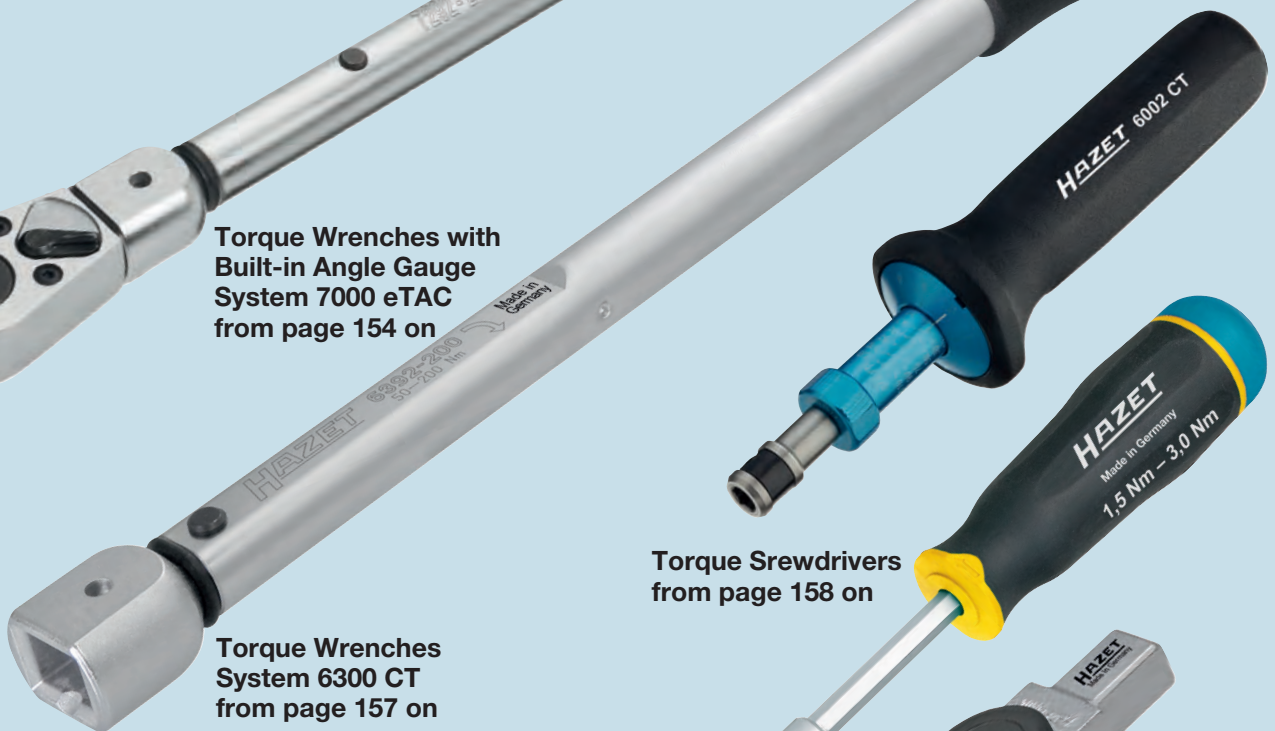
**Torque Wrenches  
System 5000 CLT  
Page 148**



**Torque Wrenches  
System 6000 CT  
from page 149 on**



**Torque Wrenches with  
Built-in Angle Gauge  
System 7000 eTAC  
from page 154 on**



**Torque Wrenches  
System 6300 CT  
from page 157 on**

**Torque Screwdrivers  
from page 158 on**



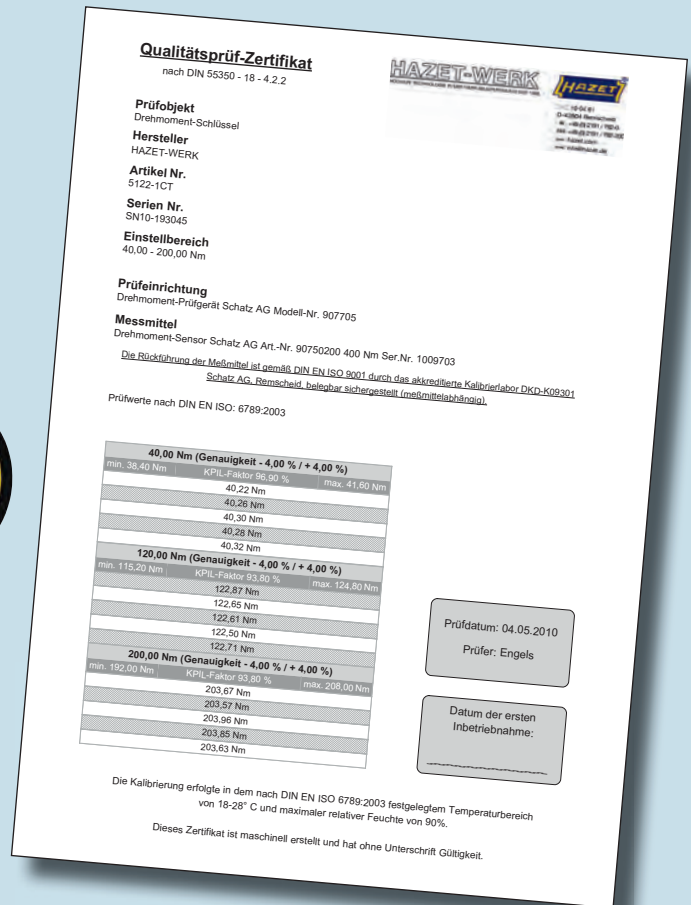
**Insert Tools  
from page  
158 on**



# HAZET Torque Wrench Service

## Our Examination and Calibration Service offers:

- ✓ Adjustment, calibration and repair of your torque wrenches
- ✓ Good preconditions for functional torque wrenches
- ✓ Regular working quality, provable in the long term
- ✓ Test sticker
- ✓ Examination certificate indicating the test values

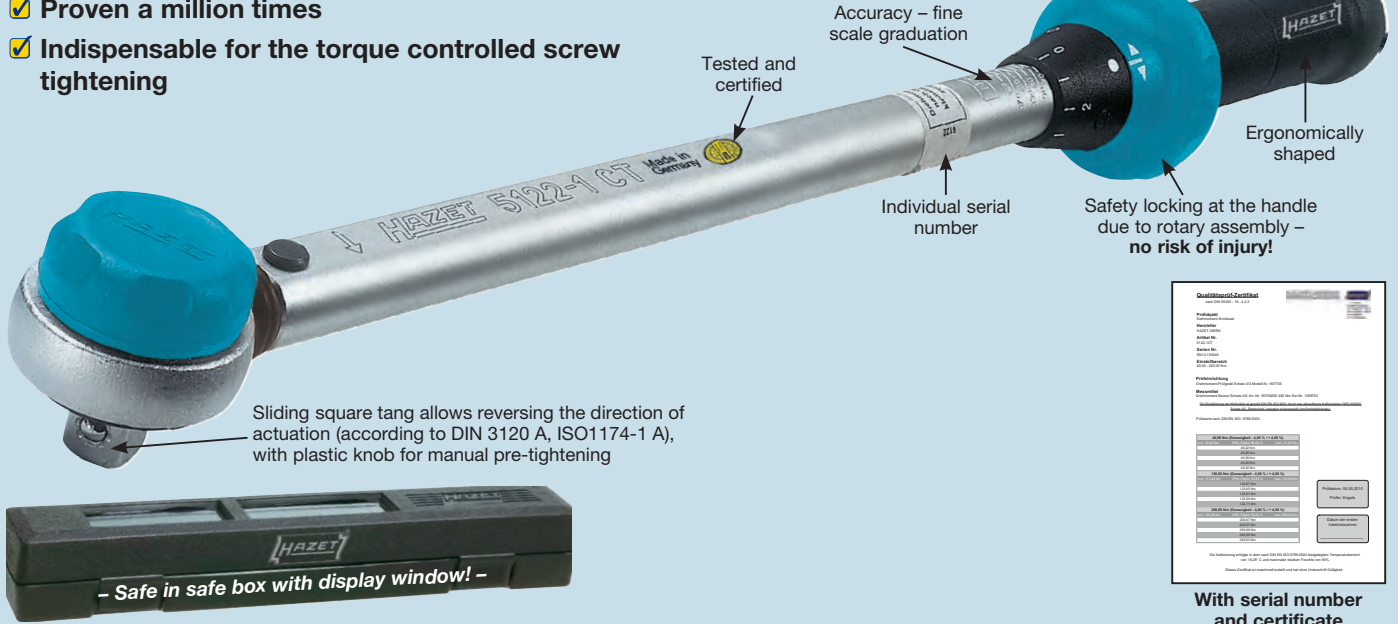


# Torque Wrenches System 5000 CT

**“The Classic Workshop Tool!“**

- ✔ Torque Ranges: 2.5 – 320 Nm
- ✔ Release accuracy tolerance (in direction of actuation)  $\pm 4\%$  of the preset scale value according to DIN EN ISO 6789:2003 (D)
- ✔ Robust and well-priced
- ✔ Proven a million times
- ✔ Indispensable for the torque controlled screw tightening

- ✔ With automatic close gap release – palpable and audible when torque setting is reached
- ✔ Safe and fast adjustment of the desired torque value by turning the handle
- ✔ **Made in Germany**



With serial number and certificate

System 5000 CT



## Torque Technology – System 5000 CT

### Torque Wrench – SYSTEM 5000-2 CT (with reversible ratchet), Release Accuracy Tolerance ± 4%

- **Release accuracy tolerance** (in direction of actuation) ± 4% of scale value
- Safe torque release:
  - palpable (close gap release)
  - audible ("click" sound)
- Easy and safe adjustment of the desired torque value by turning the handle
- User-friendly reversible ratchet
- **Service-friendly** (Do-it-yourself repair kits for ratchets available)
- Integrated shift lever with free-running function **reducing the risk of injury and malfunction**
- Accuracy – fine scale graduation
- Safety locking of the handle due to rotary assembly – **no risk of injury!**
- Ergonomically shaped
- With serial number and certificate
- Robust and well-priced
- Proven a million times
- Indispensable for the torque controlled screw tightening
- Square according to DIN 3120, ISO 1174-1, DIN EN ISO 6789:2003 (D)

**Made in Germany**



6.3 1/4"

HAZET No.	Drive	l mm	Nm	Graduation Nm	EAN-No. 4000996+
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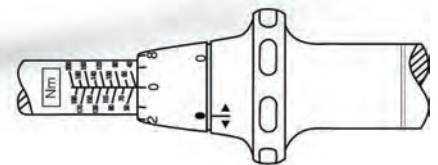
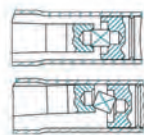
- **Perfect for working on motorcycles and bicycles**
- **Delivery in safe box**

**5108-2 CT** ■ 6.3 = 1/4" 232 2.5–25 0.25 119752

### Torque Wrench – SYSTEM 5000 CT (with sliding square tang), Release Accuracy Tolerance ± 4%

- **Release accuracy tolerance** (in direction of actuation) ± 4% of scale value
- Tightening at torque setting is possible both to the right and to the left
- With automatic close-gap release when torque setting is reached
- Easy and safe adjustment of the desired torque value by turning the handle
- Safe lock at the handle
- Fine scale graduation
- With serial number and certificate
- Ratchet with sliding square tang with plastic knob for manual pre-tightening
- Changing the direction of actuation by inverting the ratchet's sliding square tang
- **Delivery in safe box**
- DIN EN ISO 6789:2003 (D), Square according to DIN 3120, ISO 1174-1

**Made in Germany**



HAZET No.	Drive	l mm	Nm	Graduation Nm	EAN-No. 4000996+
<b>5110-1 CT</b>	■ 10 = 3/8"	305	10– 60	0.5	022397
<b>5121-1 CT</b>	■ 12.5 = 1/2"	389	20– 120	1	022427
<b>5122-1 CT</b>	■ 12.5 = 1/2"	493	40– 200	1	022472
<b>5123-1 CT</b>	■ 12.5 = 1/2"	614	60– 320	2	022588

Sliding square tang with blue knob **10 = 3/8"** ■ for 5110-1 CT

**5110-04** – – – – 151493

Sliding square tang with blue knob **12.5 = 1/2"** ■ for 5121-1 CT, 5122-1 CT, 5123-1 CT

**5121-02** – – – – 151509

#### Auxiliary Sliding Handle

- For all Torque Wrenches SYSTEM 5000 CT with ■ 12.5 = 1/2" Ratchet with sliding square tang  
Total length: 170 mm with 20 mm ribbing at the end of the handle
- Application e.g.
  - For assistance when positioning the torque wrench with socket on the screw connection e.g. on (alloy) rims
  - Facilitates the pre-tightening of a screwing – especially helpful due to the ribbing about a length of 20 mm at the end of the handle
  - Facilitates the installation of the wheel screws also without torque wrench
  - Facilitates the tightening of a screwing by "counterholding"
  - Safe and ergonomic working as the hand remains at the handle while screwing

**5121-01 Lg** – 170 – – 156320



# Torque Wrenches System 5000 CLT

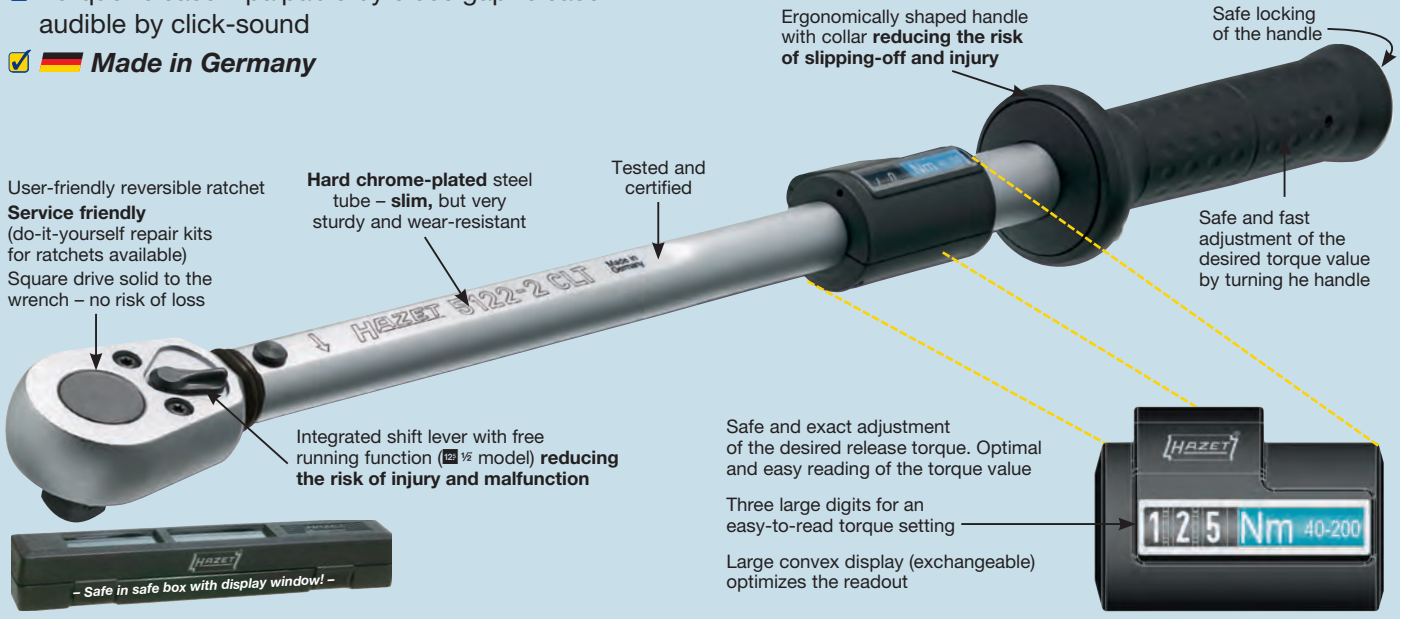
”For higher demands“

- ✓ Click-Lens-Type with value readout in the display – security for the user
- ✓ Torque Ranges: 20 – 320 Nm
- ✓ Release accuracy tolerance (in direction of actuation)  $\pm 4\%$  of the preset scale value according to DIN EN ISO 6789:2003 (D)
- ✓ Torque release – palpable by close gap release – audible by click-sound
- ✓ **Made in Germany**

Awarded with the



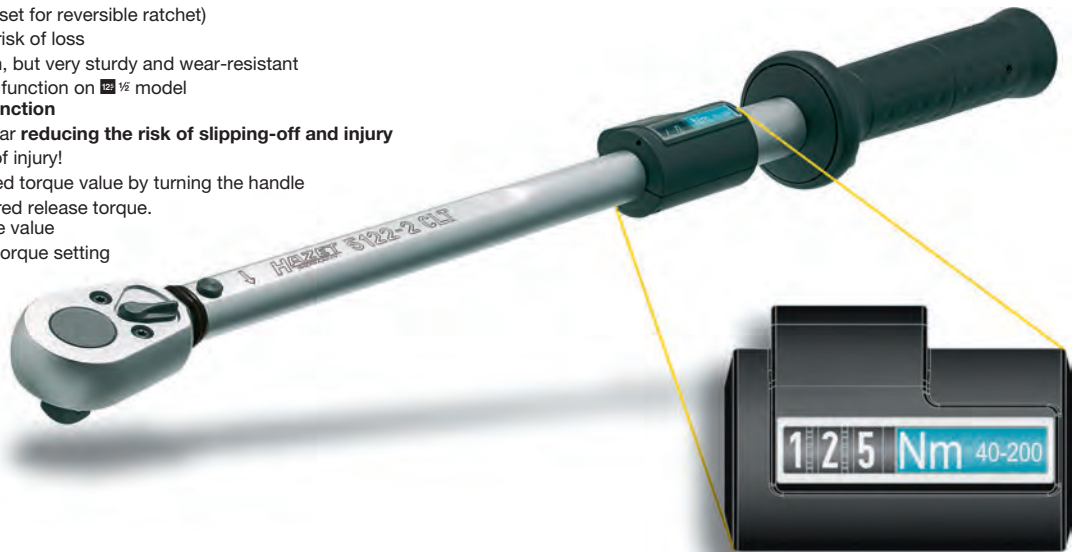
With serial number and certificate



## Torque Wrench – SYSTEM 5000 CLT – Release Accuracy Tolerance $\pm 4\%$

Click-Lens-Type with value readout in the display ensuring safety and user friendliness

- Release accuracy tolerance  $\pm 4\%$  of scale value in direction of actuation
- Torque release – palpable by close-gap release – audible by click-sound
- User-friendly reversible ratchet
- **Service-friendly** (do-it-yourself repair set for reversible ratchet)
- Square drive solid to the wrench – no risk of loss
- **Hard chrome-plated** steel tube – slim, but very sturdy and wear-resistant
- Integrated shift lever with free-running function on 1/2 model **reducing the risk of injury and malfunction**
- Ergonomically shaped handle with collar **reducing the risk of slipping-off and injury**
- Safety locking of the handle – no risk of injury!
- Easy and safe adjustment of the desired torque value by turning the handle
- Safe and exact adjustment of the desired release torque. Optimal and easy reading of the torque value
- Three large digits for an easy-to-read torque setting
- Large convex display (exchangeable) optimizes the readout
- **With serial number and certificate**
- **Delivery in safe box**
- Surface: hard chrome plated
- DIN EN ISO 6789:2003 (D)
- **Made in Germany**



HAZET No.	Drive	l mm	Nm	Graduation Nm	EAN-No. 4000936+
5121-2 CLT	■ 12.5 = 1/2"	435	20–120	1	104215
5122-2 CLT	■ 12.5 = 1/2"	545	40–200	1	104192
5123-2 CLT	■ 12.5 = 1/2"	660	60–320	2	104222



# Torque Wrenches System 6000 CT

**”High-precision measuring tools for highest demands!“**

- ✓ **Torque Ranges: 2 – 1600 Nm**
- ✓ **Release accuracy tolerance** (in direction of actuation) **± 2% of the preset scale value** according to DIN EN ISO 6789:2003 (3% of the preset scale value: 6150-1 CT, 6160-1 CT)  
Accuracy tolerance **±3%** of the preset scale value according to US standards: 6114-1 CT up to 6132-1 CT
- ✓ **Tested, with certificate**
- ✓ **Knob for locking the set value**
- ✓ **Square drive according to DIN 3120 A, ISO 1174-1A**
- ✓ **Individual serial number**
- ✓ **Reversible ratchets** 10 3/8", 125 1/2", 20 3/4"
- ✓ **Ergonomically shaped**
- ✓ **Safe torque release:**
  - palpable (close gap release)
  - audible (”click“ sound)
  - optical (signal transmitter, depending on model)
- ✓ **Germany Made in Germany**

Safe locking of the handle

Ergonomically shaped handle with collar **reducing the risk of slipping-off and injury**

Accuracy – fine scale graduation

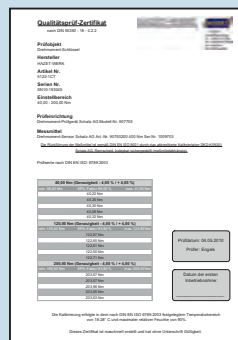
Safe and fast adjustment of the desired torque value by turning the handle

Hard chrome-plated steel tube – slim, but very sturdy and wear-resistant

Integrated shift lever with free running function (125 1/2 model) **reducing the risk of injury and malfunction**

User-friendly reversible ratchet  
**Service-friendly** (do-it-yourself repair kits for ratchets available)

Square drive solid to the wrench – no risk of loss



**With serial number and certificate**

- ✓ **For applications requiring low torque ranges of 1 – 40 Nm**
- ✓ **Especially suitable for:**
  - Engines
  - Gearboxes
  - Industry
  - Machine construction
  - Model making

Release accuracy tolerance: **± 2%** or **± 4%** (6106-1 CT) of the preset scale value

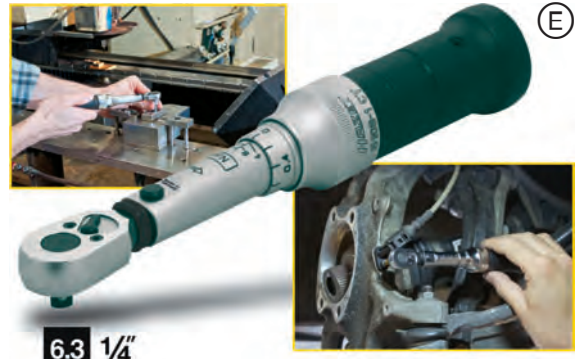


**– Safe in safe box with display window! –**

6.3 1/4"

**Torque Wrench – SYSTEM 6000 CT – Release Accuracy Tolerance ± 2% \*)**

- With automatic close-gap release, palpable and audible when torque setting is reached
- Easy and safe adjustment of the desired torque value by turning the handle
- **Release accuracy tolerance** (in direction of actuation) **± 2% of scale value**  
6106-1 CT: ± 4% release accuracy tolerance
- Application: engines, gearboxes, machines, industry, model making
- Without signal transmitter
- DIN EN ISO 6789:2003 (D), Square according to DIN 3120, ISO 1174-1
- **Made in Germany**



HAZET No.	Drive	l mm	Nm	Graduation Nm	Tolerance	EAN-No. 4000996+
6106-1 CT	■ 6.3 = 1/4"	197	1– 6	0.1	4	173167
6108-1 CT	■ 6.3 = 1/4"	198	2– 10	0.2	2	062218
6109-2 CT	■ 6.3 = 1/4"	256	4– 40	0.4	2	080564

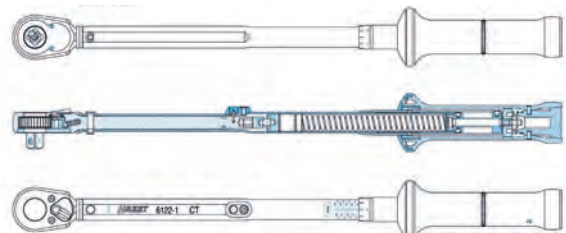
**Torque Wrench – SYSTEM 6000 CT – Release Accuracy Tolerance ± 2%**

- **Release accuracy tolerance ± 2% of scale value** in direction of actuation
- High-precision measuring tools for highest demands
- **Hard chrome-plated** steel tube – slim, but very sturdy and wear-resistant
- Safe storage in safe box with display window
- Safety lock at the handle
- Safe torque release:
  - palpable (close gap release)
  - audible ("click" sound)
- Knob for locking the set value
- User-friendly reversible ratchet
- **Service-friendly** (Do-It-Yourself repair kits for ratchets available)
- Integrated shift lever
- Easy and safe adjustment of the desired torque value by turning the handle
- Ergonomically shaped handle with collar **reducing the risk of slipping-off and injury**
- Accuracy – fine scale graduation
- With serial number and certificate
- Surface: hard chrome plated
- DIN EN ISO 6789:2003 (D), Square according to DIN 3120, ISO 1174-1
- **Made in Germany**



o = without signal transmitter

HAZET No.	Drive	l mm	Nm	Graduation Nm	EAN-No. 4000996+
6110-1 CT	■ 10 = 3/8"	335	5– 60	0.5	025022
6111-1 CT	■ 10 = 3/8"	389	20– 120	1	025077
6121-1 CT	■ 12.5 = 1/2"	435	20– 120	1	025220
6122-1 CT	■ 12.5 = 1/2"	543	40– 200	1	025268
6123-1 CT	■ 12.5 = 1/2"	659	60– 320	2	025367
6143-1 CT o	■ 20 = 3/4"	803	100– 400	2.5	025466
6144-1 CT o	■ 20 = 3/4"	1040	200– 500	2.5	025541
6145-1 CT o	■ 20 = 3/4"	1280	300– 800	2.5	025565





Ingenious Tools

## Torque Technology – System 6000 CT

### Torque Wrench – SYSTEM 6000 CT – Release Accuracy Tolerance ± 3% (6170-1 CT 4%)

#### For highest torque values

- Especially suited for industrial climbers
- Application on wind turbines, dockyards, heavy industry, on commercial vehicles etc.
- To be disassembled in two parts (6170-1 CT: three parts) with release tool
- In carrier bag with carrying handle and shoulder strap
- **Release accuracy tolerance ± 3% of scale value** (in direction of actuation) (6170-1 CT ± 4%)
- Screw tightening also possible with ratchet shaft. For torque controlled screw tightening always use the complete wrench.

🇩🇪 **Made in Germany**



HAZET No.	Drive	l mm	Nm	Graduation Nm	Tolerance	EAN-No. 4000896+
<b>1000 Nm Torque Wrench</b>						
<b>Weight only approx. 10 kg</b>						
• Release torque only 590 N (60 kg) with 1000 Nm						
• Length ratchet shaft 903 mm, handle 930 mm						
6150-1 CT	■ 20 = 3/4"	1788	400–1000	5	3	141067
<b>1600 Nm Torque Wrench</b>						
<b>Weight only approx. 14 kg</b>						
• Release torque only 685 N (70 kg) with 1600 Nm						
• Length ratchet shaft 1205 mm, handle 1320 mm						
6160-1 CT	■ 25 = 1"	2455	600–1600	5	3	155316
<b>2000 Nm Torque Wrench</b>						
<b>Weight only approx. 18 kg</b>						
• Release torque only 685 N (70 kg) with 2000 Nm						
• Length ratchet shaft 1317 mm, extension 645 mm, handle 1203 mm						
• Total length (mounted): 3034 mm						
6170-1 CT	■ 25 = 1"	3034	800–2000	6	4	177776

### Torque Wrench – SYSTEM 6000 CT – US STANDARDS – Release Accuracy Tolerance ± 3%

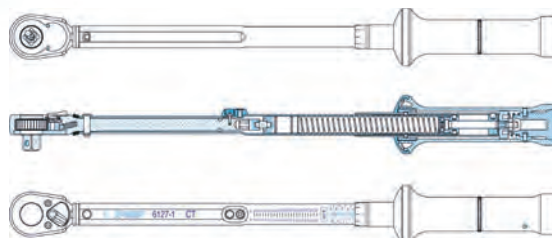
- **According to US standards**
- Scale graduation in **lbf.ft**
- **Release accuracy tolerance ± 3% of scale value** in direction of actuation
- **With reversible ratchet**
- Knob for locking the set value
- In safe box
- DIN EN ISO 6789:2003 (D), Square according to DIN 3120, ISO 1174-1

🇩🇪 **Made in Germany**



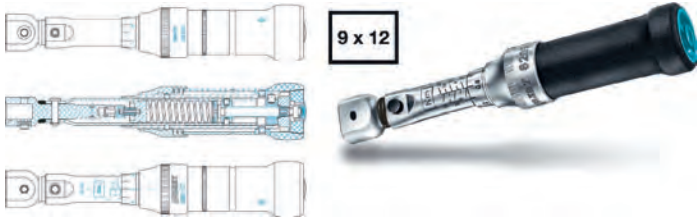
o = without signal transmitter

HAZET No.	Drive	l mm	Nm	Graduation lbf.ft	lbf.ft.	EAN-No. 4000896+
6114-1 CT	■ 10 = 3/8"	333	6.8– 54.2	0.5	5– 40	078424
6115-1 CT	■ 10 = 3/8"	390	27.1– 135.6	0.5	20– 100	025084
6127-1 CT	■ 12.5 = 1/2"	545	54.2– 271.2	1	40– 200	025381
6128-1 CT	■ 12.5 = 1/2"	660	67.8– 339	2	50– 250	076116
6132-1 CT	o ■ 20 = 3/4"	1280	162.7– 813.5	2	120– 600	078455



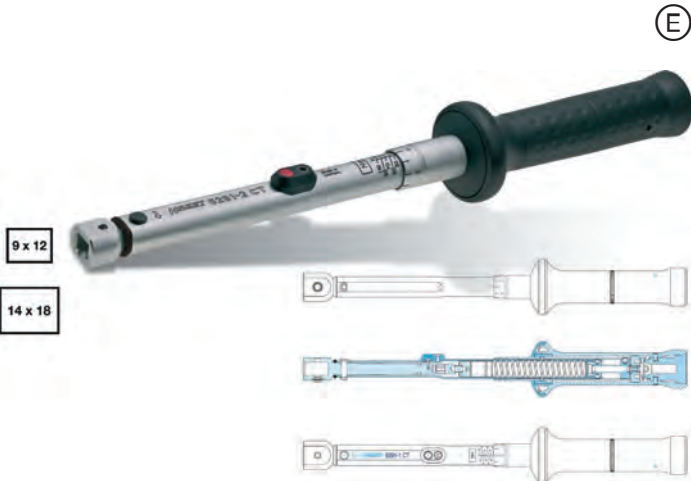


**Torque Wrench – SYSTEM 6000 CT – Release Accuracy Tolerance ± 2%**



- With plug-and-socket connection to accommodate insert tools
- **Release accuracy tolerance** (in direction of actuation) ± 2% of scale value
- DIN EN ISO 6789:2003 (D)
- **Made in Germany**

HAZET No.	Drive	l mm	Nm	Graduation Nm	EAN-No. 4000896+
6280-1 CT o	9 x 12	180	2–10	0.2	026005
6282-1 CT o	9 x 12	240	4–40	0.4	080540



- With plug-and-socket connection to accommodate insert tools
- **Release accuracy tolerance** (in direction of actuation) ± 2% of scale value
- In safe box
- DIN EN ISO 6789:2003 (D)
- **Made in Germany**

HAZET No.	Drive	l mm	Nm	Graduation Nm	EAN-No. 4000896+
6290-1 CT	9 x 12	305	5– 60	0.5	026043
6291-2 CT	9 x 12	388	20–120	1	026104
6291-1 CT	14 x 18	400	20–120	1	026074
6292-1 CT	14 x 18	510	40–200	1	026135
6293-1 CT	14 x 18	620	60–320	2	026173



**Torque Wrench – SYSTEM 6000 CT – Release Accuracy Tolerance ± 2%**

- With plug-and-socket connection to accommodate insert tools
- **Release accuracy tolerance** (in direction of actuation) ± 2% of scale value
- In safe box
- DIN EN ISO 6789:2003 (D)
- **Made in Germany**

HAZET No.	Drive	l mm	Nm	Graduation Nm	EAN-No. 4000896+
<b>Without signal transmitter</b>					
6294-1 CT	14 x 18	715	100–400	2.5	026197
<b>Without signal transmitter</b>					
6295-1 CT	14 x 18	955	200–500	2.5	026203
<b>Without signal transmitter</b>					
6296-1 CT	14 x 18	1195	300–800	2.5	026210

**Torque Tool Assortment**



435 x 215 x 62 mm

**29 pieces, in sheet metal box with plastic insert**  
**Made in Germany**

- Contents:
- 6290-1 CT 6402-1
  - 6450 c-7 8 9 10 11 12 13 14 15 16 17
  - 6612 c-10 11 12 13 14 17
  - 6630 c-7 8 10 11 12 13 14 15 16 17

HAZET No.	EAN-No. 4000896+
6290-1 CT/29	026067

**Torque Tool Assortment**



578 x 235 x 88 mm

**28 pieces, in sheet metal box with plastic insert**  
**Made in Germany**

- Contents:
- 6292-1 CT 6404-1
  - 6450 d-13 14 15 16 17 18 19 21 22 24 27 30 32
  - 6630 d-13 14 15 16 17 18 19 21 22 24 27 30 32

HAZET No.	EAN-No. 4000896+
6292-1 CT/28	026166

Explication of effective lengths of Insert Tools and further suitable Insert Tools see from page 158 on



## Torque Technology – System 6000 CT

### Repair Set



**Made in Germany**

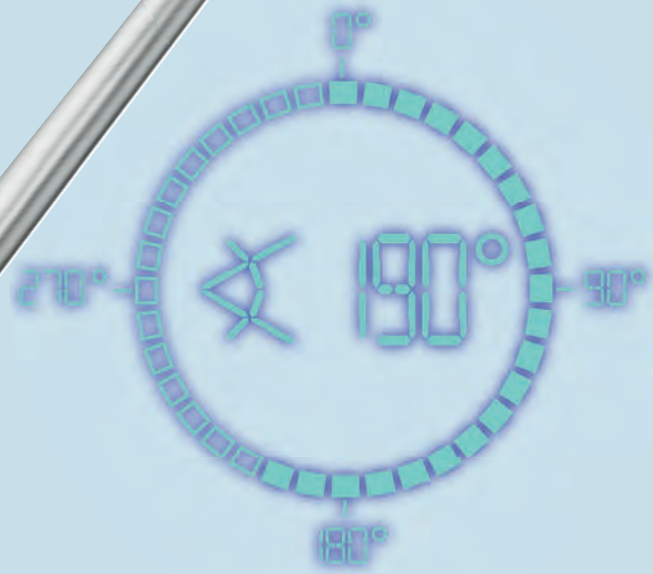
HAZET No.	EAN-No. 4000896+
<b>Replacement Set for shift lever</b> consisting of: shift lever, screws, ball, compression spring for 1016, 1016/2, 6132-1 CT, 6143 CT, 6143-1 CT, 6143-01 CT, 6144 CT, 6144-1 CT, 6144-01 CT, 6145 CT, 6145-1 CT, 6145-01 CT, 6146-1 CT	001972
<b>Replacement Set for ratchet wheel 20 = 3/4" ■</b> consisting of: ratchet wheel, pawl, shift lever, screws, ball, compression spring for 1016, 1016/2, 6132-1 CT, 6143 CT, 6143-1 CT, 6143-01 CT, 6144 CT, 6144-1 CT, 6144-01 CT, 6145 CT, 6145-1 CT, 6145-01 CT, 6146-1 CT	001989
<b>Ersatzteil-Satz Schalthebel</b> bestehend aus: Schalthebel, Schrauben, Kugel, Druckfeder für 1116, 6150-1 CT, 6160-1 CT	003228
<b>Replacement Set for ratchet wheel 25 = 1" ■</b> consisting of: shift lever, screws, ball, compression spring, pawl, ratchet wheel for 1116, 6160-1 CT	003235
<b>Replacement Set for shift lever</b> consisting of: shift lever, screws, ball, compression spring, pawl for 8816 G, 8816 GK, 8816 P, 8816 S, 8816 ST, 916 K, 2264-1, 6110 CT, 6110-1 CT, 6111-1 CT, 6114-1 CT, 6115-1 CT, 6402-1, 6402-1 S, 6408-1	144617
<b>Replacement Set for ratchet wheel 10 = 3/8" ■</b> consisting of: ratchet wheel, pawl, shift lever, screws, ball, compression spring for 8816 G, 8816 GK, 8816 P, 8816 ST, 6110 CT, 6110-1 CT, 6111-1 CT, 6114-1 CT, 6115-1 CT, 6402-1	042234
<b>Replacement Set for shift lever</b> consisting of: shift lever, screws, ball, compression spring for 6108-1 CT, 6109-1 CT, 6109-2 CT, 6401-1, 6401-1 S, 6408	146048
<b>Replacement Set for ratchet wheel 6,3 = 1/4" ■</b> consisting of: ratchet wheel, pawl, shift lever, screws, ball, compression spring for 5108-2 CT, 6108-1 CT, 6109-1 CT, 6109-2 CT, 6401-1	111169
<b>Replacement Set for ratchet wheel 6,3 = 1/4" ■</b> consisting of: ratchet wheel, pawl, shift lever, screws, ball, compression spring for 6401-1 S	111152
<b>Replacement Set for shift lever</b> consisting of: shift lever, screws, ball, compression spring, spring washer and locking ring for 6403-1, 6403-1 S, 6404-1, 6404-1 S	070756
<b>Replacement Set for ratchet wheel 12,5 = 1/2" ■</b> consisting of: ratchet wheel, pawl, shift lever, screws, ball, compression spring, spring washer, locking ring for 6403-1, 6404-1	070749
<b>Replacement Set for ratchet wheel 12,5 = 1/2" ■</b> consisting of: ratchet wheel, pawl, shift lever, screws, ball, compression spring, spring washer, locking ring for 6403-1 S, 6404-1 S	070817
<b>Replacement Set for lock</b> consisting of: lock spring, lock cap, cylinder, key, 2 headless screws for 6110 CT	025046

### Repair Set

HAZET No.	EAN-No. 4000896+
<b>Replacement Set for twist lock</b> , consisting of: lock spring, twist lock with 2 headless screws for 6010-1 CT, 6110-1 CT, 6114-1 CT, 6290-1 CT	025053
<b>Replacement Set for lock</b> consisting of: lock spring, lock cap, cylinder, key, 2 headless screws for 6121 CT, 6122 CT, 6123 CT	025282
<b>Replacement Set for twist lock</b> , consisting of: lock spring, twist lock with 2 headless screws for 5121-2 CLT, 5122-2 CLT, 5123-2 CLT, 6021-1 CT, 6022-1 CT, 6023-1 CT, 6111-1 CT, 6115-1 CT, 6121-1 CT, 6122-1 CT, 6123-1 CT, 6127-1 CT, 6128-1 CT, 6291-1 CT, 6292-1 CT, 6293-1 CT, 6722 TAC, 6291-2 CT	025299
<b>Replacement Set for optical signal transmitter</b> , consisting of: red button, compression spring, black housing, pin, screw for 6021-1 CT, 6022-1 CT, 6023-1 CT, 6110 CT, 6110-1 CT, 6111-1 CT, 6114-1 CT, 6115-1 CT, 6121 CT, 6121-1 CT, 6122 CT, 6122-1 CT, 6123 CT, 6123-1 CT, 6127-1 CT, 6128-1 CT, 6291-1 CT, 6291-2 CT, 6290-1 CT, 6291 CT, 6292-1 CT, 6293-1 CT	025305
<b>Replacement Set for shift lever</b> consisting of: shift lever, screws, ball, compression spring, spring washer, locking ring for 5121-2 CLT, 5121-2 CT, 5122-2 CLT, 5122-2 CT, 5122 ST-1, 5123-2 CLT, 5123-2 CT, 5128-2 CLT, 6121-1 CT, 6121 CT, 6122-1 CT, 6122 CT, 6123-1 CT, 6123 CT, 6127-1 CT, 6128-1 CT, 6722 TAC	025329
<b>Replacement Set for ratchet wheel 12,5 = 1/2" ■</b> consisting of: ratchet wheel, pawl, shift lever, screws, ball, compression spring, spring washer, locking ring for 5121-2 CLT, 5121-2 CT, 5122-2 CLT, 5122-2 CT, 5122 ST-1, 5123-2 CLT, 5123-2 CT, 5128-2 CLT, 6121 CT, 6121-1 CT, 6122-1 CT, 6122 CT, 6123-1 CT, 6123 CT, 6127-1 CT, 6128-1 CT, 6722 TAC	025343
<b>Replacement Set for ratchet wheel 20 = 3/4" ■</b> consisting of: ratchet wheel, pawl, shift lever, screws, ball, compression spring for 6150-1 CT	151431
<b>Reversible ratchet with screw</b> , complete (exchangeable): 20 = 3/4" ■ until end of 2004 for 6132-1 CT, 6143 CT, 6143-1 CT, 6144 CT, 6144-1 CT, 6145 CT, 6145-1 CT, 6146-1 CT	111190
<b>Replacement Set for cylinder lock</b> consisting of: cylinder, lock cap, lock spring, key and cylinder lock for 6143 CT, 6144 CT, 6145 CT	025503
<b>Replacement Set for twist lock</b> , consisting of: twist lock, lock spring and cylinder screw for 6132-1 CT, 6143-1 CT, 6144-1 CT, 6145-1 CT, 6150-1 CT, 6160-1 CT, 6243-1 CT, 6244-1 CT, 6245-1 CT, 6146-1 CT, 6246-1 CT, 6294-1 CT, 6295-1 CT, 6296-1 CT	025527
<b>Reversible ratchet with pin</b> , complete (exchangeable): 20 = 3/4" ■ since 2005 for 6132-1 CT, 6144 CT, 6144-1 CT, 6145 CT, 6145-1 CT, 6146-1 CT	111206
<b>Torque insert lock with screw</b> for 6243-1 CT, 6244-1 CT, 6245-1 CT, 6294-1 CT, 6295-1 CT until end of 2004, 6296-1 CT until end of 2004	026180

# Electronic Torque Wrench with Built-in Angle Gauge – SYSTEM 7000 eTAC

- ✓ As Basic and TOP Version
- ✓ 10– 400 Nm
- ✓ Choice of measuring units:  
Basic Version Nm / lbf.ft  
TOP Version Nm / lbf.ft / lbf.in / kgf.m
- ✓ Precise torque  
Basic Version  $\pm 2\%$ ,  $\pm 1$  digit  
TOP Version  $\pm 1\%$ ,  $\pm 1$  digit
- ✓ Rotation angle range up to 999 degree
- ✓ 360° LED-signal
- ✓ Vibration
- ✓ Audible signal
- ✓ Display 180° switchable
- ✓ Documentation



System 7000 eTAC



**Torque Technology – System 7000 eTAC**

**Electronic Torque Wrench with Built-in Angle Gauge – SYSTEM 7000 eTAC – Basic Version**



9 x 12

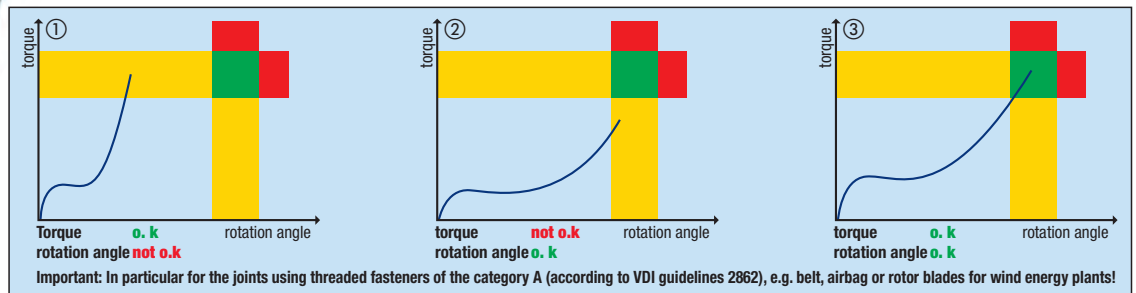
10 3/8

14 x 18

12.5 1/2

14 x 18

20 3/4



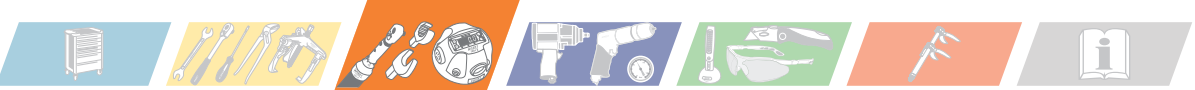
Menu languages now also available: Italian, French, Chinese and Russian (sep. HAZET-No. on request)

- Testing accuracy  $\pm 2\%$  /  $\pm 1$  Digit (or  $\pm 1^\circ$ ) in rotation to the right or left
- High-precision torque wrench with built-in angle gauge
- Ergonomic tool design, especially geared to the user and suitable for the professional use
- 2-component handle made of impact resistant fiber-glass reinforced plastic with soft handle elements
- Three signals alert the user during screwing process: audible signal (buzzer), vibration signal and a LED display with "traffic light function" that is visible from all around.
- Big and easily readable display, 180° rotatable
- Indication of the measuring values in 13 mm font size, including a rating of the screwing process (o.k./not o.k)
- Simple and clearly structured menu navigation with easily readable 5 mm font size in English and German
- Safety switch-on and switch-off (2 different buttons) and automatic energy-saving stand-by mode (time dependent)
- Choice of measuring units: Nm and lbf.ft
- Rotation angle range up to 999 degree
- Menu locking to prevent unintentional change of setting values, 4-digit code is freely selectable.
- Memory capacity up to 200 readings, incl date and time (data reading in the display)
- Indication of battery condition and memory
- 4 standard batteries (AA – 1.5 V) ensure long service life

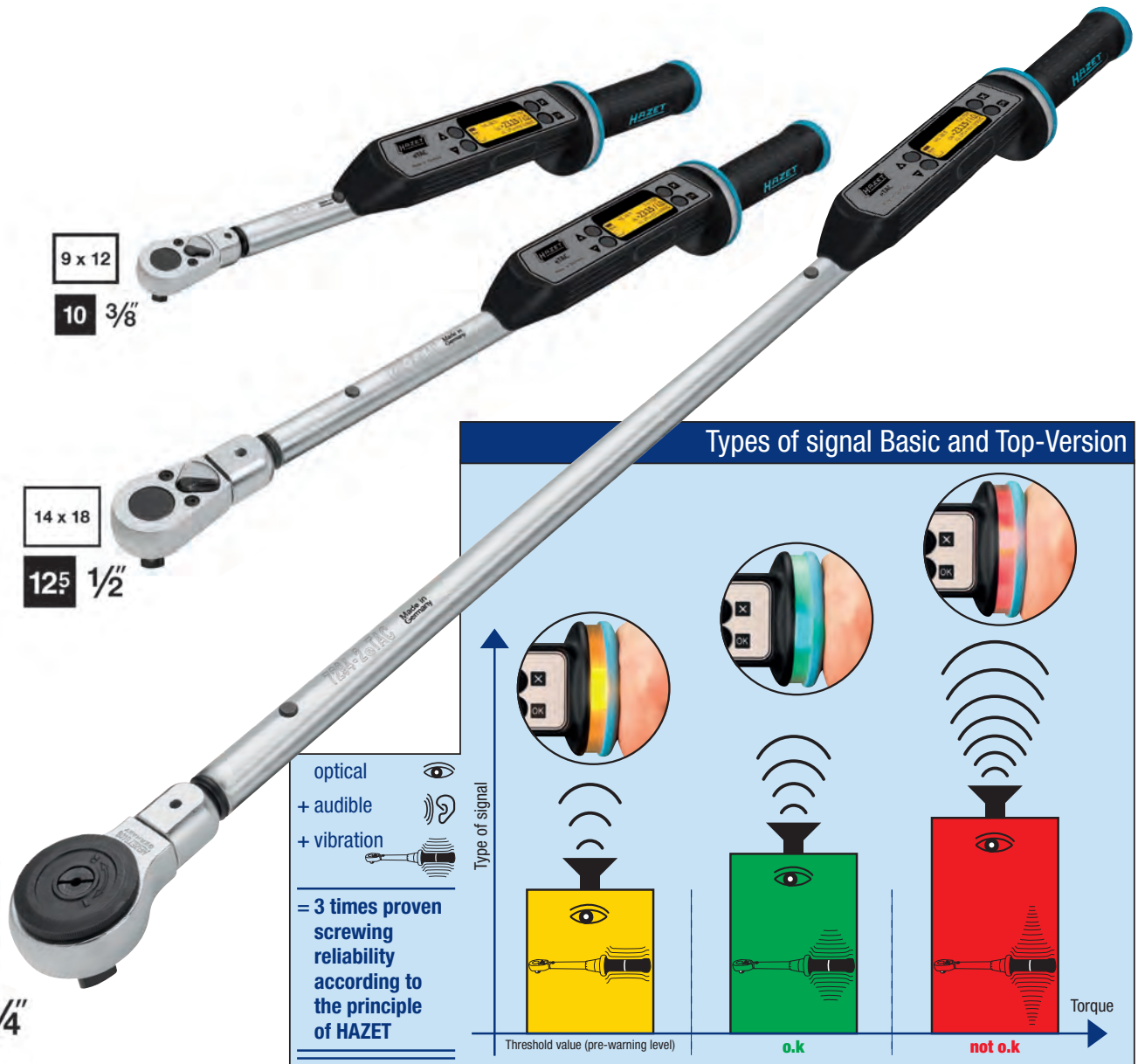
- Includes detailed operating instructions and certificate in aluminium frame case with foam insert, also includes HAZET Insert Reversible Ratchet
- Offers possibility to select or program the effective length for other insert tools (precondition for the correct torque/angle measurement)
- Programming and evaluation software for storage data with access via Mini-USB connection optionally available (available on request at extra charge)
- Storage data may be transmitted by radio, WLAN or Bluetooth (available on request at extra charge)
- Release accuracy tolerance according to ISO 6789 – DIN EN ISO 6789 – NF EN ISO 6789

**Made in Germany**

HAZET No.	Drive	l / mm	Nm	EAN-No. 4000896+
				<ul style="list-style-type: none"> <li>• Delivery includes Insert Reversible Ratchet 6402-1 ■ 10 = 3/8"</li> <li>• Length with/without insert tool: 425.5 mm/380.5 mm</li> <li>• Weight with/without insert tool: 870 g/780 g</li> </ul>
<b>7291-1 eTAC</b>	9 x 12	380.5	10–100	160938
				<ul style="list-style-type: none"> <li>• Delivery includes Insert Reversible Ratchet 6404-1 ■ 12.5 = 1/2"</li> <li>• Length with/without insert tool: 580 mm/518 mm</li> <li>• Weight with/without insert tool: 1250 g/980 g</li> </ul>
<b>7292-1 eTAC</b>	14 x 18	518	20–200	160952
				<ul style="list-style-type: none"> <li>• Delivery includes Insert Reversible Fine Tooth Ratchet 6406 ■ 20 = 3/4"</li> <li>• Length with/without insert tool: 1018.5 mm/942.5 mm</li> <li>• Weight with/without insert tool: 3200 g/2300 g</li> </ul>
<b>7294-1 eTAC</b>	14 x 18	942.5	40–400	160976



**Electronic Torque Wrench with Built-in Angle Gauge – SYSTEM 7000 eTAC – TOP Version**



9 x 12

10 3/8

14 x 18

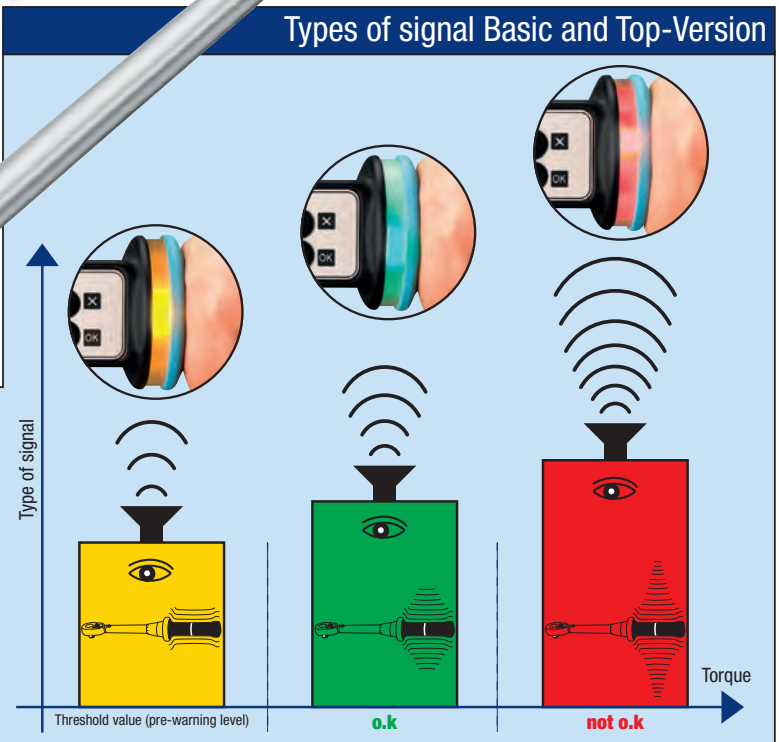
12.5 1/2

14 x 18

20 3/4

optical  
+ audible  
+ vibration

**= 3 times proven screwing reliability according to the principle of HAZET**



- Menu languages now also available: Italian, French, Chinese and Russian (sep. HAZET-No. on request)**
- Testing accuracy  $\pm 1\%$  /  $\pm 1$  digit (or  $\pm 1^\circ$ ) in rotation to the right or left
  - High-precision torque wrench with built-in angle gauge
  - Ergonomic tool design, especially geared to the user and suitable for the professional use
  - 2-component handle made of impact resistant fiber-glass reinforced plastic with soft handle elements
  - Three signals alert the user during screwing process: audible signal (buzzer), vibration signal and a LED display with "traffic light function" that is visible from all around.
  - Big and easily readable display, 180° rotatable
  - Indication of the measuring values in 13 mm font size, including a rating of the screwing process (o.k./not o.k.)
  - Simple and clearly structured menu navigation with easily readable 5 mm font size in English and German
  - Safety switch-on and switch-off (2 buttons) and automatic energy-saving stand-by mode **time dependent**
  - Choice of measuring units: Nm and lbf.ft, **lbf.in and kgf.m**
  - Rotation angle range up to 999 degree
  - Menu locking to prevent unintentional change of setting values, 4-digit code is freely selectable.
  - Indication of battery condition and memory
  - 4 standard batteries (AA – 1.5 V) ensure long service life
  - **Setting of the signals:** audible signal (buzzer) **on/ off** and vibration **on/ off**
  - Alterable threshold value (pre-warning level)
  - Switchable display backlight
  - Memory capacity up to **2000 readings**, incl. date and time
  - Offers possibility to program flow charts and sets of parameters

- Programmable angle control during torque tightening and torque control during angle tightening
- Includes detailed operating instructions and certificate in aluminium frame case with foam insert, also includes HAZET Insert Reversible Ratchet
- Offers possibility to select or program the effective length for other insert tools (precondition for the correct torque/angle measurement)
- Programming and evaluation software for storage data with access via Mini-USB connection optionally available (available on request at extra charge)
- Storage data may be transmitted by radio, WLAN or Bluetooth (available on request at extra charge)
- Listed on the **MERCEDES-BENZ GOTIS** information platform
- Release accuracy tolerance according to ISO 6789 – DIN EN ISO 6789 – NF EN ISO 6789

**Made in Germany**

HAZET No.	Drive	l/mm	Nm	EAN-No. 4000896+
7291-2 eTAC	9 x 12	380.5	10–100	160945
7292-2 eTAC	14 x 18	518	20–200	160969
7294-2 eTAC	14 x 18	942.5	40–400	160983

System 7000 eTAC



# Torque Wrenches System 6300 CT

- ✓ **With lockable torque setting**
- ✓ Especially suitable for application in industrial series production
- ✓ Release accuracy tolerance in direction of actuation:  $\pm 2\%$  of scale value according to DIN EN ISO 6789:2003 (D)



## Information HAZET 6391–6392

Adjusting the desired torque value with Adjustment Wrench HAZET 6399 (see below) in conjunction with Torque Tester HAZET 7901 E, 7902 E or any other suitable device.

**All Torque Wrenches of this line (HAZET 6391–6392) are without scale and without signal transmitter**

## Torque Wrench



- **With lockable torque setting**
- Especially suitable for application in industrial series production
- With plug-and-socket connection to accommodate insert tools
- **Release accuracy tolerance:  $\pm 2\%$  of scale value** (in direction of actuation)
- DIN EN ISO 6789:2003 (D)
- **Made in Germany**

HAZET No.	Drive	l mm	Nm	EAN-No. 4000896+
6391-12	9 x 12	125	2–12	027026
6391-25	9 x 12	180	2–25	027040
6391-35	9 x 12	180	15–35	027057

### With factory-set release torque according to your needs

6391–12V	9 x 12	125	2–12	145850
6391–25V	9 x 12	180	2–25	145867
6391–35V	9 x 12	180	15–35	145874

## Torque Wrench



- **With lockable torque setting**
- Especially suitable for application in industrial series production
- With plug-and-socket connection to accommodate insert tools
- **Release accuracy tolerance:  $\pm 2\%$  of scale value** (in direction of actuation)
- DIN EN ISO 6789:2003 (D)
- **Made in Germany**

HAZET No.	Drive	l mm	Nm	EAN-No. 4000896+
6391-50	9 x 12	240	5–50	027064
6391-85	9 x 12	315	15–85	027071

### With factory-set release torque according to your needs

6391–50V	9 x 12	240	5–50	145881
6391–85V	9 x 12	315	15–85	145898

## Torque Wrench



- **With lockable torque setting**
- Especially suitable for application in industrial series production
- With plug-and-socket connection to accommodate insert tools
- **Release accuracy tolerance:  $\pm 2\%$  of scale value** (in direction of actuation)
- DIN EN ISO 6789:2003 (D)
- **Made in Germany**

HAZET No.	Drive	l mm	Nm	EAN-No. 4000896+
6392-200	14 x 18	400	50–200	027118
6392-320	14 x 18	630	60–320	027125

### With factory-set release torque according to your needs

6392–200V	14 x 18	400	50–200	145904
6392–320V	14 x 18	630	60–320	145911

## Adjustment Wrench

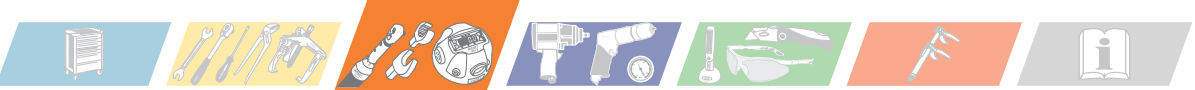


For Torque Wrenches HAZET 6391–6392 (V), to adjust and to lock the torque value

**Made in Germany**

HAZET No.	l mm	EAN-No. 4000896+
6399	167	027170

**Explication of effective lengths of Insert Tools and further suitable Insert Tools see from page 158 on**



# Torque Screwdrivers

- For applications requiring low torque ranges of 0.1 – 10 Nm
- Especially for e.g.:
  - Screwed connections in plastic materials
  - Connections on switch cabinets
  - Model making

## Torque Screwdriver



6.3 1/4"

- Fast and precise setting of torque values with hex head wrench (HAZET 2100-06, included in delivery)
- Torque release clearly palpable and audible by ratcheting when torque setting is reached
- Unlimited loosening torque without torque function
- Bit holding adapter with magnet for all current bits with 6.3 drive or HAZET-Adapter 2304 for the connection with 6.3 sockets HAZET 850
- Release accuracy (tolerance) according to EN ISO 6789
- Application: For all screw connections with low torque e.g. disc brakes on bicycles

Contents:  
Torque handle with bit holding adapter 2239-7,  
hex head wrench 2100-06

Made in Germany

HAZET No.	Drive	Nm	Tolerance	EAN-No. 4000896+
For torque values from 0.6 up to 1.5 Nm				
6001-1.5/3	6.3 = 1/4"	0.6–1.5	10	141678
<b>According to VW Service Information</b>				
e.g. for the fastening screws at the air-filter housing on 1.4 l engine with turbocharger on VW Eos, Golf, Golf Plus and Passat				
6001-3.0/3	6.3 = 1/4"	1.5–3	6	141685
6001-5.4/3	6.3 = 1/4"	3–5.4	6	141692
Adapter 6.3 = 1/4" – 6.3 = 1/4" (see page 112)				
2304	6.3 = 1/4"	-	-	016020

## Torque Screwdriver – SYSTEM 6000 CT – Release Accuracy Tolerance – ± 5%



6.3 1/4"

- Release accuracy tolerance (in direction of actuation) ± 5% of scale value
- For screwdriver bits with 6.3 = 1/4" outside hexagon drive
- Operation of sockets (□ drive 6.3 = 1/4") in conjunction with Adapter HAZET 2304
- Application, e.g. on screwed connections in plastic materials and connections on switch cabinets and model making
- DIN EN ISO 6789:2003 (D)

HAZET No.	Drive	l mm	Nm	Graduation Nm	cNm	EAN-No. 4000896+
6002 CT	6.3 = 1/4"	170	0.1–1.2	0.01	10–120	023004
6003 CT	6.3 = 1/4"	230	1–6	0.1	100–600	023011
Adapter 6.3 = 1/4" – 6.3 = 1/4" (see page 112)						
2304	6.3 = 1/4"	-	-	-	-	016020

# Insert Tools



Suitable Torque Wrenches see pages 152 and 157

## Tool Hanger



- Forged from solid steel
  - With plug-and-socket connection to accommodate insert tools
  - For loosening tight screwed connections
  - Without any torque functioning
- Made in Germany

HAZET No.	Drive	l mm	EAN-No. 4000896+
6396	9 x 12	405	027132
6397	14 x 18	635	027149

## Insert Reversible Ratchet



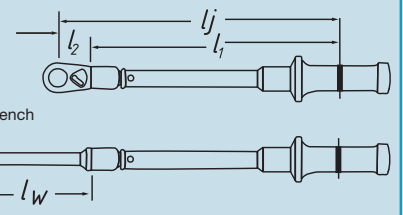
(E)

- 6401-1 20 teeth – max. 40 Nm
  - 6402-1 30 teeth – max. 120 Nm
  - 6403-1 32 teeth – max. 120 Nm
  - 6404-1 32 teeth – max. 300 Nm
  - Drop-forged
  - Surface: chrome-plated
  - Square according to DIN 3120, ISO 1174-1
- Made in Germany

HAZET No.	Drive	Drive	l mm	l <sub>2</sub> mm	EAN-No. 4000896+
6401-1	6.3 = 1/4"	9 x 12	46.5	19.5	027439
6402-1	10 = 3/8"	9 x 12	61	30	027460
6403-1	12.5 = 1/2"	9 x 12	74.5	38.5	027521
6404-1	12.5 = 1/2"	14 x 18	83.5	38.5	027552

## Data for effective length on Torque Wrenches with (different) Insert Tools

- MDE = Torque to be selected
- MDV = Prescribed torque
- l<sub>j</sub> = Standard length adjustment with adjusting device
- l<sub>1</sub> = Effective length of torque wrench
- l<sub>2</sub> = Gauge dimension of adjusting device
- l<sub>w</sub> = Gauge dimension of extended insert tool



$$MDE = \frac{(l_1 + l_2) \times MDV}{l_1 + l_w}$$

Dimensions of various HAZET Torque Wrenches:

HAZET No.	l <sub>1</sub> mm	Adjusted with HAZET-No.	l <sub>2</sub> mm	HAZET No.	l <sub>1</sub> mm	Adjusted with HAZET-No.	l <sub>2</sub> mm	HAZET No.	l <sub>1</sub> mm
6280-1 CT	140	6401-1 (S)	19.5	6292-1 CT	432	6404-1 (S)	38.5	6391- 12 (V)	100
6282-1 CT	200	6401-1 (S)	19.5	6293-1 CT	547	6404- 1 (S)	38.5	6391- 25 (V)	130
6290-1 CT	245	6402-1 (S)	30	6294-1 CT	640	6406	44	6391- 35 (V)	130
6291-1 CT	330	6404-1 (S)	38.5	6295-1 CT	880	6406	44	6391- 50 (V)	190
6291-2 CT	312	6402-1 (S)	30	6296-1 CT	1120	6406	44	6391- 85 (V)	260
								6392-200 (V)	345
								6392-320 (V)	570



## Torque Technology – Insert Tools

Ingenious Tools

### Insert Reversible Ratchet



- Fine tooth, **72 teeth**, rotation angle 5°
- Drop-forged
- Surface: chrome-plated
- Square according to DIN 3120, ISO 1174-1

**Made in Germany**

HAZET No.	Drive	Drive	l mm	l <sub>2</sub> mm	EAN-No. 4000896+
6401 N	6.3 = 1/4"	9 x 12	46	17.5	115204
6402	10 = 3/8"	9 x 12	58.5	26	027453
6403	12.5 = 1/2"	9 x 12	58.5	26	027514
6404	12.5 = 1/2"	14 x 18	70.5	27	027545
6406	20 = 3/4"	14 x 18	101	44	027576



- With locking device and quick release press button

- 6401-1 S 20 teeth
- 6402-1 S 30 teeth
- 6403-1 S 32 teeth
- 6404-1 S 32 teeth
- Drop-forged
- Surface: chrome-plated
- Square according to DIN 3120, ISO 1174-1

**Made in Germany**

HAZET No.	Drive	Drive	l mm	l <sub>2</sub> mm	EAN-No. 4000896+
6401-1 S	6.3 = 1/4"	9 x 12	46.5	19.5	027446
6402-1 S	10 = 3/8"	9 x 12	61	30	027477
6403-1 S	12.5 = 1/2"	9 x 12	74.5	38.5	027538
6404-1 S	12.5 = 1/2"	14 x 18	83.5	38.5	027569

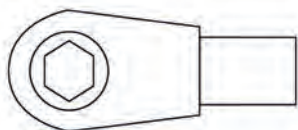
### Insert Reversible Ratchet for Bits



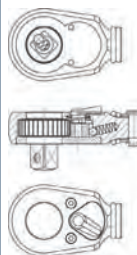
- For screwdriver bits
- Drop-forged
- Surface: chrome-plated

**Made in Germany**

HAZET No.	Drive	Drive	l mm	l <sub>2</sub> mm	EAN-No. 4000896+
○ drive 6.3 = 1/4"					
20 teeth					
6408	6.3 = 1/4"	9 x 12	46.5	19.5	027583
○ drive 8 = 5/16"					
30 teeth					
6408-1	8 = 5/16"	9 x 12	46.5	30	027590



### Repair Set



**Made in Germany**

HAZET No.

EAN-No. 4000896+

#### Replacement Set for shift lever

consisting of:  
shift lever, screws, ball, compression spring, pawl for 8816 G, 8816 GK, 8816 P, 8816 S, 8816 ST, 916 K, 2264-1, 6110 CT, 6110-1 CT, 6111-1 CT, 6114-1 CT, 6115-1 CT, 6402-1, 6402-1 S, 6408-1

**8816 P/6** 144617

#### Replacement Set for ratchet wheel 10 = 3/8"

consisting of:  
ratchet wheel, pawl, shift lever, screws, ball, compression spring for 8816 G, 8816 GK, 8816 P, 8816 ST, 6110 CT, 6110-1 CT, 6111-1 CT, 6114-1 CT, 6115-1 CT, 6402-1

**8816 P/7 N** 042234

#### Replacement Set for shift lever

consisting of:  
shift lever, screws, ball, compression spring for 6108-1 CT, 6109-1 CT, 6109-2 CT, 6401-1, 6401-1 S, 6408

**6401-1/6** 146048

#### Replacement Set for ratchet wheel 6,3 = 1/4"

consisting of:  
ratchet wheel, pawl, shift lever, screws, ball, compression spring for 5108-2 CT, 6108-1 CT, 6109-1 CT, 6109-2 CT, 6401-1

**6401/7** 111169

#### Replacement Set for ratchet wheel 6,3 = 1/4"

consisting of: ratchet wheel, pawl, shift lever, screws, ball, compression spring for 6401-1 S

**6401-1 S/7** 111152

#### Replacement Set for shift lever

consisting of: shift lever, screws, ball, compression spring, spring washer and locking ring for 6403-1, 6403-1 S, 6404-1, 6404-1 S

**6403-1/7** 070756

#### Replacement Set for ratchet wheel 12.5 = 1/2"

consisting of:  
ratchet wheel, pawl, shift lever, screws, ball, compression spring, spring washer, locking for 6403-1, 6404-1

**6403-1/9** 070749

#### Replacement Set for ratchet wheel 12,5 = 1/2"

consisting of:  
ratchet wheel, pawl, shift lever, screws, ball, compression spring, spring washer, locking ring for 6403-1 S, 6404-1 S

**6403-1 S/9** 070817

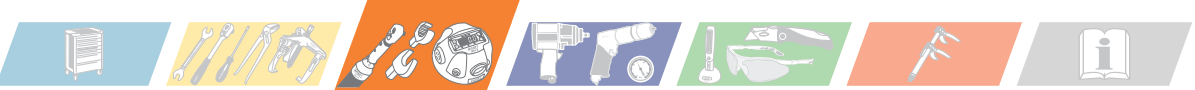
#### Replacement Set for ratchet wheel 10 = 3/8"

consisting of:  
ratchet wheel with quick-release press-button, pawl, shift lever, screws, ball, compression spring for 8816 S, 6402-1 S as well as for re-equipping 8816 P, 8816 G, 8816 GK, 8816 ST, 6110 CT, 6110-1 CT, 6111-1 CT, 6114-1 CT, 6115-1 CT, 6402-1

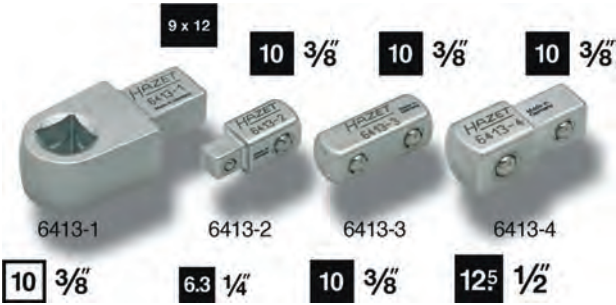
**8816 S/7** 048465

Insert Tools





### Insert Holder with Square Drives



- Set of 4 pieces
- Made in Germany

Contents:  
6413-1 2 3 4

HAZET No.	Drive	EAN-No. 4000896+
6413/4	9 x 12	027651

### Spare Parts

• Made in Germany

HAZET No.	Drive	Drive	l mm	l <sub>2</sub> mm	EAN-No. 4000896+
Holder square insert 9 x 12 □ drive 10 = 3/8"					
6413-1	■ 10 = 3/8"	9 x 12	43.5	17.5	027644
Sliding square tangs					
■ 10 = 3/8"					
6413-2	■ 6.3 = 1/4" □ 10 = 3/8"		22	-	048908
6413-3	■ 10 = 3/8" □ 10 = 3/8"		26	-	048892
6413-4	■ 12.5 = 1/2" □ 10 = 3/8"		30.4	-	048885

### Insert Square Drive



- Surface: chrome-plated
- Square according to DIN 3120, ISO 1174-1
- Made in Germany

HAZET No.	Drive	Drive	l mm	l* mm	EAN-No. 4000896+
6414	■ 12.5 = 1/2"	14 x 18	63.5	25	027668
6416	■ 20 = 3/4"	14 x 18	70	25	027682

### Insert Bit Holder



- Surface: chrome-plated
- ISO 1173
- Made in Germany

HAZET No.	Drive	Drive	l mm	l* mm	EAN-No. 4000896+
6420 b	○ 6.3 = 1/4"	9 x 12	40.5	17.5	027903
6420 c	○ 8 = 5/16"	9 x 12	41.5	17.5	027910
6420 d	○ 8 = 5/16"	14 x 18	58	25	027927

### Insert Adapter



- Surface: chrome-plated
- Made in Germany

HAZET No.	Drive	Drive	l mm	l* mm	EAN-No. 4000896+
Square insert 14 x 18 to 9 x 12					
6423 c	14 x 18	9 x 12	50	34	027934
Square insert 9 x 12 to 14 x 18					
6423 d	9 x 12	14 x 18	45	20	057559

### Blank-End Insert



- Spring, bolt and cover included in delivery
- Caution: when welding-on tools, the release torque values may change. Please pay attention to effective lengths (see table below)
- Made in Germany

HAZET No.	Drive	l mm	EAN-No. 4000896+
6430 c	9 x 12	25	027958
6430 d	14 x 18	38	027965

### Data for effective length on Torque Wrenches with (different) Insert Tools

MDE = Torque to be selected  
MDV = Prescribed torque

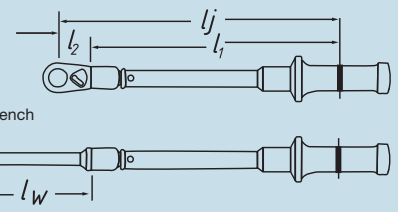
l<sub>j</sub> = Standard length adjustment with adjusting device

l<sub>1</sub> = Effective length of torque wrench

l<sub>2</sub> = Gauge dimension of adjusting device

l<sub>w</sub> = Gauge dimension of extended insert tool

$$MDE = \frac{(l_1 + l_2) \times MDV}{l_1 + l_w}$$



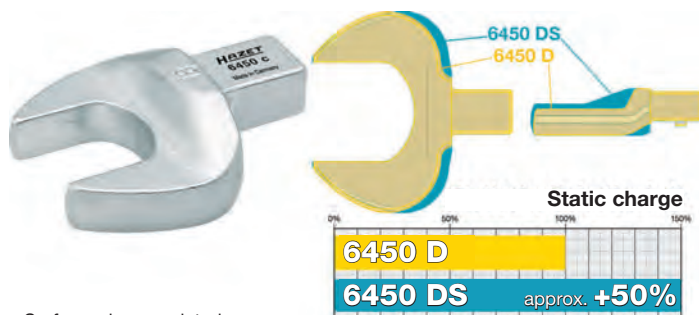
Dimensions of various HAZET Torque Wrenches:

HAZET No.	l <sub>1</sub> mm	Adjusted with HAZET-No.	l <sub>2</sub> mm	HAZET No.	l <sub>1</sub> mm	Adjusted with HAZET-No.	l <sub>2</sub> mm	HAZET No.	l <sub>1</sub> mm
6280-1 CT	140	6401-1 (S)	19.5	6292-1 CT	432	6404-1 (S)	38.5	6391- 12 (V)	100
6282-1 CT	200	6401-1 (S)	19.5	6293-1 CT	547	6404- 1 (S)	38.5	6391- 25 (V)	130
6290-1 CT	245	6402-1 (S)	30	6294-1 CT	640	6406	44	6391- 35 (V)	130
6291-1 CT	330	6404-1 (S)	38.5	6295-1 CT	880	6406	44	6391- 50 (V)	190
6291-2 CT	312	6402-1 (S)	30	6296-1 CT	1120	6406	44	6391- 85 (V)	260
								6392-200 (V)	345
								6392-320 (V)	570



## Torque Technology – Insert Tools

### Insert Open-End Wrench



- Surface: chrome-plated
- Made in Germany

HAZET No.	Drive	l mm	l* mm	EAN-No. 4000896+
6450 c- 7	9 x 12	36.5	17.5	028429
6450 c- 8	9 x 12	37	17.5	028436
6450 c- 9	9 x 12	37.5	17.5	028443
6450 c-10	9 x 12	38	17.5	028320
6450 c-11	9 x 12	38.5	17.5	028337
6450 c-12	9 x 12	38.5	17.5	028344
6450 c-13	9 x 12	39	17.5	028351
6450 c-14	9 x 12	42	20	028368
6450 c-15	9 x 12	42.5	20	028375
6450 c-16	9 x 12	43	20	028382
6450 c-17	9 x 12	43.5	20	028399
6450 c-18	9 x 12	44	20	028405
6450 c-19	9 x 12	45	20	028412

6450 d-13	14 x 18	56.5	25	028450
6450 d-14	14 x 18	57	25	028467
6450 d-15	14 x 18	57.5	25	028474
6450 d-16	14 x 18	58	25	028481
6450 d-17	14 x 18	58.5	25	028498
6450 d-18	14 x 18	59	25	028504
6450 d-19	14 x 18	59.5	25	028511
6450 d-21	14 x 18	60.5	25	028528
6450 d-22	14 x 18	61	25	028535
6450 d-24	14 x 18	62	25	028542
6450 d-27	14 x 18	68.5	32.5	028559
6450 d-30	14 x 18	70	32.5	028566
6450 d-32	14 x 18	71.5	32.5	028573
6450 d-34	14 x 18	73.2	32.5	050178
6450 d-36	14 x 18	73.3	32.5	072507
6450 d-38	14 x 18	72.7	32.5	072514
6450 d-41	14 x 18	79	40	028580

#### Reinforced design for up to 50% higher torque values

6450 DS-30	14 x 18	70	32.5	164134
6450 DS-32	14 x 18	71.5	32.5	164141
6450 DS-34	14 x 18	73.2	32.5	164158
6450 DS-36	14 x 18	73.1	35	164165
6450 DS-41	14 x 18	79	40	164172

### TORX® Box-End Insert Tool



- For outside TORX® screws
- Surface: chrome-plated
- Made in Germany

HAZET No.	Drive	l mm	⊘ mm	⊘ mm	l* mm	EAN-No. 4000896+
6609 d-E 10	14 x 18	58	E10	9.42	25	054794
6609 d-E 11	14 x 18	58.5	E11	10.08	25	054800
6609 d-E 12	14 x 18	59	E12	11.17	25	054817
6609 d-E 14	14 x 18	60	E14	12.90	25	054824
6609 d-E 16	14 x 18	61	E16	14.76	25	054831
6609 d-E 18	14 x 18	62	E18	16.70	25	054848
6609 d-E 20	14 x 18	63.5	E20	18.49	25	054855
6609 d-E 22	14 x 18	64.3	E22	20.32	25	054862
6609 d-E 24	14 x 18	65.3	E24	22.16	25	054879

### Flare Nut Insert Tool



- Surface: chrome-plated
- Made in Germany

HAZET No.	Drive	l mm	l* mm	EAN-No. 4000896+
6612 c-10	9 x 12	42.3	17.5	028726
6612 c-11	9 x 12	42.8	17.5	028733
6612 c-12	9 x 12	43.4	17.5	028740
6612 c-13	9 x 12	43.7	17.5	028757
6612 c-14	9 x 12	44.4	17.5	028764
6612 c-16	9 x 12	45.4	17.5	028771
6612 c-17	9 x 12	45.9	17.5	028788
6612 c-18	9 x 12	46.1	17.5	028795
6612 c-19	9 x 12	46.8	17.5	028801
6612 c-21	9 x 12	48	17.5	028818
6612 c-22	9 x 12	48.8	17.5	028825

### Insert Box Wrench



- With Traction profile
- Surface: chrome-plated
- Made in Germany

HAZET No.	Drive	l mm	l* mm	EAN-No. 4000896+
6630 c- 7	9 x 12	40	17.5	028955
6630 c- 8	9 x 12	40.6	17.5	028962
6630 c-10	9 x 12	42.1	17.5	028832
6630 c-11	9 x 12	42.8	17.5	028849
6630 c-12	9 x 12	43.5	17.5	028856
6630 c-13	9 x 12	43.8	17.5	028863
6630 c-14	9 x 12	45	17.5	028870
6630 c-15	9 x 12	45.5	17.5	028887
6630 c-16	9 x 12	46.5	17.5	028894
6630 c-17	9 x 12	47	17.5	028900
6630 c-18	9 x 12	47.8	17.5	028917
6630 c-19	9 x 12	48.8	17.5	028924
6630 c-21	9 x 12	50	17.5	028931
6630 c-22	9 x 12	50.8	17.5	028948

6630 d-13	14 x 18	60.8	25	028979
6630 d-14	14 x 18	61.5	25	028986
6630 d-15	14 x 18	62	25	028993
6630 d-16	14 x 18	62.9	25	029006
6630 d-17	14 x 18	63.6	25	029013
6630 d-18	14 x 18	64.3	25	029020
6630 d-19	14 x 18	65.3	25	029037
6630 d-21	14 x 18	66.5	25	029044
6630 d-22	14 x 18	67.3	25	029051
6630 d-24	14 x 18	68.8	25	029068
6630 d-27	14 x 18	76.8	31	029075
6630 d-30	14 x 18	78.5	31	029082
6630 d-32	14 x 18	79.8	31	029099
6630 d-34	14 x 18	81.3	31	029105
6630 d-36	14 x 18	82.5	31	029112
6630 d-41	14 x 18	85.5	31	029129

# Accessories and Testers



## Mechanical Angle Dial

- For tightening screws as a function of the torsion angle
- To be used with operating tools with drive 12.5 = 1/2" (resp. 20 = 3/4") and tools with drive 12.5 = 1/2" (resp. 20 = 3/4")
- With flexible magnetic holder for the fixing point
- Range 0–360°, graduation 1°, 95 mm Ø

Made in Germany



HAZET No.	Drive	Drive	EAN-No. 4000896+
6690	12.5 = 1/2"	12.5 = 1/2"	029266
6690-1	20 = 3/4"	12.5 = 1/2"	029273

## Electronic Torque Tester

According to DIN EN ISO 6789:2003

- Accuracy tolerance  $\pm 1\%$
- 3 operation modes:
  - Tracking mode
  - Click mode for click point indication (1st peak)
  - DIAL mode for peak value indication (final peak)
- Supplied in delivery: Mains adapter and RS-232C connection cable to computer and printer
- Compatible with HAZET testing software 7901 E-D
- Big and easy to read LED status display with 3 LED
- Quick wall or table fixation with 4 screws
- Simple handling
- Calibration in Nm, torque units lbf.ft and lbf.in may also be selected
- Possibility to enter target torque setting and percentage tolerance setting
- In plastic case with foam insert
- Weight device: 3.28 kg  
Weight incl. case and mains adapter: 4,66 kg
- Measuring range 10– 350 Nm (max. torque)
- Fix square socket, 12,5 = 1/2"
- H 97.5 x Ø 160 mm



12 1/2"



HAZET No.	Nm	EAN-No. 4000896+
7901 E	10– 350	140671

## Electronic Torque Tester

According to DIN EN ISO 6789:2003

- Accuracy tolerance  $\pm 1\%$
- 3 operation modes:
  - Tracking mode
  - Click mode for click point indication (1st peak)
  - DIAL mode for peak value indication (final peak)
- Supplied in delivery: Mains adapter and RS-232C connection cable to computer and printer
- Compatible with HAZET testing software 7901 E-D
- Big and easy to read LED status display with 3 LED
- Quick wall or table fixation with 4 screws
- Simple handling
- Calibration in Nm, torque units lbf.ft and lbf.in may also be selected
- Possibility to enter target torque setting and percentage tolerance setting
- In plastic case with foam insert
- Weight device: 3.28 kg  
Weight incl. case and mains adapter: 4,66 kg
- Measuring range 100– 1000 Nm (max. torque)
- Fix hexagon socket, s 27 mm
- H 97.5 x Ø 160 mm (182 mm, testing hexagon incl.)



27 mm



HAZET No.	Nm	EAN-No. 4000896+
7902 E	100– 1000	150229



## Electronic Torque Tester

According to DIN EN ISO 6789:2003

- Accuracy tolerance  $\pm 1\%$
- 3 operation modes:
  - Tracking mode
  - Click mode for click point indication (1st peak)
  - DIAL mode for peak value indication (final peak)
- Supplied in delivery: Mains adapter and RS-232C connection cable to computer and printer
- Compatible with HAZET testing software 7901 E-D
- Big and easy to read LED status display with 3 LED
- Quick wall or table fixation with 4 screws
- Simple handling
- Calibration in Nm, torque units lbf.ft and lbf.in may also be selected
- Possibility to enter target torque setting and percentage tolerance setting
- In plastic case with foam insert
- Weight device: 3.28 kg  
Weight incl. case and mains adapter: 4,66 kg
- Measuring range 1 – 25Nm (max. torque)
- Fix hexagon socket,  $\bullet$  ISO 1173 C-6.3 =  $\frac{1}{4}$ "  
Adapters included  $\bullet$  –  $\frac{3}{8}$ "  $\frac{1}{4}$  and  $\bullet$  –  $\frac{1}{2}$ "  $\frac{3}{8}$
- H 97.5 x  $\varnothing$  160 mm



6.3  $\frac{1}{4}$ "

HAZET No.	Nm	EAN-No. 4000896+
7903 E	1–25	167425

## HAZET Torque Testing Software

For the Electronic Torque Testers 7901 E, 7902 E and 7903 E

For creating, memorizing and printing professional torque test certificates

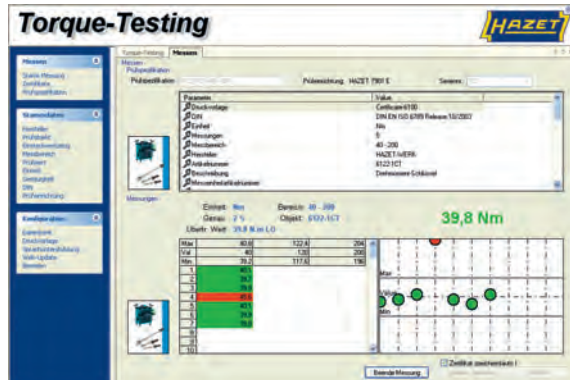
- Database (updates will be available) of all current HAZET torque wrenches (whose test values are in the range of 1–1000 Nm) and of insert tools included
- Optional extension of the database to include data of other manufacturers, release torque wrenches (Click-Type), insert tools, measuring ranges, test values, torque units, tolerances and standards
- Software for creating user-own certificate layouts and optional integration of company logos
- Language tool included. German and English is already available. By means of the language tool, the user creates the operating surface, tables and designation of boxes in any required language
- Internet update function
- Detailed documentation included

### System requirements

Operating system: Microsoft® Windows 2000 / XP / Vista / Window®  
 Required storage space: Min. 50 MB free storage space  
 Main storage: Min. 256 MB  
 Processor: from Pentium III on  
 Graphic resolution: Min. 1024 x 768

- DIN EN ISO 6789:2003

Made in Germany



HAZET No.	EAN-No. 4000896+
7901 E-D	148202



Partner of Industry!

## Torque Multiplier

Improved, light style made of aluminium.  
Up to 30% less weight than comparable steel version!



- For tight screwed connections
- Avoids the application of lever arms, impact tools, etc., prevents screwed connections from damage
- External energy supply is not necessary
- With return stop
- Low maintenance
- High accuracy  $\pm 5\%$
- For building and agricultural machines, commercial vehicles, plant and engine construction and ship building
- Transmission ratio:
  - 6800 ALU-700 approx. 1:3,5
  - 6800 ALU-1400 approx. 1:3,5
  - 6800 ALU-Lg 1400 approx. 1:3,5
  - 6800 ALU-2800 approx. 1:11

Made in Germany

HAZET No.	Drive	Drive	Nm	EAN-No. 4000896+
6800 ALU-700	■ 20 = 3/4"	□ 12.5 = 1/2"	700	143467
6800 ALU-1400	■ 25 = 1"	□ 20 = 3/4"	1400	143481
6800 ALU-2800	■ 25 = 1"	□ 20 = 3/4"	2800	143603

### Extra long pattern

e.g. for deeply located wheel bolts/nuts on commercial vehicles

6800 ALU-Lg 1400	■ 25 = 1"	□ 20 = 3/4"	1400	143580
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Torque wrenches and torque testers are high precision measuring tools. They have to be checked with an appropriate tester after a certain period of time and adjusted when required. The checking frequency depends on the using frequency.

HAZET disposes of the corresponding torque testers. After testing and adjustment, the torque wrenches and torque testers sent to HAZET are supplied with a test certificate.



Your commercial vehicle specialist!

The HAZET torque testing devices are constantly supervised and calibrated by the German Calibration Service (DKD). This guarantees the existing essential competence in the field of controlled screw tightening as well as the high quality of the HAZET torque wrenches and torque testing devices.

## Conversion Chart · Torque Values

## SYSTEM 5000 CT / CLT / 6000 CT / 7000 eTAC

lbf.ft	Nm
1	1.4
2	2.7
3	4.1
4	5.4
5	6.8
6	8.1
7	9.5
8	10.8
9	12.2
10	13.6

lbf.ft	Nm
15	20.3
20	27.1
25	33.9
30	40.7
35	47.5
40	54.2
45	61.0
50	67.8
60	81.3
70	94.9

lbf.ft	Nm
80	108.5
90	122.0
100	135.6
120	162.7
140	189.8
160	216.9
180	244.0
200	271.2

Nm	lbf.ft
1	0.7
2	1.5
3	2.2
4	3.0
5	3.7
6	4.4
7	5.2
8	5.9
9	6.6
10	7.4

Nm	lbf.ft
15	11.1
20	14.8
25	18.4
30	22.1
35	25.8
40	29.5
45	33.2
50	36.9
55	40.6
60	44.3

Nm	lbf.ft
70	51.6
80	59.0
90	66.4
100	73.8
110	81.1
120	88.5
130	95.9
140	103.3
150	110.6
200	147.5

1 Nm $\triangleq$ 0.7376 lbf.ft	1 lbf.ft $\triangleq$ 12 lbf.in	1 Nm $\triangleq$ 0.1020 kpm
1 lbf.ft $\triangleq$ 1.3558 Nm	1 lbf.in $\triangleq$ 0.0833 lbf.ft	1 kpm $\triangleq$ 9.807 Nm

### Note:

During continuous operation with Reversible Ratchets and square drive Insert Tools the max. torque values are limited as follows: 6401-1 = 40 Nm, 6402, 6402-1 = 120 Nm, 6403, 6403-1 = 120 Nm, 6404, 6404-1 = 300 Nm, 6406 = 800 Nm

The max. torque values of Open End-, Flare Nut- and Box Wrenches (HAZET 6450 – 6630) depend on the respective wrench size (DIN 899) and can be smaller than the max. torque value of the tool in operation.

The audible and palpable click-signal abates when torque value is lower.

The release accuracy corresponds to a room temperature of 20 °C.

Torque Wrench to be reset to smallest value after operation!