

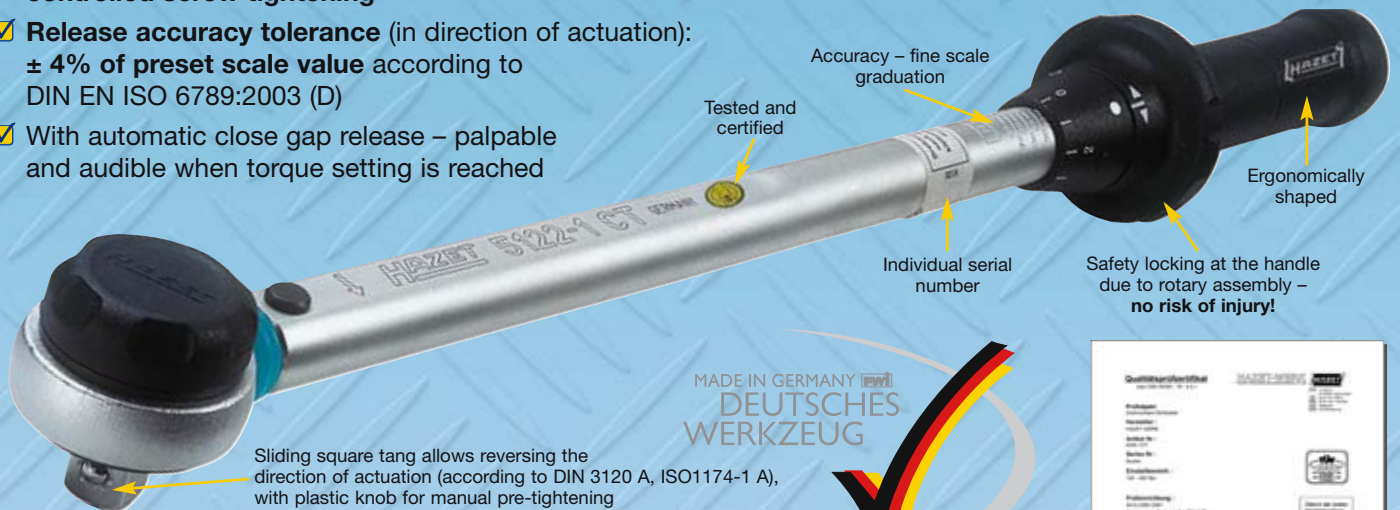
# HAZET – Torque Wrenches

## Torque Wrenches System 5000 CT

“The classic workshop torque wrench”

- ✓ Robust and well-priced
- ✓ Proven a million times
- ✓ Indispensable for the torque controlled screw tightening
- ✓ Release accuracy tolerance (in direction of actuation):  $\pm 4\%$  of preset scale value according to DIN EN ISO 6789:2003 (D)
- ✓ 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
- ✓ DGBM (German Registered Utility Model), EP (European Patent)



## Torque Wrenches System 5000 CLT

“For higher demands”

- ✓ Click-Lens-Type with value readout in the display – security for the user
- ✓ Release accuracy tolerance (in direction of actuation):  $\pm 4\%$  of the preset scale value according to DIN EN ISO 6789
- ✓ Torque release – palpable by close gap release – audible by click-sound
- ✓ DGBM (German Registered Utility Model), EP (European Patent)

Awarded with the



With serial number and certificate

User-friendly reversible ratchet  
**Service-friendly** (do-it-yourself repair kits for ratchets available)  
Square drive solid to the wrench – no risk of loss

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

Tested, with certificate

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

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

Safe locking of the handle

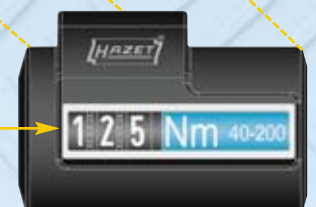
Safe and fast adjustment of the desired torque value by turning the handle

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 (interchangeable) optimizes the readout

– Safe box included in delivery! –



# HAZET – Torque Wrenches

## Torque Wrenches System 6000 CT

“High-precision measuring tools for highest demands”

- ✓ Release accuracy tolerance (in direction of actuation): **± 2% of the preset scale value** according to DIN EN ISO 6789:2003
- ✓ 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)

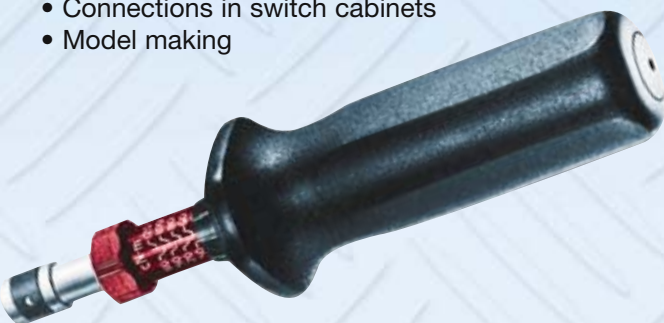


With serial number and certificate

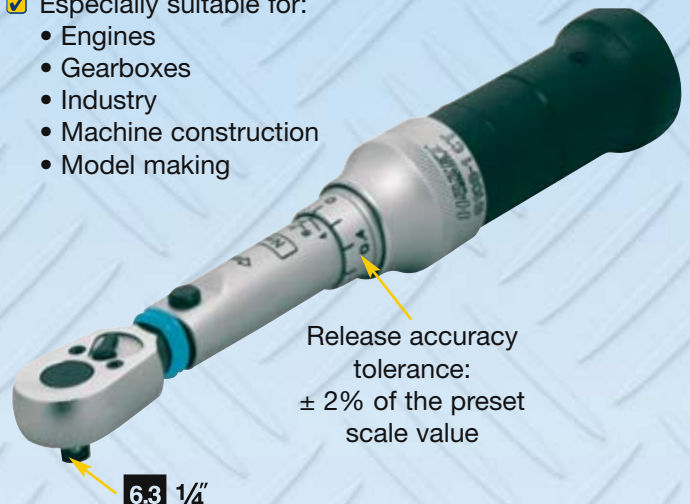


## Torque Screwdriver System 6000 CT

- ✓ For applications requiring low torque ranges (10–120 cNm and 1–6 Nm)
- ✓ Especially suitable for:
  - Screwed connections in plastic material
  - Connections in switch cabinets
  - Model making



- ✓ For applications requiring low torque ranges
- ✓ Especially suitable for:
  - Engines
  - Gearboxes
  - Industry
  - Machine construction
  - Model making



# HAZET Torque Tools

## 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



**Qualitätsprüfzertifikat**  
nach DIN 6550 - 18 - 4 Z 1

**HAZET-WERK**  
HAZET  
3252 10 00 01  
3252 10 00 01  
3252 10 00 01  
3252 10 00 01

**Prüfobjekt:**  
Drehmoment-Schlüssel

**Hersteller:**  
HAZET-WERK

**Artikel Nr.:**  
6294-1CT

**Serien Nr.:**  
Muster

**Einstellbereich:**  
100 - 400 Nm

**Prüfeinrichtung:**  
5413-2355 C001  
Drehmoment-Prüfgerät Fa. SCHATZ

**Messmittel:**  
5413-1407 Drehmoment-Sensor Fa. SCHATZ 500Nm

**TÜV**  
Technische Universität  
Vieringen

**Datum der ersten Inbetriebnahme:**  
.....

**KPIF-Faktor:** 96,9 %

Die Prüfung des Drehmomentenmesswerts erfolgte mit dem Einstellbereich:  
8400 Einstellbereich

Prüfverf. nach DIN: 6769 (4.3.2 + 1sec) / Ausgabe: 12/93 Genauigkeit: 2 %

100 Nm		240 Nm		400 Nm	
min	max	min	max	min	max
98 Nm	102 Nm	238,2 Nm	241,8 Nm	392 Nm	408 Nm

Die Prüfleistung der Messmittel ist gemäß DIN (ISO 9001) durch das akkreditierte Kalibrierlabor (DIN) erfolgt.  
Fa. Schatz, Hermannsweiler Speicher, 66663 Neuhäselbrunn

**Datum:** 16.02.2004

**Prüfer:** Bink

Dieses Zertifikat ist maschinell erstellt und hat auch ohne Unterschrift Gültigkeit.  
1373448-2



## Torque Wrench • SYSTEM 5000 CT • Release Accuracy Tolerance ± 4%

- Perfect for working on motorcycles and bicycles
- Release accuracy tolerance (in direction of actuation) ± 4% of scale value according to DIN EN ISO 6789:2003 (D)
- 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
- Safety lock at the handle
- Fine scale graduation
- With serial number and certificate
- With built-in reversible ratchet
- Sturdy and durable scaling – resistant to stress such as impacts and shocks due to rough handling in workshops
- DGBM – German registered utility model, EP



HAZET No.	■	Nm	l mm	Graduation Nm	EAN-No. 4000896+
5108-2 CT	6,3 = 1/4"	2,5–25	232	0,25	119752

- Release accuracy tolerance (in direction of actuation) ± 4% of scale value according to DIN EN ISO 6789:2003 (D)
- Tightening at torque setting is possible both to the right and to the left
- With automatic close-gap release when torque setting is reached
- Safe and fast 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 (according to DIN 3120 A, ISO 1174-1 A) with plastic knob for manual pre-tightening
- Changing the direction of actuation by inverting the ratchet's sliding square tang
- EP, registered design
- Safe boxes available, to be ordered separately



HAZET No.	■	Nm	l mm	Graduation Nm	EAN-No. 4000896+
5110-1 CT	10 = 3/8"	10–60	310	0,5	022397
5121-1 CT	12,5 = 1/2"	20–120	392	0,1	022427
5122-1 CT	12,5 = 1/2"	40–200	498	0,1	022472
5123-1 CT	12,5 = 1/2"	60–320	615	0,2	022588
Sliding square tang 10 = 3/8" ■ for 5110-1 CT					
5110-01					049691
Sliding square tang 12.5 = 1/2" ■ for 5121-1 CT, 5122-1 CT, 5123-1 CT					
5121-01					022410



# HAZET

The right tool  
for any application

## Torque Wrench • SYSTEM 5000 CLT • Release Accuracy Tolerance ± 4%

Click-Lens-Type with value readout in the display - security for the user

- **Release accuracy tolerance** (in direction of actuation):  
±4% of scale value according to DIN EN ISO 6789:2003 (D)
- Torque release – palpable by close-gap release - audible by click-sound
- DBGm – German registered utility model, EP
- User-friendly reversible ratchet
- **Service-friendly** (do-it-yourself repair kits for ratchets available)
- 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 (¾ model) **reducing the risk of injury and malfunction**
- Ergonomically shaped handle with collar **reducing the risk of slipping-off and injury**
- Safe locking of the handle due to rotating assembly – **no risk of injury!**
- Safe and fast 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

HAZET No.	■	Nm	lbf. ft.	l / mm	Graduation Nm	EAN-No. 4000896+
5121-2 CLT	12,5 = ½"	20–120	–	435	1	104215
5122-2 CLT	12,5 = ½"	40–200	–	545	1	104192
5123-2 CLT	12,5 = ½"	60–320	–	660	2	104222
• According to US standards						
• Scale graduation in lbf.ft						
5128-2 CLT	12,5 = ½"	–	50-250	660	2	112296

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

- **Release accuracy tolerance** (in direction of actuation):  
±5% of scale value according to DIN EN ISO 6789:2003 (D)
- For screwdriver bits with 6.3 = ¼" outside hexagon drive
- Operation of sockets (□ drive 6.3 = ¼") in conjunction with Adapter HAZET 2304
- Application, e.g. on screwed connections in plastic materials and connections on switch cabinets and model making

HAZET No.	●	cNm	Nm	l / mm	Graduation Nm	EAN-No. 4000896+
6002 CT	6,3 = ¼"	10–120	–	170	0,01	023004
6003 CT	6,3 = ¼"	–	1–6	230	0,1	023011



Adapter

- For the connection of sockets with square drive according to DIN 3120 and operating tools with hexagon drive

HAZET No.	■	●	EAN-No. 4000896+
2304	6,3 = ¼"	6,3 = ¼"	016020



## Torque Screwdriver

For torque values from 0.6 up to 5.4 Nm

- Quick and precise setting of the torque value with a hex head wrench (HAZET 2100-06 supplied 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
- Release accuracy (tolerance) according to DIN ISO 6789
- Application: Disc brakes on bicycles



6.3 ¼"



Contents:

Torque handle, Bit Holding Adapter 2239-7, Hex Head Wrench 2100-06

HAZET No.	Nm	Tolerance	EAN-No. 4000896+
6001-1,5/3	0,6–1,5	10 %	141678
6001-3,0/3	1,5–3,0	6 %	141685
6001-5,4/3	3,0–5,4	6 %	141692

Adapter

- For the connection of sockets with square drive according to DIN 3120 and operating tools with hexagon drive

HAZET No.	■	●	EAN-No. 4000896+
2304	6,3 = ¼"	6,3 = ¼"	016020



## 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** according to DIN EN ISO 6789:2003 (D)
- Application: engines, gearboxes, machines, industry, model making
- Square drive according to DIN 3120 A, ISO 1174-1 A
- Without signal transmitter

HAZET No.	■	Nm	l / mm	Graduation Nm	EAN-No. 4000896+
6108-1 CT	6,3 = 1/4"	2-10	198	0,2	062218
6109-2 CT	6,3 = 1/4"	4-40	256	0,4	080564



- **With reversible ratchet**
- 6110-1 CT to 6123-1 CT = DBP – German registered patent
- **Release accuracy tolerance (in direction of actuation): ± 2 % of scale value** according to DIN EN ISO 6789:2003 (D)
- With turning knob for additional locking of the adjusted torque value
- Square drive according to DIN 3120 A, ISO 1174-1 A
- User-friendly reversible ratchet
- **Easy to maintain** (do-it-yourself repair set)
- Square drive solid to the wrench – no risk of loss
- Fine scale graduation
- Ergonomically shaped handle with collar **reducing the risk of slipping-off and injury**
- **Hard chrome-plated steel tube** – slim, but very sturdy and wear-resistant
- Safety lock at the handle
- Safe and fast adjustment of the desired torque value by turning the handle
- **In Safe Box**

With serial number and certificate

o = without signal transmitter

HAZET No.	■	Nm	l / mm	Graduation Nm	EAN-No. 4000896+
6110-1 CT	10 = 3/8"	5- 60	335	0,5	025022
6111-1 CT	10 = 3/8"	20-120	389	1,0	025077
6121-1 CT	12,5 = 1/2"	20-120	435	1,0	025220
6122-1 CT	12,5 = 1/2"	40-200	543	1,0	025268
6123-1 CT	12,5 = 1/2"	60-320	659	2,0	025367
6143-1 CT o	20 = 3/4"	100-400	803	2,5	025466
6144-1 CT o	20 = 3/4"	200-500	1040	2,5	025541
6145-1 CT o	20 = 3/4"	300-800	1280	2,5	025565



## 1000 Nm Torque Wrench • SYSTEM 6000 CT • Release Accuracy Tolerance ± 3%

Weight only approx. 10 kg – especially suited for industrial climbers

- Application on wind turbines, dockyards, heavy industry, etc.
- 2 parts, to be disassembled (release tools included), in carrier bag with carrying handle and shoulder strap
- **Release accuracy tolerance ±3% of the preset scale value** (in direction of actuation)
- Release torque 590 N (60 kg) with 1000 Nm
- Without signal transmitter



HAZET No.	■	Nm	l / mm	Graduation Nm	EAN-No. 4000896+
6150-1 CT	20 = 3/4"	400-1000	1788	5	141067

## Torque Wrench • SYSTEM 6000 CT • US-Standard • Release Accuracy Tolerance ± 3%

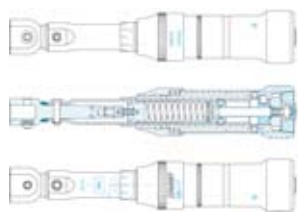
- **According to US standards**
- Scale graduation in lbf.ft
- **Release accuracy tolerance (in direction of actuation): ±3% of scale value** according to DIN EN ISO 6789:2003 (D)
- **With reversible ratchet**
- With turning knob for additional locking of the adjusted torque value
- Square drive according to DIN 3120 A, ISO 1174-1 A
- **In safe box**
- o = without signal transmitter

HAZET No.	■	lbf. ft.	Nm	l / mm	Graduation Nm	EAN-No. 4000896+
6114-1 CT	10 = 3/8"	5- 40	6,8- 54,2	333	0,5	078424
6115-1 CT	10 = 3/8"	20-100	27,1-135,6	390	0,5	025084
6127-1 CT	12,5 = 1/2"	40-200	54,2-271,2	545	1,0	025381
6128-1 CT	12,5 = 1/2"	50-250	67,8-339	660	2,0	076116
6132-1 CT o	20 = 3/4"	120-600	162,7-813,5	1280	2,0	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 according to DIN EN ISO 6789:2003 (D)
- Without signal transmitter



9 x 12

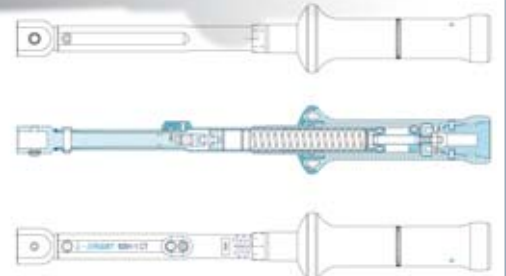


HAZET No.	□ mm	Nm	l mm	Graduation Nm	EAN-No. 4000896+
6280-1 CT	9 x 12	2-10	180	0,2	026005
6282-1 CT	9 x 12	4-40	240	0,4	080540

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

9 x 12

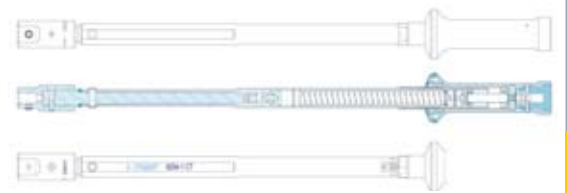
14 x 18



HAZET No.	□ mm	Nm	l mm	Graduation Nm	EAN-No. 4000896+
6290-1 CT	9 x 12	5- 60	305	0,5	026043
6291-2 CT	9 x 12	20-120	388	1,0	026104
6291-1 CT	14 x 18	20-120	400	1,0	026074
6292-1 CT	14 x 18	40-200	510	1,0	026135
6293-1 CT	14 x 18	60-320	620	2,0	026173

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

14 x 18



### without signal transmitter

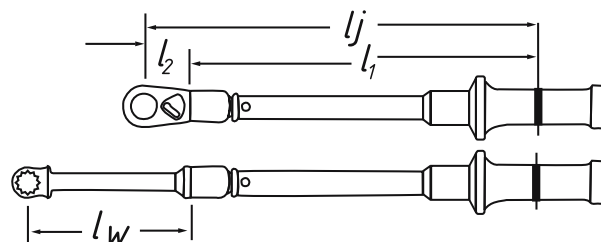
HAZET No.	□ mm	Nm	l mm	Graduation Nm	EAN-No. 4000896+
6294-1 CT	14 x 18	100-400	715	2,5	026197
6295-1 CT	14 x 18	200-500	955	2,5	026203
6296-1 CT	14 x 18	300-800	1195	2,5	026210

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

- MDE = Torque to be selected  
 MDV = Prescribed torque  
 $l_j$  = Standard length adjustment with adjusting device  
 $l_1$  = Effective length of torque wrench  
 $l_2$  = Gauge dimension of adjusting device  
 $l_w$  = Gauge dimension of extended insert tool

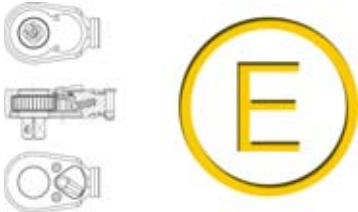
$$MDE = \frac{(l_1 + l_2) \times MDV}{l_1 + l_w}$$

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	l <sub>2</sub> mm
6280-1 CT	140	6401-1 (S)	19.5	6293-1 CT	547	6404-1 (S)	38.5	6391- 35	130	-
6282-1 CT	200	6401-1 (S)	19.5	6294-1 CT	640	6406	44	6391- 50	190	-
6290-1 CT	245	6402-1 (S)	30	6295-1 CT	880	6406	44	6391- 85	260	-
6291-1 CT	330	6404-1 (S)	38.5	6296-1 CT	1120	6406	44	6392-200	345	-
6291-2 CT	312	6402-1 (S)	30	6391-12	100	-	-	6392-320	570	-
6292-1 CT	432	6404-1 (S)	38.5	6391-25	130	-	-			

## Repair Set



Please observe the following characteristics:

1. Shift lever, burnished (black)
2. Replaceable head
3. since 1985 – ergonomic plastic handle

**HAZET** No. EAN-No. 4000896+

**Repair Set for shift lever,**  
consisting of: shift lever, screws, ball, compression spring  
for 1016, 1016/2,  
6132-1 CT, 6143 CT, 6143-1 CT, 6143-01, 6144 CT, 6144-1 CT, 6144-01  
6145 CT, 6145-1 CT, 6145-01, 6146-1 CT

**1016/6** 001972

**Repair Set for shift lever**  
consisting of: shift lever, screws, ball,  
compression spring  
for 1116, 6150-1 CT

**1116/6** 003228

**Repair Set for ratchet wheel 20 = 3/4" ■**  
consisting of: ratchet wheel, pawl, shift lever,  
screws, ball, compression spring  
for 1016, 1016/2,  
6132-1 CT, 6143 CT, 6143-01, 6143-1 CT,  
6144 CT, 6144-01, 6144-1 CT,  
6145 CT, 6145-01, 6145-1 CT, 6146-1 CT

**1016/8 N** 001989

**Repair 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

**Repair Set for twist lock,**  
consisting of: lock spring, twist lock with 2 headless screws  
for 6010-1 CT, 6110-1 CT, 6290-1 CT

**6110-27** 025053

**Repair Set for twist lock,**  
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

**6122-27** 025299

**Repair Set for optical signal transmitter,**  
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, 6291-2 CT, 6290-1 CT, 6291 CT, 6292-1 CT,  
6293-1 CT

**6122-29** 025305

**Repair Set for shift lever,**  
consisting of: shift lever, screws, ball, compression spring,  
spring washer, lockring  
for 5121-2 CLT, 5121-2 CT,  
5122-2 CLT, 5122-2 CT, 5122 ST-1  
5123-2 CLT, 5123-2 CT,  
6121-1 CT, 6121 CT, 6122-1 CT, 6122 CT, 6123-1 CT, 6123 CT, 6127-1 CT,  
6128-1 CT, 6722 TAC

**6122/7** 025329

**Repair Set for ratchet wheel 12.5 = 1/2" ■**  
consisting of: ratchet wheel, pawl, shift lever, screws,  
ball, compression spring, spring washer, lockring  
for 5121-2 CLT, 5121-2 CT,  
5122-2 CLT, 5122-2 CT, 5122 ST-1, 5123-2 CLT, 5123-2 CT  
6121 CT, 6121-1 CT, 6122-1 CT, 6122 CT,  
6123-1 CT, 6123 CT, 6127-1 CT, 6128-1 CT, 6722 TAC

**6122/9 N** 025343

**Reversible ratchet with screw, 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

**6143-01** 111190

## Repair Set

**HAZET** No. EAN-No. 4000896+

**Repair Set for twist lock,**  
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,  
6243-1 CT, 6244-1 CT, 6245-1 CT, 6246-1 CT,  
6294-1 CT, 6295-1 CT, 6296-1 CT

**6144-01/3** 025527

**Reversible ratchet with pin, complete**  
(exchangeable): 20 = 3/4" ■  
**since the year 2005**

for 6132-1 CT, 6144 CT, 6144-1 CT,  
6145 CT, 6145-1 CT, 6146-1 CT

**6145-01** 111206

**Torque insert lock with screw**  
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

**6294-01** 026180

**Torque insert lock with pin**  
**since the year 2005**

for 6295-1 CT, 6296-1 CT

**6296-01** 111213

## Torque Tool Assortment



435 x 215 x 62 mm

29 pieces, in sheet metal box with plastic insert

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



578 x 235 x 88 mm

20 pieces, in sheet metal box with plastic insert

Contents:

6292-1 CT 6404-1  
6450 d-13 14 15 16 17  
18 19 21 22  
6630 d-13 14 15 16 17  
18 19 21 22

**HAZET** No. EAN-No. 4000896+

**6292-1 CT/20** 026159

## Torque Tool Set



578 x 235 x 88 mm

28 pieces, in sheet metal box with plastic insert

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

## Torque Screwdriver



- Especially appropriate for the application in series production
- With inside hexagon drive 6.3 = 1/4" for screwdriver bits
- **Release accuracy tolerance** (in direction of actuation): ± 5% of scale value according to DIN EN ISO 6789:2003 (D)
- Tightening at torque setting is possible only with screws with right-handed threads
- Without adjustment scale

Adjustment of the desired torque value with enclosed Hex Head Wrench HAZET 2100 A-3/16 in conjunction with torque testing device

HAZET No.	Nm	l mm	EAN-No. 4000896+
6303	1-10	160	026678

## Adapter



- For the connection of sockets with square drive according to DIN 3120 and operating tools with hexagon drive
- Chrome-Vanadium
- Surface phosphatized

HAZET No.	■	●	EAN-No. 4000896+
2304	6,3 = 1/4"	6,3 = 1/4"	016020

## Torque Wrench



9 x 12

## Torque Wrench

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

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

Adjusting the desired torque value with Adjustment Wrench HAZET 6399 in conjunction with Torque Tester HAZET 6903, 6905 or any other suitable device.

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

With factory-set release torque according to your needs

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



9 x 12

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

Adjusting the desired torque value with Adjustment Wrench HAZET 6399 in conjunction with Torque Tester HAZET 6903, 6905 or any other suitable device.

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

With factory-set release torque according to your needs

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



14 x 18

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

Adjusting the desired torque value with Adjustment Wrench HAZET 6399 in conjunction with Torque Tester HAZET 6903, 6905 or any other suitable device.

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

With factory-set release torque according to your needs

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

## Special Lever



- Forged from solid steel
- With **plug-and-socket-connection** to accommodate insert tools
- For loosening tight screwed connections
- **Without any torque function**

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

## Adjustment Wrench



For Torque Wrenches HAZET 6391-6392, to adjust and to lock the torque value

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

## Insert Reversible Ratchet



(E)

- Square drive DIN 3120 A, ISO 1174-1 A
- 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
- Chrome-Vanadium
- Drop forged
- Surface chrome-plated

HAZET No.	■ mm	l* mm	l mm	EAN-No. 4000896+	
6401-1	6,3 = 1/4"	9 x 12	19,5	46,5	027439
6402-1	10 = 3/8"	9 x 12	30	61	027460
6403-1	12,5 = 1/2"	9 x 12	38,5	74,5	027521
6404-1	12,5 = 1/2"	14 x 18	38,5	83,5	027552



- Fine tooth, **72 teeth**, rotation angle 5°
- Square drive according to DIN 3120 A, ISO 1174-1 A
- Chrome-Vanadium
- Drop forged
- Surface chrome-plated
- 6401 N max. 40 Nm      6402 and 6403 max. 120 Nm
- 6404 max. 300 Nm      6406 max. 800Nm

HAZET No.	■ mm	l* mm	l mm	EAN-No. 4000896+	
6401 N	6,3 = 1/4"	9 x 12	17,5	46	115204
6402	10 = 3/8"	9 x 12	26	58,5	027453
6403	12,5 = 1/2"	9 x 12	26	58,5	027514
6404	12,5 = 1/2"	14 x 18	27	70,5	027545
6406	20 = 3/4"	14 x 18	44	101	027576

## Insert Reversible Ratchet



(E)

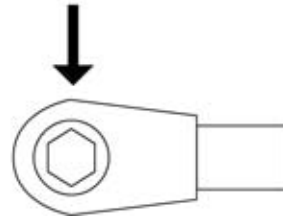
- With **locking device and quick release press button**
- Square drive according to DIN 3120 A, ISO 1174-1 A
- 6401-1 S 20 teeth – max. 40 Nm      6402-1 S 30 teeth – max. 120 Nm
- 6403-1 S 32 teeth – max. 120 Nm      6404-1 S 32 teeth – max. 300 Nm
- Chrome-Vanadium
- Drop forged
- Surface chrome-plated

HAZET No.	■ mm	l* mm	l mm	EAN-No. 4000896+	
6401-1 S	6,3 = 1/4"	9 x 12	19,5	46,5	027446
6402-1 S	10 = 3/8"	9 x 12	30	61	027477
6403-1 S	12,5 = 1/2"	9 x 12	38,5	74,5	027538
6404-1 S	12,5 = 1/2"	14 x 18	38,5	83,5	027569

## Reversible Ratchet for Bits



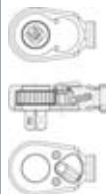
(E) (O)



- For Screwdriver Bits
- Chrome-Vanadium
- Drop-forged
- Surface chrome-plated

HAZET No.	○ mm	l* mm	l mm	EAN-No. 4000896+	
○ drive 6.3 = 1/4" 20 teeth					
6408	6,3 = 1/4"	9 x 12	19,5	46,5	027583
○ drive 8 = 5/16" 30 teeth					
6408-1	8 = 5/16"	9 x 12	30	61	027590

## Repair Set



Please observe the following characteristics:

1. Shift lever, burnished (black)
2. Replaceable head
3. since 1985 – ergonomic plastic handle

HAZET No.	EAN-No. 4000896+
<b>Repair 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	
8816 P/7 N	042234

## Repair Set

**HAZET**  
No.

 EAN-No.  
4000896+

**Repair 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

**Repair 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

**Repair Set for shift lever,**  
consisting of: shift lever, screws,  
ball, compression spring and pawl  
for 6403-1, 6403-1 S, 6404-1, 6404-1 S

**6403-1/7** 070756

**Repair Set for ratchet wheel 12.5 = 1/2" ■**  
consisting of:  
ratchet wheel, pawl, shift lever, screws,  
ball, compression spring, spring washer, lockring  
for 6403-1, 6404-1

**6403-1/9** 070749

**Repair Set for ratchet wheel 12.5 = 1/2" ■**  
consisting of:  
ratchet wheel, pawl, shift lever,  
screws, ball, compression spring,  
spring washer, lockring  
for 6403-1 S, 6404-1 S

**6403-1 S/9** 070817

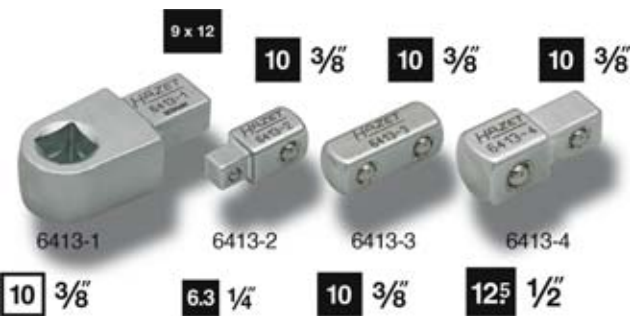
**Repair Set for ratchet wheel 6.3 = 1/4" ○**  
consisting of:  
ratchet wheel, pawl, shift lever,  
screws, ball, compression spring  
for 6408

**6408/7** 111145

**Repair Set for ratchet wheel 10 = 3/8" ■**  
consisting of:  
ratchet wheel, pawl, shift lever, screws,  
ball, compression spring  
for 8816 S, 6402-1 S

**8816 S/7** 048465

## Insert Holder with Square Drives



Set, 4 pieces

Contents:

6413-1 2 3 4

**HAZET**  
No.

 EAN-No.  
4000896+

**6413/4** 027651

## Spare Parts

**HAZET**  
No.

 EAN-No.  
4000896+

Holder  
square insert 9 x 12  
□ drive 10 = 3/8"

**6413-1** - 9 x 12 17,5 43,5 027644

Sliding square tangs  
■ 10 = 3/8"

**6413-2** 6,3 = 1/4" - - 22 048908

**6413-3** 10 = 3/8" - - 26 048892

**6413-4** 12,5 = 1/2" - - 30,4 048885

## Insert Square Drive



- Square drive, DIN 3120 A, ISO 1174-1
- Chrome-Vanadium
- Surface chrome-plated

**HAZET**  
No.

■

mm

 l\*  
mm

 l  
mm

 EAN-No.  
4000896+

**6414** 12,5 = 1/2" 14 x 18 25 63,5 027668

**6416** 20 = 3/4" 14 x 18 25 70 027682

## Bit Holder



DIN 3126, chrome-plated

**HAZET**  
No.

○

mm

 l\*  
mm

 l  
mm

 EAN-No.  
4000896+

**6420 b** 6,3 = 1/4" 9 x 12 17,5 40,5 027903

**6420 c** 8 = 9/16" 9 x 12 17,5 41,5 027910

**6420 d** 8 = 9/16" 14 x 18 25 58 027927

## Insert Adapter



Chrome-plated

**HAZET**  
No.

□

mm

mm

 l\*  
mm

 l  
mm

 EAN-No.  
4000896+

Square insert 14 x 18 to 9 x 12

**6423 c** 14 x 18 9 x 12 34 50 027934

Square insert 9 x 12 to 14 x 18

**6423 d** 9 x 12 14 x 18 20 45 057559

## Insert Adapter with Hinge Joint



- For the operation of screwed connections in areas with restricted access or behind obstacles, e.g. with torque wrench or reversible ratchet
- May be used as extension and adapter 14 x 18 to 9 x 12
- Alternatively to be operated with □ 10 = 3/8"
- Flat style
- Chrome-Vanadium
- Surface chrome-plated
- DBGm – German registered utility model

**Note:** Tightening with precise torque values is possible only in straight, in-line position

**HAZET**  
No.

□

mm

mm

 l\*  
mm

 l  
mm

 EAN-No.  
4000896+

**6423 g** 9 x 12 14 x 18 46 68 096053

## Insert Adapter



- With plug-and-socket-connection to accommodate insert tools
- □ drive 10 = 3/8"
- For the operation of screwed connections in areas with restricted access (engine compartment)
- Chrome-Vanadium
- Surface chrome-plated

HAZET No.	■ mm	l* mm	l mm	EAN-No. 4000896+
6424 c	9 x 12	26,5	33,5	053759

## Blank-End Insert



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

\*\* = Caution: when welding-on tools, the release torque values may change, pay attention to effective lengths (see page 223)

## Open End Insert Tool



- Chrome-plated

HAZET No.	■ mm	l* mm	l mm	EAN-No. 4000896+
6450 c- 7	9 x 12	17,5	36,5	028429
6450 c- 8	9 x 12	17,5	37	028436
6450 c- 9	9 x 12	17,5	37,5	028443
6450 c-10	9 x 12	17,5	38	028320
6450 c-11	9 x 12	17,5	38,5	028337
6450 c-12	9 x 12	17,5	38,5	028344
6450 c-13	9 x 12	17,5	39	028351
6450 c-14	9 x 12	20	42	028368
6450 c-15	9 x 12	20	42,5	028375
6450 c-16	9 x 12	20	43	028382
6450 c-17	9 x 12	20	43,5	028399
6450 c-18	9 x 12	20	44	028405
6450 c-19	9 x 12	20	45	028412
6450 d-13	14 x 18	25	56,5	028450
6450 d-14	14 x 18	25	57	028467
6450 d-15	14 x 18	25	57,5	028474
6450 d-16	14 x 18	25	58	028481
6450 d-17	14 x 18	25	58,5	028498
6450 d-18	14 x 18	25	59	028504

## Open End Insert Tool

HAZET No.	■ mm	l* mm	l mm	EAN-No. 4000896+
6450 d-19	14 x 18	25	59,5	028511
6450 d-21	14 x 18	25	60,5	028528
6450 d-22	14 x 18	25	61	028535
6450 d-24	14 x 18	25	62	028542
6450 d-27	14 x 18	32,5	68,5	028559
6450 d-30	14 x 18	32,5	70	028566
6450 d-32	14 x 18	32,5	71,5	028573
6450 d-34	14 x 18	32,5	73,2	050178
6450 d-36	14 x 18	32,5	73,3	072507
6450 d-38	14 x 18	32,5	72,7	072514
6450 d-41	14 x 18	40	79	028580

## TORX® Box-End Insert Tool



- For outside TORX® screws
- Chrome-plated

HAZET No.	■ mm	□ mm	l* mm	l mm	EAN-No. 4000896+
6609 c-E 8	9 x 12	7,52	17,5	39	074716
6609 c-E 10	9 x 12	9,42	17,5	40,0	049738
6609 c-E 11	9 x 12	10,08	17,5	40,6	049745
6609 c-E 12	9 x 12	11,17	17,5	42,1	049752
6609 c-E 14	9 x 12	12,90	17,5	42,8	049769
6609 c-E 16	9 x 12	14,76	17,5	44,3	049776
6609 c-E 18	9 x 12	16,70	17,5	45	049783
6609 c-E 20	9 x 12	18,49	17,5	46,5	049790
6609 c-E 22	9 x 12	20,32	17,5	47	049806
6609 c-E 24	9 x 12	22,16	17,5	48,8	049813
6609 d-E 10	14 x 18	9,42	25	58	054794
6609 d-E 11	14 x 18	10,08	25	58,5	054800
6609 d-E 12	14 x 18	11,17	25	59	054817
6609 d-E 14	14 x 18	12,90	25	60	054824
6609 d-E 16	14 x 18	14,76	25	61	054831
6609 d-E 18	14 x 18	16,70	25	62	054848
6609 d-E 20	14 x 18	18,49	25	63,5	054855
6609 d-E 22	14 x 18	20,32	25	64,3	054862
6609 d-E 24	14 x 18	22,16	25	65,3	054879

## Flare Nut Insert Tool



- Chrome-plated

HAZET No.	■ mm	l* mm	l mm	EAN-No. 4000896+
6612 c-10	9 x 12	17,5	42,3	028726
6612 c-11	9 x 12	17,5	42,8	028733
6612 c-12	9 x 12	17,5	43,4	028740
6612 c-13	9 x 12	17,5	43,7	028757
6612 c-14	9 x 12	17,5	44,4	028764
6612 c-16	9 x 12	17,5	45,4	028771
6612 c-17	9 x 12	17,5	45,9	028788
6612 c-18	9 x 12	17,5	46,1	028795
6612 c-19	9 x 12	17,5	46,8	028801
6612 c-21	9 x 12	17,5	48	028818
6612 c-22	9 x 12	17,5	48,8	028825

## Box-End Insert Tool



- With Traction profile
- Chrome-plated

HAZET No.	mm	L* mm	l mm	EAN-No. 4000896+
6630 c- 7	9 x 12	17,5	40	028955
6630 c- 8	9 x 12	17,5	40,6	028962
6630 c-10	9 x 12	17,5	42,1	028832
6630 c-11	9 x 12	17,5	42,8	028849
6630 c-12	9 x 12	17,5	43,5	028856
6630 c-13	9 x 12	17,5	43,8	028863
6630 c-14	9 x 12	17,5	45	028870
6630 c-15	9 x 12	17,5	45,5	028887
6630 c-16	9 x 12	17,5	46,5	028894
6630 c-17	9 x 12	17,5	47	028900
6630 c-18	9 x 12	17,5	47,8	028917
6630 c-19	9 x 12	17,5	48,8	028924
6630 c-21	9 x 12	17,5	50	028931
6630 c-22	9 x 12	17,5	50,8	028948

6630 d-13	14 x 18	25	60,8	028979
6630 d-14	14 x 18	25	61,5	028986
6630 d-15	14 x 18	25	62	028993
6630 d-16	14 x 18	25	62,9	029006
6630 d-17	14 x 18	25	63,6	029013
6630 d-18	14 x 18	25	64,3	029020
6630 d-19	14 x 18	25	65,3	029037
6630 d-21	14 x 18	25	66,5	029044
6630 d-22	14 x 18	25	67,3	029051
6630 d-24	14 x 18	25	68,8	029068
6630 d-27	14 x 18	31	76,8	029075
6630 d-30	14 x 18	31	78,5	029082
6630 d-32	14 x 18	31	79,8	029099
6630 d-34	14 x 18	31	81,3	029105
6630 d-36	14 x 18	31	82,5	029112
6630 d-41	14 x 18	31	85,5	029129

## Safe Box



- For safe storage of torque wrenches
- Up to size BX 8 with display window
- Plastic, black

HAZET No.	l mm	EAN-No. 4000896+
For HAZET 6110-1 CT 6114-1 CT 6290-1 CT		
6060 BX-2	420	024629
For HAZET 5121-2 CLT 6111-1 CT 6115-1 CT 6121-1 CT 6291-1 CT 6291-2 CT		
6060 BX-4	530	024636
For HAZET 5122-2 CLT 6122-1 CT 6127-1 CT 6292-1 CT		
6060 BX-6	635	024643
For HAZET 5123-2 CLT 5128-2 CLT 6123-1 CT 6128-1 CT 6293-1 CT		
6060 BX-8	775	102907

## Safe Box

HAZET No.	l mm	EAN-No. 4000896+
<b>Without display window</b> for 6143-1 CT 6294-1 CT		
6060 BX-10	830	116515
<b>Without display window</b> for 6132-1 CT 6144-1 CT 6145-1 CT 6295-1 CT 6296-1 CT		
6060 BX-12	1310	116522

## Mechanical Angle Dial



- For tightening screws as a function of the torsion angle
- To be used between all torque wrenches with  $\blacksquare$  drive 12.5 = 1/2" (resp. 20 = 3/4") and tools with  $\square$  drive 12.5 = 1/2" (resp. 20 = 3/4")
- With flexible magnetic holder for the fixing point
- Range 0 - 360°, graduation 1°, 95 mm  $\varnothing$

HAZET No.	$\square$ $\blacksquare$	EAN-No. 4000896+
6690	12,5 = 1/2"	029266
6690-1	20 = 3/4"	029273

## Torque Multiplier



Improved, light style made of aluminium.  
Up to a 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
- 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. 1:12

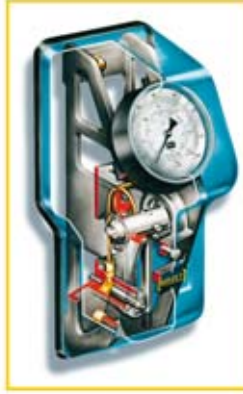
HAZET No.	Nm	$\square$	$\blacksquare$	EAN-No. 4000896+
6800 ALU- 700	700	12,5 = 1/2"	20 = 3/4"	143467
6800 ALU-1400	1400	20 = 3/4"	25 = 1"	143481
6800 ALU-2800	2800	20 = 3/4"	25 = 1"	143603

### Extra long pattern

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

6800 ALU-Lg 1400	1400	20 = 3/4"	25 = 1"	143580
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## Hydraulic Torque Tester



- For torque wrench testing and adjustment
- Tolerance  $\pm 1\%$  of scale value
- Low mass acceleration
- Reduced friction
- Ball-bearing primary shaft
- Motion of pointer damped, pointer does not swivel or move upon release of the Torque Wrench
- Inside 8-point drive 12.5 = 1/2" additional adapter 10 = 3/8" and 20 = 3/4" (included)
- Space-saving wall fixation with two heavy-duty dowels (included)

HAZET No.	Nm	EAN-No. 4000896+
6903	10–200	029310
6905	20–400	029327

## Electronic Torque Tester



### Compact and easy-to-handle testing device

- Accuracy tolerance  $\pm 1\%$
- Measuring range 10–350 Nm (max. torque)
- Big and easy to read LED status display with 3 LED
- Quick wall or table fixation with 4 screws
- Fix square socket, 12.5 = 1/2"
- Simple handling reducing user errors to a minimum
- 3 operation modes: tracking mode  
Click mode for click point indication (1st peak)  
DIAL mode for peak value indication (final peak)
- Calibration in Nm, torque units lbf.ft and lbf.in may also be selected
- Possibility to enter target torque setting and percentage tolerance setting
- RS-232 cable (included in delivery) for connection to computer, printer as well as mains receiver
- Weight: 2.5 kg  
H 145.5 x W 150 x D 85 mm

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

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.

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

lbf.ft	Nm	lbf.ft	Nm
1	1.4	35	47.5
2	2.7	40	54.2
3	4.1	45	61.0
4	5.4	50	67.8
5	6.8	60	81.3
6	8.1	70	94.9
7	9.5	80	108.5
8	10.8	90	122.0
9	12.2	100	135.6
10	13.6	120	162.7
15	20.3	140	189.8
20	27.1	160	216.9
25	33.9	180	244.0
30	40.7	200	271.2

Nm	lbf.ft	Nm	lbf.ft
1	0.7	40	29.5
2	1.5	45	33.2
3	2.2	50	36.9
4	3.0	55	40.6
5	3.7	60	44.3
6	4.4	70	51.6
7	5.2	80	59.0
8	5.9	90	66.4
9	6.6	100	73.8
10	7.4	110	81.1
15	11.1	120	88.5
20	14.8	130	95.9
25	18.4	140	103.3
30	22.1	150	110.6
35	25.8	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 (HAZET 6401-1 – 6416) 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!**