

**KOLVER®**

# K-TESTER & K-TORQUE ANALYZER

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**TOOLimpex**  
CZECH REPUBLIC s.r.o.

# K-TESTER

Our new torque analyser with an external transducer



Self-powered unit with lithium battery  
(up to 10 hours)

External  
transducer with  
cable connection

## K-TESTER



Self-powered unit with lithium battery  
(up to 10 hours)

External rotary  
transducer with  
cable connection

# FEATURES

Up to **64 different programs**

**Auto-detection** of the different external transducers

Static external transducers  
(need joint simulator):

**1 - 5 - 20 - 50 - 100 Nm**  
**(8.8 - 885 lbf-in)**

Different torque options available on request



# FEATURES

Up to **64 different programs**

**Auto-detection** of the different external transducers

Rotary external transducers:

**5 - 25 - 50 - 100 Nm**  
**(42 - 885 lbf-in)**

Different torque options up to 500Nm available on request

Torque and angle rotary transducer available soon



# FUNCTIONALITY

Works in **program mode** or **free-run mode**

Torque displaying: **peak value** or **real-time tracking**

Real-time **graph** visualization, both directly on the control unit as well as on any tablet or PC running the **K-Torque Analyzer** companion software

**Advanced reporting** capabilities, including archiving to USB





# STATIC MODELS

K-TESTER Complete Kit	Kit part number (reader + KTI transducer + joint simulator)	KTI transducer	Part number	Joint simulator	Part number
K-TESTER KTI1	021406/F1	KTI1 0,1 - 1 Nm	023001/I	M4	240640
K-TESTER KTI5	021406/F5	KTI5 0,3 - 5 Nm	023005/I	M6	240600
K-TESTER KTI20	021406/F20	KTI20 0,5 - 20 Nm	023020/I	M8	240800
K-TESTER KTI50	021406/F50	KTI50 2 - 50 Nm	023050/I	M12 3/8"	240901
K-TESTER KTI100	021406/F100	KTI100 5 - 100 Nm	023100/I	M12 1/2"	240902

# ROTARY MODELS



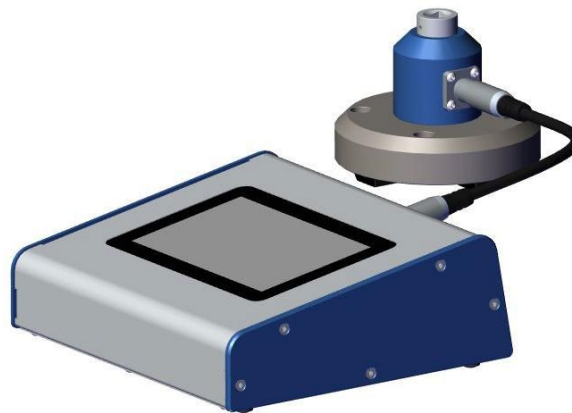
K-TESTER Complete Kit	Kit part number (reader + KTE transducer + KTEI board)	KTE transducer	Part number	KTEI board part number
K-TESTER KTEI5	021406/R5	KTE5 4.42 – 44.2 lbf-in	022405	020079
K-TESTER KTEI25	021406/R25	KTE25 17.7 – 221 lbf-in	022425	020079
K-TESTER KTEI50	021406/R50	KTE50 44.2 – 442 lbf-in	022450	020079
K-TESTER KTEI100	021406/R100	KTE100 88.5 – 885 lbf-in	022411	020079



# JOINT SIMULATORS

**Included** M4, M6, M8, M12 joint simulators

- \_ M4 slim with bearings and cup washers (new)
- \_ M6 & M8 with cup washers
- \_ M12 with bearings and cup washers (new)



# JOINT SIMULATORS - LOW & MICRO-TORQUE

1 Nm, Slim M4 joint simulator with bearings and cup washers

Code	Model	Max Torque	Input	Output	Included with	Optional on-request
<b>240640</b>	Hex 13-1/4" M4	8.8 lbf-in	Hex 1/4" male	Hex 13mm female	KT1 KT11	MiniK1 K1



Microtorque threaded-hole joint simulators, M1.6, M2, M3 (special order only)

Code	Model	Input	Output	Special order, only for
<b>240620</b>	Hex 13/M1.6	Female threads <b>M1.6</b>	Hex 13mm female	MiniK1 K1 KT1 KT11
<b>240621</b>	Hex 13/M2	Female threads <b>M2</b>		
<b>240622</b>	Hex 13/M3	Female threads <b>M3</b>		



# JOINT SIMULATORS

## MID TORQUE

**5 Nm, M6 threads with cup washers (existing 240600 model)**

**20 Nm, M8 threads with cup washers (existing 240800 model)**

Code	Model	Max Torque	Input	Output	Included with
<b>240600</b>	Hex 13- 1/4" M6	44 lbf-in	Hex 1/4" male	Hex 13mm female	MiniK1-5 K1-5 KT5 KTi5
<b>240800</b>	Hex 13- 1/4" M8	177 lbf-in	Hex 1/4" male	Hex 13mm female	MiniK20 K20 KT20 KTi20



# JOINT SIMULATORS - HIGH TORQUE

50 & 100 Nm, M12 threads with bearing and cup washers

Code	Model	Max Torque	Input	Output	Included with
240901	3/8" M12	442 lbf-in	Sq 3/8" female	Sq 3/8" male	KT50 KT150
240902	1/2" M12	885 lbf-in	Sq 1/2" female	Sq 1/2" male	KT100 KT1100



# TARGET TORQUE MODE

In **target torque mode** you can set one or more programs to use, and display & archive all results, statistics and reports



# TARGET TORQUE MODE

## SETTINGS

**TARGET, MIN, MAX**

**TOLERANCE (%)**: used for stats generation

**MODE:**

**peak**: shows the max value

**track**: shows the value in real time

**SCREWS**: screw count for current program

**CLEAR**: how long until value on display is cleared

PR 1

DESCRIPTION	P1				
TARGET	3.0	Nm	MIN	2.5	MAX 3.5
TOLERANCE	15	%			
MODE	PEAK				
SCREWS	10				
CLEAR	OFF	AFTER	1.5	s	

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# K-TESTER

effect is mostly only evident when looking at the graphs in the included PC software



# K-TESTER

**speed:** min speed (for rotational transducers only); anything under this speed is ignored.





# FREE-RUN MODE

When the target torque is not set (OFF), the device will display the **peak value** encountered

**No statistics are shown**

# GRAPHS

The graphs is plotted in **real time**

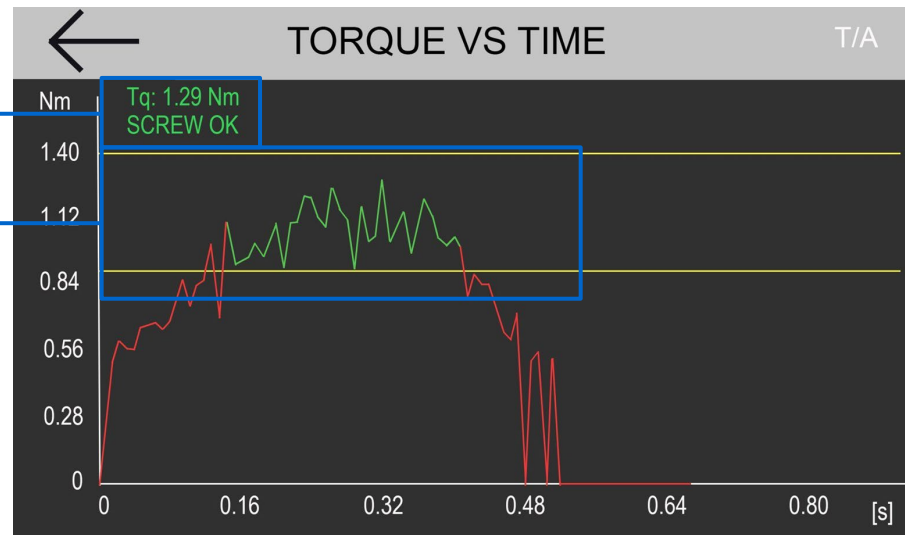
If working in target torque mode, the **min/max boundaries** are shown

Graph colors:

**green** when within min/max boundaries

**red** when outside min/max boundaries

When working in **peak mode**, the maximum value is shown, as well as the OK/NOK result of the tightening operation



# REPORTING

K-TESTER records all torque values, tightening results and graphs

Reports available for:

- \_ **current program** (saved to internal RAM memory)
- \_ **previous programs** (saved to USB) - swiped left and right to move between programs

USB reports can be exported to csv

REPORT						
PR 1 STATS						
OK 8/10	MAX 3.15	USL 3.57	AVG 3.30	CM 1.01	SPREAD 0.30	
NOK 2/10	MIN 1.85	LSL 3.11	TOL 10%	CMK 1.1	STD 0.0115	
N	TIME	TARGET	ACTUAL	UNIT	MODE	RESULT
1	11/08/2022 13:15:21	3.00	3.05	Nm	Peak	OK
2	11/08/2022 13:15:27	3.00	3.15	Nm	Peak	OK
3	11/08/2022 13:15:35	3.00	3.11	Nm	Peak	OK
4	11/08/2022 13:15:45	3.00	3.01	Nm	Peak	OK
5	11/08/2022 13:15:55	3.00	3.00	Nm	Peak	OK
6	11/08/2022 13:16:04	3.00	1.85	Nm	Peak	NOK
7	11/08/2022 13:16:20	3.00	2.05	Nm	Peak	OK

# INTERFACE

Intuitive interface with touch-screen display



# K-TESTER

## NETWORK SETTINGS

GENERAL SETTINGS

TARGET TORQUE MODE

☒

SHOW AVG

☒

MODEL

KDS-PL6

SERIAL NUMBER

1817366

CYCLES

1324

FATc

905

UNIT

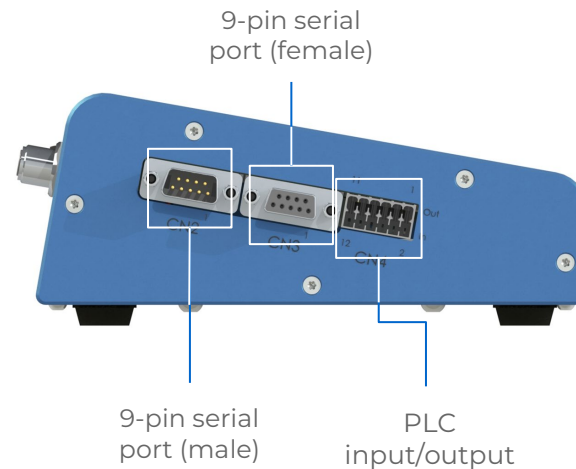
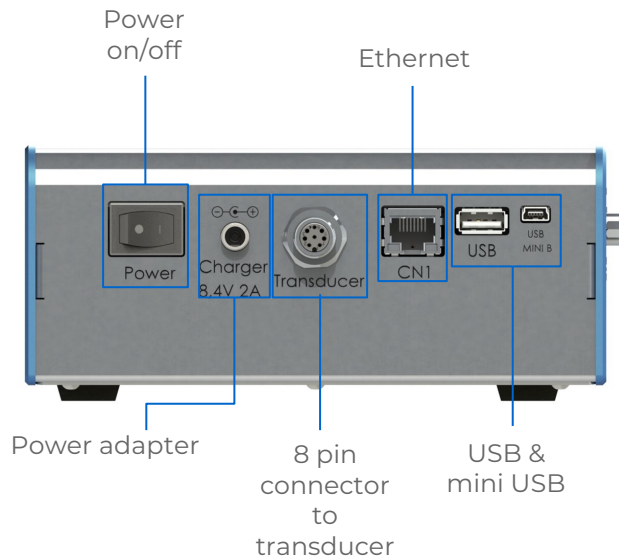
< NM >

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▽

# PORTS/CONNECTIONS



# K-TORQUE ANALYZER

K-TORQUE ANALYZER is the **companion software** for managing the K-TESTER and visualizing graphs & reports from a tablet/pc connected via ethernet

## FUNCTIONALITY

- **real-time displaying and archiving** of data from the K-TESTER
- **analysis and comparison** of tightening operations and torque data
- **reporting**
- managing of **device settings and programs**

# K-TORQUE ANALYZER

## INTERACTIONS

### ACTIONS

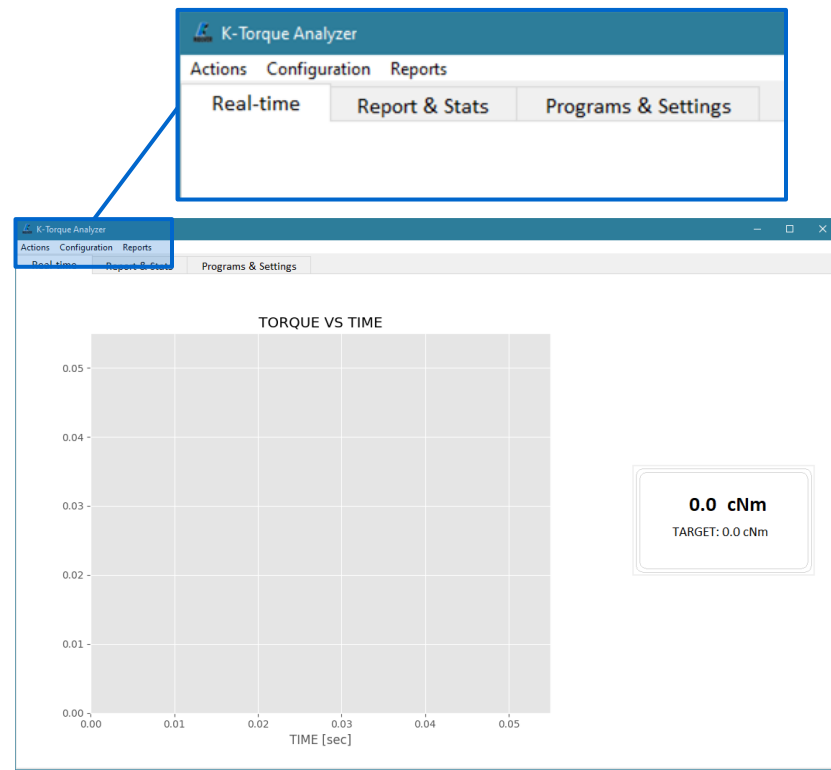
- \_ connect/disconnect from controller
- \_ download/upload configuration from/to controller

### CONFIGURATION (programs and settings)

- \_ import from file
- \_ export to file

### REPORTS

- \_ save last program (i.e. last batch) results to CSV
- \_ save all results to CSV
- \_ enable/disable autosave
- \_ clear all results





# K-TORQUE ANALYZER

## TABS

### REAL TIME

Visualize the graph and results in real time

If working with **TORQUE TARGET** mode, relevant information such as min/max limit is displayed on the screen

Right-click on graph to navigate the graph via the available **functions**:

- \_ **Home**: return to home view
- \_ **Back**: return to previous view
- \_ **Forward**: return to last view
- \_ **Move**: pan the view
- \_ **Zoom**: select an area to zoom
- \_ **Save**: save a picture of the graph to a file

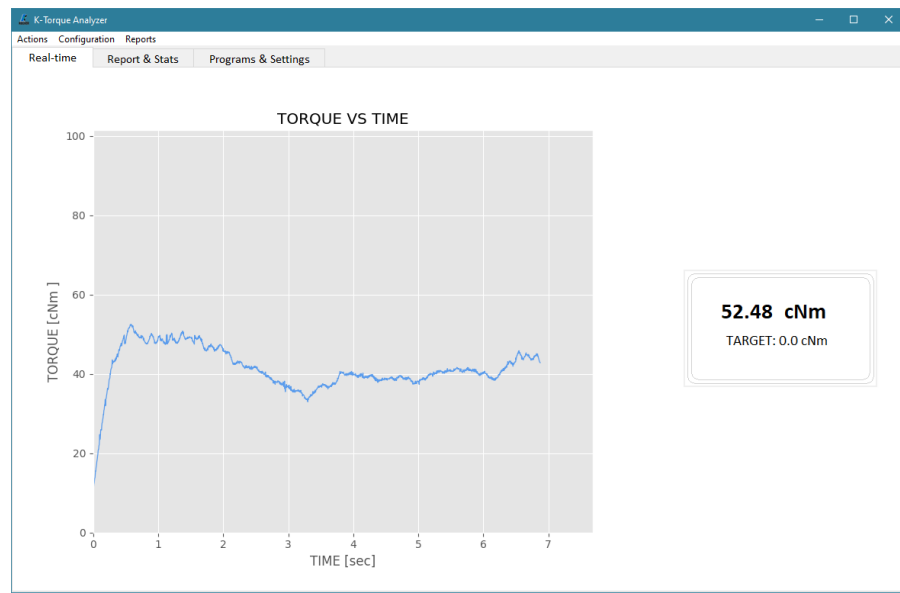


# K-TORQUE ANALYZER

With **TORQUE TARGET** mode **OFF**, a plain graph is shown and the peak value is highlighted on the right side of the screen

Right-click on graph to navigate the graph via the available **functions**:

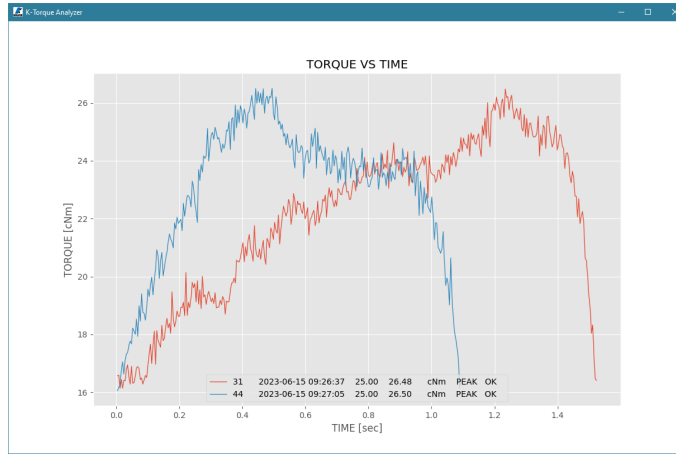
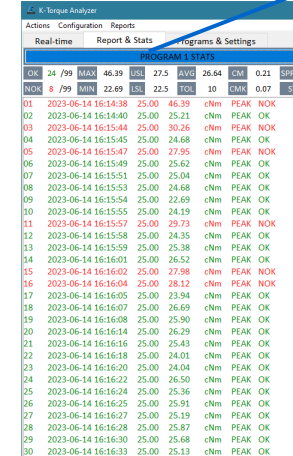
- \_ **Home**: return to home view
- \_ **Back**: return to previous view
- \_ **Forward**: return to last view
- \_ **Move**: pan the view
- \_ **Zoom**: select an area to zoom
- \_ **Save**: save a picture of the graph to a file



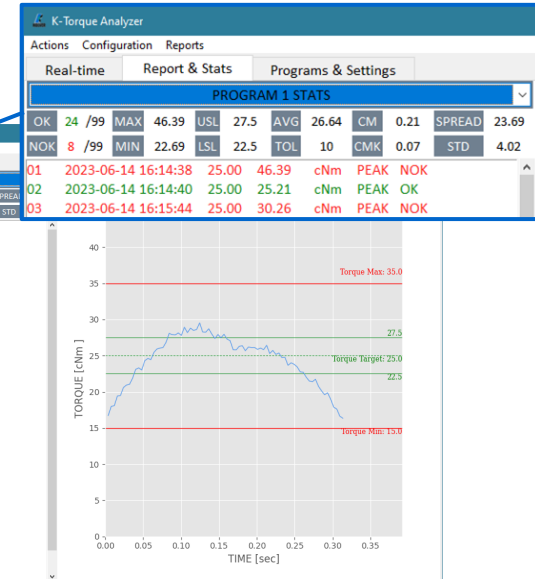
## K-TORQUE ANALYZER

### REPORTS AND STATS

Review all the recorded results so far, relevant statistics such as Cm and Cmk. Select one or more results to graph and visualize superimposed for comparison (right-click to bring up graph controls).

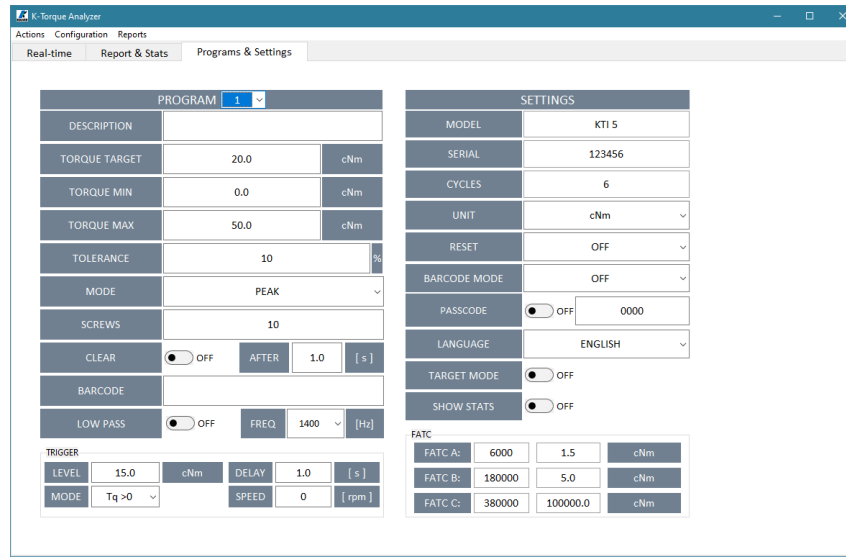
OK	24 / 99	MAX	46.39	USL	27.5	AVG	26.64	CM	0.21	SPREAD	23.69
NOK	8 / 99	MIN	22.69	LSL	22.5	TOL	10	CMK	0.07	STD	4.02
01	2023-06-14 16:14:38	25.00	46.39	cNm	PEAK	NOK					
02	2023-06-14 16:14:40	25.00	25.21	cNm	PEAK	OK					
04	2023-06-14 16:15:45	25.00	24.68	cNm	PEAK	OK					
05	2023-06-14 16:15:47	25.00	27.95	cNm	PEAK	NOK					
06	2023-06-14 16:15:49	25.00	25.62	cNm	PEAK	OK					
07	2023-06-14 16:15:51	25.00	25.04	cNm	PEAK	OK					
08	2023-06-14 16:15:53	25.00	24.68	cNm	PEAK	OK					
09	2023-06-14 16:15:54	25.00	22.69	cNm	PEAK	OK					
10	2023-06-14 16:15:55	25.00	24.19	cNm	PEAK	OK					
11	2023-06-14 16:15:57	25.00	29.73	cNm	PEAK	NOK					
12	2023-06-14 16:15:58	25.00	24.35	cNm	PEAK	OK					
13	2023-06-14 16:15:59	25.00	25.38	cNm	PEAK	OK					
14	2023-06-14 16:16:01	25.00	26.52	cNm	PEAK	OK					
15	2023-06-14 16:16:02	25.00	27.98	cNm	PEAK	NOK					
16	2023-06-14 16:16:04	25.00	28.12	cNm	PEAK	NOK					
17	2023-06-14 16:16:05	25.00	23.94	cNm	PEAK	OK					
18	2023-06-14 16:16:07	25.00	26.69	cNm	PEAK	OK					
19	2023-06-14 16:16:08	25.00	25.90	cNm	PEAK	OK					
20	2023-06-14 16:16:14	25.00	26.29	cNm	PEAK	OK					
21	2023-06-14 16:16:16	25.00	25.43	cNm	PEAK	OK					
22	2023-06-14 16:16:18	25.00	24.01	cNm	PEAK	OK					
23	2023-06-14 16:16:20	25.00	24.04	cNm	PEAK	OK					
24	2023-06-14 16:16:22	25.00	26.50	cNm	PEAK	OK					
25	2023-06-14 16:16:24	25.00	25.36	cNm	PEAK	OK					
26	2023-06-14 16:16:25	25.00	25.91	cNm	PEAK	OK					
27	2023-06-14 16:16:27	25.00	25.19	cNm	PEAK	OK					
28	2023-06-14 16:16:28	25.00	25.87	cNm	PEAK	OK					
29	2023-06-14 16:16:30	25.00	25.68	cNm	PEAK	OK					
30	2023-06-14 16:16:33	25.00	25.13	cNm	PEAK	OK					



# K-TORQUE ANALYZER

## PROGRAM AND SETTINGS

View and modify all program parameters and settings



The screenshot displays the 'K-Torque Analyzer' software interface, specifically the 'Programs & Settings' tab. The interface is divided into two main sections: 'PROGRAM' and 'SETTINGS'.

**PROGRAM 1**

DESCRIPTION		
TORQUE TARGET	20.0	cNm
TORQUE MIN	0.0	cNm
TORQUE MAX	50.0	cNm
TOLERANCE	10	%
MODE	PEAK	
SCREWS	10	
CLEAR	<input type="radio"/> OFF	AFTER 1.0 [ s ]
BARCODE		
LOW PASS	<input type="radio"/> OFF	FREQ. 1400 [ Hz ]

**TRIGGER**

LEVEL	DELAY
15.0 cNm	1.0 [ s ]
MODE Tq > 0	SPEED 0 [ rpm ]

**SETTINGS**

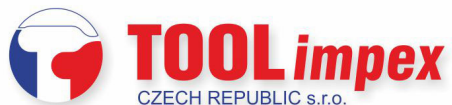
MODEL	KT1 5	
SERIAL	123456	
CYCLES	6	
UNIT	cNm	
RESET	OFF	
BARCODE MODE	OFF	
PASSCODE	<input type="radio"/> OFF	0000
LANGUAGE	ENGLISH	
TARGET MODE	<input type="radio"/> OFF	
SHOW STATS	<input type="radio"/> OFF	

**FATC**

FATC A:	FATC B:	FATC C:
6000	180000	380000
1.5	5.0	100000.0
cNm	cNm	cNm



**THANKS FOR WATCHING**



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