

# DW

accuracy to  
improve quality



## New DW dynamometric torque wrenches

- Torque reading: capacity from 5 up to 350 Nm
- Torque control version
- Torque and angle control version

**Fiam**<sup>®</sup>  
PEOPLE AND SOLUTIONS

# New DW dynamometric torque wrenches: accuracy to improve quality

New range of DW Fiam dynamometric torque wrenches effectively **verify the torque or torque/angle fastening values** at the assembly lines.

**User friendly:** selections through only 4 buttons for a **simple, fast software navigation** available in **3 languages**.

You can choose among different measure procedures (**peak, continuous, breakaway**) and measuring direction (CW or CCW) by pressing only one button; in the same way the tolerance window can be easily configured by pre-setting of minimum and maximum torque and angle values. During tightening, a led along with an acoustic signal show when these values have been reached.

You can change the measuring unit from Nm into lbf, ft/lbf in, for an extreme versatility of use.

They can be employed in the production of small production batches as well as to finish tightenings already started, thanks to the ratchet available upon request.

Be demanding

## Reliability

Measuring devices which can check fastening torque in order to guarantee expected quality standards and a higher quality of the product assembled

- They are fundamental when it is necessary to **certify tightening** values and accuracy of the assembly, particularly when operating according to ISO 9000 certification
- Accuracy: **+/- 1% of full scale** in compliance with EN-ISO 6789-2004
- Measuring unit: **Nm, lb-in, lbf-ft and Kgm**
- **Three reading procedures: Continuous torque**, to check just in time the applied torque or **Peak**, to note the maximum value of the torque obtained. For T/A (Torque/Angle) models, **Breakaway** mode is also available to verify the joint residual torque

- Three reading procedures: **quick measure**, to obtain the torque by pre-setting a min/max value; **preset**, to obtain the torque and compare with values pre-inserted into one of 30 memory files; **free measure**, only to obtain the torque or torque/angle  
For T/A (Torque/Angle) models there is also **Quick Breakaway** mode to obtain the residual torque
- Setting of **target value** (nominal values) and gap/error percentage (tolerance accepted)
- Readings (date, time, measured values...) can be **transferred to a PC** (through the cable available upon request), where they can be stored and analysed using Excel software, in order to carry out statistics controls useful for the improvement of the quality of the assembled product



**DW dynamometric torque wrenches**

Don't be satisfied  
with the maximum

## Productivity

The analysis of outcomes collected with these systems allows identifying and eliminating errors thus giving important productivity returns

- Ideal when **many tracings on production lines** are necessary: outcomes can be stored in maximum 30 different files storing maximum 900 readings
- Selections through 4 buttons only

for a simple and fast  
software navigation and  
an immediate understanding  
(different languages available)

- **Backlit wide display** (132x32 pixel) for a clear view of read values
- **Optical signals** with three leds (yellow/green/red color) **and acoustic signal** (buzzer with variable sounds) **when the pre-set values** have been reached for a faster assembly process
- **Fast visualization** of the memorized files when necessary
- **Battery lifetime up to 30** uninterrupted working hours
- **Different languages available** (italian, english, french) allow using the wrenches in different Countries

Perfection is  
in your hands

## Ergonomics

Alike all Fiam solutions, these wrenches are designed paying high attention to ergonomics and operator's safety

- Sturdy **steel body** suitable for every industrial environment
- **Soft touch grip** to favor the tool holding by the operator
- Supplied with **case** to ease portability
- **Great lightness** from only 1,15 kg
- **Compact dimensions** for greater operator's comfort

Naturally  
innovative

## Ecology

Designed and built using recyclable materials: all the components are easy to dispose therefore they are not polluting nor harming operators health

- **Eco-contribution WEEE** acquitted with full respect for the environment and without any extra charge for the customer
- Feed with **4 stilo AA batteries** easy to dispose of
- **Auto-switch** off of the wrench and backlit display to be programmed: for a reduction of the battery consumption and increase of lifetime



*DW dynamometric torque wrenches*

	Model	Code	Torque capacity		Ratchet drive	Dimensions (length)	Weight (ratchet excluded)	
			Nm	in lb			Kg	lb
Torque control	DW50T	686000771	5 ÷ 50	44.25 ÷ 442.5	<input type="checkbox"/> 9x12	357	1,15	2.53
	DW100T	686000772	10 ÷ 100	88.5 ÷ 885	<input type="checkbox"/> 9x12	418	1,36	2.99
	DW200T	686000773	20 ÷ 200	177 ÷ 1770	<input type="checkbox"/> 14x18	512	1,43	3.15
	DW350T	686000774	35 ÷ 350	309.75 ÷ 3097.5	<input type="checkbox"/> 14x18	610	1,55	3.41
Torque/angle control	DW50T/A	686000775	5 ÷ 50	44.25 ÷ 442.5	<input type="checkbox"/> 9x12	357	1,15	2.53
	DW100T/A	686000776	10 ÷ 100	88.5 ÷ 885	<input type="checkbox"/> 9x12	418	1,36	2.99
	DW200T/A	686000777	20 ÷ 200	177 ÷ 1770	<input type="checkbox"/> 14x18	512	1,43	3.15
	DW350T/A	686000778	35 ÷ 350	309.75 ÷ 3097.5	<input type="checkbox"/> 14x18	610	1,55	3.41

### Legend

DW = Digital Wrench • 50 = Max torque • T = Torque • T/A = Torque/Angle

#### Standard equipment (supplied with wrench)

- Containing case
- For DW...T/A models: specific software for measurement of Breakaway torque
- 4 stilo AA batteries
- Calibration certificate in compliance with standards
- Use and maintenance manual

Wrench is supplied without ratchet

#### Accessories available upon request

- Ratchet with reversible square drive



Accessory	Drive	Code
Reversible ratchet	9x12 - <input type="checkbox"/> 3/8	686000998
Reversible ratchet	9x12 - <input type="checkbox"/> 1/2	686000999
Reversible ratchet	14x18 - <input type="checkbox"/> 1/2	686001000

- PC connecting cable to download and print measured data (cod.686200610)
- Calibration certificate

## Process Capability

For an effective analysis of the tightening process, and therefore in general for an **evaluation of the Process Capability\***, **it is necessary to have adequate instruments and appropriate methods to measure the tightening torque.**

Particularly for Static Measurement: it is a "post process" measurement, carried out after the tightening process, with the aid of dynamometric wrenches, with which the accuracy of the obtained torque is strictly dependent on:

- Operator's experience (except for torque/angle models, equipped with Breakaway reading where the operator's ability does not influence the data)
- The moment the measurement is carried out (influence of the phenomenon of joint relaxation)
- Reliability and accuracy of the instrument

*\* Process Capability is an index of the variability with which the production process obtains results. Many external factors can influence the evaluation of the Process Capability, such as: the accuracy of the screwdrivers, the variability of the joint, use of screwdriver, air pressure and/or air flow variation, maintenance of the screwdriver.*