



# MSD traceable bolting solution

# Alkitronic M-SD

## Applications

- High quality bolt-connections place the highest demands on bolting technology. The powerful mounting documentation system *alkitronic® MDS* provides a fast, complete and flawless collection of torque data. *alkitronic® MDS* helps to fulfill legal regulations and to comply with international quality standards (documentation to the end user, trace able bolting parameters).
- The product range includes:  
The manually operated *alkitronic® M-SD*, and the pneumatic operated *alkitronic® PC-SD*. The torque multipliers are used for torque controlled bolting and reliable measurement data recording on the spot.

## Advantages

### General

- Optimized process safety and work safety.
- Guaranteed traceability and documented bolted joints.
- Torque can be set and record on site.
- Control panel with OLED display, display of torque in Nm or ft.lbs.

### alkitronic® M-SD

- Repeatability in tightening – independent of disturbances.
- Torque/torque angle procedure, manual setting, and documentation on site.
- High mobility: independent of external power supply.

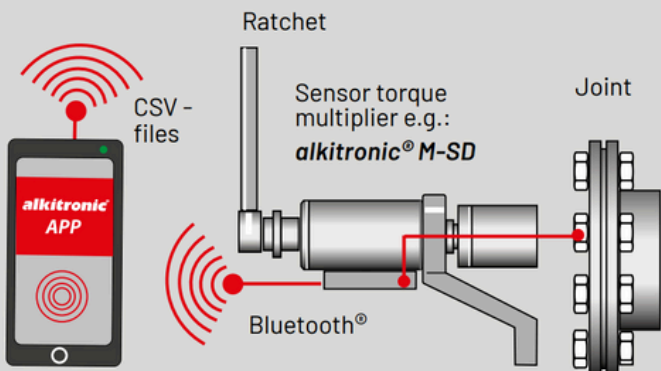
### alkitronic® PC-SD

- Robust motor housing of cast aluminum with proven pneumatic drive.
- Proven high-performance gears, produced in a chip-free, high precision process produce high loads with low wear.
- Simple 1-finger operation for right/left rotation.



Mounting Documentation Systems

### alkitronic® APP application scheme

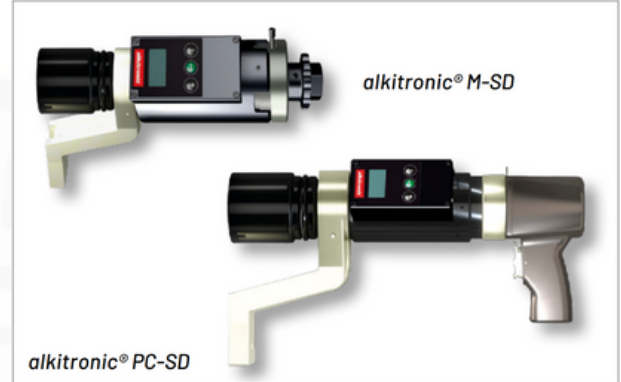
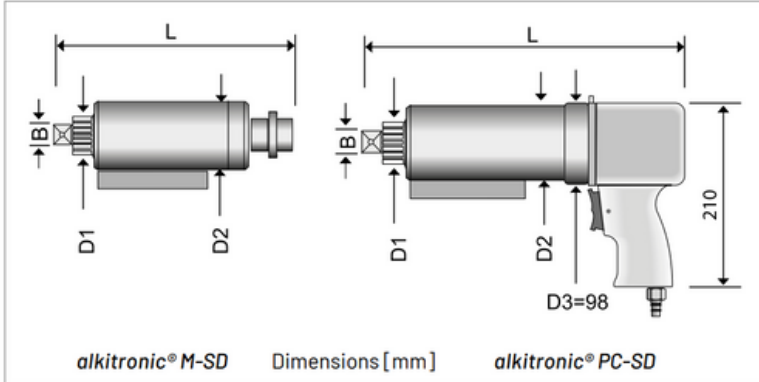


alkitronic® APP for iOS® and android® mobiles and platform independent data exchange via CSV file transfer.

Image on the upper right: *alkitronic® M-SD*.  
On the lower right: *alkitronic® PC-SD* and *alkitronic® M-SD*.



Technical Data



Models M-SD / PC-SD

Type		M-SD 100	M-SD 200	M-SD 400	PC-SD 100	PC-SD 200	PC-SD 400
Measuring range approx.	Nm	100-1000	200-2000	400-4000	100-1000	200-2000	400-4000
Power (max)	Nm	1000	2000	4000	1000	2000	4000
Square drive	B	1"	1"	1 1/2"	1"	1"	1 1/2"
Diameter (approx.)	D <sub>1</sub>	mm	54	72	54	54	72
Diameter (approx.)	D <sub>2</sub>	mm	88	98	88	88	98
Length (approx.)	L	mm	220	295	360	390	410
Weight without DMA approx.	kg	6.4	7.6	11.35	10	11.25	15
Idle speed	r/min	-	-	-	11	5	3.5

Operation panel/sensoric: Measurement accuracy: +/- 1% / Temperature range: 0 to + 500 C

Overview of the programs 1 to 5 (Programs for M-SD: 1-4, for PC-SD: 1 and 5, only)

1 Tightening with specified torque

- Torque controlled bolting, bolt connections with target values and tolerance levels.

2 Tightening with torque/angle procedure

- Pre-torque and angle can be preset.
- Tolerance specification for the final torque (control of bolting quality).
- Storage of actual torque and angle.

3 Checking of torque

- Monitoring of already tightened bolt connections.

- Determination of already loosened torque values.
- Repeatable testing method with specified angle.
- CCW: Determination of the starting torque.

4 Determination of required angle

- For testing and development purposes. Pre-torque and target resp. final torque are specified.
- Measurement and storage of the reached angle.

5 Display actual torque only with model PC-SD

- Display and recording of the actual torque.

Operating range M-SD / PC-SD with OLED graphic display

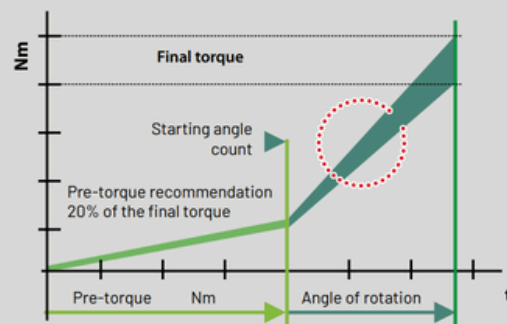
Example for menu-guided operation (M-SD)



Examples Display image in mode "Program 1"

Select units (Nm/ft.lbs) and language (German, English) during setting (image 2). Image 3 shows setting of bolting parameters. Image 4 shows the amount of boltings. Alarms and other notifications made by visual and acoustic signals.

Diagram for program 2 and 4



Information on rotational angle setting for torque/angle procedure

- A pre-torque and angle of rotation are specified constructively for the bolting connection.
- B The angle of rotation can be determined individually and easily with the alkitronic® M-SD.