

**MDS**

Mounting  
Documentation  
Systems



**alkitronic<sup>®</sup>**

# MDS traceable bolting solution

## 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 **fulfil legal regulations** and to comply with **international quality standards** (documentation to the end user, traceable bolting parameters).

- The product range includes:  
The manually operated **alkitronic® HSD**, the pneumatic operated **alkitronic® CLSD** and the battery driven **alkitronic® EASD**. The torque multipliers are used for torque controlled bolting and reliable measurement data recording on the spot.

## Advantages

### General

- Optimized process safety and safety at work.
- 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 lbf.ft.

### alkitronic® HSD

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

### alkitronic® CLSD

- Robust motor housing of cast aluminum with proven pneumatic drive.

### alkitronic® EASD

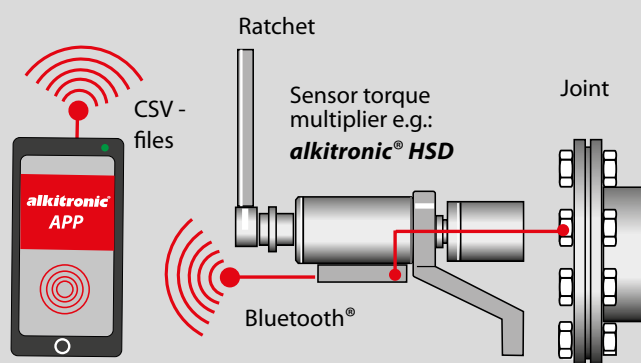
- **Health preserving:** ergonomically designed, low noise emission. No noise protection necessary.
- **Powerful and independent:** Two lithium-ion battery packs ensure up to 360 screw joints in a row.
- **Exact shut-off torque** even at low battery levels.

## alkitronic® specials

- **Torque recording and sensors directly on the square drive.**
- Select your individual bolting- and measurement method, several preset programs can be chosen.
- Menu-guided multilingual operation, using visual and acoustic control- or warning signals.
- Data transmission via the **Bluetooth®** interface for communication with mobile phones and other devices, such as tablets.
- **alkitronic® APP** developed for measurement data recording and fast data transmission.



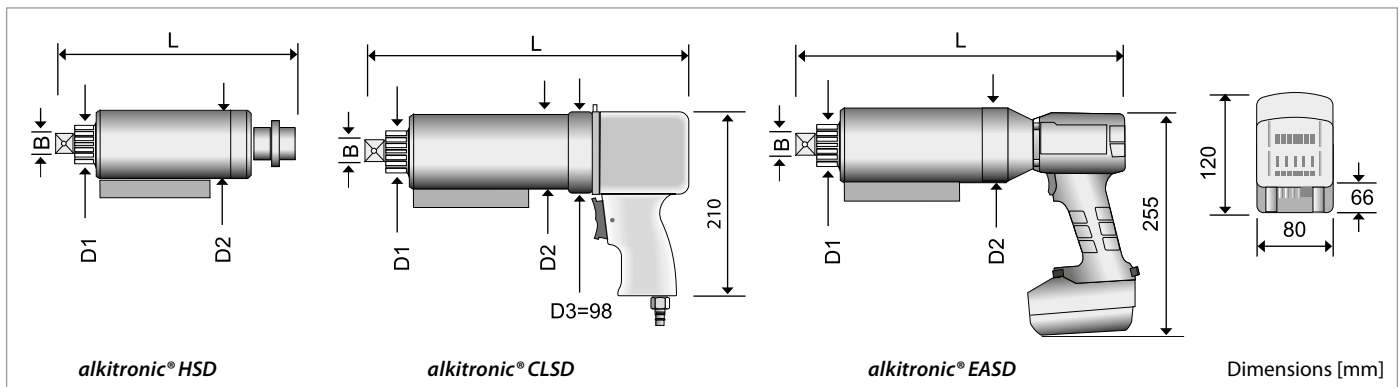
### alkitronic® APP application scheme



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

Image on the upper right: **alkitronic® HSD** and on the lower right: **alkitronic® CLSD** and **alkitronic® EASD**.

## Technical Data



### Models HSD / CLSD / EASD

Type			HSD 100	HSD 200	HSD 400	CLSD 100	CLSD 200	CLSD 400	EASD 100	EASD 200	EASD 400
Measuring range approx.	Nm		100-1000	200-2000	400-4000	100-1000	200-2000	400-4000	100-1000	200-2000	400-4000
Power (max)	Nm		1000	2000	4000	1000	2000	4000	1000	2000	4000
Square drive	B		1"	1"	1 1/2"	1"	1"	1 1/2"	1"	1"	1 1/2"
Diameter (approx.)	D <sub>1</sub>	mm	54	54	72	54	54	72	54	54	72
Diameter (approx.)	D <sub>2</sub>	mm	88	88	98	88	88	98	88	88	98
Length (approx.)	L	mm	220	295	320	360	390	410	370	405	425
Weight without DMA approx.	kg		6,4	7,6	11,35	10	11,25	15	8,7	10	13,5
Idle speed gear I	r/min		-	-	-	11	5	3,5	5	2	1
Idle speed gear II	r/min		-	-	-	-	-	-	18	6,5	4

Operation panel/sensoric: Measurement accuracy: +/- 1% / Temperature range: 0 to + 50° C

### Overview of the programs 1 to 5 (Programs for HSD: 1-4, for CLSD / EASD: 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 models EASD and CLSD

- Display and recording of the actual torque.

### Operating range HSD / CLSD / EASD with OLED graphic display

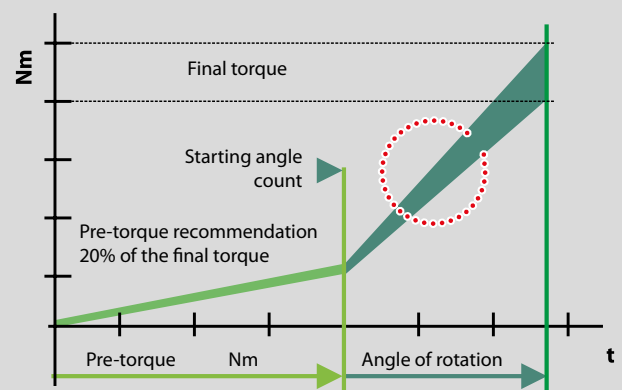
#### Example for menu-guided operation (HSD)



#### Examples Display image in mode "Program 1"

Select units (Nm/ft.lb) 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

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

**alkitronic® provides all drive technologies.**

Extract from our product range:

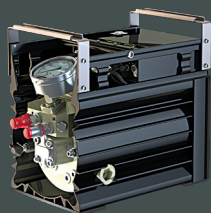
✓ **ELECTRIC**



✓ **PNEUMATIC**



✓ **HYDRAULIC**



✓ **MANUAL**



# **alkitronic®**

YOUR PLUS FOR MORE PERFORMANCE

**Increased quality**

Premium production  
Use of high-quality materials  
Long product life cycles  
30 years of experience in bolting technology  
Made in Germany – international patents

**Increased precision**

Precise, customer-specific torques  
High repeatability  
Reliability in permanent operation  
Recordable tightening outputs  
Automatic shut-off

**Increased productivity**

Quicker tightening without reworking  
No environmentally caused failures (IP54, ATEX)  
High work safety  
Simple use – easy instruction  
Low maintenance and cost efficient

**Better service**

Technical advice on site  
Training offers  
Manufacturer's calibration and certification  
Lifecycle support  
Spare part and repair service

TORQUE POWER WORLDWIDE