

**EXCLUSIVE DISTRIBUTOR OF** 







alkitronic

# **EF-S & EF-A SERIES**

### Applications

- alkitronic® EF-S electrical torque multipliers for torques of 430 to 42,000 Nm (315 to 30,980 ft.lbs).
- Consistent torque accuracy on all international power supplies.
- Precise shut-off torque also operates with voltage-controlled portable generators.
- Models alkitronic® EF-A in angled design with high operating comfort in confined spaces for torques of 900 to 9,800 Nm (665 to 7,230 ft.lbs).

### **Advantages**

- Low running costs due to maintenance-free, low-wear, brushless synchronous motor with excellent efficiency.
- High motor speed: Up to three times faster than conventional electrical torque multipliers.
- Permanent higher joint quality compared to ratchet torque tools by continuous rotation of the square drive.
- Menu-guided intuitive operation, with control and warning signals.
- OLED-Display anti-glare and high contrast for perfect reading under all weather conditions.
- Comfortable working due to the 360° rotatable motor unit; in addition, hardly any reaction forces are transmitted to the user.

### alkitronic® Specials

- Quality bolting with torque/angle method.
- Innovative motor protection with automatic shutdown to ensure bolting quality.
- Intelligent processor-controlled shut-off electronics for constant exact reproduction of the preselected torque.
- Repeat shut-off accuracy  $\pm$  2% for the same bolting application.
- Exceptionally robust motor housing (aluminum alloy).
- For safe, comfortable tool guidance, model-specific operating and holding handles are included in the scope of delivery. These can be mounted as required at several fastening points provided.

# **Specifications**

All alkitronic® electric torque multipliers have CE-certification. Universal AC input 100 V - 253 V, frequency 45 Hz - 66 Hz, power max. 1400 W. Protection category I.

### **Bolting programs:**

For user-specific applications, modular software packages can be optionally purchased.

Software suite 1:	Torque controlled bolting (standard)
Software suite 2:	Torque/angle procedure for high-quality bolting connections
Premium:	Torque/angle procedure with adjustable min./max. torque limitation
Software suite 3:	Bolting with preset rotations and torque limit
Software suite 4:	Bolting parameters according to individual customer requirements
Software suite 5:	Bluetooth transmission via alkitronic® APP
	Documentation of the bolted joints (target-actual status, recording for each joint)

Software suite 1 is pre-installed in the basic equipment. The setting steps of the torque values are in increments of 10  $\,$  Nm or 10 ft.lbs.

#### **Display views**

Software suite 1 (mode 1) and software suite 2 (mode 2)

#### Mode 1 / M1 (Standard)

.

EF-S



Bolting via torque. Automatic release according to pre-set angle degrees.

Mode 2 / M2 (Option)

EF-A

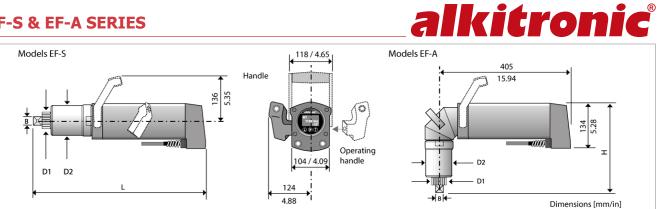


Torque/angle procedure forhigh-quality bolting connections. Display example of pre-torque, angle and release angle.

During the bolting process, the current torque value is shown in the display. Reaching the set value is indicated by an "OK". If the selected value cannot be achieved, the bolting operation is evaluated as "nOK". www.specialisedforce.com.au



### **EF-S & EF-A SERIES**



# **Models EF-S**

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Туре		EF-S 250	EF-S 300	EF-S 400	EF-S 600	EF-S 800	EF-S 1000	EF-S 2000	EF-S 4000
Torque range (approx		430-2700	500-3100	900-4300	1150-6200	2000-7800	2050-9500	3500-20600	6200-42000
ft.lbs		315-1990	370-2285	665-3170	850-4575	1475-5755	1510-7010	2580-15195	4575-30980
Square drive		1″	1 1/2″	1 1/2″	1 1/2″	1 1/2″	1 1/2″	2 1/2″	2 1/2″
Diameter (approx.)	D1 mm/in	54 / 2.13	72 / 2.83	72 / 2.83	72 / 2.83	72 / 2.83	91 / 3.58	SW 120 / A/F 4.7	SW 120 / A/F 4.7
Diameter (approx.)	D2 mm/in	85 / 3.35	98 / 3.86	98 / 3.86	109 / 4.29	133 / 5.24	173 / 6.8	275 / 10.83	275 / 10.83
Length (approx.)	L mm/in	515 / 20.3	535 / 21	535 / 21	550 / 21.6	550 / 21.6	565 / 22.2	760 / 30	760 / 30
Weight without DMA	(approx.) kg/lbs	13 / 29	14 / 31	14.5 / 32	16 / 35	19.5 / 43	27 / 59.5	60 / 132	62 / 137
Idle speed	rpm	10	8	6	5	4	3	1	0.7

# Models EF-A

Тур			EF-A 400	EF-A 600	EF-A 800	EF-A 1000
Torque range (approx.) * Nm		900-4300	1150-6200	1060-8000	2050-9800	
ft.lbs			665-3170	850-4575	780-5900	1510-7230
Square drive			1 1/2″	1 1/2″	1 1/2″	1 1/2″
Diameter (approx.)	D1		72 / 2.83	72 / 2.83	72 / 2.83	91 / 3.58
Diameter (approx.)	D2		98 / 3.86	109 / 4.29	133 / 5.24	173 / 6.8
Height (approx.)	Н	mm/in	320 / 12.6	350 / 13.8	350 / 13.8	380 / 15
Weight without DMA	A (approx	.) kg/lbs	15.5 / 34	17.5 / 38.6	20 / 44	29 / 64
Idle speed		rpm	5	4	3	2

\*(When loosening bolts, a higher torque (up to 20 %) may be necessary (release torque). We will be pleased to help you with your choice. \*\*) Torque reaction arm

### Scheme bolting programs

Torque controlled bolting mode 1 Torque/angle procedure mode 2

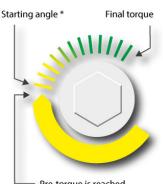
Final torque



\* Information on rotational angle setting for torque/angle method.

• The angle of rotation can be determined individually and easily with alkitronic " HSD. We will gladly provide you with detailed product information.

• The angle of rotation is specified by the design for the bolting connection.



Pre-torque is reached

Accessories: Remote control with operating handles



The alkitronic<sup>®</sup> EF bolting system.

Extremely flexible with the alkitronic® remote control as an accessory: alkitronic® FB - EF - cable length 5 m or 10 m

**ELECTRIC SERIES** 



# ELECTRIC TORQUE MULTIPLIER

alkitronic®

# **EF-R & EF-SG SERIES**

### **Applications**

- These tools are ideally specialized for bolting connections on plate heat exchangers, e.g. in the food and beverage sector, the paper industry, and the chemical industry. They save much time when tightening and loosening plate packs where perfect retention and absolute tightness are essential.
- Reliable, low-wear operation due to continuous rotation when bolting with spindles or long threaded bolts.
- Depending on the application, electrical or pneumatic driven torquemultipliers: torque up to 4,800 Nm.

# **Advantages**

- Load-free operation, with short assembly time.
- Fast simultaneous tightening of large plate packs when using two or more torque multipliers diagonally.
- alkitronic® RCL, CL2-SG and battery driven torque multiplier EA with fast gear for turning in and simple, quick switching to power gear.

### alkitronic® specials

- Targeted types for convenient working in every tightening situation: among other options between radial gearing (R) with high-performance worm drive; tangential gearing (SG) with highly efficient spur gear.
- Long lifetime due to extremely robust motor housing made of cast aluminum or break-proof polymer.

# **Specifications**

- Pneumatic driven models: Prerequisites for best work with the indicated torques are an operating pressure of 2-7 bar at a volume flow of approx. 10-15 l/s. The torque accuracy depends on the stability of the supply system.
- Electric driven models: Universal AC input 100 V 253 V, frequency 45 Hz – 66 Hz, power max. 2000 W, protection category I, EFCip with protection class IP 54 (EF optional). EA models with two lithium-ion battery packs 18 V, 5.2 Ah, and battery charger.

# **Product information Remote Control**

alkitronic® CLV-R or CLV-SG Model range with convenient remote control and individual pneumatic drive. When using several torque multipliers with radial (R) or tangential (SG) gearing, large packs can be tightened fast, simultaneously, and evenly.

- Operation of up to four torque multipliers simultaneously. Especially effective for multiple bolting connections and serial assemblies in semi-automatic operations.
- Low-level sound emission due to integrated sound reduction.

For highly efficient bolting connections with one or up to four alkitronic® CLV torque multipliers, preconfigured alkitronic® Remote Systems are already available.





Image above: alkitronic® RCL pneumatic torque multiplier in operation on a plate heat exchanger. Image below:

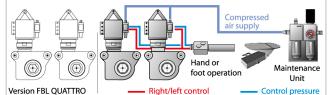


Image above: alkitronic® EFCip-SG in operation on a plate heat exchanger. Image below:PHE of Alfa Laval





FBL DUO for two CLV torque multiplier, FBL QUATTRO available on request .



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# ELECTRIC TORQUE MULTIPLIER

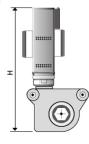


# **EF-R & EF-SG SERIES**

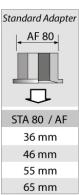


### **Technical Data**

Dimensions [mm] alkitronic® Radial Gearing (R)



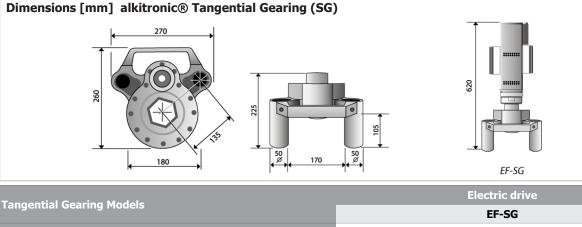
EF-R



**ELECTRIC SERIES** 

Radial Gearing Models	Electric drive			
	EF-R			
Туре	EF-R 80			
Torque range 2nd gear(approx.) Nm	-			
Torque range 1st gear (approx.) Nm	560-3780			
Width across flat (AF) mm	80			
Height (approx.) H mm	600			
Width (approx.) B/B1 mm	325/240			
Bolt distance (approx.) A1/A2 mm	156/194			
Dimensions (approx.) X/Y mm	98/98			
Dimension (approx.) D mm	94			
Weight (approx.)kg	24.5			
Idle speed 1st gear (approx.) rpm	9			
Idle speed 2nd gear (approx.) rpm	-			

\*) When loosening a bolted connection, up to 20% higher torque may be required (loosening torque). We will gladly advise you in detail.



Ei 56
EF-SG 80
-
560-3780
80
22
10
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