

VersaTec® Electric Screwdrivers

High Torque 230 V transformerless models and 34 V models with Controller
Low Torque and Low Torque ESD models with controller



VersaTec®

Electric Screwdrivers



The new VersaTec® Screwdriver is the latest expression of the Ingersoll-Rand design philosophy, to create products that truly reflect the needs of their users.

This versatile DC Electric Screwdriver combines industry-leading torque accuracy and repeatability with unmatched flexibility and serviceability for light duty, precision assembly applications.

At the same time, it sets new standards for ergonomics and operator convenience.



High Torque Series:

Two versions are offered for applications which require high torques:

The transformerless 230 V version and the low voltage 34 V version with controller.

These versions can be outfitted in three configurations: straight, pistol and angle – with activation by push start, lever or trigger.

Low Torque Series with Controller:

The 24 V screwdriver is intended for tasks in which low torque output and speed control are required.

The purpose of the controller is three-fold: To convert regular power supply into 24 V DC; to provide a soft start for the proper positioning of the smallest screws; and to adjust run-down speed in accordance with each application.



NEW



ESD Low Torque Series with Controller

The new VersaTec ESD tools have been designed specifically to overcome the increasing problems with Electro Static Discharge in the electronics industry. The tool is fitted with a Soft Stop device which delivers a cushioned reaction to the workpiece, reducing the risk impact failures.

What is ESD ?

Static Electricity is everywhere. It is most commonly created by friction and separation; when two items are separated a transfer of electrons from one object to the other takes place. This is called Electrostatic Discharge or ESD.

What harm does it cause ?

ESD has been a nuisance in industry for many decades and today has become a special problem in electronics. Electronic devices have become smaller and more sensitive to electric shock than ever before.


Static electricity is particularly critical in the production of disk drives and printed circuit boards, as well as the assembly of precision electric and electronic components.



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Model Identification Codes

Model Code for High Torque Series



Transformerless 230 V - 50 Hz → **E P 15 10 E**

Low Voltage 34 V - DC → **E L 15 25 S 2S5**
(Requires controller)

Control	Configuration	Torque (Max. Nm - in-lb)	Speed (rpm)	Voltage	Attachment
Electric	L Lever start	15 1.7 - 15	04 400	E 230 V	1S5 Angle head*
	P Push to start	26 2.9 - 26	05 500	S 34 V	2S3 Angle head*
	T Trigger start	40 4.5 - 40	07 700		2S5 Angle head*
			10 1000		
			11 1100		
			12 1200		
			16 1600		
			25 2500		

* Refer to page 5

Standard Equipment


High Torque / Transformerless

- Straight cable - length: 3 m.
- Spindle: 1/4" Hex quick change.
- Vertical suspension bail for straight tools.
- One vertical and one horizontal bail for pistol tools.
- Slanted flange on straight tool (low profile on pistol tool).

High Torque / Low Voltage 34 V

- Straight cable - length: 3 m.
- Spindle: 1/4" Hex quick change.
- Vertical suspension bail for straight tools.
- One vertical and one horizontal bail for pistol tools.
- Slanted flange on straight tool (low profile on pistol tool).

Model Code for Low Torque / Low Voltage 24 V-DC Series



Requires controller

E L 04 10 E


E L 04 10 BC - SS - ESD

Control	Configuration	Torque (Max. Nm - in-lb)	Speed (rpm)	Voltage	SS	ESD
Electric	L Lever start	01 0.15 - 1.3	07 700	E 24 V	Soft stop	Electro Static Discharge
		04 0.50 - 4.4	09 950	BC 24 V for clean rooms		
		05 0.55 - 4.8	10 1000			
		08 0.95 - 8.2				
		10 1.20 - 10.5				

Standard Equipment

- Straight cable - length: 1.5 m.
- Spindle: 1/4" Hex quick change (except 4 mm round shank on model **EL0109E** and **Soft Stop ESD** models).
- Vertical suspension bail.
- Two clutch springs are supplied to cover torque range. Tool is shipped with heavier clutch spring installed and light spring in tool box.

Model Code for Controllers



Used with low voltage models

EC 34 E S - 1

EC 24 E - ESD

Control Base	Tool Voltage	Input Voltage	For 34 V Only	For 34 V Only	ESD
24 24 V	E 230 V	S For tools with torque reach light	1 Single tool outlet	2 Two tools outlet	Electro Static Discharge
34 34 V					

Standard Equipment

- Straight cable - length: 3 m.
- Output port for counter connection.

Most popular models are marked with a star (★) on the following specifications pages.

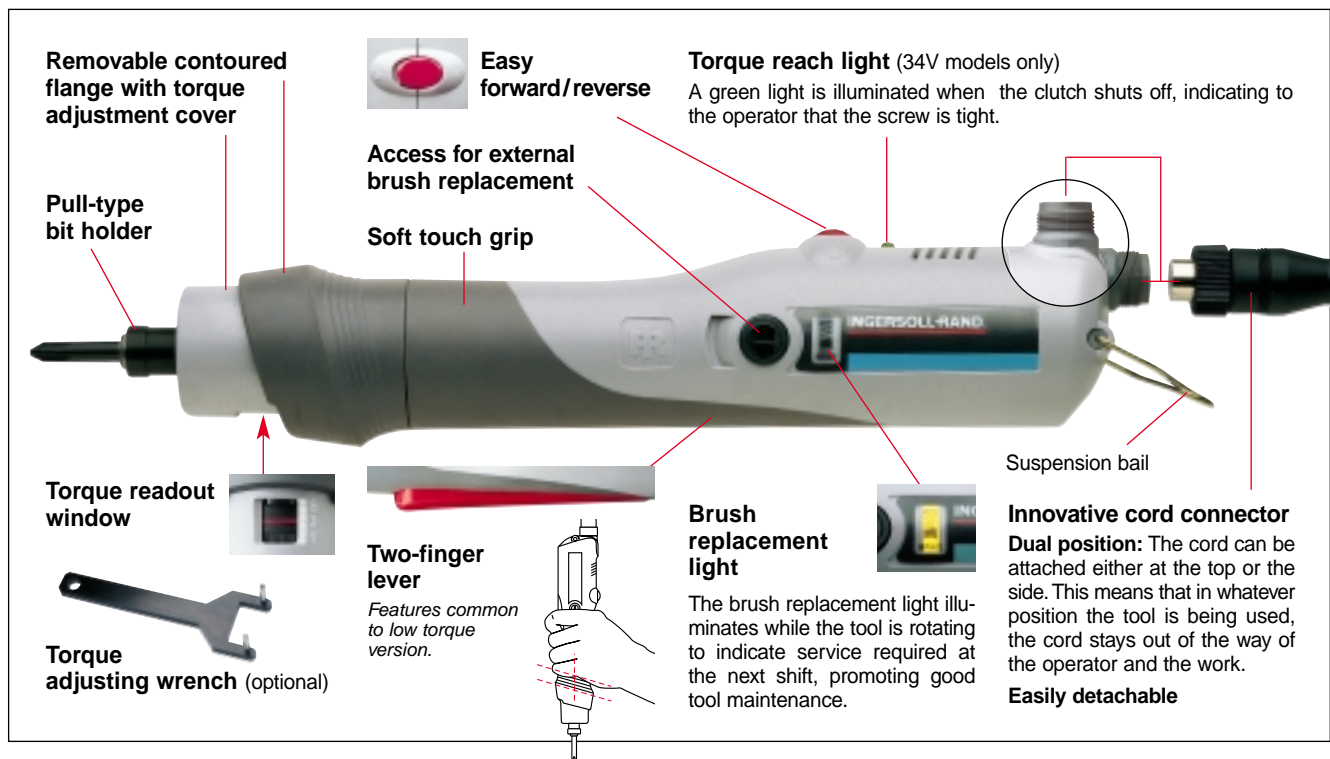
VersaTec®

Electric Screwdrivers/High Torque Series

The VersaTec Screwdriver represents major advances in design, engineering and construction, and is intended to deliver accuracy, quietness, ergonomics and versatility.

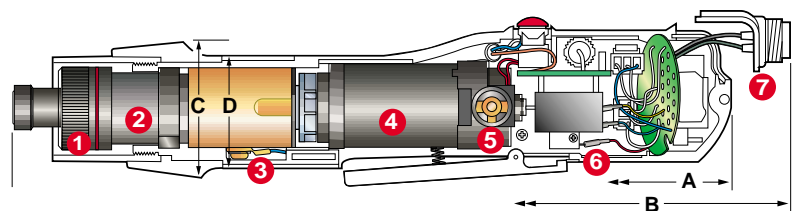
All high torque versions are based on a common platform, as shown on the following page, with supplementary components to address specific needs.

A complete assembly line can be outfitted without requiring a huge inventory of tools and spares.



High Torque Series Internal Features

With easy, only one-screw access to the interior, the VersaTec Screwdriver has been engineered for fast and simple maintenance.



1 Torque adjuster

The internal adjuster allows for a wide range of torque settings, tailoring the tool for virtually any light-assembly application.

2 Clutch assembly

Automatic shut-off clutch provides accuracy and precision. One clutch design is common to all high torque models.

3 Static reduction (34V models only)

Tool components have been specially treated to reduce the occurrence harmful static electricity.

4 DC motor

Provides unmatched durability and performance. Duty cycles vary depending on the application.

General rating:

- 0.8 sec. on, 3.2 sec. off
- 0.5 sec. on, 3.5 sec. off (2000 and 1200 rpm models only)

5 Easy brush replacement

Brush wear and replacement are signalled by the convenient external indicator light. Brushes can easily be replaced without opening the tool.

6 Quick connectors (230V models only)

It is easy to make electronic repairs, as the internal controller is replaced by unplugging its quick connectors, without need for re-soldering.

7 Cord receptacle

Cord orientation can easily be changed by rotating the receptacle to top or side position while the tool is open.

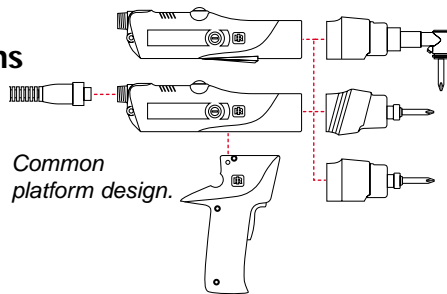
A = Length of tool with cord receptacle in side position.

B = Length of tool with cord receptacle in top position.

C = Flange diameter • Slanted flange: 52 mm • Straight flange: 46 mm

D = Grip size: 39 mm x 42 mm

3 different configurations



Common platform design.

Straight

The basic platform of the VersaTec Screwdriver, the straight tool, varies in size according to high or low torque versions. It can be configured in dozens of ways through attachments, accessories and adjustments.

Angle Head (High Torque)

Used with lever models, this configuration allows the VersaTec Screwdriver to be exceptionally manoeuvrable in tight spaces.

Pistol Grip (High Torque)

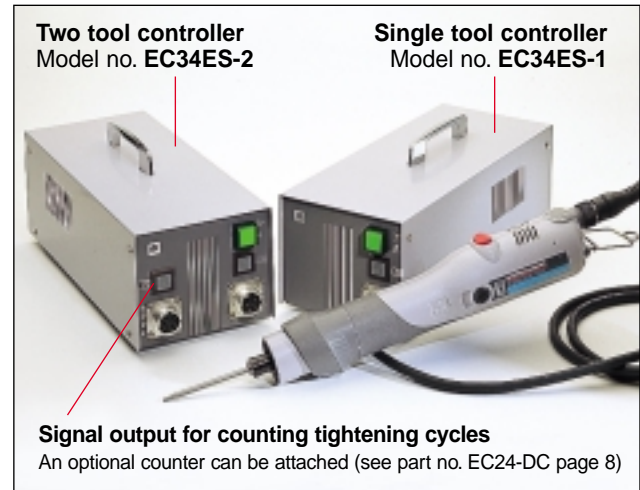
The pistol grip can be rapidly attached to lever or push start models. The pistol attachment has a soft touch surface with a two-finger trigger to evenly distribute grip forces.

Controller for High Torque / Low Voltage Models

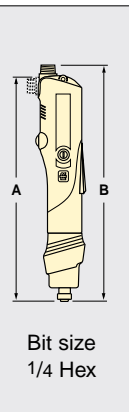
34V

Input 230 V(AC) – Output 34 V (DC)

Dimensions: L 220 x W 115 x H 102 mm – Weight: 4.6 Kg (one tool controller) – 4,8 kg (two tools controller)

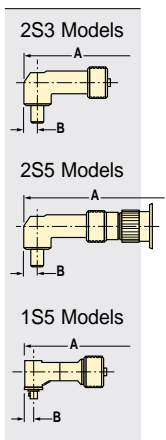


Push start	Model no. Lever start	Input voltage	Torque range		Free speed	Weight		Length with side cord receptacle A		Length with top cord receptacle B	
			Nm	in-lb		kg	lb	mm	in	mm	in
230 V – HIGH TORQUE / TRANSFORMERLESS - STRAIGHT* SCREWDRIVERS (REVERSIBLE)											
EP1510E ★	EL1510E	AC230	0.6-1.7	5-15	1000	0.73	1.6	273	10.75	286	11.25
EP2607E ★	EL2607E		1.2-2.9	11-26	700	0.73	1.6	273	10.75	286	11.25
EP4004E*	ET4004E ★		2.0-4.5	18-40	400	0.73	1.6	273	10.75	286	11.25
34 V – HIGH TORQUE / LOW VOLTAGE - STRAIGHT* SCREWDRIVERS (REVERSIBLE)											
EP1512S ★	EL1512S	DC34 (EC34ES control module required)	0.6-1.7	5-15	1200	0.68	1.5	273	10.75	286	11.25
EP1525S	EL1525S		0.6-1.7	5-15	2500	0.68	1.5	273	10.75	286	11.25
EP2608S ★	EL2608S		1.2-2.9	11-26	800	0.68	1.5	273	10.75	286	11.25
EP2616S ★	EL2616S		1.2-2.9	11-26	1600	0.68	1.5	273	10.75	286	11.25
EP4005S*	ET4005S*		2.0-4.5	18-40	500	0.78	1.7	273	10.75	286	11.25
EP4011S*	ET4011S*		2.0-4.5	18-40	1100	0.78	1.7	273	10.75	286	11.25



* All 4.5 Nm (40 in-lb) tools are supplied with pistol grip as standard equipment.

Model no.	Input voltage	Torque range		Free speed	Weight		Length A		Side to centre distance B		Drive size & type
		Nm	in-lb		kg	lb	mm	in	mm	in	
230 V – HIGH TORQUE / TRANSFORMERLESS - ANGLE HEAD SCREWDRIVERS (REVERSIBLE)											
EL1510E2S5	AC230	0.7-2.6	6-23	650	1.00	2.2	448	17.64	13.21	0.52	1/4 Square
EL4004E2S5		1.7-6.4	15-56	260	1.00	2.2	448	17.64	13.21	0.52	1/4 Hex female
EL1510E2S3		0.7-2.6	6-23	650	1.00	2.2	448	17.64	13.21	0.52	1/4 Hex female
EL4004E2S3		1.7-6.4	15-56	260	1.00	2.2	448	17.64	13.21	0.52	1/4 Hex female
EL1510E1S5		0.5-1.9	4-17	950	0.91	2.0	443	17.45	8.38	0.33	1/4 Square ⁽¹⁾
34 V – HIGH TORQUE / LOW VOLTAGE - ANGLE HEAD SCREWDRIVERS (REVERSIBLE)											
EL1525S2S5	DC34 (EC34ES control module required)	0.7-2.6	6-23	1600	0.95	2.1	448	17.64	13.21	0.52	1/4 Square
EL4011S2S5		1.7-6.4	15-56	700	0.95	2.1	448	17.64	13.21	0.52	1/4 Square
EL1525S2S3		0.7-2.6	6-23	1600	0.95	2.1	448	17.64	13.21	0.52	1/4 Hex female
EL4011S2S3		1.7-6.4	15-56	700	0.95	2.1	448	17.64	13.21	0.52	1/4 Hex female
EL1525S1S5		0.5-1.9	4-17	2400	0.86	1.9	443	17.45	8.38	0.33	1/4 Square ⁽¹⁾



⁽¹⁾ Special head for Aerospace: This head is designed for close quarter applications. It is not intended for extensive counter-clockwise use.

Note: Angle heads can rotate 360° for application adjustment. Torque output will vary with application.

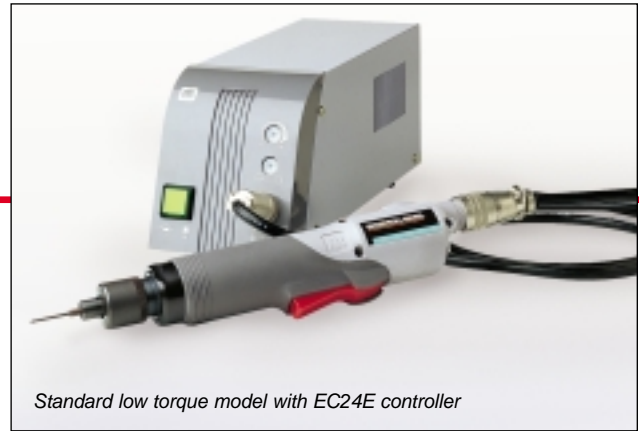
VersaTec®

Electric Screwdrivers / Low Torque Series

24V Standard Low Torque Series

The Low torque 24V Series are intended for tasks in which low torque output and speed control are required – using the same technology as for the High Torque versions.

The Low torque Series are designed in straight configuration with lever start.



Standard low torque model with EC24E controller

24V ESD Low Torque Series

The ESD model features a carbon-filled composite housing and trigger, as well as a cord coated with an anti-electrostatic resin, which greatly reduces static build-up.

The sealed package eliminates any leakage of carbon brush dust, and a unique new clutch design completes the grounding of the tool from end-to-end.

VersaTec ESD Models resistance values

Item	Where measured	ESD models	Standard models
Quantity of electrostatic (V)	Grip	5 (V)	350 (V)
	Trigger	2 (V)	350 (V)
	Forward/rev. switch	2 (V)	25 (V)
	Cord	5 (V)	350 (V)
Surface resistance (OHMS)	Grip	1 x 10 ⁴	1 x 10 ¹⁹ or more
	Trigger	1 x 10 ⁴	1 x 10 ¹⁹ or more
	Cord	1 x 10 ¹⁰	1 x 10 ¹⁹ or more

Low Torque Models Features

Variable free speed/soft start features built into controller

Soft Stop Clutch (SS-ESD models only).
See details on the following page)

- Minimises soft and hard failures to sensitive electronic equipment by limiting the motor inertia as the clutch begins to shut off.
- One way clutch – direct drive in reverse for easy removal of tightened fasteners.

Electro-Static Discharge control (ESD models only)

- Grounded automatic shut-off clutch (on ESD models)
- Carbon fibre impregnated housing, trigger, switches and controller face
- Resin coated control cord reducing ESD effect
- Fully grounded controller (Model EC24N-ESD)

Soft touch and small size
A perfect match for delicate operations.

Class 100 clean room rating (ESD models only)

Easy forward/reverse
Only one hand is needed to change direction. The forward/reverse toggle is easily accessible, activated smoothly by either the left or right hand.

Innovative cord connector easily detachable

Vaccum pick-up ready (ESD models only). Useful with optional vacuum pickup sleeves (see spindle accessories page 9)

Controller for Low Torque Models

Signal output for optional counter:
An optional counter can be attached. This allows for counting tightening cycles (Optional counter, Part no. EC24-DC).

Variable speed adjustment:
Adapts the tool to different applications without having to change tools.

Variable soft start adjustment:
Makes positioning of small screws easy.

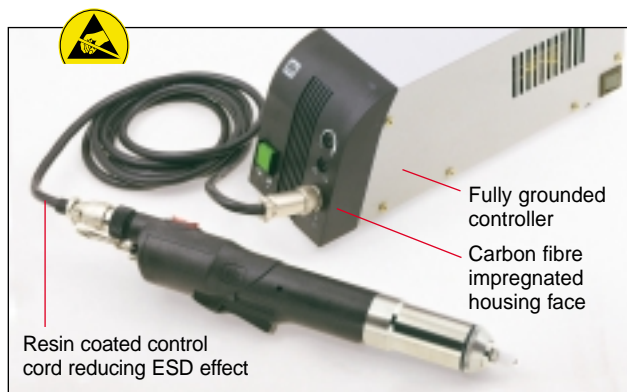
Mounting holes:
A mounting bracket can be purchased separately for securing the controller.

ESD low torque model with EC24E-ESD controller

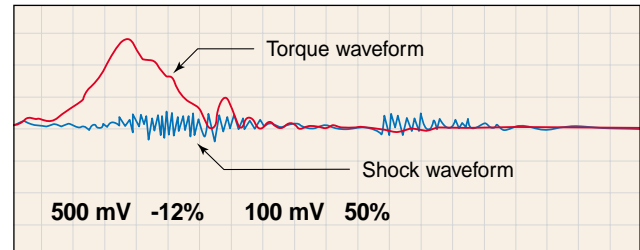
Soft Stop Features for ESD Series (SS-ESD models only)

A new, improved clutch mechanism holds and controls the bit more closely, reducing the clutch inertia to the workpiece by 90% of standard model levels.

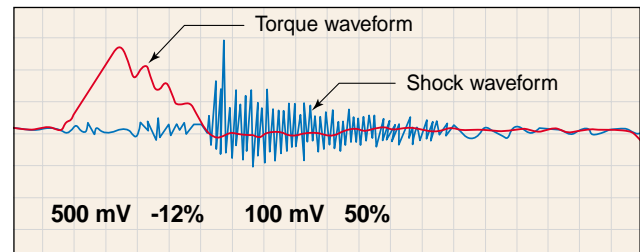
This reduced reaction against the workpiece lessens the chance of hard and soft component failures on sensitive electronic equipment, reducing the need for downline rework and the high cost of warranty due to failure in the field, e.g. PCBs.



VersaTec SS-ESD Models (with soft stop)



Standard Models without soft stop feature



Model no.	Input voltage	Torque range		Free speed	Weight		Overall length (top cord receptacle)		Bit size
		Nm	in-lb		kg	lb	mm	in	
24 V - LOW TORQUE SCREWDRIVERS (REVERSIBLE)									
EL0109E	DC24 (EC24E controller required)	0.03-0.15	0.26-1.3	650-950	0.32	0.7	235	9.25	4 mm Ø
EL0410E ★		0.06-0.50	0.5-4.4	750-1000	0.36	0.8	235	9.25	1/4" Hex
EL1007E ★		0.55-1.2	4.8-10.5	500-700	0.36	0.8	235	9.25	1/4" Hex

Note: Two clutch springs are supplied to cover torque range; Tool is shipped with heavier clutch spring installed.

Model no.	Input voltage	Torque range		Free speed	Weight		Overall length (top cord receptacle)		Bit size
		Nm	in-lb		kg	lb	mm	in	
24 V - ESD LOW TORQUE SCREWDRIVER * (REVERSIBLE)									
EL1007BC-ESD	DC24 (EC24E-ESD)	0.19-1.2	1.7-10.4	500-700	0.40	0.9	267	10.5	1/4" Hex
24 V - ESD SOFT STOP LOW TORQUE SCREWDRIVERS * (REVERSIBLE)									
EL0410BC-SS-ESD	DC24 (EC24E-ESD controller required)	0.19-0.40	1.7-3.5	700-1000	0.40	0.9	267	10.5	4 mm Ø
EL0510BC-SS-ESD		0.25-0.55	2.2-4.8	700-1000	0.40	0.9	267	10.5	4 mm Ø
EL0807BC-SS-ESD		0.45-0.95	3.9-8.2	500-700	0.40	0.9	267	10.5	4 mm Ø
EL1007BC-SS-ESD		0.55-1.2	4.8-10.5	500-700	0.40	0.9	267	10.5	4 mm Ø

* "SS" = Soft Stop models — "BC" = Class 100 clean room model.

Note: Two clutch springs are supplied to cover torque range; Tool is shipped with heavier clutch spring installed.

Model no.	Corresponding tools	Input voltage	Output voltage	Weight		Size (L x W x H)	Soft start & speed adjustment	Number of tools
		V (AC)	V (DC)	kg	lb			
24 V - CONTROLLERS FOR LOW TORQUE SERIES								
EC24E	Std. models	230	24	2.3	5.1	267 x 83 x 104	yes	1
EC24E-ESD	ESD models	230	24	2.3	5.1	267 x 83 x 104	yes	1



For High Torque Series Only

Attachable pistol grip handle

Part No. EP4007N-48

For use with all high torque / lever and push start models.



Low profile flange

Part No. EP4007N-123

Smaller dimension flange (fitted as standard on pistol and angle models).



Light spring

Part No. VDS-511

Used for high torque models:

0.17-0.8 Nm (1.5-7.0 in-lb) for EP/EL1510E

0.22-1.0 Nm (2.0-9.0 in-lb) for EP/EL1512K/1525K

Torque adjusting wrench

Part No. EP4007N-516

Used to externally adjust the high torque models without removing the flange.



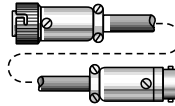
For High Torque & Low Torque Series

Extension cord, length 2 m (6.5 ft)

For use between tool and controller.

Part No. ES40T-249-2 for controller EC24

Part No. EC29-249-2 for controller EC34



Digital counter – Part No. EC24-DC

(Available on special request)

Used with low torque models and high torque / low voltage models.

Digital display shows number of cycles. Includes cord to attach to controller.



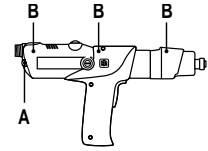
Suspension bails

High torque models

A Vertical

Part No. EP4007N-365

B Horizontal: Part No. EP4007N-366



Low torque models

Vertical: Part No. EL0109B-365

For Low Torque Series Only

Torque adjustment cover

Part No. DWL-5300

Used for models EL1007E, EL0410E and EL0109E.

This cover is designed to ensure tamper proof torque adjustment thus ensuring continued repeatability and quality control in the assembly process.



Mounting bracket

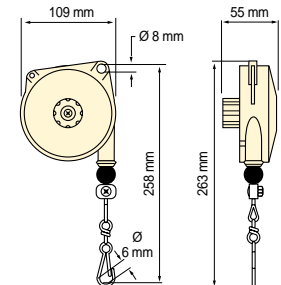
Part No. EC24-MB

Used to secure low torque controllers.

Cable Balancers

Rotary hook – Self lubricating bushes – Adjustable capacity and stroke limiting device – Auxiliary safety suspension.

Model	Capacity		Stroke		Weight	
	kg	lb	mm	in	kg	lb
BLD-1	0.4-1	0.9-2.2	1600	63	0.6	1.3
BLD-2	1-2	2.2-4.4	1600	63	0.6	1.3

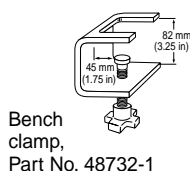


Single arm workstations

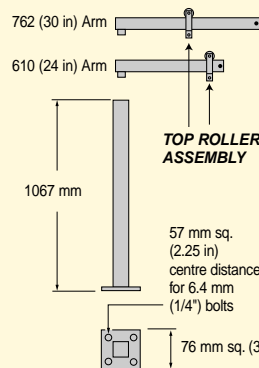
The handsome, superior look makes these Workstations an attractive addition to any assembly environment. Both bench and wall mount styles - with 24" or 30" swing arms - are available to meet your installation requirements. Fitted as standard with top roller assembly for smooth and effortless travel along the length of the swing arm.

Model no.	Mounting style	Arm length		Max. tool + balancer weight	
		mm	in	kg	lb
WB124A-000	Bench	610	24	4.5	10
WB130A-000	Bench	762	30	4.5	10
WW124A-000	Wall	610	24	4.5	10
WW130A-000	Wall	762	30	4.5	10

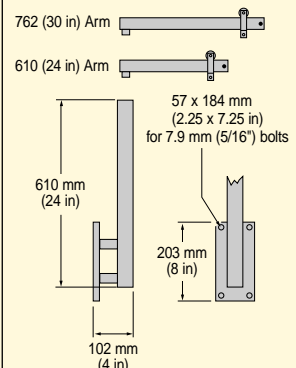
Additional equipment to be ordered separately



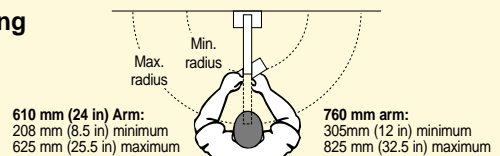
Bench Mount Models



Wall Mount Models

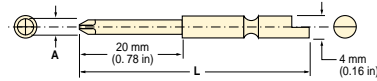


Working Area



Phillips Round Shank Bits

For low torque models
(EL0109E and ESD soft
stop models)

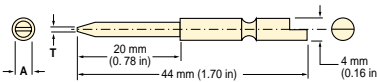


Bit (Qty 10) Part No.	Point size	A dia.		L length		Screw size range
		mm	in	mm	in	
DLB2120-10	0	1.8	0.07	44	1.7	0 to 1
DLB2121-10				64	2.5	
DLB2122-10	00	2.0	0.08	44	1.7	00 to 0
DLB2123-10				64	2.5	
DLB2124-10	0	2.5	0.10	44	1.7	0 to 1
DLB2125-10				64	2.5	
DLB2126-10	1	3.0	0.12	44	1.7	2 to 4
DLB2127-10				64	2.5	
DLB2128-10	1	4.0	0.16	44	1.7	2 to 4
DLB2129-10				64	2.5	
DLB2130-10	2	4.0	0.16	44	1.7	5 to 10
DLB2131-10				64	2.5	
DLB2132-10	3	6.0	0.24	44	1.7	10 to 1/4

NOTE : Other sizes on request.

Slotted Round Shank Bits

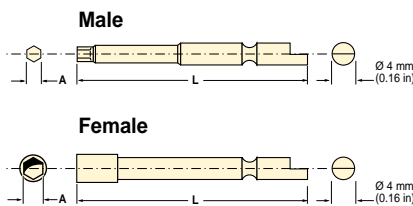
For low torque models
(EL0109E and ESD soft
stop models)



Bit (Qty 10) Part No.	T	A dia.		Screw size range
		mm	in	
DLB2220-10	0.3	0.012	2.0 0.08	00 to 0
DLB2221-10	0.3	0.012	2.5 0.10	00 to 0
DLB2222-10	0.4	0.016	3.0 0.12	0 to 2
DLB2223-10	0.5	0.020	4.0 0.16	2 to 4
DLB2224-10	0.7	0.026	5.0 0.20	3 to 5

Hexagonal Shank Bits

For low torque models
(EL0109E and ESD
soft stop models)

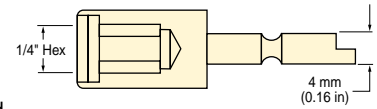


Bit part no.	A hex. dimension		L length		Screw size	
	mm	in	mm	in	mm	in
MALE						
DLB2321-10	1.5	0.06	44.0	1.7	3.0	0.12
DLB2322-10	2.0	0.08			4.0	0.16
DLB2323-10	3.0	0.012			6.0	0.24
DLB2324-10	4.0	0.016			8.0	0.31
FEMALE						
DLB2420-10	2.3	0.09	44.0	1.7	—	—
DLB2421-10	2.5	0.10			—	—
DLB2422-10	3.0	0.12			—	—
DLB2423-10	4.0	0.16			2.0	0.08
DLB2424-10	4.5	0.18			2.3	0.09
DLB2425-10	5.0	0.20			2.6	0.10
DLB2426-10	5.5	0.22			3.0	0.12

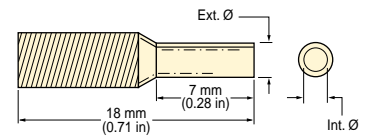
Insert Bit Holder Adapter

Part No. DLW-4100

Allows the use of 1/4" Hex
insert bits with 4 mm Round
shank bit holder.



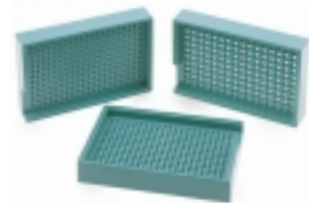
Vacuum Pickup Sleeves for ESD models



Sleeve Part No.	Internal dia.		External dia.	
	mm	in	mm	in
DLS2120	2.0	0.079	3.5	0.138
DLS2121	2.2	0.087		
DLS2122	2.5	0.098		
DLS2123	2.7	0.106		
DLS2124	3.1	0.122	4.5	0.177
DLS2125	3.3	0.130		
DLS2126	3.5	0.138		
DLS2127	3.7	0.146		
DLS2128	4.0	0.158		
DLS2129	4.2	0.165	5.5	0.212
DLS2130	4.5	0.177		
DLS2131	4.7	0.185		
DLS2132	5.1	0.201		
DLS2133	5.3	0.209		
DLS2134	5.6	0.221		
DLS2135	6.1	0.240	7.0	0.276

NOTE : Only Phillips Bits should be used with Vacuum Pickup Systems.

Shaker Boxes and Grip Plates (DWL3400, DWL3600 and DWL3800)



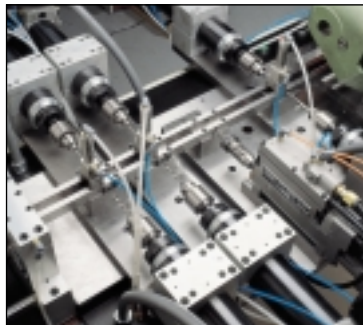
Shaker boxes and grip plates facilitate handling of small fasteners. The screws will fall into the heads-up position, ready for vacuum or magnetic pickup.

Optional. Available on request

Part no. →	DWL3400	DWL3600	DWL3800
	mm	mm	mm
Screw sizes	1.8 - 2.0	2.0 - 2.5	3 - 4
Hole dia.	2.9	2.9	4.2
Hole pitch	5.9	5.9	7.9
Hole depth	4.3	13.5	12.5
No. of holes	273	273	160

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Assembly Solutions



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