KOLVER

OUR COMPANY

Founded in 1989, KOLVER has soon taken the leadership in the European market of precision electric screwdrivers for industry. Thousands of state-of-the-art drivers are produced every year in Italy and then shipped to more than 30 Countries worldwide.
ISO 9001 certified since 1998, KOLVER has gained international recognition for building premier quality innovative products that meet or even anticipate the most rigorous customer requirements.
The Kolver family of tools is one of the most comprehensive in the electric power tool industry covering a wide range of torque at several speeds, suitable for an indefini e number of applications. Kolver tools feature either shut off clutch or current control system, coreless or brushless motors all controlled by a state of the art electronic control unit. Thanks to their low installation, operating and maintenance costs as well as to their reduced vibration and noise level, Kolver electric screwdrivers represent the perfect alternative to pneumatic screwdrivers for screws up to M10.

KOLVER SCREWDRIVER IS

ERGONOMIC
Advanced grip design, light in weight, vibrations within the norms, for maximum operator comfort

CLEAN
No air exhaust + No lubrication = a cleaner environment

SAFE
Because of the transformer, only 30 V to the tool

FLEXIBLE
From the controller you can adjust the running speed and the slow start duration.
Multi torque models also available for additional functions

ACCURATE
With the electronic shut off mechanism the accuracy is better than ±5% of the pre-set value

FOR EVERY APPLICATION
Range up to 35 Nm, straight, pistol, 90°, ESD, with vacuum, lever start or push to start...

NOISELESS
Noise within 55 dB(A)

COST EFFECTIVE
Low purchasing price + virtually no maintenance + no need of compressed air line + no need of spiral hoses & couplers & fil ers & regulators-lubricators = operating cost up to 200 times cheaper than pneumatic screwdrivers

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TORQUE CHART

KOLVER

TORQUE CHART

MODEL	TORQUE Nm																									
	0,05				0,5			1			2		2,5		3		3,5		4	4,5		10	15	20	35
FAB10																									
FAB12																									
FAB18																									
RAF32																									
RAF38																									
PLUT03																									
PLUT05																									
PLUT06																									
PLUT07																									
PLUT08																									
PLUT015																									
PLUT020																									
PLUT035																									
KBL04																									
KBL15																									
KBL30																									
ACC2210																									
ACC2220																									
ACC2230																									
ACC2245																									

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FAB & RAF SERIES
TORQUE UP TO 3,8 NM

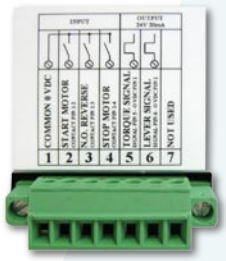
FAB series electric screwdrivers are our "best sellers" for the electronic industry. RAF series screwdrivers are designed to meet higher torque applications.
Their advanced ergonomic design, ease of use, high accuracy and durability have made these drivers the standard by which all others are measured. They are lightweight, compact, powerful and come standard with ESD-safe housing certified to SP method 2472 (Ericsson approved). These screwdrivers are available in an inline body style with either a lever start or push to start or in a pistol grip with a trigger start (also available with the cord coming out from the top – U option) and different speeds, for different assembly requirements.
The torque is set externally: an adjusting nut controls output torque by changing the clutch spring compression. A reference scale will indicate the torque setting. The low voltage 30 V DC rare earth motors combine high performances and long life. Replacing their carbon brushes once a year is all you need for maintenance.
The motor works in combination with a control unit. The electronic control circuit cuts the power supply to the motor in response to the clutch action, as soon as the pre-set torque has been reached.
In addition the controller can be supplied with torque reached signal, lever signal, remote start and reverse (see page of control units for all the details) and with ACE screw counter unit.
All FAB and RAF drivers come standard with ESD-safe body, suspension bail and 2.5 m connection cable. Spiral cable available on request.
The new heavy duty cables and connectors, developed for robotic applications, are made of antistatic dissipative material for a safe use in EPA environment.

Code	Model	Torque Nm	Screw size	RPM max	Start option	Weight kg	L x Ø mm	Housing option
110010/FR	FAB10RE/FR	0,05÷0,8	M2.5	1000	Lever	0,48	226x36	
110012/FR	FAB12RE/FR	0,2÷1,2	M3	1000	Lever	0,48	226x36	
112012/FR	FAB12PS/FR	0,2÷1,2	M3	1000	Push start	0,48	226x36	
110013/FR	FAB12PP/FR	0,2÷1,2	M3	1000	Lever	0,55	200x150x34	Pistol grip
110013/FR/U	FAB12PP/FR/U	0,2÷1,2	M3	1000	Lever	0,55	200x150x34	Pistol grip with top connector
110618/FR	FAB18RE/FR	0,3÷1,8	M4	650	Lever	0,48	226x36	
112618/FR	FAB18PS/FR	0,3÷1,8	M4	650	Push start	0,48	226x36	
110619/FR	FAB18PP/FR	0,3÷1,8	M4	650	Lever	0,55	200x150x34	Pistol grip
110619/FR/U	FAB18PP/FR/U	0,3÷1,8	M4	650	Lever	0,55	200x150x34	Pistol grip with top connector
120032/FR	RAF32NS/FR	0,7÷3,2	M5	1000	Lever	0,65	247x40	
122032/FR	RAF32PS/FR	0,7÷3,2	M5	1000	Push start	0,65	247x40	
120033/FR	RAF32PP/FR	0,7÷3,2	M5	1000	Lever	0,70	200x150x40	Pistol grip
120033/FR/U	RAF32PP/FR/U	0,7÷3,2	M5	1000	Lever	0,70	200x150x40	Pistol grip with top connector
120638/FR	RAF38NS/FR	0,9÷3,8	M5	650	Lever	0,65	247x40	
122638/FR	RAF38PS/FR	0,9÷3,8	M5	650	Push start	0,65	247x40	
120639/FR	RAF38PP/FR	0,9÷3,8	M5	650	Lever	0,70	200x150x40	Pistol grip
120639/FR/U	RAF38PP/FR/U	0,9÷3,8	M5	650	Lever	0,70	200x150x40	Pistol grip with top connector

CONTROL UNITS

KOLVER

CONTROL UNITS
FAB & RAF SERIES



All Kolver screwdrivers work in combination with a control unit acting as an AC to DC transformer and torque controller. The electronic control circuit cuts the power supply to the motor as soon as the pre-set torque has been reached.
The EDU1FR control units for FAB and RAF screwdrivers feature a maintenance free state-of-the-art electronics with no wearing components with a circuit design suitable to both lever start and push start drivers with protection against current overload up to 10A. This design results in very low current to the driver's start switch and clutch switch to extend their life indefinitely. Additional features:

- Suitable to universal supply from 90 to 260 V ac 50/60 hz.
- Slow start (0-2 seconds) and RPM (60% to 100%).
- Visual indicators (green-red) for power on/off and clutch action.
- Reduced weight (0.6 kg) and compact size for easy placement.
- M12 waterproof connector with silver and gold contacts for perfect conductivity.

The EDU1FR/SG controller features additional circuits wired to one connector in the back panel: output 24V for torque reached and lever signals; input start and reverse contacts. A double output connector (DOCK01) is also available for operators using two screwdrivers on the same working area (only FAB and RAF series). One end of this device is to be connected to the controller (cable included), the other end to the drivers. The screwdrivers are not to be used at the same time.

ACE SCREW COUNTER

SOFT START AND
SPEED REGULATION

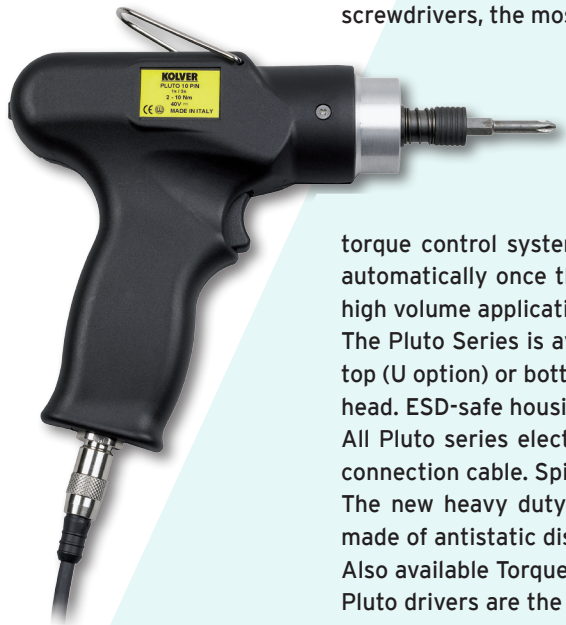
SPIRAL CABLE

DOUBLE OUTPUT
DEVICE WITH CABLE

Code	Model	Features	Dimensions mm	Weight kg	Screwdriver
010010/FR	EDU1FR	In: 90-260Vca out: 18-30Vcc power 120VA slow start and adjustable speed	138x118x67	0,600	All FAB and RAF
010010/FR/SG	EDU1FR/SG	Input: start and reverse contacts Output: torque reached & lever signal	138x118x67	0,600	All FAB and RAF

KOLVER

PLUTO CURRENT CONTROL SCREWDRIVERS
TORQUE UP TO 35 NM



Kolver's ingenuity and experience have led to the development of Pluto (PLUs TOrque) screwdrivers, the most advanced DC tools in the market, able to reach 35 Nm of torque (4 times more than any competitor's tool). They feature:
an innovative coreless electric motor with low inertia and friction with absence of iron losses for extreme efficien y and extended life. Planetary gearboxes with high quality composite materials. Pistol grip to fit ope ator's hand ergonomically.
A weight of 550 g to reduce operator's fatigue. Fully electronic torque control system, manually set by a dial on the controller, to shut the tool off automatically once the preset torque has been reached. The Pluto Series is ideal for high volume applications where millions of cycles at high torque are required.
The Pluto Series is available in a molded pistol grip with the cord set exiting from the top (U option) or bottom, in a standard inline housing with lever start or 90° with angle head. ESD-safe housing is standard.
All Pluto series electric screwdrivers come standard with suspension bail and 2.5 m connection cable. Spiral cable available on request.
The new heavy duty cables and connectors, developed for robotic applications, are made of antistatic dissipative material for a safe use in EPA environment.
Also available Torque & Angle models, see T&A for details.
Pluto drivers are the real alternative to the pneumatic screwdriver.

EDU2AE/HP


PISTOL MODEL WITH TOP CONNECTOR (P/U)


INLINE MODEL


HIGH PERFORMANCE CORELESS MOTOR

Code	Model	Torque Nm SOFT	Torque Nm HARD	RPM min	RPM max	Dimensions mm L x Ø x h	Housing option	Weight kg	Drive
130203	PLUTO3D	0,3-2,0	0,3-3,0	370	1200	216x40	Inline	0,55	Hex 1/4"
130204	PLUTO3P	0,3-2,0	0,3-3,0	370	1200	150x150x45	Pistol	0,55	Hex 1/4"
130206	PLUTO6D	0,5-6,0	0,5-8,0	200	920	216x40	Inline	0,55	Hex 1/4"
130207	PLUTO6P	0,5-6,0	0,5-8,0	200	920	150x150x45	Pistol	0,55	Hex 1/4"
130207/U	PLUTO6P/U	0,5-6,0	0,5-8,0	200	920	150x150x45	Pistol grip with top connector	0,55	Hex 1/4"
130211/N	PLUTO10D/N	2,0-8,0	1,5-10,0	110	600	216x40	Inline	0,55	Hex 1/4"
130210/N	PLUTO10P/N	2,0-8,0	1,5-10,0	110	600	150x150x45	Pistol	0,55	Hex 1/4"
130210/U/N	PLUTO10P/U/N	2,0-8,0	1,5-10,0	110	600	150x150x45	Pistol grip with top connector	0,55	Hex 1/4"
130216/N	PLUTO15D/N	2,0-15,0	2,0-15,0	60	320	216x40	Inline	0,60	Hex 1/4"
130215/N	PLUTO15P/N	2,0-15,0	2,0-15,0	60	320	150x150x45	Pistol	0,60	Hex 1/4"
130215/U/N	PLUTO15P/U/N	2,0-15,0	2,0-15,0	60	320	150x150x45	Pistol grip with top connector	0,60	Hex 1/4"
133221/SR	PLUTO20CA/SR	2,0-18,0	2,0-20,0	40	210	200x45,5	Aluminium body Button start	1,10	Sq. 3/8"
133236/SR	PLUTO35CA/SR	2,0-35,0	2,0-35,0	40	140	206,5x57	Aluminium body Button start	1,50	Sq. 3/8"

Notes:
1. All PLUTO screwdrivers work in combination with EDU2AE, EDU2AE/HP and/or EDU2AE/TOP control unit.
2. Torque value collected on joints as per ISO5393.
3. Noise < 60 dB(A) in all models.
4. Vibrations < 2,5m/s2 in all models.
5. Continuous use over 80% of torque range is not recommended.

PLUTO SERIES

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EDU2AE & EDU2AE/HP

EDU2AE/TOP
& EDU2AE/TOP/TA

BIT/SOCKET TRAY

SWITCH BOX

CONTROL UNITS
PLUTO SERIES

EDU2AE, EDU2AE/HP and EDU2AE/TOP control units act as an AC to DC transformer and torque controller. The electronic control circuit cuts the power supply to the motor as soon as the pre-set torque has been reached.
EDU2AE, EDU2AE/HP and EDU2AE/TOP control units can be used in combination with any Kolver current control and/or clutch PLUTO screwdriver.

An easy-to-use scroll menu allows to select, set and/or adjust the following functions:
- screwdriver model
- tightening torque, fastening and unscrewing speed
- type of joint (soft/hard)
- acceleration ramp
- min and max fastening time
- autoreverse

In addition to the above mentioned functions, EDU2AE/HP control unit features:
- password protect settings
- prevailing torque function (threadcutting)
- clockwise or counterclockwise rotation (right or left screws) with torque control
- torque value in Nm on the display through dedicated calibration menu
- screw count function
- min-max torque interval with OK or NOK signal

The EDU2AE/TOP multiple torque system is designed to expand the functionality of the PLUTO screwdriver. In addition to the a.m. options it also features:
- 8 independent programs: with one PLUTO screwdriver you can replace 8 conventional screwdrivers.
- Time and date
- Program selection by barcode
- Program selection by socket tray and/or switchbox
- Also available in TA version with torque/angle combined control functions (see dedicated page)

All units are supplied with a 10 pin I/O connector with torque reached, pressed lever and error signals and start, stop and remote reverse contacts.
EDU2AE/TOP supplied with 7 additional connectors for multiple functions.

Serial port available on request

Code	Model	Features	Dimensions mm	Weight kg
031000	EDU2AE	Programmable with user interface screens	195x110x170	3,7
031000/HP	EDU2AE/HP	Programmable with user interface screens screw counter, PV option, torque value display	195x110x170	3,7
031000/TOP	EDU2AE/TOP	8 different programs - selection by barcode, socket tray, switchbox	190x205x120	4,0

KOLVER

T&A TORQUE AND ANGLE

ELECTRIC SCREWDRIVERS WITH TORQUE AND ANGLE CONTROL

PLUTO../TA

+

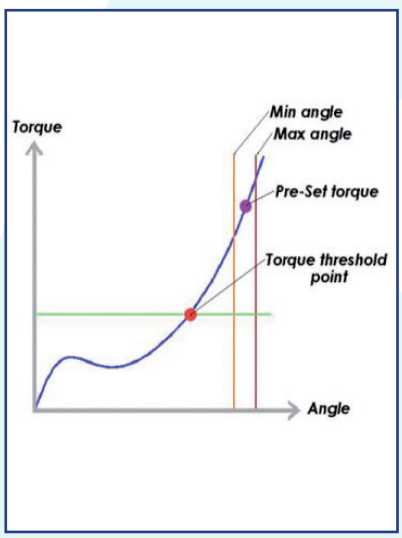
EDU2AE/TOP/TA

Industrial tightening may require different control strategies and solutions.
The most common cases are: torque control with angle monitoring and angle control with torque monitoring.

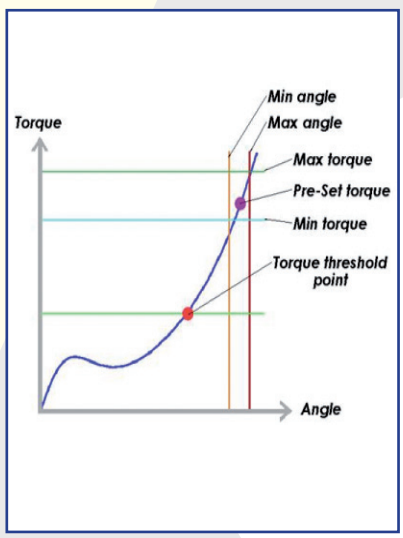
Kolver Multi-Torque Torque&Angle controller can manage all such strategies, with up to 8 individual P-sets.

The Torque/Angle Control
The main parameters to be controlled are the tightening torque applied to the screw and the rotation angle of the screw, with priority to the torque value. If the torque and angle values found by the system are within the programmed settings, the motor stops automatically and the indication of OK cycle (green led turned on) is given, otherwise an error (red led) is generated.

The Angle Control
The main parameter to be controlled is the rotation angle of the screw. The motor stops automatically when the pre-set angle value has been reached and an indication of OK cycle (green led turned on) is given.



Main features:
• Easy to program user interface screens
• Password protected
• Torque value in Nm or In/lbs
• Angle value in degrees
• 8 indipendent programs including the options:
- Min/Max torque value
- Min/Max angle value
- Rundown speed
- Slow start/Soft stop
- Hard/soft joint
- Min/Max rundown time
- Prevailing torque (threadcutting)
- Auto reverse if required
• 6 torque & angle strategies:
- Torque priority: angle count from torque threshold (T) or from remote input (T/I) or from lever input (T/L).
- Angle priority: driver stops when angle is reached from threshold torque (A) or from remote input (A/I) or from lever (A/L).



Code	Model	Torque Nm SOFT	Torque Nm HARD	RPM min	RPM max	To be used with
130206/TA	PLUTO6D/TA	0,5-6,0	0,5-8,0	200	920	EDU2AE/TOP/TA
130207/TA	PLUTO6P/TA	0,5-6,0	0,5-8,0	200	920	EDU2AE/TOP/TA
130211/TA	PLUTO10D/TA	2,0-8,0	1,5-10,0	110	600	EDU2AE/TOP/TA
133211/TA	PLUTO10CA/TA	2,0-8,0	1,5-10,0	110	600	EDU2AE/TOP/TA
130210/TA	PLUTO10P/TA	2,0-8,0	1,5-10,0	110	600	EDU2AE/TOP/TA
130216/TA	PLUTO15D/TA	2,0-15,0	2,0-15,0	60	320	EDU2AE/TOP/TA
130215/TA	PLUTO15P/TA	2,0-15,0	2,0-15,0	60	320	EDU2AE/TOP/TA
133216/TA	PLUTO15CA/TA	2,0-15,0	2,0-15,0	60	320	EDU2AE/TOP/TA
133221/SR/TA	PLUTO20CA/SR/TA	2,0-18,0	2,0-20,0	40	210	EDU2AE/TOP/TA
133236/SR/TA	PLUTO35CA/SR/TA	2,0-35,0	2,0-35,0	40	140	EDU2AE/TOP/TA
031000/TOP/TA	EDU2AE/TOP/TA					Any PLUTO../TA

WARNING: Continuous use over 80% of torque range is not recommended.

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PLUTO CLUTCH SERIES & ANGLE SERIES

KOLVER

PLUTO CLUTCH SERIES

TORQUE RANGE 0,5 - 7,0 NM

PLUTO clutch screwdrivers are innovative state-of-the-art screwdrivers. High-efficien y and low inertia CORELESS motors allow high performances on any kind of joint. The new clutch for the regulation of the tightening torque guarantees an excellent accuracy, i.e. 3% on the whole torque range, which means our PLUTOs feature the best CP and CM in the market.

PLUTO screwdrivers fulfill the highest environmental protection requirements: minimal vibrations, maximum safety, low noise level, electromagnetic compatibility, no polluting emissions, low energy consumption.

They all come standard with ESD-safe body. The range features three inline and three pistol models for manual use, plus their corresponding models for automated applications (see dedicated page).

They work with EDU2AE, EDU2AE/HP and/or EDU2AE/TOP control units.

Codice	Model	Torque Nm	Speed RPM	Output	Dimensions mm	Control unit
131203	PLUTO3FR	0,5 - 3,2	800 - 1300	Hex 1/4"	273x40	EDU2AE, HP & TOP
131204	PLUTO3FR/P	0,5 - 3,2	800 - 1300	Hex 1/4"	200x150x40	EDU2AE, HP & TOP
131205	PLUTO5FR	0,7 - 5,0	600 - 1000	Hex 1/4"	273x40	EDU2AE, HP & TOP
131206	PLUTO5FR/P	0,7 - 5,0	600 - 1000	Hex 1/4"	200x150x40	EDU2AE, HP & TOP
131207	PLUTO7FR	1,0 - 7,0	350 - 600	Hex 1/4"	273x40	EDU2AE, HP & TOP
131208	PLUTO7FR/P	1,0 - 7,0	350 - 600	Hex 1/4"	200x150x40	EDU2AE, HP & TOP

PLUTO ANGLE SCREWDRIVERS

TORQUE RANGE 1,0 - 19,0 NM

The PLUTO angle nutrunners are ideal for demanding applications where accessibility is a critical factor. Fully electronic torque control system to shut the tool off automatically once the preset torque has been reached. The light weight, very low noise level and the wide range of torque make it a true alternative to pneumatic systems.

Angle screwdrivers, aluminium body, with max torque 30 Nm available on request

Code	Model	Torque range Nm SOFT	Torque range Nm HARD	RPM Min	RPM Max	Housing	Output	Control unit
130208	PLUTO08ANG	1,0-6,5	1,0-8,0	110	600	Inline ESD	Hex 1/4"	EDU2AE, HP & TOP
130216/A	PLUTO15ANG	2-13,0	2,0-13,0	100	320	Inline ESD	Sq 3/8"	EDU2AE, HP & TOP
133220	PLUTO20ANG/SR	2,0-17,0	2,0-19,0	60	210	Aluminium body with Start/Reverse buttons	Sq 3/8"	EDU2AE, HP & TOP

WARNING: Continuous use over 80% of torque range is not recommended.

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KBL BRUSHLESS SCREWDRIVERS WITH CLUTCH

TORQUE RANGE 0,04 - 3,0 NM

KBL series electric screwdrivers feature state-of-the-art brushless motors and clutch torque control, the perfect solution for clean room applications thanks to zero emissions of coal dust and other pollutants into the working environment. Small and lightweight for utmost operator comfort and with advanced ergonomic design, they ensure very low noise level, minimum vibrations and maximum safety (low supply voltage). Magnetic clutch switches last 10 times more than traditional switches: the absence of maintenance operations guarantees high productive continuity.

KBL screwdrivers are equipped with a sophisticated electronic torque control system that will cut the power supply to the motor as soon as the pre set torque has been reached. KBL drivers are available in inline body or for automation and they all come standard with an ESD-safe body.

The new clutch for the adjustment of the tightening torque guarantees an excellent accuracy on the whole torque range. Rotation speed can be adjusted over a wide range: this function allows the operator to work on different materials always at the proper speed. They work with EDU1BL and EDU1FR control units (5 pin connector).

KBL../S are equipped with innovative electronics, which processes and sends torque, error and lever signals and receives remote start and reverse input. They're mainly indicated for automated applications (KBL..CA, see dedicated page). They work with EDU1BL/SG control units (8 pin connector).

The new heavy duty cables and connectors, developed for robotic applications, are made of antistatic dissipative material for a safe use in EPA environment.

EDU1BL CONTROL UNIT

TORQUE ADJUSTMENT

AUTOMATION MODEL

5 PIN CABLE (STANDARD)
8 PIN CABLE (SIGNALS)

Code	Model	Torque Nm	Speed RPM	L x Ø mm	Weight Kg	Control unit
190004	KBL04FR	0,04 - 0,4	650 - 1000	255 x 32	0,50	EDU1BL & EDU1FR
190015	KBL15FR	0,4 - 1,5	650 - 1000	255 x 32	0,50	EDU1BL & EDU1FR
190030	KBL30FR	0,7 - 3,0	650 - 1000	267 x 38	0,65	EDU1BL & EDU1FR
190004/S	KBL04FR/S	0,04 - 0,4	650 - 1000	255 x 32	0,50	EDU1BL/SG
190015/S	KBL15FR/S	0,4 - 1,5	650 - 1000	255 x 32	0,50	EDU1BL/SG
190030/S	KBL30FR/S	0,7 - 3,0	650 - 1000	267 x 38	0,65	EDU1BL/SG

BRUSHLESS SERIES

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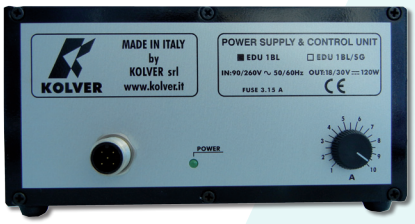
CONTROL UNITS
KBL SERIES



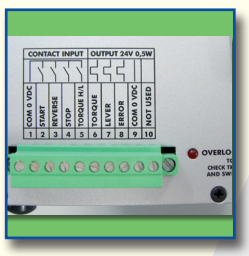
All Kolver screwdrivers work in combination with a control unit acting as an AC to DC transformer and torque controller. The electronic control circuit cuts the power supply to the motor as soon as the pre-set torque has been reached.
The EDU1BL and EDU1BL/SG control units for KBL screwdrivers feature a maintenance free state-of-the-art electronics with no wearing components.
They come standard with the torque knob to adjust the torque (from 60% to 100%) of current control tools and a green led which indicates when the control unit is on. EDU1BL/SG control unit works with KBL..FR/S or KBL..FR/CA and it additionally features signals for reached/not reached torque, pressed lever and remote start/reverse.

A double output connector (Dock02) is also available for operators using two screwdrivers at the same time.

KBL..FR screwdrivers work in combination with our standard EDU1FR controllers. This option will allow existing customers to replace FAB & RAF drivers with no need to replace controllers.

DOUBLE OUTPUT CONNECTOR

ACE SREW COUNTER



BACK CONNECTOR

TLS POSITIONING ARM

Code	Model	Features	Dimensions mm	Weight Kg
003000	EDU1BL	Adjustable torque	138x118x37	0,6
003000/SG	EDU1BL/SG	Input: start and reverse contacts. Output: reached torque and pressed lever	138x118x37	0,6

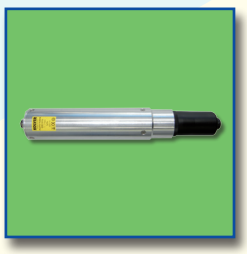
KOLVER

CA SERIES

The CA screwdrivers are designed for automated and fix ured applications. Special wiring and dedicated controllers are equipped with electric signals and contacts for immediate and easy interface. The ideal alternative to pneumatic drivers, they feature a long life maintenance free electric motor with a unique electronic torque control system for high accuracy throughout a wide torque range (up to 35 Nm); an aluminium body, for easy and quick clamp, supplied with 2.5 m cable.

The PLUTO..CA/FN series incorporates the PLUTO DC-controlled electric screwdriver design, supplied in an inline aluminium housing for flange mounting applications. The DC motor and solid state controls of the PLUTO are ideal for automated high volume/ high duty applications.

Flange and telescopic spindle available together or separately.



PLUTO..FR/CA

PLUTO..CA/FN

Code	Model	Torque Nm SOFT	Torque Nm HARD	RPM min	RPM max	Dimensions mm	Controller	Output
130303	PLUTO3CA	0,3 - 2,0	0,3 - 3,0	370	1200	164x40	EDU2AE	Hex 1/4"
133206	PLUTO6CA	0,5 - 6,0	0,5 - 8,0	200	920	164x40	EDU2AE	Hex 1/4"
133211/N	PLUTO10CA/N	2,0 - 8,0	1,5 - 10,0	110	600	164x40	EDU2AE	Hex 1/4"
133216/N	PLUTO15CA/N	2,0 - 15,0	2,0 - 15,0	60	320	164x40	EDU2AE	Hex 1/4"
133221	PLUTO20CA	2,0 - 18,0	2,0 - 20,0	40	210	232,10x47	EDU2AE	Sq 3/8"
133236	PLUTO35CA	2,0 - 35,0	2,0 - 35,0	40	140	246,60x57	EDU2AE	Sq 3/8"
130303/FN	PLUTO3CA/FN	0,3 - 2,0	0,3 - 3,0	370	1200	257,25x39,80	EDU2AE	Sq 3/8"
133211/FN	PLUTO10CA/FN	2,0 - 8,0	1,5 - 10,0	110	600	257,25x39,8	EDU2AE	Sq 3/8"
133216/FN	PLUTO15CA/FN	2,0 - 15,0	2,0 - 15,0	60	320	257,25x39,8	EDU2AE	Sq 3/8"
133221/FN	PLUTO20CA/FN	2,0 - 18,0	2,0 - 20,0	40	210	276,35x47	EDU2AE	Sq 3/8"
133203	PLUTO3FR/CA	0,5 - 3,2	0,5 - 3,2	800	1300	239,30x40	EDU2AE	Hex 1/4"
133205	PLUTO5FR/CA	0,7 - 5,0	0,7 - 5,0	600	1000	239,30x40	EDU2AE	Hex 1/4"
133207	PLUTO7FR/CA	1,0 - 7,0	1,0 - 7,0	350	600	239,30x40	EDU2AE	Hex 1/4"
190004/CA	KBL04FR/CA	0,04 - 0,4	0,04 - 0,5	650	1000	255x40	EDU1BL/SG	Hex 1/4"
190015/CA	KBL15FR/CA	0,4 - 1,5	0,4 - 1,5	650	1000	255x40	EDU1BL/SG	Hex 1/4"
190030/CA	KBL30FR/CA	0,7 - 3,0	0,7 - 3,0	650	1000	255x40	EDU1BL/SG	Hex 1/4"

KOLVER

EDU2AE

EDU1BL/SG

TELESCOPIC SPINDLE

MULTI SPINDLE

CONTROL UNITS
CA SERIES

All Kolver screwdrivers work in combination with a control unit acting as an AC to DC transformer and torque controller. The electronic control circuit cuts the power supply to the motor as soon as the pre-set torque has been reached.
For the Pluto..CA series the EDU2AE gives you all the advantages of precision torque controlled electric tools at a fraction of the price of transdurized tools. The microprocessor based unit cuts the power supply to the motor calculating the correct torque in response to 3 parameters, voltage frequency and current, according to the selected options. Additional features:

- One controller only for a torque range from 0,3 to 35 Nm
- User interface screens: walk through a few simple steps to input the parameters requested for your application and your fastening process can begin.
- Slow start and adjustable speed.
- Soft or hard joint option.
- High speed rundown and slow speed tightening for improved accuracy.
- Autostop on elapsed time, automatic reverse at cycle end with adjustable time stop.
- Torque reached signal and lever signal, remote start and reverse contacts.
- Serial port for data downloading available on request for all models.

Any PLUTO..CA screwdriver can also be used with the EDU2AE/HP and EDU2AE/TOP control units (see main features on page Control Units – PLUTO series)
The EDU1BL/SG control units for KBL..CA screwdrivers feature a maintenance free state-of-the-art electronics with no wearing components.
They come standard with:

- adjustable speed (60% to 100%)
- visual indicators (green-yellow-red) for power on/off, torque reached or not reached
- input: start and reverse contacts
- output 24V for torque reached and lever signals.

Code	Model	Features	Dimensions mm	Weight kg	Screwdriver
031000	EDU2AE	Programmable with user interface screens	195x110x170	3,7	PLUTO
031000/HP	EDU2AE/HP	Programmable with user interface screens screw counter, PV option, torque value display	195x110x170	3,7	PLUTO
031000/TOP	EDU2AE/TOP	8 different programs - selection by barcode, socket tray, switchbox	190x205x120	4,0	PLUTO
003000/SG	EDU1BL/SG	Input: start and reverse contacts. Output: reached torque and pressed lever	138x118x37	0,6	KBL

KOLVER

ACC SERIES

ACC screwdrivers with shut off torque control through mechanical clutch are direct plug-in tools with built-in PCB for automatic cut off and AC to DC rectifier.
They are ideal for applications where portability is needed to minimize costly set-up time.
ACC models have the unique feature of selectable push to start or push and lever start.
To select the working mode just slide the switch located by the start lever.

TORQUE SET UP

3 POSITIONS
REVERSE SWITCH

START MODE
(PUSH TO START
OR PUSH + LEVER)

TORQUE
ADJUSTING NUT COVER

Code	Model	Torque Nm	Screw size	RPM max	Weight kg	L x Ø mm	Voltage cc
141910	ACC2210	0,2÷1,0	M3	950	0,75	255x35	230 Vca
141920	ACC2220	0,7÷2,0	M4	950	0,80	255x35	230 Vca
151222	ACC2222	0,9÷2,0	M4	2400	0,85	265x38	230 Vca
151930	ACC2230	1,0÷3,0	M5	950	0,85	265x38	230 Vca
151945	ACC2245	1,0÷4,5	M5	450	0,85	265x38	230 Vca

KOLVER

TORQUE TESTER

TORQUE TESTER - K SERIES

The K series is a totally new class of torque analyzers. They feature a built-in transducer and also have the unique ability to connect to an external transducer. Using a high performance circuitry they collect, store and eventually download torque measures for a complete analysis of the tool and/or the joint. Priced at an outstanding low level, this tester has soon become very popular among those companies wishing to improve their product quality through the precise control of torque.

- User friendly menu.
- Accuracy: +/- 0,5% of the displayed value.
- Internal transducer for tests on a joint simulator (supplied with the unit).
- Connection for external transducer (transducer not included).
- 500 readings memory.
- Selection among Nm, Ncm, kg.cm, in.lbs.
- RS232C output (cable not included).
- Indication <=> of the preset values.
- Output signal at preset reached value.
- Clockwise and counter-clockwise measurement.
- 3 modes of operation: Peak + , Peak -, Track.
- Manual or automatic reset.
- 9 V rechargeable battery provide 4 hours continuous operation. Automatic switch off to reduce battery consumption.
- 125% transducer overload protection.
- English and Italian menu.

Supplied in a plastic carrying case, with one rechargeable battery, 1 joint simulator (semielastic), instructions manual and certifi ate of calibration.

Additional joint simulators (rundown adapters) for hard joint or fully elastic joint available on request.

JOINT SIMULATOR

EXTERNAL ROTARY TRANSDUCER

CONNECTING PORTS

KEYPAD

Code	Model	Torque Nm	Dimensions mm	Weight kg
020402	K1	0,05-1	180x105x55	1,0
020403	K5	0,3-5	180x105x55	1,0
020404	K20	0,5-20	180x105x55	1,0
022405	KTE5	0,5-5		
022425	KTE25	2-25		

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TORQUE TESTER

KOLVER

Controlling torque is vital for companies to ensure their product's quality. Fasteners that are insufficie tly torqued can vibrate loose and excessive torque can strip threaded fasteners. Using a quality torque analyzer has become increasingly important for many companies to ensure that proper torque is being applied.

MINI K Torque Tester

MINI K Torque Analyzers feature a built-in transducer. The easy-to-use torque tester is ideal for checking all power tools up to 20Nm. The small size and portability of the MINI K makes it ideal for checking torque tools on production floor regularly to ensure the tools are always calibrated

- Built-in transducer.
- Three models with 1Nm, 5Nm and 20Nm max torque
- Three units of torque measurement available:, N.m, kgf.cm. lbf.in.
- Four digit display.
- Manual and auto reset functions to clear displayed values.
- Battery powered (9V) and AC adapter. 9V battery provides 30 hours of continuous operation.
- RS232C serial port as option with date and hour
- Automatic shut down to extend battery life.
- Torque Tester includes a spring washers joint simulator (miniK25 and miniK20) or built in joint simulator (miniK1) and a case.

Accuracy: ± 0.5% of reading from 10% to 100%.
Accuracy: ± 1% of reading from 1% to 10%.

Correction factor (FATC): it is possible to connect different transducers to the same torque reader

Code	Model	Torque Nm	Dimensions mm	Weight kg
021402	mini K1	0,03-1	150x70x45	0,80
021403	mini K5	0,1-5	150x70x45	0,80
021404	mini K20	0,5-20	150x70x45	0,80

MINI Ke

The Mini Ke system consists of a torque readout and an external rotary transducer. The Rotary Torque Transducer is the ideal torque-auditing tool for testing the actual torque being applied on the assembly application. By connecting a rotary torque transducer between an electric or pneumatic tool and an assembly application, you can monitor the real torque being applied from the tool to fastener or bolt.

Accuracy: ± 0.5% of reading from 10% to 100%.
Accuracy: ± 1% of reading from 1% to 10%.

Correction factor (FATC): it is possible to connect different transducers to the same torque reader

Code	Model	Torque Nm	Tester Dimensions mm	Rotary Transducer DImensions mm	Weight kg
021405/5	mini Ke 5	0,5-5 Nm	150x70x45	25x92	0,50 (without transducer)
021405/25	mini Ke 25	2-25 Nm	150x70x45	25x92	0,50 (without transducer)
021405/50	mini Ke 50	Up to 50 Nm	150x70x45	89,5x52x63,5	0,50 (without transducer)

External transducers up to 500 Nm are available on request

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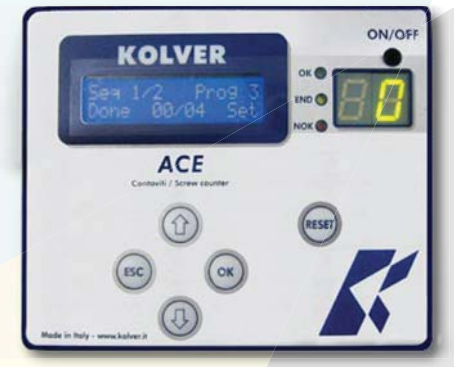
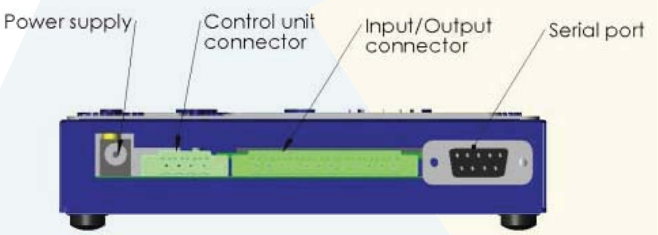
ACE SCREW COUNTER

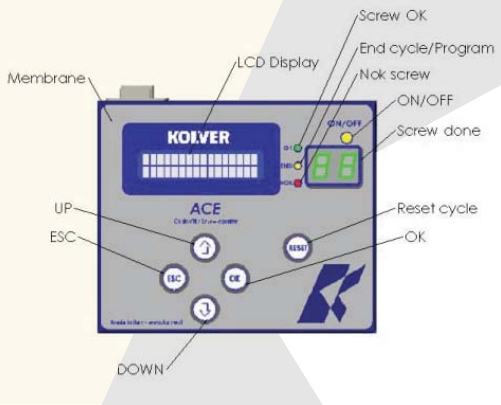
The ACE screw counter is a process control system that monitors the fastening assembly process. It tracks, in real time, the fastening of each screw in an assembly, then notifies the result. It keeps a summary of good and complete assemblies as well as of bad and incomplete ones throughout the production day. The ACE is easily programmed with user interface screens through the keypad. Walk through a few simple steps to input the parameters for total number of fasteners required in a completed assembly and the fastening process can begin. The unit gives the operator audible and visual indications that the assembly has been completed without error and it is safe to move on to the next process step or if it has been rejected.

Main features:

- To be connected to EDU2AE or old EDU1AE (code 020022), or to EDU1FR/SG (code 020021).
- ACE includes the screw counter + cable for connection to the control unit
- 8 indipendent programs
- Up to 99 screw for each program
- Sequence of 4 programs
- Min and max fastening time (accuracy: 0.01 sec)
- Separate displays for parameters setting and fasteners count
- OK & Error lights
- Statistics: total number of correct screws done, wrong screws, cycles done, sequences done
- I/O signals
- Password protected
- Wall mountable
- Remote control of the system (optional)
- RS232 port







Code	Model	Dimensions mm	Weight kg	Controller
020021	ACE	137x113,40x30,20	0,55	EDU1FR/SG
020022	ACE	137x113,40x30,20	0,55	EDU..BL/SG and EDU2AE

ACE SCREW COUNTER

KOLVER

SCREW PRESENTERS

The NFK series is a simple but effective device where screws are brought to pick up position one after another and stay there lining up.
A magnetized bit, an Autocatcher or a suction head is required to chuck the screw.
With **NFK..RS** series, it is also possible to work with pick & place devices.
Each screw is separated and brought into place with very accurate positioning ready for automatic pick-up action.
The ASP HD4 Suction Head consists of a torque adjusting nut with locking ring and a vacuum adapter with vacuum port. A Screw Finder completes the assembly. Based on the head diameter of your screw, the screw finder must be counterbored to allow the head of the screw to fit up into the recess.

NFK SCREW PRESENTER

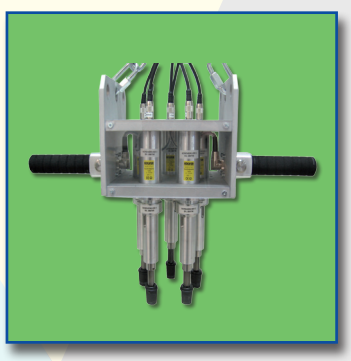
NFK..RS MODEL


ASP HD4
SUCTION HEAD


AUTOCATCHER

Code	Model	Ø Shank mm	Screw lenght min. mm	Screw lenght max mm
013514	NFK 514	1,4	1,4	18
013517	NFK 517	1,7	1,6	18
013520	NFK 520	2,0	1,8	18
013523	NFK 523	2,3	2,5	18
013526	NFK 526	2,6	2,8	18
013530	NFK 530	3,0	3,0	18
013540	NFK 540	4,0	4,0	18
013550	NFK 550	5,0	5,0	18


MULTI-SPINDLE


MULTI-SPINDLE

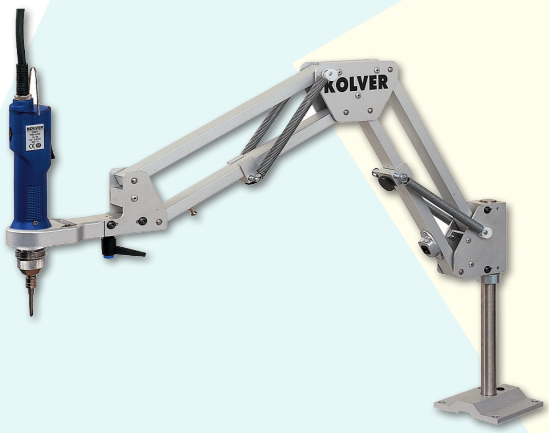
MULTI-SPINDLE UNIT

Multi-spindle tightening applications improve assembly results and increase productivity. Kolver creates custom designed multi-spindle equipment that can be configu ed in either vertical or horizontal orientations depending on the application and customer requirements. Designs may incorporate operator input or be fully automated. Spindles can be mounted and arranged to accommodate and match any bolt pattern using in-line, 90° angle or special offset drives. Kolver multi-spindle tightening systems allow for spindle synchronization, operator feedback and error proofing solutions.

TELESCOPIC TORQUE REACTION ARMS

CAR series torque reaction arms are designed to eliminate the reaction that screwdrivers generate when they stop at the pre-set torque (up to 50Nm). Their carbon structure makes them extremely lightweight and incredibly resistant at the same time: for such reasons they resist degradation in high fatigue applications much better than conventional materials

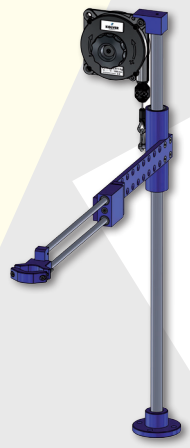
Code	Model	Max torque	Max reach	Min reach	Weight
010663	CAR281	25 Nm	950 mm	490 mm	0,60 Kg
010664	CAR282	25 Nm	1650 mm	730 mm	0,75 Kg
010665	CAR501	50 Nm	950 mm	490 mm	0,65 Kg
010666	CAR502	50 Nm	1650 mm	730 mm	0,80 Kg



TORQUE REACTION ARM

Torque reaction arms PA2KOL, code 010600, have been designed to eliminate the reaction generated by screwdrivers when they stop at the pre-set torque. Options include table or wall mount.

Code	Model	Max torque	Max reach	Min reach
010600	PA2KOL	20 Nm	640 mm	440 mm



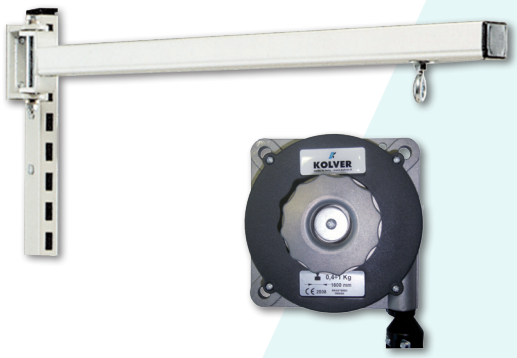
LINEAR ARM

The Linear arms maneuver smoothly as it absorbs the torque reactions from the screwdrivers providing ergonomic support for the operator. The fluid movement increases precision and production for a variety of torque applications. Prevents cross threading and side load. Keeps tool perpendicular. Reduces RMI (Repetitive Motion Injury) and CTS (Carpal Tunnel Syndrome) while boosting production. Extends in horizontal direction and arm length is adjustable.

Code	Model	Max torque	Max reach	Min reach
010681	LINAR1	25 Nm	665 mm	184 mm

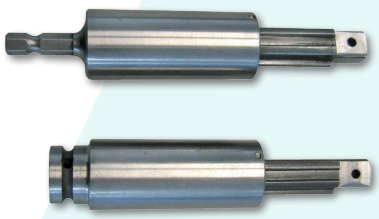
ACCESSORIES

KOLVER



PIVOTING ARM AND BALANCER

ARMPV1 support arms, code 010500, consist of a vertical support on which a 180° pivoting arm is attached. Tool balancers TECBA1, code 010300, allow screwdrivers to be positioned over the work station for comfortable operation. Models with capacity up to 180 kg available on request.



TELESCOPIC SPINDLE

The Telescopic Spindle (axial compensator) is designed to interface with all CA screwdrivers for use in fix ured applications. Mainly used in multi spindle applications to balance the screw tightening process and compensate depth difference across multiple fasteners.

ANGLE HEADS

When space is limited right angle heads can be easily attached to lever start FAB (ANG HD8, code 010143) and RAF (ANG HD9, code 010144)drivers. The connection and torque adjusting nut is equipped with 2 x M3 threaded holes to lock the head in the desired position. For Pluto series see specific angle ools.

SUCTION HEAD and AUTOCATCHER

The ASP HD4 Suction Head is designed to interface with FAB and RAF series of screwdriver. It consists of a torque adjusting nut with locking ring and a vacuum adapter with vacuum port. A Screw Finder completes the assembly. Based on the head diameter of your screw, the screw finder must be counterbored to allow the head of the screw to fit up into the recess. For stainless steel, brass, copper and plastic screws, take the Autocatcher and you will be able to pick up and fasten the screws by one hand! Used both in combination with NFK..RS screw feeder, this system will increase your productivity without the expense of automated screwdrivers.