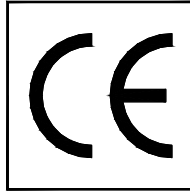


# DECLARATION OF CONFORMITY



**KOLVER S.r.l.**  
**Via Marco Corner, 19/21**  
**36016 THIENE (VI) ITALIA**

Declare that the new tool here described:

Electric screwdriver:

**PLUTO10P/N 130210/N**  
**PLUTO15P/N 130215/N**  
**PLUTO10D/N 130211/N**  
**PLUTO3D 130203**

**PLUTO10P/U/N 130215/U/N**  
**PLUTO15P/U/N 130215/U/N**  
**PLUTO15D/N 130216/N**  
**PLUTO3P 130204**

Is in conformity with the following standards and other normative documents :

98/37/CE, 89/336/CE and 2006/95/CE,  
EN 50144-1 and EN 602004-1

It is also in conformity with RoHS normative.

Name: Giovanni Colasante  
Position: Managing Director

**Giovanni Colasante**  
**KOLVER S.r.l.**



# Operator's Handbook

## IDENTIFICATION DATA OF THE MANUFACTURER

**KOLVER S.r.l.**  
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## IDENTIFICATION DATA OF THE PRODUCT

|                   |                 |                     |                   |
|-------------------|-----------------|---------------------|-------------------|
| <b>PLUTO10P/N</b> | <b>130210/N</b> | <b>PLUTO10P/U/N</b> | <b>130215/U/N</b> |
| <b>PLUTO15P/N</b> | <b>130215/N</b> | <b>PLUTO15P/U/N</b> | <b>130215/U/N</b> |
| <b>PLUTO10D/N</b> | <b>130211/N</b> | <b>PLUTO15D/N</b>   | <b>130216/N</b>   |
| <b>PLUTO3D</b>    | <b>130203</b>   | <b>PLUTO3P</b>      | <b>130204</b>     |

## THECNICAL DATA OF THE PRODUCT

TENSION: 40V DC  
POWER: 90W  
MAX SPEED RPM: PLUTO 10:600; PLUTO 15:320;  
PLUTO3: 1200  
TORQUE RANGE Nm: PLUTO10:0.6 - 10; PLUTO15:0.6 - 15.  
PLUTO3:0.3 - 3.

# GENERAL SAFETY RULES

**WARNING:** when using electric screwdrivers, basic safety precaution should always be followed to reduce the risk of fire, electric shock and personal injury. Read all the instructions below before using the screwdriver and save them.

1. **Keep the work area clean and well lit.**
2. **Do not use the electric screwdrivers in damp or wet locations or in presence of flammable liquid or gases.**
3. **Avoid body contact with grounder surface as pipes, radiator, refrigerators, etc.**
4. **Keep children and visitors away from work area.**
5. **When not in use screwdrivers should be stored in dry and locked-up place and out of the reach of children.**
6. **Do not use the screwdrivers for purposes or work not intended.**
7. **Dress properly. Do not wear loose clothing and jewelry. Wear protective hair covering to contain long hair.**
8. **Never carry the screwdriver by cable or pull it to disconnect it from socket.**
9. **Use clamps or a vice to hold work.**
10. **Keep proper footing and balance at all times.**
11. **Inspect tool cable periodically and, if damaged, have it repaired or replaced by authorized service facility. Always keep handles dry, clean and free from oil and grease.**
12. **Disconnect tools from power supply before any operation of servicing, when changing accessories and when you do not use them.**
13. **When screwdriver is used outdoors, only operate with extension cords intended for use outdoors and so marked .**
14. **Pay attention while working. Do not operate screwdriver when you are tired.**
15. **Always check the screwdriver is not damaged before using it. Detective switches must be replaced by authorized service center. Never use tools that cannot be turned on or off by the switch .**
16. **The use of any other accessory other than recommended in this operating instruction may represent a risk of personal injury.**
17. **Have the screwdriver repaired only by authorized and expert people. Failing to do so may represent a serious danger.**

**WARNING:** before connecting the control unit and power supply to the socket, please check the voltage you are using is that indicated on the label of the unit itself.

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# 1. Applications

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KOLVER electric screwdrivers are used to tighten to the required torque screws, nuts, studs and any other kind of threaded connection on any material. Table 1 will show you the capacity and the torque range of this screwdriver. Obviously, it is possible to use the screwdrivers with screws having a larger diameter if the torque falls within the indicated range. All models are reversible and can consequently be used to unscrew. Electric screwdrivers are mainly used in the electronic and mechanical industry as well as for electric appliances, wiring, lamps, etc.

Table 1

| Model    | Capacity | MAX RPM | Torque range Nm |
|----------|----------|---------|-----------------|
| PLUTO 10 | M5-M8    | 600     | 0,6 – 10,0      |
| PLUTO 15 | M5-M8    | 320     | 0,6 – 15,0      |
| PLUTO 3  | M5       | 1200    | 0,3 – 3,0       |

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## 2. Use

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The screwing system is composed by a screwdriver, a cable with 5 pin connectors and by a control unit and power supply. To install it please follow the instructions.

- a) Connect the 5-pin plug of the cable to the controller socket and to the screwdriver and tighten the relevant nuts.
- b) Push the collect ring of the quick charge chuck towards the body of the screwdriver, insert the desired bit into the exagonal seat  $\frac{1}{4}$ " and release the ring.
- c) Connect the controller plug to a mains supply socket 230V-50Hz.
- d) Switch on the controller through the green light button "POWER".
- e) Position the bit head firmly into the fastener head, press the starting trigger and run the faster down. The tool stops automatically when the preset torque is reached and it is ready for the following operation.

***WARNING:*** *PLUTO series can reach torque values up to 15Nm. These screwdrivers should be always clamped on a torque reaction arm such as PA2KOL or DMFK90 to eliminate the reaction. Failure to do so may result in operator injury and damage to the work piece.*

***IMPORTANT:*** For each second of operation the motor needs 3 seconds of rest, as indicated on the tool label (1s/3s). Failure to do so may result in motor overheating and eventually damage and will be considered as a misuse. Our warranty will not apply.

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### 3. Power supply and torque control unit

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EDU1AE power supply and control units act as voltage transformer and electronic torque controller.

The power supply 230V-50Hz AC is converted into 40V DC required by PLUTO series screwdrivers through a transformer certified EN61558-1/p2-6.

The electronic control circuit 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.

| Controller | Features                      | Applications                       |
|------------|-------------------------------|------------------------------------|
| EDU1AE     | see the enclosure             | Metric screw or self tapping screw |
| EDU1AE/LTP | see the enclosure, low torque | Metric screw or self tapping screw |

Table 2

All units are equipped with a power outlet on the back panel with autostopping fuse holder certified IEC/CEE22. To replace the fuse just pull out the fuse holder and change the fuse.

Always remember to switch off the control unit at the end of each working shift.

**WARNING: always disconnect the mains plug of the power supply before operating on the control units.**

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### 4. Adjusting the torque

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The torque delivered by PLUTO screwdrivers is controlled through an advanced electronic circuit with no need of any mechanical clutch device.

You can select the desired torque as a percentage of the torque range of the selected screwdriver (see the manual of the control unit to check all the details). When the pre-set torque is reached the screwdriver stops immediately providing accurate joint tightening with consistent repeatability and high Cp and Cpk values.

For on line or laboratory calibration of the screwdriver torque output we recommend the use of either **K20 torque analyzer** with internal and external transducer.

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## **5. Maintenance**

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The screwdriver's motor is maintenance free.

### **NOTE**

The sound level generated by Kolver electric screwdrivers is always lower than 70dB(A).

The vibrations transmitted to operator's hand are lower than  $2.5\text{m/s}^2$ . In particular the exposition to vibrations is lower than  $1\text{m/s}^2$  for operators who make up to 4200 screwing cycles per day.

### **WARRANTY**

KOLVER warrants its products for a period of one year from the date of original purchase. Any products which examination proves to be defective in workmanship on material will be repaired or replaced free of charge during the warranty period. For repair or replacement return the product, transportation prepaid, to your nearest KOLVER service center. This warranty does not cover repair or replacement required as a consequence of misuse, abuse, normal wear and tear.