

ORTHOPEDIC MECHATRONIC DIGITAL TORQUE PROGRAMMABLE CANNULATED SCREWDRIVER, DRILL AND OSCILLATING SAW "MECHATRONIC ORTHO-SCREWDRILL" MODEL MISD 0611-D

 •NOVEL DIGITAL CONTROLLED TORQUE / SPEED SCREWDRIVER AND DRILL * NEWEST OSTEOSYNTHESIS SYSTEM * REDUCES OVER-TIGHTENING AND / OR BONE THREAD STRIPPING RISK BECAUSE OF ITS DIGITAL TORQUE PROGRAMMABLE SYSTEM * ALL SCREWS ON A PLATE ARE TIGHTENED WITH THE SAME TORQUE WHICH IMPROVES ITS PULL-OUT STRENGTH * CONSTANT DIGITAL CONTROLLED LOW SPEED, REDUCES THE RISK OF NECROSIS FORMATION DUE TO FRICTION, IMPROVING THE REGENERATION PROCESS * COMPLETE OSTEOSYNTHESIS SET WITH ITS OSCILLATING SAW AND CANNULATED SCREWS SYSTEM ACCESSORIES

TECHNICAL FEATURES

Hand-piece

- Frgonomic lightweight handle.
- ✓ Two triggers for fast and easy right and left turning direction control.
- ✓ Easy drill / screwdriver bits and accessories mounting system.
- ✓ Two speeds control in both turn directions through its two triggers system.
- ✓ Two operation modes: "SCREWDRILL" (screwdriver and low speed drilling), and "DRILL/SAW" (high speed drilling and oscillating saw).

✓ Two accessories: Cannulated screws and threaded guide wires (Kirschner wires) placement system, and oscillating saw configuration System, compatiblwith Linvatec Hall Power Pro and Versipower Plus blades, (other marks upon request).



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Controller

- Digital electronic hand-piece engine torque and speed feedback control, which permits to work with a constant speed independently from mechanical load, with maximum tightening torque programmable function.
- Maximum tightening torque programmable through the front panel key board, into a range of 0.5 NW/m to 3.5 NW/m in 0.5 NW/m steps. Once the programmed torque is reached, the hand-piece engine is stopped, and a alarm is activated, until the trigger is released.
- Alarm operation in two selectable modes, through the front panel key board : "VOICE HELP" (Maximum torgue reached) or a BUZZER TONE.
- Two operation modes: "SCREWDRILL" (screwdriver and low speed drilling), and "DRILL/SAW" (high speed drilling and oscillating saw), selectable through the front panel key board:
 - SCREWDRILL (screwdriver and low speed drilling). The right turn control trigger (upper trigger) drives two working speeds with digital feedback control:
 - 1. Low Speed. 90 rpm for screw driver and tapping operation with programmed maximum tightening torque. This mode can be used too for low speed drilling, which provides grate control over cortical breakthrough.
 - 2. <u>Medium low Speed</u>. 200 rpm for medium low speed drilling, with 3.5 NW/m maximum torque control. This mode can be used too for threaded guide wires placement (Kirschner wires).
- This operation mode "SCREWDRILL" at "low" and "medium low" speed, constant independently from mechanical load (digital feedback speed control), reduces the risk of necrosis formation due to friction, improving the regeneration process.

DRILL/SAW. (High speed drilling and oscillating saw function), The right turn control trigger (upper trigger) drives two working speeds with digital feedback control:

- 1. <u>Medium high Speed</u>. 350 rpm for medium speed drilling with 3.5 NW/m maximum torque control.
- 2. <u>High Speed</u>. 650 rpm for high speed drilling, and oscillating saw accessory with 3.5 NW/m maximum torque control.
- The left turn control trigger (lower trigger) drives two working speeds with digital feedback control:
 - 1. Low Speed. 90 rpm for to loose and to extract screws with 3.5 NW/m maximum torque control.
 - 2. <u>Medium low Speed</u>. 200 rpm for drill bits and threaded guide wires extraction (Kirschner wires).
- Liquid crystal alphanumerical display, which indicates the programmed tightening torque, the operation mode (SCREWDRILL /DRILL SAW), the alarm mode (VOICE HELP/BUZZER TONE), and the turn direction (RIGHT/LEFT).
- Operation voltage: 110 / 120 Volts AC Other voltages upon request.