



# DIGITAL SHAPER ARTHRO-DRIVE CHONDROTOME MODEL JEROME 9221-D



## DESCRIPTION:

The SHAPER ARTHRODRIVE JEROME 9221 – D R&V Medical Equipments, has been created to meet the demands posed by the high complexity of arthroscopic surgery today.

This equipment designed with the state of the art of technology, incorporates a latest generation micro motor, with great power, efficiency and very high performance, which allows it to deliver excellent torque in a range of speeds between 500 and 4000 RPM, smooth, silent and vibrations free.

This micro motor is included in a very ergonomic and lightweight handpiece, equipped with a revolutionary digital suction control system unique in the market (patent pending), which includes a membrane keyboard to regulate its opening and/or close in a "Servo Assisted" way.

This handpiece is connected to a digital control unit with state-of-the-art technology, which includes a microcontrolled system, which incorporates a high quality 5" screen with excellent visibility and "Touch Screen" function, which provides information and control of all variables by the user programmed, and of the system response.

Additionally, it incorporates a "servo actuator" which, being governed by the control system, regulates the suction opening level, eliminating the traditional mechanical key system that makes the procedure uncomfortable.

The control system permanently monitors the micro motor's rotation speed, and using a sophisticated PID (Proportional Integral Derivative) control algorithm, regulates it with great precision, keeping it constant, regardless of variations in the mechanical load generated by the different densities of articular tissues, which guarantees a great cut efficiency and an excellent shaving quality.

The "Servo Assisted" suction system offers a revolutionary and innovative option to the surgeon, which consists of programming and obtaining the desired suction level, only when the handpiece micromotor is activated through the pedals. In other words, the system opens the suction to the programmed level when one of the pedals is depressed, and locks it when it is released, which eliminates the process of manually opening and/or closing a key on the handpiece each time its micro motor is activated, which tends to be tortuous in the development of long procedures due to its high complexity.

These extraordinary characteristics added to a sophisticated design in ergonomics and operability, make the SHAPER ARTHRODRIVE JEROME 9221–D an excellent option for the realization and development of highly complex and demanding arthroscopic surgery procedures posed by the current reality.



# DIGITAL SHAVER ARTHRO-DRIVE CHONDROTOME MODEL JEROME 9221-D

- \* IDEAL EQUIPMENT FOR ARTHROSCOPY
- \* EXCELLENT SHAVING QUANTITY
- \* ERGONOMIC AND LIGHTWEIGHT HANDPIECE
- \* SERVO ASSISTED SUCTION CONTROL SYSTEM
- \* TOUCHSCREEN DISPLAY



## TECHNICAL FEATURES:

- ✓ Digital control panel with grate visibility and touch screen function 5" Display which indicates:
  - \*Level and programmed speed in a range between 500 and 4000 RPM.
  - \*Suction servo control system current state (opening level).
  - \*Automatic suction control system current setting (MANUAL / AUTOMATIC).
  - \*Blade's cutting direction (RIGHT / LEFT / OSCILLATORY) according to pedals activation.
  - \*Auditive alarm system current state (VOICE / TONE).
- ✓ Micromotor speed control system with PID (Proportional Integral Derivative) control algorithm with alarm function in OVERLOAD case, in a range of speeds between 500 and 4000 RPM, and three operation modes: Right, Left and Oscillatory.
- ✓ Servo Assisted suction control system, actionned by a touch screen display key, and / or through the handpiece membrane knob, with actual system state (open / close) indication, and apertura level through the display and audio system.
- ✓ Handpiece motor activation through the double pedal in three modes: Right, Left y Oscillatory.
- ✓ Handpiece electronic Micromotor with Planetary gear system and tacho-generator.
- ✓ Easy fast and secure blades mounting system, Stryker Formula 375-xxx compatible.
- ✓ Alarm system with voice or tones, through the touch screen display selectable.
- ✓ Handpiece disconnect Alarm.
- ✓ Handpiece micromotor Overload alarm with disconnection function, to preserve its durability.
- ✓ Operating voltage: 110 - 220 Volts. A.C. 50 / 60 Hz.