Micromotors and control systems
Bien-Air micromotors - Performance allied with

100% Swiss, 100% Bien-Air
The head office of Bien-Air Dental is located in Biel, Switzerland. Two other production facilities are located in the heart of «Watch Valley», a region whose watchmaking, technical and microtechnology expertise has been world famous for several centuries. Bien-Air designs and produces all its dental medicine equipment and instruments in this region of high-precision technology and research.

Controls and sterilisable brushless motors
In recent years, when only implantology and microsurgery required this type of motor, the CHIROPRO control system and its powerful BASCH motor met these needs perfectly. In 2004, Bien-Air released the innovative MX Micromotor and its OPTIMA MX and DMX control systems. These controls offer, among other features, the functions of torque control and reversal of the direction of rotation as required for NiTi endodontics. Its design, its power and its broad range of applications have made the MX motor the No. 1 selling Micromotor in the world.

The MX and BASCH motors from Bien-Air, world leader in electric micromotors, give new meaning to the expression "top-of-the-range". Extraordinarily reliable and of unbeatable quality, 100% Swiss Made, they are in addition the only motors to be sterilisable without protection.
Control system and Electric motor with brushes
The speed, power and service life of electric motors being directly related to the qualities of their electronic control system, Bien-Air has designed the PLMP 021 to drive the MC3 and MC2 motors smoothly. It adapts to all chairs fitted with an air-powered or electric pedal and delivers the power required for the motor to provide maximum torque from 20 to 40,000 rpm.

Air micromotors
Easy-to-use, reliable and very powerful at low speeds, quiet, with quick-connect coupling, practically maintenance-free - these are the great qualities of the Aquilon® air motors, equipping an ever-growing number of dental surgeries provided with an air-powered system.

ISO coupling
All our motors are fitted with the E standard coupling as per ISO 3964.

MC3
Brush micromotor, with or without light
Speed range: 20-40,000 rpm

MC2 Isolite 300
Brush micromotor, with light
Speed range: 60-40,000 rpm

MC2 IR
Brush micromotor, without light
Speed range: 60-40,000 rpm

Aquilon
Air micromotor, without light, with internal or external spray. Forward and reverse operation and variable speed. Speed range: 5000-20,000 rpm. Quick rotating connection on Unifix 3- or 4-hole coupling
The MX motor, 100% Swiss Made, is the micromotor of superlatives. It is so reliable that Bien-Air can provide it with an unconditional 24-month guarantee! Powerful at all speeds, efficient from 100 to 40,000 rpm, extremely quiet, operating vibration-free and insensitive to fluids, it needs practically no maintenance, meaning longer life.

Another advantage: its quick-connect 360° rotary coupling offers fast interchangeability. Its clever construction has enabled a reduction in the total micromotor+coupling length, offering improved manoeuvrability.

Managed by the Optima MX microprocessor control system, it can be used for a wide range of operations.

<table>
<thead>
<tr>
<th>MX Micromotor</th>
<th>Brushless, with internal spray, sterilisable</th>
</tr>
</thead>
<tbody>
<tr>
<td>REF 1600375-001</td>
<td>MX Micromotor</td>
</tr>
<tr>
<td>REF 1600387-001</td>
<td>4VX hose, with quick-connect coupling</td>
</tr>
<tr>
<td></td>
<td>rotating through 360°</td>
</tr>
<tr>
<td>REF 1600428-001</td>
<td>B4VX hose, with quick-connect coupling</td>
</tr>
<tr>
<td></td>
<td>rotating through 360° and system with bayonet connector on unit side</td>
</tr>
</tbody>
</table>
**MX controls - To manage the most powerful brushless micromotor in the world**

**Advantages that count:**
- Broad speed range of the MX micromotor: from 100 to 40,000 rpm
- High speed mode for restorative operations
- Low speed mode for NiTi endodontics: automatic reversal of the direction of rotation when the selected torque is reached, automatic return to clockwise rotation (after an adjustable time-out)
- Easy navigation system
- Major functions that can be modified at all times:
  - Selection of one of the 40 programmes
  - Actual instrument speed
  - Handpiece ratio
  - With or without lighting
  - Light intensity.

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**OPTIMA MX INT**

OPTIMA MX INT takes the form of a control box to be attached to the unit and an integrated microprocessor (DMX). The Basic versions do not offer the endodontic functions.

**DMX**

With DMX, your unit’s control system manages the MX micromotor. Your distributor-installer is able to upgrade your electric or air-powered unit to the leading MX technology. You can thus have a high-performance instrument with your unit’s customary control system. The Basic versions do not offer the endodontic functions.

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**OPTIMA MX INT kit (Standard) - with endodontic options**

Control system to be attached to the unit and microprocessor to be integrated

- REF 1700258-001 Kit with 1 motor, without converter
- REF 1700270-001 Kit with 1 motor and transformer **
- REF 1700275-001 Kit of 1 motor and converter *
- REF 1700259-001 Kit of 2 motors and converter *

**OPTIMA MX INT kit (Basic) - without endodontic options**

Control system to be attached to the unit and microprocessor to be integrated

- REF 1700260-001 Basic kit with 1 motor
- REF 1700271-001 Basic kit with 1 motor and transformer **

**DMX-S kit (Standard) - with endodontic options**

Microprocessor to be integrated in the unit

- REF 1700230-001 Kit with 1 motor and converter *
- REF 1700241-001 Kit with 1 motor, without converter
- REF 1700232-001 Kit with 2 motors and converter *

**DMX-B kit (Basic) - without endodontic options**

Microprocessor to be integrated in the unit

- REF 1700231-001 Basic kit with 1 motor and converter *
- REF 1700245-001 Basic kit with 1 motor, without converter
- REF 1700233-001 Basic kit with 2 motors and converter *

* 24Vac/24Vdc-32Vdc converter  ** 80-240 Vac transformer
BASCH - Implantology micromotor, brushless, sterilisable with its cable

The BASCH micromotor, designed for implantology, is nothing less than the most powerful motor on the market. Efficient and self-ventilated, it offers a rotation speed ranging from 500 to 40,000 rpm. It is brushless and sterilisable with its cable. Managed and configured by the CHIROPRO control system, it gives optimum performance. 100% Swiss Made.

<table>
<thead>
<tr>
<th>BASCH Micromotor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
<tr>
<td>REF 1600076-001</td>
</tr>
<tr>
<td>REF 1600342-001</td>
</tr>
<tr>
<td>REF 1700074-001</td>
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</tbody>
</table>
CHIROPRO - Implantology control system

CHIROPRO brings together all the qualities that make up Bien-Air's excellence. With its large backlit display (in seven languages) and intuitive programming, and with a powerful motor sterilisable with its cable, it is extremely easy to use and completely reliable. Its solid design, cable shielded against electromagnetic radiation and gas-tight pedal make it a tough device, meeting the most stringent international safety standards.

Advantages that count:
• 8 programmes which can be modified even in use  
• Choice of 31 handpiece ratios, ranging from 1000:1 to 1:6  
• Peristaltic pump delivery adjustable from 15 to 130 ml/min.  
• Capability for connecting 2 BASCH motors  
• Control system of insulation class I type B and degree of protection IP40  
• Pedal degree of protection IPx8, as per IEC 529 and APG in accordance with EN 60601-1.

### CHIROPRO table-top control module

Set comprises:
• 1 CHIROPRO control system with integral peristaltic pump  
• 1 Basch micromotor  
• 1 black cable for Basch micromotor  
• 1 sealed multifunction pedal, with 2 or 4 buttons  
• 1 sterilisable support for instrument  
• 1 bracket  
• 10 irrigation lines with choice of 2 delivery ranges  
• 10 clips

### Sets with 1 BASCH motor

**Version with 2-button pedal**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>230 Vac</td>
<td>REF 1700113-001</td>
</tr>
<tr>
<td>115 Vac</td>
<td>REF 1700114-001</td>
</tr>
<tr>
<td>100 Vac</td>
<td>REF 1700115-001</td>
</tr>
</tbody>
</table>

**Version with 4-button pedal**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>230 Vac</td>
<td>REF 1700206-001</td>
</tr>
<tr>
<td>115 Vac</td>
<td>REF 1700207-001</td>
</tr>
<tr>
<td>100 Vac</td>
<td>REF 1700208-001</td>
</tr>
</tbody>
</table>
MC3 and MC2 micromotors, brush type

These micromotors offer 100% Swiss Made quality at a very attractive price. Powerful and vibration-free from 20 to 40,000 rpm, they are ideally managed by the PLMP 021 microprocessor control system. Supply via 4VR 400 or 4VLM hoses for MC3. Hoses with rotating or fixed connector for MC2.

The flagship of the range, MC3, with or without light, is appreciated for its performance, its endurance and its light weight. Its hose with a connector rotating through 400° offers great freedom of movement.

### MC3 Micromotors
- **Type**: Brush, with internal spray
- **Speeds**: 20 to 40,000 rpm
- **REF 1600077-001**: MC3 LK with light
- **REF 1600071-001**: MC3 IR without light
- **REF 1600397-001**: 4 VR 400 hose, with rotating connector

### MC2 Micromotors
- **Type**: Brush, with internal spray
- **Speeds**: 60 to 40,000 rpm
- **REF 1600078-001**: Isolite® 300 with light
- **REF 1600073-001**: MC2 IR without light
- **REF 1600298-001**: Hose with rotating connector, for Isolite® 300
- **REF 1600120-001**: Hose with fixed connector, for MC2 IR
PLMP 021 - Control system for MC3 and MC2 micromotors

Top-of-the-range microprocessor technology offering maximum torque from 20 to 40,000 rpm. Allows vibration-free rotation without jolts from the lowest speed, in both directions of rotation. 3.5 Vdc power supply for lighting and optional 10-second time-out.

Can be easily integrated into all electric or air-powered units due to its small micro-processor control box: (LxHxD) 66 x 51 x 128 mm.

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**PLMP 021 control system**

- REF 1600350-001 PLMP 021 microprocessor control
- For micromotors: MC2, SR, IR, Isolite® 100 and 300 series, MC3, IR and LK series

**PLMP 021 installation kit**

- REF 1600351-001 Comprising: PLMP 021, 18 m of electric wire, potentiometer, solenoid valve, switch, sticker and fastening clamps
Aquilon® air micromotors

Aquilon air micromotors offer 100% Swiss Made quality at a very attractive price. They are provided with a ceramic stator which makes maintenance extremely easy and gives them a very long service life. Forward and reverse operation and variable speed from 5000 to 20,000 rpm. Air pressure 3 bar. Quick rotating connection on Unifix 3- or 4-hole coupling. Recommended silicone hose: 4VLM with fixed connector.

Aquilon® 830 (internal spray)

<table>
<thead>
<tr>
<th>Type</th>
<th>Micromotor alone</th>
</tr>
</thead>
<tbody>
<tr>
<td>REF 1600070-001</td>
<td>Micromotor alone</td>
</tr>
<tr>
<td>REF 1700058-001</td>
<td>Micromotor with 3-hole Unifix coupling</td>
</tr>
<tr>
<td>REF 1700211-001</td>
<td>Micromotor with 4-hole Unifix coupling</td>
</tr>
</tbody>
</table>

Aquilon® 830 (external spray)

<table>
<thead>
<tr>
<th>Type</th>
<th>Micromotor alone</th>
</tr>
</thead>
<tbody>
<tr>
<td>REF 1600362-001</td>
<td>Micromotor alone</td>
</tr>
</tbody>
</table>

Hoses

<table>
<thead>
<tr>
<th>Type</th>
<th>4VLM with fixed connector. Grey silicone</th>
</tr>
</thead>
<tbody>
<tr>
<td>REF 1600102-001</td>
<td>4VLM with fixed connector. Grey silicone</td>
</tr>
</tbody>
</table>

Unifix couplings

Speed and manoeuvrability guaranteed! All the benefits of quick connection and easy rotation through 360°. Available in 3- and 4-hole versions.
Bien-Air Dental SA – Your trusted partner

Quality first
Determined to meet its customers’ needs, the company has always focused its efforts on improving reliability. Modern machining techniques and stringent controls at each stage of manufacturing and assembly are the key to impeccable product quality, and products are marketed by a global distribution network. Management, supported by highly qualified personnel, has applied this strict policy in every department. And the policy has paid off: Bien-Air Dental SA is now certified compliant with ISO 9001/EN 46001 standards and EEC directive 93/42.

Global Service
Bien-Air Group’s eight subsidiaries in Europe, the United States and Asia are the backbone of a well-oiled distribution network. Local inventory ensures very short delivery times. Constantly attentive to the market and its representatives, the company is able to design and thus offer instruments and equipment meeting the specific requirements of each customer. More than 130 technicians worldwide provide fast, efficient, on the spot customer service. Their advice and personalised assistance, plus remote investigation and diagnosis has already helped boost the efficiency of our customers.