Chiropro is a table-top system for use with 1 or 2 BASCH brushless micromotors which are sterilisable with cables. Chiropro permits perfect control of real bur speed and torque. Superbly backlit display with a choice of 7 languages to show the dental surgeon the information needed for each task. Manual adjustment of all 8 programs is possible at any time, even for the program currently in use. Handpiece gear ratios can be selected from 31 speed reducing and increasing ratios across a range from 1,000:1 to 1:6. The delivery of the integral peristaltic pump is adjustable electronically from 15 to 130 ml/min. Chiropro and the micromotors and cables meet the safety requirements of medical standards 93/42/EEC and also comply with electromagnetic compatibility standard IEC 601-1-2. Control unit with insulation class I type B and protection level IP40. Pedal protection level IPx8, water-resistant to a depth of 1 metre.

The Chiropro set comprises:
1 electronic tabletop control with integral peristaltic pump, 1 bracket and 10 irrigation lines with two flow rate ranges and 10 clips, and 1 BASCH motor with its cable. Depending on the model, supplied with a 2- or 4-button pedal.

Two-button pedal functions:
control of the motor’s speed, its direction of rotation, and pump-motor synchronisation.
Additional functions on the four-button pedal:
selection of one of the 2 motors and one of the 4 programs available per motor.

Available gear ratios

\[
\begin{array}{c|c|c|c}
1,000 & 1 & 40 & 1 \\
512 & 1 & 33 & 1 \\
256 & 1 & 30 & 1 \\
128 & 1 & 28 & 1 \\
120 & 1 & 27 & 1 \\
100 & 1 & 24 & 1 \\
74 & 1 & 20 & 1 \\
64 & 1 & 16 & 1 \\
60 & 1 & 14 & 1 \\
50 & 1 & 10 & 1 \\
8 & 1 \\
\end{array}
\]
All settings visible at a glance

1. Variable speed control
2. Bur torque limiting
3. Selection of gear ratio
4. Control of pump delivery
5. Peristaltic pump
6. Activation of peristaltic pump
7. Deactivation of programmed torque (Maximum torque)
8. Selection of motor
9. Direction of rotation
10. Synchronisation of peristaltic pump and motor

4 programs per motor stored in memory
Simple programming for maximum efficiency

BASCH motor and cable are sterilisable

2 push-pull type outputs on control side

Programs per motor: P1, P2, P3 and P4
Selection keys for recorded programs. Each parameter can be modified and saved at any time.

Deactivation of programmed torque
By activating this key (green light lit), the programmed torque control is replaced by maximum motor torque control.

Control of the peristaltic pump
Option of activation by button on the foot control or activation synchronised with motor operation.

Reversing Mode
A function identical to that of the foot control which reverses the direction of motor rotation. Reversing mode is confirmed by an audible signal.

Selection of Motor 1 or Motor 2
Each motor has 4 programs selectable independently.
**CHIROPRO - Technical data**

**CHIROPRO**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>230, 115 or 100 VAC</td>
</tr>
<tr>
<td>Electrical power to motors</td>
<td>2 quick-release push-pull connections / 24 VDC for BASCH motors</td>
</tr>
<tr>
<td>Insulation class</td>
<td>L type B</td>
</tr>
<tr>
<td>Protection level</td>
<td>IP 40</td>
</tr>
<tr>
<td>Dim. (LxDxH) / weight</td>
<td>370 x 288 x 115 mm (total height with power unit 485 mm) / 5.8 kg</td>
</tr>
<tr>
<td>Peristaltic pump</td>
<td>Delivery 30 to 130 ml/min, with silicon pipe, internal diameter 2.4 mm / external diameter 5.6 mm.</td>
</tr>
<tr>
<td>Bracket - Irrigation (H)</td>
<td>Made of stainless steel, height 450 mm</td>
</tr>
<tr>
<td>Irrigation lines</td>
<td>Two flow rates: 100% = 30 to 130 ml/min, and 50% = 15 to 65 ml/min.</td>
</tr>
<tr>
<td>Irrigation clips</td>
<td>Silicone hose, ID 2.4 mm / OD 5.6 mm</td>
</tr>
<tr>
<td>Holder</td>
<td>Sterilisable for securing irrigation lines down the length of the motor cable</td>
</tr>
</tbody>
</table>

**BASCH micromotor**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor reference</td>
<td>1600076-001 Motor / 1600342-001 Cable</td>
</tr>
<tr>
<td>Input power rating</td>
<td>0 to 24 Vdc 5 A max.</td>
</tr>
<tr>
<td>Mechanical power</td>
<td>62 W at 20,000 rpm with Chiropro</td>
</tr>
<tr>
<td>Rotational speed</td>
<td>500 to 40,000 rpm with Chiropro, self-cooling</td>
</tr>
<tr>
<td>Coupling</td>
<td>E standard ISO attachment lug</td>
</tr>
<tr>
<td>Dimensions / Weight</td>
<td>ø 21 mm, length 100 mm, ISO lug included / 110 g without cable</td>
</tr>
<tr>
<td>Micromotor cable</td>
<td>Push-pull type on Chiropro side, stainless steel nut on BASCH motor side / Length 3 m</td>
</tr>
<tr>
<td>Sterilisation</td>
<td>Motor and cable sterilisable in autoclave</td>
</tr>
</tbody>
</table>

**2-button multi-function pedal**

<table>
<thead>
<tr>
<th>Functions</th>
<th>Additional functions of the 4-button pedal:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON/OFF, reversal of the direction of motor rotation</td>
<td>selection of one of the 2 motors and</td>
</tr>
<tr>
<td>and triggering of the peristaltic pump.</td>
<td>one of the 4 programs available per motor.</td>
</tr>
<tr>
<td>Dimensions (LxDxH)</td>
<td>160 x 170 x 55 mm / Weight 0.830 kg</td>
</tr>
<tr>
<td>Watertightness</td>
<td>IPx8 as per IEC 529.</td>
</tr>
</tbody>
</table>

**4-button multi-function pedal**

| Dimensions (LxDxH)               | 249 x 193 x 59 mm / Weight 1.775 kg                                          |

**Complete sets with 1 BASCH motor**

<table>
<thead>
<tr>
<th>Version with 2-button pedal</th>
<th>Version with 4-button pedal</th>
</tr>
</thead>
<tbody>
<tr>
<td>For 230 Vac</td>
<td>REF 1700113-001 For 230 Vac</td>
</tr>
<tr>
<td>For 115 Vac</td>
<td>REF 1700114-001 For 115 Vac</td>
</tr>
<tr>
<td>For 100 Vac</td>
<td>REF 1700115-001 For 100 Vac</td>
</tr>
<tr>
<td></td>
<td>REF 1700206-001 REF 1700207-001</td>
</tr>
</tbody>
</table>

This technical data may be changed by Bien-Air Dental SA at any time, without entailing its liability.
Implantology instruments

### CA 1:1 ext spray

<table>
<thead>
<tr>
<th>REF</th>
<th>1600200-001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Contra-angle with external spray</td>
</tr>
<tr>
<td>Direct ratio</td>
<td>1:1</td>
</tr>
<tr>
<td>Speed</td>
<td>500 to 40,000 rpm with Chiropro</td>
</tr>
<tr>
<td>Locking system</td>
<td>Push button grip</td>
</tr>
<tr>
<td>Weight</td>
<td>100 g</td>
</tr>
<tr>
<td>Burs</td>
<td>In accordance with ISO 1797 / ø 2.35 mm type 1, length 22 or 26 mm</td>
</tr>
<tr>
<td>Detachable irrigation set</td>
<td>Comprising 10 side tubes + 10 clamping rings for external spray REF. 1500431-010</td>
</tr>
</tbody>
</table>

### CA 30:1 ext spray

<table>
<thead>
<tr>
<th>REF</th>
<th>1600284-001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Contra-angle with external spray and detachable Kirschner/Meyer type irrigation system</td>
</tr>
<tr>
<td>Ratio</td>
<td>Speed reducing factor of 30</td>
</tr>
<tr>
<td>Speed</td>
<td>15 to 1,300 rpm with Chiropro</td>
</tr>
<tr>
<td>Locking system</td>
<td>Push button grip</td>
</tr>
<tr>
<td>Weight</td>
<td>100 g</td>
</tr>
<tr>
<td>Burs</td>
<td>In accordance with ISO 1797 / ø 2.35 mm type 1, length 22 or 26 mm / or Kirschner/Meyer type</td>
</tr>
<tr>
<td>Detachable irrigation set</td>
<td>Comprising 10 side tubes + 10 clamping rings for external spray + 10 irrigation systems of Kirschner/Meyer type REF. 1500467-010</td>
</tr>
</tbody>
</table>

### PM 1:2

<table>
<thead>
<tr>
<th>REF</th>
<th>1600436-001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Straight handpiece with external spray</td>
</tr>
<tr>
<td>Ratio</td>
<td>Speed increasing factor of 2</td>
</tr>
<tr>
<td>Speed</td>
<td>1,000 to 80,000 rpm with Chiropro</td>
</tr>
<tr>
<td>Bur changing mechanism</td>
<td>By ring</td>
</tr>
<tr>
<td>Weight</td>
<td>86 g</td>
</tr>
<tr>
<td>Burs</td>
<td>As per ISO 1797 / dia. 2.35 mm type 2, max. length 44.5 mm</td>
</tr>
</tbody>
</table>

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CHIROPRO implantology unit
A trio of robust and reliable instruments for precision work. These instruments can be autoclaved. They have an external spray and feature gear ratios of 1:1 for the CA 1:1 ext spray, a speed reducing factor of 30 for the CA 30:1 ext spray and a speed increasing factor of 2 for the PM 1:2.

The CA 30:1 ext spray contra-angle is fitted with a detachable Kirschner/Meyer system providing better irrigation through the bur.

These three instruments are machined from high-quality materials and are capable of easily withstanding frequent sterilisation operations.

All Bien-Air handpieces are equipped with the standardised coupling most widely used in the world: E Standard, as per ISO 3964.