Early intraoral distraction therapy for babies and infants aged up to one year requires distractors with an especially small profile to ensure that the distractor can be reliably covered with soft tissue. The Micro Zurich II product line has been designed with exactly this goal in mind.

**Micro Zurich II Distractors, end-driven**

The posterior plate stays in place, while the anterior plate moves forward

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>51-424-15-09</td>
</tr>
<tr>
<td>20</td>
<td>51-424-20-09</td>
</tr>
<tr>
<td>25</td>
<td>51-424-25-09</td>
</tr>
<tr>
<td>30</td>
<td>51-424-30-09</td>
</tr>
</tbody>
</table>

**Distraction length/turn**: 0.3 mm

**Recommended screws**
- 1.0 x 4 mm to 1.0 x 7 mm
- Emergency: 1.2 x 5 mm

**Patient screwdriver**
- Straight 51-430-95-07

**End-driven**

(Mesh design, with anti-relapse ratchet)

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>51-428-15-09</td>
</tr>
<tr>
<td>20</td>
<td>51-428-20-09</td>
</tr>
<tr>
<td>25</td>
<td>51-428-25-09</td>
</tr>
<tr>
<td>30</td>
<td>51-428-30-09</td>
</tr>
</tbody>
</table>

**Distraction length/turn**: 0.6 mm

**Recommended screws**
- 1.5 x 4 mm to 1.5 x 7 mm
- Emergency: 1.8 x 5 mm

**Patient screwdriver**
- Straight 51-430-95-07

**Micro Zurich II Distractors, middle-driven**

Both plates move from central position bilaterally

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>51-423-15-09</td>
</tr>
<tr>
<td>20</td>
<td>51-423-20-09</td>
</tr>
<tr>
<td>25</td>
<td>51-423-25-09</td>
</tr>
<tr>
<td>30</td>
<td>51-423-30-09</td>
</tr>
</tbody>
</table>

**Distraction length/turn**: 0.6 mm

**Recommended screws**
- 1.0 x 4 mm to 1.0 x 7 mm
- Emergency: 1.2 x 5 mm

**Patient screwdriver**
- Straight 51-423-95-07

For additional product information, please refer to the brochure “Zurich II Modular Distraction Concept”.

Activators
See pages 40 - 43

For additional features, please visit our website.
Product Features

Symmetrical design

The symmetrical design allows you to use the same distractor on the left or on the right side. This reduces your stock-keeping needs and lowers the amount of capital tied up in distractors held in stock. The fixing plates can be cut to size intraoperatively to adapt them to individual anatomical requirements.

The plates available include the well-known cloverleaf plates and mesh designs. The distractors can be installed in place with the plates down or up.

Anti-relapse ratchet

Some distractors of the Zurich II and Micro Zurich II product lines feature an anti-relapse ratchet that reliably prevents backward rotation of the distractor and consequential relapse of the distracted bone area. This stop can be deactivated intraoperatively for function test performance.
Mandibular Distraction

Zurich II Distractors

Zurich II Distractors, end-driven
The posterior plate stays in place, while the anterior plate moves forward

End-driven (Mesh design)
- 15 mm 51-416-15-09
- 20 mm 51-416-20-09
- 25 mm 51-416-25-09
- 30 mm 51-416-30-09

End-driven (Mesh design, with anti-relapse ratchet)
- 15 mm 51-426-15-09
- 20 mm 51-426-20-09
- 25 mm 51-426-25-09
- 30 mm 51-426-30-09

Distraction length/turn 0.5 mm

Zurich II Distractors, middle-driven
Both plates move from central position bilaterally

Middle-driven (Mesh design)
- 15 mm 51-415-15-09
- 20 mm 51-415-20-09
- 25 mm 51-415-25-09
- 30 mm 51-415-30-09

Middle-driven (Mesh design, with anti-relapse ratchet)
- 15 mm 51-425-15-09
- 20 mm 51-425-20-09
- 25 mm 51-425-25-09
- 30 mm 51-425-30-09

Distraction length/turn 0.5 mm

Activators
See pages 40 - 43
**Recommended screws**

- 1.5 x 4 mm to 1.5 x 7 mm
- Emergency: 1.8 x 5 mm
- Drill-Free: 1.5 x 5 mm

**Patient screwdrivers**

- Straight: 51-500-90-07
- Angled: 51-505-90-07
- Combination straight and angled for handle 29-402-99-07: 51-505-91-04

For additional product information, please refer to the brochure "Zurich II Modular Distraction Concept".
## Mandibular Distraction

**Zurich II Modular Distractors**

### Distractor Bodies

<table>
<thead>
<tr>
<th>Version</th>
<th>Description</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>End-Driven</td>
<td>Zurich II distractor body, right-side design, 15 mm</td>
<td>51-441-15-09</td>
</tr>
<tr>
<td></td>
<td>Zurich II distractor body, right-side design, 20 mm</td>
<td>51-441-20-09</td>
</tr>
<tr>
<td></td>
<td>Zurich II distractor body, left-side design, 15 mm</td>
<td>51-442-15-09</td>
</tr>
<tr>
<td></td>
<td>Zurich II distractor body, left-side design, 20 mm</td>
<td>51-442-20-09</td>
</tr>
<tr>
<td>Middle-Driven</td>
<td>Zurich II distractor body, right-side design, 15 mm</td>
<td>51-443-15-09</td>
</tr>
<tr>
<td></td>
<td>Zurich II distractor body, right-side design, 20 mm</td>
<td>51-443-20-09</td>
</tr>
<tr>
<td></td>
<td>Zurich II distractor body, left-side design, 15 mm</td>
<td>51-444-15-09</td>
</tr>
<tr>
<td></td>
<td>Zurich II distractor body, left-side design, 20 mm</td>
<td>51-444-20-09</td>
</tr>
</tbody>
</table>

### Fixation Plates

<table>
<thead>
<tr>
<th>Version</th>
<th>Description</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mesh-Design</td>
<td>Fixation plates (pair) for Zurich II distractor body, Mesh-Design</td>
<td>51-440-14-09</td>
</tr>
<tr>
<td>Cloverleaf-Design</td>
<td>Fixation plates (pair) for Zurich II distractor body, short, Cloverleaf-Design</td>
<td>51-440-16-09</td>
</tr>
<tr>
<td></td>
<td>Fixation plates (pair) for Zurich II distractor body, Cloverleaf-Design</td>
<td>51-440-18-09</td>
</tr>
</tbody>
</table>

*Activators See pages 40 - 43*

*1:1 scale*
Recommended screws

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 x 4 mm to 1.5 x 7 mm</td>
<td>51-500-90-07</td>
</tr>
<tr>
<td>Emergency: 1.8 x 5 mm</td>
<td>51-505-90-07</td>
</tr>
<tr>
<td>Drill-Free: 1.5 x 5 mm</td>
<td>25-402-99-07</td>
</tr>
</tbody>
</table>

Patient screwdrivers

<table>
<thead>
<tr>
<th>Type</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight</td>
<td>51-500-90-07</td>
</tr>
<tr>
<td>Angled</td>
<td>51-505-90-07</td>
</tr>
<tr>
<td>Combination straight and angled</td>
<td>51-505-91-04</td>
</tr>
<tr>
<td>for handle</td>
<td></td>
</tr>
</tbody>
</table>

For additional product information, please refer to the brochure “Zürich II Modular Distractor”.

**Completely modular design**

The symmetrical design allows a patient-specific configuration of the distractor in accordance with anatomical conditions and individual requirements.

**Removing the distractor body from the fixation plates**

Following temporary in-situ fixation of the distractor, only the distractor body needs to be removed. The plates can be left in place on the bone to perform the osteotomy. This eliminates the difficulty of refixing the distractor to the mobile bone segments once the osteotomy has been performed.

**Angular plate fixation on the distractor body**

Both fixation plates can be connected to the distractor body at an angle. This enables lots of options to place the distractor on the mandible.

**Plate-holding instrument to ease bending**

13 cm / 5 ¼”
Mandibular Distraction

*Zurich Pediatric Ramus Distractors*

**Zurich Pediatric Ramus,** Cloverleaf design
- Flexible activator
- 1:1 scale

**Zurich Pediatric Ramus,** Cloverleaf design (rigid activator)
- 1:1 scale

---

**Distractors incl. activator**

<table>
<thead>
<tr>
<th>Item Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>51-515-15-09</td>
</tr>
<tr>
<td>51-515-20-09</td>
</tr>
<tr>
<td>51-515-25-09</td>
</tr>
<tr>
<td>51-516-15-09</td>
</tr>
<tr>
<td>51-516-20-09</td>
</tr>
<tr>
<td>51-516-25-09</td>
</tr>
</tbody>
</table>

**Distraction length/turn** 0.5 mm

**Recommended screws**

- 1.5 x 3.5 mm to 1.5 x 7 mm
- Emergency: 1.8 x 5 mm
- Drill-Free: 1.5 x 5 mm

**Patient screwdrivers**

- Straight: 51-500-90-07
- Angled: 51-505-90-07
- Combination straight and angled: 51-505-91-04

---

**Zurich Pediatric Ramus,** Cloverleaf design (flexible activator)

**Zurich Pediatric Ramus,** Cloverleaf design (rigid activator)

*For additional product information, please refer to the brochure “Zurich Pediatric Ramus Distractor.”*
Horizontal and Ramus Distractors

Horizontal Distractor

- 1:1 scale
- Distractors incl. activator Item Number
  - 10 mm 51-500-10-09
  - 15 mm 51-500-15-09
  - 20 mm 51-500-20-09
- Distraction length/turn 0.5 mm
- Recommended screws
  - 1.5 x 3.5 mm to 1.5 x 7 mm
  - Emergency: 1.8 x 5 mm
  - Drill-Free: 1.5 x 5 mm
- Patient screwdrivers
  - Straight 51-500-90-07
  - Angled 51-505-90-07
  - Combination straight and angled for handle 25-402-99-07 51-505-91-04

Ramus Distractor

- 1:1 scale
- Distractors incl. activator Item Number
  - 15 mm 51-510-15-09
  - 20 mm 51-510-20-09
  - 25 mm 51-510-25-09
- Distraction length/turn 0.5 mm
- Recommended screws
  - 1.5 x 3.5 mm to 1.5 x 7 mm
  - Emergency: 1.8 x 5 mm
  - Drill-Free: 1.5 x 5 mm
- Patient screwdrivers
  - Straight 51-500-90-07
  - Angled 51-505-90-07
  - Combination straight and angled for handle 25-402-99-07 51-505-91-04

- Low-profile distractors
- Symmetrical design – no right or left versions
- Fixation optionally with the plates downwards or upwards (for fixation in the oblique line)
- Cardanic activators offer maximum flexibility for intraoral activation.
- Activation arm is already included.
**Right Angle Driven (RAD)**

<table>
<thead>
<tr>
<th>Distractors w/o activators</th>
<th>Item Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 mm, left</td>
<td>51-612-20-09</td>
</tr>
<tr>
<td>25 mm, left</td>
<td>51-612-25-09</td>
</tr>
<tr>
<td>20 mm, right</td>
<td>51-613-20-09</td>
</tr>
<tr>
<td>25 mm, right</td>
<td>51-613-25-09</td>
</tr>
</tbody>
</table>

| Distraction length/turn 0.1 mm |

**Activators**

See pages 40-43

**Recommended screws**

- 1.5 x 3.5 mm to 1.5 x 7 mm
- Emergency: 1.8 x 5 mm
- Drill-Free: 1.5 x 5 mm

**Patient screwdrivers**

- Straight 51-560-90-07

Distraction of the ascending ramus is very demanding for intraoral distractors. Here, the surgeon normally prefers intraoral activation, however this is especially hard to accomplish because of the lack of space.

Due to the offset activator providing 90-degree access, these distractors offer excellent support in such situations, clearly facilitating intraoral activation.
Using intraoral distractors for the therapy of serious mandibular micrognathias or asymmetries poses the basic problem of how to accommodate the relatively large spindle of the distractor in the patient’s mouth.

The telescopic mandibular distractor provides the solution. Just like a car antenna, this distractor extends continuously in various phases, reaching its full volume only at the end of the distraction process.
Mandibular Distraction

Ramus Transport Distractor

Ramus Transport Distractors

<table>
<thead>
<tr>
<th>End-driven distractors w/o activators</th>
<th>Item Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 mm</td>
<td>51-421-20-09</td>
</tr>
<tr>
<td>25 mm</td>
<td>51-421-25-09</td>
</tr>
<tr>
<td>30 mm</td>
<td>51-421-30-09</td>
</tr>
</tbody>
</table>

Distraction length/turn 0.5 mm

Activators

To order separately

Consolidation plate 51-422-12-09

Recommended screws

1.5 x 3.5 mm to 1.5 x 7 mm
Emergency: 1.8 x 5 mm
Drill-Free: 1.5 x 5 mm

Patient screwdrivers

Straight 51-500-90-07

51-500-90-07
Transport distraction of the condylar head represents an interesting therapeutic option for the surgical correction of mandibular joint ankylosis and improvement of oral opening.

An L-type posterior ramus osteotomy provides for targeted movability to the condyle and enables isolated osteogenesis of the respective bone structures. The distractor has a completely symmetrical design and therefore can be used on both sides.

Thanks to the availability and modular use of activators (see pages 40-43), together with the two alternative posterior attachments provided, the surgeon can respond flexibly and individually to any anatomical challenge.

A special retention plate (51-422-12-09) is optionally available for increased patient convenience during the consolidation phase.

In case of using the retention plate, the distractor is detached from the posterior plate and removed. The retention plate is then attached from the front (caudally) and firmly locked in place. The posterior plate remains firmly connected to the condyle at any time.
Mandibular micrognathias frequently affect both the mandibular body and the ascending ramus. Bidirectional distractors offer surgeons an opportunity to treat both sectors in a targeted but independent way.

As opinions differ with regard to the question whether single or double osteotomy is indicated in the mandibular angle, the KLS Martin range of distractors offers solutions that satisfy the demands of both parties.

Zurich Wood distractors are a combination of two Zurich distractors. Their design reflects a very frequent type of mandibular micrognathias and asymmetries in which both the mandibular body and the ascending ramus are affected.

However, the entire range of activators contained in the Zurich modular distractor line can be used in addition to supplement or modify the two activators as required.

Zurich Wood distractors require only one osteotomy line to be performed in the mandibular angle region.
Zurich Bidirectional Distractor

By means of a double osteotomy, the gonial angle will be clearly identified and formed. Individual bone formation of both, the ascending ramus and the mandibular body are guaranteed applying the two different activation spindles.
# Mandibular Distraction

**ThreadLock Transport Distractor**

Compatible with the previous ThreadLock as well as the new ThreadLock TS system.

ThreadLock Transport Distractor
fixed on a 2.7-mm ThreadLock TS reconstruction plate
(to be ordered separately)
1:1 scale

## ThreadLock Transport Distractor

For additional product information, please refer to the brochure "The ThreadLock Transport Distractor".

## Distractors w/o activators

<table>
<thead>
<tr>
<th>Distractors w/o activators</th>
<th>Item Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 mm</td>
<td>51-700-40-09 *</td>
</tr>
<tr>
<td>50 mm</td>
<td>51-700-50-09 *</td>
</tr>
</tbody>
</table>

Distraction length/turn 0.5 mm

## Recommended screws

- 1.5 x 4 mm to 1.5 x 7 mm
- Emergency: 1.8 x 5 mm
- Drill-Free: 1.5 x 5 mm

## Patient screwdrivers

- Straight 51-500-90-07
- Angled 51-505-90-07
- Combination straight and angled for handle 25-402-99-07 51-505-91-07

* including

1. x distractor incl. the following fixation screws:
   1. Centre Drive® fixing screw 2.7 x 6 mm for ThreadLock recon plates (2.7 mm)
   2. Cross Drive fixing screw 2.7 x 6 mm for ThreadLock recon plates (2.7 mm)
   3. Cross Drive fixing screw 2.7 x 6 mm for ThreadLock recon plates (2.7 mm)
   4. maxDrive® fixing screw 2.7 x 6 mm for ThreadLock recon plates (2.7 mm)
Herford Transport Distractor

Distractors w/o activators

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Item Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 mm, left</td>
<td>51-710-40-09 *</td>
</tr>
<tr>
<td>50 mm, left</td>
<td>51-710-50-09 *</td>
</tr>
<tr>
<td>60 mm, left</td>
<td>51-710-60-09 *</td>
</tr>
<tr>
<td>40 mm, right</td>
<td>51-711-40-09 *</td>
</tr>
<tr>
<td>50 mm, right</td>
<td>51-711-50-09 *</td>
</tr>
<tr>
<td>60 mm, right</td>
<td>51-711-60-09 *</td>
</tr>
</tbody>
</table>

Distraction length/turn 0.5 mm

Recommended screws

- 1.5 x 4 mm to 1.5 x 7 mm
- Emergency: 1.8 x 5 mm
- Drill-Free: 1.5 x 5 mm

Patient screwdrivers

- Straight: 51-500-90-07
- Angled: 51-505-90-07
- Combination straight and angled for handle 25-402-99-07 51-505-91-04

---

* including

1. 1x Centre Drive® fixing screw 2.7 x 6 mm for ThreadLock recon plates (2.7 mm)
2. 1x Cross Drive fixing screw 2.7 x 6 mm for ThreadLock recon plates (2.7 mm)
3. 1x Cross Drive fixing screw 2.7 x 6 mm for ThreadLock recon plates (2.7 mm)
4. 1x maxDrive® fixing screw 2.7 x 6 mm for ThreadLock recon plates (2.7 mm)

---

Activators See pages 40 - 43

For additional product information on ThreadLock TS, please refer to the brochure “ThreadLock TS – Multidirectional Locking Plate System”. 