External Midface Distractor

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DePuy Synthes Distraction Portfolio

Posterior Cranial Vault distraction

External Midface Distractor

Midface distraction
Maxillary distraction

Internal Midface Distractor

Maxillary Distractor

Transpalatal Distractor*

* available outside of the US only

Alveolar distraction

Alveolar Distractor

Curvilinear Distractor

Titanium Multi-Vector Distractor

Alveolar distraction
Mandibular distraction

Mandibular distraction

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External Midface Distractor

Indications & Contraindications

Intended use

The DePuy Synthes External Midface Distractor is intended for use as a bone stabilizer and lengthening device, where gradual bone distraction is required.

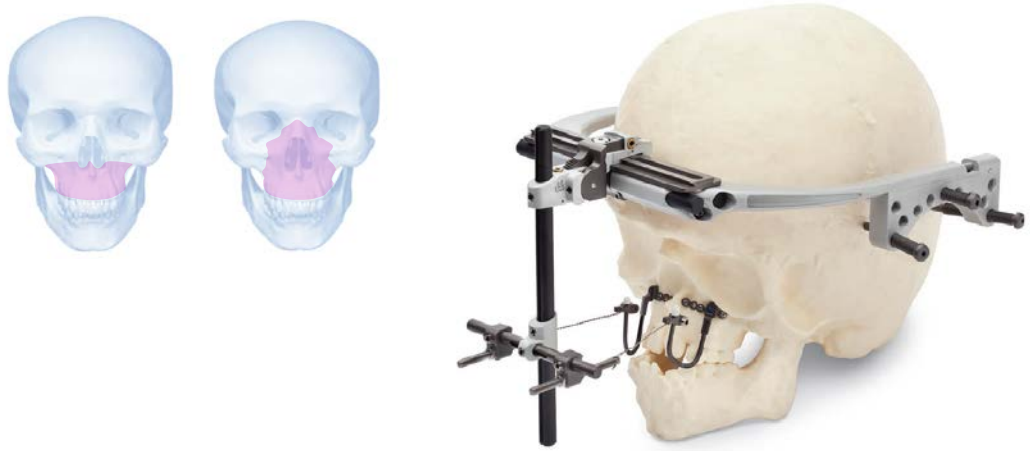
Indications

The External Midface Distraction System is indicated for craniofacial surgery, reconstructive procedures, and selective orthognathic surgery of the maxilla. Specifically, it is indicated for distraction where gradual distraction osteosynthesis is required in adult and pediatric populations.

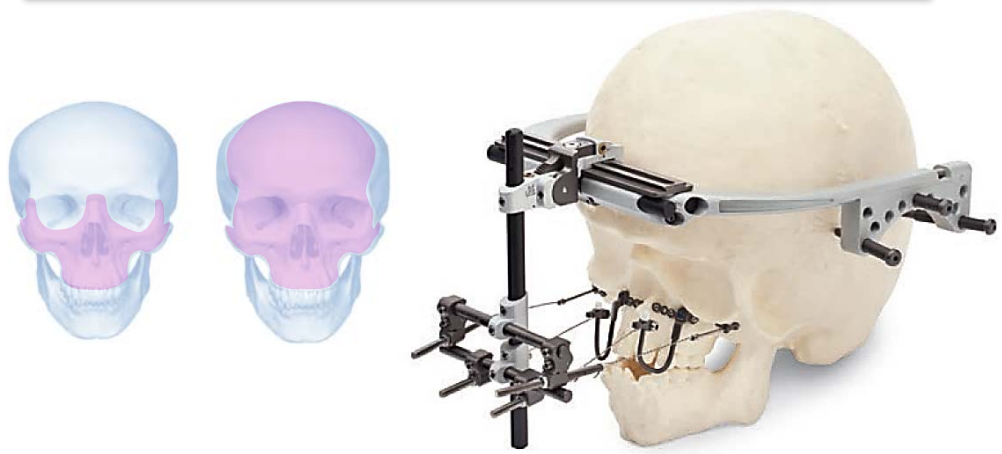
Contraindications

There are no contraindications for the DePuy Synthes External Midface Distractor

LeFort I and LeFort II advancements



LeFort III and Monobloc advancements



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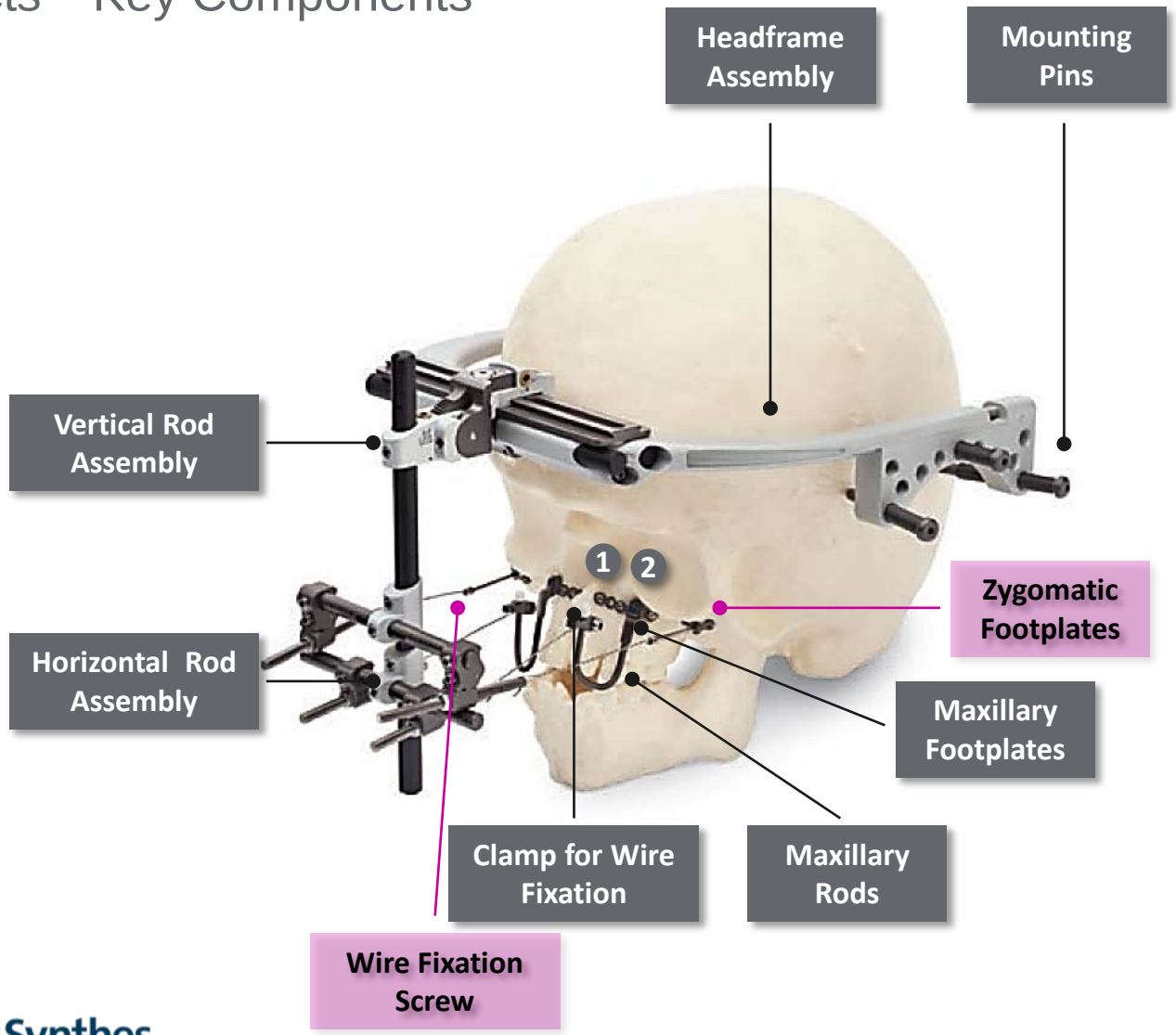
External Midface Distractor

Constructs – Key Components



System is constructed from:

- 1 Headframe assembly
- 1 Vertical Rod Assembly
- 1-2 Horizontal Rod Assemblies
- 2 Clamps for Wire Fixation
- 2 Maxillary Rods
- 2 Maxillary Footplates
- 2 Zygomatic Footplates
- 2 Wire Fixation Screw
- 2 Machine Screws for External Midface Distractor (#2 in the image)
- Min. 6 Cortex PLUSDRIVE™ Screws 1.5 mm (min. 3 per side; #1 in the image)
- Min. 6 Mounting Pins (min. 3 per side)

In pink, the components needed for LeFort III or Monobloc advancements are shown

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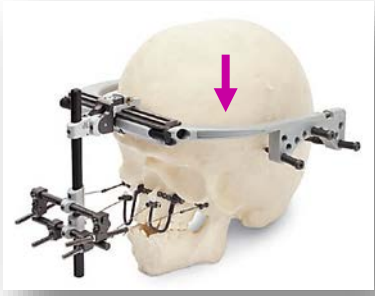
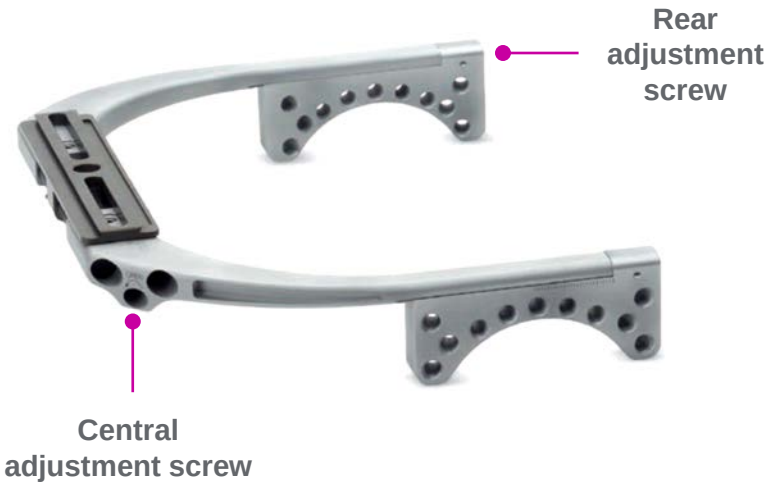
External Midface Distractor

Key Components



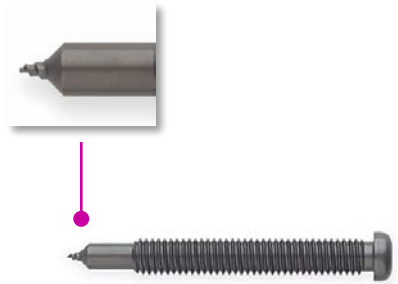


Headframe

- Preassembled
- Made of lightweight aluminum
- Possible adjustments:
  - **Anterior-posterior adjustment** (with Rear adjustment screw)
  - **Medial-lateral adjustments** (with Central adjustments screw)
- Attaches to cranium with **cranial pins** (several pin location options available)

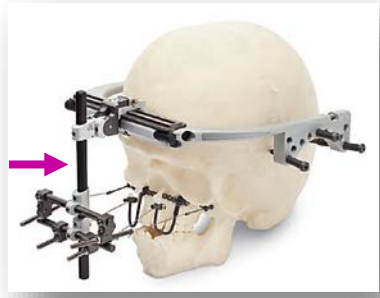
Mounting Pins

- Fixation Screws provide **rigid fixation of the Headframe Assembly to the skull**
- Available Fixation Screws:



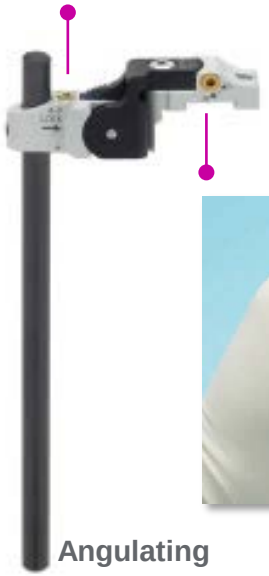
External Midface Distractor

Key Components



Anterior/posterior

Non-angulating



Angulating

Left/right

Vertical Rod Assembly

- Placed for alignment with patient's midline
- Available in **non-angulating** and **angulating** configurations
- **Angulating configuration allows postoperative adjustments** of mobile segment (left/right and anterior/posterior)
- **Carbon fiber rod lengths** are available (lengths: 50, 100 and 120mm)

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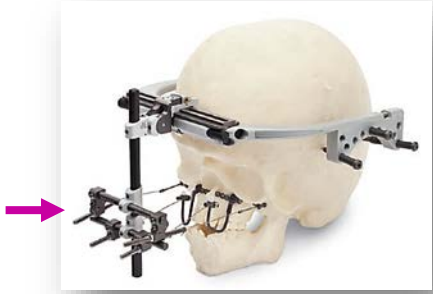
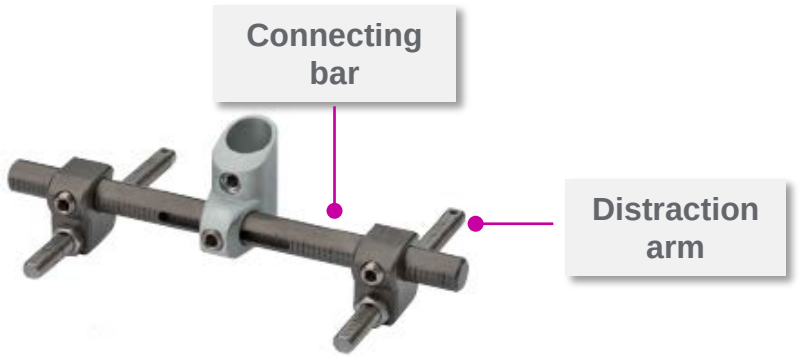
Key Components



Horizontal Rod Assembly

- **One Horizontal Rod Assembly** should be used **for LeFort I and LeFort II** procedures
- **Two Horizontal Rod Assemblies** should be used for **LeFort III and Monobloc** procedures
- Available with **rigid clamps or swivel clamps**
- **Adjustable clamps allow postoperative adjustments** (individual transverse plane adjustments of the distraction arms)
- 40 mm Distraction arms attach the Horizontal Rod Assembly to the midface segment using **stainless steel surgical wires**.
- Different length **Connecting bars** are available (50 and 120mm)

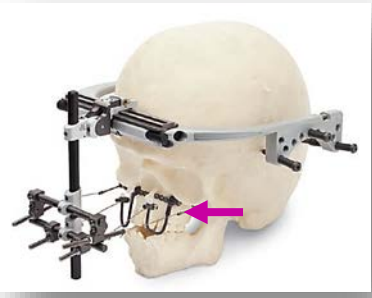


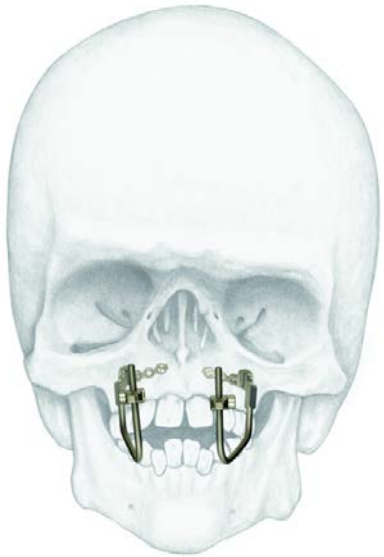
With rigid clamps

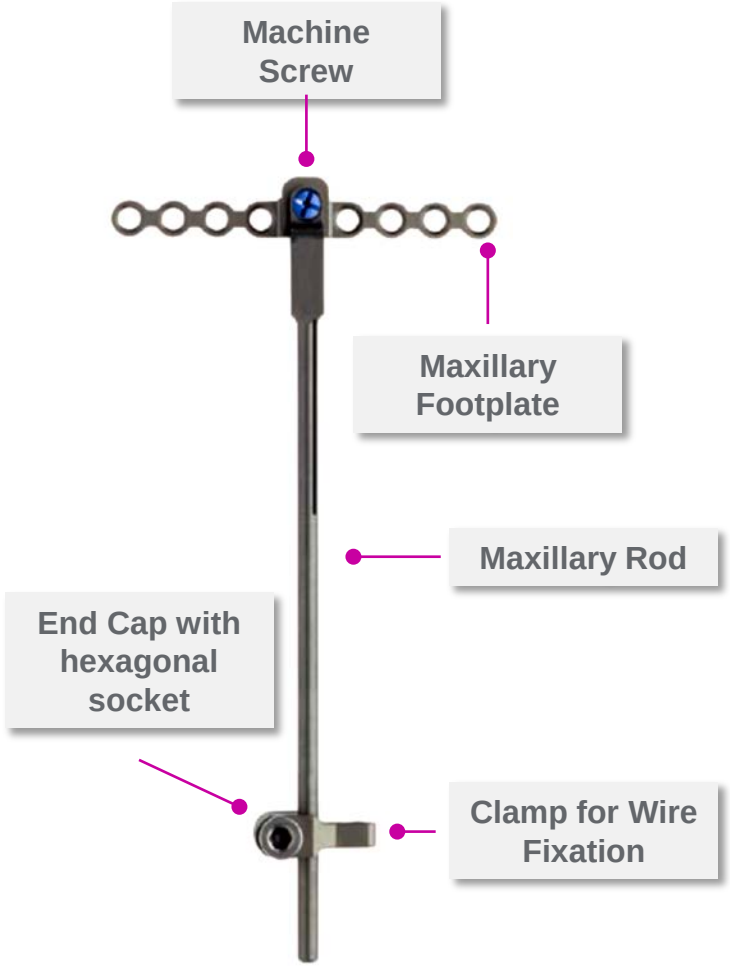
With swivel clamps

External Midface Distractor

Key Components







For LeFort III or Monobloc advancements

Maxillary Footplate Assembly

- It is intended for use **where tooth-borne fixation with an orthodontic splint is not desirable or possible**.
- A second surgical procedure under local anesthesia is required to remove the maxillary footplate assembly.

Maxillary Rods

- 80 mm
- Large, 80 mm, with Offset
- 110 mm

Maxillary Foot Plate

- length 40 mm

Screws for bone fixation

- Cortex PLUSDRIVE Screws, 1.5mm, self-drilling
- Emergency PLUSDRIVE Screws, 2.0mm, self-tapping

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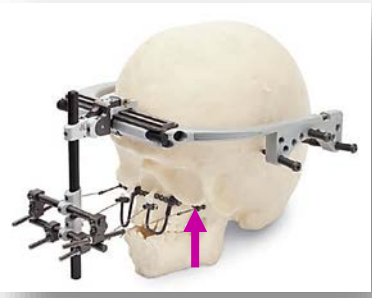
Key Components



For LeFort III or Monobloc advancements

Zygomatic Footplate & Wire Fixation Screw

- Used **for LeFort III and Monobloc** advancements
- Used for fixation to either the **infraorbital or supraorbital rim**
- Made of **Titanium**

Zygomatic Footplate

- Symmetrical on both sides
- **Can be adapted** to the infraorbital rims for LeFort III advancements or to the supraorbital rims for Monobloc advancements
- Fixed to the bone with **two PLUSDRIVE Screws** and a **Wire Fixation Screw**

Wire Fixation Screws

- Available in **15, 21, 27mm lengths**
- They **can be removed percutaneously** after the consolidation phase, avoiding the need for a second surgery.
- The Wire Fixation Screw thread into the footplate and the bone.

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External Midface Distractor

Key Messages

- Can be **used for LeFort I, II, III and Monobloc** advancements
- **Preassembled components** for quick device assembly in the OR
- **Possibility of multiple pre-, intra- and postoperative adjustments** for vertical, horizontal, sagittal and occlusal vector control
- Internal **hardware options for tooth-borne** fixation
- **Mounting pin location options** for stability of headframe placement
- Self-drilling or conical-tipped titanium cranial pins **designed for secure bone engagement**
- Lightweight aluminum, titanium, and carbon fiber **components designed for patient comfort**

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