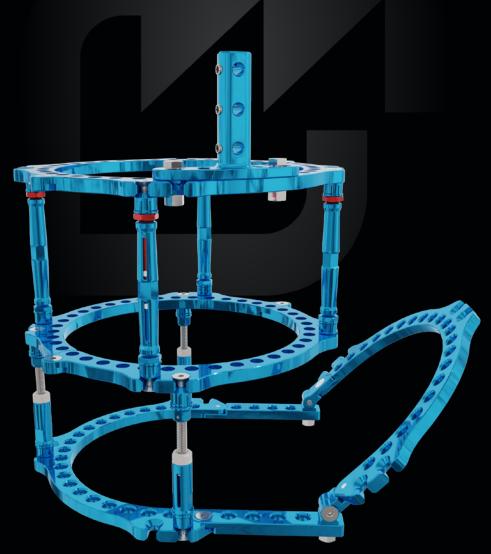


CLICKIT CF CIRCULAR EXTERNAL FIXATION SYSTEM

Quick connection struts
Stable and lightweight
Sterile





Indications

Long bone fractures, bone infections, septic and non-septic nonunions, acquired and congenital deformities. Complex fractures affecting joints (knee, ankle) and foot fractures.

Applications

Fracture fixation, limb lengthening, deformity correction, ankle and knee arthrodesis.

FEATURES

ADVANTAGES

Sterile Ready for use

Made of aluminium alloy and stainless steel Lightweight, stable and resistant

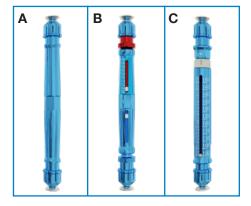
Quick connection struts Easy and quick to assemble

Components



Quick connection struts attach to an external portion of the half rings through a countersunk screw, leaving each ring hole unobstructed and available for surgery.

The unique connection between the strut and the ring also ensures partial angular correction.



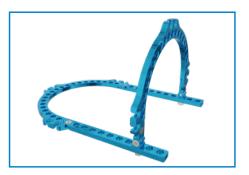
The quick connection struts come in three configurations, all available in different sizes:

A. Static

- **B**. Telescopic bidirectional: each rotation corresponds to a 2 mm compression/distraction on the graduated scale. This strut is particularly indicated for trauma.
- **C**. Telescopic monodirectional: each rotation corresponds to a 1 mm compression/distraction on the graduated scale. This strut is particularly indicated for bone transports.



The connection between two half rings is external to the circumference and is secured through a countersunk screw. This leaves all the holes in the ring unobstructed and available for surgery.



Foot rings are available in different diameters.

Foot ring extensions are available in 3 lengths. They connect to the ring through a countersunk screw that does not obstruct any of the holes of the ring.



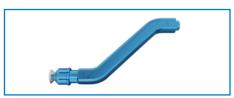
The foot ring hinged connection bolt ensures optimal connection and rotation of the front ring.



Screw clamps accept 4.0 mm \emptyset , 5.0 mm \emptyset and 6.0 mm \emptyset screws. The base of the clamp is fitted with slots that ensure optimal rotation of the clamp to the bone.



The wire bolt can be connected to the ring easily using an L-shaped hexagonal wrench, thanks to the hexagonal hole on its top. This proves particularly useful where a standard wrench cannot be used.



45° oblique supports are available in two lengths. One side of the support is fitted with the quick connection system.

They can be used to join rings of different diameters.



Screw/wire supports have a threaded hole on the front side. This allows other supports or accessories to be screwed on top of it.

The base of the support is reinforced for better stability and resistance.



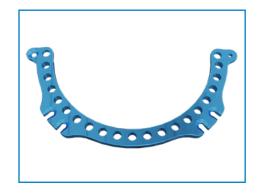
The rocker rail connects to the foot ring through threaded struts and bolts. It is compatible with foot rings of different diameters.

The rocker rail is coated with a treaded rubber ensuring a better grip.

Components

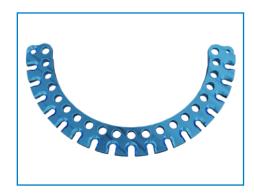
HALF RINGS

| Code | Description |
|------------|----------------------------|
| 5000305ST2 | 80 mm Ø half ring (2 pcs) |
| 5000307ST2 | 100 mm Ø half ring (2 pcs) |
| 5000303ST2 | 120 mm Ø half ring (2 pcs) |
| 5000301ST2 | 140 mm Ø half ring (2 pcs) |
| 5000300ST2 | 160 mm Ø half ring (2 pcs) |
| 5000302ST2 | 180 mm Ø half ring (2 pcs) |
| 5000304ST2 | 200 mm Ø half ring (2 pcs) |
| 5000306ST2 | 220 mm Ø half ring (2 pcs) |



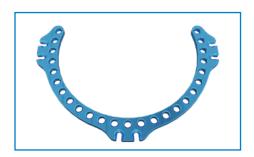
CROWN HALF RINGS

| Code | Description |
|---------------|----------------------------------|
| 50003A.100ST2 | 100 mm Ø crown half ring (2 pcs) |
| 50003A.120ST2 | 120 mm Ø crown half ring (2 pcs) |
| 50003A.140ST2 | 140 mm Ø crown half ring (2 pcs) |
| 50003A.160ST2 | 160 mm Ø crown half ring (2 pcs) |
| 50003A.180ST2 | 180 mm Ø crown half ring (2 pcs) |
| 50003A.200ST2 | 200 mm Ø crown half ring (2 pcs) |
| 50003A.220ST2 | 220 mm Ø crown half ring (2 pcs) |
| 50003A.240ST2 | 240 mm Ø crown half ring (2 pcs) |



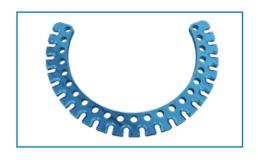
ARCHS 5/8

| Code | Description |
|-----------|-------------------|
| 5006102ST | 120 mm Ø 5/8 arch |
| 5006104ST | 140 mm Ø 5/8 arch |
| 5006106ST | 160 mm Ø 5/8 arch |
| 5006108ST | 180 mm Ø 5/8 arch |
| 5006110ST | 200 mm Ø 5/8 arch |
| 5006112ST | 220 mm Ø 5/8 arch |



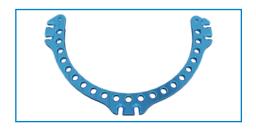
CROWN ARCHS 5/8

| Code | Description |
|-----------|-------------------------|
| 5006A.120 | 120 mm Ø 5/8 crown arch |
| 5006A.140 | 140 mm Ø 5/8 crown arch |
| 5006A.160 | 160 mm Ø 5/8 crown arch |
| 5006A.180 | 180 mm Ø 5/8 crown arch |
| 5006A.200 | 200 mm Ø 5/8 crown arch |
| 5006A.220 | 220 mm Ø 5/8 crown arch |
| 5006A.240 | 240 mm Ø 5/8 crown arch |



FOOT RINGS

| Code | Description |
|-----------|--------------------|
| 5000361ST | 120 mm Ø foot ring |
| 5000363ST | 140 mm Ø foot ring |
| 5000360ST | 160 mm Ø foot ring |
| 5000362ST | 180 mm Ø foot ring |
| 5000364ST | 200 mm Ø foot ring |
| | |



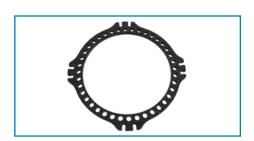
RING SEGMENTS

| Code | Description |
|-----------|-----------------------|
| 5006031ST | 140 mm Ø ring segment |
| 5006030ST | 160 mm Ø ring segment |
| 5006032ST | 180 mm Ø ring segment |
| 5006034ST | 200 mm Ø ring segment |
| 5006035ST | 220 mm Ø ring segment |



RADIOLUCENT CARBON RING

| Code | Description |
|---------|--|
| 500C300 | 160 mm Ø radiolucent carbon ring NON-STERILE |
| 500C302 | 180 mm Ø radiolucent carbon ring NON-STERILE |



COUNTERSUNK SCREWS

| Code | Description |
|-------------|-------------------------------------|
| 5000352ST10 | Half ring connection screw (10 pcs) |
| 3000456ST10 | Strut connection screw (10 pcs) |



STATIC STRUTS

| Code | Description |
|------------|-------------------------------|
| 5000310ST2 | 30 mm L static strut (2 pcs) |
| 5000312ST2 | 50 mm L static strut (2 pcs) |
| 5000314ST2 | 100 mm L static strut (2 pcs) |
| 5000316ST2 | 150 mm L static strut (2 pcs) |



BIDIRECTIONAL TELESCOPIC STRUTS

| Code | Description |
|------------|---|
| 5000320ST2 | 80-100 mm L bidirectional telescopic strut (2 pcs) |
| 5000322ST2 | 100-145 mm L bidirectional telescopic strut (2 pcs) |
| 5000324ST2 | 150-245 mm L bidirectional telescopic strut (2 pcs) |



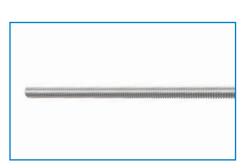
UNIDIRECTIONAL TELESCOPIC STRUTS

| Code | Description |
|------------|--|
| 5006020ST2 | 65-80 mm L unidirectional telescopic strut (2 pcs) |
| 5006022ST2 | 80-110 mm L unidirectional telescopic strut (2 pcs) |
| 5006024ST2 | 100-150 mm L unidirectional telescopic strut (2 pcs) |
| 5006026ST2 | 150-250 mm L unidirectional telescopic strut (2 pcs) |



THREADED STRUTS

| Code | Description |
|------------|------------------------------------|
| 5000380ST2 | M6 50 mm L threaded strut (2 pcs) |
| 5000381ST2 | M6 75 mm L threaded strut (2 pcs) |
| 5000382ST2 | M6 100 mm L threaded strut (2 pcs) |
| 5000384ST2 | M6 150 mm L threaded strut (2 pcs) |
| 5000385ST2 | M6 200 mm L threaded strut (2 pcs) |
| 5000386ST2 | M6 250 mm L threaded strut (2 pcs) |
| 5000388ST2 | M6 300 mm L threaded strut (2 pcs) |
| 5000390ST2 | M6 400 mm L threaded strut (2 pcs) |



45° OBLIQUE SUPPORTS

| Code | Description |
|-----------|--------------------------------|
| 5006045ST | 50 mm L - 45° oblique support |
| 5006046ST | 100 mm L - 45° oblique support |



CLAMPS

| Code | Description |
|------------|--------------------|
| 5000330ST2 | Wire clamp (2 pcs) |
| 5000330ST4 | Wire clamp (4 pcs) |
| | |
| Code | Description |



| Code | Description |
|-----------|---|
| 5000330LP | Long wire clamp with plate NON-STERILE |
| 5000330P | ClickIt CF wire clamp plate NON-STERILE |
| 500.330 | CF wire bolt NON-STERILE |
| | |



| Code | Description |
|-----------|--------------------|
| 5000332ST | Single screw clamp |



| Code | Description |
|-----------|---------------|
| 5000333ST | 2-screw clamp |
| 5000334ST | 3-screw clamp |



Accessories

| Code | Description |
|-----------|-------------------------------|
| 5000335ST | Support for 1-hole screw/bolt |
| 5000336ST | Support for 2-hole screw/bolt |
| 5000337ST | Support for 3-hole screw/bolt |



Code Description

5006040ST Distraction nut for threaded struts



Code Description
5006042ST Adaptation plate



Code Description

5006044ST5 13 mm Ø 2 mm thick washer (5 pcs)



Code Description

5006052ST2 M6 hemispherical washer (2 pcs)



Code Description

5000354ST20 10 mm nut (20 pcs)



Code Description

5000356ST10 M6 20 mm L bolt (10 pcs)



Code Description

5006050ST Universal hinge coupling



Code Description

5006056ST2 90° hinge (2 pcs)



| Code | Description |
|------------|----------------------|
| 5006054ST2 | Male hinge (2 pcs) |
| 5006055ST2 | Female hinge (2 pcs) |



| Code | Description |
|------|-------------|
| | |

5006058ST Hybrid connecting post (FEP)



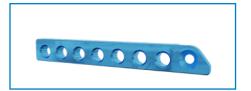
Code Description

5006506ST Hybrid connecting post (ClickIt ER)



FOOT RING ACCESSORIES

| Code | Description |
|------------|-------------------------------------|
| 5000370ST2 | 5-hole foot ring extension (2 pcs) |
| 5000372ST2 | 7-hole foot ring extension (2 pcs) |
| 5000373ST2 | 10-hole foot ring extension (2 pcs) |



| Code | Description |
|------|-------------|
| Ouc | Description |

5000374ST Foot ring connection bolt



Code Description

5000375ST2 Foot ring support (2 pcs)

5000375-2 NON-STERILE foot ring support (2 pcs)



WIRES

| Code | Description |
|-------------|--|
| 5000340 | 1.8 mm Ø 400 mm L NON-STERILE smooth K-wire |
| 5000342 | 1.8 mm Ø 400 mm L NON-STERILE olive K-wire |
| 5000340ST5 | 1.8 mm Ø 400 mm L smooth K-wire (5 pcs) |
| 5000342ST5 | 1.8 mm Ø 400 mm L olive K-wire (5 pcs) |
| 5000340T | 1.8 mm Ø 400 mm L NON-STERILE smooth titanium K-wire |
| 5000340TST5 | 1.8 mm Ø 400 mm L smooth titanium K-wire (5 pcs) |



Screws

HA COATED UNIVERSAL STAINLESS-STEEL SCREWS

| Code | Description |
|------------|---|
| VA4H150.40 | 4.0 mm Ø, 150 mm L, 40 mm L thread HAP self-drilling cortical screw |
| VA4H150.55 | 4.0 mm Ø, 150 mm L, 55 mm L thread HAP self-drilling cortical screw |
| VA5H150.40 | 5.0 mm Ø, 150 mm L, 40 mm L thread HAP self-drilling cortical screw |
| VA5H150.55 | 5.0 mm Ø, 150 mm L, 55 mm L thread HAP self-drilling cortical screw |
| VA5H150.70 | 5.0 mm Ø, 150 mm L, 70 mm L thread HAP self-drilling cortical screw |
| | |
| VA6H150.40 | 6.0 mm Ø, 150 mm L, 40 mm L thread HAP self-drilling cortical screw |
| VA6H150.55 | 6.0 mm Ø, 150 mm L, 55 mm L thread HAP self-drilling cortical screw |
| VA6H150.70 | 6.0 mm Ø, 150 mm L, 70 mm L thread HAP self-drilling cortical screw |
| VA6H150.85 | 6.0 mm Ø, 150 mm L, 85 mm L thread HAP self-drilling cortical screw |
| | |
| VA6H250.40 | 6.0 mm Ø, 250 mm L, 40 mm L thread HAP self-drilling cortical screw |
| VA6H250.55 | 6.0 mm Ø, 250 mm L, 55 mm L thread HAP self-drilling cortical screw |
| VA6H250.70 | 6.0 mm Ø, 250 mm L, 70 mm L thread HAP self-drilling cortical screw |
| VA6H250.85 | 6.0 mm Ø, 250 mm L, 85 mm L thread HAP self-drilling cortical screw |

HA COATED STANDARD STAINLESS-STEEL SCREWS (NOT SELF-DRILLING)

| Code | Description |
|----------|--|
| 5000531H | 5.0 mm Ø, 80 mm L HAP coated cortical screw |
| 5000532H | 5.0 mm Ø, 100 mm L HAP coated cortical screw |
| 5000533H | 5.0 mm Ø, 120 mm L HAP coated cortical screw |
| 5000534H | 5.0 mm Ø, 140 mm L HAP coated cortical screw |
| 5000501H | 6.0 mm Ø, 100 mm L HAP coated cortical screw |
| 5000502H | 6.0 mm Ø, 120 mm L HAP coated cortical screw |
| 5000503H | 6.0 mm Ø, 140 mm L HAP coated cortical screw |
| 5000504H | 6.0 mm Ø, 160 mm L HAP coated cortical screw |
| 5000505H | 6.0 mm Ø, 180 mm L HAP coated cortical screw |
| | |

STANDARD STAINLESS-STEEL SCREWS

| Code | Description |
|-----------|-----------------------------------|
| 5000566ST | 4.0 mm Ø, 80 mm L cortical screw |
| 5000567ST | 4.0 mm Ø, 100 mm L cortical screw |
| 5000568ST | 4.0 mm Ø, 120 mm L cortical screw |
| 5000569ST | 4.0 mm Ø, 140 mm L cortical screw |
| | |
| 5000536ST | 5.0 mm Ø, 80 mm L cortical screw |
| 5000537ST | 5.0 mm Ø, 100 mm L cortical screw |
| 5000538ST | 5.0 mm Ø, 120 mm L cortical screw |
| 5000539ST | 5.0 mm Ø, 140 mm L cortical screw |
| 5000540ST | 5.0 mm Ø, 160 mm L cortical screw |
| | |
| 5000506ST | 6.0 mm Ø, 100 mm L cortical screw |
| 5000507ST | 6.0 mm Ø, 120 mm L cortical screw |
| 5000508ST | 6.0 mm Ø, 140 mm L cortical screw |
| 5000509ST | 6.0 mm Ø, 160 mm L cortical screw |
| 5000510ST | 6.0 mm Ø, 180 mm L cortical screw |
| 5000586ST | 6.0 mm Ø, 200 mm L cortical screw |
| 5000587ST | 6.0 mm Ø, 220 mm L cortical screw |
| 5000588ST | 6.0 mm Ø, 240 mm L cortical screw |

UNIVERSAL STAINLESS-STEEL SCREWS

| Code | Description |
|------------|---|
| VA4.150.40 | 4.0 mm Ø, 150 mm L, 40 mm L thread self-drilling cortical screw |
| VA4.150.55 | 4.0 mm Ø, 150 mm L, 55 mm L thread self-drilling cortical screw |
| VA5.150.40 | 5.0 mm Ø, 150 mm L, 40 mm L thread self-drilling cortical screw |
| VA5.150.55 | 5.0 mm Ø, 150 mm L, 55 mm L thread self-drilling cortical screw |
| VA5.150.70 | 5.0 mm Ø, 150 mm L, 70 mm L thread self-drilling cortical screw |
| | |
| VA6.150.40 | 6.0 mm Ø, 150 mm L, 40 mm L thread self-drilling cortical screw |
| VA6.150.55 | 6.0 mm Ø, 150 mm L, 55 mm L thread self-drilling cortical screw |
| VA6.150.70 | 6.0 mm Ø, 150 mm L, 70 mm L thread self-drilling cortical screw |
| VA6.150.85 | 6.0 mm Ø, 150 mm L, 85 mm L thread self-drilling cortical screw |
| | |
| VA6.250.40 | 6.0 mm Ø, 250 mm L, 40 mm L thread self-drilling cortical screw |
| VA6.250.55 | 6.0 mm Ø, 250 mm L, 55 mm L thread self-drilling cortical screw |
| VA6.250.70 | 6.0 mm Ø, 250 mm L, 70 mm L thread self-drilling cortical screw |
| VA6.250.85 | 6.0 mm Ø, 250 mm L, 85 mm L thread self-drilling cortical screw |

Instruments *

| Code | Description | Qty |
|--------------|--|-----|
| 5006018 | Complete ClickIt CF instrument sterilization set | |
| Composition: | | |
| 5000124L | 3 mm (extended) hexagonal screwdriver | 1 |
| 5000124 | 3 mm hexagonal screwdriver | 1 |
| 5006000 | 3 mm L-shaped hexagonal wrench | 2 |
| 5006001 | 10-10 mm flat wrench | 2 |
| 5006002 | 10-12 mm flat wrench | 2 |
| 5006003 | 10 mm L-shaped tubular wrench | 2 |
| 5006010 | 3.5 mm Ø, 110 mm L drill guide | 1 |
| 5006012 | 4.5 mm Ø, 110 mm L drill guide | 1 |
| 5000222 | 3.5 mm Ø, 200 mm L twist drill | 1 |
| 5000224 | 4.5 mm Ø, 250 mm L twist drill | 1 |
| 5000600 | T-wrench for Ø 4.0 mm screws | 1 |
| 5000601 | T-wrench for Ø 5.0 mm screws | 1 |
| 5000602 | T-wrench for Ø 6.0 mm screws | 1 |
| 5006004 | Tubular wire tensioner | 2 |
| 5006006 | Wire cutter | 1 |
| 5006007 | Wire bending pliers | 1 |
| 5006008 | Stainless scale ruler | 1 |
| 5006014 | Wire tensioner adapter | 1 |
| 5006016 | Empty ClickIt CF instrument sterilization set | 1 |

^{*} Implantable and sterile devices are covered by CE 1936 mark, non-sterile reusable instruments are CE marked

Sterilization

ClickIt CF devices are supplied sterile.

It is recommended that the instruments be sterilized in a saturated steam autoclave as follows:

TEMPERATURE: 134° EXPOSURE: 10 minutes

Clinical Cases

CASE 1

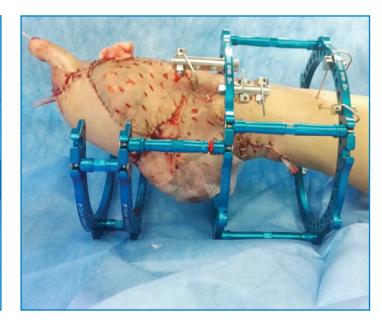
Dr. G. Caizzi, Prof. B. Moretti

Orthopaedic and Iraumatology Clinic, University of Bari





50-year old σ Road trauma
Emergency cleaning and fixation with K-wires
Postoperative necrosis



Fixation using ClickIt CF fixator and microvascular myocutaneous flap 4 months after injury

Subsequent correction of equinism of the foot with external circular fixator using hinges





Clinical follow-up after 1 year

CASE 2

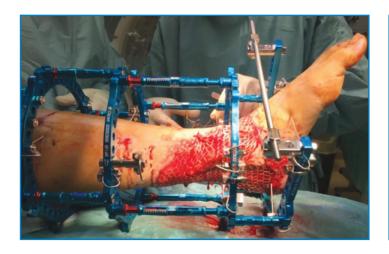




40-year old \mathcal{Q} Sports injury
III A compound fracture of left distal tibia
Assessment and x-ray



Emergency fixation using a temporary external fixator Skin necrosis after 2 weeks



VAC treatment, implant with ClickIt CF fixator and dermal epidermal graft



Follow-up x-rays prior to removal after 5 months







Follow-up x-ray 3 months after removal and assessment





Full joint recovery







36-year old σ^{7} Road trauma
Grade II compound of left distal tibia
Emergency treatment using ClickIt CF fixator
Post-operative follow-up X-ray









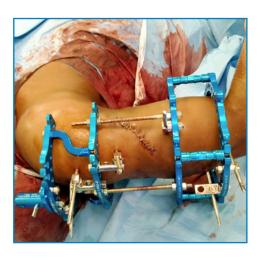


Healing after 4 months
Follow-up x-ray 1 month after removal and assessment, with full joint recovery





23-year old **o**⁷ Gunshot wound out resulting in Osteomyelitis



Cleaning and removal of proximal and distal sequestration and reaming of the intramedullary canal Fixation using ClickIt CF fixator



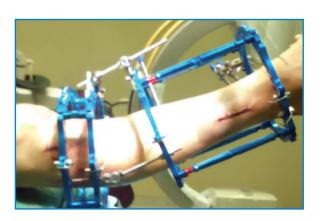




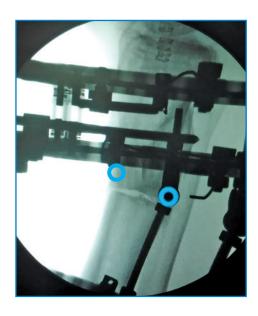
Removal after 5 months
Postoperative assessment and follow-up x-ray



43-years old $\overline{\mathcal{O}}^1$ Malunion of fracture from road trauma (proximal tibia)
10° recurved deformity with 1 cm displacement



Removal of cannulated screws and application of ClickIt CF fixator on deformity with hinges



Postoperative x-ray



Follow-up x-ray after 150 days and healing





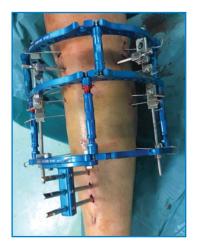
Removal of fixator after 150 days Follow-up x-ray under load after removal vs preoperative x-ray



Assessment after 180 days









50-years old **o**⁷

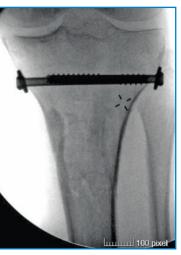
Motorcycle road trauma

High energy proximal tibia fracture with skin damage

Fixation using cannulated screws and ClickIt CF fixator Assessment and postoperative x-ray



Assessment and follow-up after 3 months

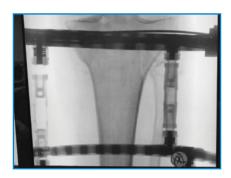


Removal of fixator and final follow-up x-ray after 3 months



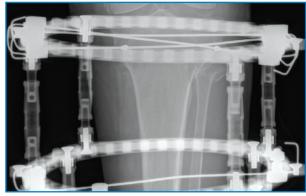


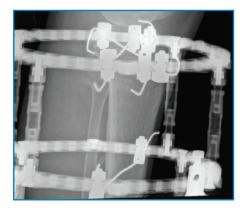
36-year old \mathbb{Q} - Road trauma Facial, head, thoracic trauma and left leg fracture AO/OTA 41-C3



Application of ClickIt CF fixator using K-wires with opposing olives in the proximal part Intraoperative x-ray







Postoperative Assessment and Postoperative x-ray











Pre-removal x-ray after 3 months

Follow-up x-ray after 1 month of removal and assessment





65-year old $\mathfrak Q$ Septic complication after fixation with intramedullary nail right humerus



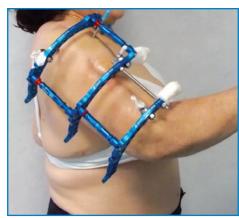




Removal of fixator and partial cleaning of area with removal of sequestration Fixation using ClickIt CF fixator Postoperative x-ray and postoperative assessment



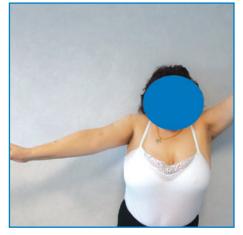


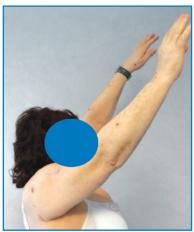






Pre-removal assessment
Removal of fixator after 4 months and follow-up x-ray after 1 month of removal





Follow-up assessment after 15 days





21-year old σ Post-traumatic septic nonunion of tibiotarsus and distal osteomyelitis of tibia with equinus deformity





Resection of infected area Application of ClickIt CF fixator and double osteotomy for recovery of dysmetria and ankle arthrodesis with functional positioning of foot





Removal of fixator after 10 months









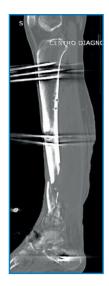
Follow-up x-ray and assessment after 60 days of removal

CASE 10











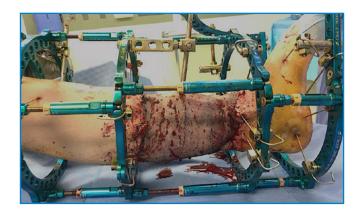
21-year old Q

Motorcycle road trauma

Compound tibia fracture AO/OTA 43C2 - G.A. III A

Postoperative x-ray after emergency fixation using a temporary external fixator

6 months
Assessment and diagnostic follow-up
Infected area findings



8 months
ClickIt CF fixation implant, bone resection, skin resection of the infected part and covering
Proximal lengthening osteotomy







Follow-up x-ray after 14 months
Follow-up x-ray after 16 months following
removal of fixator
Assessment after 1 month of removal

Dr. E. Scirica, Dr. R. Sciortino - Orthopaedics and Traumatology, ARNAS Civico Hospital of Palermo * Dr. C. Salomone - M.I.O.S., Santa Maria di Misericordia Hospital of Albenga (Savona) **



25-year old **o**[†]

Road trauma

Tibial sub-amputation (left tibia)



Trauma x-ray

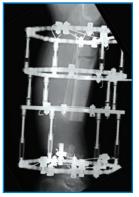






Emergency fixation using FEP fixator Postoperative assessment after 20 days

Development of post-traumatic osteomyelitis after about 60 days





**

Radical debridement of bone and soft tissue in the infected area

Fixation using Clicklt CF fixator suitable for bone recovery through double-level osteotomy.





After 10 days II osteotomy



Removal of fixator 8 months after implantation Follow-up x-ray and assessment 1 month after removal



HEADQUARTERS

Via P. Gobetti, 56r - 16145 Genova Tel. +39 010 30801 - Fax +39 010 3080210 www.mikai.it - servizio.clienti@mikai.it

MANUFACTURING FACILITY

Via Canestrello, 2 - 36050 Monteviale (VI) Tel. +39 0444 950100 - Fax +39 0444 950133 www.mikai.it - servizio.clienti@mikai.it