

Specification Guide

TIFLEX[®]
Elastic Nailing System



ATLAS[◊] TIFLEX[◊]

Elastic Nailing system

Elastic Nailing

Successful Clinical Outcomes

During intramedullary insertion, the relatively straight medullary canal forces the curved nail to straighten within the bone. The resistance offered by the nail to this straightening force (due to its elasticity) creates a bending moment within the long bone. This bending moment will tend to angulate the fracture in the direction and plane of the concavity of the curved nail (as the nail wants to return to its initial curved state). This moment is counteracted by a second nail of matched diameter and curve, which balances the first nail with an equal but opposite moment. The two intramedullary nails thus act complementarily to stabilize the fracture¹. **As is evident, the elasticity of the nail plays an extremely crucial role in stabilization of the fracture.**

Elasticity of the nail depends on two critical parameters. One is the use of material with the right elasticity i.e. Medical Grade Titanium Alloy meeting required specifications. The second is the careful control of implant dimensions. Adler's expertise in implant design and manufacturing enable the precise control of these critical parameters that are crucial to successful clinical outcomes with elastic nails.



References:

1. Elastic Stable (Flexible) Intramedullary Nailing of Paediatric Femoral Fractures: Unni G. Narayanan, M.D. Assistant Professor, Division of Orthopaedics, The Hospital for Sick Children, University of Toronto, ON

Indications:

- Mid-diaphyseal fractures of long bones
- Transverse, short oblique or short spiral fractures of the femur with minimal comminution
- In children 5 to 12 years old
- Extended Indications
 - Subtrochanteric fractures & multi fragmentary fractures by modifying technique
 - Extended indications in management of simple bone cysts and pathological fractures

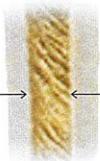
Curved tapered tip geometry for easy insertion and fracture reduction.

Medical Grade Titanium Alloy with closely controlled specifications, for the right elasticity.

Nail design allows nail to easily bounce off wall of intramedullary canal. All nails are 440mm in length to allow intra-operative flexibility in deciding nail length.



Minimum Canal Diameter=D



Nail Selection Guide

Inner Diameter of I.M. canal	5mm	6mm	7mm	8mm	9mm	10mm
Nail size	2.0mm	2.5mm	3.0mm	3.0mm	3.5mm	4.0mm
Colour of nail	Green	Pink	Gold	Gold	Blue	Purple

Implants

ATLAS° TIFLEX° Elastic Nails

- I0118.4044 Ø 4.0mm; 440mm Long, Purple

- I0118.3544 Ø 3.5mm; 440mm Long, Blue

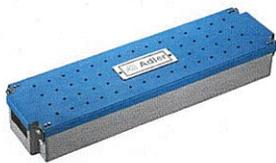
- I0118.3044 Ø 3.0mm; 440mm Long, Gold

- I0118.2544 Ø 2.5mm; 440mm Long, Pink

- I0118.2044 Ø 2.0mm; 440mm Long, Green



Instrumentation



D0101.0111
ADLER° Aluminium Case, Large, 2-part for ATLAS° TIFLEX° Nailing Instrument Set with Tray for Instruments



C0101.04 Small Curved Awl, for ATLAS° TIFLEX° Nailing System



I0531.03 ADLER° Nail Inserter with Chuck and Key for TIFLEX° Nailing System



I0535.01 ADLER° Locking Plier Cum Extractor for TIFLEX° Nailing System



D0221.0251 Drill Bit Non QC Ø 2.5mm, Length 225mm, Flute Length 50mm, SUSHRUT°



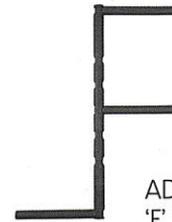
I0520.0104 ADLER° Cannulated Central Guide Rod for Nail Impaction/Extraction for TIFLEX° Nailing System



D0215.3525 Double Drill Sleeve 3.5mm/2.5mm, SUSHRUT°



D0411.5002 Hammer with Fibre Handle 500gms, Slotted, for TIFLEX° Nailing System



I0534.01 ADLER° 'F' Tool Assembly for TIFLEX° Nailing System



I0536.02 ADLER° Nail Bender for TIFLEX° Nailing System - Roller Type



I0533.01 ADLER° Beveled Tamp for TIFLEX° Nailing System

- I0534.01.01 'F' Tool Main Body
- I0534.01.02 Threaded Bar, Small
- I0534.01.03 Threaded Bar, Medium
- I0534.01.04 Threaded Bar, Large

Illustrations not to scale. Specifications subject to change without notice

Manufactured by

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