

TeleGraft®

MIS Graft Delivery System Surgical Technique

An **MIS Ultra®** Solution



Multidirectional Control System.
Single Tissue Pass.



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Product Description

The TeleGraft MIS Graft Delivery System offers controlled precision graft delivery to the surgical site through a single-pass MIS Delivery Portal. The system's proprietary break-action delivery handle enables the loading and replacement of single-use graft cartridges through the placed MIS Delivery Portal for a truly tissue-friendly and single-pass minimally disruptive technique.

Visualization and orientation of the lightly radiopaque MIS Delivery Portal is easily achieved via fluoroscopic imaging.

While designed for the delivery of single-use graft cartridges, the TeleGraft MIS Delivery System may also be used for the delivery of local bone and other bone graft substitutes per surgeon preference.

System Overview



Step 1: System Assembly

Assemble the MIS Delivery Portal to the Delivery Handle. The MIS Delivery Portal will snap into place (Fig. 1), however depressing the release button on the top of the Delivery Handle will also facilitate assembly.



Fig. 1

Step 2: Graft Cartridge Loading

Open the Delivery Handle for loading by pulling back on the gold thumb release (Fig. 2) and swinging the back end laterally (Fig. 3).

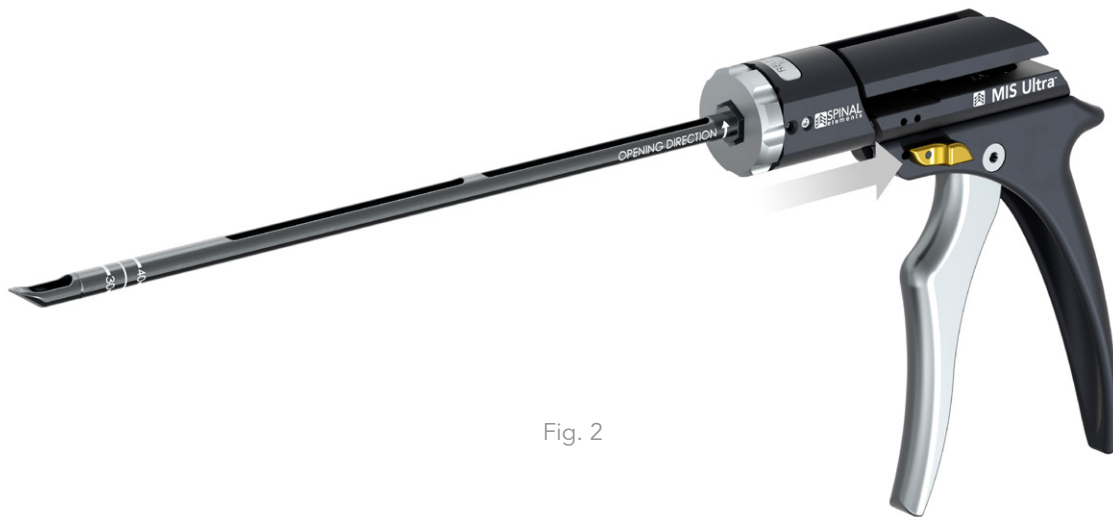


Fig. 2



Fig. 3

Step 2: Graft Cartridge Loading continued

Remove the Graft Cartridge from its sterile packaging and prepare it for loading by pulling the silicone end plugs off each end (Fig. 4).

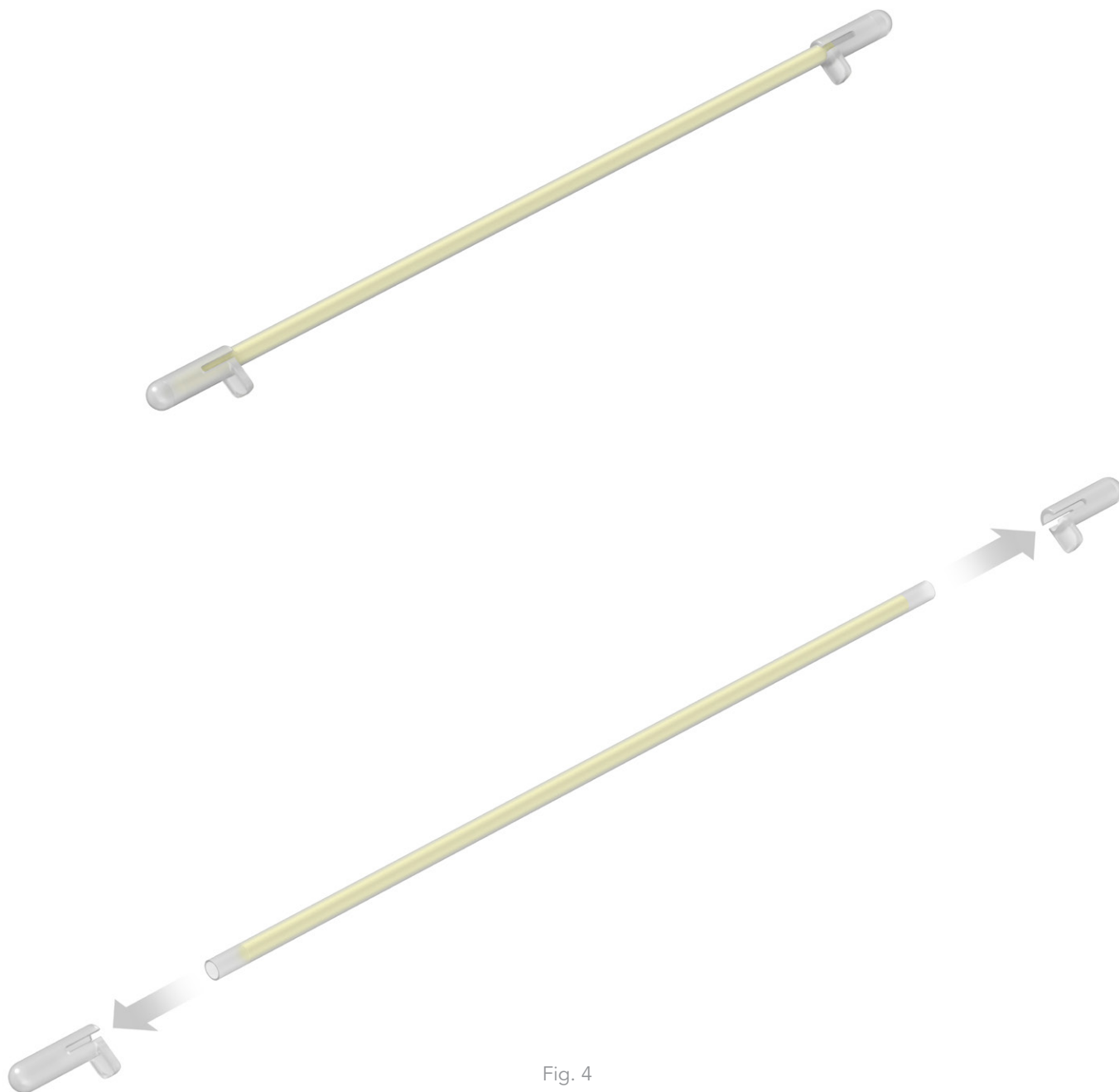


Fig. 4

Step 2: Graft Cartridge Loading continued

Load the Graft Cartridge into the open Delivery Handle, passing it down the MIS Delivery Portal until it is fully advanced (Fig. 5).



Fig. 5

Step 2: Graft Cartridge Loading continued

Close the Delivery Handle over the loaded Graft Cartridge by swinging the back section laterally (Fig. 6).



Fig. 6

Step 3: Push Rod Assembly

Load the ratcheting Push Rod into the back end of the Delivery Handle guiding it into the proximal end of the loaded Graft Cartridge (Fig. 7). Confirm that the ratcheting Push Rod is indexed so that the teeth are facing down (Fig. 8) to engage with the ratcheting pawl mechanism in the Delivery Handle (Fig. 9).



Fig. 7



Fig. 8



Fig. 9

Step 4: Graft Delivery

Insert the distal end of the assembled and loaded Delivery System into the surgical site at the desired location for graft delivery (Fig. 10).



Fig. 10

Insertion depth of the MIS Delivery Portal may be visualized by referencing the markings along its length (Fig. 11). Insertion depth and placement of the MIS Delivery Portal may also be visualized radiographically.

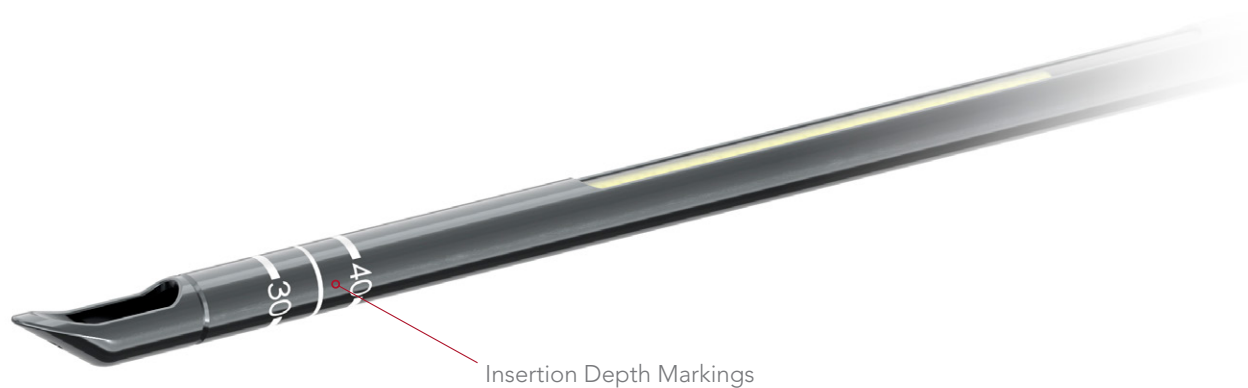
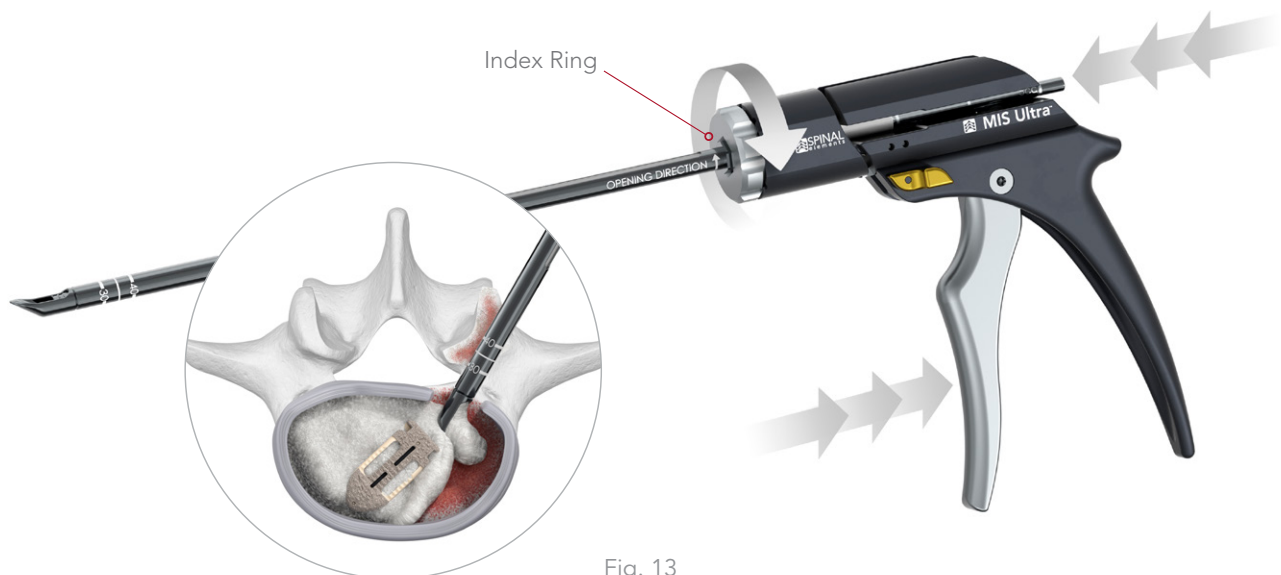
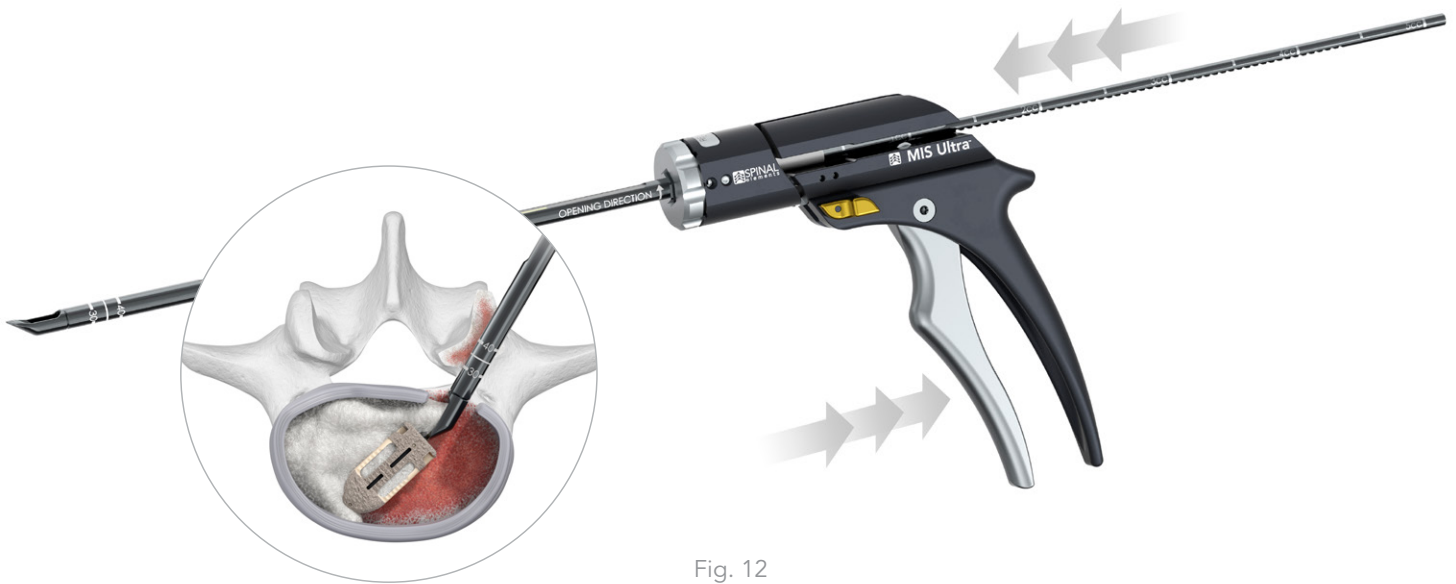


Fig. 11

Step 4: Graft Delivery continued

Express the graft by squeezing the trigger mechanism with full, controlled squeezes (Fig. 12). The ratcheting Push Rod will advance and incrementally express the graft at the desired placement site. To alter graft delivery direction, rotate the Index Ring as indicated with rotational arrow below. (Fig. 13).



Step 4: Graft Delivery continued

The amount of graft expression can be assessed by reading the ratcheting Push Rod markings as it passes through the back end of the Delivery Handle (Fig. 14).



Fig. 14

Full expression of the Graft Cartridge is achieved when the "5cc" marking on the ratcheting Push Rod reaches the back end of the Delivery Handle and can no longer be advanced (Fig. 15).



Fig. 15

Step 5: Graft Cartridge Reloading

Additional Graft Cartridges may be loaded and delivered through the same Graft Portal without requiring removal or replacement of the Delivery System.

To reload the Delivery System with another Graft Cartridge, open the Delivery Handle by pulling back on the gold thumb release and swinging the back section laterally (Fig. 16).



Fig. 16

Remove the ratcheting Push Rod and the empty Graft Cartridge by pulling them both out the back end of the open Delivery Handle (Fig. 17).



Fig. 17

Step 5: Graft Cartridge Reloading continued

Reload a new Graft Cartridge through the back end of the open Delivery Handle (Fig. 18), close the Delivery Handle, and reload the ratcheting Push Rod in the same fashion as described earlier in this technique guide (Fig. 19).



Fig. 18



Fig. 19

Step 6: Disassembly

System disassembly for cleaning and sterilization is accomplished as follows: Open the Delivery Handle by pulling back on the gold thumb release and swinging the back section laterally (Fig. 20).



Fig. 20

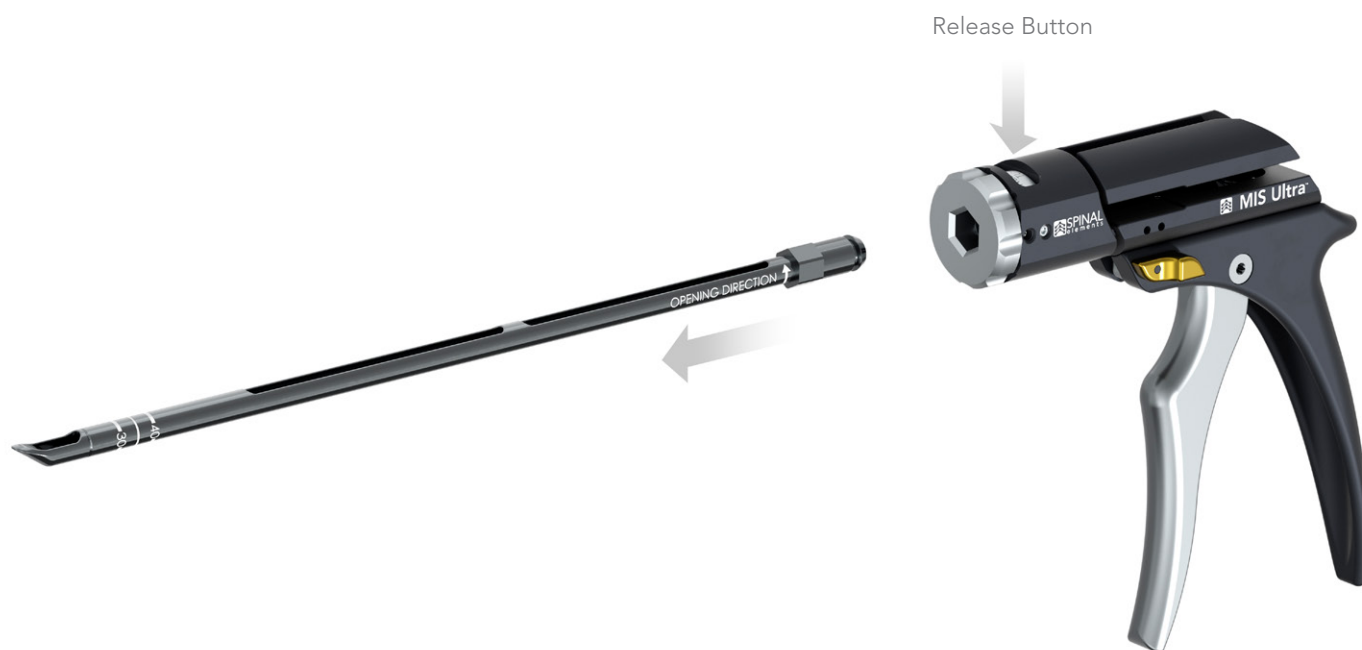
Remove the ratcheting Push Rod and empty Graft Cartridge by pulling them both out the back end of the open Delivery Handle (Fig. 21).



Fig. 21

Step 6: Disassembly continued

Disassemble the MIS Delivery Portal from the Delivery Handle by depressing the release button and removing the MIS Delivery Portal (Fig. 22).



Step 7: Alternate Graft Method

The TeleGraft Delivery System may also be used to deliver graft that is manually packed into the Delivery Tube.

Note:

- The Delivery Tube is not the same as the Delivery Portal. The Delivery Tube is not intended for use with single-use TeleGraft Cartridges as described earlier in this technique guide. The Delivery Tube and associated instruments are intended for the delivery of any graft material provided separately, such as local autograft or other bone graft substitutes.

Assemble the Delivery Tube with the Packing Funnel and Delivery Tube End Cap (Fig. 22). Use the Short Packer (Fig. 23) or the Long Packer to fill the Delivery Tube with the desired graft for delivery.



Fig. 22

Fig. 23

Step 7: Alternate Graft Method continued

Assemble the packed Delivery Tube to the Delivery Handle. The Delivery Tube will snap into place (Fig. 24), however depressing the release button on the top of the Delivery Handle will also facilitate assembly.



Fig. 24

Insert the ratcheting Push Rod (specific to the Delivery Tube) into the back end of the Delivery Handle until the ratcheting teeth of the Push Rod engage (Fig. 25).



Fig. 25

Step 7: Alternate Graft Method continued

Insert the distal end of the Delivery System into the surgical site at the desired location for graft delivery (Fig. 26).



Fig. 26

Insertion depth of the Delivery Tube may be visualized by referencing the markings along its length.

Express the graft by squeezing the trigger mechanism with full, controlled squeezes to advance the ratcheting Push Rod. When the Push Rod ceases to advance, the contents of the Delivery Tube have been fully expressed (Fig. 27).

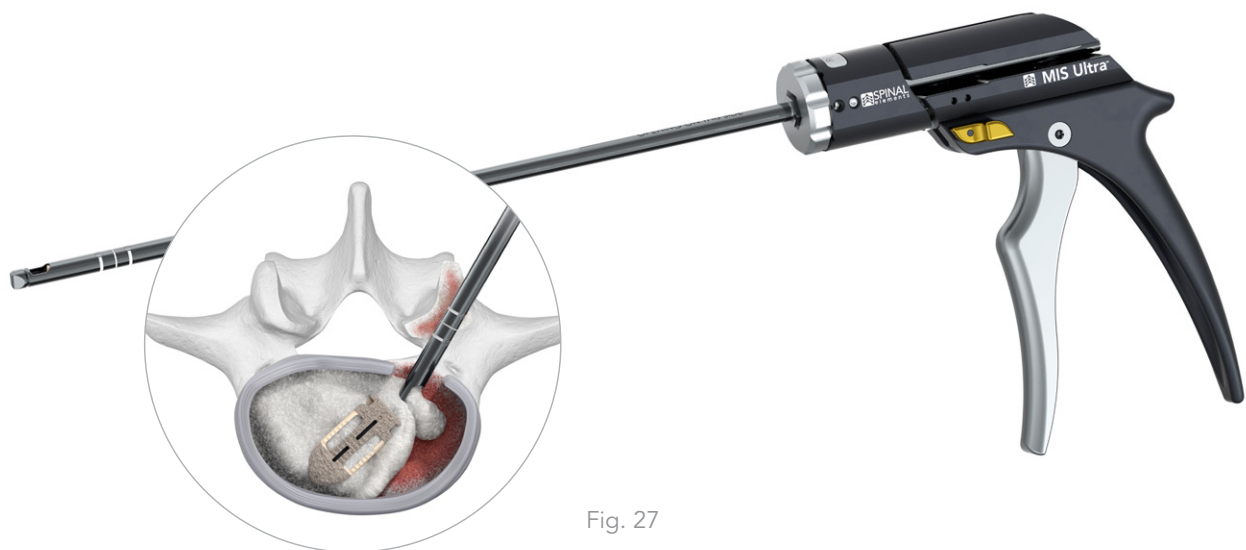


Fig. 27

Disassembly of the Delivery Tube and ratcheting Push Rod from the Delivery Handle may be accomplished in the same manner as described earlier in this technique guide.

System Components

TeleGraft Instruments

Part Number	Part Description	Set Quantity
11370-400	TeleGraft Delivery Handle	1
11396-003	TeleGraft MIS Delivery Portal	2
11397-010	TeleGraft Push Rod (for use with MIS Delivery Portal)	2
11374-000	Packing Funnel	1
11386-001	Delivery Tube	2
11383-101	Delivery Tube End Cap	1
11388-102	Packer – Short	1
11388-101	Packer – Long	1
11387-001	Push Rod (for use with Delivery Tube)	2

Single-Use TeleGraft Cartridges

Part Number	Part Description
TELEGR005	TeleGraft DBM Fiber Putty, 5cc – 1 pack (1 x 5cc)

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