

## Evolution Flow Retrograde

Long Term Dialysis Catheter

○ Catheter  
"Over The Wire"  
technique

○ Catheter  
with Split  
Sheath



# Evolution Flow Retrograde 15.5 Fr

## Long Term Dialysis Catheter

The Evolution Flow catheter combining the patented tip design with side slots reduces recirculation. The radiopaque catheter shaft allows a precise tip placement.

### High Blood Flow

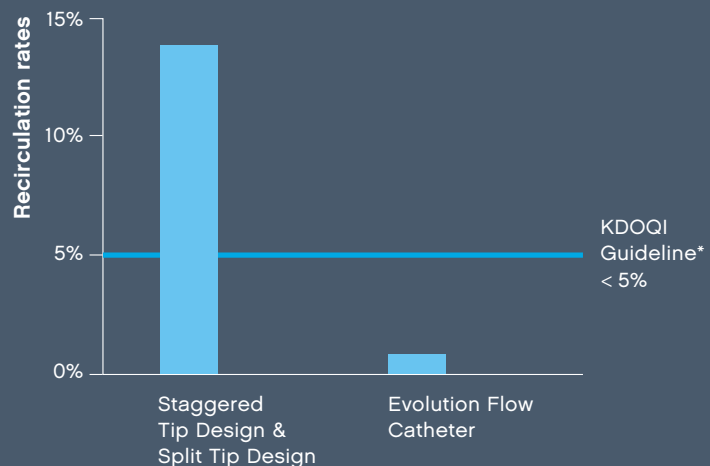
- High blood flow rates can be achieved - lower pressure rates result
- Double Lumen with round shape
- Carbothane material

### Patented Tip Design

- New tip design
- Side Slots
- Reduces turbulences
- Contributes the hemocompatibility

### Reduces Recirculation

The Evolution Flow retrograde dialysis catheter reduces recirculation rates.\*\*



\* Kidney Disease Outcomes Quality Initiative.

\*\* Measured in forward flow. When lines are reversed, blood recirculation increases.

## Evolution Flow Insertion Stylets

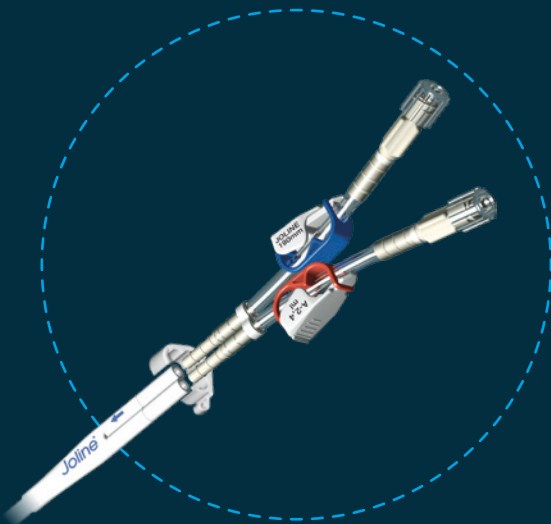
- "Over The Wire" technique
- Split Sheath not necessary



## Safe and Easy connection of extensions

Our silicone extensions set a new standard of safety and quality.

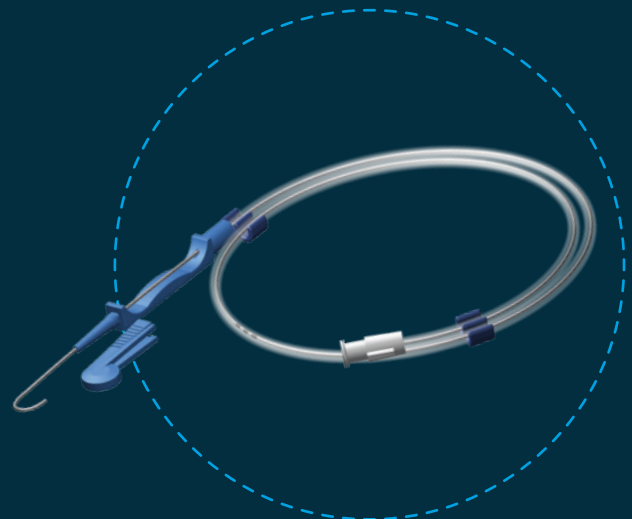
- Safety clamps with side-protection
- Indication of priming volume, Fr-size and length in a durable printing quality
- PEEK-connectors to resist extreme chemical and mechanical stress



## Kink resistant guide wire

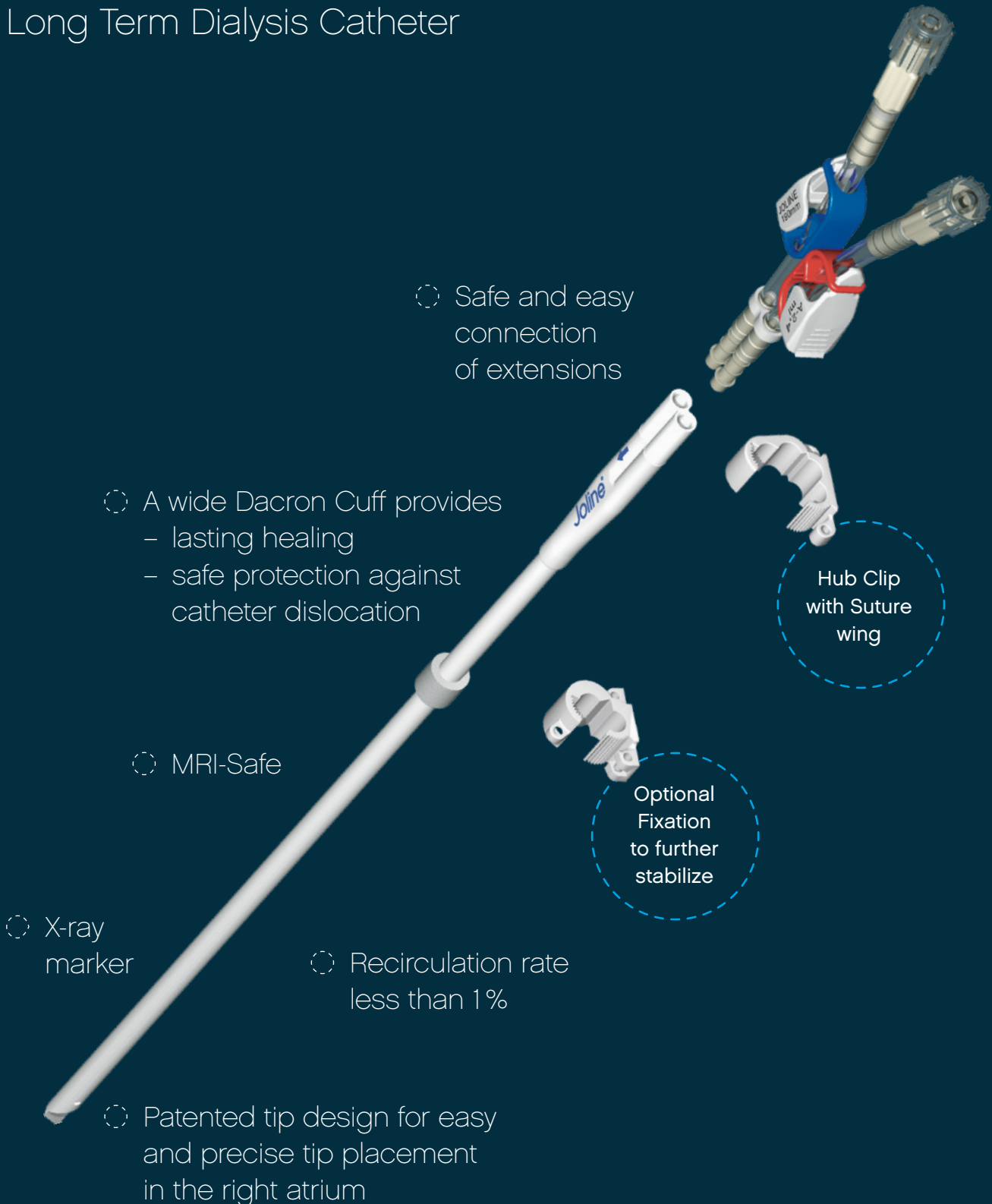
The new generation of  
Nitinol Seldinger Guide

- The kink resistant nitinol guide wire for an easy and safe catheter placement
- The high content of titanium ensures extremely high flexibility and kink resistance.
- The nitinol guide wire guarantees a smooth surface and best gliding.



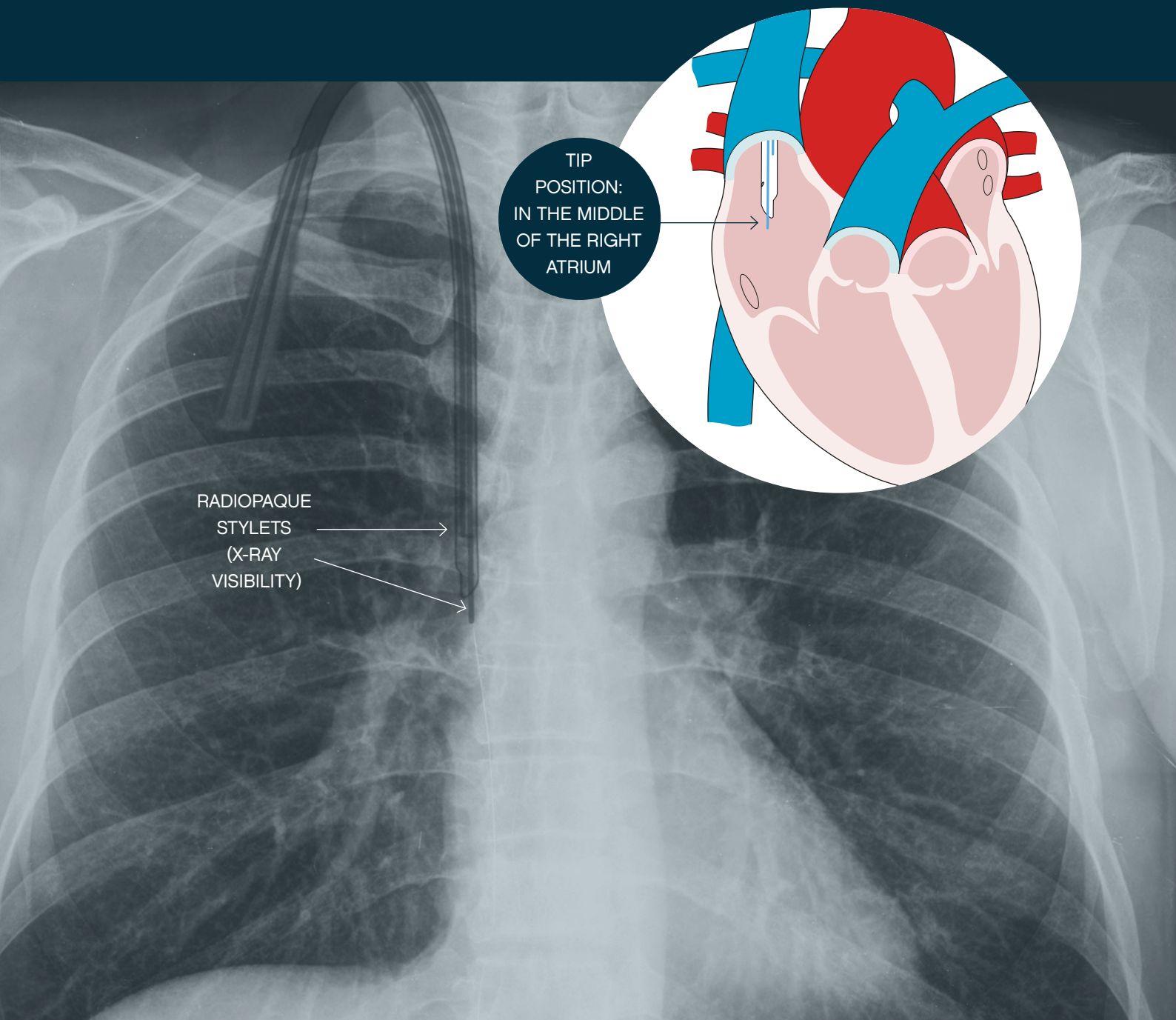
# Evolution Flow Retrograde 15.5 Fr

## Long Term Dialysis Catheter



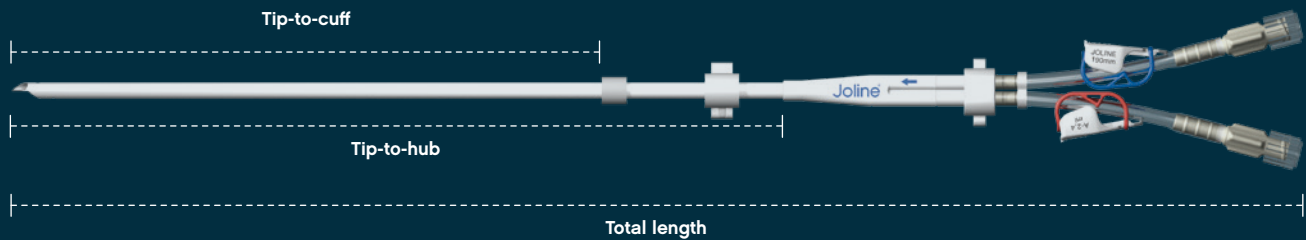
## Evolution Flow Retrograde 15.5 Fr In Practice

The retrograde technique with our patented tip design and the X-ray marker stylets ensures the precise tip positioning in the middle of the right atrium.



# Ordering Information

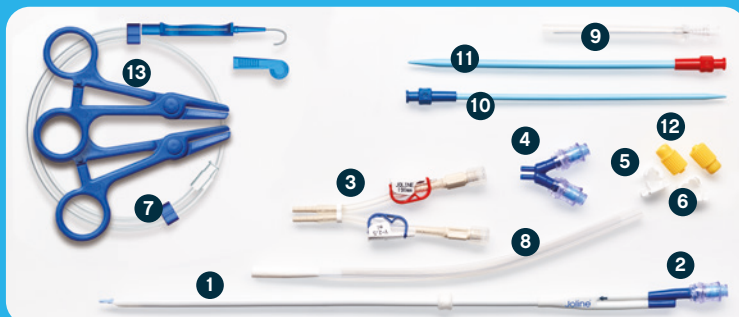
## Catheter lengths



## Evolution Flow Retrograde 15.5 Fr with Stylets (for “Over The Wire”)

Item No.	Tip-to-cuff	Tip-to-hub	Total length	pcs per box
PKLTR15C19/40	190 mm	240 mm	400 mm	3
PKLTR15C23/44	230 mm	280 mm	440 mm	3
PKLTR15C28/49	280 mm	330 mm	490 mm	3
PKLTR15C33/54	330 mm	380 mm	540 mm	3
PKLTR15C55/76	550 mm	600 mm	760 mm	3

### Example kit



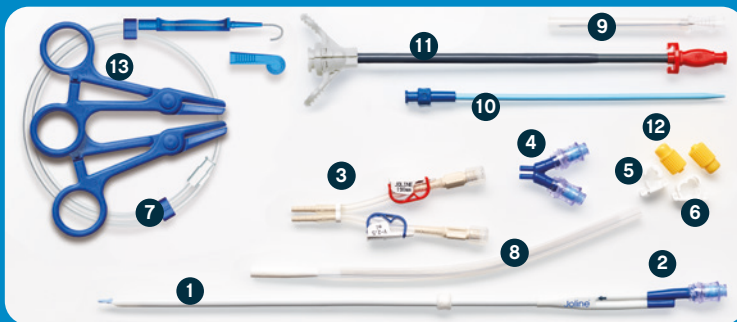
### All kits include:

- 1 1 x Catheter
- 2 1 x Stylet
- 3 1 x Extension Set
- 4 1 x Prefill-Adapter
- 5 1 x Shaft clip with Suture wings
- 6 1 x Hub clip with Suture wings
- 7 1 x Kink resistant J-Guide wire (Nitinol) 0.97 mm
- 8 1 x Trocar
- 9 1 x Introducer Needle 18 G
- 10 1 x Dilatator 12 Fr
- 11 1 x Dilatator 16 Fr
- 12 2 x Luer Lock injection caps
- 13 2 x Forceps

## Evolution Flow Retrograde 15.5 Fr with Split Sheath

Item No.	Tip-to-cuff	Tip-to-hub	Total length	pcs per box
PKLTRS15C19/40	190 mm	240 mm	400 mm	3
PKLTRS15C23/44	230 mm	280 mm	440 mm	3
PKLTRS15C28/49	280 mm	330 mm	490 mm	3
PKLTRS15C33/54	330 mm	380 mm	540 mm	3
PKLTRS15C55/76	550 mm	600 mm	760 mm	3

### Example kit

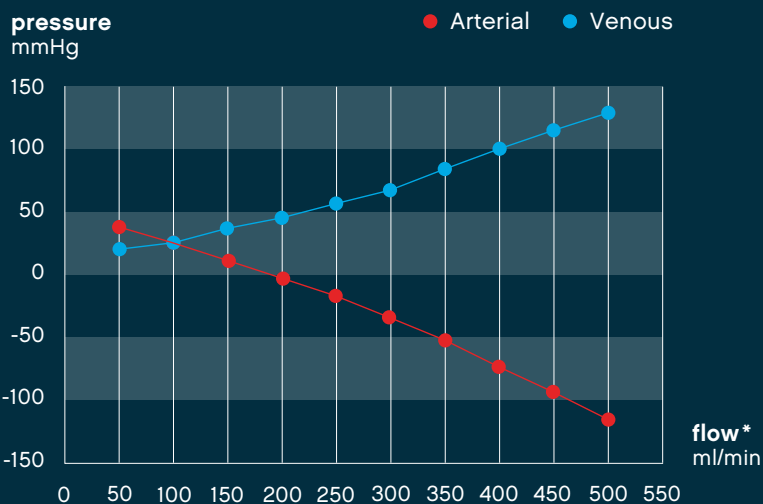


### All kits include:

- 1 1 x Catheter
- 2 1 x Stylet
- 3 1 x Extension Set
- 4 1 x Prefill-Adapter
- 5 1 x Hub clip with Suture wings
- 6 1 x Shaft clip with Suture wings
- 7 1 x Kink resistant J-Guide wire (Nitinol) 0.97 mm
- 8 1 x Trocar
- 9 1 x Introducer Needle 18 G
- 10 1 x Dilatator 12 Fr
- 11 1 x Split Sheath 16 Fr
- 12 2 x Luer Lock injection caps
- 13 2 x Forceps

## High Blood Flow

Due to tip patented design high blood flow rate can be achieved. Lower pressure rates will be result.



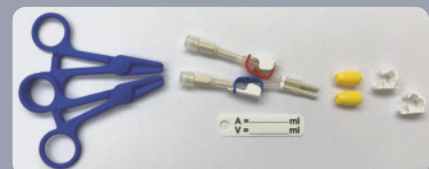
\* Measured in Ringer's solution calculated for blood

## Repair-Set

Item No.	pcs per box
KLTR	3

### Set includes:

- 1 x Extension Set
- 1 x Info flag Fill Volume
- 1 x Hub clip with Suture wings
- 1 x Shaft clip with Suture wings
- 2 x Luer Lock injection caps
- 2 x Forceps



# About Joline

Joline is an internationally active medical device company located in the South of Germany with more than 15 years experience in minimally invasive therapies.

Joline is an expert provider of catheter, balloon and stent technology for various medical applications and maintains an important tradition of 'Made in Germany' quality in all its products and services.

All Joline products are developed and produced exclusively in Germany. We integrate quality aspects in our daily work and strive to meet the high standards of our customers. The highest priority we place on the health and safety of our patients.



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