

Surgical Technique - Balloon Expander & Catheter

Step 1



Filling the cylinder with contrast agent



Pull the handle of the balloon expander(SPMP) to fill the cylinder with approx. 20cm³ of contrast agent. Then move the seal to the "lock" position.



Step 2



Removing air from the cylinder



The seal of the balloon expander (SPMP) remains locked Turn the handle to the right just before "0" marking to remove air from the cylinder.

Step 3



Connecting Balloon Catheter/ Removing residual air from the system
Remove the cover of the balloon Catheter(SPM10 or SPM15 or SPM20). The 3way valve points to the open connection with "off"



"OFF" Position



Remove the Cover

Step 4



To remove the remaining air, turn the handle of the balloon expander(SPMP) to the right. The balloon inflates.

Step 5



To remove the air from the balloon Catheter(SPM10 or SPM15 or SPM20), move the locking mechanism to the "unlock" position. Pull the handle of the balloon catheter and move the locking mechanism to the "lock" position.



SPLI Alignment System for VCF

1 Kit Composition

Prat No.	Description	Q'ty
SPS 10/15/20	Ballon catheter	1
SPMP	Ballon Expander	1
SPM-1	Guide Wire	1
SPMVP	Bone Marrow Needle	1
SPM-2	Cannular	1
SPM-3	Bone Drill	1
SPM-4	Bone Cement Filter	1

Ordering Information

Ordering No.	Spec
SPS 10	10mm
SPS 15	15mm
SPS 20	20mm

Balloon Specification

Prat No.	Initial Length(mm)	PSI Rating	Maximum Diametar(mm)	Maximum Length(mm)	Maximum Volume(cc)
SPS 10	10	440	14	16	4
SPS 15	15	440	17	22	4
SPS 20	20	440	19	34	61



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CE

Spinal Alignment System for VCF

SPLI

Indication

VCF(Vertebral compression fracture)due to Osteoporosis
Osteolytic fracture
Metastatic bone fractures



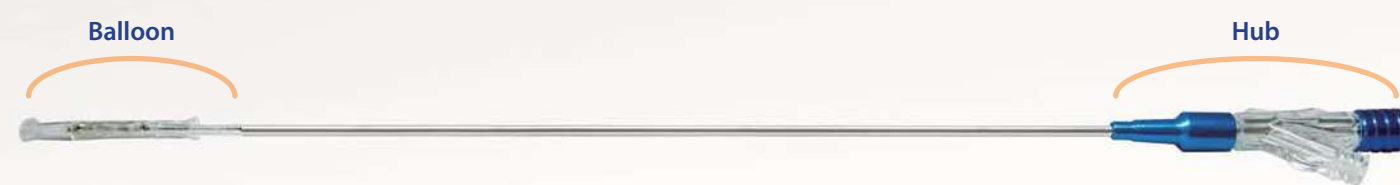
SPMP Balloon Expzader

Special Feature

Pressure Gauge indicates the pressure of the ballon
Release Buttun helps to control compression and decompression by turning on "LOCK" and "UNLOCK".

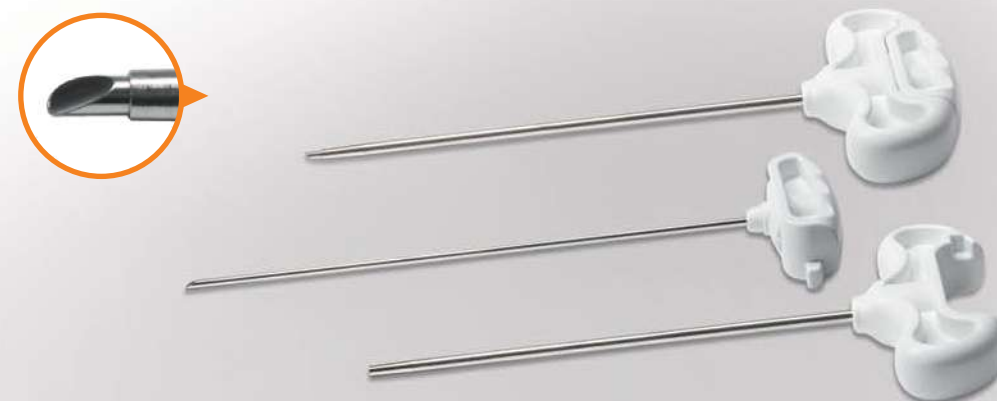


SPS10/15/20 Balloon Catheter



SPMVP

Bone Marrow Needle



SPM-1

Guide Wire



SPM-2

Cannular



SPM-3

Bone Drill



SPM-4

Bone Cement Filler



Surgical Technique - Bone Access System

Step 1



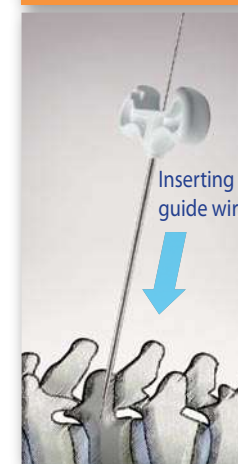
Transpedicular with the bone puncture needle (SPMVP) up to 5mm into the vertebral body.

Step 2



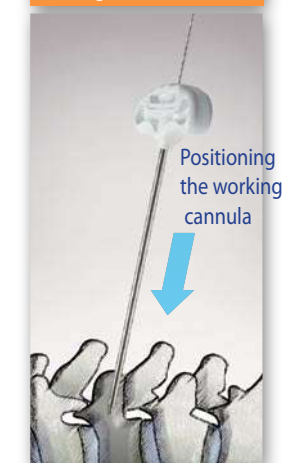
Pull the stylet out the bone puncture needle (SPMVP)

Step 3



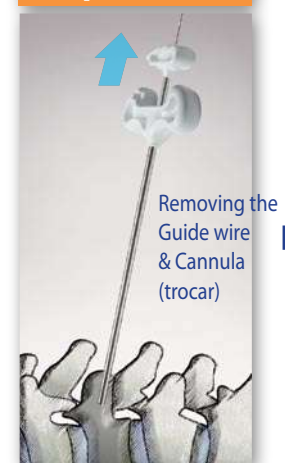
Insert the guide wire (SPM-1)

Step 4



Remove the bone puncture needle (SPMVP) from the vertebral body, Insert the cannula (SPM-2) over the guide wire (SPM-1) into vertebral body.

Step 5



Remove the guide wire (SPM-1) & trocar (SPM-2), only the working cannula (SPM-2) remains in the vertebral body.

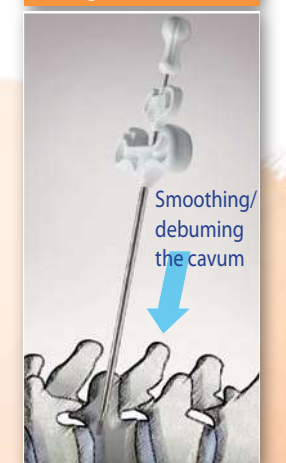
Step 6



Insert the bone drill (SPM-3) into the working cannula and make the room in the vertebral body for the balloon catheter.

Check under C-arm and ensure the lumen of the working cannula to be free of bone particles.

Step 7



Move the bone cement applicator (SPM-4) back and forth through the cannula (SPM-2) several times to prevent the balloon from bursting due to sharp bone fragments.

The bone cement applicator (SPM-4) must then be removed.