

Step-1



Filling the cylinder with contrast agent



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

Step-2



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

Removing air from the cylinder

Step-3



Connecting Balloon Catheter/ Removing residual air from the system Remove the cover of the balloon Catheter(SWS10 or SWS15 or SWS20). The 3way valve points to the open connection with "off"



Step-4



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

Step-5



To Remove the air from the balloon Catheter(SWS10 or SWS15 or SWS20), move the locking mechanism to the "unlock" position. Pull the handle of the balloon catheter and move the locking mechanism to the "lock" position.

1Kit Composition

Part No	Description	EA / Kit
Balloon Catheter	SWS10 SWS15 SWS20	1ea
Balloon Expander	SWMP	1ea
Bone Marrow Needle	SWMVP	1set
Guide Wire	SWM-1	1ea
Canuula	SWM-2	1set
Bone Drill	SWM-3	1ea
Bone Cement Filler	SWM-4	1set(2ea)

2Kit Composition

Part No	Description	EA / Kit
Balloon Catheter	SWS10 SWS15 SWS20	2ea
Balloon Expander	SWMP	2ea
Bone Marrow Needle	SWMVP	2set
Guide Wire	SWM-1	2ea
Cannular	SWM-2	2set
Bone Drill	SWM-3	1ea
Bone Cement Filler	SWM-4	3set(6ea)



Spinal Alignment System for VCF

SPASY™

Indication

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



Special Feature

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



Pressure Gauge

Release Button



Balloon

Hub

SWS10 : 10mm

SWS15 : 15mm

SWS20 : 20mm

Part No.	Initial Length (mm)	PSI Rating	Maximum Diameter (mm)	Maximum Length (mm)	Maximum Volume (mm)
SWS10	12.7mm	150	17	17	4
SWS15	16.3mm	150	16.3	19	4
SWS20	19.2mm	150	18.5	25	6

SWMVP

Bone Marrow Needle with Slant Tip



Name	Total Length	Working Length	Diameter
Needle Pipe	141mm	106mm	Ø3mm
Needle Pin	150mm	110mm	Ø2mm

SWM-1

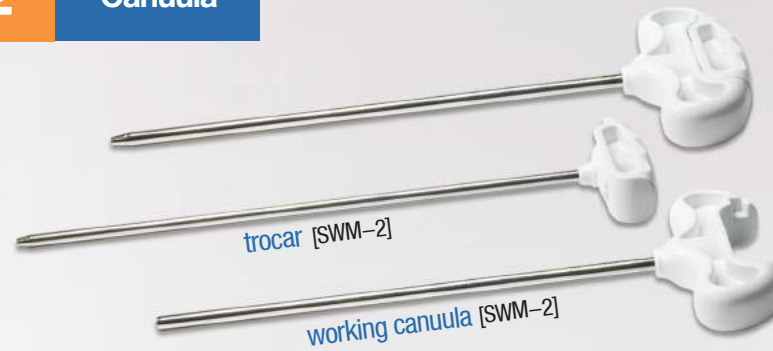
Guide Wire



Name	Total Length	Diameter
Guide Wire	260mm	Ø1.5mm

SWM-2

Canuula



Name	Total Length	Working Length	Diameter
Canuula	178mm	144mm	Ø4.3mm
Trocar	185.5mm	165mm	Ø3.8mm

SWM-3

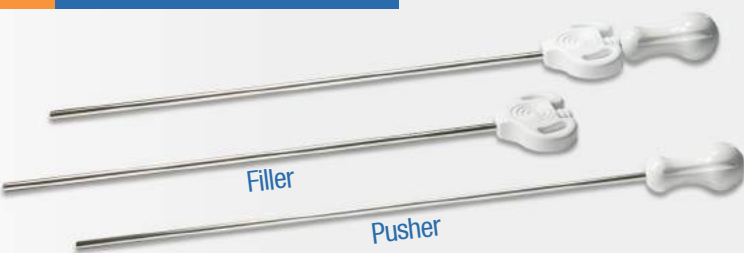
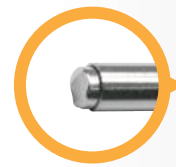
Bone Drill



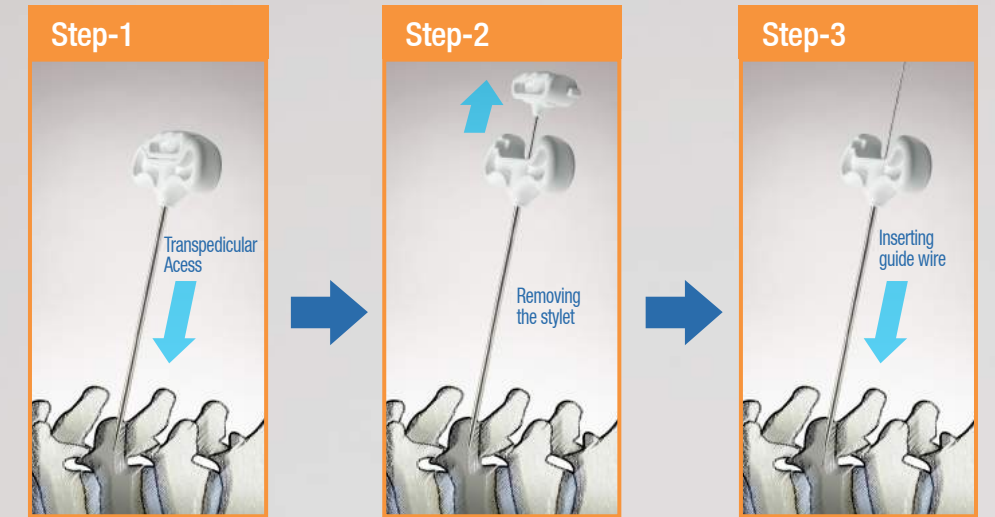
Name	Total Length	Diameter
Bone Drill	220mm	Ø3.5mm

SWM-4

Bone Cement Filler



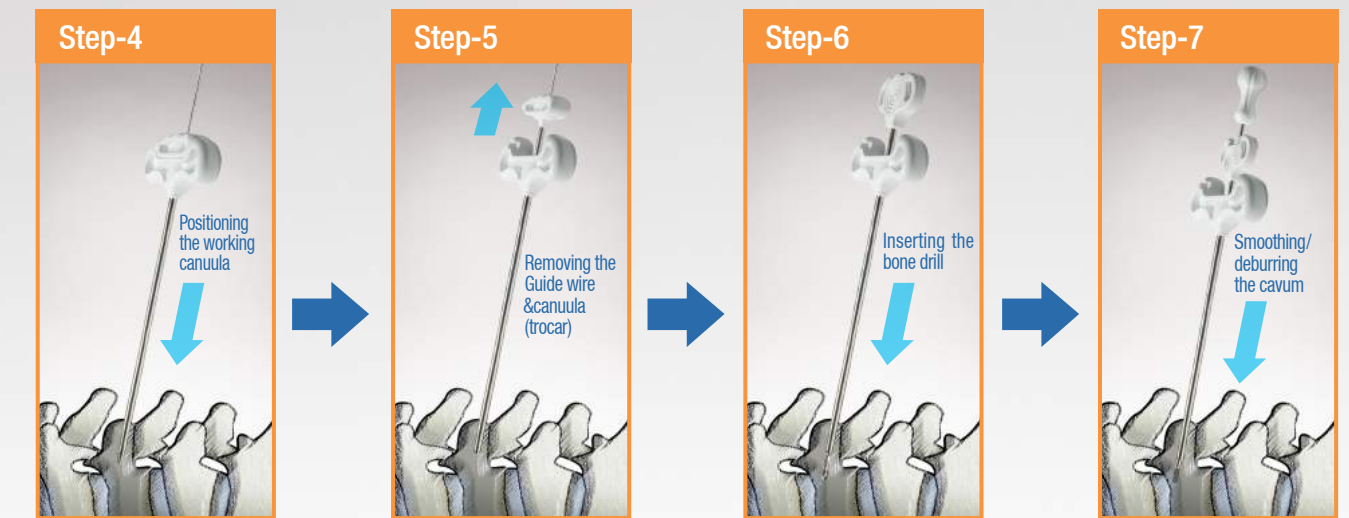
Name	Total Length	Working Length	Diameter
Cement Pusher	259mm	222mm	Ø3mm
Cement Filter	221.5mm	192mm	Ø3.5mm



Step-1
Transpedicular with the bone puncture needle(SWMVP) up to 5mm into the vertebral body.

Step-2
Pull the stylet out the bone puncture needle(SWMVP)

Step-3
Insert the guide wire(SWM-1).



Step-4
Remove the bone puncture needle(SWMVP) from the vertebral body, Insert the Canuula(SWM-2) over the guide wire(SWM-1) into vertebral body.

Step-5
Remove the guide wire(SWM-1) & trocar(SWM-2), only the working Canuula(SWM-2) remains in the vertebral body.

Step-6
Insert the bone drill (SWM-3) into the working canuula in the vertebral body for the balloon catheter. Check under C-arm and ensure the lumen of the working canuula to be free of bone particles.

Step-7
Move the bone cement applicator(SWM-4) back and forth through the canuula(SWM-2) several times to prevent the balloon from bursting due to sharp bone fragments. The bone cement applicator (SWM-4) must then be removed.