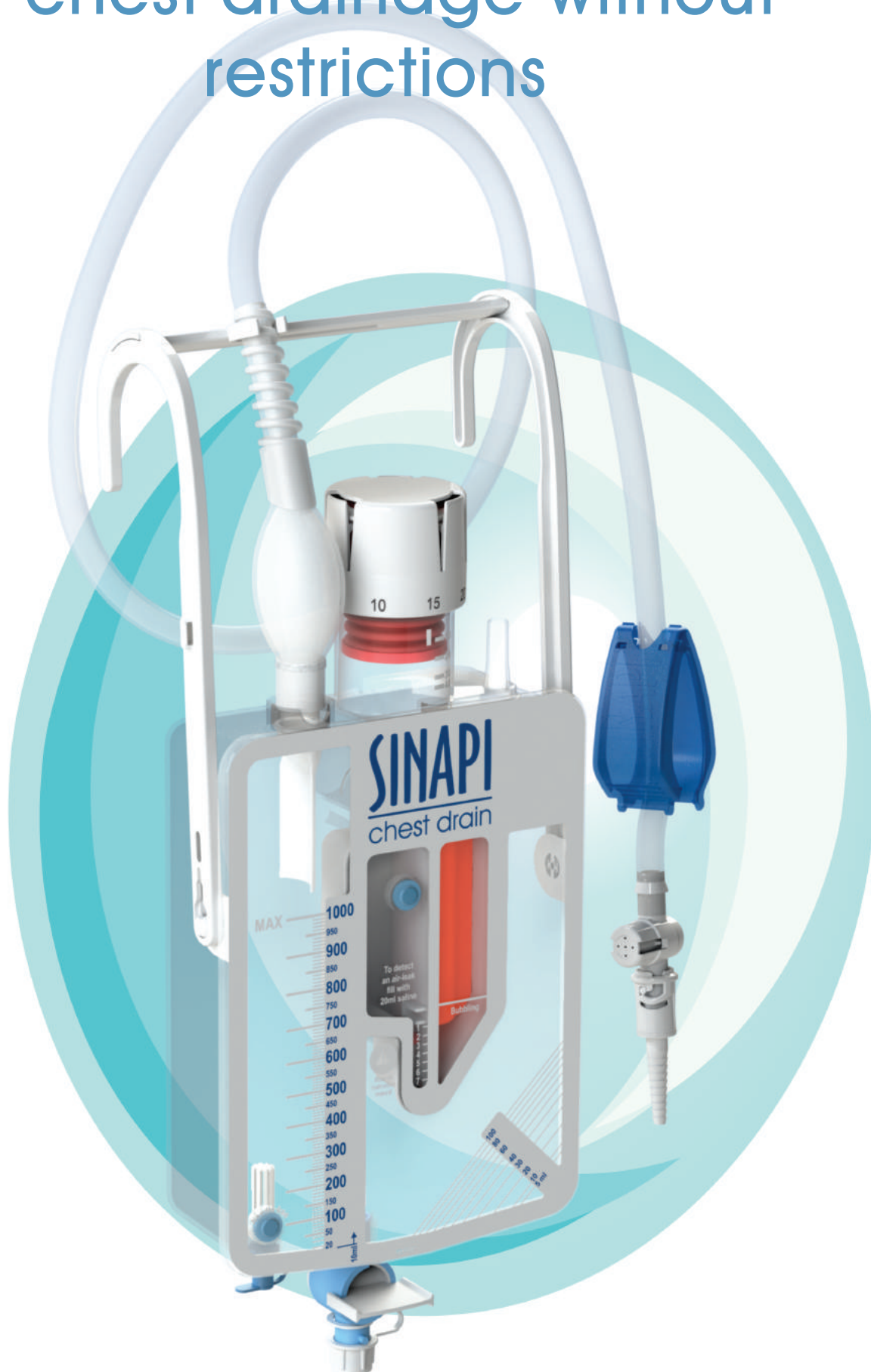


chest drainage without restrictions



sinapi chest drain

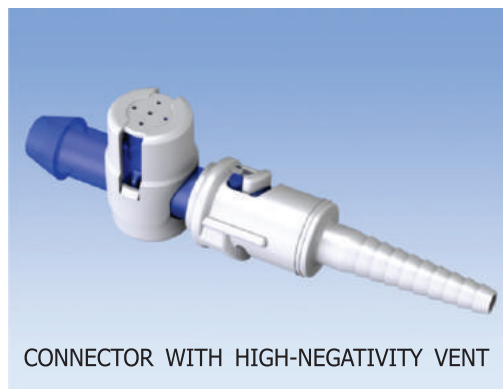
safe - efficient - mobile

PRODUCT SAFETY

- The simplicity of the design reduces the risk of human error and consequently enhances patient safety.
- Tube clamping is NEVER necessary, eliminating the risk of the patient developing a tension pneumothorax.
- The Sinapi Chest Drain (SCD) can be orientated and positioned in any way without compromising the closed system. It is therefore safe and easy to mobilize, reposition and transport patients.
- The suction regulator includes a high positive pressure release valve as well as a high negativity vent.
- The red suction bellows provides visual feedback regarding the actual suction that is applied.
- Accumulated fluid is drained into a disposable bag, which reduces exposure of medical personnel to bodily fluids and therefore the risk of cross contamination and the spread of nosocomial infections.
- Cardiac surgery: A quick coupling connector securely connects to the chest catheter

DRAINAGE EFFICIENCY

- The Scheffler valve is positioned before the collection chamber ensuring minimal dead space (60ml). This results in faster regeneration of negative intra-pleural pressure during the breathing cycle and therefore earlier catheter removal.
- The valve has a low opening pressure ($<1\text{cmH}_2\text{O}$) resulting in a low resistance to flow regardless of the volume of drained fluid. Drainage efficiency of air or fluid from the chest is thus enhanced.



- The in-line suction bulb provides and confirms suction when manually depressed. The device may therefore be disconnected from the hospital vacuum source sooner, resulting in earlier mobilization.



- Cardiac surgery: A tube roller facilitates tube 'stripping' which prevents clot formation and maintains tube patency. A high negativity vent, fitted in the connector, counteracts the high negative pressure that is generated during tube stripping, making it a safe and effective procedure.

EARLY PATIENT MOBILIZATION

- The compact and lightweight design of the Sinapi Chest Drain facilitates early mobilization of patients.
- The device does not have to be kept upright at all times. It may even be lifted higher than the patient.
- A shoulder sling is provided to enhance patient comfort when mobilizing.

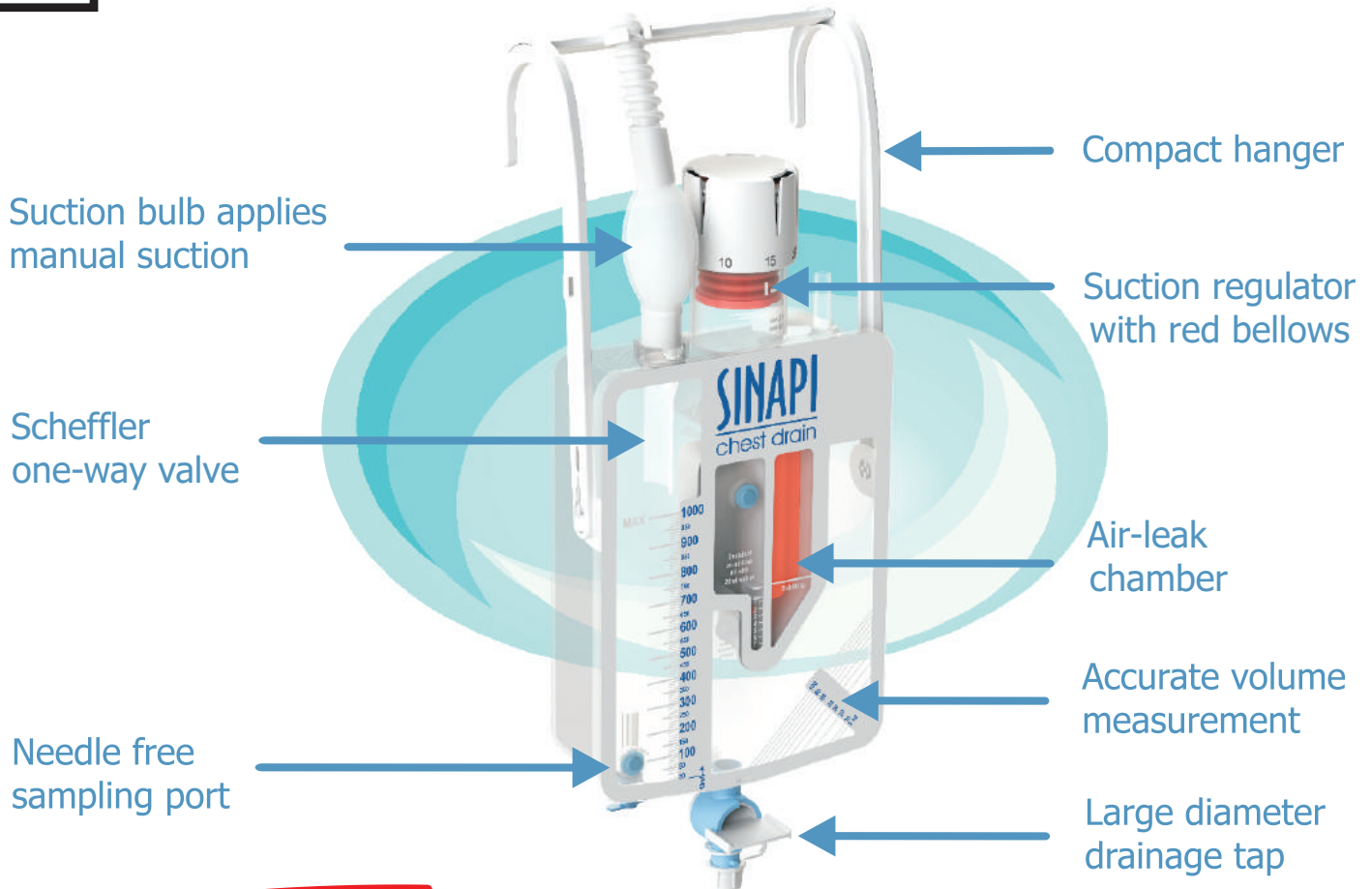
EASY OPERATION

- The SCD is easy to understand and operate by users.
- Device set up is quick and simple.
- The device can be hung next to the bed or placed next to the patient on the bed.
- Monitoring and management requires little intervention from staff.

COST-SAVING

- Only 1 Sinapi Chest Drain is required for the entire hospital stay of the patient. It may be emptied rather than replaced.
- The efficient functioning of the valve reduces drainage time and consequently length of hospital stay.
- The reduced risk of human error and therefore less patient complications translates to indirect cost savings.
- Less space is taken up in medical waste containers.

REF XL1000S



dry seal dry suction

Freely orientate & position device

Only 1 device per catheter used

Tube clamping is never required

Drainage time is reduced

Device can be emptied

Compact & lightweight

Easy to use



CLINICAL TRIALS

- A **flutter valve (FV)** allows for earlier mobilisation and the potential for earlier discharge of patients with chest drains. Laws et al. (2003) reported the mean length of inpatient stay at 5 hours with a thoracic vent and 144 hours with a water seal (WS), a cost saving of US\$5660.
- Graham et al. (1992) found that patients with a drainage bag, incorporating a FV, were fully mobile on average 23 hours earlier, able to sit in a chair 7 hours earlier and were discharged 1 day earlier, than those with a WS drain (119 patient - selective thoracotomy).
- In a study of the management of pneumothorax in patients with advanced AIDS, patients were stepped down from a traditional chest drainage unit to a FV and sent home. These patients were discharged 9 days sooner than similar patients who had received therapy with WS drains, and their pneumothoraces resolved completely (Vricella LA et al, 2001).
- In the treatment of simple pneumothorax, Niemi et al. (1999) reported a reduction in mean drainage time (1.2 days), mean length of hospitalisation (1.7 days) and number of x-rays (1.6) when FV were used for chest drainage as opposed to WS (76 patients).
- **Cooper et al. (2006) showed a marked (though not statistically significant) improvement in average drainage time using the Sinapi chest drain. The mean drainage time for the WS was 81.47 hrs, while the mean for the Sinapi device was 61.04 hrs (penetrating chest trauma).**
- As early as 1973, Bernstein et al found that 66% of the patients with spontaneous pneumothorax that were treated with FV showed full lung expansion within 1 hour.
- A study by Waller et al. (1999) demonstrates that a FV maintains a more negative intra-pleural pressure than a conventional WS at resting tidal volume and is physiologically more effective.

PRODUCT RANGE

XL200 - Pediatric



XL200S - Pediatric Suction control



XL200SC - Pediatric Suction control & HNV



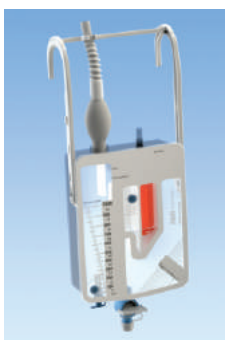
XL2000S - Cardiac Suction control & HNV



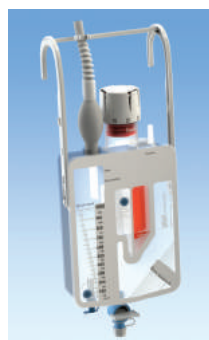
XS50 - Outpatient



XL1000 - Adult



XL1000S - Adult Suction control



XL1000SC - Cardiac Suction control & HNV



XL2000SD - Cardiac Suction control & HNV



D001 - Drainage Bag



CODE	PATIENT USE	DESCRIPTION	COLLECTION CHAMBER VOL.	QTY per BOX
XL2000S	Adult	Chest Drain (CD): Suction control & HNV	2250ml	6
XL2000SD	Adult	CD: Double inlet, suction control & HNV	2250ml	6
XL1000S	Adult	Chest Drain: Suction control	1000ml	12
XL1000SC	Adult	Chest Drain: Suction control & HNV	1000ml	12
XL200S	Child/infant	Chest Drain: Suction control	400ml	15
XL200SC	Child/infant	Chest Drain: Suction control & HNV	400ml	15
XS50	Adult/Child	Mobile Chest Drain: Pneumothorax only	50ml	25
D001	Adult/Child	Disposable drainage bag	1000ml	240

ACCESSORIES: Stand / Shoulder Sling / Y-Connector

