

# COMPOUNDING AUTOMATION

## PharmaHand

The PharmaHand is designed to fill syringes, IV-bags and elastomeric pumps by hand.

The PharmaHand can also be used to insert spikes into septa of vials and IV-bags.

The PharmaHand reduces the operating force for the technicians to drive the plunger of the syringe.

Research shows that it takes at least 100N (about 10Kg) to drive the plunger when filling elastomeric pumps.

The PharmaHand was developed at the VU University Medical Center in Amsterdam to reduce RSI (Repetitive Strain Injuries).

The PharmaHand is an accurate, easy to use, low cost tool, for all types of syringes and elastomeric pumps. It can be used by left and right handed operators.

The PharmaHand is constructed from materials (INOX 316L, PETP) resisting disinfecting agents as VHP and peracetic acid.

The PharmaHand can be used in both LAF cabinets and Isolators.



**FRESENIUS  
KABI**

caring for life

# COMPOUNDING AUTOMATION

## PharmaShaker

The PharmaShaker is a high speed reconstitution unit to automatically dissolve powder form cytotoxic drugs into fluids inside a LAF cabinet or isolator.

The PharmaShaker has adjustable speed and duration options.

The PharmaShaker will be equipped with predefined speed/duration settings for some drugs e.g. Cyclophosphamide (6 minutes).

The PharmaShaker is designed for a higher pharmacy output.

The PharmaShaker uses a micro controlled stepper motor for:

- a guaranteed long life time
- accurate agitation frequency and duration

The PharmaShaker is available for the reconstitution of 3 or 6 vials at the same time.

The PharmaShaker is constructed from materials (INOX 316L, PETP) resisting disinfecting agents such as VHP and peracetic acid.

The PharmaShaker is designed for the prevention of RSI (Repetitive Strain Injury).



 **FRESENIUS  
KABI**  
caring for life



PharmaShaker V6 with control box



PharmaShaker V3