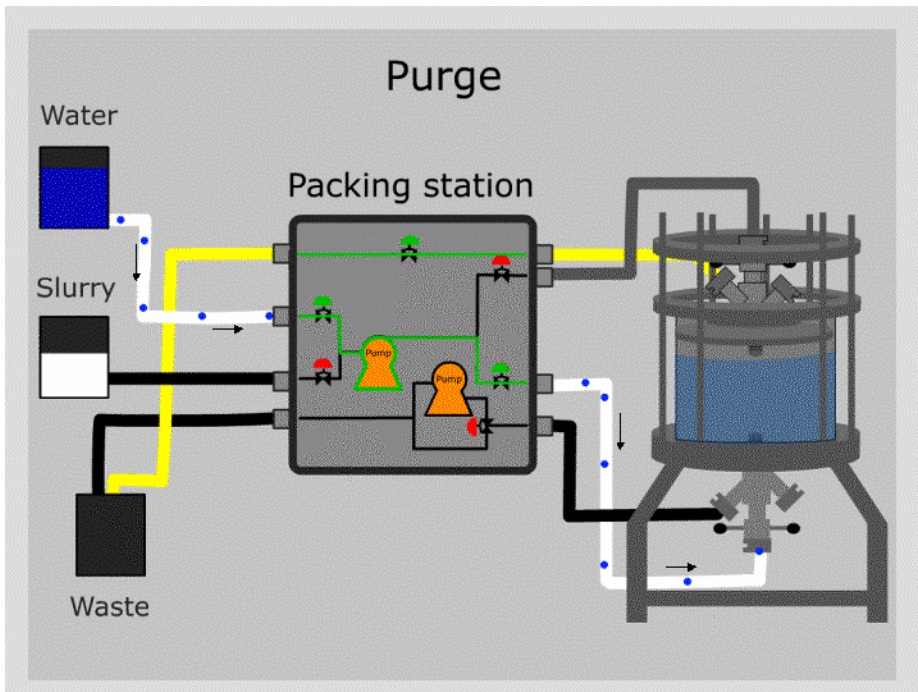
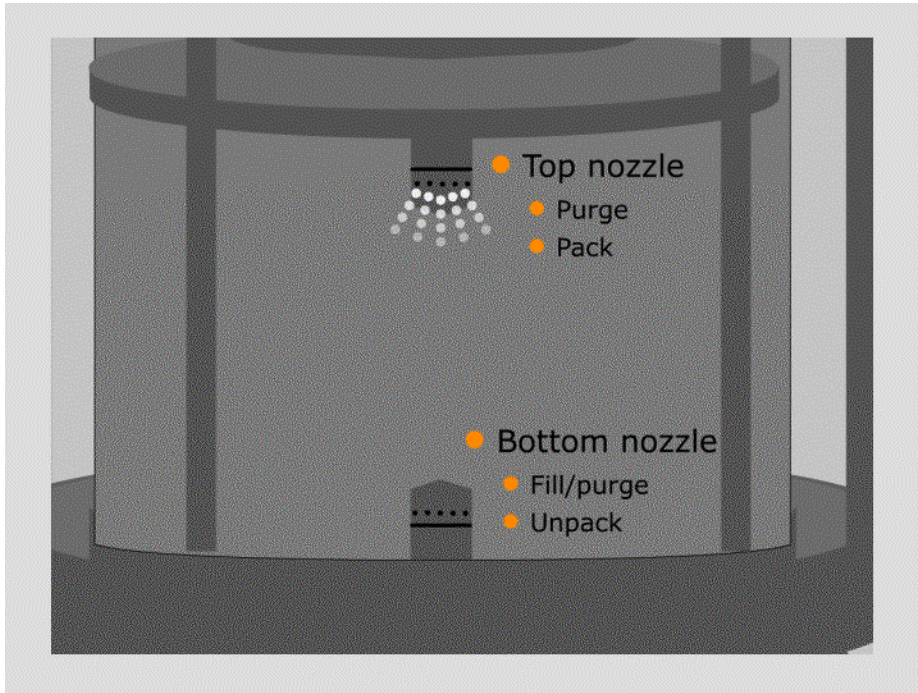


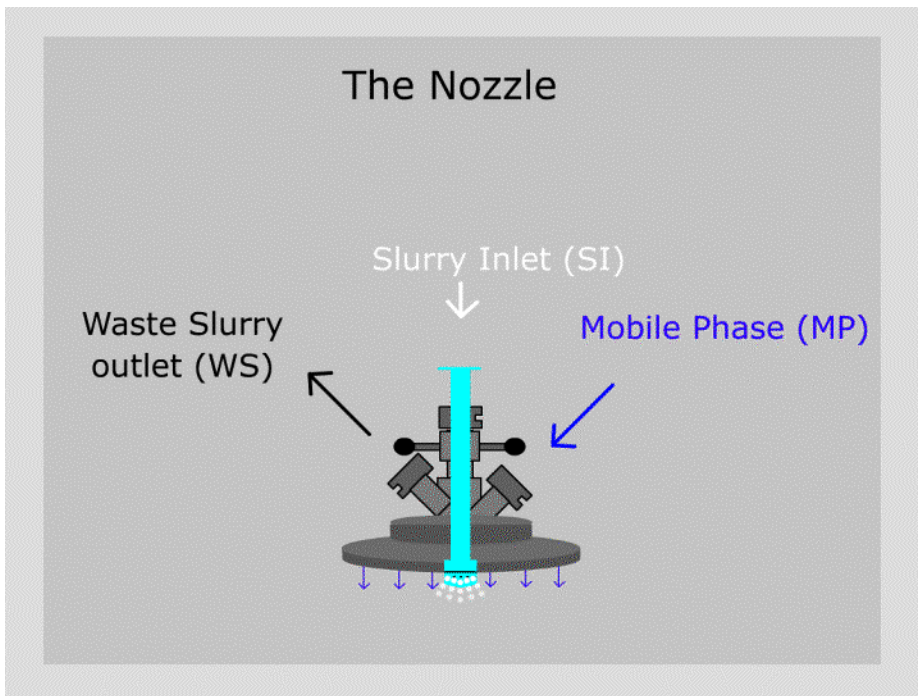
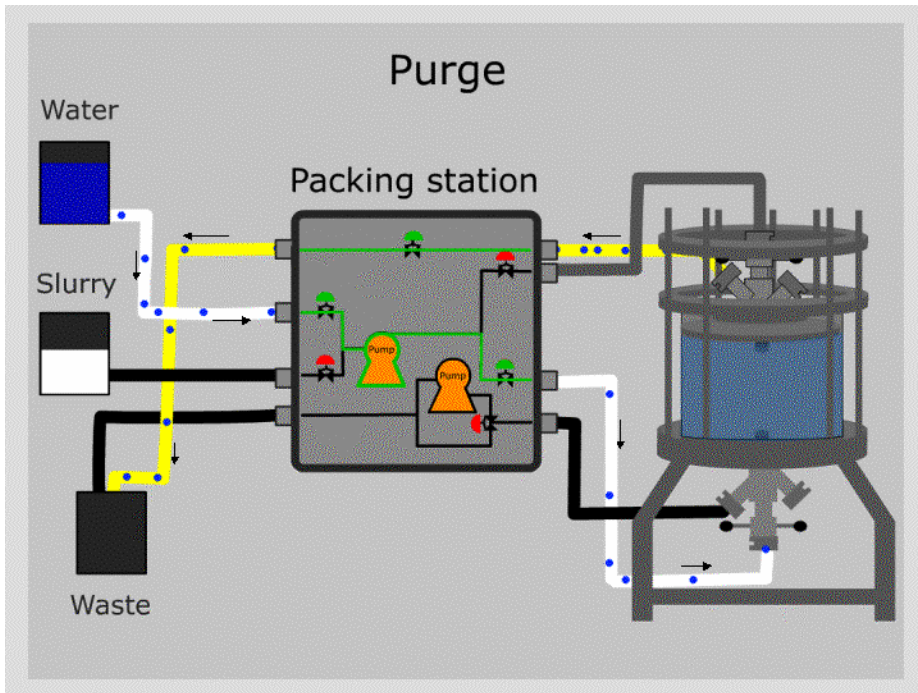
- Packing requirements

- Appropriate packing station
- Retractable packing nozzle
- A suitable packing method

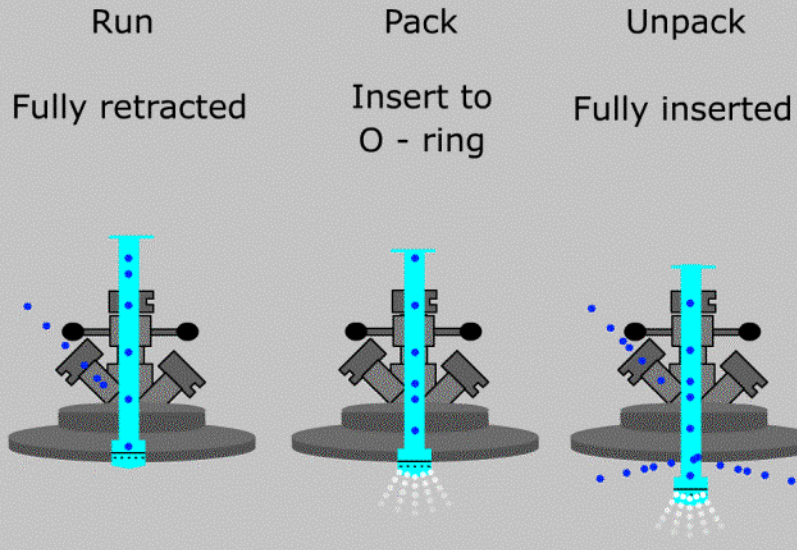
- NOTE: The method presented here is for use with GE Healthcare Chromaflow columns







## The Nozzle - 3 positions



## Pack in Place

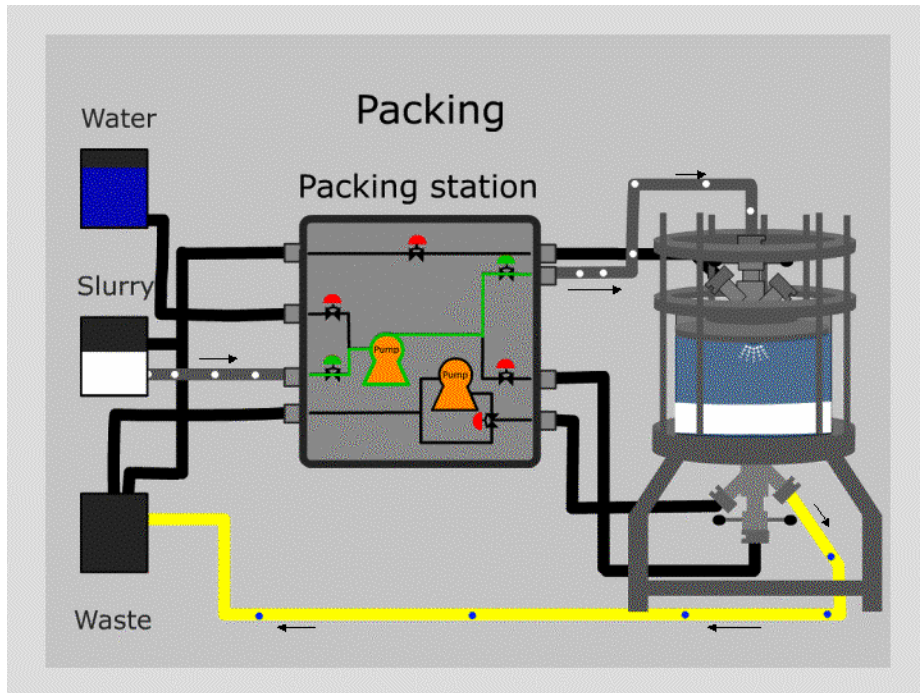
- Set up
  - Column:
    - ChromaFlow™ CFV 600 100/300
    - Equipped with 50  $\mu\text{m}$  stainless steel screens
    - Retractable Nozzles
    - I.D. = 60 cm
    - $A_c = 2.83 \text{ L/cm}$
    - $V_{c L=30 \text{ cm}} = 84.8 \text{ L}$

## Pack in Place

- Column
- Gel: Q Sepharose Big Beads
  - Desired Bed Height  $L = 30$
  - $d_{50} = 200 \mu\text{m}$

## Pack in Place

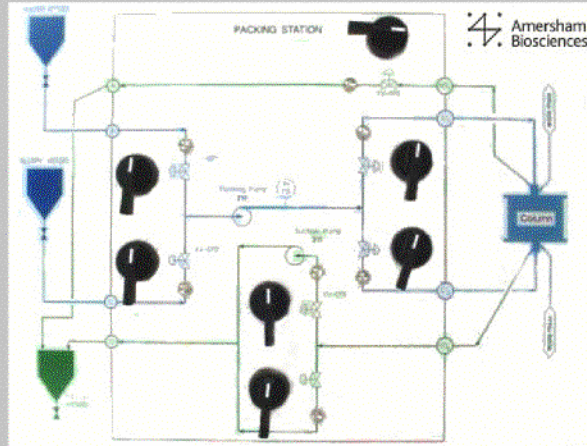
- Slurry calculations
  - $V_{c L=30 \text{ cm}} = 84.8 \text{ L}$
- Compression factor  $CF = 1.15$
- $V_{gs} \text{ required} = V_c \times CF = 97.5 \text{ L}$
- Packing Buffer: Water
- Slurry %: 57
- $SV = V_{gs} / \text{Slurry \%} = 170 \text{ L}$



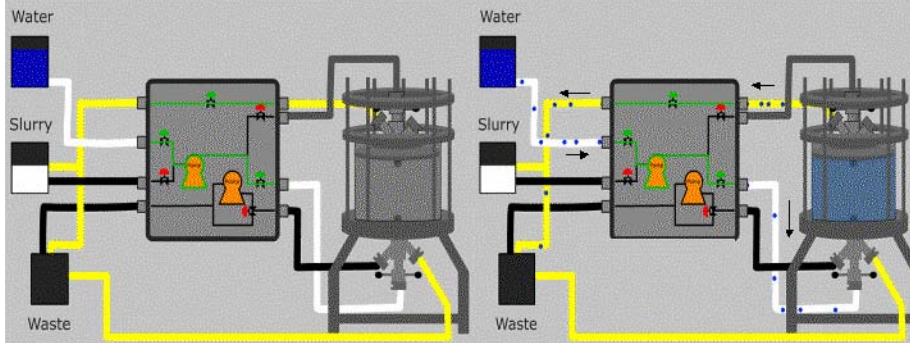
### Pack in Place

- Set up
  - Clean
  - Inspect Seals, Hoses, Pumps
  - Hydrotest System
  - Level
  - Purge

## Synoptical panel of pack station



## Step 1: Purge the Column



### Pack Station Configuration

Select Water Inlet  
 Select  $SI_{bottom}$   
 Select  $WS_{top}$  to Waste  
 Start Packing Pump

### Column Configuration

$MP_{top}$  Closed  
 $MP_{bottom}$  Closed  
 Top Nozzle to Unpack Position  
 Bottom Nozzle to Pack Position

