Media Wand Media Handling Unit

MEDIA HANDLING

Cytiva's Media Wand[™] and Media Handling Unit (Figs 1 and 2) are designed to simplify the handling of bulk media, thereby reducing handling time and work effort. Media Wand can be used together with the Media Handling Unit or with the Chromaflow[™] Packing station 100.

Media Wand is designed to allow:

- Simplified removal of transport solutions from media containers
- Addition of buffers and preparation of media slurry in media containers
- Simple transferral of media slurry to a slurry tank



Fig 1. The Media Wand together with the Media Handling Unit.



Fig 2. Media Wand allows simplified addition and removal of solutions from a variety of container sizes.

Media Wand specifications

Media Wand is available in two lengths, 1 m and 0.5 m, for use with large (60 L) and smaller (5 to 10 L) containers. Piping is composed of stainless steel while the spray nozzle tip is composed of PEEK (Fig 3).



Fig 3. The Media Wand, 0.5 m model, complete (A) and disassembled (B).



Media Handling Unit specifications

The Media Handling Unit is air driven by a Tapflo pump that can be stopped either by switching the pump control lever to off, or by setting the three valve controls to "0" (Fig 4). In the latter case, pressure from the system automatically shuts off the pump.



Fig 4. The control panel on the Media Handling Unit.

Operation

The Media Wand operates by using spray and suction functions at the tip of the wand. In the example in Figure 5, a column packing buffer is sprayed through the wand spray nozzle, circulating the sedimented media in the transport container. Recirculation of the slurry disperses the sedimented media resulting in a highly concentrated slurry suitable for column packing.



Fig 5. A column packing buffer is sprayed through the wand spray nozzle, circulating the sedimented media in the transport container.

The Media Wand is easily assembled and connected to the Media Handling Unit within a matter of minutes.

Once assembled, preparation for operation is comprised of:

1) priming the Media Handling Unit and Media Wand

2) checking the flow of the Media Handling Unit

Preparing the Media Wand for use with the Chromaflow Packing Station is equally simple and completed in a few minutes.

Once primed and checked, the Media Wand is largely controlled remotely by moving the inlet and outlet switches on the Media Handling Unit (Fig 4) or the Chromaflow Packing Station.

Benefits

Use of the Media Wand and Media Handling Unit can lead to significant savings in both time and effort involved in largescale media handling (Fig 6).

Classic, 2 people, 3 hours



Improved, 1 person, 30 minutes



Fig 6. Potential time and labor savings gained by using Media Wand and Media Handling Unit during large-scale media handling.

Applications

Removing solutions from media containers

Bulk media is often delivered in transport solution, typically 20% ethanol, and the Media Wand can greatly simplify removal of the transport solution. Use of the suction function on the Media Wand removes most of the transport solution, thereby saving time and effort.

Adding buffer/Preparing and transferring media slurry

The preparation of the slurry starts with the addition of buffer to obtain an appropriate media concentration. As the Media Wand is lowered during the buffer addition, the preparation of the slurry is initiated. When all of the buffer has been added, the recirculation of media and buffer starts and the slurry preparation continues. As additional buffer will be introduced to the media when the Media Wand is rinsed, it is recommended that a media concentration of approximately 70% is used when preparing the slurry. This will ensure that the media concentration is at least 50%, which is very good for column packing.

Sanitization

Standardized sanitization studies on the Media Wand and Media Handling Unit show effective removal of target bacteria when exposed to routine sanitization techniques.

The Media Handling Unit was tested by cleaning the unit, introducing bacteria to the system, and then sterilizing with 1 M NaOH and purified water. The Media Wand is detachable from the unit and is fully autoclavable.

Technical Specifications

Media Wand

Diameter (OD)	38 mm		
Length	1 m, 0.5 m		
Weight			
0.5 m model	6 kg		
1.0 m model	7 kg		
Media Handling Unit			
Footprint	850 × 630 mm	850 × 630 mm	
Height	0.9 m		
Noise	< 80 dB(A)		
Air consumption	30 SCFM / 5-7 bar g		
Weight (estimated)	70 kg		

Ordering information

Product	Quantity	Code no.
Media Wand, 0.5 m	1	28-9227-64
Media Wand, 1 m	1	28-9227-67
Media Handling Unit	1	28-9227-69
Spare Parts	Quantity	Code no.
Spray Nozzle Tip and tool	1	28-9219-66
Gasket (Media Wand)	1	44-0515-01
Tri-clamp	1	44-7134-01
Accessories	Quantity	Code no.
Decanting device 50	1	28-9227-70
Decanting device 100	1	28-9227-71
CIP manifold	1	28-9227-73
PTFE tubing, 2 m	1	28-9230-74

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