

5 x Hoelzel Automatic Glass - Pipette Washers / Dryers in Comparison

MPS	PSD	EPS 2-D	EPS 2-D/N		EPS 3-D		
Operational functions : Page 1		Choice	MPS	PSD	EPS 2-D	EPS 2-D/N	EPS 3-D
Choice of Cleaning Programs							
1 x full application cleaning program with optimized operating parameters		fixed		x	x	x	x
2 x pre-set cleaning programs with optimized operating parameters		fixed	x				
8 x pre-set cleaning programs with choice for program modification as needed		variable			x	x	x
Bath Volume / Water Level per Wash							
Water level in bath container to cover for long and short pipettes (max.25 " / 18 ")		variable	x	x	x	x	x
Cleaning bath (water) volume : 8 litre for short pipettes , 11 litre for long pipettes		variable	x				
Cleaning bath (water) volume : 35 litre for short pipettes , 42 litre for long pipettes		variable		x	x	x	x
Number of Baskets (Quiver) per Wash							
1x Basket to accept all types of pipettes , volume and length (max.length 25 ")		fixed	x				
9x Baskets to accept all types of pipettes , volume and length (max.length 25 ")		fixed		x	x	x	x
Quantity of Pipettes per Wash and Dry							
From 18 pc of 100 ml to 300 pc of 0,1 ml plus all intermediate values		variable	x				
From 90 pc of 100 ml to 1475 pc of 0,1 ml plus all intermediate values		variable		x	x	x	x
Collecting and Pre-Soaking of Pipettes							
Collect long and short pipettes in up to 9 identified baskets and soak in alkaline bath		variable			x	x	x
Place pipettes of all sizes in baskets randomly with the tip facing up		fixed	x	x	x	x	x
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Operational functions : Page 2	Choice	MPS	PSD	EPS 2-D	EPS 2-D/N	EPS 3-D
Dosage of Cleaning Detergent and Neutralizing Agent (approx. bath conc. 0,1 - 0,2 %)						
Dosage of liquid cleaning detergent from a refillable 5000 ml reservoir (approx.15 ml per wash)	variable	x				
Dosage of liquid cleaning detergent from a refillable 5000 ml reservoir (approx.50 ml per wash)	variable		x	x		x
Dosage of liquid cleaning detergent from a refillable 3000 ml reservoir (approx.50 ml per wash)	variable				x	
Dosage of liquid neutralizing agent from a refillable 3000 ml reservoir (approx.50 ml per wash)	variable				x	
Wash-Clean Pipettes in an Alkaline Bath						
Wash in demineralized (distilled) water	fixed	x	x	x	x	x
Wash temperature of 93° C	fixed	x				
Wash temperature adjustable to 93° C for one program	variable		x			
Wash temperature adjustable to 93° C for nine programs	variable			x	x	x
Dwell Time for ultimate Cleaning of Pipettes						
Dwell -soak in - time in the hot alkaline bath	fixed	x	x			
Dwell -soak in - time in the hot alkaline bath	variable			x	x	x
Neutralizing and Rinsing of Pipettes after Cleaning						
Rinse in a neutralizing tap water bath after cleaning in an alkaline bath (8 programs)	variable				x	
Four rinses with tap water-may be changed on request	fixed		x			
Up to 20 rinses with tap water per wash cycle if needed	variable			x	x	x
Four rinses with demineralized (distilled) water - may be changed on request	fixed	x	x			
Up to 20 rinses with demineralized (distilled) water , preset but adjustable for 8 programs	variable			x	x	x
Up to 20 rinses with bi-distilled water for ultimate analytical cleanliness , adjustable for 8 programs	variable					x
Four dwell - soak in - times per cleaning cycle if needed	fixed	x	x			
Up to 20 dwell - soak in - times per cleaning cycle if needed	variable			x	x	x
Drying of Pipettes						
Drying temperature at 100° C - may be changed on request	fixed	x	x			
Drying temperature up to 100° C, preset but adjustable for 8 programs	variable			x	x	x
Drying time until dry pipettes are obtained , may be changed on request	fixed	x	x			
Drying time is preset but adjustable for 8 programs	variable			x	x	x
Without drying , remove pipettes in a wet state to be handled / dried separately	variable		x	x	x	x
Remarks						
"Variable" means that the user can vary the pre-programmed parameters .This is accomplished by simply editing the required parameters.						
The " fixed " parameters may also be changed on request either before delivery or on supplying a new program chip for self installation at a later time .						
This applies in particular to the models MPS und PSD .						
Only the model EPS 2 - D / N offers neutralization. Only the model EPS 3 - D offers rinsing with bi-distilled water.						
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