

DOSING AND TEMPERATURE CONTROL SKID CONFIGURATION

PHARMACEUTICAL / VETERINARY / COSMETIC SECTOR

PRODUCT	Fluid type*	<ul style="list-style-type: none"> ○ Watery ○ Ointment ○ Cream ○ Gel ○ Organic
	Viscosity	Between 1cP and 22,000 cP
	Density	Between 500 kg/m ³ and 1.500 kg/m ³
REACTOR	Minimum working volume to be controlled*	Between 10L and 1.000L
	Maximum working volume to be controlled*	Between 20L and 4.000L
	Type of cooling / heating jacket	<ul style="list-style-type: none"> ○ Half cane ferrule ○ Half cane ferrule + lower bottom ○ Double jacket ferrule ○ Double jacket ferrule + lower bottom
CIRCUIT	Product flow	Between 50 kg/h and 80000 kg/h
	Heating / cooling typology	<ul style="list-style-type: none"> ○ Instant heating ○ Recirculation heating ○ Instant cooling ○ Recirculation cooling
HEATING / COOLING SYSTEM	Control type	<ul style="list-style-type: none"> ○ Fast heating ○ Recirculation heating ○ Temperature maintenance ○ Tempered ○ Sudden cooling ○ Heat sterilization
	Target temperature*	Between 5°C and 135°C
	Closed systems for accurate temperature control	<ul style="list-style-type: none"> ○ Water recirculation pump ○ Water expansion vessel ○ Automatic water supply ○ Manual water supply ○ Steam exchanger ○ Electrical water heater ○ Cooling cold water exchanger for jacket

* Other options available on request.

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HEATING / COOLING SYSTEM	Open systems for accurate temperature control	<ul style="list-style-type: none"> ○ Industrial steam with mechanical regulation ○ Industrial steam with automatic regulation ○ Direct cooling water with mechanical regulation ○ Direct cooling water with automatic regulation 						
	Other heating systems	<ul style="list-style-type: none"> ○ Electric heat trace (no fluids required) ○ Standalone equipment 						
	Temperature control system	<ul style="list-style-type: none"> ○ Jacket fluid temperature control ○ Tank temperature control ○ Tank wall temperature control ○ Product pipe temperature control 						
DOSIFICATION	Dosification control	<ul style="list-style-type: none"> ○ Load cell ○ Flowmeter ○ Weighing platform ○ Tank radar level ○ Loading queue ○ Without loading queue ○ Control valve ○ On-off valve 						
	Fluid movement	<ul style="list-style-type: none"> ○ Purified water ring ○ Pumping system ○ PIG ○ Compressed air pressure control ○ Vacuum 						
	Flow to dose	Between 50 kg/h and 8.000 kg/h						
	Quantity to dose	Between 2 kg and 6.000 kg						
	Dosification process tolerance*	0,5 % - 1,5 %						
CONNECTIONS AND SKID GEOMETRY	Type of connections	<table border="0"> <tr> <td>In contact:</td> <td>No contact:</td> </tr> <tr> <td>○ Clamp</td> <td>○ Flange (heating/cooling side)</td> </tr> <tr> <td></td> <td>○ Thread (heating/cooling side)</td> </tr> </table>	In contact:	No contact:	○ Clamp	○ Flange (heating/cooling side)		○ Thread (heating/cooling side)
	In contact:	No contact:						
○ Clamp	○ Flange (heating/cooling side)							
	○ Thread (heating/cooling side)							
Type of valve in contact with the product	○ Membrane valve							

* Other options available on request.

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CONNECTIONS AND SKID GEOMETRY	Type of valve without contact with the product	<ul style="list-style-type: none"> ○ Butterfly valve ○ Ball valve ○ Globe valve ○ Control valve 	
	Type of pipe in contact with the product	ASME-BPE SF1	
	Type of pipe without contact with the product	<ul style="list-style-type: none"> ○ Millimetric ○ ISO-1127 ○ DIN-11850 ○ ASME-BPE-SF1 	
	SKID Mobility	○ Fixed SKID	○ Mobile SKID
DOCUMENTATION		○ GMP	○ ATEX
AUTOMATION		<ul style="list-style-type: none"> ○ Keypad ○ HMI ○ SCADA 	<ul style="list-style-type: none"> ○ 21CFR ○ User configurable recipes ○ Remote access

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FOOD SECTOR

PRODUCT	Fluid type*	<ul style="list-style-type: none"> ○ Watery ○ Milk ○ Custard ○ Pastry fluids ○ Cream
	Viscosity	Between 1cP and 22,000 cP
	Density	Between 500 kg/m ³ and 1.500 kg/m ³
REACTOR	Minimum working volume to be controlled*	Between 10L and 1.000L
	Maximum working volume to be controlled*	Between 20L and 4.000L
	Type of cooling / heating jacket	<ul style="list-style-type: none"> ○ Half cane ferrule ○ Half cane ferrule + lower bottom ○ Double jacket ferrule ○ Double jacket ferrule + lower bottom
CIRCUIT	Product flow	Between 50 kg/h and 80000 kg/h
	Heating / cooling typology	<ul style="list-style-type: none"> ○ Instant heating ○ Recirculation heating ○ Instant cooling ○ Recirculation cooling
HEATING / COOLING SYSTEM	Control type	<ul style="list-style-type: none"> ○ Pasteurization ○ Cooking ○ Heat sterilization
	Target temperature*	Between 5°C and 135°C
	Closed systems for accurate temperature control	<ul style="list-style-type: none"> ○ Water recirculation pump ○ Water expansion vessel ○ Automatic water supply ○ Manual water supply ○ Water vapor exchanger ○ Electrical water heater ○ Cooling cold water exchanger for jacket

* Other options available on request.

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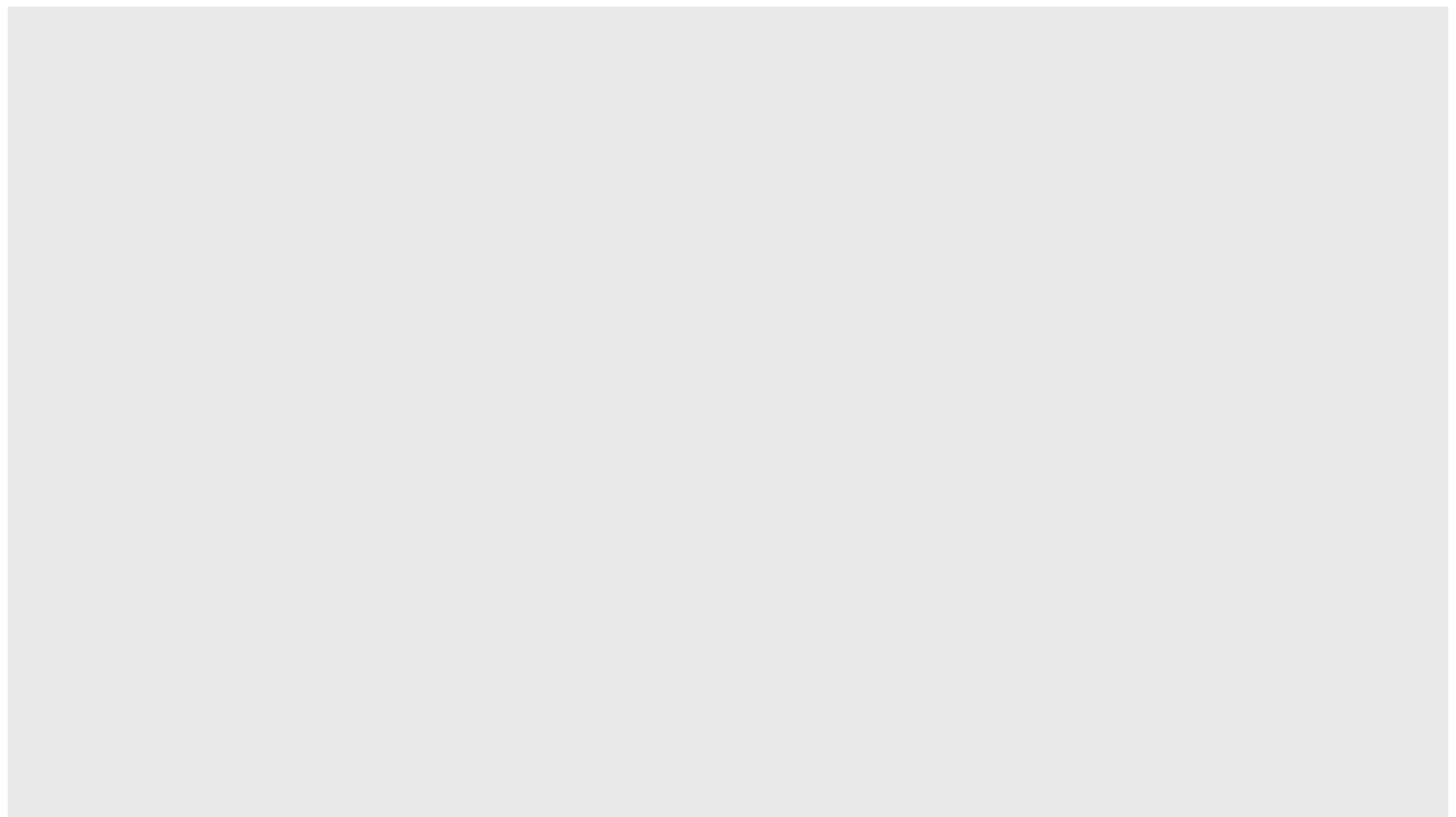
FOOD SECTOR

HEATING / COOLING SYSTEM	Open systems for accurate temperature control	<ul style="list-style-type: none"> ○ Industrial steam with mechanical regulation ○ Industrial steam with automatic regulation ○ Direct cooling water with mechanical regulation ○ Direct cooling water with automatic regulation 				
	Other heating systems	<ul style="list-style-type: none"> ○ Electric heat trace (no fluids required) ○ Standalone equipment 				
	Temperature control system	<ul style="list-style-type: none"> ○ Jacket fluid temperature control ○ Tank temperature control ○ Tank wall temperature control ○ Product pipe temperature control 				
DOSIFICATION	Dosification control	<ul style="list-style-type: none"> ○ Load cell ○ Flowmeter ○ Weighing platform ○ Tank radar level / guided microwave level 				
	Fluid movement	<ul style="list-style-type: none"> ○ Helical pump ○ PIG ○ Compressed air pressure control ○ Vacuum 				
	Flow to dose	Between 50 kg/h and 8.000 kg/h				
	Quantity to dose	Between 2 kg and 6.000 kg				
	Dosification process tolerance*	0,5 % - 1,5 %				
CONNECTIONS AND SKID GEOMETRY	Type of connections	<table border="0"> <tr> <td>In contact:</td> <td>No contact:</td> </tr> <tr> <td> <ul style="list-style-type: none"> ○ DIN - 11850 ○ Clamp </td> <td> <ul style="list-style-type: none"> ○ Flange (heating/cooling side) ○ Thread (heating/cooling side) </td> </tr> </table>	In contact:	No contact:	<ul style="list-style-type: none"> ○ DIN - 11850 ○ Clamp 	<ul style="list-style-type: none"> ○ Flange (heating/cooling side) ○ Thread (heating/cooling side)
	In contact:	No contact:				
<ul style="list-style-type: none"> ○ DIN - 11850 ○ Clamp 	<ul style="list-style-type: none"> ○ Flange (heating/cooling side) ○ Thread (heating/cooling side) 					
Type of valve in contact with the product	<ul style="list-style-type: none"> ○ Butterfly valve DIN-11850 ○ Clamp butterfly valve 					

* Other options available on request.

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FOOD SECTOR

CONNECTIONS AND SKID GEOMETRY	Type of valve without contact with the product	<ul style="list-style-type: none"> ○ Butterfly valve ○ Ball valve ○ Globe valve ○ Control valve 	
	Type of pipe in contact with the product	○ ASME-BPE SF1	○ DIN-11850
	Type of pipe without contact with the product	<ul style="list-style-type: none"> ○ Millimeter ○ ISO-1127 ○ DIN-11850 ○ ASME-BPE-SF1 	
	SKID Mobility	○ Fixed SKID	○ Mobile SKID
DOCUMENTATION		○ GMP	○ ATEX
AUTOMATION		<ul style="list-style-type: none"> ○ Keypad ○ HMI ○ SCADA 	<ul style="list-style-type: none"> ○ User configurable recipes ○ Remote access



* Other options available on request.