

STERILE PHARMACEUTICAL WATER DISTRIBUTION SKID CONFIGURATION
PHARMACEUTICAL / VETERINARY SECTOR

| | | |
|--------------------------|--|--|
| WATER | Type of water | <ul style="list-style-type: none"> ○ Water for injections ○ Purified water |
| | Purified water distribution temperature | Between 10°C and 80°C |
| ACCUMULATION TANK | Accumulation tank volume* | Between 500L and 10,000L |
| | Tank insulation | <ul style="list-style-type: none"> ○ Rock wool and welded jacket ○ Rock wool and detachable jacket ○ No insulation |
| | Instrumentation of the buffer bank | <ul style="list-style-type: none"> ○ Pressure transmitter ○ Radar level ○ Guided microwave level ○ Digital maximum level ○ Digital minimum level ○ Vent filter 0.22 µm unheated ○ Vent filter 0.22 µm heated ○ Temperature probe with sheath ○ Security valve ○ Manhole ○ Washing balls |
| | Tank discharge valve | <ul style="list-style-type: none"> ○ Welded Diaphragm Relief Valve ○ Valve with clamp connection |
| | Tank interior finishes | <ul style="list-style-type: none"> ○ AISI316L Ra< 0,5 µm ○ AISI316L Ra< 0,8 µm |
| | Tank exterior finishes | <ul style="list-style-type: none"> ○ Satin polished (including weldings) ○ Mirror polished (including weldings) ○ Technical area finish (without polished weldings) |
| | Tank connections | <ul style="list-style-type: none"> ○ Tri-Clamp ○ NA-Connect |

* Other options available on request.

STERILE PHARMACEUTICAL WATER DISTRIBUTION SKID CONFIGURATION
PHARMACEUTICAL / VETERINARY SECTOR

| | | |
|---------------------------------|--|---|
| DISTRIBUTION OF THE RING | Connections* | Tri-Clamp ASME-BPE-SF1 |
| | Number of points of use* | Between 1 and 30 points of use |
| | Points of use opening simultaneity factor | Between 0.1 and 1 |
| | Ring pipe diameter* | Between 1" and 4" |
| | Point of use flow | Between 500 L/h and 4,000 L/h |
| | Point of use diameters | Between ½" and 2" |
| | Minimum Ring Return Flow* | Between 1,000 L/h and 4,000 L/h |
| TECHNICAL FEATURES | Ring Sanitization / Sterilization* | <ul style="list-style-type: none"> ○ 124°C clean steam sterilization and purge control of the point of use ○ Overheated water sterilization ○ 80°C purified water sanitization |
| | Ring regulations | <ul style="list-style-type: none"> ○ Pump delivery pressure ○ Ending ring pressure ○ Pump delivery flowmeter ○ Ending ring flowmeter ○ Ending ring pressure automatic control valve ○ Ending ring pressure regulator ○ Ending ring temperature probe ○ Return steam exchanger ○ Return cold exchanger ○ Pump frequency inverter |
| | Ring quality controls* | <ul style="list-style-type: none"> ○ Ending ring minimum pressure control ○ Ending ring minimum flow control ○ Return conductivity control ○ Return TOC control ○ UV disinfection system ○ Discharge sampling valve ○ Return sampling valve ○ Ring return temperature control ○ Ring availability management |
| | Points of use opening | <ul style="list-style-type: none"> ○ Manual ○ Automatic ○ Automatic-Manual ○ Opening limiter ○ Configuration of automatic opening of points of use ○ Simultaneity management of points of use ○ ZDL valves ○ Multiport valves with integrated sampling |

* Other options available on request.

STERILE PHARMACEUTICAL WATER DISTRIBUTION SKID CONFIGURATION
PHARMACEUTICAL / VETERINARY SECTOR

| | | | |
|---------------------------|-----------------------|--|---|
| TECHNICAL FEATURES | Pumping system | <ul style="list-style-type: none"> ○ 1 open impeller centrifugal pump ○ 2 redundant open impeller centrifugal pumps ○ Sterilizable pump/s option ○ Pump protection with level detector ○ Tank level pump protection | |
| | Ring valves | <ul style="list-style-type: none"> ○ EPDM membrane valves ○ EPDM-PTFE membrane valves | |
| 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 |

* Other options available on request.

NON-STERILE PHARMACEUTICAL WATER DISTRIBUTION SKID CONFIGURATION

PHARMACEUTICAL / VETERINARY / COSMETIC SECTOR

| | | |
|--------------------------|--|--|
| WATER | Type of water | <ul style="list-style-type: none"> ○ Cold purified water ○ Hot purified water |
| | Purified water distribution temperature | Between 10°C and 80°C |
| ACCUMULATION TANK | Accumulation tank volume* | Between 500L and 10,000L |
| | Tank insulation | <ul style="list-style-type: none"> ○ Rock wool and welded jacket ○ Rock wool and detachable jacket ○ No insulation |
| | Instrumentation of the buffer bank | <ul style="list-style-type: none"> ○ Pressure transmitter ○ Radar level ○ Guided microwave level ○ Digital maximum level ○ Digital minimum level ○ Vent filter 0.22 µm unheated ○ Vent filter 0.22 µm heated ○ Temperature probe with sheath ○ Security valve ○ Manhole ○ Washing balls |
| | Tank discharge valve | <ul style="list-style-type: none"> ○ Welded Diaphragm Relief Valve ○ Valve with clamp connection |
| | Tank interior finishes | <ul style="list-style-type: none"> ○ AISI316L Ra< 0,5 µm ○ AISI316L Ra< 0,8 µm |
| | Tank exterior finishes | <ul style="list-style-type: none"> ○ Satin polished (including weldings) ○ Mirror polished (including weldings) ○ Technical area finish (without polished weldings) |
| | Tank connections | <ul style="list-style-type: none"> ○ Tri-Clamp ○ NA-Connect |

* Other options available on request.

NON-STERILE PHARMACEUTICAL WATER DISTRIBUTION SKID CONFIGURATION
PHARMACEUTICAL / VETERINARY / COSMETIC SECTOR

| | | |
|---------------------------------|--|---|
| DISTRIBUTION OF THE RING | Connections* | Tri-Clamp ASME-BPE-SF1 |
| | Number of points of use* | Between 1 and 30 points of use |
| | Points of use opening simultaneity factor | Between 0.1 and 1 |
| | Ring pipe diameter* | Between 1" and 4" |
| | Point of use flow | Between 500 L/h and 4,000 L/h |
| | Point of use diameters | Between ½" and 2" |
| | Minimum Ring Return Flow* | Between 1,000 L/h and 4,000 L/h |
| TECHNICAL FEATURES | Ring Sanitization / Sterilization* | <ul style="list-style-type: none"> ○ 80°C purified water sanitization |
| | Ring regulations | <ul style="list-style-type: none"> ○ Pump delivery pressure ○ Ending ring pressure ○ Pump delivery flowmeter ○ Ending ring flowmeter ○ Ending ring pressure automatic control valve ○ Ending ring pressure regulator ○ Ending ring temperature probe ○ Return steam exchanger ○ Return cold exchanger ○ Pump frequency inverter |
| | Ring quality controls* | <ul style="list-style-type: none"> ○ Ending ring minimum pressure control ○ Ending ring minimum flow control ○ Return conductivity control ○ Return TOC control ○ UV disinfection system ○ Discharge sampling valve ○ Return sampling valve ○ Ring return temperature control ○ Ring availability management |
| | Points of use opening | <ul style="list-style-type: none"> ○ Manual ○ Automatic ○ Automatic-Manual ○ Opening limiter ○ Configuration of automatic opening of points of use ○ Simultaneity management of points of use ○ ZDL valves ○ Multiport valves with integrated sampling |

* Other options available on request.

NON-STERILE PHARMACEUTICAL WATER DISTRIBUTION SKID CONFIGURATION
PHARMACEUTICAL / VETERINARY / COSMETIC SECTOR

| | | |
|---------------------------|--|--|
| TECHNICAL FEATURES | Pumping system | <ul style="list-style-type: none"> ○ 1 open impeller centrifugal pump ○ 2 redundant open impeller centrifugal pumps ○ Sterilizable pump/s option ○ Pump protection with level detector ○ Tank level pump protection |
| | Ring valves | <ul style="list-style-type: none"> ○ EPDM membrane valves ○ EPDM-PTFE membrane valves |
| DOCUMENTATION | <ul style="list-style-type: none"> ○ GMP | <ul style="list-style-type: none"> ○ ATEX |
| AUTOMATION | <ul style="list-style-type: none"> ○ Keypad ○ HMI ○ SCADA | <ul style="list-style-type: none"> ○ 21CFR ○ User configurable recipes ○ Remote access |

* Other options available on request.