

Delonization Recirculating Systems DIRS



YOUR FLEXIBLE, ECONOMICAL
SOLUTION FOR HIGH-PURITY WATER

USFilter DeIonization Recirculating Systems (DIRS) are economical, pre-packaged water purification systems that produce 5 to 50 gallons per minute of high-purity water. Depending on your water quality requirements, the DIRS allow for several field configurations to accommodate your specific requirements. For ease of operation, the DIRS are controlled by a PLC integral to the skid with control programming that allows for system operation in any configuration without software alterations.

BROAD INDUSTRY APPLICATION
THROUGH INNOVATIVE DESIGN

Features That Make The Difference

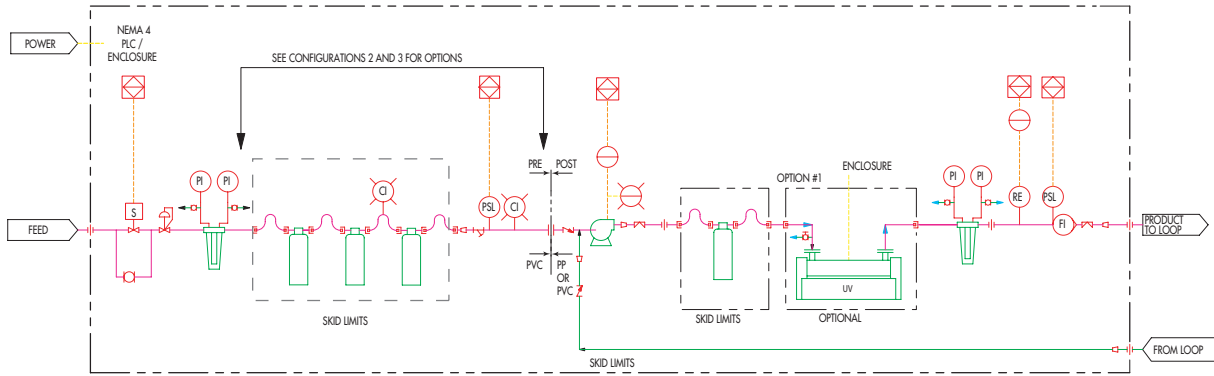
- Fast delivery with pre-manufactured systems. Quick installation and start-up with typically less than one day needed for the system to be in operation.
- Leak-safe operation as the system automatically shuts down in the event of catastrophic line failure.
- Small footprint/skid-mounted system to reduce usage of valuable floor space.
- PLC controls allow for multiple field configurations without altering the control system hardware.
- UL and Seismic Zone 4 compliance to satisfy regional permitting regulations.

In addition to our standard DeIonization Recirculating Systems, we offer customized systems with higher flow rates, a variety of plumbing options and the other components you might require for your particular application. Our field service technicians are also available whenever and wherever you need them to assist you with installation and startup.

CONFIGURATIONS TO MEET YOUR NEEDS

DIRS PROCESS FLOW DIAGRAM

CONFIGURATION #1

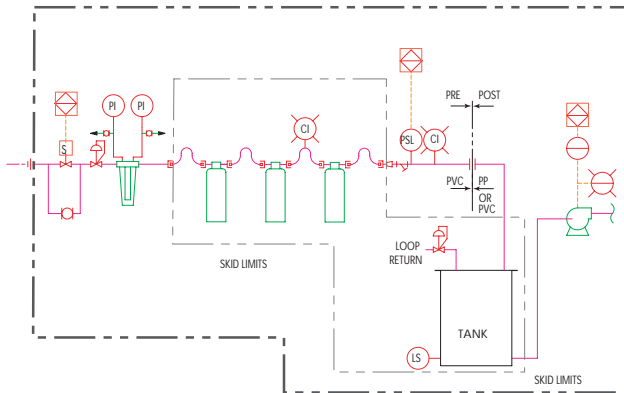


Configuration #1

In the standard configuration, the DIRS are fed with a city water source and produce high-purity water without the need for any other treatment devices.

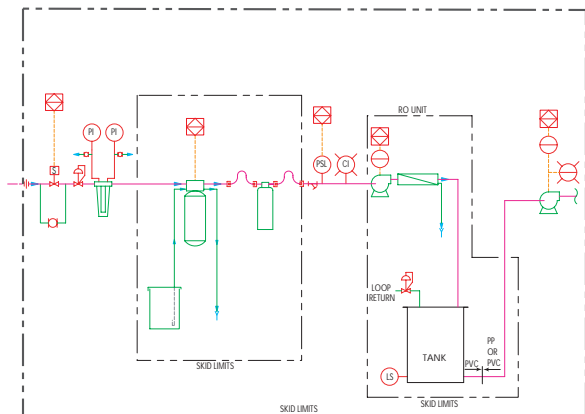
Configuration #2

Due to higher water demands, often a reservoir or storage tank of treated water is needed. USFilter's DIRS can easily be field configured to accommodate this requirement with only minor changes to field piping and interconnecting wiring required. We offer a wide variety of storage tanks to meet your needs.



Configuration #3

For sites with higher levels of total dissolved solids (TDS), we have designed the DIRS to include a USFilter reverse osmosis (RO) pretreatment system. Configuration 3 includes all the control parameters to communicate with the RO system and all necessary pretreatment equipment. Only minor field piping changes and interconnecting wiring is required. We offer a wide variety of storage tanks, softeners and RO systems to meet your requirements.



OTHER FEATURES



Powder-coated steel frames provide maximum support for the DIRS while allowing easy access for maintenance and operation.

Piping is Schedule 80 PVC, with optional pigmented polypropylene (PP) for the post-treatment.

The system is fully assembled, wired and hydrostatically pressure tested before shipment. The system is protected with heat-shrink wrapping prior to shipment.

A complete documentation package is included with the system including installation, start-up and operation procedures, flow rate charts, process and instrument diagrams (P&ID), electrical schematics and Quality Assurance data reports.

SYSTEM SPECIFICATIONS

PARAMETERS

Feed Pressure min./max.	50 PSIG / 100 PSIG
Feed Temperature min./max.	33°F (0.6°C)* / 90°F (33.2°C)*

*Note: When the DIRS is used in an RO configuration, inlet water tempering will be required.

PIPE CONNECTION SPECIFICATIONS

Model Number	DIRS05	DIRS10	DIRS20	DIRS30	DIRS40	DIRS50
Process Water Inlet/Outlet	1/2" / 3/4"	3/4" / 1"	1" / 1-1/4"	1-1/4" / 1-1/2"	1-1/2" / 2"	2" / 2"

ELECTRICAL SPECIFICATIONS

Model Number	DIRS05_1	DIRS10_2	DIRS10_4	DIRS20_2	DIRS20_4	DIRS30_2	DIRS30_4	DIRS40_2	DIRS40_4	DIRS50_2	DIRS50_4
Voltage (60 Hz, 3 Phase unless noted)	115 VAC, 1 Phase	208/240 VAC	480 VAC	208/240 VAC	480 VAC	208/240 VAC	480 VAC	208/240 VAC	480 VAC	208/240 VAC	480 VAC
Full Load Amps	9.8	5.7	2.6	8.9	4.0	6.0	3.0	6.8	3.4	9.6	4.8
Breaker Required Per Code	20A	15A	15A	15A	15A	15A	15A	15A	15A	20A	20A

PHYSICAL DIMENSION SPECIFICATIONS

Model Number	DIRS05	DIRS10	DIRS20	DIRS30	DIRS40	DIRS50
Length - inches (cm)	41 (104)	41 (104)	41 (104)	60 (152)	60 (152)	72 (183)
Width - inches (cm)	32 (81)	32 (81)	32 (81)	32 (81)	32 (81)	36 (91)
Height - inches (cm)	69 (175)	69 (175)	69 (175)	69 (175)	69 (175)	69 (175)
Shipping Weight lbs. (kg)	200 (91)	240 (109)	280 (127)	350 (159)	420 (191)	550 (250)
UV Bulb Service Clearance - in. (cm)	24 (61) Vertical	36 (91) Vertical	36 (91) Left	48 (122) Left	48 (122) Left	48 (122) Left

ORDERING INFORMATION AND TECHNICAL SUPPORT

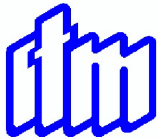
**STANDARD PRODUCT ORDERING INFORMATION:
SAMPLE PART NUMBER**

		DIRS	10	PV	NV	2
DIRS	Delonization Recirculating Systems					
Nominal Flow Rate						
05	5 GPM					
10	10 GPM					
20	20 GPM					
30	30 GPM					
40	40 GPM					
50	50 GPM					
Post-Treatment Piping Material						
PV	PVC Schedule 80					
PP	Pigmented Polypropylene					
Optional Ultraviolet Light (UV)						
NV	No UV					
UV	UV included					
Voltage						
1	115 VAC, 1 Phase, 60 Hz					
2	208/240 VAC, 3 Phase, 60 Hz					
4	480 VAC, 3 Phase, 60 Hz					

Call us today for more information on USFilter's DIRS and other systems and services.



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www.usfilter.com

USFilter reserves the right to change the specifications referred to in this literature at any time, without prior notice.