





Distillation Units

In-Process Recovery | Distillation Technologies | Automated Wash



SAMPLE RETURN ON INVESTMENT*

DESCRIPTION:	PRI Recovery	No Recovery	
Solvent Type: Various			
Waste Generated (gal/wk)	1,115	1,115	
Percent Solids	5%	5%	
Recovered Solvent (gal/wk)	1004	0	
Required Makeup (gal/wk)	56	1,059	
Disposal Amount (gal/wk)	111	1,115	
Weekly Service Recovery & Disposal Cost	N/A	N/A	
Utility Operating Cost/Week	\$67	\$0	
Replacement Solvent Cost/Gal	\$5	\$5	
Required Makeup Cost/Week	\$279	\$5,296	
Disposal Cost/Gal	\$1	\$1	
Disposal Cost/Week	\$111	\$1,115	
Total Cost/Week	\$457	\$6,411	
Total Yearly Cost	\$22,857	\$320,563	
Equipment Acquisition Cost	\$81,000	N/A	
Weekly Savings w/PRI	\$5,954		
Yearly Savings w/PRI	\$297,705		
Months to Payback	3		
Return On Investment	368%		

* Depends upon type of solvent, contamination level, contaminate type and other factors.

6

7

9

(12)

19

(10)

20

16

15

14

Why Solvent Recovery?

On-site solvent recovery and recycling is the most affordable long-term option for companies who generate solvent waste. Our equipment can in many cases enable recovery of more than 90% of waste solvent, reducing disposal and new solvent expenses, and delivering a return on investment of <u>only one to two years</u> or less. Other advantages include:

- assurance of regulatory compliance
- ability to reuse spent solvent
- lowered removal and disposal costs
- reduced inventory and new solvent purchase costs
- increased quality control over purchased reclaimed solvent
- reduced liability associated with waste solvent

PRI Net Savings Over No Recovery



Weeks

Designed for **Efficiency**

- 1. External vent
- 2. Patented drive assembly
- 3. Auto fill valve
- 4. Fully sealed, packed shaft bearing housing
- 5. Safety relief
- 6. External insulation and metallic jacket
- 7. Oversized manway
- 8. Counter flow stainless steel condenser
- 9. Mid-shaft steady bushing
- 10. Stainless steel evaporation chamber
- 11. Thermometer
- 12. Two bolt arm mount
- 13. Staggered leaf spring scrapers
- 14. Electronic level probe
- 15. OSHA approved ladder
- 16. Fill line
- 17. Class 1, division 1 electric immersion heater
- 18. Automatic sludge discharge valve
- 19. Uniform thermal heat transfer media
- 20. Structural base support



SC Series

The SC Series is an ideal non-scraped solvent recovery unit for many small to medium operations generating solvent-laden materials. The units offer the highest BTU rating specific to the industry, and can operate in either batch or continuous modes alongside remote storage tanks and process equipment. All models are constructed for Class I, Division 1, Group D environments, and use a combination of intrinsically safe sensors and explosion-proof electrical components. Each system complies with NFPA and NEC codes applicable to the vessel and installation.

SC Series					
Tank Size Range	57 - 386 L (15 - 220 gal)				
Solids Loading	< 10%				
Flow Rate Per Hour	11 - 79 L (2.8 - 20.8 gal)				
Rotating Scraper Blades	no				
Electrically Heated Oil Jacket	\checkmark				
ASME Steam-Heated Jacket	✓				

SCR Series

The SCR Series, designed for solids content of less than 20%, incorporates PRI's exclusive rotating scraper blade assembly to assure optimum efficiency and consistent clean solvent production throughout the reclamation process. Employee safety and unit productivity are at the heart of the unit's design. Human involvement is minimal, with a Programmable Logic Controller (PLC) monitoring the unit's operation constantly.

SCR Series					
Tank Size Range	280 - 3051 L (74 - 800 gal)				
Solids Loading	10% - 20%				
Flow Rate Per Hour	76 - 435 L (20 - 115 gal)				
Rotating Scraper Blades	yes				
Electrically Heated Oil Jacket	✓				
ASME Steam-Heated Jacket	\checkmark				

LSR Series

The heavy-duty workhorse of the distillation line, the LSR Series is built to handle difficult, high solids, large-scale waste streams. An ASME Code stainless steel vessel houses the patented rotating scraper assembly that continually scrapes the sidewalls and mixes the solids. This assures optimum heat transfer efficiency and output rates. Designed for employee safety and optimal effectiveness, scraper assembly adjustments are made outside the vessel thereby eliminating contact with waste.

LSR Series					
Tank Size Range	1544 - 9024 L (408 - 2384 gal)				
Solids Loading	up to 40%				
Flow Rate Per Hour	422 - 1514 L (111.4 - 400 gal)				
Rotating Scraper Blades	yes				
Electrically Heated Oil Jacket	✓				
ASME Steam-Heated Jacket	\checkmark				





Sizes and Specifications:

MODEL	CAPACITY	RATE*	HEATER	Height	Depth	Width	WEIGHT
SC-25	57 L (15 G)	11 L/h (2.8 G/h)	3.75 kw	1524 mm (5')	1092 mm (3' 7")	1016 mm (3' 4")	318 kg (700 lbs)
SC-50	121 L (32 G)	18 L/h (4.8 G/h)	7.5 kw	1524 mm (5')	1321 mm (4' 2")	1219 mm (4')	454 kg (1000 lbs)
SC-100	121 L (32 G)	30 L/h (7.8 G/h)	9.0 kw	1524 mm (5')	1321 mm (4' 2")	1219 mm (4')	454 kg (1000 lbs)
SC-155	235 L (62 G)	34 L/h (9 G/h)	9.0 kw	1626 mm (5' 4")	1524 mm (5')	1524 mm (5')	499 kg (1100 lbs)
SC-200	235 L (62 G)	55 L/h (14.4 G/h)	18.0 kw	1626 mm (5' 4")	1524 mm (5')	1524 mm (5')	499 kg (1100 lbs)
SC-300	386 L (102 G)	79 L/h (20.8 G/h)	27.0 kw	1829 mm (6')	1524 mm (5')	1524 mm (5')	590 kg (1300 lbs)
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SCR-200	280 L (74 G)	76 L/h (20 G/h)		3150 mm (10' 4")	1600 mm (5' 3")	1651 mm (5' 5")	1361 kg (3,000 lbs)
SCR-250	450 L (119 G)	106 L/h (28 G/h)	Electric or Steam	3378 mm (11' 1")	1600 mm (5' 3")	1651 mm (5' 5")	1451 kg (3,200 lbs)
SCR-350	768 L (203 G)	161 L/h (42.5 G/h)		3454 mm (11' 4")	1854 mm (6' 1")	2007 mm (6' 7")	2268 kg (5,000 lbs)
SCR-400	1192 L (315 G)	225 L/h (59.4 G/h)		4089 mm (13' 5")	2083 mm (6' 10")	2184 mm (7' 2")	2585 kg (5,700 lbs)
SCR-450	1627 L (430 G)	284 L/h (75 G/h)		4394 mm (14' 5")	2083 mm (6' 10")	2235 mm (7' 4")	2722 kg (6,000 lbs)
SCR-550	3051 L (806 G)	435 L/h (115 G/h)		5080 mm (16' 8")	2083 mm (6' 10")	2667 mm (8' 9")	3629 kg (8,000 lbs)
LSR-80	1544 L (408 G)	422 L/h (111.4 G/h)	Electric	5182 mm (17')	2083 mm (6' 10")	2540 mm (8' 4")	3629 kg (8000 lbs)
LSR-120	2419 L (639 G)	568 L/h (150 G/h)		5791 mm (19')	2286 mm (7' 6")	2794 mm (9' 2")	4536 kg (10000 lbs)
LSR-160	5288 L (1397 G)	1007 L/h (266 G/h)	Steam	6680 mm (21' 11")	2362 mm (7' 9")	2896 mm (9' 6")	5443 kg (12000 lbs)
LSR-200	9024 L (2384 G)	1514 L/h (400 G/h)	1	7137 mm (23' 5")	2819 mm (9" 3")	3302 mm (10' 10")	6804 kg (15000 lbs)

* "Defined Rate" is defined as 2000 BTU/gal. solvent being distilled at 100 deg. differential between the solvent and the heating media. Custom sizes available upon request.



In-Process Recovery

Our wash systems are often incorporated into complete turn-key solvent recovery and recycling systems, using a closed-loop process.

In this process, spent solvent is collected and fed into a distillation unit, where the contaminants can be separated from the reusable solvent.

Contaminants are discarded and reusable solvent is automatically fed back through the press.



Solvent Wash & Recovery | Biowaste Sterilization | Custom Process Skids | Service

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