



SR SERIES SOLVENT RECYCLING SYSTEMS

DESIGNED TO SAFELY AND EFFICIENTLY RECLAIM USED SOLVENTS



ISTpure's SR Series Solvent Recyclers are designed to safely reclaim used solvents and other hazardous chemicals on-site. Our distillation process allows for the end product to be clean, distilled, and ready for subsequent cleaning applications.

Our units are safe to use and ergonomically designed to control and eliminate harmful vapors. They are fully automated and virtually maintenance-free – it only takes a few minutes to start the process.

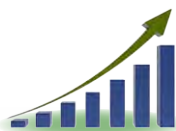
MARKETS:

- Industrial Coating & Paint
- Printing & Packaging Industry
- Woodworking & Cabinet Making
- Plastic Forming & Processing
- General Manufacturing
- Solvent-Based Cleaning

BENEFITS FOR YOUR BUSINESS:

- Save money on pure solvent purchases and waste solvent disposal fees
- Comply to hazardous waste disposal regulations
- Implement environmentally-friendly practices
- Reduce waste solvent stock piles

KEY FEATURES:



Recovery rate:
97% and more



Eliminates:
90% of toxic waste



Cycle time:
4 to 6 hours



Working Temperature:
40-200 °C / 104-390 °F



Recycles popular solvents:
including mineral spirit, flexo, litho, and other.



Easy to use:
processor controlled, residue removal and positive-seal cover



Safety standards¹:
Class I, Div. 1, Group D
UL standard 2208



Meet NFPA2 codes²:
codes 30, 33, 70.



Certified:
with the industry's best warranty –
2-year manufacturer warranty

¹ CSA certified to UL standard 2208 in Canada and the U.S. for class I, Div.1, Group D Hazardous locations.

² <http://www.nfpa.org/>. It is of your responsibility to verify proof of certification prior to using such systems in your facility

SR30 / 30V



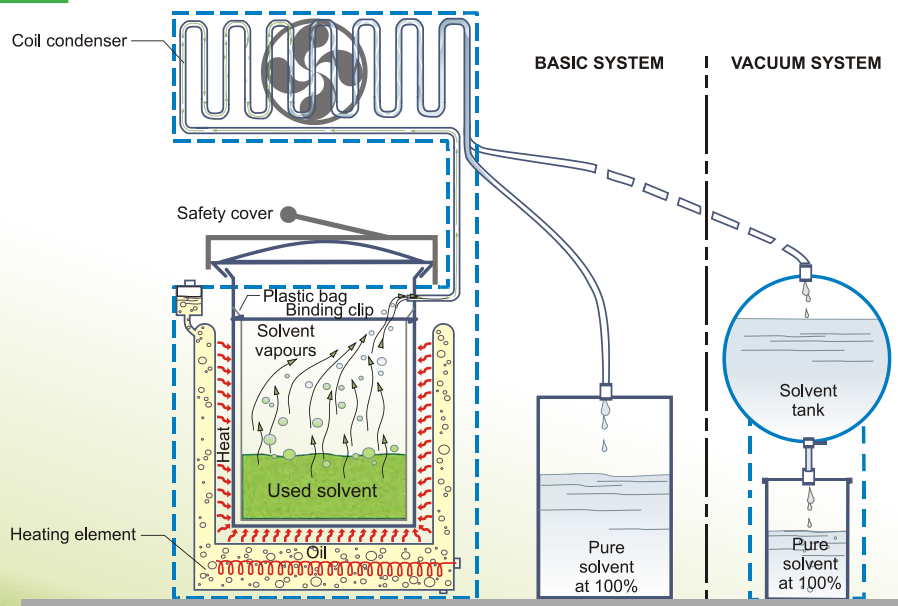
SR60 / 60V



SPECIFICATIONS	MODEL			
Description	SR30	SR30V	SR60	SR60V
Power consumption/requirements* (240 V – 1 Ph)	11,7 A / 15 A		24,7 A / 30 A	
Boiler capacity (gal / L)	8 / 30		16 / 60	
Thermal oil (gal / L)	10 / 2,5		20 / 5	
Heater (W)	2,500		5,000	
Overall dim's (D x W x H) (inches)	25¾ x 26¼ x 63¼	25¾ x 43 x 63¼	30¼ x 31¾ x 77½	30¼ x 80¾ x 77½

*Power Outlet may vary from 208 to 240 V and is available in 50 or 60 Hz. Nominal & required amperage (A) are given for 240 V at 60 Hz.

HOW IT WORKS

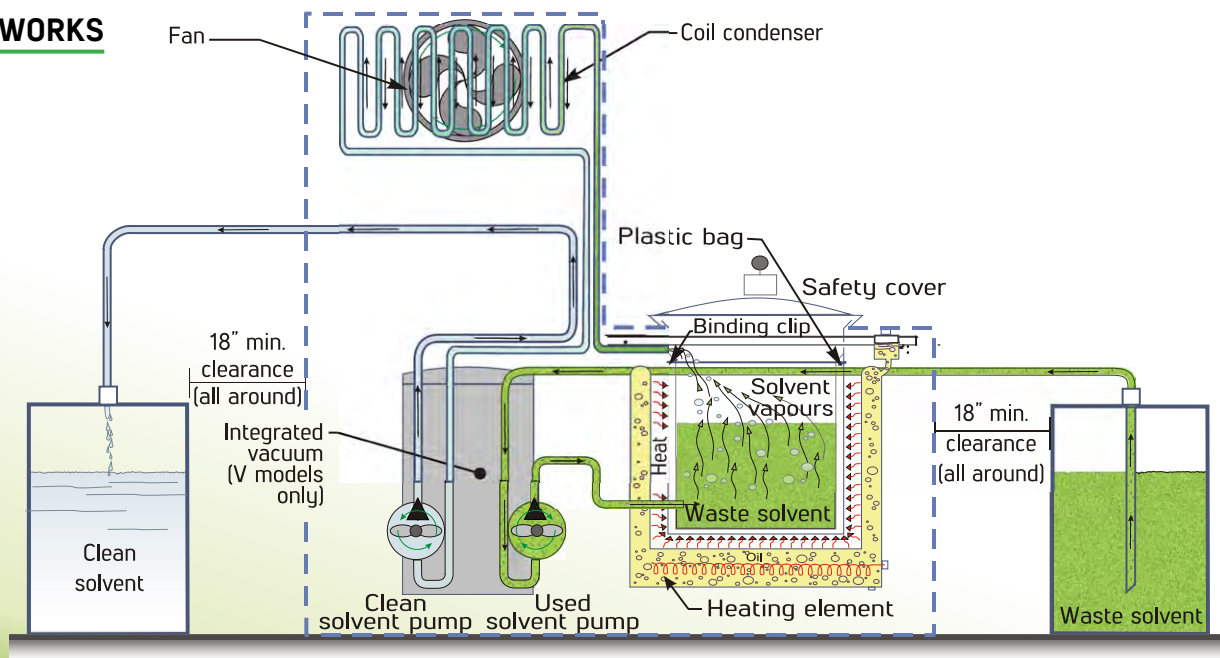




SPECIFICATIONS		MODEL					
Description		SR120	SR120V	SR180	SR180V	SR240	SR240V
Power consumption/ requirements*	400 V – 3 Ph	N/A					
	480 V – 3 Ph	22.8 A / 30 A		20.0 A / 25 A		24.8 A / 30 A	
	600 V – 3 Ph	18.3 A / 25 A		16.9 A / 20 A		19.5 A / 20 A	
Boiler capacity (gal / L)		32 / 120		48 / 180		64 / 240	
Thermal oil (gal / L)		80 / 20				120 / 30	
Heater (W)		10,000		15,000		18,000	
Overall dim's (D x W x H) (inches)		46 x 73 x 85				46 x 82½x 79½	

*Power consumption/requirements may vary from 380 to 400 V (400 V), 460 to 480 V (480 V), and 575 to 600 V (600 V) and are available in 50 or 60 Hz. Nominal and required amperage (A) are given for 400 V, 480 V and 600 V at 60 Hz.

HOW IT WORKS



STANDARD COMPONENTS

DISTILLATION VESSEL



Built with strong 304 stainless steel construction and insulated with 4" polyurethane on side wall and bottom. Our distillation vessel are tightly sealed with a locking lever and replaceable cover seals for safe and optimal working conditions.

Description	SR30/30V	SR60/60V	SR120/120V	SR180/180V	SR240/240V
Working Volume*	8 / 30	16 / 60	32 / 120	48 / 180	64 / 240
Overall Volume*	12 / 48	25 / 100	45 / 180	67 / 268	74 / 280
Distillation Rate **	1.5-2.5 / 6-10	3-6 / 12-18	5-8 / 20-30	10-15 / 40-60	12-15 / 48-60

* Volume: gal / L - ** Rate: gal / L per hour

PLC CONTROL PANEL



Recycling systems are supplied with intuitive programmable logic controller (PLC) mounted on the cabinet for operator convenience. PLC includes a microprocessor and software written and supported by IST. The software monitors the process conditions according to the parameters specified by the operator. Security levels are provided so only authorized personnel can make changes to the system parameters. The software also provides continuous information on the status of the operation and diagnostics for quickly pinpointing process conditions (Programmable Operating Parameters, Self-diagnosis of Process Faults with Alarm Signal Maintenance Schedule, Automatic System Operation).

CONDENSER WITH MOTOR FAN



Condenser equipped with a high-efficiency, explosion-proof motor fan ensures the system is working under acceptable temperature. By default, copper condenser is provided with the machine, but a stainless steel condenser is offered as an option.

Description	SR30/30V	SR60/60V	SR120/120V	SR180/180V	SR240/240V
Power level	1/8 hp	1/2 hp	1 hp		

ELECTRIC RESISTANCE HEATER



All our recyclers are provided with explosion-proof, fast heating elements. Temperature range: 100°F - 390°F / 40°F - 200°C.

Description	SR30/30V	SR60/60V	SR120/120V	SR180/180V	SR240/240V
Heating Element(s)	1 x 2.5kW	1 x 5kW	2 x 5 kW	3 x 5kW	3 x 6kW
Total Heating Power	2.5kW	5kW	10kW	15kW	18kW

THERMAL OIL



ISTpure's exclusive thermal oil formula provides fast heating and increases heat transfer to the boiler.

This oil is suitable for solvent with up-to 180°C / 355°F distillation point.

POLYETHYLENE SLUDGE BAG



Polyethylene sludge bags are designed to stand-up high-temperature distillation process and chemical agents. Sludge bags contain dirty solvent residues once the distillation process is completed. Consequently, they should be replaced and securely disposed after each process.

OPTIONAL COMPONENTS

VACUUM SYSTEM



Vacuum system decreases the boiling point of certain solvents by 20 to 30%, thereby leading to less energy consumption and better distillation process overall. Vacuum is provided by an air vacuum generator using compressed air. The vacuum generator has a no mechanical moving part for long service life. A vacuum gage is also provided for fast visual inspection of the vacuum status. Vacuum is required for heavier-than-air solvent distillation process – such as mineral spirit, naphtha, Varsol Paint Thinner and others. It is also strongly recommended for optimizing the distillation process of most common types of solvents – such as acetone, MEK and lacquer thinner – when compressed air is available.

STAINLESS STEEL UPGRADE KIT



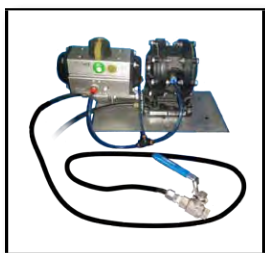
All stainless steel condenser and piping upgrade kit is available to provide additional protection from highly corrosive solvents.

EXTERNAL LIGHT BOX



External light box kit allows the remote monitoring of the recycler from a centralized control room. The system consists of green-yellow-red light signals to indicate the system is running, cooling down, malfunctioning, or ready for a new batch.

AUTO-FILL SYSTEM WITH SOLVENT TRANSFER HOSE



Auto-fill system uses a diaphragm pump and the dirty solvent pump (optional on SR30 and SR60) to transfer the dirty solvent into the boiler. The process is controlled by a high level switch inside the boiler and is backed by fill sequence timers in the software.



Solvent transfer hose kit equipped with a filter to assist in the transfer of clean and used solvent. Requires a diaphragm pump to operate.



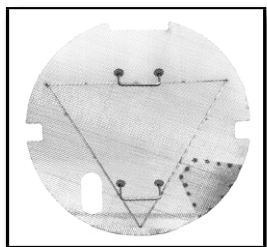
OVERFILL PROTECTION KIT



Overfill sensor provides additional protection for vacuum tanks in case the operator forgets to empty it prior to starting a new batch. This switch will prevent the pump from transferring the dirty solvent into the boiler until the vacuum tank has been emptied. It is backed by fill sequence timers in the software and will let operators know that the vessel did not fill up.

OPTIONAL COMPONENTS (CONT'D)

ANTI-FOAM DISC



Anti-foam disc is required when proceeding with the distillation of some types of solvents to avoid foaming formation to draw through the piping and affecting the performance of the system.

HIGH TEMPERATURE KIT



High temperature kit consists of high temperature synthetic thermal oil, high performance vacuum generator and larger expansion oil tank for heating solvent with distillation point above 180°C / 356°F. Maximum operating temperature is 225°C / 43°F.

OPTIONAL ON LARGE-CAPACITY UNITS SR120-180-240

SLUDGE REMOVAL BASKET



Sludge removable basket makes it easier to remove the sludge bag from the boiler once the distillation process is finished. It can be attached to a railway crane or on optional lifting arm.

LIFTING ARM



The lifting arm is equipped with a hand crank reduces the level of effort required to lift the sludge basket from the boiler. Requires a sludge removal basket to operate.



OIL COOLING SYSTEM



This unit can rapidly lower the oil temperature by circulating it through a multi-plate heat exchanger, and a condensing system. This closed loop oil circulation draws heat away from the sludge until the sludge reaches a preset dump temperature. With this feature, the operator is able to dump the sludge from the distillation vessel under lower, safer temperature conditions and can proceed to a new batch quicker instead of waiting for the oil to cool down by itself. Maximum operating temperature is 225°C / 43°F.

CUSTOMERS TESTIMONIALS



"Ease of set up and parameter programming. Ease of operation. Virtually maintenance free other than annual thermic oil change and lid gasket replacement. There are 4 main solvents in the blend. Recovered solvent blend is very near clear. Removal of still bottoms, tank clean up and reload takes 30 minutes. The savings are significant if the recycler is running every day.

Keven King, Finish Equipment/HazMat supervisor

ROI*: 7 months | Volume recycled: 330 gal/month | Solvent type: paint and stain related blends



"It saves us a lot of money, reduces the waste shipped off-site and the purchase of virgin acetone to clean the fluid lines. We also sell our excess distilled acetone to nearby metal finishing companies."

John Earl, Environmental Manager

ROI*: 5 months | Volume recycled: 765 gal/month | Solvent type: acetone



"Very good solvent recovery unit, easy to operate and not at all complex to manage. I am very satisfied with this system"

Normand Reid, General Manager

ROI*: 15 months | Volume recycled: 493 gal/month | Solvent type: paint and solvent mixtures

*ROI : Return On Investment

MOST OF OUR CUSTOMERS HAVE GAINED A RETURN ON INVESTMENT (ROI) IN AS LITTLE AS 4 TO 12 MONTHS! ESTIMATE YOURS TODAY!



istsurface.com/roi-calculator/

PAY BACK & SAMPLE COST ANALYSES	EXAMPLE	CALCULATE YOUR OWN	
A. – Waste solvent per month	55 gal / 208 L		gal/L
B. – Solvent replacement cost	\$ 5.00	\$	
C. – Solvent disposal cost	\$ 4.00	\$	
D. – Total (B +C) * A =	\$ 495.00	\$	
E. – Total * 0.9 (10% rate loss in evaporation)	\$ 445.50	\$	
F. – Rental of gun cleaner	\$ 250.00	\$	
G. – Total cost per month (E+F)	\$ 745.00	\$	
H. – Annual savings with recycler (G*12 months)	\$ 8 940.00	\$	
I. – Operation cost of unit per year			
a. (Disposables bags – Maintenance – Electricity) (H* 9)	\$ 894.00	\$	
J. – Net Monthly Savings with Recycler	\$ 8 045.00 **	\$	

ABOUT THE COMPANY

WHO WE ARE

IST is a leading industrial manufacturer of standard and custom engineered equipment for the surface treatment industry and the solvent recycling industry.

MISSION

IST is dedicated to being an innovative and trusted supplier in the conception, fabrication and distribution of surface treatment equipment and recycling equipment.

MARKETS SERVED

The products, technologies and industry expertise of IST are used in a wide range of manufacturing and industrial applications, including but not limited to :

- General Manufacturing
- Industrial Equipment
- Metal forming
- Aerospace and Aviation
- Rail and Transit
- Marine
- Automotive
- Petroleum
- Flexography (Labeling) & Lithography
- Wood finishing
- Power & Energy
- Pharmaceutical

