

Solvent Recovery



**Italia Sistemi
Tecnologici** S.p.A.

Ecotecnologia innovativa - *Innovative ecotechnology*



THE COMPANY

Founded in 1987, IST began to design, manufacture and supply **Solvent Reclaimers and Washing Systems**.

Security, Sustainability, Ecology and Economics: widespread concepts nowadays, they were targets since our inception; this long-term vision has allowed IST to get a positive feedback from the market placing the company as a sole partner and supplier of many customers worldwide.

IST's product range is now one of the largest on the market, and is able to satisfy all possible customers' needs.

The experience gained over the years in sectors such as **GRAPHICS, CHEMISTRY, AUTOMOTIVE, AEROSPACE, HOSPITALS, FIBERGLASS, PAINT and INKS**, has made IST the supplier of choice, with more than **27.000 installations worldwide**.

Our certifications, together with the strong synergies amongst our **SALES, TECHNICAL and PRODUCTION** departments allow IST to understand the customer's needs and make them central to our products, providing secure and concrete solutions today that are suitable for tomorrow.

On the strength of positive experiences in foreign markets, in 1990 IST established the company **SET - Sistemas Europeos de Tecnologia S.L.**, based in Vigo (Spain), mostly dedicated to follow up the local and the South American markets.

PRODUCTION

IST's product range is now one of the largest on the market and includes:

- ✓ RECLAIMERS FOR WASTE SOLVENT AND WASTE WATER
- ✓ CONTINUOUS CYCLE DISTILLATION SYSTEMS INTEGRATED IN LINE WITH PRODUCTION PROCESSES
- ✓ SOLVENT AND WATER BASED WASHING UNITS
- ✓ ULTRASONIC WASHING UNITS FOR PARTS AND ANIOX CYLINDERS/SLEEVES
- ✓ AUTOMATIC PLATE WASHERS
- ✓ PNEUMATIC AND ELECTRIC VACUUM GENERATORS



Venticinque anni di
tecnologia per l'ecologia
*Twentyfive years of
technology for ecology*



WHY SOLVENT DISTILLATION?

The solvents used in industry are proving to be more and more a problem for the preservation of the environment, for the rising of purchasing and disposal costs, and last but not least, for the health of users.

The distillation of solvents on site is the solution to your problems.

- ✓ Reduces Costs for the purchase of solvents
- ✓ Reduces Disposal costs
- ✓ Reduces the storage of hazardous waste
- ✓ Helps you to obtain ISO 14001 certification

GENERAL FUNCTIONING

IST systems are able to distil all types of liquid solvent used in various industrial processes, allowing their reuse.

All IST distillers are built with the best materials and components on the market: tank in stainless steel AISI 304, copper or stainless steel condenser, air or water cooled; armored heating elements in carbon steel with tungsten filament, with integrated safety thermostat; electrical panel in cast aluminum (thickness 20 mm) with protective glass (thickness 10 mm) for the Touch Screen display with backlight.

The robust powder-coated steel ensures durability over the years, in any application.

The product to be treated is inserted in the tank and heated up to the boiling point. During this phase, the solvent vapors created separate from the pollutant, which remains inside the tank. The vapors are condensed so to obtain liquid distilled solvent out from the machine.

As the distillation process is purely physical (change of state), the chemical properties of the initial product are not altered.



IST C1 - C2

For small companies with a limited consumption of solvent.
Safe, solid, easy to set up and operate. A small investment to solve the problems of small or occasional needs of clean solvent.
Especially appreciated by body repair shops, furniture and metal industries, painters and laboratories.

Standard Equipment

- Automatic Operation
- Temperature control with thermostat
- Safety thermostat for maximum temperature
- Oil temperature thermometer
- Vapors temperature thermometer
- TIMED cycle
- Capsizable
- Air cooled copper condenser
- Convoyed safety relief valve

Upon Request

- Distillation Bags - avoid manual cleaning of the tank and increase the recovered %
- Stainless steel condenser
- Pneumatic vacuum generator with stainless steel storage tank



Model	Capacity	Productivity
C1	10 l	Up to 4 l/h
C2	15 l	Up to 5 l/h

TYPICAL APPLICATION: 10 - 45 l/24h
INSTALLATION AREA: Non Hazardous

IST 10 - 15 - 22 - 42 - 62 N DIGIT / ATEX II3G

For small and medium companies, with constant and repetitive solvent consumption.
It's an always working machine, daily operated by a single button. Let it work during overnight: it will automatically shut off once the cycle is finished and you will find it ready to start once again in the morning.

Standard Equipment

- Automatic Operation
- Control panel with digital display and dedicated PLC
- Parameters displayed during cycle
- Messages for scheduled maintenance, alerts and in case of malfunction
- AUTOMATIC or TIMED cycle
- Capsizable
- Air cooled copper condenser
- Safety relief valve

Upon Request

- Distillation Bags - avoid manual cleaning of the tank and increase the recovered %
- Stainless steel condenser
- MULTISETPOINT cycle - 2 heating temperatures - ideal for mixtures
- Pneumatic vacuum generator with stainless steel storage tank
- External tanks



Model	Capacity	Productivity
IST 10	10 l	Up to 4 l/h
IST 15	15 l	Up to 5 l/h
IST 22	25 l	Up to 6,5 l/h
IST 42	45 l	Up to 10 l/h
IST 62	60 l	Up to 15 l/h

TYPICAL APPLICATION: 10 - 180 l/24h
INSTALLATION AREA: Non Hazardous
Hazardous - ZONE 2

IST 22 - 42 - 62 ATEX II2G

For small and medium-sized companies, with a constant and repetitive solvent consumption. It has a software similar to the one adopted in bigger-size units, which allows multiple functions. Thanks to its certifications and its resistant construction, it can be installed practically everywhere.

Standard Equipment

- Automatic Operation
- Touch Screen Panel and dedicated PLC
- Record of operating parameters
- Visualization of distillation data during the cycle
- Messages for scheduled maintenance
- Notification in case of failure or abnormalities
- AUTOMATIC, TIMED or AUTO/TIMED cycle
- MULTISETPOINT cycle - Up to 9 heating temperatures - ideal for mixtures
- Capsizable
- Air cooled copper condenser
- Safety relief valve

On Demand

- Distillation Bags - avoid manual cleaning of the tank and increase the recovered %
- Stainless steel condenser - air or water cooled
- SEMI-AUTOMATIC load with transfer pump and suction pipe
- Pneumatic vacuum generator with stainless steel storage tank
- External tanks



Model	Capacity	Productivity
IST 22	25 l	Up to 6,5 l/h
IST 42	45 l	Up to 10 l/h
IST 62	60 l	Up to 15 l/h

TYPICAL APPLICATION: 25 - 240 l/24h

INSTALLATION AREA: Hazardous - ZONE 1

IST 90 N DIGIT / ATEX II3G / ATEX II2G

For medium/large companies that require quite large amounts of distilled solvent. Ideal for printing houses with one printing press, prepress studios and paint/ink manufacturers. It has a compact size, but all the features of larger machines of this kind.

Standard Equipment

- Automatic Operation
- Touch Screen Panel and dedicated PLC
- Record of operating parameters and visualization of distillation data during the cycle
- Messages for scheduled maintenance, alerts notification in case of malfunction
- AUTOMATIC, TIMED or AUTO/TIMED cycle
- MULTIPLE CYCLES, with accumulation and final discharge of the sludge
- MULTISETPOINT cycle - Up to 9 heating temperatures - ideal for mixtures
- Capsizable with mechanical gear
- Air cooled copper condenser
- Safety relief valve
- Bottom discharge - with 3" ball valve

Upon Request

- Distillation Bags - avoid manual cleaning of the tank and increase the recovered %
- Stainless steel condenser - air or water cooled
- Pneumatic vacuum generator with stainless steel storage tank
- Liquid ring vacuum generator
- SEMI-AUTOMATIC load with transfer pump and suction pipe
- AUTOMATIC load with level sensor and 1/2" pump controlled by PLC
- Discharge of residues in standard 200-liters drums
- External tanks



Model	Capacity	Productivity
IST 90	90 l	Up to 25 l/h

TYPICAL APPLICATION: 90 - 360 l/24h

INSTALLATION AREA: Non Hazardous
Hazardous - ZONE 2
Hazardous - ZONE 1

IST 122 - 202 N DIGIT / ATEX II3G / ATEX II2G

For medium/large companies, this represents the bridge between the medium volume user and the large scale needs of a high volume operation.

The distillation parameters are set during the initial programming and memorized. The control panel, ATEX certified, is installed on the machine, avoiding the high cost of preparation of other similar units with standard control panel (to be installed in a non-hazardous area).

Thanks to the specific software Win Digit Touch, it is possible to insert up to 9 different heating temperatures, for variable times, to distil correctly the most different mixtures of solvents. It's also possible to set the machine on MULTIPLE CYCLES, to run consecutive distillations, with accumulation of residue and final discharge. The discharge of fluid sludge is easily operated through the 3" valve.

Standard Equipment

- Automatic Operation Automatic
- Touch Screen Panel and dedicated PLC
- Record of operating parameters and visualization of distillation data during the cycle
- Messages for scheduled maintenance, alerts notification in case of malfunction
- AUTOMATIC, TIMED or AUTO/TIMED cycle
- MULTISETPOINT cycle - Up to 9 heating temperatures - ideal for mixtures
- MULTIPLE CYCLES, with accumulation and final discharge of the sludge
- Capsizable with mechanical gear
- Air cooled copper condenser
- Safety relief valve

Upon Request

- Distillation Bags - avoid manual cleaning of the tank and increase the recovered %
- Stainless steel condenser - air or water cooled
- Pneumatic vacuum generator with stainless steel storage tank
- Liquid ring vacuum generator
- SEMI-AUTOMATIC load with transfer pump and suction pipe
- AUTOMATIC load with level sensor and 1/2" pump controlled by PLC
- Discharge of residues in standard 200-liters drums
- Lateral 3" discharging valve
- External tanks
- Antistatic cleaning tools



Model	Capacity	Productivity
IST 122	140 l	Up to 35 l/h
IST 202	200 l	Up to 55 l/h

TYPICAL APPLICATION: 140 - 800 l/24h

INSTALLATION AREA: Non Hazardous
Hazardous - ZONE 2
Hazardous - ZONE 1



ECO PLUS 122 - 202 - 400 ATEX II2G

For medium/large companies with high needs of solvent.
The compact design and the sturdy construction allow installation in small spaces or outdoors. The control panel, ATEX certified, is installed on the machine, avoiding the high cost of preparation of other similar units with standard control panel (to be installed in a non-hazardous area).
The high level of automation reduces the operator's intervention to the sole replacement of the collection tank when full.
Thanks to the CONTINUOUS CYCLE operation and the integration of external storage tanks, the distillation process is never interrupted, only on stand-by in case there is not sufficient solvent to treat or not enough space to collect the distilled product.

Standard Equipment

- Automatic Operation
- Touch Screen Panel and dedicated PLC
- Record of operating parameters and visualization of distillation data during the cycle
- Messages for scheduled maintenance, alerts notification in case of malfunction
- AUTOMATIC, TIMED or AUTO/TIMED cycle
- MULTISETPOINT cycle - Up to 9 heating temperatures for the cycle - ideal for mixtures
- MULTIPLE CYCLES, with accumulation and final discharge of the sludge
- Capsizable with mechanical gear
- Air cooled copper condenser
- Safety relief valve
- Bottom 3" discharging valve
- Discharge of residues in standard 200-liters drums
- SOAK function after unloading the sludge - to avoid the formation of solid deposits that are difficult to remove manually

Upon Request

- Stainless steel condenser - air or water cooled
- Liquid ring vacuum generator built into machine body
- SEMI-AUTOMATIC load with transfer pump and suction pipe
- AUTOMATIC load with level sensor pump controlled by PLC
- CONTINUOUS CYCLE operation
- Pneumatic discharging valve
- Discharge of residues in standard 1,000-liters IBC container
- External tanks
- Antistatic cleaning tools
- Locking covers (manually or pneumatically operated) for standard containers, used to collect sludge for disposal



Model	Capacity	Productivity
ECO PLUS 122	140 l	Up to 40 l/h
ECO PLUS 202	200 l	Up to 60 l/h
ECO PLUS 400	400 l	Up to 115 l/h

TYPICAL APPLICATION: 140 - 2000 l/24h
INSTALLATION AREA: Hazardous - ZONE 1



ROTO PLUS 100 - 200 - 400 ATEX II2G

For medium/large companies with high needs of solvent. It is the fastest and the most efficient reclaimer of its kind.

In addition to the classic features of ECO PLUS, in this series it is added an efficient scraper inside the distillation chamber. This will keep the product to be distilled constantly mixed, leaving also the walls and bottom of the vessel perfectly clean.

The compact design and the sturdy construction allow installation in small spaces or outdoors. The control panel, ATEX certified, is installed on the machine, avoiding the high cost of preparation of other similar units with standard control panel (to be installed in a non-hazardous area). The high level of automation reduces the operator's intervention to the sole replacement of the collection tank when full.

Thanks to the CONTINUOUS CYCLE operation and the integration of external storage tanks, the distillation process is never interrupted, only on stand-by in case there is not sufficient solvent to treat or not enough space to collect the distilled product.

Standard Equipment

- Automatic Operation
- Scraper with antistatic blades
- Touch Screen Panel and dedicated PLC
- Record of operating parameters and visualization of distillation data during the cycle
- Messages for scheduled maintenance, alerts notification in case of malfunction
- AUTOMATIC, TIMED or AUTO/TIMED cycle
- MULTISETPOINT cycle - Up to 9 heating temperatures - ideal for mixtures
- MULTIPLE CYCLES, with accumulation and final discharge of the sludge
- Air cooled copper condenser
- Safety relief valve
- Bottom 3" discharging valve
- Discharge of residues in standard 200-liters drums
- SOAK function after unloading the sludge - to avoid the formation of solid deposits that are difficult to remove manually

Upon Request

- Stainless steel condenser - air or water cooled
- Liquid ring vacuum generator built into machine body
- AUTOMATIC load with level sensor pump controlled by PLC
- CONTINUOUS CYCLE operation
- Pneumatic discharging valve
- Discharge of residues in standard 1,000-liters IBC container
- External tanks
- Locking covers (manually or pneumatically operated) for standard containers, used to collect sludge for disposal



Model	Capacity	Productivity
ROTO PLUS 100	100 l	Up to 30 l/h
ROTO PLUS 202	200 l	Up to 60 l/h
ROTO PLUS 400	400 l	Up to 115 l/h

TYPICAL APPLICATION: 100 - 2000 l/24h
INSTALLATION AREA: Hazardous - ZONE 1



HR 600 ATEX II2G

For large companies, for which solvent must always be available and of good quality.

It is the full-featured machine that allows to work both in separate cycles, and in continuous feeding mode "REFILL" (with constant input of solvent to be treated inside the tank).

Thanks to a low pressure, high speed oil pump and to the partitioned heating elements, it is possible to achieve very high levels of productivity, keeping consumption down.

Standard Equipment

- Automatic Operation
- Scraper with antistatic blades
- Touch Screen Panel and dedicated PLC
- Record of operating parameters and visualization of distillation data during the cycle
- Messages for scheduled maintenance, alerts notification in case of malfunction
- AUTOMATIC, TIMED or AUTO/TIMED cycle
- MULTISET POINT cycle - Up to 9 heating temperatures - ideal for mixtures
- MULTIPLE CYCLES, with accumulation and final discharge of sludge
- Stainless steel condenser - water cooled
- Safety relief valve
- Bottom discharging valve of 3"
- Discharge of residues in standard 200-liters drums
- Discharge of residues in standard 1,000-liters IBC container
- SOAK function after unloading sludge - to avoid the formation of solid deposits that are difficult to remove manually
- Liquid ring vacuum generator built into machine body
- AUTOMATIC load with level sensor pump controlled by the PLC
- CONTINUOUS CYCLE operation

Upon Request

- External tanks
- Locking covers (manually or pneumatically operated) for standard containers, used to collect sludge for disposal



Model	Capacity	Productivity
HR 600	580 l	Up to 250 l/h

TYPICAL APPLICATION: 500 - 6000 l/24h
INSTALLATION AREA: Hazardous - ZONE 1





INSTALLATION AND SERVICE

Demands for top-quality, short delivery times and small order sizes require a high level of production scheduling, along with the best trained personnel. To do this, IST offers its customers not only innovative and powerful machinery and equipment, but also service that goes well beyond simple repair work. Service, spare parts, diagnostics, express parts delivery, and training for machine operators and maintenance personnel have long been the key words for IST Service.

In today's market, reacting quickly is no longer enough. In order to ensure long-term productivity, the IST range of services also includes retrofit/upgrade packages, inspection/audit contracts for preventive maintenance, recommended spare parts lists, and even consulting services ranging from quality improvement to the optimization of the production environment.

To make sure help gets to our customers quickly, our company has affiliates all around the globe, making us a powerful and reliable partner.

Field Service

A high level of machine availability is of vital importance to the commercial efficiency of any production. This means that mistakes, errors and machine defects must be identified and cleared as quickly as possible. It is not always necessary to wait for a technician to arrive and fix the problem on site. In many cases customers can rely on our specialized Technical Team to assist in troubleshooting either by phone or by email, at no cost for the customer.

Preventive Maintenance

IST Service offers inspection contracts for preventive maintenance, which is the basis for a high level of availability of your machines.

Upgrade and Retrofit

If your machine or equipment is getting on in years and you would like to avoid downtime or simply wish to increase productivity, call us to discuss your situation.

Well trained staff - a requirement for increased productivity

Economy and profitability in all kind of production are influenced by a number of different factors. One important aspect, though frequently neglected, is the constant qualification of operators and maintenance staff, since they are the key to enhanced performance of the equipment as well as superior quality of production.

This is the reason why IST always suggest to customers to do an insight training with our skilled technicians. Experience has shown that well-trained staff is, by the same token, motivated staff, and the advantages of training do obviously speak for themselves:

- Better knowledge of the equipment and associated technology
- Reaching full production performance faster
- Increased skill of the operating staff
- Higher effective up time of the equipment
- Better quality of product
- Less scrap production

General info and spare parts: info@ist.it
After-sale and technical support: service@ist.it

CERTIFICATION

Safety comes first

Security is of great importance for the choice of a suitable distillation plant. IST has a long term history regarding the treatment of flammable liquids. Traditional "Made in Italy" is combined with the implementation of up-to-date techniques and legal requirements of the European Union, and not only...

Since 1997, the company works in compliance with the Quality Management System certified according to UNI EN ISO 9001:2008.

Since 2010 the company has obtained the EC-type marking (Nr. CEC 10 ATEX 178) issued by CEC Notified Body nr.1131 (European Consortium of Certification), for equipment and components intended for use in potentially explosive atmospheres, according to Directive 94/9/EC.

Gost-R EX Russia Certification

During 2012 the company has obtained the GOST R EX conformity mark (certificate POCC IT. ГБ 05.B04208 dated 21.12.2012) attesting the conformity for the products to Russian Federation explosion proof requirements.

Certification

Since 2012 IST has obtained the North American UL 2208 from Intertek ETL (Electrical Testing Laboratories) Listed mark, which is proof of product compliance (electrical, gas and other safety standards) with North American and Canadian safety standards.

IST certifications



IST reserves the right to alter specifications and other product information without notice. It is your responsibility to obtain the latest information. This publication is for general guidance only. Photographs, illustrations and technical data may show design models and can differ from offer. Technical data, in particular the distillation rate, are for general guidance. The distillation rate depends always on kind and composition of the solvents, kind of contamination and its share, heating temperature, vacuum pressure, coolant temperature and pressure, ambient condition. Special attention is required for the distillation of nitrocellulose contained in printing inks and solvents. In practical situations, technical data regarding distillation rate may vary upward or down.
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IST certifications

