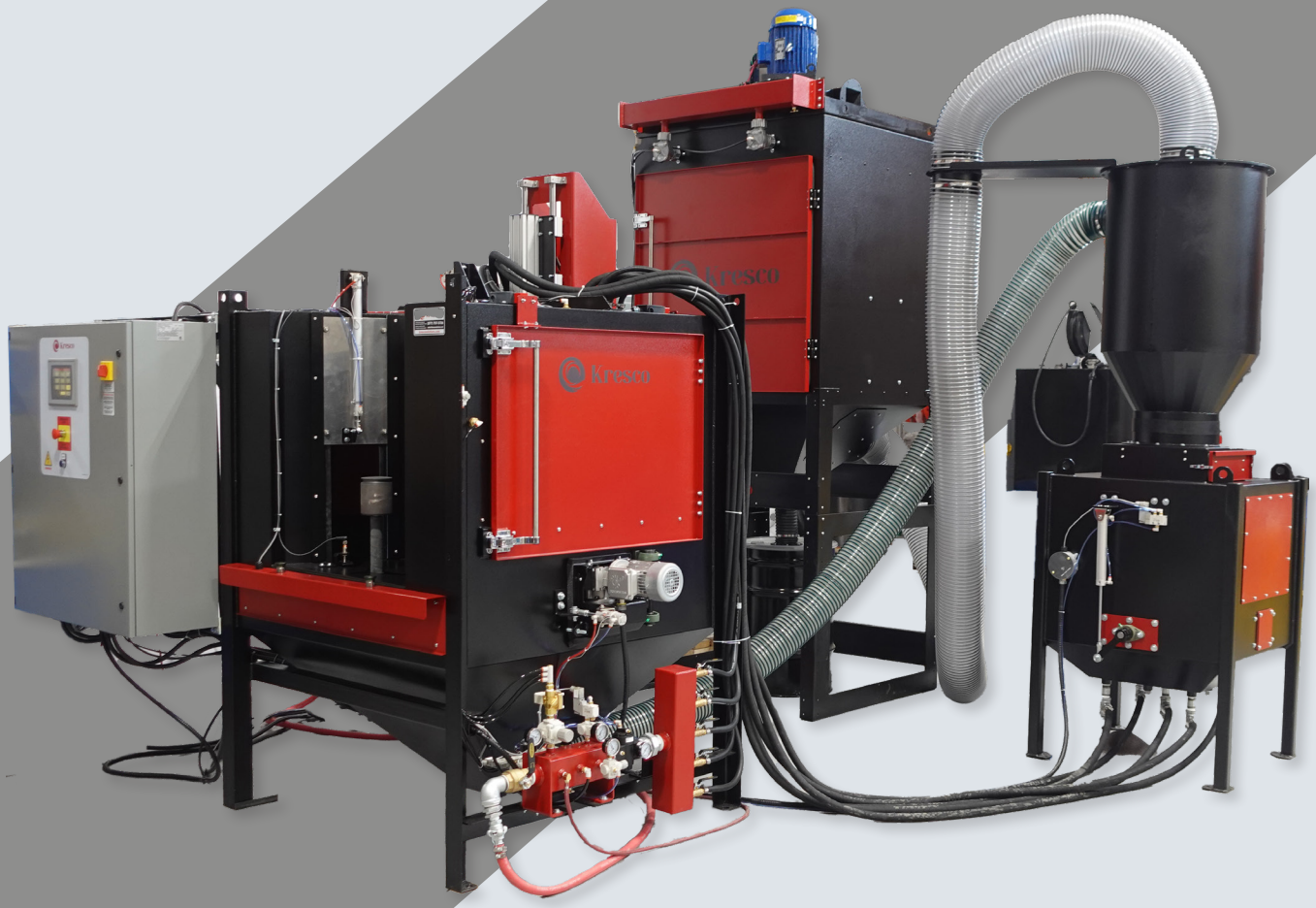
Kresco



INDEXING
TURNTABLE

Kresco's Indexing turntables are ideal for processing complex parts with hard-to-reach blind spots in continuous or cycle-on-demand applications.

Parts are loaded from a single loading/unloading station, then travel through a blasting station and an air blowing cleaning station. When leaving the system, the parts are ready to ship or coat.

C PS US Certified

OSHA®

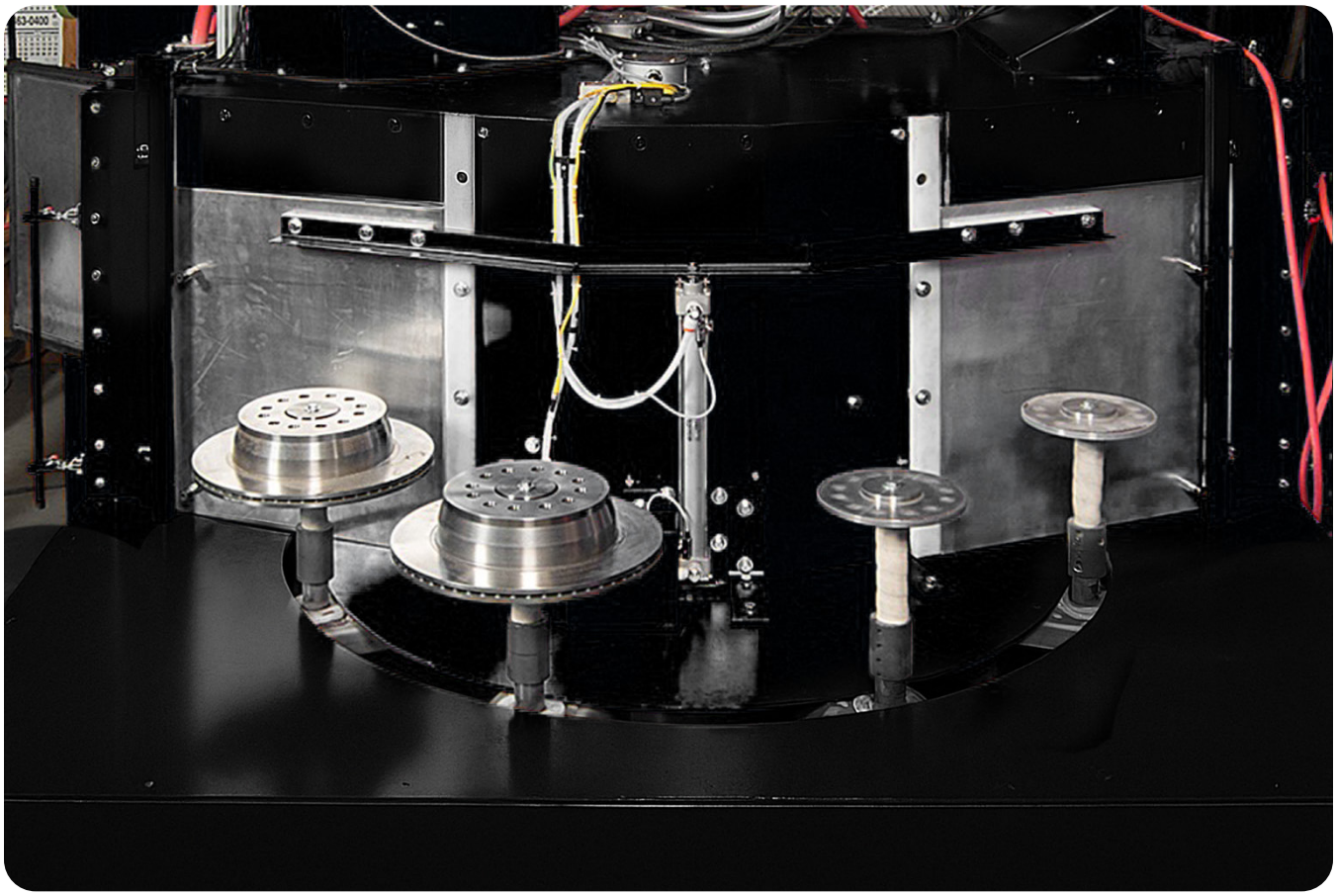
NFPA® NATIONAL FIRE PROTECTION ASSN.

ANSI

COMMON APPLICATIONS

Indexing Turntables are the ideal sandblasting system for the continuous production flow of identical small-to-medium-sized parts of complex shapes with cavities.

This system significantly increases the throughput of repetitive blast patterns, and also integrates perfectly with automated fabrication facilities utilizing robotic arms to move parts along the production line.

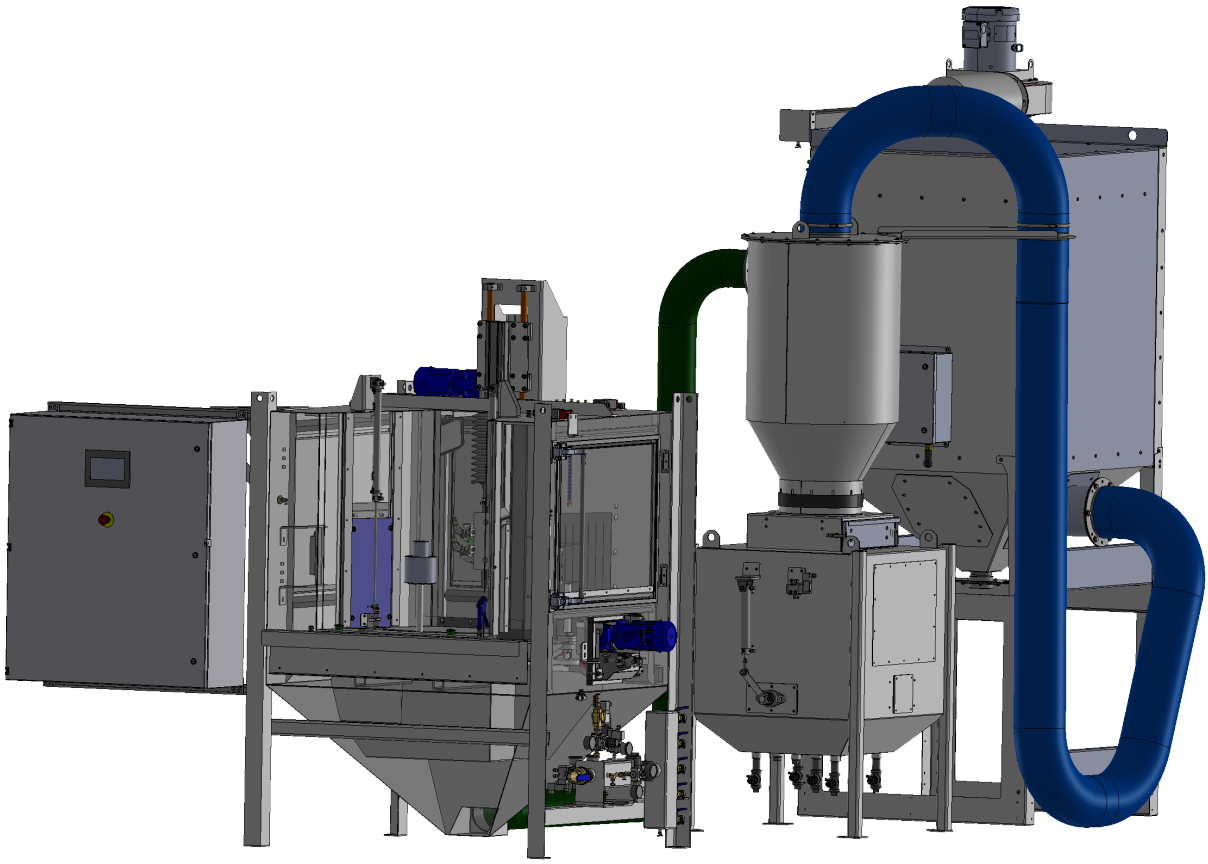


CUSTOM DESIGN AND FABRICATION

Each system is tailored to the customer's application in order to accommodate parts of any sizes and complexity, and desired output.

Common design includes:

1. Up to 3 blast satellites per station, or more according to the part size and complexity.
2. Each satellite spins on itself, allowing to blast all surfaces of each part.
3. Nozzles can be fixed, or moving on a vertical and/or horizontal axis depending on the parts dimension, complexity and areas that need coverage.
4. Most of the time both interior and exterior surface of the parts can be blasted if required by the application.
5. The overall process output is determined by the number of satellites per station, combined with the number of nozzles per satellite, and the area to cover.
6. Adding nozzles usually means a faster process or higher throughput, but also increases the compressed air demand.

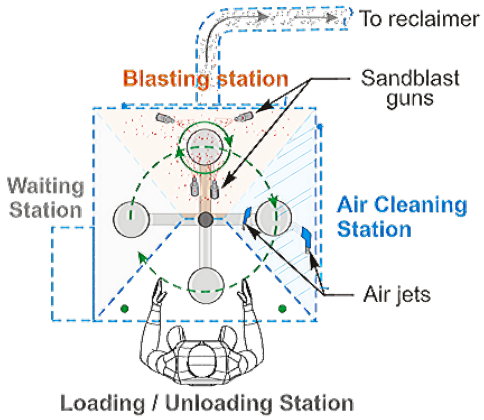


HOW IT WORKS

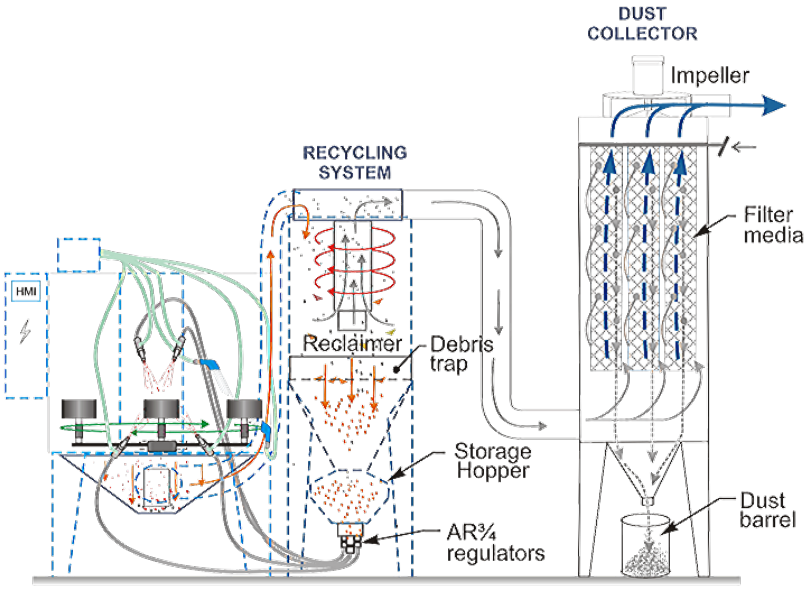
The system consists of four stations:

1. The loading/unloading station allows the operator or robotic arm to remove treated parts and install untreated parts on a satellite support.
2. The waiting station acts as a dust barrier between the operator and the sandblasting station.
3. The sandblasting station is where the parts are exposed to an abrasive blast stream.
4. The air cleaning station is equipped with dust-off nozzles which remove any remaining dust from parts before unloading.

Parts can be loaded/unloaded manually by the operator, or automated with the addition of a material handling robot.



TOP VIEW



ELEVATION VIEW

PROCESS REQUIREMENTS

PRODUCTION OUTPUT

Many factors may impact the production output:

1. Application (Blast Cleaning, Surface Preparation, Descaling, etc.)
2. Abrasive Media (Hardness, Density, Recyclability, etc.)
3. Complexity of Parts (Shape, Dimensions, Cavities, Blind Spots, etc.)
4. Parts Material (Steel, Aluminum, Plastic, Forged, etc.)
5. Surface Coverage (Exterior Only, Exterior and Interior, etc.)

The desired production output can be achieved by varying the following parameters:

1. Satellites/Nozzles Configuration (See Some Examples on Next Page)
2. Number of Satellites per Station
3. Satellite Capacity (Number of Parts per Satellite)
4. Number of Sandblast Nozzles
5. Working Pressure at the Nozzle
6. Movement of Sandblast Nozzles (Fixed, Oscillating on a Vertical Axis, etc.)
7. Process Time (Exposure to the Blast Stream)
8. Speed of Satellite Rotation
9. Loading/Unloading Method (Manually or with the Use of a Robotic Arm)

AIR REQUIREMENT

The consumption of each sandblast nozzle is determined by its interior diameter (ID) and the desired working pressure. **Refer to the Suction System Air Consumption Table for more details.**

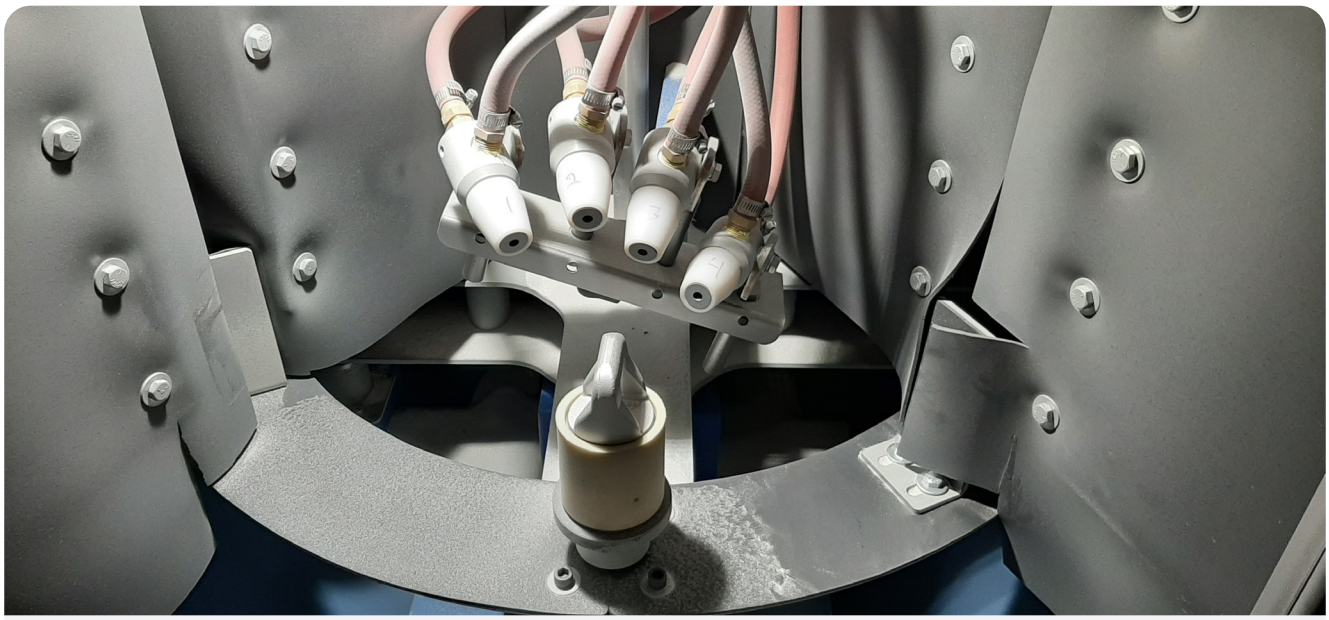
As a rule of thumbs, an average of 40 CFM is required for each nozzle and 10 CFM for each blow-off station. For example, if the system as two satellites per station (so two blow-off stations), and four 5/16" ID nozzles per station operating at 80 PSI, the whole system would consume approximately 340 CFM.

CUSTOM DESIGN AND FABRICATION

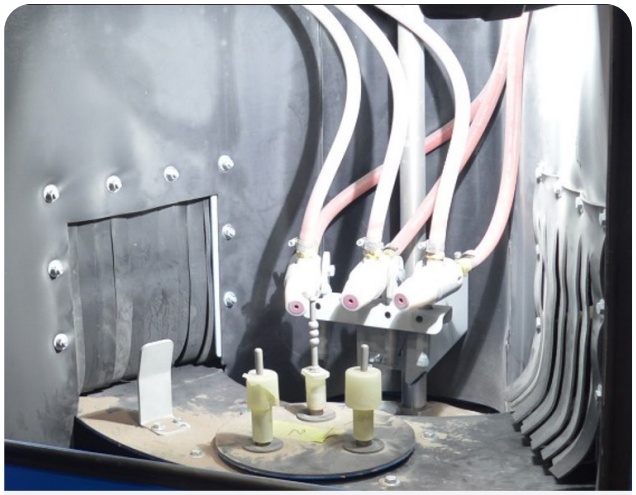
All Indexing Table Cabinets are tailored to the customer's desired production output (number of parts/day or parts/hour) and compressor capacity.

Normally, sample parts are required at **Kresco's** facility so they can be tested with different parameters in order to recommend the optimal system configurations to meet your specific process requirements and yield.

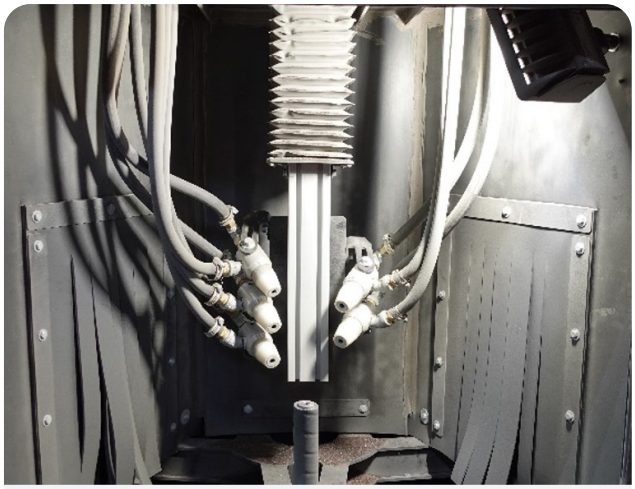
SOME EXAMPLES OF SATELLITES/NOZZLES CONFIGURATIONS



Four Fixed Nozzles, Single Rotating Satellite



Three Fixed Nozzles,
Tripple Rotating Satellites on a
Rotating Tray



Five Nozzles Oscillating on a
Vertical Axis, Single Rotating
Satellite

KEY FEATURES

PLC WITH USER HMI INTERFACE

Critical component operations are fully automated through a Programmable Logic Controller (PLC) with a Human-Machine Interface (HMI) touch screen. The PLC displays ongoing and resolved alarms for smooth functioning of the machine.

- **Main Screen:** Simple user interface for everyday operations and parameters
- **Alarm Screen:** Displays ongoing and resolved alarms history
- **Manual Screen:** Password-protected screen for maintenance personal
- **Maintenance Reminders:** Integrated maintenance program with reminders

EFFICIENT MEDIA RECOVERY SYSTEM

To optimize your process and reduce your overall cost

Our automated systems are delivered with a **tunable cyclonic media separator** that uses the centrifugal force to separate dust and fine particles (paint chip, rust, scattered media, etc.) from abrasive media still in perfect working condition to be reuse again.

Our unique design can process angular and spherical **abrasive media of various materials, granulometries, and bulk densities.** Its stand-alone support can accommodate different floor layouts and arrangements.

Cyclonic Separator

1. Dust, dirt and debris drawn out by the dust collector
2. Contaminated media mix from the sandblast cabinet
3. Adjustable air inlet to accommodate various types of media
4. Large debris dust drawer
5. Storage hopper available in different capacities
6. Abrasive media in good condition returned to the sandblast cabinet

Media Recovery System Specifications

	RB16	RB24	RB30
Body Diameter	16″	24″	30″
Air Flow (CFM)	900 CFM	1,200 CFM	1,800 CFM
Inlet ID	5″ / 6″	6″ / 7″	7″ / 8″
Outlet ID	7″	8″	8″
Storage Hopper	Custom to each order based on the application and the production target		

POWERFUL CARTRIDGE DUST COLLECTOR

For a dust-free operation and environment

All our automated systems are delivered with a **powerful, self-cleaning cartridge-type dust collector** available in different filtration capacities according to your process requirements and cabinet dimension.

Dust Collectors Line Overview

	CDC 900	CDC1200	CDC1800
Motor (HP)	2 HP	3 HP	5 HP
Fan (CFM)	900 CFM	1,200 CFM	1,800 CFM
Filter Cartridges	2	4	4
Filter Capacity	636 sq.ft.	1,272 sq.ft.	1,272 sq.ft.
Overall Dimensions (L x W x H)	48" x 23" x 120"	48" x 45" x 124"	48" x 45" x 124"
Shipping Height*	90"	94"	94"
Fan Muffler (db)	Under 80		

** Adjustable legs to be assembled on site*

About Kresco

Kresco designs, manufactures, and supports industrial equipment for the surface treatment industries. **Kresco** has standard equipment designed for most applications and can customize equipment to meet or exceed your production expectations.

Sandblasting

- Sandblast Booths
- Sandblast Cabinets
- Automated Sandblasting Systems
- Abrasive Reclaiming Systems
- Pressurized Sandblasters
- Dust Collectors

Shotblasting

- Roller Conveyor Blaster
- Rotary Table Blaster/Swing Table Blaster
- Spinner Hanger (Batch)
- Continuous Flow with Monorail
- Rubber and Steel Flight Tumbler Blasters
- Flow Thru Barrel Blasters
- Mesh Belt Continuous Blasters
- Monorail System Blasters
- Rim Blasters
- Preservation Line

Painting

- Paint Spray Booths
- Powder Coating Booths
- Drying Ovens
- Air Make-Up Units

Solvent Recovery

- Batch Solvent Distillers
- Continuous Flow Solvent Distillers
- Oil Cooling Systems

Parts & Consumables

- Blast Nozzles
- Blast Hoses
- Abrasive Media
- Air Valves
- Abrasive Metering Valves
- Cartridge Filters
- Sludge Bags
- Safety Equipment & PPE

Services

- Turnkey Project Design
- Custom Design
- Full Installation
- Start-up Supervision
- Training
- Maintenance
- Retrofit & Upgrade

All systems are designed to build and they are manufactured with the highest quality standards in our manufacturing shop in Quebec, Canada.

Kresco

1404, avenue de la Gare, Mascouche, QC J7K 2Z2
(877) 757-3726 | info@krescosolutions.com | krescosolutions.com