



Rhodes Systems International, Inc.
Custom Designed Finishing &
Material Handling Systems



Dear Valued Customer

We would like to personally thank you for your interest in RSI Custom Finishing Solutions and Material Handling Systems!

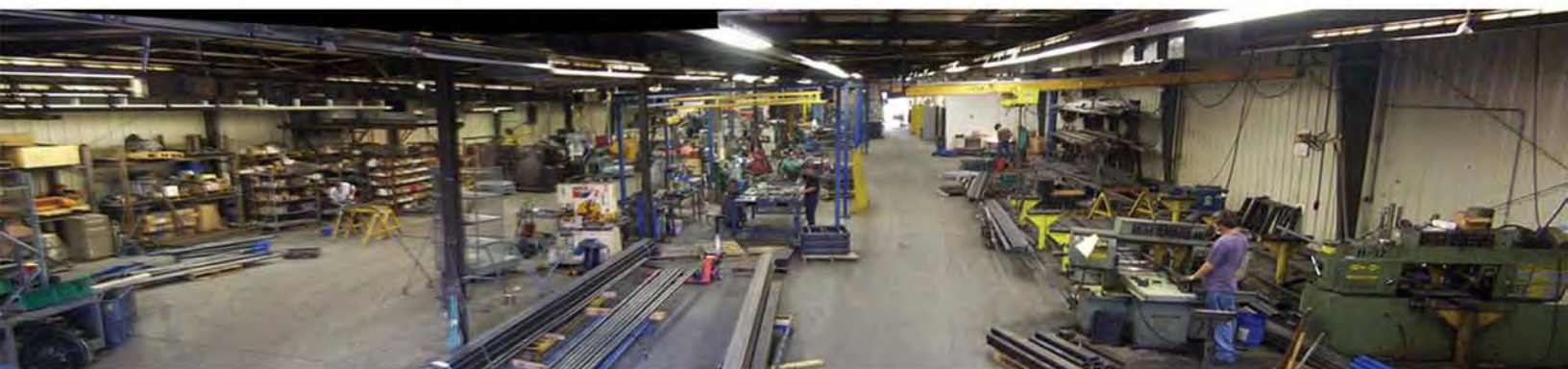
Rhodes Systems International, Inc. (RSI, INC.) Louisville, Kentucky is a world leading supplier of surface finishing systems. From a custom designed conveyor, to a complex finishing system RSI, INC. can handle the project from start to finish! RSI has developed multitudes of ground breaking improvements in the field of finishing system and conveyor technology! RSI will develop, engineer, and design the entire factory around the finishing system and/or production conveyor system. "Single source solution" is one in the same to the RSI name! RSI finishing systems and our patented conveyor systems are the answer to a vast array of industries!

With years of in-house experience in the wood, metal and plastic/composite Industries, RSI brings experience to finding a solution for your needs. RSI has prided ourselves as "problem solvers". From a single component to the most complex finishing or material handling system,

RSI can help you!

We thank you for your consideration of RSI for all your application needs. The "Customer IS and WILL always be #1"! This will never change!

Again, thank you for considering RSI Inc.





Our process is very straight forward. We believe that if you ask the correct questions the first time, then it will save time and prohaps capital, in the long run.

Our process:

When a prospective customer calls, we have a series of questions that we ask to determine which of our products is best suited for the application. If the customer has called for a finishing system or conveyor system, then some of the questions would be:

- 1: What is your current production rate and what rate are you trying to achieve?
- 2: What are the exact processes, with times, in your schedule?
- 3: Do you have an autocad layout of your factory or the area that the system is going in?
- 4: How large an area can be used for this system?
- 5: Where would you like your load/unload station to be , on the system?
- 6: What is the size of your largest product? {This might be based on several items so that a MAX size can be obtained}
- 7: Any areas in your schedule that requires special consideration?
- 8: What voltage would be required?

If you have all the needed information at the start of the project, there should not be any snags later in the process. If a customer has trouble getting some of this information, that is not a problem. RSI will help with that process also.

We are capible of handling all process of the job. From design to full turn-key installations, Some of the positions RSI has handled:

- 1: Design
- 2: Fabrication
- 3: Supervision
- 4: Full mechanical installation
- 5: Turn-Key Installations
- 6: Project Managment
- 7: Consulting
- 8: Quality Assurance





Conveyors



RSI Towline Conveyor Systems

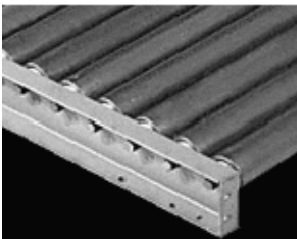


RSI Towline Conveyor Systems (On-Floor and /or In-Floor) is the most flexible in the industry for multiple product combinations. The Towline Conveyor is known in many industries as the most economical, logical solution for multi-task finishing and material handling operations. Known as the reliable "work horse" of the industry, the towline conveyor is a good choice to solve your production finishing or product transport difficulties. From design to installation and services, the RSI team has been directly involved in over 500 finishing and or material handling systems worldwide. Let us study your process applications and production requirements!

RSI Overhead Conveyor Systems



RSI offers an Overhead "Hangline" Conveyor System "For All Weight Requirements" - RSI Tube Track - Simple, lightweight conveyor with smooth operation and easy installation. - RSI Enclosed Track - Meets medium duty weight requirements - RSI Monorail - Meets heavy duty weight requirements - RSI Power & Free - Accommodates product switching and transferring to bypass undesired steps along with accumulation and carrier delay features.



RSI Roller {Live or Non} and Belt Conveyors

RSI Roller {Live or Non} and Belt Conveyors "To Meet the Challenge" RSI can supply a multi-range of flat driven conveyors, including powered belt and tapered roller curves, along with inclines and declines and vertical floor to floor lifts. Widths can vary from 8" to 60" maximum. Line speeds and conveyor heights are determined in the design stage of your system. Accurate product data is also required. With the required data, RSI can determine the best conveyor series to meet your application needs.



RSI Skate Wheel Conveyors

RSI Skate Wheel Conveyors are the most economical way to get your product from point "A" to point "B". This conveyor is non-powered and relies on gravity to help propel your product to the desired location.





The RSI Tow Line Finishing System is ideal for the production of items that require progressive or sequential operations. The system can be specified as an in-floor or on-floor system that moves product through progressive workstations for different production applications.

RSI is a world leading supplier of surface finishing systems, serving the wood, metal and plastic industries. RSI has successfully integrated the latest, state of the art finishing technology with the ultimate in product transport systems, giving the customer a single source solution to their production problems, from start to finish!



The patented RSI In-Floor and On-Floor Tow Line Conveyor Systems are used throughout manufacturing, assembly, finishing and warehouse applications. There are currently a multitude of Rhodes Tow Line Conveyor Systems operating worldwide. Systems range from thirty feet in length to over seventy-two hundred feet in length.



Total System Access - Total system access is one of the many features of The RSI In-Floor Tow Line Conveyor System. The system is virtually free of structural interferences. Throughout the entire conveyor, employees have the freedom of mobility with access around and between carts. Because of the simple modular design of The Rhodes Conveyor, systems can be easily and quickly expanded, preventing costly plant shutdowns with minimum or no loss of production.

Power and Free - The RSI Tow Line Conveyor is a power and free system. Unlike other conventional systems utilizing fixed cart spacing, carts on The Rhodes Tow Line Conveyor can be placed into workstations upon request, processed on a variable time frame, then randomly distributed back into the system for additional operations.



Durability - Robust components used on The Rhodes Tow Line Conveyor Systems have been time tested to ensure that they adhere to the highest standards of quality, longevity and merchantability.

Variable Centers - The RSI Tow Line Conveyors have the capability to easily accommodate infinite variable centers. The system has been engineered to run multiple drives on one precision calibrated tow line chain. Accordingly, every horizontal chain link is a potential cart center. Spacing of carts is unlimited.



Cart Delay and Close Packing - The RSI Tow Line Conveyor allows the tow pin, on any cart in the system, to disengage the chain. This delays the cart at preset workstations. The next approaching cart causes this delayed cart to re-engage the chain and continue on, allowing the next cart to enter the workstation. Carts will stop and remain in zero-pressure accumulation whenever encountering a track-mounted stop device. When the stop is released, the cart will automatically engage the chain and continue through the system. Cost savings abound with cart accumulation as equipment sizes are reduced and valuable plant space is saved.





The patented RSI On-Floor Tow Conveyor is economical. It is a mounted conveyor system that is located on the existing floor, used in finishing rooms, assembly and warehouse areas of manufacturing plants.

This system allows for ease of installation and expansion on existing wood, metal or concrete floors.

ADVANTAGES

With The RSI On-Floor System, carts and products are placed onto the system, processed, then conveyed to another location. Carts may also be delivered into workstations upon request and processed on a variable time frame. Carts can be accumulated at various locations for staging and prolonged drying or processing times. This system has the capability to stop individual carts in workstations while the rest of the system continues to operate. The RSI On-Floor System is perfectly suited for applications where future expansions or reconfiguration is a concern. All Rhodes Tow Conveyor Systems offer the following features:



- Cart accumulation or "close pack"
- Cart delay in workstations
- Cart-on-Call" or variable cart delay in workstations

APPLICATIONS:

- Pallet Handling
- Finishing Systems
- Drum Handling
- Progressive Assembly
- Warehousing
- Product Transport





The patented RSI In-Floor Tow Conveyor is an economical in-floor mounted conveyor system used in finishing rooms, assembly, and warehouse areas of manufacturing plants.

ADVANTAGES

With the RSI In-Floor Tow Conveyor, carts can be conveyed to a workstation upon request, then released to the main line and sent to the next station. This system enables carts to stop in work locations while the rest of the system continues to operate. At staging and queue areas, carts can be indexed and accumulated as required.

The RSI In-Floor Tow Conveyor features inline conveying for roll handling and progressive assembly, palletizing and packaging. An optional automatic load and unload feature is also available.

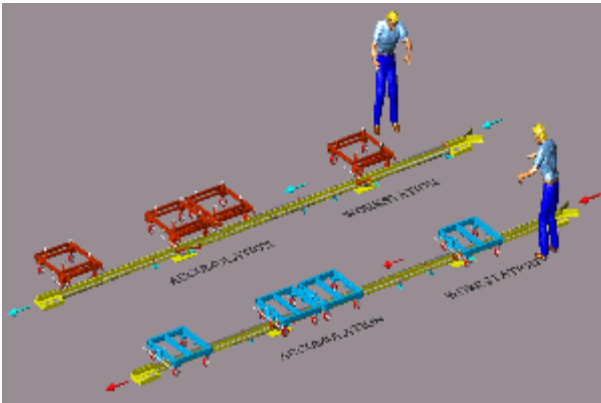
- Cart transfer units are designed to route products to designated areas of the plant

- Cart removal from the system is accomplished easily for a specific task with the Rhodes In-Floor Tow Conveyor

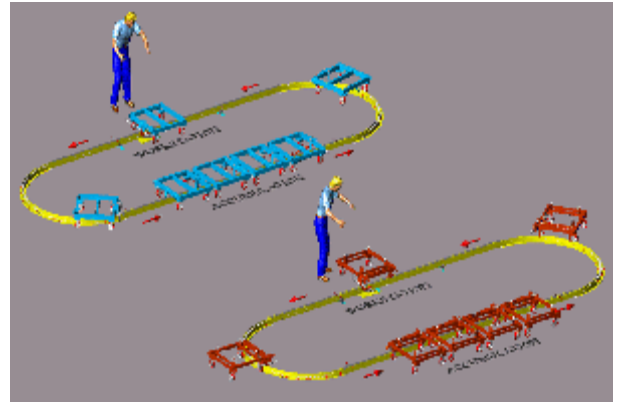




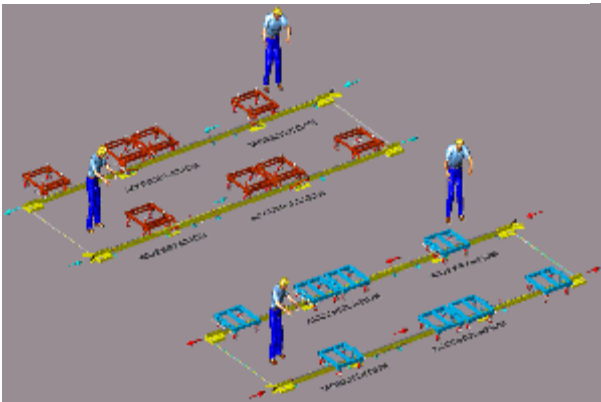
Standard System Layout Designs



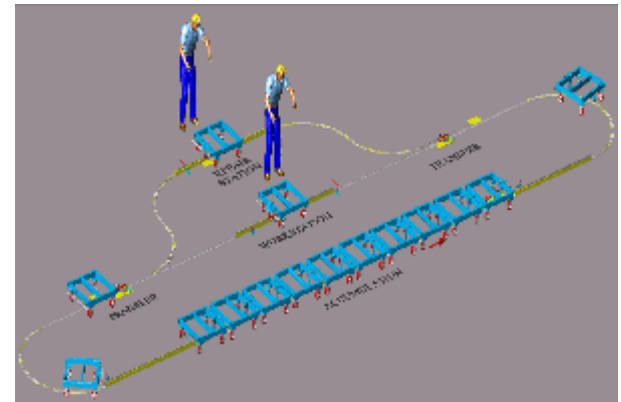
In-Line
Standard Center Pin or Side Pin Engagement



Loop
Standard Center Pin or Side Pin Engagement

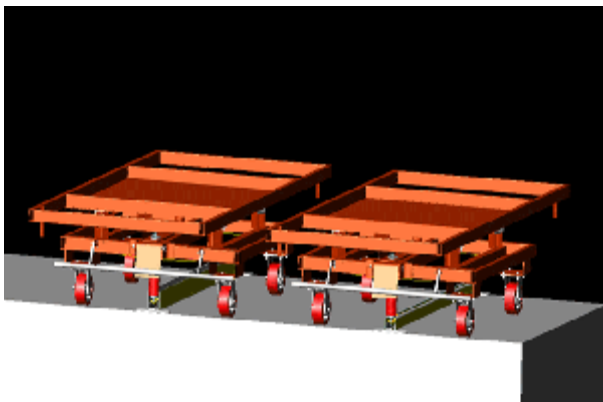


Dual In-Lines w/ one Drive
Standard Center Pin or Side Pin Engagement

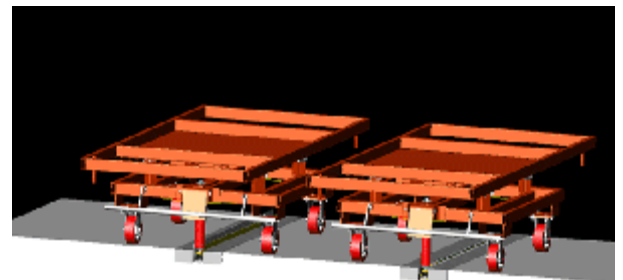


Loop w/ Spur for extra process
Standard Center Pin only

Systems available in On-Floor or In-Floor Configurations

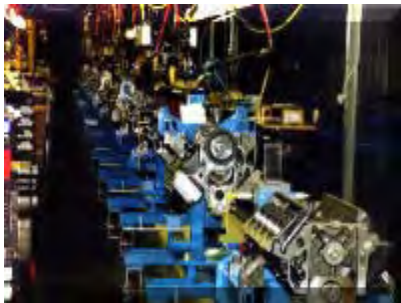
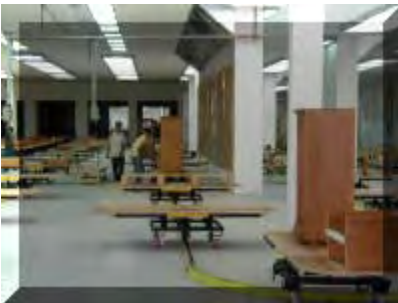


On-Floor Configuration



In-Floor Configuration





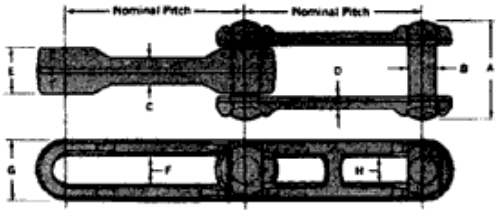




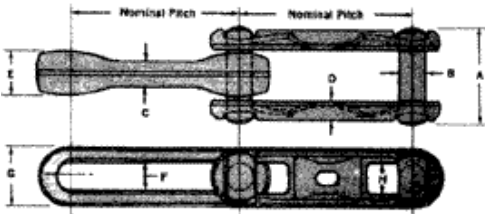




HEAVY DUTY TOWLINE



Standard Rivetless Chain



X-Type Rivetless Chain

RSI Drag Chain Conveyor, using rivetless chain, is able to move a wide variety of products. This provides an ergonomic solution for many heavy applications that would otherwise be very time consuming to perform.

Forged Rivetless Chain has a high strength-to-weight ratio, capability to flex both horizontally and vertically, and ability to be assembled without tools and remain assembled in service, all contribute to make this type of chain the logical choice for long service with minimum maintenance cost. All chain parts are drop steel for maximum strength. Special alloys are available and chain parts can be heat treated and magnafluxed, if required. Pins are placed through the center link and held in position by notches in the side bars when they are installed. Symmetrical design of the pin allows for 180° rotation if new wear surfaces should be required

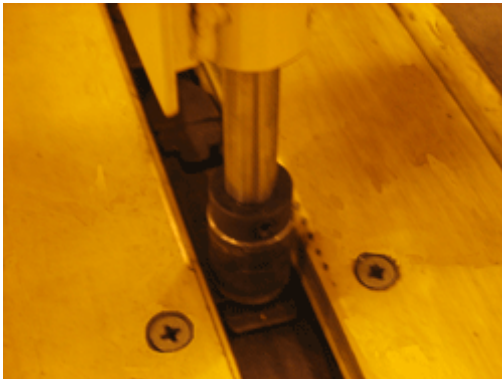
Chain	A	B	C	D	E	F	G	H
X-348	1 47/64	1/2	1/2	13/32	3/4	35/64	1 3/32	5/8
X-458	2 3/16	5/8	5/8	15/32	1	11/16	1 3/8	3/4
468	3 3/16	3/4	1 1/8	13/32	1 19/32	7/8	1 7/8	13/16
658	2 3/16	5/8	5/8	5/16	1	11/16	1 3/8	11/16
678	3 1/32	7/8	13/16	1/2	1 9/32	1	2	31/32
X-678	3 1/32	7/8	13/32	23/32	1 9/32	1	2	31/32
698	3 3/4	1 1/8	1	9/16	1 9/16	1 1/4	2 11/16	1 15/16
998	3 3/4	1 1/8	1	9/16	1 9/16	1 1/4	2 11/16	1 15/16
9118	4 7/8	1 3/8	1 3/8	25/32	1 31/32	1 1/2	3 1/8	1 1/2
9148	5 27/32	1 3/4	1 5/8	13/16	2 1/2	1 29/32	3 25/32	1 29/32

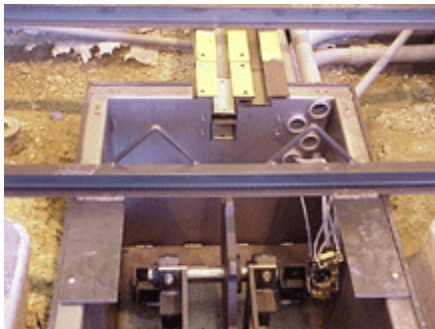
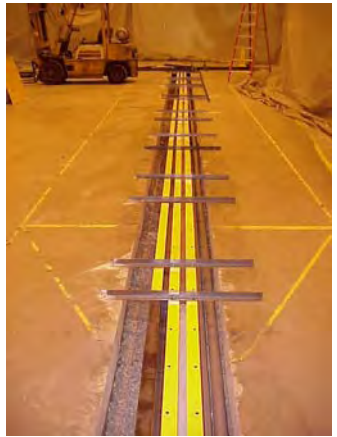
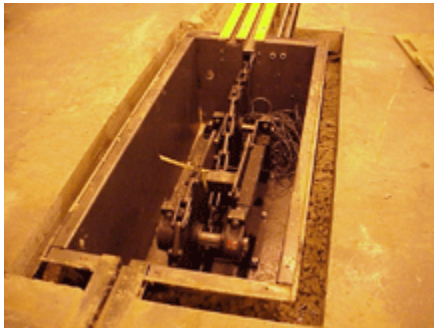
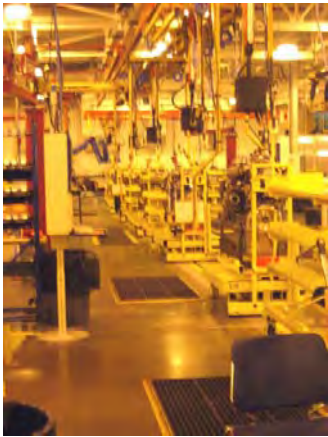




Rivetless Chain Specifications				
Chain	Nominal Pitch* (Inches)	Ultimate Strength (Pounds)	Weight-Per-Foot (Pounds)	Pitches in 10 feet)
X-348	3	24,000	2.2	40
X-458	4	48,000	3.2	30
468	4	50,000	7.5	30
658	6	30,000	2.6	20
678	6	60,000	6.5	20
X-678	6	85,000	6.7	20
698	6	100,000	11.4	20
998	9	100,000	9.0	13 1/3
9118	9	16,000	16.0	13 1/3

With this capability, RSI can and will be able to design a system that will be able to carry your product and provide maximum use of your work area. From night stands to trucks, we can and will provide a system that best meets your needs. The RSI Drag Chain Conveyor can be mounted either on-floor or in-floor, for your convenience. RSI designs the conveyor to meet your needs, From the uhmw or hardened roller turns to the actual cart itself.







RSI offers a variety of quality overhead monorail conveyor systems and components. We look forward to assisting you in selecting the right equipment for your application. Also, see our "selection guide" below for additional information.

I-Beam Monorail



X348, X458 & X678 Components

Hand-push 3,4 & 6"

Power & Free 3x3 & 4x4

Installed Systems

Components Only

Replacement Parts

Enclosed Track



Rapid / Uni / Allied Type

R W Type

Light Duty Round Tube

Powered or Hand-Pushed

Inverted & Over/Under

Power & Free









Selection Guide for Chain Conveyor Applications

See the following selection guide to help determine which type of overhead monorail conveyor system best suits your application, depending on maximum unit load, part spacing and chain pull capacity requirements.





Type of Monorail conveyor	Tube Track	R W - Type Encl. Track	Standard Encl. Track	X348 (3" I-Beam)	X458 (4" I-Beam)	X678 (6" I-Beam)
Quick Reference Illustration						
Track Size	1-5/8" Dia.	2-1/8" W. 2-11/16" H.	2-13/16" W. 2-11/16"H.	S3 x 5.7	S4 x 7.7	S6 x 12.5
*Min. Load Spacing (Nominal)	6"	6"	8"	6"	8"	12"
Unit Load Rating	30 Lbs.	80 Lbs.	125 Lbs.	200 Lbs.	400 Lbs.	1200 Lbs.
**With Optional Single/Double Load-Bars	60 / 120 Lbs.	160 / 320 Lbs.	250 Lbs. 200 @ 30° 175 @ 45°	400 Lbs.	800 Lbs.	2400 Lbs.
***Drive Chain Pull Rating	600 Lbs.	750 Lbs.	750 Lbs.	1800 Lbs.	3950 Lbs.	6000 Lbs.
<p>*The minimum load spacing is also the nominal chain pitch for each type system. Loads may be spaced on any increment of this chain pitch, depending on your requirement and any additional clearance needed for your product to maneuver the selected turns and vertical curves. Larger radius turns require less clearance.</p>						
<p>**Increase capacity by use of load-bars, but keep in mind it is often less expensive to go to the larger conveyor, unless they are spaced far apart.</p>						
<p>***A quick idea on your drive pull requirement may be determined by multiplying the total live load by .035 (monoplane systems only). Elevation changes add "lift pull" to your total. Lift pull is calculated by multiplying the total elevation change of inclines only (no declines) by the product weight per foot of conveyor.</p> <p>Note: Should this method result in any more than half of the rated system capacity, give us a call to consider your chain pull more closely. Adequate drive pull capacity is an important factor in your decision. Save money by selecting the correct drive arrangement up front, rather than making corrections later.</p>						





We offer quality I-beam monorail components at competitive prices

See the following illustrations for our most popular I-beam monorail systems and components. Please contact us for information on any other items needed for your specific application. Many additional components and accessories are available.

Equipment shown is available in three standard sizes: 3", 4" & 6" (X348, X458 & X678) along with the less common 2" (X228). When ordering 4" components, specify drop (7-3/16" or 8").



Typical I-Beam Monorail Chain Conveyor



Track, Chain & Trolley –Typical Configuration



High Carbon Rail Unpainted, Painted or 304 Stainless



Rivetless, Drop Forged, Heat Treated Monorail Chain



Monorail Trolleys - Open or Sealed F.B.C. Bearings



"H" Attachment - Fits Between Trolley Brackets (2 Pcs.) Forms Clevis Arrgmt.



"I" Attachment - For Intermediate Trolley Brackets Where No Loads are Present



Special Grd. 5 Trolley Bolts with Lock Nuts



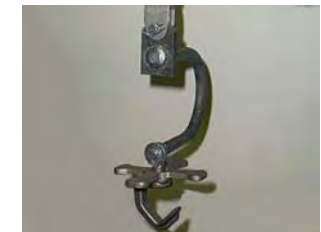
Intermediate "H" Attachment - Fits Conveyor Chain For Additional Loads



90 Degree Indexing Hooks - 125# and 200# Capacities

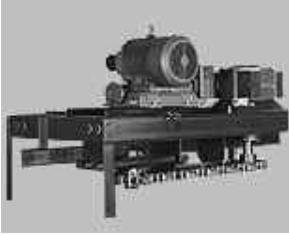


90 Deg. Star Indexer for Automatic Product Rotating - 125# Cap.



C-Hooks Made to Order - Allow use of Sanitary Pans





Caterpillar Drives 1200# - 4000#
Pull Const. or Var. Speed



Take-Up Assemblies Spring,
Screw or Air Operated



Traction Wheel Turns 24" to 72"
Diameter 30, 45, 90 & 180 Deg



High Temp. TWT's Graphite
Bushed - All Standard Sizes



Roller Bank Turns 18" to 72"
Radius - 30, 45, 90 & 180 Deg



High Temp. Roller Turns c/w
Graphite Bearings - Std. Sizes



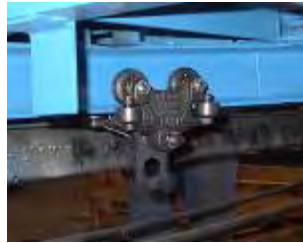
Vertical Curves - Prefabricated -
Rad. & Deg. as Req'd.



Oven Expansion Joints, 1"
Travel



1-Ton Handpush Trolley -
Adjustable for 4, 5, 6 or 8" Rail



1/4 ton Handpush Trolley -
Adjustable for 2, 3 or 4" Rail



2-Way Glide Switches -
Handpush Air Operated or Man.



Automatic Oilers Help Ensure
Long System Life



Caterpillar Drive Rebuilt Kit
Includes Typical Wear Items



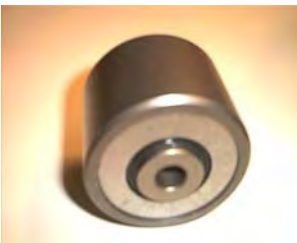
Power & Free Leading Trolley -
Flapper Type 3x3 & 4x4



Side Link Pusher Dog for use
with Flapper Type Free Trolley



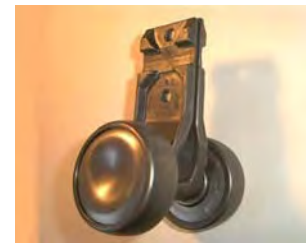
Inverted Power and Free Pusher
Dogs Several Styles Avail.



Pressure Rollers for Turns &
Cat. Drives Std. & High Temp.



Replacement Wheels Open or
Sealed - for 3, 4 & 6" Conveyor



Inverted X458 Sealed Full Ball
Compliment Trolleys



X-Type Replacement Chain Pin
Only (Links Also Available)

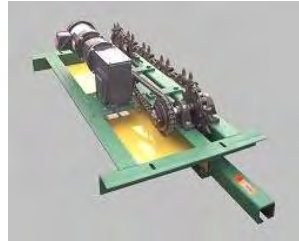




Std. Enclosed Track Painted Green or Blue, Unpainted or 304 Stainless Steel



ET x 3" Power & Free Systems, Components and Replacement Parts



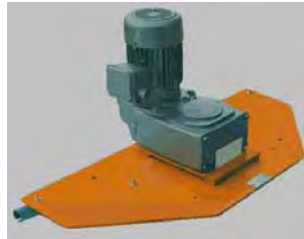
Std. Enclosed Track Caterpillar Drive with Slip Clutch or L.S. Overload Protection



RW Type Encl. Track, Chain, Trolleys, Complete Systems & Components



Economical Tube Track Conveyor Systems and Components



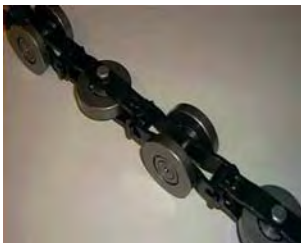
Low Maintenance Tube Track Sprocket Drive Complete with Speed Controller



Tight Turns Achieved with Tube Track Spkt Turns for Min. Floor Space Requirements



Enclosed Track Welding Jig for Well-Aligned Joint Transitions



Heavy Duty, Heat Treated Enclosed Track Chain Assembly 10' Lengths



Economical Std. E.T. Hand-Pushed Trolley with Guide Rollers 250# Capacity



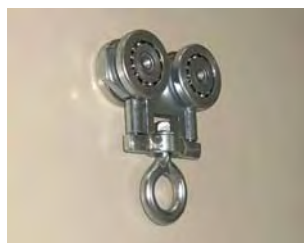
ET Pusher Dog Chain Attachment for Power & Free Applications



Encl. Track x 3" Power and Free Leading Free Trolley 600# Capacity



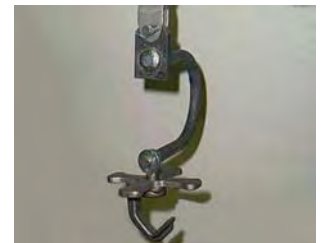
4-Wheel Chain Attachment for Single Point Load Capacity of 250#



RW Type ET Handpush Trolley with Built-In Swivel Eye 250# Capacity



4 Wheel Inverted Chain Attachment with Threaded Pin & Guide Roller



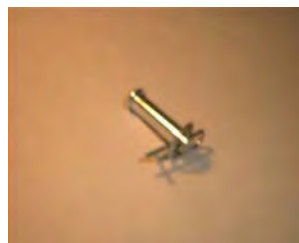
Enclosed Track Conveyor C-Hooks of a Variety of Sizes Made to Order



4-Wheel Chain Attachment for Single Point Load Capacity of 250#



4-Wheel Chain Attachment for Single Point Load Capacity of 250#



4 Wheel Chain Attachment for Single Point Load Capacity of 250#



4-4-Wheel Chain Attachment for Single Point Load Capacity of 250#





Swivel Hook - Allows Continuous Rotation 100# Load Rating Used with "H" Attach.



Sprocketed Swivel - Allows Positive Rotation - Several Capacities & Config's.



Swivel Fixture - 65# Cap. - Hangs Directly from Encl. Track Chain Load Axle



90 Degree Star Indexing Hook Allows Auto Rotate 75# Capacity Rating

Save installation time by ordering your support steel requirement from RSI. You get quality pre-engineered and custom fabricated support steel!



Auto-cad generated approval drawings and installation drawings are included with most support steel orders. In the event drawings are not required or have been completed by others, we manufacture to your specifications.

Upon fabrication, our support steel is typically wire brushed to remove any loose scale or rust, solvent cleaned and painted with self priming industrial enamel. Special paint and special metal preparation procedures are available upon request.

Enclosed Track Chain

X348 Chain, Trolleys & Attachments

Hooks (Swivel, Indexing, Star Indexing & Specials)

Roller Turn Rolls

Track

Complete Roller Turns

Traction Wheel Turns (Spoke & Plate Type)

Vertical Curves

Caterpillar Drives

Caterpillar Drive Chains

Drive Sprockets

Back-up Bars

Gearboxes

Motors

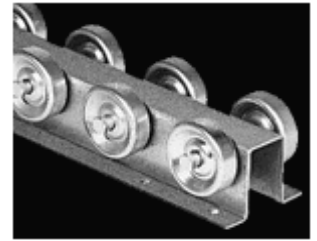
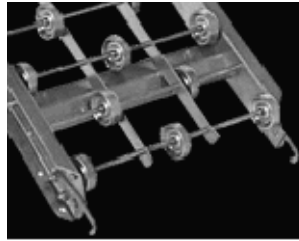
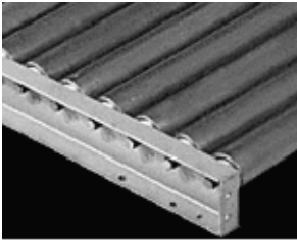
Automatic Lubricators

Power & Free Parts (Stops, Switches, Cylinders, Pusher Dogs, Etc.)





Gravity Conveyors



Gravity Roller Conveyors (1 3/8" to 3 1/2" Roller Sizes)

Skate Wheel Conveyor

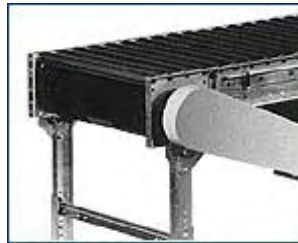
Wheel Rails

Ball Transfers

Extendible Skate-Wheel Conveyors (Truckloading)

Accessories (Supports, Stops, Gates, Etc.)

Powered Conveyors



Belt Conveyors (Slider Bed and Roller Bed Types)

Accumulation Conveyors (Light, Medium and Heavy Duty)

Belt Driven Live Roller Conveyor

Line-Shaft Driven Live Roller Conveyor

Chain Driven Live Roller Conveyor (1.9" to 3.5" Roller Sizes)

Mul i-Strand Chain Transfers

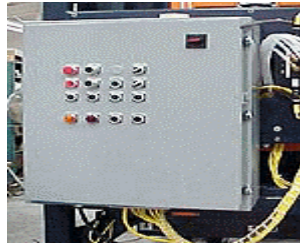
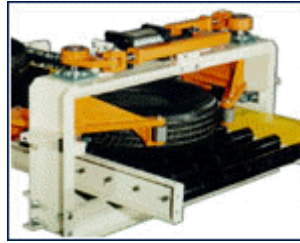
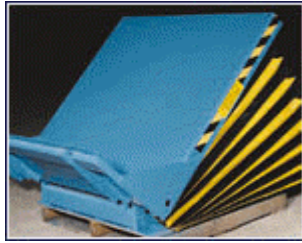
Slat Conveyors

Portable Parts Conveyors

Vertical Lifts

Belt Curves





Replacement Parts

Gates

Spurs & Switches

Guards

Conveyor Stops (Manual and Pneumatic)

Traffic Cops

Pushers

Supports

Electrical Controls

Rollers

Bearings

Belting

Motors

Gearboxes

Chains

Sprockets

Pulleys

Miscellaneous Drive Components

Etc.





Spray Booths



Xtreme Series Downflo Automotive Spray Booths



Quadraft Downflo Spray Booth - Standard Booth Model **QDS2418** and **QDD2418**

The result of over 30 years of experience in the spray booth industry, the Quadraft Spray Booth is the only truly turbulence-free booth on the market.



Eurostyle Downflo Spray Booth - Standard Booth Model **EDFS2416** and **EDFD2416**

Designed to increase productivity by providing a reliable and trouble free system.



SDD Xtreme Spray Booth - Standard Booth Model **SDDX2418** and **SDDX2418DT**

Eliminates the need for a pit or basement where construction of this type is not possible and where a raised floor cannot be used due to other limitations such as overhead clearance.



Thermal Xtreme Spray Booth - Standard Booth Model **ATE2412** and **ATED2412**

The 3 1/2" insulated walls provide a quiet working environment while being energy efficient.

Single Wall Downflo Automotive Spray Booths



Double Row Downflo Spray Booth - Standard Booth Model **DFS2412** and **DFD2412**

A mid-priced booth with high-end performance.



Side Downflo Spray Booth - Standard Booth Model **SDDP2412C** and **SDDP2412DT**

Eliminates the need for a pit or basement where construction of this type is not possible and where a raised floor cannot be used due to other limitations such as overhead

Crossflo Automotive Spray Booth



Custom Aire Deluxe Crossflo - Standard Booth Model **ARA2308**, **ARA2712**, **ASD2308**, **ASD2712**, **ASA2308**, and **ASA2712** Designed to meet the need for a quality booth which will provide the best possible trade-offs in price and performance.



Mini Crossflo Spray Booth - Standard Booth Model **AMB2206**

Designed to meet the demand for an economical spray booth that still provides a complete paint facility.



Economy Crossflo Spray Booth - Standard Booth Model **ASLC2608**

Provides the greatest economy in a full size booth.





Truck Spray Booths



Auto/Truck Crossflo Spray Booth - Standard Booth Model **CRA2714**, **CSD2714**, **CSA2814**, **CRA3318**, **CSD3318**, and **CSA3418**

Provides a complete automotive and truck painting facility



Crossflo Truck Spray Booth - Standard Booth Model **TRA4024**, **TSD4024**, **TSA4024**, **TRA6036**, **TSD6036**, and **TSA6036**

Provides a complete truck painting facility..



Side Downflo Truck Spray Booth - Standard Booth Model **TSDD4424** and **TSDD/DT4424**

Provides a complete painting facility for trucks based on the same engineering principles as our side downflo auto booth.



Side Downflo Truck Spray Booth - Standard Booth Model **TSDD4424** and **TSDD/DT4424**

Provides a complete painting facility for trucks based on the same engineering principles as our side downflo auto booth.





The revolutionary **QUADRAFT** spray booth was specifically designed to create a virtually turbulence-free airflow through the booth without loss of airflow volume. The only truly turbulence-free booth on the market.

The secret is in the design of the walls and the basement. The booth is double-walled, which gives it a distinctive appearance and clean lines. However, the walls also become the exhaust duct by which air is removed from the booth. Each side panel contributes a large area through which the air can move. By using the walls of the booth as the exhaust duct, *RSI* has achieved an air flow of up to 19,000 CFM,

or over six complete changes of air per minute inside the booth. In addition, this integral ducting reduces heat loss through the walls of the booth, resulting in energy savings. This exhaust ducting is combined with our innovative basement design, which utilizes an arrangement of baffles and deflectors to complete the turbulence-free, full down draft air-flow path.

The **QUADRAFT** spray booth comes complete with the DFM800R heat system which has a proven track record for reliability and efficiency on *RSI* spray booths and a user-friendly, fully automated, touch-screen control panel. This spray booth is powder-coated white inside and out as a standard. Other options and customization is available by contacting *RSI* directly or through one of our sales representatives.

The **EUROSTYLE Downflo** spray booth originally set the standard for spray booths and continues to be a pacesetter in the industry. The **EUROSTYLE Downflo** spray booth and its heating system are designed as an integral unit, combining the essentially turbulence-free down flow principle of the booth with the efficiency of a direct fired heater to form a superior environment for spray painting and curing.

The **EUROSTYLE Downflo** spray booth is designed to increase productivity by providing a reliable and trouble-free system and comes complete with the DFM800R heat system which has a proven track record for reliability and efficiency on *AFC* spray booths. This spray booth is powder-coated white inside and out as a standard. Other options and customization are available by contacting *RSI* directly or through one of our sales representatives. A user-friendly and fully automated control panel cycles the booth through the entire spray and bake cycles without operator intervention. Timers and other controls are easily set to control booth temperature for the flash, cure and cool down times. The wide range of control settings will accommodate a great variety of paints and coatings. This spray booth comes complete with all the necessary components and paperwork for installation and operation.

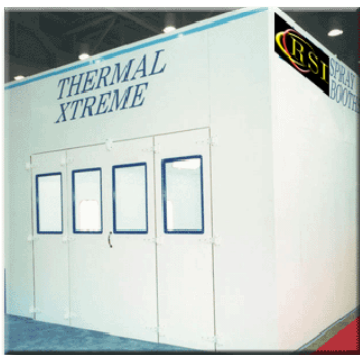




The **SDD XTREME** spray booth eliminates the need for a pit or basement where construction of this type is not possible and where a raised floor cannot be used due to other limitations such as overhead clearance.

The **SDD XTREME** spray booth introduces fresh filtered air evenly over the ceiling of the booth above the vehicle. The air flows smoothly down the sides of the vehicle and then is drawn away from the vehicle toward the walls near the floor. It then passes through the exhaust paint arrestors in the walls where the overspray is trapped and the air is then exhausted through the walls and dispersed into the atmosphere.

For increased thru-put, and also for use with newer spray paints and coatings, the **SDD XTREME** spray booth comes complete with the DFM800R heat system and a user-friendly and fully automated control panel which cycles the booth through the entire Flash, Cure, and Cool cycles without operator intervention.



The **AUTO THERMAL XTREME** insulated spray booth and heat system is an integral unit that forms a superior environment for spray painting and curing. The 3 1/2" insulated walls provide a quiet working environment while being energy efficient. The **AUTO THERMAL XTREME** spray booth combines the essentially turbulence-free down flow principle of the spray booth with the efficiency of a direct fired heater to form a superior environment for spray painting and curing. The **AUTO THERMAL XTREME** spray booth is designed to increase productivity by providing a reliable and trouble free system. A user-friendly control panel cycles the booth through the bake cycle without operator intervention. The timer and the temperature controller are easily set to control booth temperature. This spray booth comes complete with an AMS1000EC heating system that has a variable speed make-up fan for minute heating adjustments.





The **Custom Aire DOUBLE ROW Downflo** spray booth has been designed by RSI as a mid-priced booth with high-end performance. The principle of directing air flow down along the sides of the vehicle and out of the booth is recognized by the industry to consistently produce the best results.

The **DOUBLE ROW Downflo** spray booth introduces fresh filtered air evenly over the ceiling of the booth above the vehicle. The air is then drawn smoothly down the sides of the vehicle and through the double row of grating in the floor. It then passes through the exhaust arrestors where the overspray is trapped and then exhausted through the uniquely designed basement or "pit" and dispersed into the atmosphere. This down flow of air also provides a safer environment for the painter since overspray and solvents are pulled downward, away from the breathing zone of the painter.

The **DOUBLE ROW Downflo** spray booth is designed for installation over a basement or "pit". Raised floor installation is also available as an option and the booth is available in both solid back and drive-thru configurations. It comes with full documentation and all accessories necessary to assemble a fully operational booth.

For increased thru-put and also for use with newer spray paints and coatings, the **DOUBLE ROW Downflo** spray booth is designed to be used with the **DFM800R** heat system.



The **Custom Aire DELUXE CROSSFLO** spray booth has been designed by **RSI** to meet the need for a quality booth which will provide the best possible trade-offs in price and performance. The **Custom Aire DELUXE CROSSFLO** booth does not require a pit or basement which results in a more economical installation. In addition, there are no side exhaust ducts, which gives a large work area inside the booth without excessive loss of floor space around the spray booth.

The **Custom Aire DELUXE CROSSFLO** spray booth introduces fresh filtered air evenly across one end of the booth. The air flows smoothly along the sides of the vehicle and then is drawn away toward the opposite end of the booth. It then passes through the exhaust arrestors where the overspray is trapped and the air exhausted and dispersed.



The **Custom Aire DELUXE CROSSFLO** spray booth is available in three configurations. The standard configuration (ASA or Standard Airflow) has the intake filters located in the doors and the exhaust arrestors at the rear of the booth. The reversed configuration (ARA or Reversed Airflow) shown here has the intake filters at the rear of the booth and the exhaust arrestors to the sides of the drive-in doors. The drive-thru configuration (ASD or Drive-thru) has the exhaust arrestors to the sides of the solid doors on one end and the intake filters in the doors at the other end.

For increased thru-put and also for use with newer spray paints and coatings, the **Custom Aire DELUXE CROSSFLO** spray booth is designed to be used with the **RSI AMS1000** heat system. These systems have proven track records for reliability and efficiency on **RSI** booths. They are weatherproof so they can be mounted on either the roof of the booth or on the roof of the building, depending on individual needs and preferences.





The **Custom Aire SIDE Downflo** spray booth has been designed by RSI in response to a need for a mid-priced booth with high-end performance. The **SIDE Downflo** spray booth eliminates the need for a pit or basement where construction of this type is not possible and where a raised floor cannot be used due to other limitations such as overhead clearance.

The **Custom Aire SIDE Downflo** spray booth introduces fresh filtered air evenly over the ceiling of the booth above the vehicle. The air flows

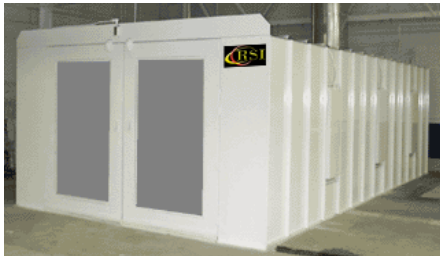
smoothly down the sides of the vehicle and then is drawn away from the vehicle toward the walls near the floor. It then passes through the exhaust paint arrestors in the walls where the overspray is trapped, and the air is then exhausted and dispersed into the atmosphere.



The **Custom Aire SIDE Downflo** spray booth is available in solid back and drive- thru configurations. It comes with full documentation and all accessories necessary to assemble a fully operational booth.

For increased thru-put, and also for use with new spray paints and coatings, the **Custom Aire SIDE Downflo** spray booth is designed to be used with

the DFM800R heat system.



To meet the demand for an economical spray booth that still provides a complete paint facility, **RSI** has designed the **AUTO MINI CROSSFLO** spray booth. This booth features standard air flow (filters in the doors and exhaust at the rear of the booth) and retains the most important features of a costlier booth without compromising quality and reliability. The conservative design uses a fan and motor capable of moving 12,000 CFM through the booth.

Standard model: AMB2206

- Inside: 14'0"wide x 8'0"high x 20'0"deep
- Outside: 15'0"wide x 8'10"high x 22'2"deep
 - Door: 10'0"wide x 8'0"high

Features include:

- One 34" diameter tube-axial fan with variable pitch non-sparking blades
- One 2HP open type motor, 208/230/460VAC, 60Hz
- All supply filters and exhaust paint arrestors
- Six 4-tube T8 fluorescent light fixtures with clear tempered glass (tubes not included)
- 3'0" x 7'0" personnel access door
- Manometer to monitor porosity of filters
- Installation hardware, caulking, and door gaskets
- Blueprints and assembly instructions
- Due to individual requirements, exhaust stack, air valve, door limit switches and light tubes are not included and must be ordered separately.





The **Custom Aire ECONOMY CROSSFLO** spray booth provides the greatest economy in a full size booth. This booth features standard air flow (filters in the doors and exhaust at the rear of the booth) and is built using the same components of our top-of-the-line booths and so maintains many of the features of a costlier booth without compromising quality or reliability. The air in the booth is swept clean by a 34" diameter fan driven by a 3HP motor which produces an exhaust capacity of 14,000 CFM. Eight fluorescent light fixtures provide even, shadow-less lighting throughout the booth.

STANDARD MODEL: ASLC2608

Inside: 15'0"wide x 9'10"high x 24'0"deep
Outside: 16'0"wide x 10'0"high x 26'2"deep
Door: 10'0"wide x 9'0"high

STANDARD FEATURES:

- 1 - 34" diameter tube-axial fan with variable pitch, non-sparking blades
- 1 - 3HP open type motor for operation on 208/230/460 VAC, 60Hz, 1 or 3 phase
- All supply filters and paint arrestors
- Fluorescent light fixtures with clear tempered glass (tubes not included)
- 3'0" x 6'6" personnel access door
- Manometer to monitor porosity of arrestors
- Installation hardware, caulking, and door gaskets
- Blueprints and assembly instructions
- Exhaust stack, air valve, limit switches, and light tubes are not included and must be ordered separately.



The **Custom Aire AUTO/TRUCK CROSSFLO** spray booth provides a complete automotive and truck painting facility with a choice of three models: **REVERSED AIRE FLO**, **DRIVE-THRU**, and **STANDARD AIRE FLO**. The booth is constructed of 18GA galvanized steel and is easily assembled following **RSI** instructions. The exhaust fan is capable of maintaining an air flow rate of 16,400 CFM through the booth.

DIMENSION FOR ALL MODELS:

- Inside: 15'0"wide x 11'4"high
- Outside: 16'4"wide x 12'0"high
- Doors: 10'0"wide x 10'6"high

Reversed Aire Flo Models

- CRA2714: 27'0" inside, 27'2" outside, 14 light fixtures
- CRA3318: 33'0" inside, 33'2" outside, 18 light fixtures

Standard Aire Flo Models

- CSA2814: 26'0" inside, 28'2" outside, 14 light fixtures
- CSA3418: 32'0" inside, 34'2" outside, 18 light fixtures

Drive-thru Models

- CSD2714: 27'0" inside, 28'2" outside, 14 light fixtures
- CSD3318: 33'0" inside, 33'2" outside, 18 light fixtures





FEATURES INCLUDE:

- 1 - 34" diameter tube-axial fan with variable pitch, non-sparking blades
- 1 - 5HP open type motor for operation on 208/230/460 VAC, 60Hz, 1 or 3 phase
- One set of *Custom Tacky* air supply filters and one set of exhaust arrestors
- Fluorescent light fixtures with clear tempered glass with tubes
- 3'0" x 7'0" personnel access door
- 6 feet of exhaust stack, roof jack, and weather cap
- Door limit switches and air valve
- Painter's work station
- Manometer to monitor porosity of arrestors
- Installation hardware, caulking, and door gaskets
- Blueprints and assembly instructions



The **Custom Aire CROSSFLO TRUCK** spray booth provides a complete truck painting facility with a choice of three models: **STANDARD** air flow, **REVERSED** air flow, and **DRIVE-THRU**. These booths are constructed of 18GA galvanized steel and are easily assembled following **RSI** instructions. The exhaust fan is capable of maintaining an air flow rate of 23,000 CFM through the booth.

DIMENSION FOR ALL MODELS:

- Inside: 16'0"wide x 15'4"high
- Outside: 17'4"wide x 15'8"high
- Doors: 11'0"wide x 14'0"high

Reversed Aire Flo Models

- TRA4024: 40'0" inside, 40'2" outside, 24 light fixtures
- TRA6036: 60'0" inside, 60'2" outside, 36 light fixtures

Standard Aire Flo Models

- TSA4024: 38'0" inside, 40'2" outside, 24 light fixtures
- TSA6036: 58'0" inside, 60'2" outside, 36 light fixtures

Drive-thru Models

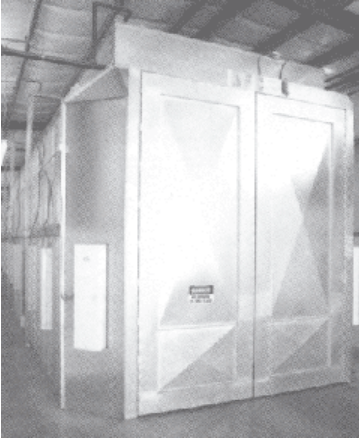
- TSD4024: 40'0" inside, 40'2" outside, 24 light fixtures
- TSD6036: 60'0" inside, 60'2" outside, 36 light fixtures



FEATURES INCLUDE:

- 1 - 42" diameter tube-axial fan with variable pitch, non-sparking blades
- 1 - 5HP open type motor for operation on 208/230/460 VAC, 60Hz, 1 or 3 phase
- One set of *Custom Tacky* air supply filters and one set of exhaust arrestors
- Fluorescent light fixtures with clear tempered glass with tubes
- 3'0" x 7'0" personnel access door with observation window
- 6 feet of exhaust stack, roof jack, and weather cap
- Door limit switches and air valve
- Painter's work station
- Manometer to monitor porosity of arrestors
- Installation hardware, caulking, and door gaskets
- Blueprints and assembly instructions





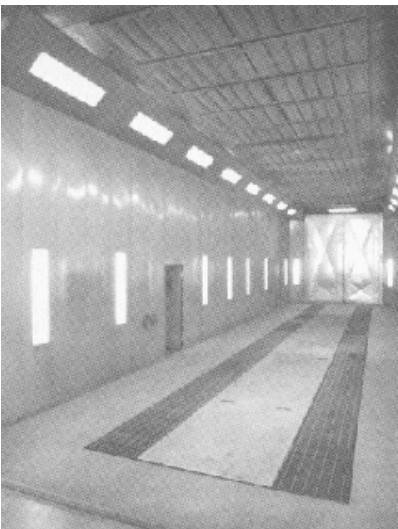
The **Custom Aire DOUBLE ROW DOWNFLO TRUCK** spray booth provides a complete painting facility for trucks based on the same engineering principles as our **DOWNFLO AUTO BOOTH**. Filtered air is introduced evenly over the ceiling of the booth and is drawn smoothly down the sides of the truck and through the grating that makes up most of the floor of the booth. The over-spray is trapped in the exhaust arrestors located in the floor and the remaining air and vapors are exhausted into the atmosphere.

The pit is designed to provide maximum air flow in the booth and is covered with two rows of grating, one on each side of the vehicle. Constructed of 18GA galvanized steel, the booth is easily assembled by following **RSI** supplied instructions and blueprints.

The **Custom Aire DOUBLE ROW DOWNFLO TRUCK** spray booth comes in two standard models (TDF or Truck DownFlo and TDF/DT or Truck DownFlo Drive-thru) and is also available in custom sizes to fit specialized needs. Consult RSI for further information and pricing.

STANDARD MODEL: TDF4426 DRIVE-THRU MODEL: TDF/DT4426
DIMENSIONS FOR ALL MODELS:

- Inside: 16'0"wide x 16'0"high x 44'0"long
- Outside: 17'4"wide x 18'2"high x 44'4"long
- Door: 11'0"wide x 14'0"high



FEATURES INCLUDE:

- 2 - 24" diameter tube-axial fan with variable pitch, non-sparking blades
- 2 - 3HP open type motor for operation on 208/230/460 VAC, 60Hz, 1 or 3 phase
- One complete set of *Laminar III* air supply filters and one set of exhaust arrestors
- Fluorescent light fixtures with clear tempered glass with tubes
- 3'0" x 7'0" personnel access door with observation window
- 12 feet of exhaust stack, 2 roof jacks, and 2 upflow caps
- Door limit switches and air valve
- Painter's work station
- Manometer to monitor porosity of arrestors
- Installation hardware, caulking, and door gaskets
- Blueprints and assembly instructions





The **Custom Aire TRUCK SIDE DOWNFLO** spray booth provides a complete painting facility for trucks based on the same engineering principles as our **SIDE DOWNFLO AUTO BOOTH**. Filtered air is introduced evenly over the ceiling of the booth and is drawn smoothly down the sides of the truck and through the sides of the booth near the floor. The over-spray is trapped in the exhaust arrestors located in the floor and the remaining air and vapors are exhausted into the atmosphere.

The booth utilizes the existing floor of the building without any modification. Constructed of 18GA galvanized steel, the booth is easily assembled by following **RSI** supplied instructions and blueprints.

The **Custom Aire TRUCK SIDE DOWNFLO** spray booth comes in two standard models (TSDD or Truck Side DownFlo and TSDD/DT or Truck Side DownFlo Drive-thru) and is also available in custom sizes to fit specialized needs. Consult RSI for further information and pricing.

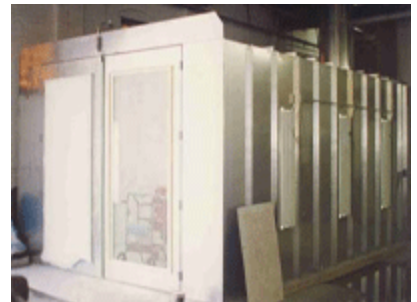
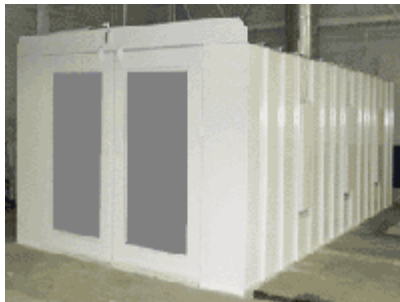
STANDARD MODEL: TSDD4424 DRIVE-THRU MODEL: TSDD/DT4424
DIMENSIONS FOR ALL MODELS:

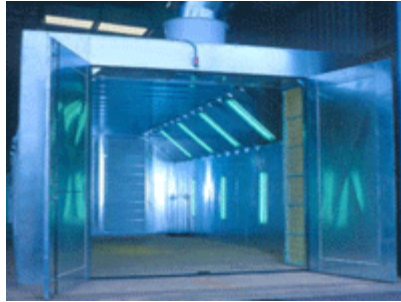
- Inside: 16'0"wide x 16'0"high x 44'0"long
- Outside: 18'4"wide x 18'2"high x 44'4"long
- Door: 11'0"wide x 14'0"high

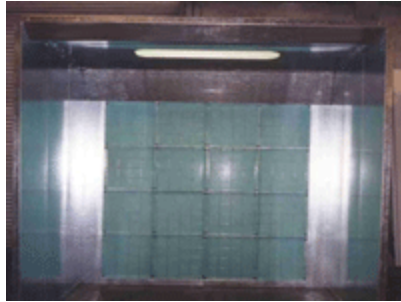
FEATURES INCLUDE:

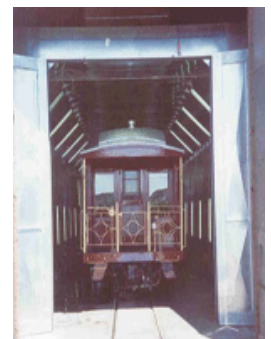
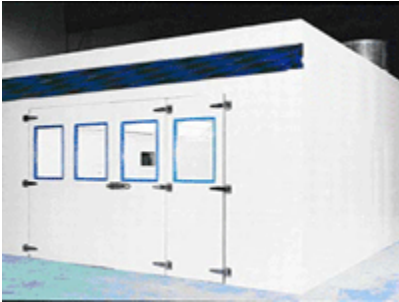
- 4 - 24" diameter tube-axial fan with variable pitch, non-sparking blades
- 4 - 2HP open type motor for operation on 208/230/460 VAC, 60Hz, 1 or 3 phase
- One complete set of *Laminar III* air supply filters and one set of exhaust arrestors
- Fluorescent light fixtures with clear tempered glass with tubes
- 3'0" x 7'0" personnel access door with observation window
- 24 feet of exhaust stack, 2 roof jacks, and 2 upflow caps
- Door limit switches and air valve
- Painter's work station
- Manometer to monitor porosity of arrestors
- Installation hardware, caulking, and door gaskets
- Blueprints and assembly instructions

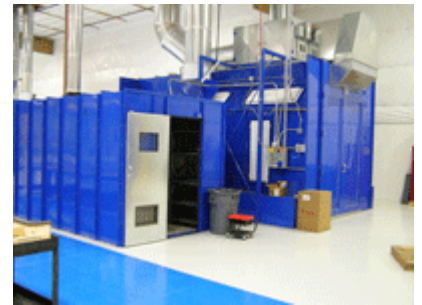














Dust Collection



A standard rule for many years has been a velocity of 100 feet per minute (FPM). Due to the popularity of down draft spray booths, and the air now moving in a downward direction instead of a cross direction, the velocity of the air must be lower than 100 FPM to achieve desirable effects on a prep & or paint job.

Due to this design change, the NFPA has changed the ventilation requirements of spray booths. In the 2000 NFPA 33, section 5.2, the code states that the ventilation system be “capable of confining and removing vapors and mists to a safe location and is capable of confining and controlling combustible residues, dusts, and deposits. The concentration of the vapors and mists in the exhaust stream of the ventilation system shall not exceed 25 percent of the lower flammable limit “LFL”.”

In section A.5.2, which defines the lower flammable limit, under “Spray Booths”, the code reads, “In general, if vapors, mists, and residues move towards the filters and the exhaust ducts, they will be confined and controlled.”

First we have to figure out the cubic feet that our booth has, this particular booth is 20'wide x 12'high x 20' long. Our booth also has 45° corners and 45° sloped roof and corners. By calculating all these variables I come up with 4,620 cubic feet. The NFPA 33 Annex B section B.1 calls out a safety factor of 4 to 1 for ventilation requirements.

If we keep the requested 100 FPM then we would have to move $(20' \text{ W} \times 20' \text{ D}) \times 100 = 40,000$ CFM based on the cross section that the air is moving in this case downwards. Take the total CFM divided by the total cubic feet you get “ $40,000 \div 4,620$ cubic feet” approximately 8.66 to 1 air changes per minute. This would be the maximum air changes that you could expect if the air filters were clean and the booth was well maintained. This 8.66 to 1 is far greater than the 4 to 1 ventilation requirements that are called out by the NFPA 33. In fact it over twice the safety factor of 4 to 1, thus meaning that the example in the book using a 1% LFL would allow this booth to have roughly 5.5% LFL. This is over 5 times the allowable LFL for a normal spray booth.

Now if you work the above equation backwards $4,620$ cubic feet $\times 4$ which is the minimum required air changes per NFPA 33 = $18,480$ CFM. If you went by the code then all you would have to move in this booth for proper ventilation and performance is $18,480$ CFM.

The big differences in the two CFM's $40,000$ vs $18,480$ would be the atmosphere inside the booth, in the case of $40,000$ it would be very turbulent and the air velocity across the product would be so great, roughly 700 FPM if the majority of the grating is covered by product or products, that you would have a hard time applying any kind of coating to it. In addition to that the dba of the fans, and just general air movement would be excessive.





In Floor Down Draft Booths offer the ultimate in operator friendly dust containment. All down draft and cross draft sanding stations feature 100% recirculation of filtered air thereby minimizing air replenishment issues in your plant. Most systems can also be supplied with an exhaust option that allows for exhaust to atmosphere during operation in summer months.

Dust control booths provide a self-contained environment that removes airborne contaminants from worker breathing zones and prevents pollutants from interfering with other in-plant operations. RSI, Inc. offers **Dust Collection Booths** with a complete range of dimensions and customizable options. For welding, sanding, and grinding operations which generate a heavy concentration of dust and/or smoke, the cartridge dust collection booths deliver superior performance. Features and options include sound absorption, re-gain air to enhance capture velocity, sealed florescent lighting, high-efficiency self-cleaning, modular expandable booths, HEPA after-filters, and screw-conveyor automatic disposal of collected dust for ultra-heavy dust loading applications.



For fine sanding and finishing operations such as in the woodworking industry, **Panel Booths** provide excellent, cost-effective performance utilizing standard MERV 11 24x24x4 inch panels for most applications. In addition, standard size application-specific filter panels are available. The panel booths feature easy maintenance with easy-access disposable panel filters, and backward-inclined, direct drive blower wheels, with no belts to change or bearings to grease.



RSI, Inc. offers an outstanding array of configurations, options, and features in **Downdraft Tables and Benches**, for a whole range of needs: downdraft tables which can be integrated into an existing central dust collection system, or self-contained, stand-alone tables and benches which re-circulate filtered air for energy savings on heating and cooling. For most any sanding, grinding, or welding application, cartridge downdraft tables and benches feature high efficiency, self-cleaning, and optional re-gain air. Also available are panel filter downdraft tables for easy-maintenance and cost-effective performance for fine sanding and finishing operations. For safe capture of aluminum, titanium, and other potentially hazardous contaminants, RSI, Inc. provides wet collector downdraft tables and benches. Complete engineering services are also available to provide custom design for special needs.





Aluminum Dust Collection

Hydrotron wet collector downdraft tables safely collect aluminum grinding dust by drawing the dust directly into the water filter system and wetting it immediately. Adjustable table height is engineered into the custom downdraft table design.

Wet Collector / Downdraft Table

Wet Collector with dual downdraft tables; enclosure with fiberglass grates and regain air. Wet collector produces 5000 cfm with a 10 hp blower. Working surface of table is 4' wide x 30" deep.



Titanium Dust

Wet dust collector rated @ 7000 cfm with 15 HP motor collecting titanium grinding dust from hip implant manufacturer.





Metal Grinding

Wet Collector, 5000 CFM, 10 HP motor and sludge conveyor replaced cartridge dust collector. The cartridge dust collector was collecting metal grinding dust which generated a lot of sparks and kept catching on fire.

Aluminum Grinding

Defense contractor uses wet containment booth to collect aluminum grinding dust. Booth is 16' width x 9' depth x 7.5' height with front access for manual clean out. Dust booth provides 16,600 cfm and has regain air.



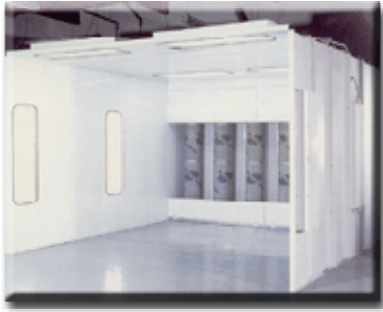
Whether your need is for a continuous or batch system, RSI can assist you every step of the way.

Custom sizes are welcomed for all powder / sanding booths and spray enclosures. These powder / sanding booths can be ordered as an open faced or fully enclosed system, and come in either a galvanized or powder coated finish. Curing Ovens are also available in custom sizes to fit your specific need.

A complete line of filters for powder / sanding booths as well as replacement parts for your application equipment are readily available. New application equipment is only an order away and can be ordered separately or as a complete package. Manual or automatic feed application systems are available.

Because specific applications vary from shop to shop, RSI recommend you talk with one of our sales personnel to find the best option for you.





RSI Sanding Booths provide an excellent method for controlling dust from spreading through the factory. Air is drawn around the product being processed or sanded with a wrapping effect carrying dust and debris away from the face of the operator providing a safer work environment.

The modular construction allows for fast and easy installation. Since it is a recirculating system, there is no exhaust stack, roof opening or exhaust permit required to install the unit.

The RSI Clean Air Sanding Enclosures are designed to reduce the costly expense of replenishing the exhausted air from your facility. These enclosures are specially designed to safely recirculate clean air back into the plant through its cartridge or bag-type filtration system.

The RSI Sanding Booths can be integrated into an existing system or function as a separate unit. The enclosures can be set up in a batch configuration or as a single conveyorized unit. They can be used in a variety of applications, including wood, laminates, metal and fiberglass.



Where budget and production volume are limited, RSI's pocket filter booths and cartridge modules are an ideal fit. The configurable four foot wide powder coating modules are very versatile in their design and application.

These configurable modules can be connected to expand with your production requirements. These modules utilize a two stage filtering process with a purge system to clean the cartridge filters. The primary filters are the cartridge type and the secondary filters are 99% efficient polyester. These modules can also be ordered as portable units that can be moved between departments or production areas. The modules are constructed of 18 gauge steel and have a powder coated finish.

RSI's pocket filter booths feature three-stage filtration. The primary filtration is handled by polyester and the secondary filters are a pocket style also of polyester material. The final filtration, before allowing the air back into the work area, is handled by way of condensed paper media. These pocket filter booths can be ordered in either a galvanized or powder coated finish.





RSI In-Floor Downdraft Sanding & Grinding Rooms

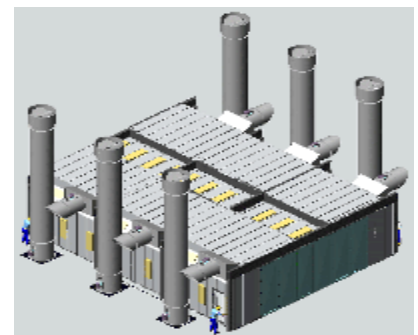
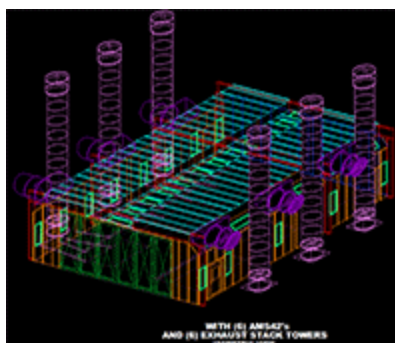
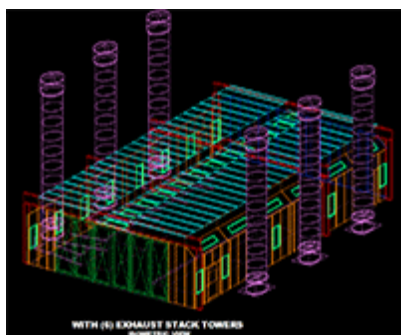
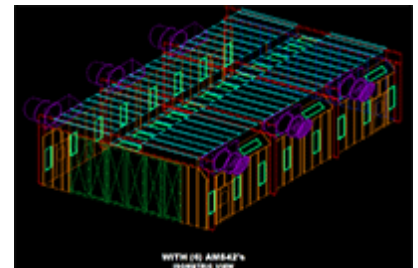
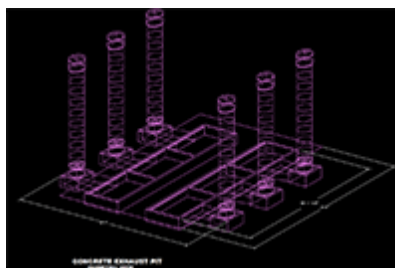
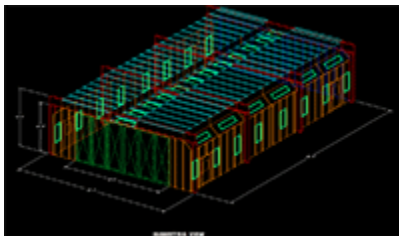
RSI Sanding Rooms are designed to fit your application, *not your application to the room*. Whether the product is a large aircraft or a multitude of product components, we will design the room to fit your product.

RSI Downdraft Sanding Rooms are designed with up to 100% filtered air circulation, using either cartridge or multi-pocket bag filters.

RSI Sanding Rooms can be zoned separately by using 80 mil. Fire retardant plastic curtains so personnel can confidently work in their own cells with minimum outside interference.

RSI carefully studies your MSDS coating specifications prior to making filtration recommendations. The amount of turnovers and amount of recirculated air will be determined by these factors. This will reduce the over-all exposure levels to personnel working throughout the room.

Progressive ISOMETRIC Designs





Enviromental Rooms



RSI Environmental Rooms ensure that the correct temperature and humidity conditions are provided for your powder coating operation. Powder coating booths housed in an environmental room increases productivity while providing a higher quality finish.



Environmental room controls provide automatic monitoring and control of the temperature and humidity using air conditioning or heating as specified or required.

Environmental rooms are engineered to meet the specifications provided by the customer and coating suppliers. Room dimensions are a direct reflection on information gained through customer and coating supplier.

The systems are to maintain conditions for positive air pressure and adjustable humidity control.

A central control automatically senses and adjusts room climate.

Walls are insulated, smooth panels.





SYSTEM FEATURES

Automatic monitoring of room

Enhances production

Custom designed to your specifications or requirements

Completely self-contained area



RSI prides ourselves in our Environmental Room Enclosures. Heating, air conditioning, humidity control, RSI can supply you with the best solution in environmental room enclosures. Whether it's the weather or application, RSI can provide you with an environmental room enclosure that will satisfy your needs





Ovens



CONVECTION DRYING OVENS



Conventional Drying Ovens deliver heat at designated temperatures thereby accelerating curing cycle times for high solids, waterborne and traditional coating materials. High volume air flow delivers up to 20 air turnovers per minute. Excellent for case goods, millwork, or other applications. Entry and exit vestibules help minimize heat loss from the oven area. Manufactured with 20 gauge aluminized interior and exterior separated by 3" of insulation. Prewired and tested control panel. Available in natural or LP gas, steam, or electric designs.



HALOGEN DRYING OVENS

Halogen Drying Ovens are perfect for metal, plastics, wet paint, powder, or wood. System reaches full operating temperature in one second. Optimal for use with applications utilizing waterborne materials – In some instances below three minute cure time. Short wave infrared penetrates faster and deeper into the finish, curing the material from the inside out. Halogen elements operate in the short wave heat spectrum above 4000 degrees F. Elements convert 95% of electricity into infrared heat as compared to 70% for quartz type elements. Halogen elements average life expectancy is in excess of 6000 Hours. Element housings are constructed of an aluminum parabolic shaped housing with removable protective wire guards. RSI Halogen Drying Ovens will dry the waterborne paint via the heating of the substrate and thus increasing the temperature of the coating. This increase of the coating temperature will increase the rate of evaporation. Infrared heat allows precise temperature control so you can be sure your product will be dried at the right rate to enhance product quality. Adding infrared heat to a processing line can cause major improvements in productivity and product quality.



IR FLASH OFF BOOTHS

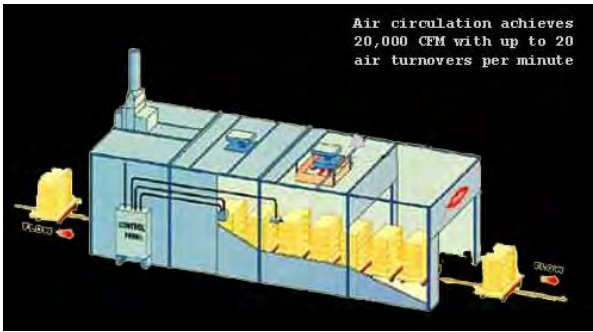


I.R. flash off booths are used to flash off the water based color top coat in only a one (1) minute IR exposure cycle prior to getting the high solids solvent based clear coat applied in the next booth

IR OVENS

I.R. ovens maintain "wave length purity" using a variety of components to produce 99% reflectivity.



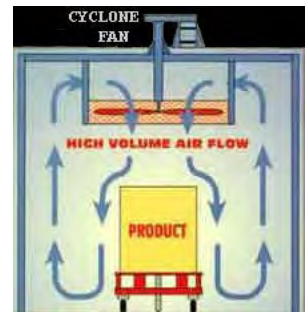


The **Cyclone Oven** is a RSI custom design, perfect for the wood, metal and plastic industries. It incorporates high velocity heated forced air to speed the curing process. High volume air circulation facilitates the transport of heat at designated temperatures, accelerating curing cycle times for high solids, waterborne and traditional coating materials.

Curing cycles are accelerated, providing consistency and stability to the finishing process. Cyclone fans can achieve 20,000 CFM and up to 20 air turnovers per minute.

The RSI Cyclone Oven requires less hardware and ductwork, and have the capabilities needed to be incorporated into conveyORIZED applications.

All RSI Ovens comply with the NFPA, IRI and FM insurance regulations. The RSI Cyclone Ovens are available in gas, steam or electric heat.



The **RSI Halogen Curing System** is a state of the art product. It is the perfect system for metal, plastic, wet paint, powder, or wood. This system reaches its full operating temperature in one second. By rapidly attaining this temperature, the system allows for the immediate transfer of infrared energy to the object being cured, enabling an average cure time, for most waterborne materials, below three minutes. Short-wave infrared penetrates faster and deeper into the finish of the curing material from the inside out.

The many design features of The RSI Halogen Curing System provide easy utilization and prove to be an economical necessity. The halogen elements operate in the short wave heating spectrum at 4,040 degrees Fahrenheit compared to 1,530 degrees for quartz elements. The halogen elements convert 95% of electricity into infrared heat as compared to 70% for quartz type elements. The snap-in-halogen element receptacle has a life expectancy of over 6,000 hours and the elements can be changed in seconds. Halogen reflectors pivot 30 degrees providing easy heat focus. The interior walls and reflectors use anodized aluminum that has a 92% reflectivity and will never rust or corrode.





I.R. Ovens used to flash off the water based color top coat in only a one (1) minute exposure cycle prior to getting the high solids solvent based clear coat applied in the next booth.

They allow the Companies to fit this IR flash off system into their plants without major booth and conveyor modifications in order to convert over to water based color paints. Most of these were originally designed to be processing "wet on wet" solvent based top coats/clear coat paints which only allowed one minute of flash off time between the two coats.



This technology employs "High Purity" (also known as "narrow spectrum") medium wavelength infrared. The long term success we have had with these installations clearly demonstrates our capabilities.

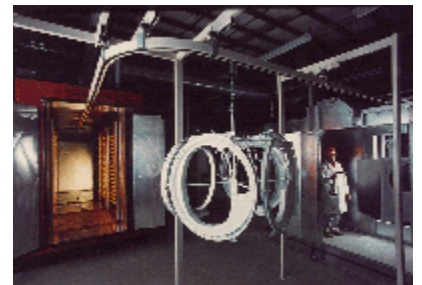


This demonstrates the technology of maintaining "wavelength purity" by utilizing twin tube gold back quartz IR emitters, sliding mounting tracks for field adjustment, and interior oven wall reflectors which are gold plated to obtain 99% reflectivity of the primary emission for ultimate wavelength purity.



This IR Moving Arch application is for drying and curing a 2K polyurethane paint which has just been applied to railcars within the spray booth. This moving IR Arch is stored at the end of the booth area with it's legs folded up and it is protected by a plug type baffle to keep any over spray from getting on the IR equipment when it is not being used.

Once the paint is applied, the system is activated and the arch automatically moves over the railcar at a specific recipe of power intensity and rate of movement (speed). The system allows for many recipes to be able to process primer, topcoat, and metallic paints of various paint suppliers which all may have slightly different IR processing requirements.



The other photo is of our testing facility which is solely dedicated to developing and then validating innovative thermal and UV related processes.





Air Makeup Units



RSI Air Makeup Systems



RSI Air Makeup Systems, when supplied with the fabric distribution duct, will have a direct impact on employee comfort, morale and productivity. A RSI Air Makeup System can be designed utilizing a variable inlet air damper to effectively control the level of positive pressure in a finishing environment. A more precise method of control utilizes a variable speed AC inverter to precisely control the fan motor speed in response to the pressure sensor placed in the finishing room. As the demand for replacement air



increases as a result starting or stopping a spray booth, the air makeup unit responds almost immediately by varying the amu fan motor speed. This important option prevents an undesirable positive or negative pressure situation from occurring. RSI can also supply combination systems incorporating both 100% supply units in conjunction with variable supply units to satisfy virtually any replacement air requirements.



RSI Distribution Duct

RSI Distribution Duct is very flexible and forgiving and is making metal and preformed duct work a thing of the past. The RSI distribution duct allows you to achieve a “balanced” flow in your factory thereby eliminating “vagrant draft” conditions. Consider A RSI Balanced Air System for your facility.



Improve Quality and Productivity

Most people take air for granted. Did you know that the quality, temperature, contaminants, and method of movement of the air in a finishing room could have a direct impact on employee comfort, morale and productivity?

RSI has a history of being able to offer a variety of solutions to problems like these and others to solve

your replacement air, night and weekend heating and air distribution requirements.



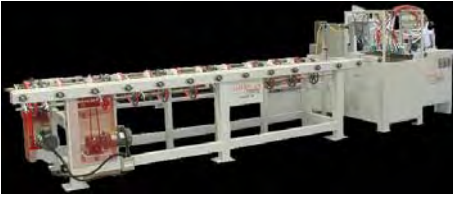
RSI can offer a variety of systems ranging from a variable displacement air make-up system, 100% supply system, either direct fired or indirect fired, and a precisely controlled and integrated air distribution network that will greatly improve employee productivity by improving air quality, controlling airborne contaminants, and increasing employee comfort. RSI also offers a variety of control options that allow you to customize your system to provide the level of precise control that your process may demand.

Look to RSI today for help with all of your air make-up and air distribution requirements.





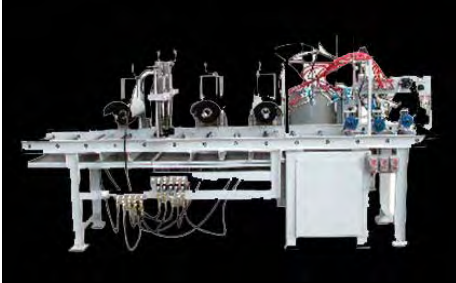
Flatline Finishing



Complete Systems

Many of our machines can be combined together to create a fully automated system capable of meeting the production demands of your specific industry. Get an edge on the competition!

At RSI, Inc, we will work with you to determine the specific needs of your company and create a system that will greatly increase your production efficiency.



Speed-Up Conveyor

The Speed-up Roller Conveyor is designed to carry material from one operation to the next.

Speed-Up Belt Conveyor

The Speed-up Belt Conveyor is designed to carry material from one operation to the next.



Angled Roller Out-Feed Conveyor

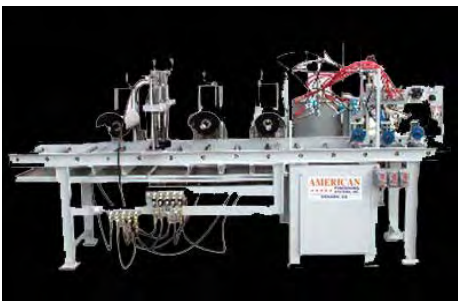
The Angled Roller Out-Feed Conveyor is designed to transfer work pieces 90° from the Belt Conveyor, then into the next operation. The Transfer Conveyor consists of powered conveyor rollers, with pop-up transfer belts.

Custom Machines

Can't find the exact machine you're looking for? Let RSI build you a custom machine that fits your specific needs.

Whether you want a simple modification to a machine we already make, or you need something designed from the ground up, rest assured that RSI will design something that fits your needs perfectly.

We can even design a complete system that will greatly increase your production efficiency and give you an edge on the competition.



Lineal Profile Sander/Polisher

The Lineal Profile Sander/Polisher is designed to perform a wide variety of surface treatments on mouldings, slats, wood, or plastic parts, with virtually no change to the moulded profile. Typical uses include: sealer sanding, base coat sanding, de-nibbing, or polishing between coats, as well as high gloss polishing, and buffing. It can also be used for bare wood sanding to improve finishing. In some situations, it can remove knife marks, but it is not specifically designed, or guaranteed to remove them.





Automatic Sprayer/Finisher

The Automatic Sprayer/Finisher is designed for lineal spraying and finishing of flat or profiled lengths. Common applications include architectural millwork and trim, picture frame mouldings, furniture, and cabinet parts.

Sprayer / Stain Wiping Machine

The Combination Sprayer / Stain Wiping Machine is designed for wiping stains, spraying lacquers, sealers, primers, and paints. The machine combines the features of the RSI. Sprayer and the Multi-Function Stain Wiper in one versatile, efficient machine.



Red-Belt Conveyor 14' wide x 60' long with 90° Transfer Conveyor

The Single Level Belt Conveyor, with 90° Transfer consists of (1) Seven Strand, Single Level Red Belt Conveyor, and (1) 90° "Pop-up" Transfer conveyor. The Belt Conveyor is spaced to handle parts from 36" to 16' long. Certain profiles that are prone to tipping will need assistance during the transfer process. The Transfer Conveyor consists of powered conveyor rollers, with pop-up transfer belts, 90° to the Belt Conveyor.



Automatic Sprayer/Finisher for UV Coatings

The Automatic Sprayer/Finisher is designed for lineal spraying and finishing of flat or profiled lengths up to 12" wide. Common applications include architectural millwork and trim, picture frame mouldings, furniture, and cabinet parts.

The RSI UV Sprayer coats both long and short pieces before they enter the U-V curing tunnel. When the substrate is fed through the machine, the spray guns are automatically triggered and will continue to spray as long as the stock is being fed through the machine. The spray guns will cut off immediately after each piece completes its pass. A special overspray collection tray and exhaust chamber allow captured materials to be recycled. Becoming increasingly popular, U-V coatings satisfy the strictest EPA emissions regulations including California Rule 1136.



Vacuum Coater for Waterborne Coatings

Vacuum Coaters are used for the application of waterborne coatings on wood, metal and other substrates that have a uniform cross section. The coating is applied to all or selected surfaces at the same time while passing through the application chamber at 100% transfer efficiency. The coating thickness applied is controlled through vacuum pressure, line speed and tolerance of the profile gate opening. Operator controls are kept to a minimum and located in a convenient cabinet for ease of operation .

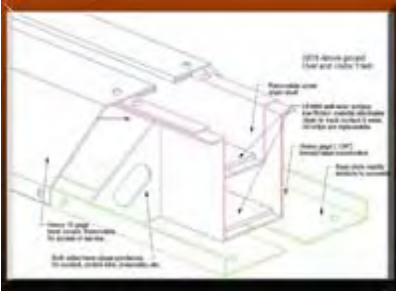
Vertical Door Sander

For Sealer Sanding on a Hanging Door Line. The Vertical Buffing Machine is designed to sand both sides of doors on a hanging conveyor line.





Services

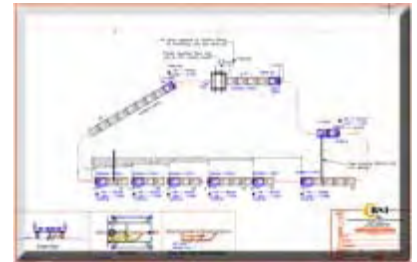


Design:

RSI will design the complete system. We will get the required information and then submit a drawing and or proposal to the customer for their approval..

Engineering:

If a component does not work correctly in the general layout of a finishing system, RSI will engineer the component or complete system until it meets with your complete agreement..



Consulting:

RSI will help the customer in any way possible. RSI will gladly answer all consulting questions and find the correct solutions.



Project Management:

RSI will manage a project from pre-installation straight through to the first piece of product finished on a system..



System and or Component Modifications:

RSI will redesign systems and or components so that it will meet today's needs. From simple modifications to extensive makeovers, RSI will accomplish the job.

Used Equipment:

RSI has a list of equipment available. This equipment has passed our inspection before it is added on our list. Call us for a current listing.





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