The FasterBlaster Cleaning System

Operation, Maintenance & Safety Manual

RBWEnterprises, Inc.
169 Hillwood Circle
Newnan, GA 30263

Phone: (770) 251-8989
Mobile: (770) 757-4944

Video Training Links

FasterBlaster Start-Up & Operation (Horizontal) Video 1 of 3
http://rbwe.wistia.com/medias/jme1y1fhv2

FasterBlaster Start-Up & Operation (Horizontal) Video 2 of 3
http://rbwe.wistia.com/medias/pznhwxxls0

FasterBlaster Start-Up & Operation (Horizontal) Video 3 of 3
http://rbwe.wistia.com/medias/1l73rn32ma

V1-FasterBlaster Vertical Cleaning- Cone Roof Fixture Set-Up
http://rbwe.wistia.com/medias/6wk6l6lmd0

V2-FasterBlaster Vertical Cleaning
http://rbwe.wistia.com/medias/0shxwdxssc

V3-FasterBlaster Vertical Cleaning
http://rbwe.wistia.com/medias/6noqwwm5s5

V4-FasterBlaster Vertical Cleaning
http://rbwe.wistia.com/medias/rfdthid1zf

Adding Shot & Control Cage Operation
http://rbwe.wistia.com/medias/jcmw721dhu

Removing the Dust Barrel & Filters
http://rbwe.wistia.com/medias/t8edcyxbmv

FasterBlaster Hub, Blade & Impeller Installation & Alignment
http://rbwe.wistia.com/medias/ry4i4to674

FasterBlaster Liner Inspection & Alignment
http://rbwe.wistia.com/medias/bcxlbcv6j1

Ecuador Pipe Cleaning Training Video 1
http://rbwe.wistia.com/medias/7wdddsdkf9

Ecuador Pipe Cleaning Training Video 2
http://rbwe.wistia.com/medias/yfsnuf570y

Pipe Cleaning Training Video 1
http://rbwe.wistia.com/medias/kqzlx5ku1b

Pipe Cleaning Training Video 2
http://rbwe.wistia.com/medias/435xy0newp

Pipe Cleaning Training Video 3
http://rbwe.wistia.com/medias/tsfjentys8

Pipe Cleaning Training Video 4
http://rbwe.wistia.com/medias/dsr6wpiydo

CAUTION

The blast machine generates heat. The dust collector creates the vacuum to remove dust, ventilate and cool the machine. If the dust collector filters get plugged, the vacuum will be blocked, causing the machine to heat up and dust to build up in the machine. Some paint dust with high VOC content can ignite and cause a fire in the dust collector. The filters **MUST** be pulsed on a continuous basis. Make sure that these precautions are followed.

1. Make sure that the compressed air hose is attached to the dust collector pulse system and that the air is on before starting the machine.
2. Check the Magnehelic Gauge- Make sure that the needle is on 1 or below. If the needle gets up to 2, stop and pulse down the filters for 10 minutes with the dust collector fan off (leaving the power switch on). If the gauge doesn't drop, replace the filters.
3. Filter replacements must be fire retardant type Donaldson Pt # P527079-016-002.

Six steps to keep your machine in top condition and running properly

1. Use only S-330 or S-390 steel shot. If an angular profile is required, use GS-25 or GP-25 grit. Never use: small grit (G-40), hard grit (GH,GM or GL), or shot larger than S-390. Never use recycled shot or grit. The use of abrasives, other than the recommendations above, will result in high wear and will damage the Blast Wheel components, the Liners, the Blast Cabinet and the Blast Motor.

1. If the blast motor starts vibrating, the blast wheel assembly is most likely out of balance due to wear or improper installation. Stop the machine and fix the problem. The blast motor bearings and the aluminum bearing support housing will be damaged if vibration is unchecked. Check the blades and impeller for wear or damage and repair or replace as needed. Be sure to weigh each blade and to install blades of equal weight directly opposite one another to assure a balanced wheel assembly. Review page 20.

2. Remember that the most important factor for good cleaning, high production and minimal abrasive leakage is good vacuum. Eliminate vacuum leaks by keeping all connections tight, all seals in good condition and all gaps filled with silicone. Check for leaks by running the dust collector fan without the blast wheels running. Listen and feel for air leaks around all connections and seals on the machine, the dust collector and the exhaust hose connecting the two units. Tighten connections, replace worn seals and fill any and all gaps with silicone. Check the exhaust hose for holes and damaged or collapsed areas. Check for a tight seal between the dust drum and the dust collector. Make sure that the air supply is connected to the dust collector filter cleaning system. Check the magnehelic gauge on the dust collector to make sure that the filters are not plugged. The magnehelic should read around 1 or below. If readings of 2 or above is noted, stop the operation for 10 minutes, turn off the dust collector fan and leave the power switch on so the filters will be pulse cleaned. After the pulse down, recheck the magnehelic gauge.

3. Damaged blades, impellers and liners can cause distortion of the blast pattern and can result in poor cleaning and abrasive leakage. Check the high wear components often and repair or replace as needed. See pages 18-23 to identify the wear components.

4. If any component becomes loose, makes unusual sounds, or malfunctions in any way, do not continue operation. **Stop the machine and fix the problem**. If you are unsure how to fix the problem refer to this manual and / or call RBW Enterprises.

5. Follow all safety instructions in this manual, and all safety signs on the machine. If you see a safety concern stop the operation and correct the problem or call RBW Enterprises.

Index

Hazardous Materials Safety Warning

Some surfaces may contain or be coated with Hazardous Materials. Typical examples of hazardous materials include coatings, which may contain LEAD or other toxic materials, and surface construction, which may contain Petroleum Products, Asbestos, Solvents, or other Harmful Chemicals.
During the normal operation of shot blasting equipment, surface material is removed and dust is created. When the surface material is contaminated, the dust may contain hazardous material.

It is probable that a small amount of dust will be released during the cleaning operation. If this dust contains hazardous material, there is a danger that exposure to this dust may pose a health risk. Before using the FasterBlaster on any surface, the area must be inspected for possible contamination. Before beginning any project involving the removal of hazardous materials, it is the responsibility of the contractor to insure that the work site and equipment to be used have been inspected and the proper authorities have approved the proposed work. It is also the responsibility of the contractor to notify workers of any potential health risks and insure that workers are properly protected from exposure to hazardous materials. It is the contractor's responsibility to keep the FasterBlaster Cleaning System in top running condition to minimize dust leakage.

All Federal, State, Local and Plant Codes and Regulations must be followed when removing, handling, storing and disposing of hazardous materials.

Hazardous Products Safety Warning

The FasterBlaster Cleaning System is designed to clean horizontal and vertical surfaces such as ship hulls, water tanks, oil tanks and bridges. It is the contractor's responsibility to verify the contents of the storage tank or ship hold being cleaned. **Tanks or ship holds, which emit volatile fumes, should be emptied and the tank should be properly degassed before work proceeds**.

The facility owner is responsible for making decisions as to what product fumes are considered volatile and the safety procedures to follow during the cleaning operation. If the product is flammable, the Safety Department should test the fume concentration and issue a **Hot Work Permit** before work is started each day. This procedure should be followed even though the product has been removed.

It is the responsibility of the facility owner to advise the contractor when product is pumped into or out of any tank in the area near the tank being cleaned. All operations should be shut down during the pumping process.

It is the responsibility of the contractor to review the above precautions with the facility owner and to follow the safety procedures.

FORWARD

RBW Enterprises is pleased that you have selected The FasterBlaster Cleaning System for your surface preparation requirements. This self-contained surface preparation machine has been designed for abrasive blast cleaning of both horizontal and vertical surfaces.

This manual has been prepared to assist the owner, his operators and maintenance personnel in understanding the system, in order to operate in a safe and efficient manner. It is essential that all personnel responsible for the operation and maintenance of the machine, study and understand this manual.

Before attempting to operate or service the system, personnel should thoroughly familiarize themselves with each machine component and have a good understanding of its operation.

Operation and maintenance personnel must obey all warnings and safety precautions posted on the machine and stated throughout this manual. Serious injury or severe equipment damage may result if the warnings and precautions are not followed. No instructions, either written or verbal, can be totally effective without the use of sound judgment and good work practices. Owners should provide appropriate training and monitoring to assure that operating personnel follow good work practices.

A periodic review of the safety standards, covered in this manual, should be mandatory for all personnel involved in the operation and maintenance of the equipment. If you have any suggestions for improvements or additions to this manual, please call us. Changes, which occur after this manual is printed, will be made by distribution of revisions. The revisions, when received, should be inserted in the manual in accordance with instructions, which will be forwarded with them. The owner must advise his operators and maintenance personnel of all revisions.

This Operation, Maintenance, and Safety Manual should remain with the machine at all times and should be accessible to the operator for study and review.

This equipment should not be leased or loaned out to other contractors without providing a trained operator and the Operation, Maintenance, and Safety Manual.

No alterations should be made to the equipment without the written approval of RBW Enterprises. Unauthorized changes could affect or negate safety systems that are built into the equipment. Unauthorized changes can also adversely affect the efficiency of operation and create safety hazards.

Receipt of Machine-Examine the shipment carefully for possible damage in transit. If damage is noted, notify the transportation carrier immediately and advise RBW Enterprises. If you have any questions or problems in regard to the operation or capabilities of this equipment, please contact:

RBW Enterprises, Inc.
169 Hillwood Circle
Newnan, GA 30263
Phone: (770) 251-8989
Fax: (770) 251- 8955
Cell: (770) 757- 4944

System Description

(See Photos-page 10: The FasterBlaster System)

The **FasterBlaster** is the only blast cleaning machines that can clean both horizontal and vertical surfaces, such as floors, roofs, side walls of tanks and other structures.. The FasterBlaster can be converted to either the vertical or horizontal cleaning mode in less than 1 hour and can be quickly disassembled to fit through a 24" diameter opening for the internal cleaning of tanks. Due to the compact design, the unit can clean close to obstructions and bottom sole plates of tanks. This unit can also be used for high speed etching of concrete surfaces. The large 16" diameter centrifugal blast wheels are powered by 30 hp-3600 rpm motors. The unit provides a 34" wide blast pattern. Production rates can reach 2000 sq. ft./ hr. on steel surfaces. Concrete surfaces are processed at much higher rates.

In the vertical mode, a **Hoist System**, mounted on a powered **Fixture** at the top of the structure being cleaned, raises and lowers the **Blast Module** as the module and fixture traverse horizontally. The system can provide Spot, Sweep, Commercial, Near-White or White Metal finishes. The operator controls the machine movement, hoist operation, and blast functions from the hand-held **Wireless Remote Control**. The abrasive media is contained, circulated, and cleaned within the Blast Module. A vacuum hose automatically deposits the paint and dust in a 55 gallon drum, located below the portable **KleanVac Dust Collector** on the ground. When the drum is full, it is easily removed and capped for disposal. The total disposable waste, after cleaning a typical 100' diameter tank, would be 2 to 3 drums, depending on paint thickness. This cleaning system eliminates dust emissions and operator safety concerns associated with other cleaning methods. The high cost of blasting, clean-up and disposal is reduced to only a few cents per square foot.

General Component Description

Blast Module

The Blast Module contains two (2) 30 H.P. centrifugal abrasive throwing wheels, an abrasive circulation system and an air-wash separator. The separator cleans the abrasive and removes the paint and dust. The module also incorporates a flexible seal assembly that assures dust free contact with the surface. The Blast Module is protected internally with manganese steel and easily replaceable hard-faced liners. The module is driven along the surface by two variable speed DC gear motors, which rotates two traction tires. All operation functions are controlled by a wireless remote control.

Dust Collector Cart

The lightweight Dust Collector Cart is usually positioned on the ground and in the center of the cleaning path. The operator can pull the unit around the tank as the cleaning progresses. The unit houses the main electrical control panel which feeds power to the FasterBlaster module, winch and fixture drive. The dust collector incorporates cartridge filters and an automatic pulse type cleaning system. A 5 CFM, 90 PSI air source is required to provide air for pulse cleaning the filters. An air cooling system and water filter is provided to remove water from the compressed air.

Winch System
The Winch System includes two cable drums and a drive arrangement which raises and lowers the FasterBlaster Module assembly. The cable drums are grooved to assure proper tracking of the cable. Two (2) one hundred and twenty five foot (125') cables are provided. The winch system operates at variable speeds from 1 to 20 ft. per minute. The winch assembly is mounted to a driven support fixture, which pivots from the center of the tank and moves horizontally around the tank.

Additional Items Supplied with Equipment
All electrical wiring between the control panel and the machine components (100')
Air line between the control panel and the machine components (100')
Power Cable from power source to control panel (200')
Vacuum Duct from dust collector to Blast Module (100')
Field Training (Operation, Safety, Maintenance)
Operation, Maintenance and Safety Manual

Fixtures
Our **Tank Fixtures** include component parts which bolt together to make equipment supports for cone roof and floating roof tanks. The floating roof fixture rides on the wind girder and is adjustable to cover the majority of girder configurations. Fixtures are also available for internal cleaning. Most of the fixture components and fabrications are made of aluminum to minimize weight. The fixtures are powered and operated by the hand held remote control on the ground (See The FasterBlaster System- (page 10) for various fixtures).

Weights
Portable Blast Machine- 2,250 lbs

Portable Dust Collector- 1,550 lbs

Floating Roof Fixture (no tires) – 1,200 lbs

Fixture Drive w/ Idler Tire- 225 lbs

Hoist w/ Electrical Cables- 870 lbs

Spare Parts & Fixture Accessories- 565 lbs

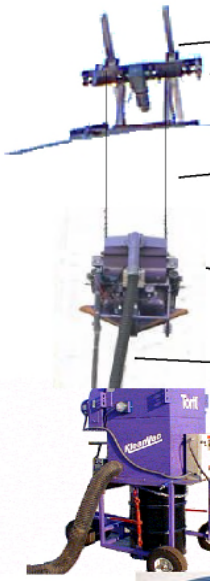
84” x 39” x 39½”- C-Frame w/o Winch- 528 lbs

86” x 40” x 45”-C-Frame w/ Winch- 620 lbs

Cone Roof Fixture w/ Hoist, Winch, & Cable- 1,800 lbs
- 75’ Cable for Winch- 13 lbs
- Winch- 41 lbs
- 200’ Steel Cable- 61 lbs

The FasterBlaster System

Vertical Cleaning Mode



Powered Fixture
0 to 30'/Min. Travel Speed

Hoist System
1' to 20'/ Min. Travel Speed

Hoist Cables (125')

Blast Module
(2) 30 HP Blast Wheels
34" Wide Blast Pattern

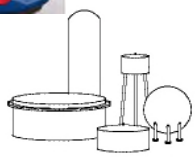
Vacuum Hose (100')

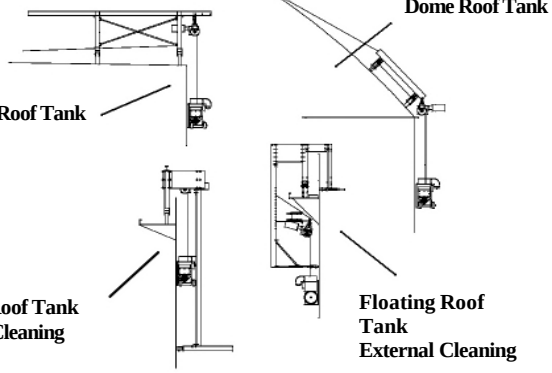
KleanVac Dust Collector
9 Torit Cartridge Filters
Automatic Air Pulse System
Air Dryer System
Blast System Control Panel
Deposits Paint and Dust into 55 Gal. drums

Hand Held Remote Control
Operates all Functions
Wireless Operation

Horizontal Cleaning Mode

Tank Fixtures





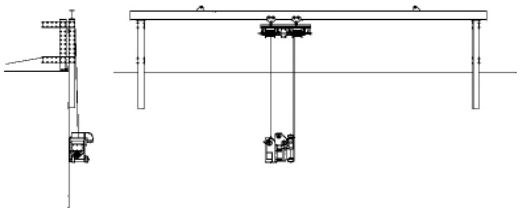
Cone Roof Tank

Dome Roof Tank

Floating Roof Tank Internal Cleaning

Floating Roof Tank External Cleaning

Ship Fixture



Weights & Measures

- **Blast Module –** 2,250 lbs.
  (26" wide x 48" long x 45" tall)

Hoist System – 870 lbs
(67" long x 36" deep x 18" high)

Dust Collector – 1,550 lbs
(45" wide x 67" long x 80" high)

Electrical Requirements

460 v. / 60 hz. / 3 phase
100 amp. - Total Running Load

Operation Requirements

1. 460 volt, 3 phase, 60 cycle, 100 amp. electrical service. A 100KW generator should be used. **A large amperage spike is generated when starting the blast wheel motor- A (100 KW minimum) generator is required to provide the starting current. Starter and motor damage may result if a smaller generator is used.**

2. Grounding rod for generator. **The generator must be properly grounded. Consult the generator manual for grounding instructions.**

3. Five (5) CFM @ 90 PSI air supply.

4. Personnel who are trained by an RBW Enterprises field technician for the operation and service of FasterBlaster equipment.

5. All necessary blasting media. **Use only quality steel shot (S-230 to S- 390) and steel grit (GP-25 or GS-25). Other abrasives may cause extreme wear and machine damage. Hard Grit designated GM, GH, GL, MG, LG, & HG will cause extreme wear. Do not use S-460 Shot.**

6. Observance of all equipment safety labels and precautions expressed in this manual.

7. Compliance with all Federal, State and Local Codes and Regulations.

8. Scheduled maintenance and repair as described in this manual or by RBW Enterprises Field Technician.

9. An inventory of "wearable parts" as outlined in this manual.

10. Fifty Five (55) gal. dust barrels with lids for dust collection refuse.

11. All tools and accessories as listed under Tools and Safety Equipment in this manual.

12. All safety equipment, monitoring devices, personnel training and documentation as required by Federal, State and Local Codes and regulations.

13. Continued employee training to assure that all operators have read and understand the Operation, Maintenance, and Safety Manual. This includes any and all updated information and revisions.

Tools and Safety Equipment

The following equipment is essential to safe operation and should be on the job site **before** set-up is started

Boom truck or crane- Equipment should be capable of lifting 2,000 lbs. to a height well above the top of the tank or ship being cleaned. (Heaviest lift, the Fixture and Hoist, is 1500 lbs.)Hook should have safety latch.

Slings or lifting cables- Slings should be in good condition and certified for loads well above weight being lifted. Slings should be long enough to assure that a proper lift angle vs. load rating ratio is maintained. (2 required)

5/8" Shackles- To attach slings or lifting cables to pick up points (6 required).

Tie down straps, chocks- Equipment necessary for safe transport of system components.

Tarps or Ground Covers- 10' x 20' long to catch abrasive leakage

Hand tools: Equipment required to maintain system components

Open End Wrenches- (2) 7/16"- (2) $^1/_2$"- (2) 9/16"- (2) $^3/_4$"-(2)15/16"-(1) 1 1/16"-(1) 1 1/8"

Socket Set- 7/16"- $^1/_2$"- 9/16"-3/4"-15/16"- $^1/_2$" Ratchet and Breaker Bar

Allen Wrenches- (1) 3/8"- 3/16"- 1/8"

Screw Drivers - (1) Large Straight, (1) Small Straight, (1) Miniature Straight, (1) large Philips, (1) Small Philips, Pry Bar, Hammer, Push Broom, Flat Shovel

$^3/_4$" Air Line - Air supply from air compressor to Dust Collector

Fixture Cable & Clamps - (3/8" cable)(Supplied by RBW Enterprises)

Plastic Buckets & Scoop - For general abrasive handling

55 gal. Drums - For dust disposal

Abrasive Media - Steel shot and/ or steel grit

Weather covers - For FasterBlaster, Dust Collector, and winch

Brooms & Buckets - For sweeping up abrasive after cleaning tank roofs & floors

ABC Fire extinguisher - General purpose for all types of fires

Multimeter - For Electrical Trouble Shooting

General Safety Equipment:

First Aid Kit, Safety Glasses, Steel Toed Shoes

ABC Fire Extinguisher

Hard Hats, Danger Barrier Ribbon, Gloves

Equipment required by OSHA, EPA & other Federal, State, Local and plant codes.

Utilities - 460 V. 60 HZ. 3 Phase Current (100 AMP Breaker) or 100KW generator

- 5 CFM, 90 PSI. air supply

NOTE: The 30 HP. Wheel motor pulls high initial starting amperage. Use 100 KW generator or larger.

Safety Instructions

This Operator's Manual has been specifically prepared for operating and maintenance personnel working with the FasterBlaster Cleaning System. The information in this manual is intended to provide an understanding of the equipment for safer operation and maintenance procedures. **Maintenance and operating personnel must read and have a thorough understanding of the contents of this manual**. It is extremely important that operators and maintenance personnel observe all warnings and precautions covered in this manual, the safety and warning labels posted on the machine, and the safety program established by your management.

No instructions, written or verbal, can be effective without the use of sound judgment and good work practices in the operation and maintenance of the equipment. Listed below are practices that should always be observed.

1. If irregular or hazardous behavior of the machine occurs during blasting, immediately depress the E-Stop (Emergengy Stop) button on the remote control and then shut off the Main Disconnect Switch on the main control panel on the dust collector.
2. Before operating, make certain that the machine can clear or travel around all obstructions in the work area. The work areas must be dry and cleaned of any loose debris at the start of cleaning.
3. All guards must be in place during operation. The main power must be locked out before removing guards or performing maintenance on the machine.
4. All personnel in the immediate area of the machine must wear safety glasses with side shields whenever the machine is operating. Also, protective clothing is recommended for the operator. Never wear loose clothing when working around blast equipment. Hard hats, long-sleeve shirts, gloves and safety shoes are recommended.
5. Since abrasive impacts the work surface at high velocity, leaking abrasive can sting if it contacts unprotected skin areas. The blast module must be sealed to the work surface during operation to prevent possible injury from flying abrasive. Review the seal adjustment procedures.
6. Do not lease or loan the machine to others without providing a trained operator and The Operation, Maintenance and Safety Manual.
7. Before performing maintenance of FasterBlaster equipment, a **Zero Mechanical State (ZMS) must be achieved in which:**
    a. All power source that can produce mechanical movement has been locked off.
    b. The mechanical potential energy in all portions of the machine must be at their lowest practical values.
    c. The kinetic energy of the machine members must be at the lowest practical values. Loose or freely movable machine members and parts must be secured against accidental movement.

EXAMPLE : A rotating part, such as an airless blast wheel, will continue to rotate for a period of time after the electrical power has been shut off.

8. The machine and areas around the machine must be kept clean as loose shot can make surfaces slippery and dangerous. All leaks in the blast module, sea housing and the abrasive recycling system should be repaired immediately.

9. A safety Harness **MUST** be worn when operating the machine or checking fixture operation on the roof of tanks.

10. Any condition(s) that may result in further damage to the machine or cause injury to personnel, should be repaired **immediately.**

11. Do not attempt to service or adjust machine components while any part of the machine is in operation. Always lock out the power supply and the Control Panel Disconnect Switch before making adjustments or conducting maintenance.

12. Obey all safety signs and other precaution information posted on the machine and in the areas where the machine is operated. Replace any damaged or missing safety labels.

13. Do not operate FasterBlaster machinery in the presence of rain or heavy moisture. Do not expose the abrasive supply to water or heavy moisture.

14. Always cover the Blast Module and Dust Collector and Winch after work is completed each day. If rain is expected, it is a good idea to drain the abrasive out of the machine.

15. Do not operate the machine with the electrical panel door open. A door interlock prevents the door from opening unless the main disconnect switch or circuit breaker is off. The disconnect switch should not be turned on by over riding or bypassing the door interlock.

16. Never use a power source other than 460v/60 cycle/3 phase current. Never apply an auxiliary power source to the 120v. machine circuit – the source could produce dangerous currents back through the 460v to 110v transformer and cause injury or death.

17. Never use oversize fuses or circuit breakers. Never bypass any fuse or circuit breaker. Always refer to the electrical drawings provided for proper fuse sizes.

18. Use overload coils/relays for the motor starter(s) that are rated for the amperage of the motor(s) as shown on the motor nameplate.

19. Disconnect all power sources before attempting maintenance or repair of electrical motors on the equipment.

20. Avoid contact with rotating parts of the motors, drives or driven components.

21. Before starting the motor(s), check that the correct power supply (voltage, frequency and phase) is being used and that the motor(s) are connected per the connection diagram. Check the motor(s) for the correct rotation. Sustained improper rotation of motors will cause damage to the machine components. Low voltage will damage electrical components.

22. All abrasive blast equipment must be properly ventilated to be environmentally safe. Proper ventilation benefits the operator, the machine efficiency, and minimizes wear and maintenance. Filters must be kept clean and dry. It is important that the dust drum be replaced before it becomes full. The drum should be immediately capped, sealed and stored away from the equipment operation. Dust can be easily ignited when stored in an open condition. Capping and sealing the drum will eliminate the risk of spillage and minimize the risk of fire or explosion. Some types of paint dust can be flammable. To minimize the possibility of a dust collector fire, it is important to assure that the filters are clean and are made of fire retardant materials. Only use Donaldson Pt# P527079-016-340 replacement filters (Do not substitute). Check the Magnehelic gauge often to assure that the filters are clean.

23. When transporting the equipment from job site to job site, special care must be taken in securing the equipment to the deck of the transportation vehicle. Both wheel chalks and tie down straps should be used.

24. All hose section ends, dust collector inlet and the blast module outlet should be covered to eliminate dust leakage while transporting the equipment.

25. The main power supply cable and the power cable harnesses, which run from the Dust Collector to the FasterBlaster Module, carry 460 Volt 3 Phase current. Extreme caution must be taken in protecting the cables from damage. **FAILURE TO DO SO, CAN RESULT IN INJURY OR DEATH.**

26. When standing water exists, plans should be made to keep equipment and power cables dry.

27. All personnel should keep clear of overhead equipment during the setup, operation and breakdown procedures. Erect a danger barrier around the operation.

28. All federal, state, local and plant codes and regulations must be followed when removing, handling, storing and disposing of hazardous materials.

29. The Operation, Maintenance, and Safety Manual should remain with the machine at all times, protected from damage and accessible to the operator for study and review.

30. This equipment should not be leased or loaned out to other contractors without providing a trained operator and the Operation, Maintenance, and Safety Manual.

31. No alterations should be made on the equipment without the written approval of RBW Enterprises. Unauthorized changes could affect or negate safety systems that are built into the equipment. Unauthorized changes can also adversely affect the efficiency of operation and create safety hazards.

32. When power cables are run through portholes or over roof ledges, the cable should be wrapped with rubber to minimize wear from the opening or ledge. When standing water exists, plans should be made to keep equipment and power cables dry.

33. All shackles should be 5/8" with a 3 1/2 ton rating. All cables are to be attached using three cable clamps. Clamps must be 3/8" and mounted per specifications.

34. If the stand pipe used to secure the fixture support cable has no flange, a safety device should be incorporated to assure that the cable cannot slide up and off the pipe. Make sure that stand pipes and all tie points, used in securing the safety cable, are structurally sound and capable of supporting heavy loads.

35. Extreme caution must be used in attaching cables to fixtures and center hub systems: Use 3/8" stranded steel cable with load rating of 12,000 lbs. or greater. Use 5/8" shackles where cables can be damaged by sharp edges. Use at least (3) 3/8" cable clamps at all connections.
Attach cable clamps as shown in the manual. Check all cable attachment points before starting work at each shift. Wire tie shackle bolts to prevent rotation.

36. Extreme care must be taken when lifting the FasterBlaster or Dust Collector. Position lifting straps so the unit is level. Straps must be certified for the load, in good condition, and secured in accordance with good safety procedures.

37. Make sure that the path is clear for the hoses and electrical cable when operating the machine. Know, in advance, where vents or obstructions are that could interfere with the cables. Additional personnel should be assigned to watch the cables and hoses when obstructions are present.

38. If a coating is to be removed from the surface, samples from various areas should be tested to determine if hazardous materials exist. If hazardous materials are present, all federal, state, and local requirements must be incorporated in the operation procedure.

39. The 30 HP blast wheel motor pulls high amperage when starting. The power source must be capable of supplying continuous 60 amp 460 v. 3 phase current. A 100 kilowatt generator is recommended due to the large starting current. The power source must have ground fault protection and be properly grounded.

40. The electric power generator must be properly grounded. Consult the generator's operation manual for grounding instructions.

41. When the machine is temporarily idle, de-energize the remote control by pressing the E-Stop button. If a button is accidentally activated, nothing will happen. To reactivate the remote control, press and hold the reset button on the main panel.

42. When cleaning roofs of tanks, make sure that the safety cable is attached to the center stand-pipe and to the blast module. The cable length must be set so the unit cannot roll off the roof.

43. When the dust collector is placed on the roof, it must be tied down securely to the center stand pipe, hand railing or other structure.

44. Caution- The dust collector is top heavy and should not be rolled down inclines such as ramps, hills, or over pot holes which might cause the equipment to tip over.

Job Site Set-Up

Transporting Equipment

When transporting the equipment from job site to job site, special care must be taken in securing the units to the deck of the transportation vehicle. Both wheel chalks and tie down straps should be used. When securing the components to a transportation vehicle deck, the blast module and dust collector should be strapped from the top as well as from the support base. Each component has designated lift points. These lift points should be used in conjunction with overhead cranes, hoists, or fork lifts, which are the best methods in loading and unloading the equipment (see Lift Points page 60). Caution- The dust collector is top heavy and therefore should not be rolled down inclines such as ramps or hills, or over pot holes which might cause the equipment to tip over.

Should it be necessary to use a trailer ramp, the ramp extensions should be long enough to minimize the incline angle. The flexible duct hoses should be emptied of all residual dust before leaving the job site. **All hose section ends, dust collector inlet and the blast module outlet should be capped before transporting the equipment. A clean dust drum should be in place and secured before transporting the equipment.** This procedure eliminates the possibility of dust spillage during transportation. **Electrical cables and control devices should be protected from load shifts or constant rubbing from vibration of movement.**

Site Preparation

Any supplies, equipment, or debris that interferes with the movement of the Dust Collector Cart, electrical supply cables or dust hoses, should be removed. A plan for safely negotiating around obstructions on the surface to be cleaned should be established in advance. Personnel, in addition to the operator, should be assigned to watch the power cables and hoses when negotiating around protrusions or obstructions. **The main power supply cable and the power cable, which connects the Dust Collector to the Blast Module and Hoist, carry 460 Volt 3 Phase current. Extreme caution must be taken in protecting the cables from damage. FAILURE TO DO SO, CAN RESULT IN INJURY OR DEATH.** A cable can be stressed or broken if it hangs up on protrusions or obstacles as the Blast Module travels along the surface. If other equipment is driven across or set on top of the cables, damage may occur. Keep cables clear and protected. **When power cables are run through portholes or over roof ledges, the cable should be wrapped with rubber to minimize wear from the opening or ledge**. **When standing water exists, plans should be made to keep equipment and power cables dry.** Advise other contractors to keep clear of the operating area. All personnel should keep clear of overhead equipment during the setup, operation and breakdown procedures. Erect a danger barrier around the operation.

If a coating is to be removed from the surface, samples from various areas should be tested to determine if hazardous materials exist. **If hazardous materials are present all Federal, State, and Local requirements must be incorporated in the operation procedure.**

FasterBlaster Parts Overview

Blast Wheel Assy. LH

Dust Collector Assy.

Drive Wheel Assy.

Rear Tire Assy.

Main Seal Assy.

Blast Wheel Assy. RH

Turnbuckle Assy.

Vent Elbow Assy.

Blast Hood Assy.

Hopper Assy.

Exhaust Hood Assy.

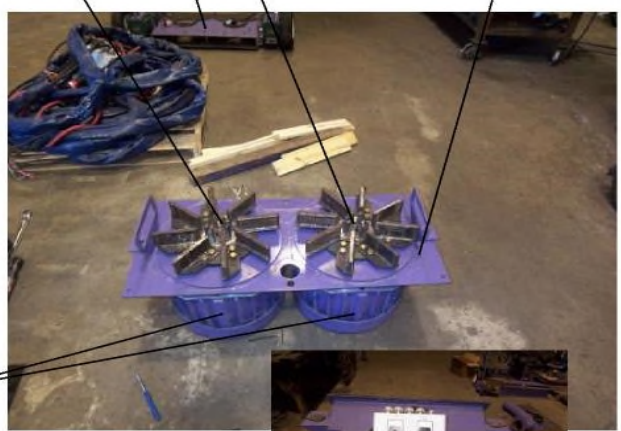
Hopper Assy.

Blast Cabinet Assy.

Impeller LH

Impeller RH

Motor Mounting Plate Assy.



Control Cage Assy. LH

30 HP Blast Motor Assy.

Electrical Cable Harness & Control Panel Assy.

Control Cage Assy. RH

High Wear Replacement Parts

To inspect the blades and liners, unbolt and remove the Blast Hood. With the Blast Hood removed, you can see and inspect the Blades, the Impellers, the Blast Wheel Hub, the End Liners and the Center Liner.

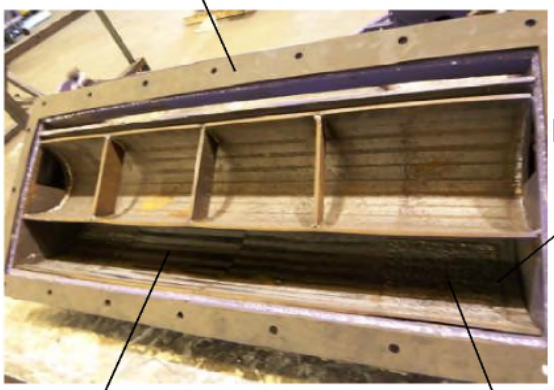
Center Liner

End Liner

Control Cage

Blast Hood

Remove the Control Cages and inspect the wear on the hard faced areas of the two Control Cages.



Inspect the Top Curved liners in the Blast Hood

Top Curved Liner RH

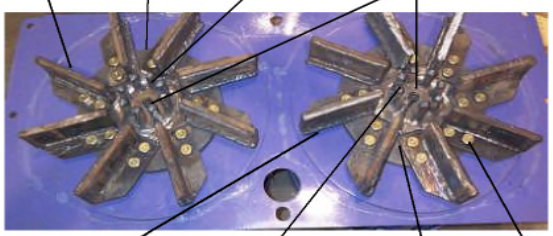
Top Curved Liner LH

Wheel Hub LH

Wheel Blades LH (Set of 8)

Impeller LH

Impeller Bolt



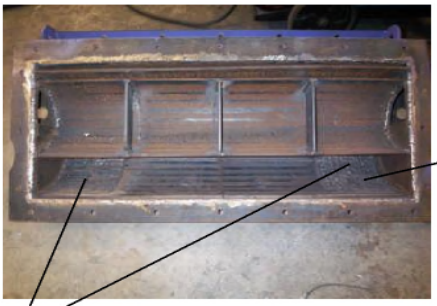
Impeller RH

Blade Bolt

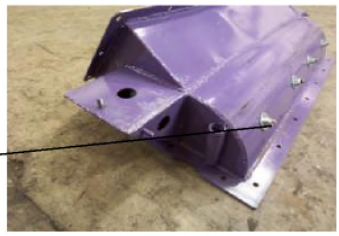
Wheel Blades RH (Set of 8)

Wheel Hub RH

Wear Part Repair and Replacement



Remove the Top Curved Liners and fill any wear areas with hard face weld. If the wear is too great, replace the liners.



When replacing the liners make sure that the hard faced areas are placed toward the end walls of the Hood as shown.

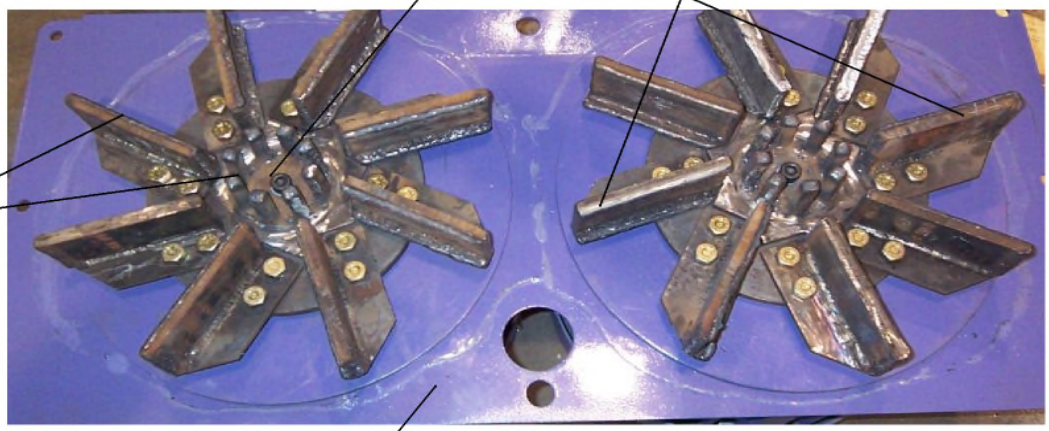
To remove the Top Curved Liners, remove the four nuts and washers on the Blast Hood. Then tap on the studs to loosen the liners.

To remove the Impeller, remove the Control Cage Assy. and loosen the Impeller Bolt with a 3/8" Allen socket and a long extension. When installing a new impeller, be sure to install the $^{1}/_{2}$" lock washer and to use Locktite on the Allen bolt.

New blades come pre-weighed and tied together in pairs. When installing new blades, place the pairs directly opposite one another so the Blast Wheel will be balanced.

Opposite blades must be equal in weight

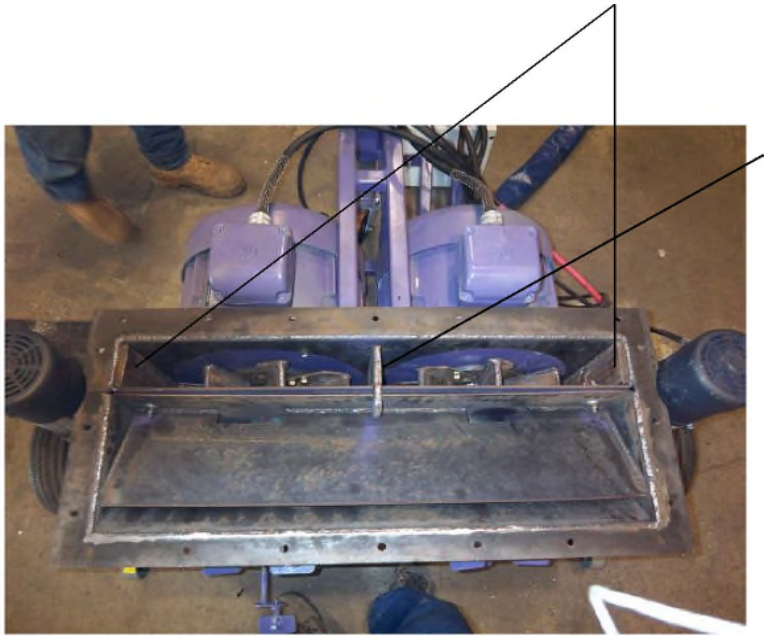
Fill wear areas on the blades and impellers with hard face welding rod. Be sure to weigh each blade and remount equal weight blades directly opposite one another.



Note: In this photo, the Motor Mounting Plate Assy. has been removed from the Blast Cabinet for clarity in showing the Blades and Impellers. The blades and impeller can be removed without removing the Mounting Plate.

To remove worn blades, block the wheel assembly with a 2x4 to keep the wheel from spinning, then loosen the two blade bolts with a breaker bar and $^{3}/_{4}$" socket. After both bolts are loose, remove the bolts with a ratchet.To reinstall the blades, use Locktite on the bolts and use the breaker bar for final tightening.

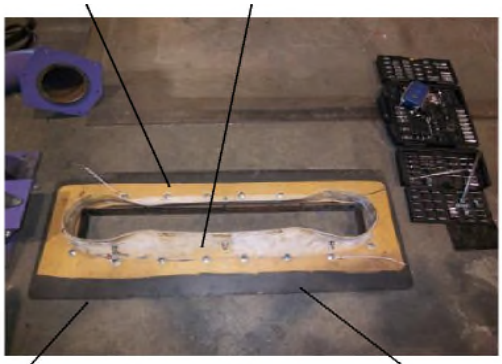
Remove the two End liners by removing the nut on the end wall of the Blast Cabinet. Tap the end of the threaded stud to loosen the liner.



The Center Liner must be removed by driving it up from the bottom side of the blast cabinet with a hammer. Fill any wear areas with hard face welding rod and reinstall by driving it down from the top side of the Blast Cabinet. Drive it down into the notched cutout in the cabinet and the pocket in the Hopper. Be sure to center the bottom of the liner equal distant from the two Blast Wheels. Tap the liner bottom end to the right or left to center it between the two sets of blades.

Main Seal Parts

Top Cover Seal Vertical Seal



Center Retainer Side End Retainer

Tapered edge on Main Seal Main Seal End Retainer

Center Seal Frame End Seal Frame

Step 1- Lay the Retainers out on a flat surface with the threaded studs facing upward. Place the black Main Seal down over the studs. Make sure that the tapered edge on the main seal is down facing the floor.

Step 2- Place the Center and End Seal Frames over the studs. The Main Seal is sandwiched between the bottom retainers and the seal frames.

Step 3- Place the Top Cover Seal over the retainer studs. The seal must be stretched to fit over the seal frames. Install flat washers and lock nuts as shown.

Step 4- Install the two manganese protector bars. Force the bars down in between the Seal Frame and the Top Cover Seal. Push the threaded studs through the holes in the seal as shown.

Manganese Protector Bar

Step 5- Glue the Top Cover Seal to the Main Seal by spreading contact cement around the perimeter of both seals.

Step 6- Wrap the Vertical Seal around the assembly and attach it over the threaded studs of the Manganese Protector Bars. Install flat washers and lock nuts on the studs as shown.

Step 7- Lower The Blast Cabinet down on the Seal Assy. Pull the Vertical Seal up around the Blast Cabinet and make sure that the Blast Cabinet is seated down inside the Seal Frame. Stretch the Vertical Seal over the threaded studs on the Blast Cabinet and install the Vertical Seal Retainers.

Vertical Seal Retainer

Support Cables

Lock Down Nut

Step 8- Install the four Support Cables from the corner retainer studs to the lock down coupling nuts on the Blast Cabinet, as shown. The cables should have enough slack to allow the seal to float, but tight enough to support the seal assembly when the machine is lifted off the ground.

Connection Seals

Note: When replacing seals, attach the seal to one of the two surfaces with silicone.

Hopper Seal

Cabinet/Hopper Flange Seal

Control Cage Seal

Inspection Cover Seal

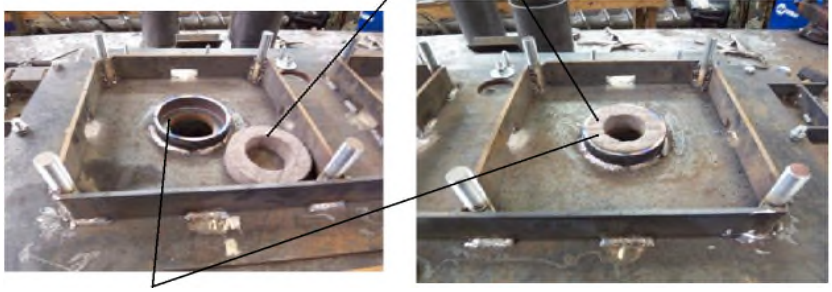
Hood Seal

Exhaust Seal

Screen Seal

Shot Adder Seal

Motor Shaft Felt Seal



Glue the felt seal in place with silicone

Dust Collector Parts

Dust Collector Inspection and Maintenance

Before beginning maintenance work, all power sources (Electrical, Pneumatic, Mechanical) must be locked off, tied off or otherwise neutralized to be considered harmless. It is important that operators and maintenance personnel receive regular equipment safety training and have a thorough working knowledge of all electrical, pneumatic and mechanical aspects of this equipment and observe all warnings and precautions.

- Check the dust drum often - It must be replaced before it is full to avoid spilling dust. Use a hammer or heavy wrench to rap against the drum to determine the dust level.

- The dust collector fan exhaust and the magnehelic reading should be monitored continuously during the cleaning operation. A loose or damaged filter can allow dust to bypass the filtering process and be discharged into the atmosphere. Clogged filters can make the dust collector inefficient and cause the FasterBlaster to emit dust. Check the Magnehelic gauge- If it is 1 or below the filters are ok. If the gauge is over 2, the filters may be clogged. Clean the filters by allowing the air pulse cleaning system to operate, with the dust collector fan off for 10 minutes. Poor ventilation will also result in excessive loss of abrasive and can effect the cleaning quality. Proper ventilation is essential to good performance and environmentally safe operation.

- Make sure that the air-pulse cleaning system is working properly and that the air compressor is supplying 90 psi air to the system. Check each Goyen valve to assure that it is pulsing every 45 seconds. The “blow down” signal for each of the (3) Goyen Valves comes from the programmable controller in the dust collector panel. The program is set to pulse each valve sequentially. Pulse time is set for 100 m/s On and 15 seconds Off. Each valve blows down (3) of the (9) filters every 15 seconds. If longer or shorter pulse times are required, a program change is necessary- Contact the factory for program changes. If a valve is not operating, the valve may not be getting a signal from the control panel. Trace the wiring continuity from the valve to the control panel.

- Keep the dust collector out of the weather when not in use. During the cleaning project, cover the unit when not in use to protect it from rain. Make sure that the control panel door is tightly sealed at all times to keep out dust and moisture. **Caution- make sure that a drum is in place at all times**. If the drum is not in place, dust can escape and moisture can collect on the filters. **Filters must be kept dry for proper operation**.

- Replace filters every year. **Caution- When replacing filters or drums, wear dust protection equipment as required by Federal, State and Local Codes.**

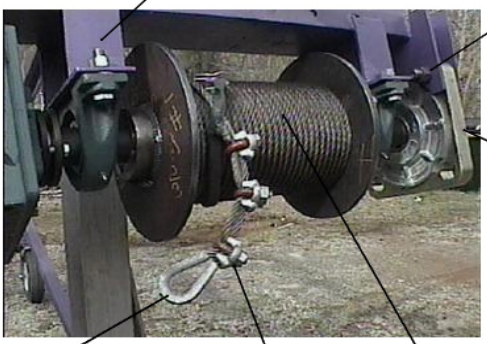
- Check the condition of power plugs, cables, connectors and support slings every day. **Caution-Replace or repair damaged plugs, cables, connectors and support slings immediately before operating the machine**.

Special Note:

All abrasive blast equipment must be properly ventilated to be environmentally safe. Proper ventilation benefits the operator, the machine efficiency, and minimizes wear and maintenance. Filters must be kept clean and dry. It is important that the dust drum be replaced before it becomes full. The drum should be immediately capped, sealed and stored away from the equipment operation. Dust can be easily ignited when stored in an open condition. Capping and sealing the drum will eliminate the risk of spillage and minimize the risk of fire or explosion. Some types of paint dust can be flammable. To minimize the possibility of a dust collector fire, it is important to assure that the filters are clean and are made of fire retardant materials.

Only use Donaldson Pt# P527079-016-340 replacement filters (Do not substitute).Check the Magnehelic gauge often to assure that the filters are clean.

Hoist System Parts



Hoist System Inspection & Maintenance

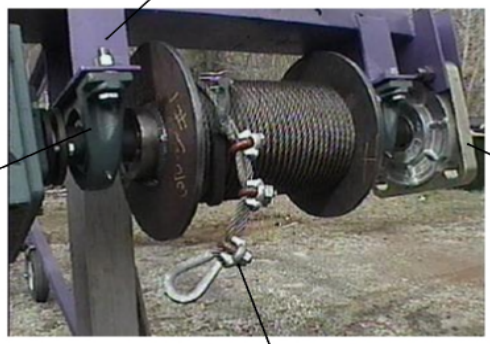
Caution-Cable clamp saddles must be placed on the lifting segment of the cable as shown.
"Never Saddle a Dead Horse".

Make sure all shackles are wire tied.
All shackles must be 5/8".
Check shackles daily.

Check gearbox oil level
every 12 months-level should be 6" from top of box or approx. center of shaft. (box must be level).
Holds 168 oz. –use Mobile SHC 634

Grease bearings every 6 months

Check bearing bolts before starting each project. Bearing bolts must be 5/8" Grade 5.



Lubricate bearings before every project.

Safety Brake
Cover the brake when not in use to keep water, blast sand and dust from the unit. **Dust and water can cause the brake to malfunction.**

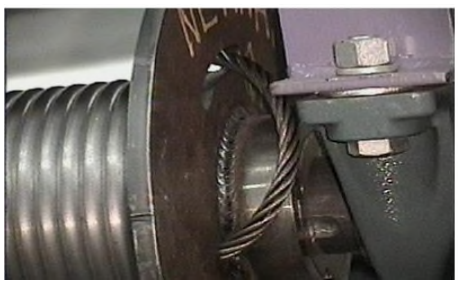
Make sure that at least three clamps are used on each cable and that the clamps are tight.
Check and or tighten cables daily.

Caution:

- **Check cables often. If cables become frayed, they must be replaced.**
- **Cable must be hoist-rated at 13,000 lbs.-Call RBW for replacements.**
- **Tighten clamps often- always use at least 3 clamps per cable.**
- **Keep the hoist covered when not in use. Protect the brake, drive and cables from dust and water damage.**

Cable Installation

Run the cable end through the slotted hole and then through Pull the cable through the drum and out the hole in the side of the drum end wall. Run the cable hole in the opposite side. Clamp the back through the inside of the hoist drum cable in the welded saddle as shown.



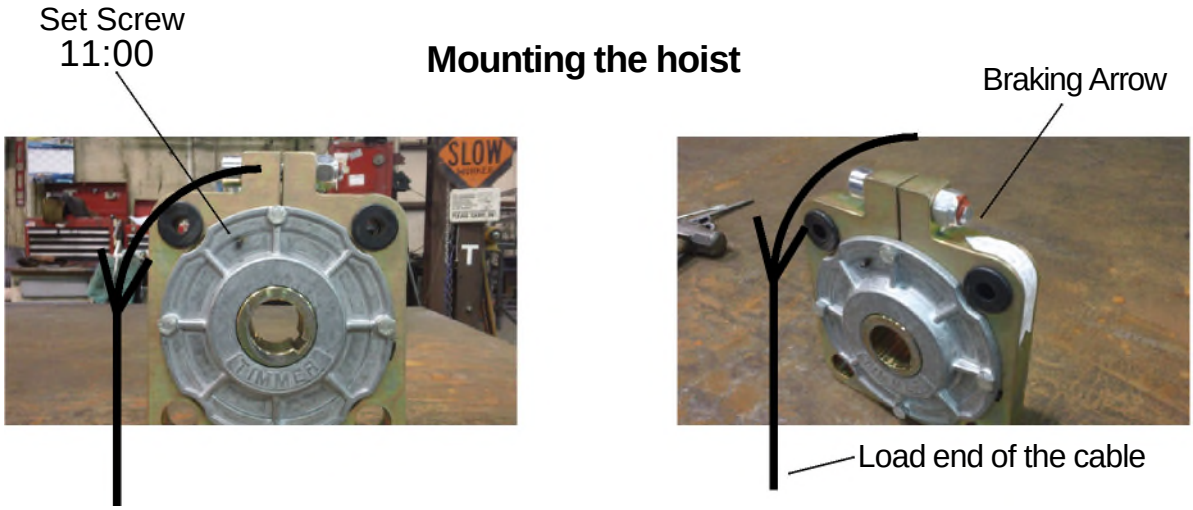
Caution:

- **Cable ends must be secured properly - When replacing cables, call RBW for cable replacement specifications and special instruction.**

Hoist Centrifugal Safety Brake

The centrifugal safety brake is incorporated in the hoist system to prevent the machine from falling should there be a malfunction in the hoist drive system. Should the machine start To drop, the centrifugal brake will lock up immediately and stop the dropping load by means of centrifugal force. It is important to understand how the brake must be mounted, how it works, how you can tell if it has engaged and how to reset it.

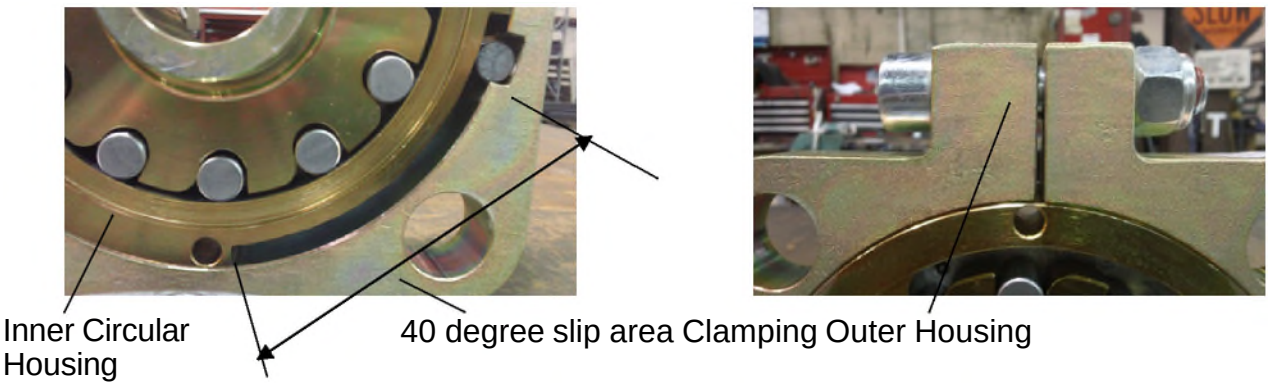
Mounting the hoist



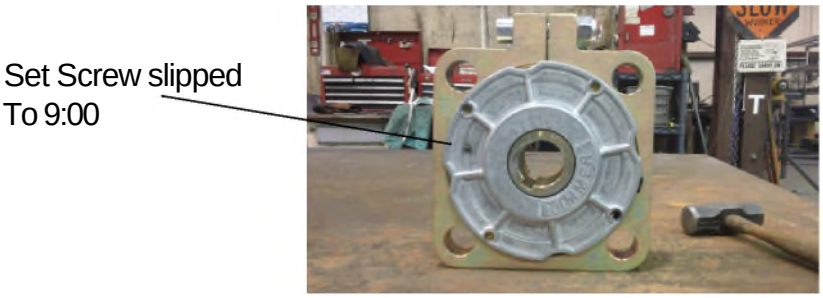
The brake must be mounted so the set screw is at 11:00 when viewing from the brake end of the hoist shaft and the braking arrow on the brake is pointed toward the load end of the cable.

How it works

The brake is made up of a rotating hub with 12 grooves for supporting 12 cylindrical rods which move around the perimeter as the hub rotates. If the hub should spin faster than the normal hoist speed, a rod will be thrown upward into the 11:00 notch shown above. The rod will jam the hub and stop the falling load. The shock of the jam is absorbed as the inner circular housing, which is highly clamped by the brake outer housing, slips as much as 40 degrees, as shown below.



If the brake has tripped, the set screw will have slipped and will be somewhere between 11:00 and 9:00. If this occurs, the



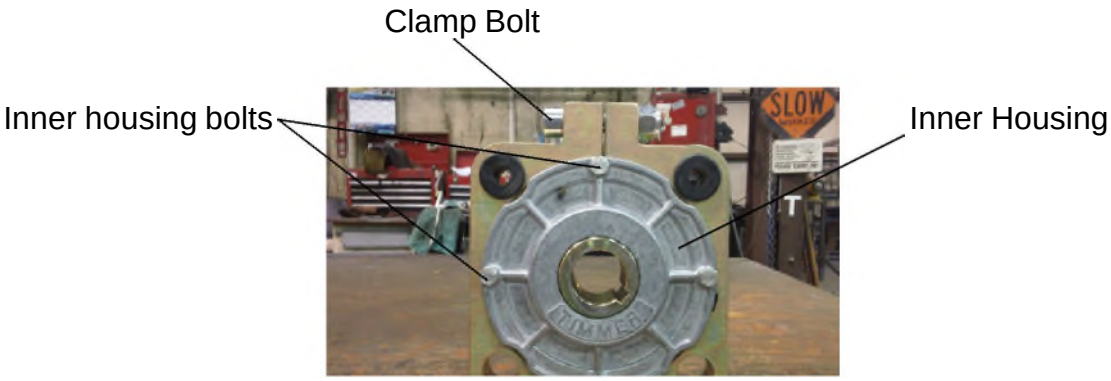
Caution- If the brake has tripped, the hoist will jam during normal operation. It must be reset for safe and proper operation. Before attempting to reset the brake, the machine must be removed from the hoist cables.

Remove the inner housing cover and inspect the cylindrical rods and the hub grooves. If damage is noted, the brake must be replaced. Check the bearings in the inner housing covers for wear.

To Reset the Brake

Note: You will need a 5/8” Allen Wrench, a 1-3/16” socket and a torque wrench to loosen and tighten the Clamp Bolt.

After the machine weight has been removed and the rods, hub and bearings check ok, loosen the clamp bolt and the (4) inner housing bolts and rotate the inner housing assembly clockwise until the set screw is back to 11:00. Tighten the (4) Inner housing bolts and tighten the clamp bolt to a torque of 80 Newton Meters (708 In. Lbs.) (59 Ft. Lbs.).



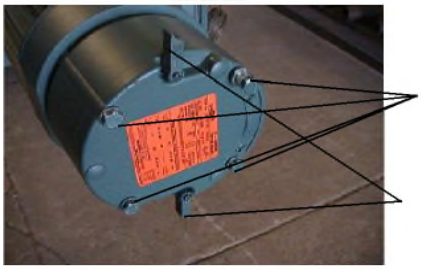
Hoist Motor Brake Instructions

Problem

Brake is smoking or the hoist motor circuit overload kicks out repeatedly.

Solution

Brake disc is jammed with dirt or rust. Clean out the disc and housing. Follow instructions below.



1. Make sure the machine is on the ground and the cables are disconnected from the machine.
2. Unplugged the power cables at the dust collector.
3. Remove the 4 mounting bolts.

4. Open the brake release arms (this spreads the brake spring plates and allows the disk to turn freely)

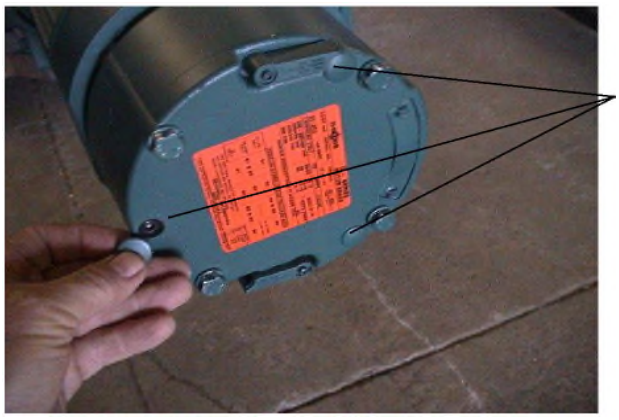
5. Slip the brake assembly off of the motor shaft being careful not to pull on the brake electrical wires. Support the brake to prevent stress on the wires while cleaning the brake.

6. Try rotating the brake disc. Blow out any rust or sand lodged between the disc and the clamping plates. Work the disc back and forth until it turns freely. If the disc is still tight, the unit will have to be disassembled for further cleaning. Call RBW before attempting to disassemble the brake.

7. After the disc is cleaned, slide the assembly back onto the motor shaft and install the bolts.
8. Caution- make sure you engage the brake spring plates by closing the release arms.

Problem- Brake does not hold tightly or the machine does not stop immediately when being lowered or raised.

Solution- Adjust brake spring plates by following the procedures below:



Remove the three plugs on the end of the brake. Tighten each of the three Allen head bolts $^{1}/_{4}$ turn and try the hoist again. Continue this procedure until the brake works properly.

Set Up & Operation Instructions (Floors & Roofs)

Step 1
Lifting

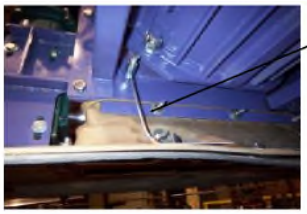


To pick up the machine, place a lifting strap on each side of the machine using a 5/8" shackle in the lifting lugs shown above. The machine is balanced at this point so it will be level.

The weight of the machine is around 1500 lbs.
Caution-Never lift the machine with the motor lugs. They are for Motor Lifting Only.

Step 2

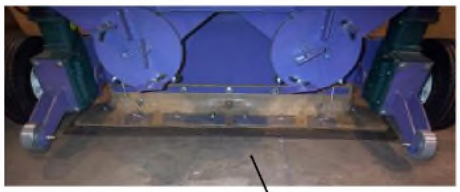
Before placing the machine on the roof or floor, make sure that the four seal support cables are holding the seal up in place around the blast cabinet. If the cabinet edge rides up over the seal frame, the seal will not float along the floor and the machine will not move properly. The seal will also be damaged from the blast.



Cable locking bolt

Blast Cabinet

Seal Frame




Place the machine on the roof or floor and make sure that the seal is seated tight to the surface and that the support cables are not too tight which would hold the seal up off of the floor. The Cables should have some slack so the seal can float along over wavy surfaces without pulling away from the floor. The cables can be adjusted by loosening the cable locking bolt.

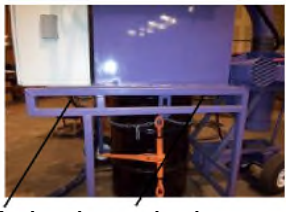
Adjust the level of the machine by cranking the swivel wheel up or down. The blast cabinet should be perpendicular with the floor.

Step 3

Caution- when cleaning roofs, a safety cable **must** be attached to the machine to assure that it can't drive off of the tank. Use a 3/8" cable and attach it with a 5/8" shackle on the left side lug as shown above. Attach the other end to the center stand pipe on the tank. The cable must be attached at the center of the tank and adjusted so the roof can be cleaned near the edge and that the machine could not drive off the edge at any point around the perimeter.

Step 4

Lifting Lug



Place forks through slots

The dust collector can be picked up by a fork lift. Place forks within the frame slots as shown.

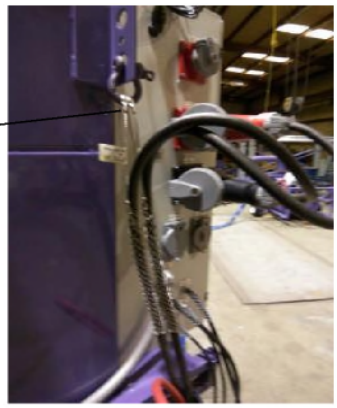
To lift the dust collector, connect lifting straps to the four corner lugs on the top of the housing. A fork lift can also be used to off load the unit as shown above. The unit weighs around 1200 Lbs.

Caution- If you are cleaning the roof of a tank, the dust collector must be placed on the roof so that the power cable harness and the exhaust hose will be long enough to reach the edge of the tank and that you will have access to the electrical controls during operation. Do not attempt to operate the machine on the roof with the dust collector on the ground.

Caution- The dust collector tires are free rolling (no brake). Personnel must support the unit and tie it off when it is placed on the roof. Roll the unit up to the center stand pipe and tie it down securely.

Step 5

Cable Slings



Plug in the blast machine wiring harness. Connect the cable support sling to a shackle on the dust collector. This keeps slack between the sling and the plugs so wires are not pulled loose when moving the dust collector.

All plugs are different types and are color coded to assure that they are always connected properly.

Connect the two Blast Motor plugs. Red plug to red receptacle and black plug to the black receptacle.

Connect the four small plugs as shown.

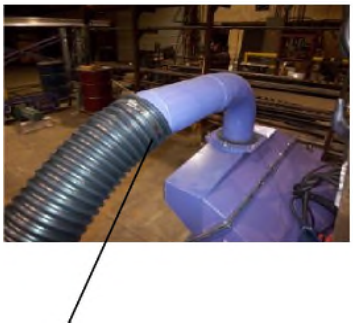
Screw Conveyor

Speed Control

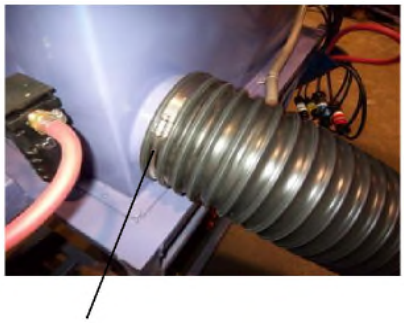
Right Drive Tire

Left Drive Tire

Step 6



Caution- Connect 20’ of High **Temp Exhaust Hose** to the machine exhaust elbow and secure with a hose clamp.



Connect 75’ of standard exhaust hose to the dust collector.
Leave the clamp loose for now; the hose will have to be adjusted to remove twists and loops after the fan is started.

Connect sections of hose using the coupling sleeves and clamps provided. You can also purchase 6” stove pipe couplings at Lowe’s or other hardware stores.

Step 7

Connect the 200’ power cable to the plant power supply or to the generator. Authorized personnel should hook up the power cable to plant power. When using a generator ask the rental personnel for hook up instructions and make sure that the power is set for 460V or 480V/60 Cycle/3 Phase . A 100 amp current is required. We recommend a 100KW generator which is capable of starting a 30 HP motor. **Caution**-The generator **must be properly grounded**. Ask the generator rental personnel about grounding procedures.

Main Disconnect Switch

Make sure that the Main Disconnect Switch is in the Off position before starting the generator. Start the generator. Check the generator voltage meter to assure that it is putting out 460 Volts. If the meter shows 230V, the generator voltage switch must be changed to 460V. Shut down the generator and make the adjustment. Restart the generator, If the voltage meter does not read 460V, adjust the voltage up to 460V by turning the adjustment knob or screw that is located near the voltage meter. Turn the 460 volt circuit breaker on to send current to the main panel on the dust collector.

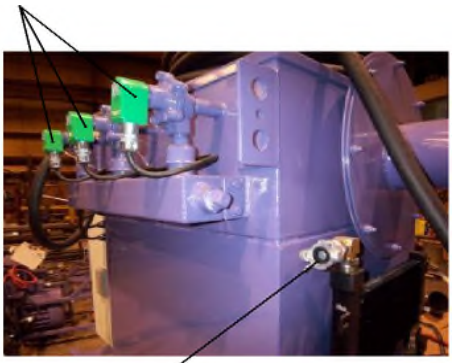
Fan Switch

Turn on the Disconnect Switch. Turn the fan switch to On. If the power wiring is correct, the dust collector fan will start up. If the fan doesn't start, the power cable wires at the generator must be swapped. Shut off the disconnect switch and shut down the generator. Swap two of the three power leads at the generator (white, red, or black). Do not move the green ground wire. Start the generator and turn on the main disconnect switch and the fan switch. If the fan still fails to start, Call RBW Enterprises for trouble shooting help.

Step 8

With the fan running, rotate all twists and loops out of the exhaust hose. The hose must be straight to minimize damage and pressure drop. If the suction of the dust collector is too great to rotate the hose, turn Off the fan and rotate the hose as the fan slows down. Tighten the hose clamp.

Step 9



Hook a $^{3}/_{4}$" air line with a Chicago fitting to the dust collector. The air is used to automatically clean the filters. The filters are pulsed with air once every 45 seconds when the power is on and air pressure is present. **Caution**-air should be dry so the filters don't get wet. A dryer should be used to extract water from the air line. Since the system uses only 5 CFM of air, a small air line could be used. We provide a $^{3}/_{4}$" connection as most contractors use $^{3}/_{4}$" hoses. Connect air line here.

Step 10

Check the dust collector fan drive speed. The drive is preset to run at 60 cycle which is where it should be set for horizontal work. When cleaning vertical surfaces you need more vacuum to eliminate abrasive leakage. **Caution**, do not run the motor faster than **70 cycle**. The lower you can run it without leakage, the less heat you will generate. Less heat and less vacuum is better for the exhaust hose. If the speed is set higher than 60 cycle for horizontal applications, lower it down to 60.

If the speed is above 60 cycle, push the Mode Button and the display will flash showing the A00-0 cycle parameter set point.

Push the Set Button and the cycle setting will flash allowing you to change it.

Push the Arrow Button to move the flashing digit to the digit to the right of the six.

Push the Down Arrow Button to lower the Number, one digit at a time, down to zero. **Note: You must change the speed slowly, one digit at a time or the drive will overload.**

Then push the set button again to set the cycle.

Note: The exhaust hose must be connected between the dust collector and the machine and the dust collector barrel must be in place or the drive will over load and shut down.

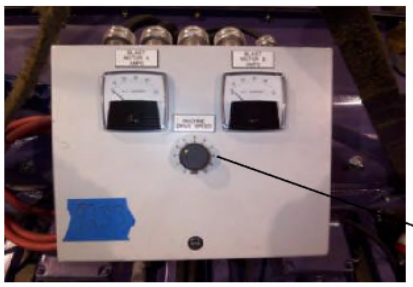
The next time you start the drive it will come up to the speed you set it at last. Be sure to turn it back down to 60 when cleaning floors. If you have trouble with the hose collapsing, due to the extra heat and vacuum, a special high temp hose is available.

Step 11

Before operating the machine, you must set the Mode Switch to the proper position; Horizontal or Vertical. Since we are running on a floor or roof, set the mode switch to horizontal.

Mode Switch

Next check out the machine operations. Place the speed dial on the machine to 3 or 4. Press the Forward button on the remote control. The machine will move forward. Once the machine is moving, you can let up on the button and the machine will continue to move forward. Press the Forward button again and the machine will stop.



Speed Dial

Forward Button

Press the Reverse button on the remote control. The machine will move backwards. Once the machine is moving, you can release the button and the machine will continue moving backward. Press the Reverse button again and the machine will stop.

Reverse Button

The machine must be moving to turn. Start the machine moving then press the Left Steering Button on the remote control. The machine will turn to the left. Let up on the button, the turning will stop and the machine will continue in a straight movement.

Left Steering Button

Press the Right Steering Button on the remote control. The machine will turn to the right.
Let up on the button, the turning will stop and the machine will continue in a straight movement.

Right Steering Button

Hoist Up Button

Step 12 Before loading shot and starting the blast operation, practice running the machine forward, backward and turning at various speeds. You can also shift to full speed momentarily by holding down the Hoist Up button. When you let up on the button, the machine will slow down to the set speed. This is used to turn quickly. Try it.

Step 13

Blast On Button

Check the blast motor operation. Press the Blast On button. One blast motor should start. Let up on the button. After a timed delay, the second motor should start.. Check the rotation of the motors. Looking from the back of the machine at the motor fan, the left hand motor should be turning clockwise and the right hand motor should be turning counter clockwise. To stop the blast motors, press the Blast On button again.

Step 14

Now that you are familiar with all the horizontal machine operations, load the machine with shot. If the machine is new or has been cleaned out, pour 50 lbs of shot in each side of the machine to start. Initially, more may have to be added because there are a lot of voids such as hopper corners that have to be filled with shot. After the initial charge, only small amounts will be added as needed to maintain amperage. The amount of shot that is fed to the blast wheels during the cleaning process is gauged by the current amperage draw of the blast wheel motors. The more shot fed to the blast wheel the higher the amperage or the more work the motor is doing.

Caution: Use good quality S-330 , & or S-390 Steel Shot. If an angular profile is required, add 20% of G-25 Steel Grit. Never use hard grit (GH, GM or GL) or Shot larger than S-390 or any other abrasive material. The use of abrasive other tan S-330, S-390, & G-25 will damage the blades, impeller, control cage, liners and the blast cabinet.

Use a funnel to add shot. Be sure that the rubber flap is aligned over the adder hole after filling. The flap seals the hole to eliminate vacuum loss. If you lose the funnel provided, they are available at Home Depot.

Step 15

After the shot is added, turn on the main disconnect switch, then start the fan. Make sure that the air line is connected at the dust collector and the air is turned on at the air compressor. Start the blast wheel motors by pushing the Blast On button. The first motor will start, then after a delay, the second motor will start. This built in delay starts the motors one at a time so the generator is not overloaded- it takes a lot of current to start a 30hp motor.

Emergency Stop

Blast On Button

E-Stop

Note: You can stop all operations by pushing the E-Stop Button on the remote control or the main panel. If you push the E-Stop on the remote control, you must hold in the reset button on the main panel for 10 seconds to reset the remote.

E-Stop Button

Pull out to reset

Reset Button

Next check the amperage gauge for each motor. The gauge should show amperage of 30 amps or more.

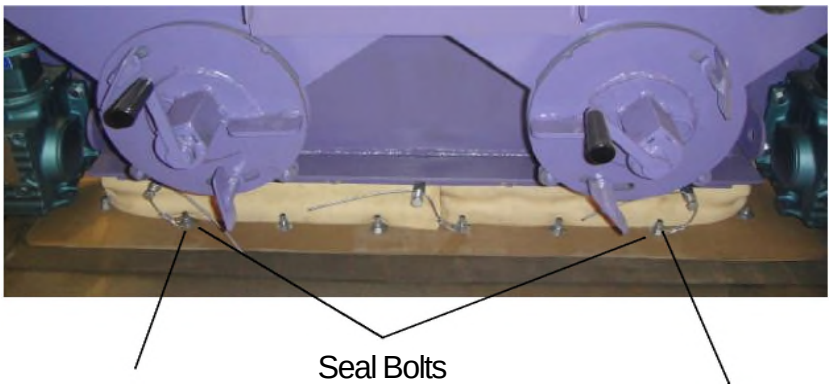
Amperage Gauge Blast Motor A

Amperage Gauge Blast Motor B

Move the machine forward slowly to observe the cleaning. **Note:** the blast motors will shut off after 1 minute unless the machine is moving. This prevents blasting in one spot too long and burning a hole in the roof or floor. **Caution**- if the machine hangs up on a high weld seam and stalls too long in one spot with the tire drives running, shut off the blast so no damage is done to the steel.

More shot will have to be added to fill in all the hopper voids and to maintain 30 to 35 amps. The optimum cleaning amperage on steel is 35 to 38 amps. Add a little shot at a time until the amperage is steady. During the cleaning process, periodically add around 10 lbs. of shot when the amperage falls below 28 amps. After the initial charge, shot does not have to be added to both sides of the machine. Shot added from one side will get distributed to both blast wheels.

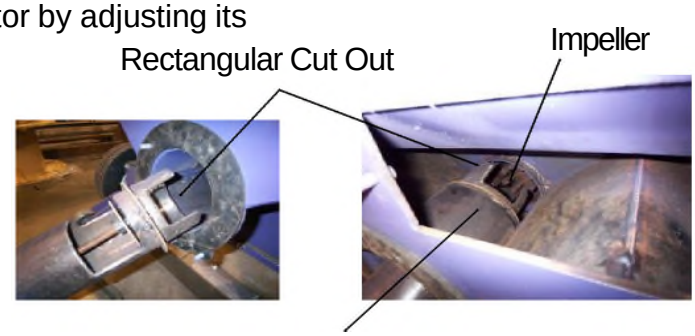
Practice cleaning by adjusting the speed to achieve the cleaning you require. The machine can blast going both forward or backward so you don't have to turn around at the end of a pass.



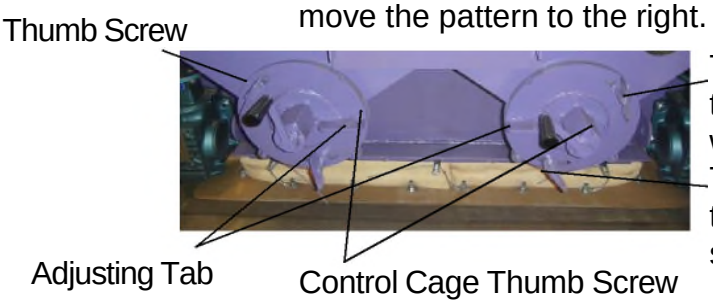
The overlap for each pass depends on the application, thickness of paint, etc.. In general you want to line up the first bolt on the seal with the cut line of the previous pass.

Remember if you run slow enough to get all areas where the paint is thick, you may be over blasting a lot of the areas where paint is thinner. Often times it is better to make a double pass at a higher speed. The first pass removes the bulk of the paint. You can see where the paint is thicker and slow down in those areas on the second pass.
This method may produce higher production rates on some applications.

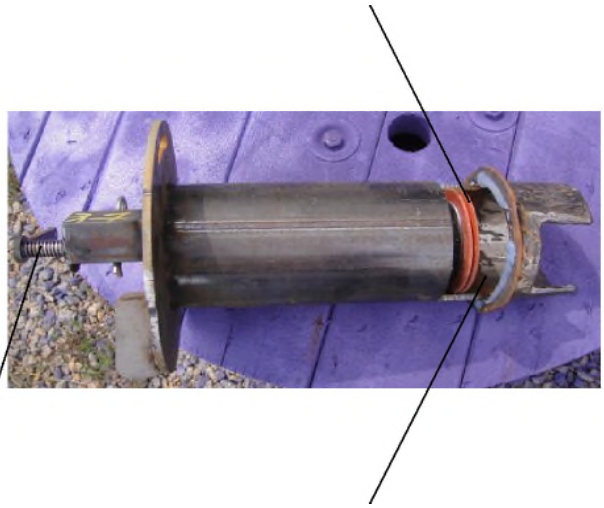
The shot flow and blast pattern settings are preset at the factory; however you need to know how to adjust them. Settings may need to be changed depending on the size of shot being used. The Control Cage Assy. meters the amount of shot that is fed to the wheel and also sets the blast pattern. The hand crank adjusts the shot flow. If you turn the crank in, it will decrease the opening of the feed tube, allowing less shot to the wheel. If you turn it out, it will increase the shot flow to the wheel. You can fine tune the amperage setting of each blast motor by adjusting its control gage hand crank screw.



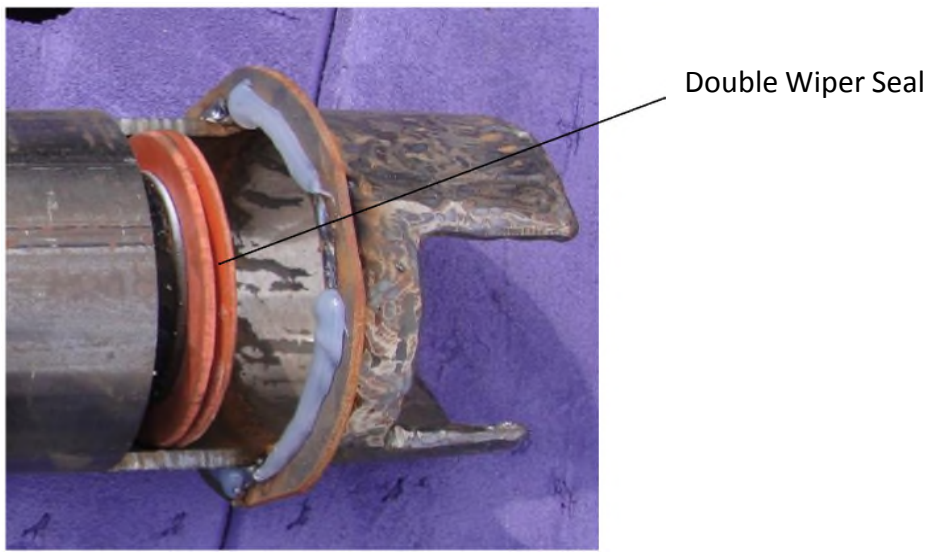
The end of the cage tube has a rectangular cut out. The tube slides into place over the blast wheel impeller. The impeller rotates inside the tube. As shot flows into the tube from the hopper, the impeller forces it out of the cut out and onto the blades. The position of the cut out regulates the blast pattern on the floor. The shot leaves the blades about 180 degrees from the cutout. Rotating the cutout clockwise will move the blast pattern to the left. Rotating it counterclockwise will move the pattern to the right.



To adjust the blast pattern, loosen the thumb screws and tap the adjusting tab with a hammer to rotate the control cage. The optimum position is usually with the thumb screw stud centered in the slot as shown.



Shot flows into the wheel from the hopper through a opening in the control cage tube.
The shot flow adjusting disc governs how much shot flows on to the blast wheel. The disc is controlled by a hand crank. To increase the shot flow, turn the hand crank counter clockwise. To decrease the flow turn the hand crank clockwise. To shut the shot completely off, turn the crank all the way in until it stops. The double wiper seal keeps the shot from flowing to the wheel when the crank is fully closed.



Set Up & Operation Instructions (Vertical Walls) Cone Roof Fixture

Step 1 Set up the Fixture and Hoist System

Unroll the power cable so it is free to uncoil as the fixture is lifted to the tank roof.

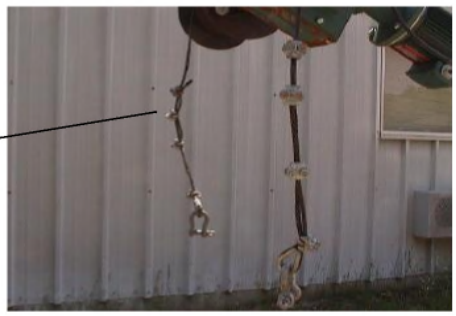
Caution-Cable clamp saddles must be placed on the lifting segment of the cable as shown. **"Never Saddle a Dead Horse"**.

Make sure that the cable harness is laying in the channel and is laying over the round tube. The smooth tube keeps the harness from being damaged from the sharp edge.

Round Tube

Make sure that the cable wraps on the hoist drums are straight and smooth across the drum.

Caution-Make sure that there are at least (3) 3/8" cable clamps on each cable and that they are extremely tight.

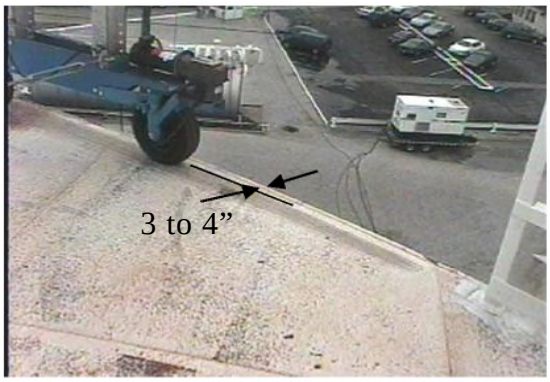


Hoist Support Brackets

Make sure that the hoist support brackets are mounted as close to the front tires and vertical support beams as possible. Additional holes are provided in case the hoist has to be moved out further from the tank wall so the cables can clear vents or other obstructions. When the hoist is moved out, additional counter weights will have to be added to the back end of the fixture. Bolt the brackets down to the beam with (4) 5/8" "Grade 5" bolts.

Step 2

Use two straps to lift the fixture (one on each beam). Locate the straps about two feet back from the front vertical beams. Double wrap each strap so it won't slide along the beam during the lift. Pick the fixture off the ground, (if it tips either way, re-adjust the straps so the unit picks up level). Caution- make sure the crane and straps are sized properly for the load. The fixture and the hoist weighs around 2000 lbs.



Place the fixture on the roof with the front tires about 3 to 4” from the edge of the tank. Make sure that the fixture is sitting square and that the rear of the fixture is pointed toward the center of the tank.

Adjust the $^{3}/_{4}$” turnbuckles so they will have equal adjustment in both directions. This will allow for final adjustment after the tie-back cable is in place.

Run the cable from the turnbuckle through the rear eye and around the tanks center stand pipe. Run the cable back through the other rear eye and connect it to the opposite turnbuckle, using at least two 3/8” cable clamps. Pull the cable tight as possible before clamping. Next, pull the two cables together and place a single clamp about two foot from the stand pipe. This will keep the fixture running square to the tank.

Single 3/8” clamp

Caution- The center stand pipe must be structurally sound and capable of handling 1000 lb. pull at the base. The standpipe must be located in the center of the tank. If it isn't, special cable connections must be made. Call RBW for help in set-up.

Step 3

Connect the power cable for the fixture drive to the power cable from the hoist wiring harness. The cable is required to be long for floating roof applications. Roll up the extra cable and secure it to the fixture. **Caution- Make sure that all cables are clear of any pinch points and cannot be damaged during operation.**

Make sure that the wheels are straight in line with each other rather than turned to match the radius of the tank.

Tighten pivot bolts after alignment. **Caution- bolts must be very tight to keep the tire from turning during operation.**

Align wheels straight and in line.

Caution- Stand-pipes are rarely exactly in the center of the tank. Therefore, it is important to check out the movement of the fixture over the quadrant you are planning to clean to make sure that the fixture will not roll off the edge of the tank or roll back too far on the roof of the tank. This check must be made for each quadrant you clean.

Caution-it is important to keep the front and back sets of tires positioned straight in line with one another, rather than turned to match the tank curvature. This keeps the fixture tracking as close to the edge as the cables will allow and keeps the cables stretched tight. If the fixture were to track away from the edge allowing the cables to become slack, the fixture could tip up in back due to the weight of the machine. On small diameter tanks, it may be necessary to turn the front wheels slightly more in line with the curvature of the tank. The rear wheels, however, should always be straight and in line.

Floating Roof Fixture Set-Up Page 1 of 3

1. Place fixture horizontally on the ground as shown in Photo 1.
2. Adjust height of adjustable beams based on dimensions of wind girder and knee brace- Photo1. Call RBW with dimensions for proper hole positions and bolt locations.
3. Make sure that (3) $^{3}/_{4}$" grade 8 bolts are used at points A in Photo 1. Make sure that all bolts shown in Photo 1 are in place and tightened properly. All bolts used must be at least grade 5 unless otherwise noted.
4. Make sure that nuts are in place on all rollers and pulleys, and that they are free to rotate –Photos 1 & 2.
5. Bolt the Drive Tire Assembly and Idler Tire Assembly on with 5/8" Grade 5 bolts - Photos 3 & 4.
6. Route the Trolley Drive cable around the beam as shown in Photos 5. Make sure that the cable will not come in contact with hand rails or the wind girder.
7. Lift the Fixture Assembly at pick points shown in Photo 6

Photo 1

(Must be at least (3) 3/4" Grade 8 Bolts At each connection point)

Photo 2

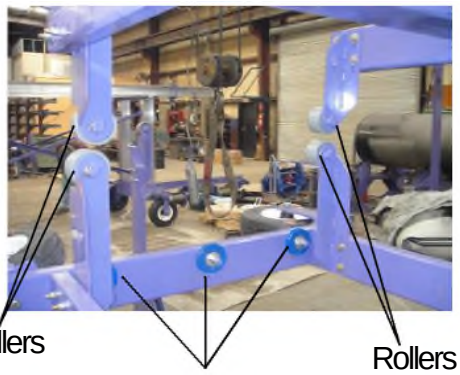
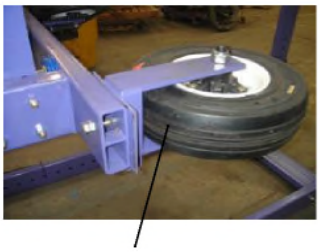


Photo 3

Photo 4



Photos 5

Route power cable From the drive motor Along the beams as Shown. Use wire ties To secure the cable.

Photo 6

Floating Roof Fixture Set-Up Page 2 of 3

8. Pick up the fixture into a vertical position and lower it over the Hoist Assembly. Attach the two shackles to the hoist as shown in Photo 7. Be sure to wire tie the shackles and connect the fixture drive power cable.
9. Raise the assembly up - Photo 8 and place the unit on the tank wind girder as shown in Photo 9.

Photo 7

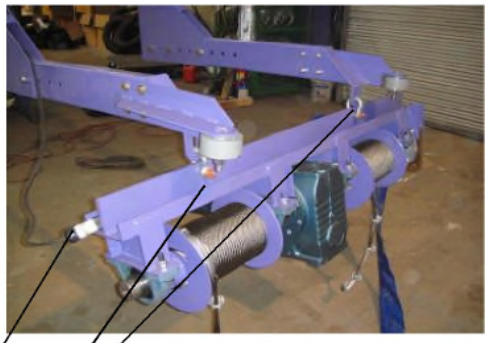


Photo 8

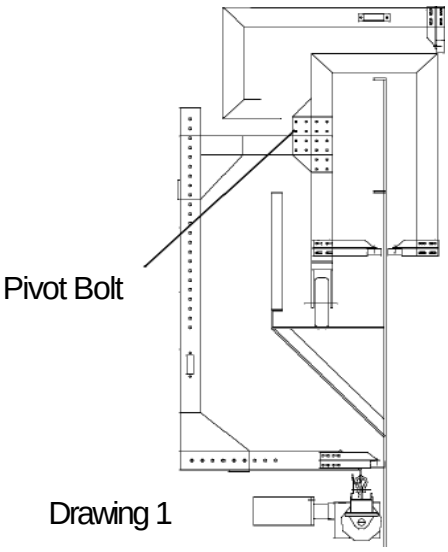
Photo 9

Floating Roof Fixture Set-Up Page 3 of 3

10. If the tank has hand rails, the Drive and Idler Tire Assemblies may have to be removed to get the fixture over the hand rail. If so, set them on the wind girder until the fixture is over the hand rail and then bolt them back on. If the tank wall is too high, the internal roller arm may have to be pivoted up to clear the wall. See Drawing 1.
11. Move the fixture in towards the tank so the external rollers are riding against the tank wall. Install the 3/8" cable around the pulleys as shown on Photo 10. The cable must be trapped between the center pulley and the keeper to assure that the cable cannot come off the pulley. Make sure that the nut is tightened so the center pulley cannot lift up during operation. Run the cable around the tank and tie it at one end to a stable structure with three 3/8" cable clamps. Attach the other end to a heavy duty 1 $^{1}/_{2}$ ton tensioning device such as a chain fall, ratchet load binder, come along, etc. Tighten the cable to pull the fixture tight against the wall. The 3/8" cable should be 6x37 IWRC BRT WR with a breaking strength of 15,000 lbs. Caution: Cable stretches during operation, check the tension often.
12. Adjust the internal rollers so they are close to the tank wall- they are for safety only and do not have to touch the wall at all times.
13. Cock the drive and idler tires slightly towards the tank wall in the direction that the fixture will be moving. This will keep the fixture tight to the tank wall. Note: You will want to make sure that the blast is good as you proceed, because if you have to go back, you will have to cock the tires back in the opposite direction.
14. Make a final check to assure that all bolts are in place and are tightened. Then move the fixture under power to see if it stays in proper position against the tank wall. If all looks good, lower the hoist cables and attach the machine.
15. Caution: when cleaning the internal walls of the tank, it is recommended, to blast up the wall and back down in the same path. Then set the machine on the floor or tank roof with a little slack in the cables before moving the fixture over for a new pass. The fixture will have less stress and will be more stable during the movement if the weight of the machine is removed.

Photo 10

Photo 11



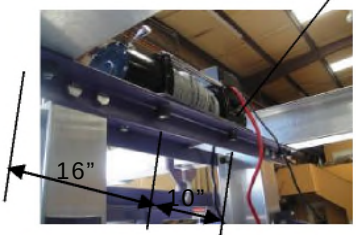
Drawing 1

C-Frame Set Up

The C-Frame is used to blast clean under stairs and other protrusions such as pipes and secondary wind girders.

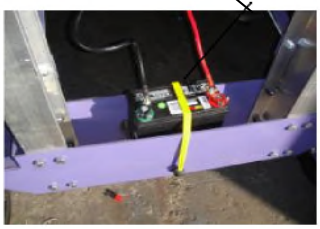
Mount the winch base plate on the front cross support angles as shown. Use (4) grade 8 $^{1}/_{2}$" diameter bolts with lock nuts.

If holes do not already exist in the back support angles, drill (2) 11/16" diameter holes in each front top angle 16" from the left hand edge of the angle and 10" between holes as shown. Drill the holes in the center of the two 2" wide angles,1" from the edge.



Run the battery cables and the switch between the angles.

Mount the battery and secure it with the flex strap. Attach the battery cables.



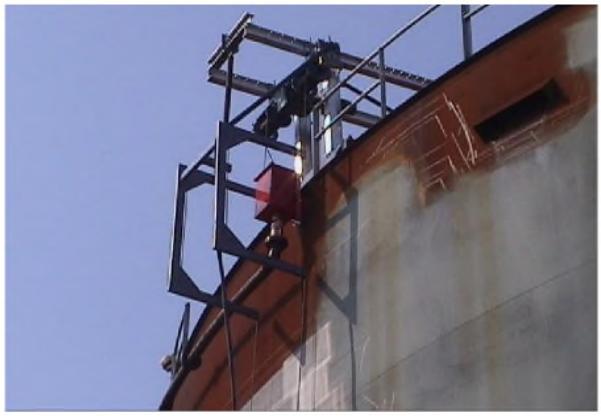
Mount the cable pulley and tee bar on the front end of the fixture flush with the top edge of the beams as shown. Use 5/8" bolts and lock nuts.

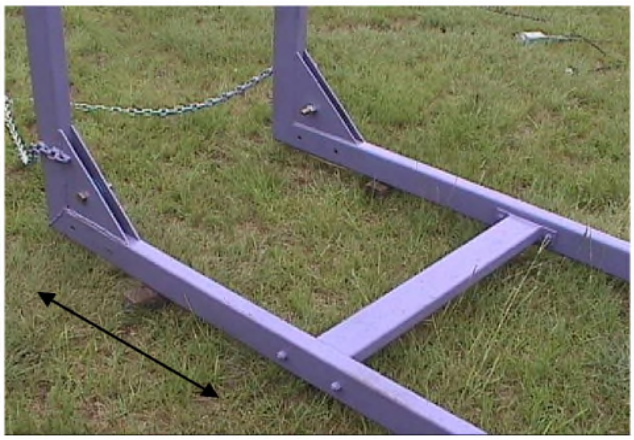
Disengage the cable and pull enough cable out to run through the cable pulley as shown.

Payout the cable to the ground and then Re-engage the winch drive.

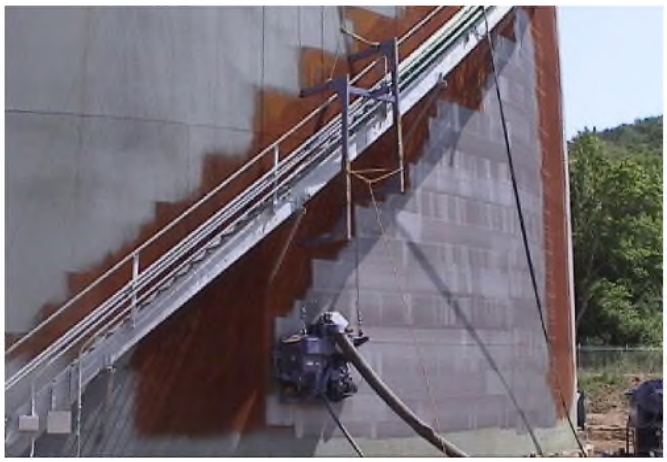
Run out or pay in cable using the cable IN/ Out switch.

Bolt the C-frame together, as shown, if you are planning to clear a wind girder, vents or pipes.





Mount this leg down to the top set of holes if you are going to clean below a left hand stair way.

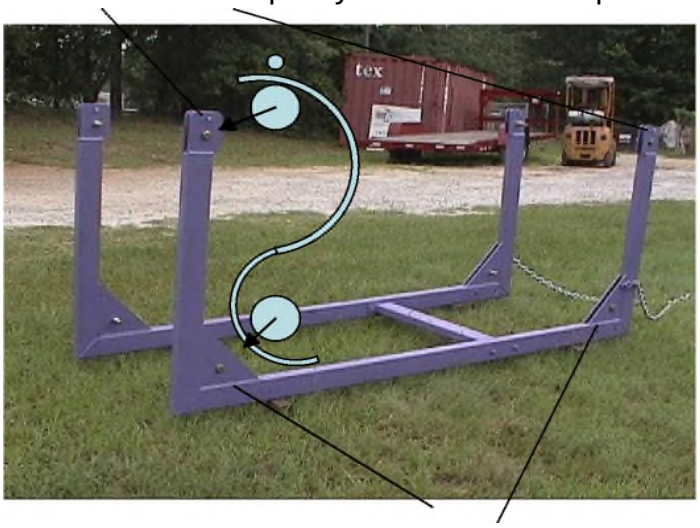


Mount this leg down to the top set of holes if you are going to clean below a right hand stairway.

Connect the winch cable to the chain with a 5/8” shackle. Make sure that the shackle is positioned so the C-frame hangs straight. The frame must hang straight to operate properly. Once the correct position is found, wire the shackle to the chain so it can’t move out of position.

Run each cable from the machine hoist through the c-frame pulleys.

Remove keeper bolt and run cable over pulley then reinstall keeper bolt.



Remove pulley bolt and pulley. Place the cable inside the pulley mounting slot. Remount the pulley.

As the machine is moved horizontally, use the C-Frame winch switch to raise and lower the C-Frame to clear the stairway. **Caution- a man must be stationed on the roof to operate the C-Frame winch. The operator on the ground signals the winch operator to raise or lower the C-Frame.**

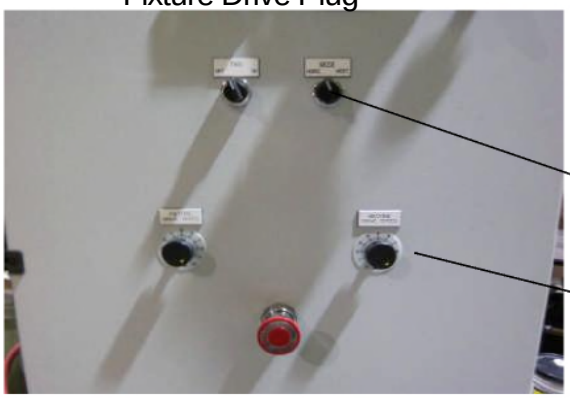
Step 4

Hoist Brake Plug

Fixture Drive Plug

Hoist Power Plug

Connect the hoist cables to the main panel. The hoist cable harness has three plugs. The largest plug is the power cable for the hoist motor. The middle size plug is the brake cable for the hoist motor and the smallest plug is the cable for the fixture drive. Make sure that the cable support sling is attached to the support shackle.



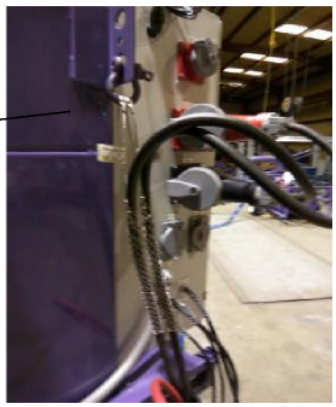
The Mode Switch must be turned to the “Vertical” position when cleaning walls. This selects the program that allows the hoist and fixture to operate from the remote control.

Switch the Mode Selector Switch to Vertical.

Turn the machine drive speed to 0. This speed knob adjusts the speed of the drive tires when cleaning walls of dome and knuckle roof type tanks where the machine will be tracking up and over the dome or knuckle.

Step 5

Cable Slings



Plug in the blast machine wiring harness. Connect the cable support slings to a shackle on the dust collector. This keeps slack between the sling and the plugs so wires are not pulled loose when moving the dust collector.

All plugs are different types and are color coded to assure that they are always connected properly.

Connect the two Blast Motor plugs. Red plug to red receptacle and black plug to the black receptacle.

Connect the four small plugs as shown.

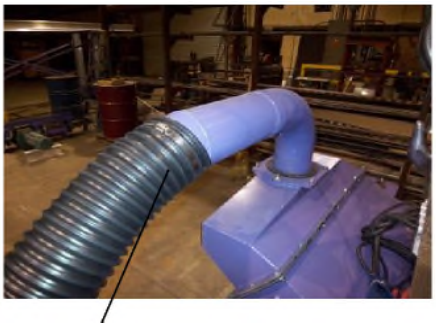
Screw Conveyor

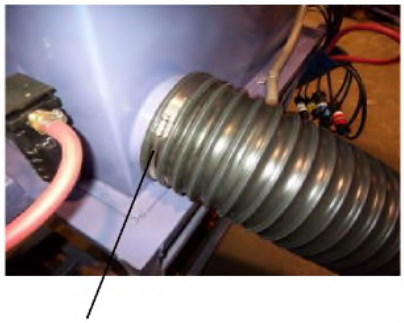
Speed Control

Right Drive Tire

Left Drive Tire

Step 6





Connect the exhaust hose to the exhaust. Connect the other end of the exhaust hose elbow and secure with a hose clamp to the dust collector. Leave the clamp loose for now; the hose will have to be adjusted to remove twists and loops after the fan is started.

Connect sections of hose using the coupling sleeves and clamps provided. If you need more couplings in the future you can purchase stove pipe couplings at Lowe's or other hardware stores.

Step 7

Connect the 200' power cable to the plant power supply or to the generator. Authorized personnel should hook up the power cable to plant power. When using a generator, ask the rental personnel for hook up instructions and to make sure that the power is set for 460V or 480V/60 Cycle/3 Phase . A 100 amp current is required. We recommend a 100 KW generator capable of starting a 30 HP motor. The generator must be properly grounded. Ask the generator rental personnel about proper grounding.

Main Disconnect Switch

Make sure that the Main Disconnect Switch is in the Off position before starting the generator. Start the generator. Check the generator voltage meter to assure that it is putting out 460 Volts. If the meter shows 230V, the generator voltage switch must be changed to 460V. Shut down the generator and make the adjustment. Restart the generator; if the voltage meter does not read 460V adjust the voltage up to 460V by turning the adjustment knob or screw that is usually located near the voltage meter. Turn the 460 volt circuit breaker On to send current to the main panel on the dust collector.

Fan Switch

Turn on the Disconnect Switch. Turn the Fan Switch to On. If the power wiring is correct, the dust collector fan should start up. If the fan doesn't start, the power cable wires at the generator must be swapped. Shut off the disconnect switch and shut down the generator. Swap two of the three power leads at the generator (white, red, or black) Do not move the green ground wire. Start the generator and turn on the main Disconnect Switch and the Fan Switch. If the fan still fails to start, Call RBW Enterprises for trouble shooting help.

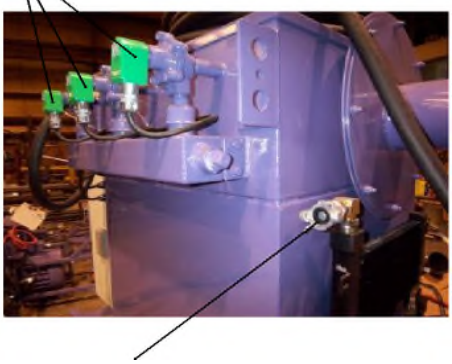
Step 8

With the fan running, rotate all twists and loops out of the exhaust hose. The hose must be straight to minimize damage and pressure drop. If the suction of the dust collector is too great to rotate the hose, turn Off the fan and rotate the hose as the fan slows down.
Tighten hose clamp.

Step 9

Hook a $^3/_4$" air line with a Chicago fitting to the dust collector. The air is used to automatically clean the filters. The filters are pulsed with air once every 3 minutes when the power is on and air pressure is present. **Caution**-air should be dry so the filters don't get wet. A dryer should be used. Since the system uses only 5 CFM of air, a small air line could be used. We provide a $^3/_4$" connection because most contractors have $^3/_4$" hoses.

Pulse Valves



Connect air line here

Step 10

Check the dust collector fan drive speed. The drive is preset to run at 60 cycle which is where It should be set for horizontal work. When cleaning vertical surfaces you need more vacuum to eliminate abrasive leakage. **Caution**, do not run the motor faster than **70 cycle**. The lower you can run it without leakage the less heat you will generate. Lower heat and less vacuum is better for the exhaust hose. If the speed is set at 60 cycle raise it up to 65 for vertical cleaning.

If the speed is set at 60 cycle, push the Mode Button and the display will flash showing the A00-0 cycle parameter set point.

Push the Set Button and the cycle setting will flash allowing you to change it.

Push the Arrow Button to move the flashing digit to the digit to the right of the six.

Push the Up Button to raise the number, one digit at a time up to 65.
Note: You must change the speed slowly (one digit at a time) or the drive will overload.

Next push the Set Button again to set the cycle.

Note: The exhaust hose must be connected between the dust collector and the machine; the machine seal must be up against the wall, and the dust collector barrel must be in place or the drive will over load and shut down.

The next time you start the drive, it will come up to the speed you set it at last. Be sure to turn it back down to 60 when cleaning floors. If you have trouble with the hose collapsing due to the extra heat and vacuum, a special high temp hose is available.

Step 11

Before operating the machine, you must set the Mode Switch to the proper position, horizontal or vertical. Switch to Vertical mode.

Mode Switch

Support Stand Assy

Connect strap or cable here

Lifting Straps

Step 12

Set the machine up from the horizontal position to the vertical position. Make sure that the Support Stand Assy is in place and bolted down securely. Attach lifting straps or the hoist cables to the side lifting lug on each side of the machine. Run the straps under the hopper and in front of the exhaust hood as shown. **Caution-** keep personnel away from the machine and lift slowly. The machine will flip up to the vertical position.

Step 13

Set the machine back down on the ground and attach the turnbuckles. The turnbuckles assure that the machine is pulled up the wall in a level manner keeping the seal square to the wall. The turnbuckles also keep the machine from tipping as the unit is pulled up or lowered down across weld seams.

Connect the long $^{3}/_{4}$”x12” turnbuckle on the lifting lug near the wall seal as shown. Use a 5/8” shackle.

1-3/8”

1-3/8” Connect the short $^{3}/_{4}$”x 9” turnbuckle on the lifting lug located on the Hood Assy. Use a 5/8” shackle.

Adjust the long turnbuckle so the threads are run in 1-3/8” at both ends as shown. Adjust the short turnbuckle so the threads are run all the way in as shown.
Caution: Wire tie all shackles so they cannot loosen.

Step 14 Turn on the main disconnect switch and push the Hoist Down button to lower the hoist cables. Push it again to stop the hoist.

Press Steering Right to speed up the hoist.

Hoist Down Button

Press Steering Left to slow down the hoist

Wire Tie

Attach the hoist cables to the turnbuckles with 5/8" shackles. Wire tie all shackles so they can't come loose.

The steering buttons used in the horizontal mode become hoist speed buttons when the mode switch is in the vertical position. Each time you press the buttons the speed is increased or decreased by 1 cycle. Full speed is 60 cycle.

Step 15

Press the Hoist Up button and lift the machine off the ground and onto the wall. Press the button again to stop the hoist.

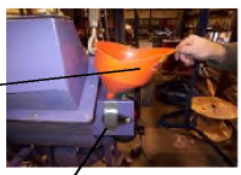
Check the machine to make sure that it is hanging level from side to side.
Adjust one of the cables if the machine is not level. Be sure to tighten the cable clamps securely.

Adjust cables if necessary.

Check to make sure that the machine is hanging square to the wall. Adjust the turnbuckles if required.

Caution: Use good quality S-330 , &/or S-390 Steel Shot. If an angular profile is required add 20% of G-25 Steel Grit. Never use hard grit (GH, GM or GL) or Shot larger than S-390 or any other abrasive material. The use of abrasive other than S-330, S-390, & G-25 will damage the blades, impeller, control cage, liners and the blast cabinet.

Step 16 Add 50 lbs of shot in both sides of the machine. Be sure that the rubber flap is aligned over the adder hole after filling. The flap seals the hole to eliminate vacuum loss. A Shot Funnel with Screen is available from RBW.



Tape the horizontal flap down to prevent leakage when filling.

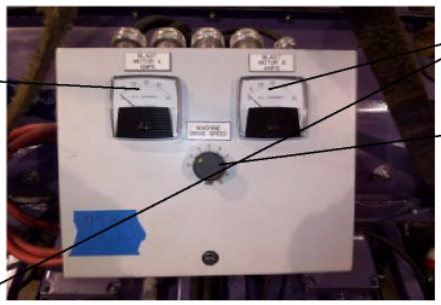
Step 17

Remove the tires when cleaning cone roof tanks. The tires are used if you are cleaning the walls of a dome roof and are planning to clean the knuckle of the tank. Call RBW Enterprises for more info on cleaning knuckles of a dome roof.

Step 18

After the shot is added, turn on the Main Disconnect Switch, then start the fan. Make sure that the air line is connected to the dust collector and the air is turned on at the air compressor. When in the vertical mode, it is necessary to push two buttons to start the blast wheels. This is a safety feature to keep from accidentally starting the blast wheels when the machine is sitting on the ground away from the wall.

Start the blast wheel motors by pushing the Blast On Button and the Right Steering Button. (Note: To stop the blast motors, press only the Blast On Button again) The first motor will start then after a delay, the second motor will start. This built-in delay starts the motors one at a time so the generator is not overloaded. It takes a lot of current to start a 30hp motor. Next check the amperage gauge for each motor. The gauge should show amperage of 30 amps or more.



Adjust the shot flow to bring the amperage up or down to approximately 35 amps.
See pages 39 & 40 for adjustment procedure.

Step 19

Start the machine moving up the wall by pushing the Hoist Up switch. After the machine is moving, let up on the switch and the machine will continue to move up the wall until you push the button again.

Hoist Up Button

E-Stop

Adjust the speed to achieve the cleaning you require. Increase the speed by pushing the Steering Right Button.

Decrease the speed by pushing the Steering Left Button.

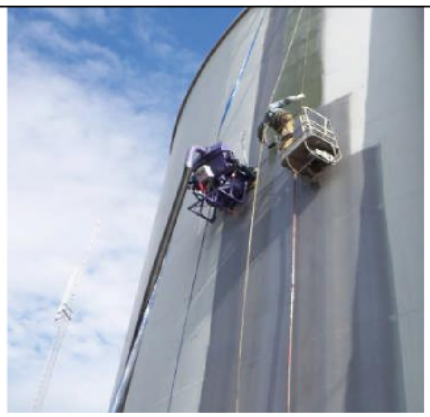
Emergency Stop

Note: You can stop all operations by pushing the E-Stop Button on the remote control or the main panel. If you push the E-Stop on the remote control, you must hold in the reset button on the main panel for 10 seconds to reset the remote.

E-Stop Button

Reset Button

Pull out to reset



When the machine reaches the top of the wall, stop the hoist by pushing the Hoist Up Button again.

Then move the fixture to the left or right by pushing the Fixture Left or Right Button. You must hold down the button to keep the fixture moving. When you release the button the fixture will stop.

Fixture Left

Fixture Right

Start the machine moving back down the wall by pushing the Hoist Down Button. After the machine is moving, let up on the switch- the machine will continue to move down the wall until you push the button again.

When the machine gets to the bottom, stop the hoist by pushing the Hoist Down Button again.

Move the fixture again and repeat step 19. You must overlap the previous pass to assure proper cleaning. Practice the process to keep the overlaps to a minimum.

You can adjust the machines path during the cleaning process by moving the position of the fixture.

Machine Setup

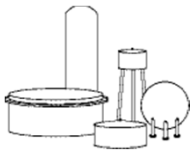
Special Applications

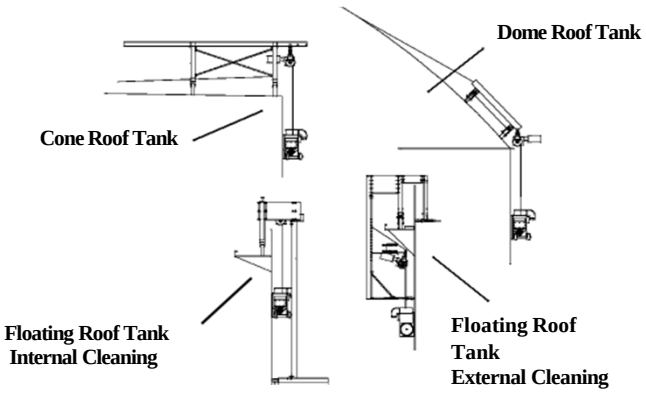
Setup Procedures vary on different types of tanks. Fixtures are available for; floating roof tanks (where the fixture rides on the wind girder), dome roof tanks, internal wall cleaning (where a trolley drive and I-beam is used), ship hull cleaning, internal walls on floating roof tanks, etc.

If you have a special application, call RBW Enterprises. We will provide the proper fixture system and the proper setup instructions for the application.

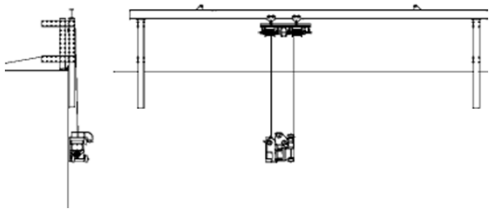
Caution- do not attempt to hang the FasterBlaster machine on unauthorized fixtures. Fixtures must be approved by RBW Enterprises. 770-251-8989.

Tank Fixtures





Ship Fixture



Main Panel Controls

Hour Meter
Shows how many hours
the blast wheels have operated.

Main Control Panel is
located on the dust collector.
It controls all machine functions.

Disconnect Switch
Turns power on and off

Hoist Drive Speed Indicator
Shows the speed of the hoist
when blast cleaning in the vertical
mode.

Mode Selector Switch
Selects the operating program
for horizontal or vertical
operation.

Amperage Meter
Shows the amount of current the
blast wheels are pulling-the higher the
amperage the more shot is being thrown by
the blast wheel. **Caution-do not operate
Over 40 amps.**

Fan ON/OFF Switch
Turns the dust collector fan
On and Off.

Fixture Drive Speed
Sets the speed of the roof
fixture when blasting vertical
surfaces.

Emergency Stop Button
Push in to stop all operation.
Pull out to reset.

Machine Drive Speed
Sets speed of the machine drive wheels
when cleaning vertical walls.

Remote Control
E-Stop Reset Button Push
& hold for 10 seconds to
reset remote control after E-
stop has been activated.

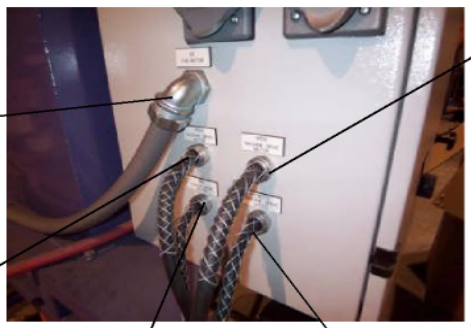
Hoist Power Plug Receptacle

Blast Motor Plug Receptacle

Hoist Brake Plug Receptacle

Fixture Drive Plug Receptacle

Power Cable to Left Tire Drive Motor



Fan Power Cable

Power Cable to Right Tire Drive Motor

Spare Power Cable for Future Options.

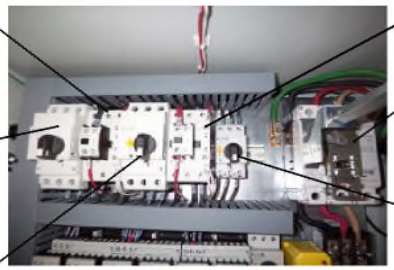
Power Cable for Speed Adjustment Dial on the Machine

110 Volt Receptacle

Inside the Control Panel

MS-110
Motor Starter for Blast Motor "A"
Sends 460 volt current to the motor.

MS-115
Motor Starter for Blast Motor "B"
Sends 460 volt current to the motor.



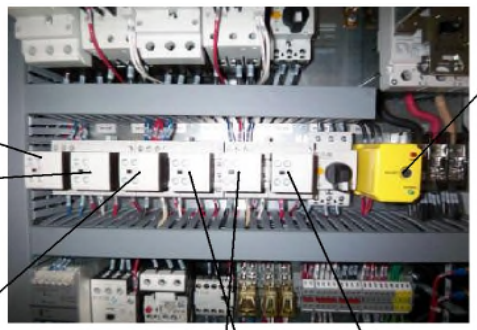
Main Disconnect Switch
Turns on and shuts off power to the Panel

MPCB-110
Blast Motor "A" Circuit Breaker
Protects motor. Will trip if motor overloads or shorts out.

MPCB-118
Hoist Circuit Breaker
Protects motor. Will trip if motor overloads or shorts out.

MPCB-115
Blast Motor "B" Circuit Breaker
Protects motor. Will trip if motor overloads or shorts out.

MS-214F
Fixture Drive Motor "Left"
Sends power to the fixture drive motor to move the fixture to the left.



Current Monitor
Stops operation if the power cables are hooked up wrong or if voltage is not proper on all three legs. Assures that motors will rotate in the right direction.

MS-214R
Fixture Drive Motor "Right"
Sends power to the fixture drive motor to move the fixture to the right.

MS-233F
Machine Drive Motor in Horizontal Mode
Fixture Drive Motor in Vertical Mode
Moves machine forward in horizontal mode. Moves fixture to the right in vertical mode.

MS-240R
Machine Drive Motor in Horizontal Mode
Fixture Drive Motor in Vertical Mode
Moves machine forward in horizontal mode. Moves fixture to the right in vertical mode.

MS-240F
Machine Drive Motor in Horizontal Mode
Fixture Drive Motor in Vertical Mode Moves machine backward in horizontal mode. Moves fixture to the left in vertical mode.

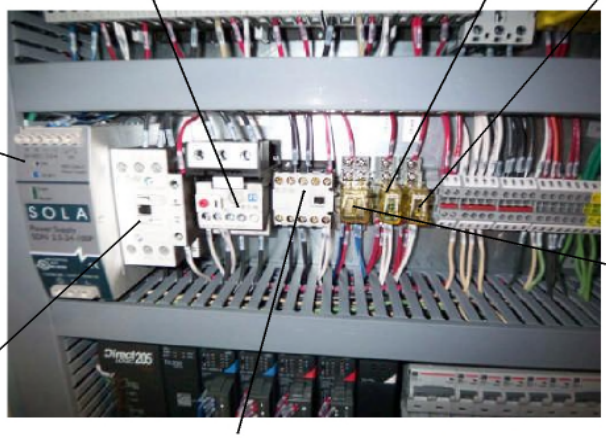
MS-233R
Machine Drive Motor in Horizontal Mode
Fixture Drive Motor in Vertical Mode Moves machine backward in horizontal mode. Moves fixture to the left in vertical mode.

CR-404
Control Relay for Hoist VF Drive
Hoist Drive UP

OL-105
Dust Collector Fan Motor Over-Load
Protects fan motor and VF Drive

CR-405
Control Relay for Hoist VF Drive
Hoist Drive Down

24 Volt Power Supply
Supplies power to operate the CPU and the Remote Control.



CR-405
Remote Control E-Stop
(Emergency Stop)

MS-105
Dust Collector Fan Motor Supplies power to the VF fan Drive

MS-465
Hoist motor Brake
Supplies power to release the Hoist Brake

CB-247
Optional Drive Circuit Breaker

Output Modules

CB-467
Hoist Motor Brake Circuit Breaker

PLC

CPU

CB-226
Machine Drive Circuit Breaker

CB-125
Main Primary Circuit Breaker
460VAC

Input Module
DC Current

Input Module
AC Current

CB-128
Secondary Circuit Breaker

CB-207
Fixture Drive Circuit Breaker

110VAC **CB-130**
110V Outlet Circuit Breaker

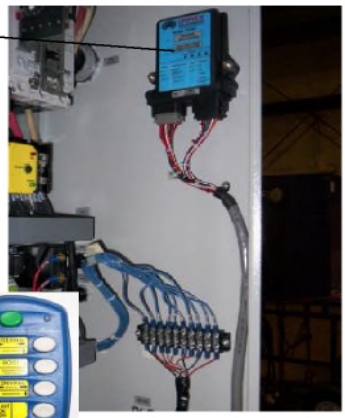
Variable Frequency Drive for Hoist

Line Reactor

T127 Transformer (3KVA)
Drops 460v. to 110v.

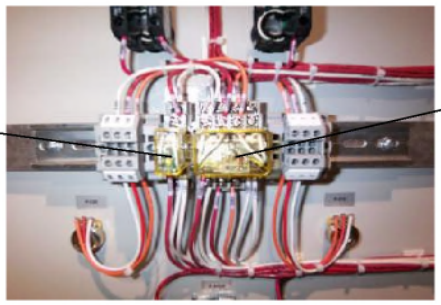
Braking Resister
For Hoist Drive

Receiver
For Remote Control



Transmitter
For Remote Control

CR-440
Full Speed Control Relay



CR-439 Pot Control Relay

DC Drive
For Machine Drive Motors

DC Drive
For Fixture Drive Motor

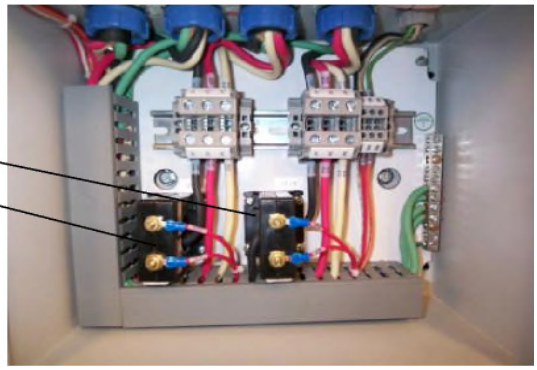
Machine On Board Panel Controls

Machine On Board Panel
for machine operation in
Horizontal Mode (Floor Cleaning)

Amperage Meter
Shows the amount of current that each blast wheel is pulling. The higher the Amperage, the more shot is being thrown by the blast wheel. **Caution-do not operate Over 40 amps.**

Machine Speed Knob
Sets speed of machine in
Horizontal Mode (Floor Cleaning)

Current Transformer
Provides current for
Amperage Meters



Wireless Remote Control System

Floor & Roof Cleaning

- Start/ Stop Blast Motors
- Forward/ Reverse
- Turn Left/ Turn Right

Vertical Wall Cleaning

- Start/ Stop Blast Motors
- Move Left/ Move Right
- Hoist Up/ Hoist Down

Pipe Cleaning

- Start/ Stop Blast Motors
- Pipe Rotation & Movement

Hand-Held Wireless Remote Control

- **FCC, ISC, CE approved**
- **1200 Foot range @ 900MHz (900 ft. @ 2.4GHz)**
- **Hand held/ weatherproof/ ergonomic**
- **(4) AA Batteries Included**

Activate Remote Control ON Switch

Steer Left
In Horizontal Mode-Bump or tap the button to make slight steering corrections. Hold down longer for turning.

In Vertical Mode- Bump button to slow down the hoist.

Hoist UP
In Vertical Mode-Press until the machine starts moving up the wall then release and the machine will continue moving until you press the button again to stop.

Steer Right
In Horizontal Mode-Bump or tap the button to make slight steering corrections. Hold down longer for turning.

In Vertical Mode- Bump button to speed up the hoist.

Hoist Down
In Vertical Mode-Press until the machine starts moving down the wall then release and the machine will continue moving until you press the button again to stop.

Speed Boost
In Horizontal Mode- Press this button to go to full speed for machine forward or reverse movement. Release the button and the speed will return to the set speed.

Driving
In Vertical Mode-Press and hold for **Left Travel** of the fixture. Release button to stop.

In Horizontal Mode-Press until machine starts moving forward, release and the machine will continue moving until you press the button again to stop.

Driving
In Vertical Mode-Press and hold for **Right Travel** of the fixture. Release button to stop.

In Horizontal Mode-Press until machine starts moving backward, release and the machine will continue moving until you press the button again to stop.

Blast Motor On/Off
Hold for 3 seconds to start. Press again to stop.

E-Stop (Emergency Stop or Machine Shut Down)
Stops all operation- to reset you must press the Green On Switch.

FasterBlaster Component & Material Check List

Make sure that the following components and materials are transferred from storage to the job site.

- U **FasterBlaster Machine**
- U **Dust Collector**
- U **Hoist System**
- U **Trolley Drive (if required)**
- U **Idler Trolley (if required)**
- U **Remote Control**
- U **Roof Fixture with 3/8" tie-back cable & 3/8" clamps**
- U **6" Exhaust Hose- 20' High Temp & 75' Black**
- U **6" Hose Connectors and clamps as required**
- U **$^3/_4$" air line for dust collector (small 3/8" air line can be used with reduction fittings)**
- U **5/8" Shackles- (2) for Hoist & (6) for the machine.**
- U **Vertical Support TurnBuckles-(2) $^3/_4$"x9" eye to eye & (2) $^3/_4$"x12" eye to eye.**
- U **Abrasive (S-230 to S-390 Recommended) If angular profile is required, mix in 20% of G-25 grit. Caution- due not use hard grit like H or GL, or shot larger than S-390**
- U **Scoop, funnel and bucket for transferring shot to machines.**
- U **Hand Tools to adjust machine components and maintain operation. (see Hand Tool List)**
- U **Tarp Covers for each machine, dust collector, and hoist.**
- U **Spare parts.**
- U **Job Site Box to lock up tools and spare parts.**

Safety Labels

Caution- Make sure all safety labels are in place as shown below. Do not paint over labels. **Replace labels that are torn or damaged in any way. Replacement labels will be provided free of charge. Call RBW Enterprises 770-251-8989.**

Eye protection must be worn when operating or working around this machine

Lock out machine before servicing. Do not operate without guards in place

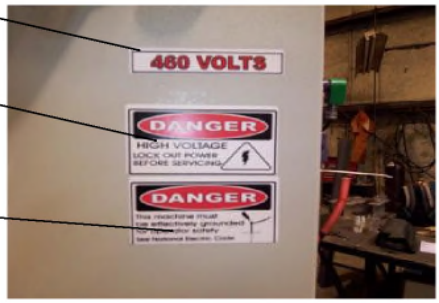
Check motor rotation. Machine will be damaged if rotation is incorrect

RBW contact information

460 Volt

High Voltage Lock out power before servicing

This machine must be effectively grounded for operator safety



A safety cable must be attached to this dust collector when used on tank roofs.

Compressed Air Must be connected and ON before operating the machine. If filters are allowed to plug, the machine can overheat

110 Volts/ 60 HZ

Serial Number

Check motor rotation Machine will be damaged if rotation is incorrect

460 Volt/ 60 HZ

Eye protection must be worn when operating or working around this machine

High Voltage Lock out power before servicing

Compressed Air Must be connected and ON before operating the machine. If filters are allowed to plug, the machine can overheat

Lock out machine before servicing. Do not operate without guards in place

A safety cable must be attached to this machine when used on tank roofs.

Safety Labels Continued

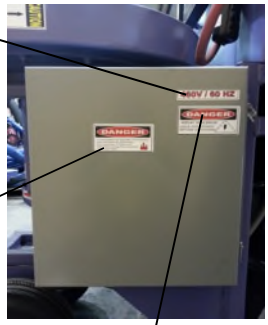
Lift Here

If needle gets above 2- stop and pulse down, clean or replace the filters. If filters are allowed to plug the machine can overheat

Use only fire retardant Torit Ultriweb Cartridge filters Part # P527079-016-340

460 Volts/ 60 HZ

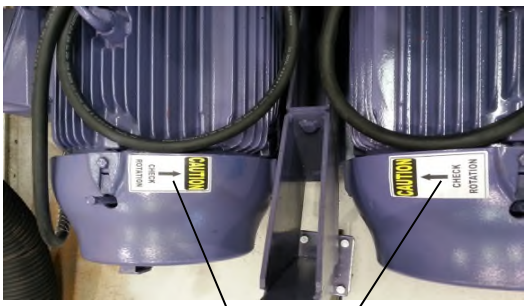
Compressed Air Must be connected and ON before operating the machine. If filters are allowed to plug, the machine can overheat



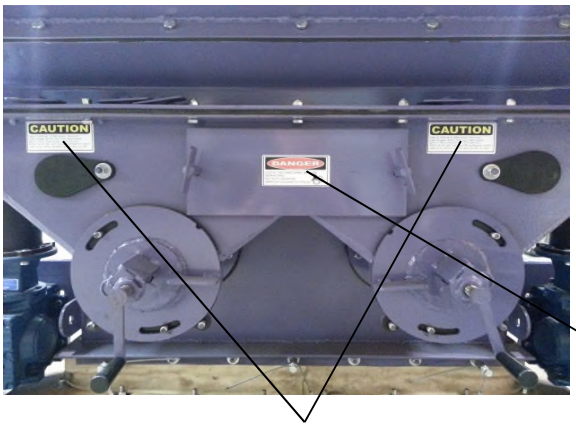
HIGH VOLTAGE Lock out power before servicing

Compressed Air Must be connected and ON before operating the machine. If filters are allowed to plug, the machine can overheat

Use S-330 & S-390 shot. Do not use larger shot. Do not use hard grit in this machine. GM, GH, GL, MG, LG, & HG will cause extreme wear. Use only 20% of soft grit G, SG, or GP



Check Rotation



Lock out machine before servicing. Do not operate without Guards in place

Use S-330 & S-390 shot. Do not use larger shot. Do not use hard grit in this machine. GM, GH, GL, MG, LG, & HG will cause extreme wear. Use only 20% of soft grit G, SG, or GP

Safety Labels Continued

Cone Roof Fixture

Moving machinery
This equipment operates from remote control.

Lock out machine when servicing.
Wear safety harness

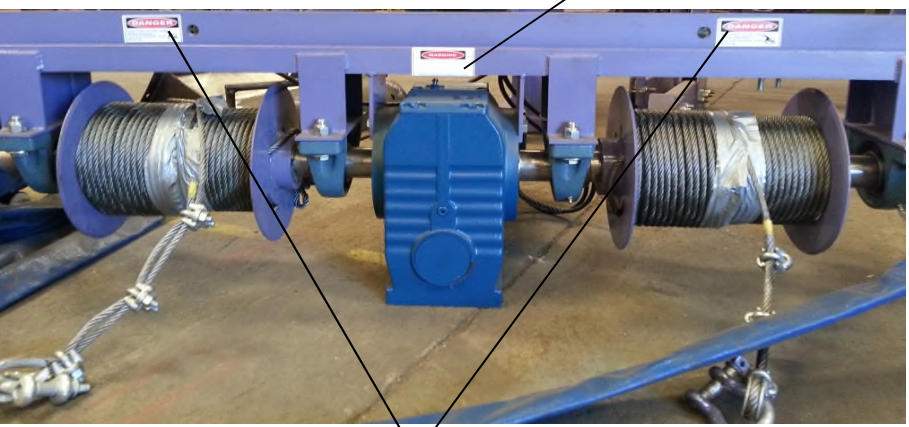
Lock out machine before servicing
Do not operate without guards in place

Floating Roof Fixture

This assembly has been load tested at 150% of the FasterBlaster machine weight of 2200 lbs. All hoist and fixture components should be inspected on a regular basis. Make sure that bolts are tight, that cables are not damaged and that cable clamps are tight. Do not use this hoist for any operation other than FasterBlaster support as described in the operation manual. Load tests and thorough inspections should be conducted annually. RBW will provide load testing at no charge.

C-Frame

Hoist

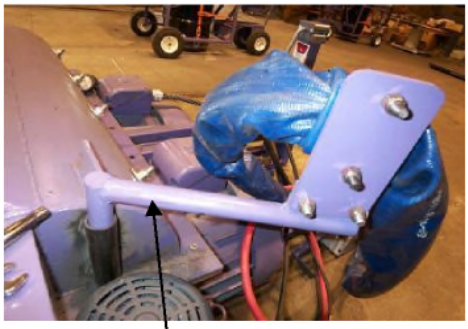


Keep clear of hoist cables during operation.
Lock out machine when servicing (Both Sides)

Machine Break Down to Fit Through Manhole

Remove the exhaust elbow by removing the six nuts on the flange

Remove the screen housing

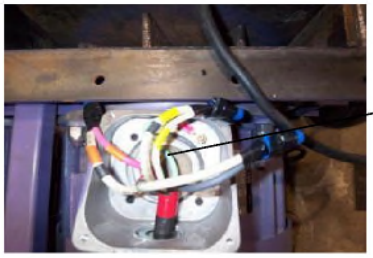


Remove the cable harness support by lifting it out of the support tube.

Lift up

Remove the hood by removing all the bolts around the flange.

Remove the hopper by removing the six nuts as shown.



Remove the wire nuts at the blast motor connections and remove the wire cable from the motor connection boxes.

You can now separate the cable harness and the machine panel from the machine.

Tip the machine forward by jacking up the rear wheel. Place a block under one of the motors. Crank the wheel back up and remove the rear wheel assembly by removing two nuts (one is located at the top of the frame and the other is at the bottom).

Tip the machine up on the motors, as shown, and remove the two drive tire assemblies and the main seal assembly.

Unbolt the gear box from the support bracket.

The machine is now ready to go through a 30” diameter hole. If the opening is a 24” hole, continue to the next page.

Use a fork lift to place the unit in the tank. Place the forks together on the ground under the unit, and slide the two motors onto the forks. After the unit is inside the tank, lift the unit off of the forks and onto the floor. Two men on each side can lift the unit.

Place all components in the tank and reassemble by following this procedure backwards..

If the man opening is 24” diameter the blast cabinet will have to be removed.

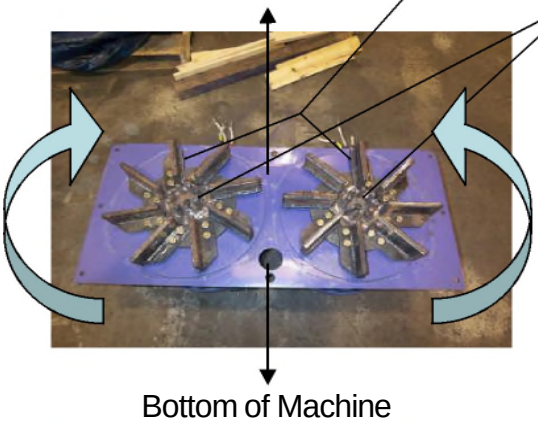
Unbolt the blast cabinet from the motor mounting plate. Silicone is used to seal the two components, a pry bar may be needed to pry the two apart.

Remove the impeller on both blast wheels with a 3/8” Allen wrench. Next, pry the wheel assemblies off the motor shafts.

Use a fork lift to place the unit in the tank. Place the forks together on the ground under the unit and slide the two motors onto the forks. After the unit is inside the tank, lift the unit off of the forks and onto the floor. Two men on each side can lift the unit.

Place all components in the tank and reassemble by following the assembly procedures on the following pages.

Re-assembling the Machine Inside the Tank



If the blast wheels were removed, place the wheel hubs back on the motor shafts and bolt on the impellers with a 3/8” Allen wrench.
Caution- The blast wheels are left hand and right hand units and must be placed on the proper motor. Make sure that they are rotating in the proper direction as shown.

Place a bead of silicone all around the wheel mounting plate as shown.

Bolt the blast cabinet onto the motor mounting plate.
Caution- The circular pads on the mounting plate must fit properly into the circular cut outs in the blast cabinet

Bolt the gear boxes back on the blast cabinet

Remount the main seal

Tip the unit upright and place a block under the blast motor

Bolt on the hopper

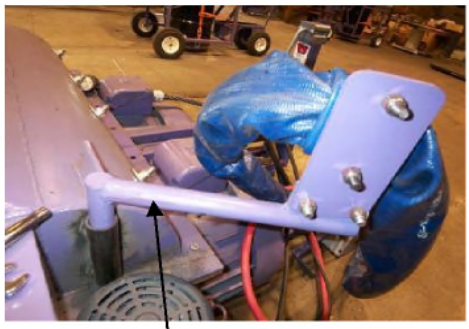
Bolt on the rear wheel assembly

Bolt the hood back in place
And remount the electrical
panel.

Install the blast motor cables. **Caution-** make sure that the color code on the cables are matched (one is coded with red tape and the other is coded with blue tape). Next, connect the power wires with the wire nuts All cables are color coded. Add electrical tape around the wire nuts so they can't vibrate lose.

Remove the screen housing

Replace the exhaust elbow



Replace the cable harness support.

Place in support tube

RBW ENTERPRISES, INC
FAST BLASTER 480VAC

169 HILLWOOD CIRCLE
NEWNAN , GA 30263

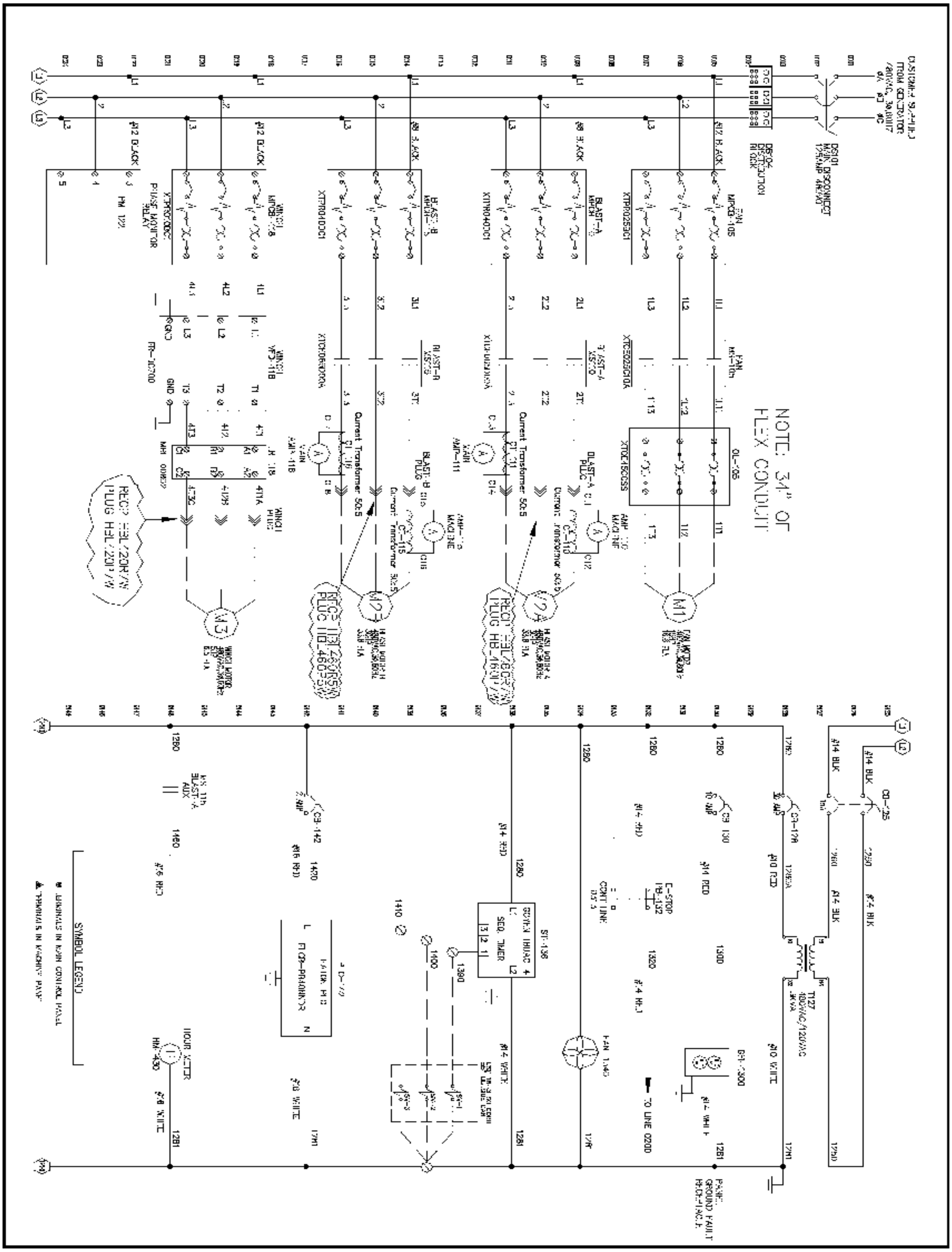
MFG BY BOLD CONTROLS,INC
2750 FAITH IND DR
BUFORD , GA 30518

DRAWING # 0	TITLE PAGE
DRAWING # 1	480/120 POWER
DRAWING # 2	FIXTURE & MACHINE DRIVES
DRAWING # 3	INPUTS
DRAWING # 4	OUTPUTS
DRAWING # 5	WINCH DRIVE
DRAWING # 6	BLANK
DRAWING # 7	PIGTAIL & PLUG DETAIL
DRAWING # 8	REMOTE BOX LAYOUT
DRAWING # 9	MAIN ENCLOSURE LAYOUT PARTS
DRAWING # 10	SUB PANEL LAYOUT PARTS
DRAWING # 11	DOOR LAYOUT PARTS
DRAWING # 12	BLUE HOSE,CABLE & PLUGS
DRAWING # 13	BILL OF MATERIALS
DRAWING # 14	VFD PARAMETER SETTINGS

FasterBlaster Control Panel
RBW ENTERPRISES, INC
169 HILLWOOD CIR
NEWNAN ,GA 30263
PART # 700

BOLD CONTROLS, Inc.
2750 Faith Ind. Drive
Suite 300
Buford, Georgia 30518
Ph (770) 831-1920

RBW 700

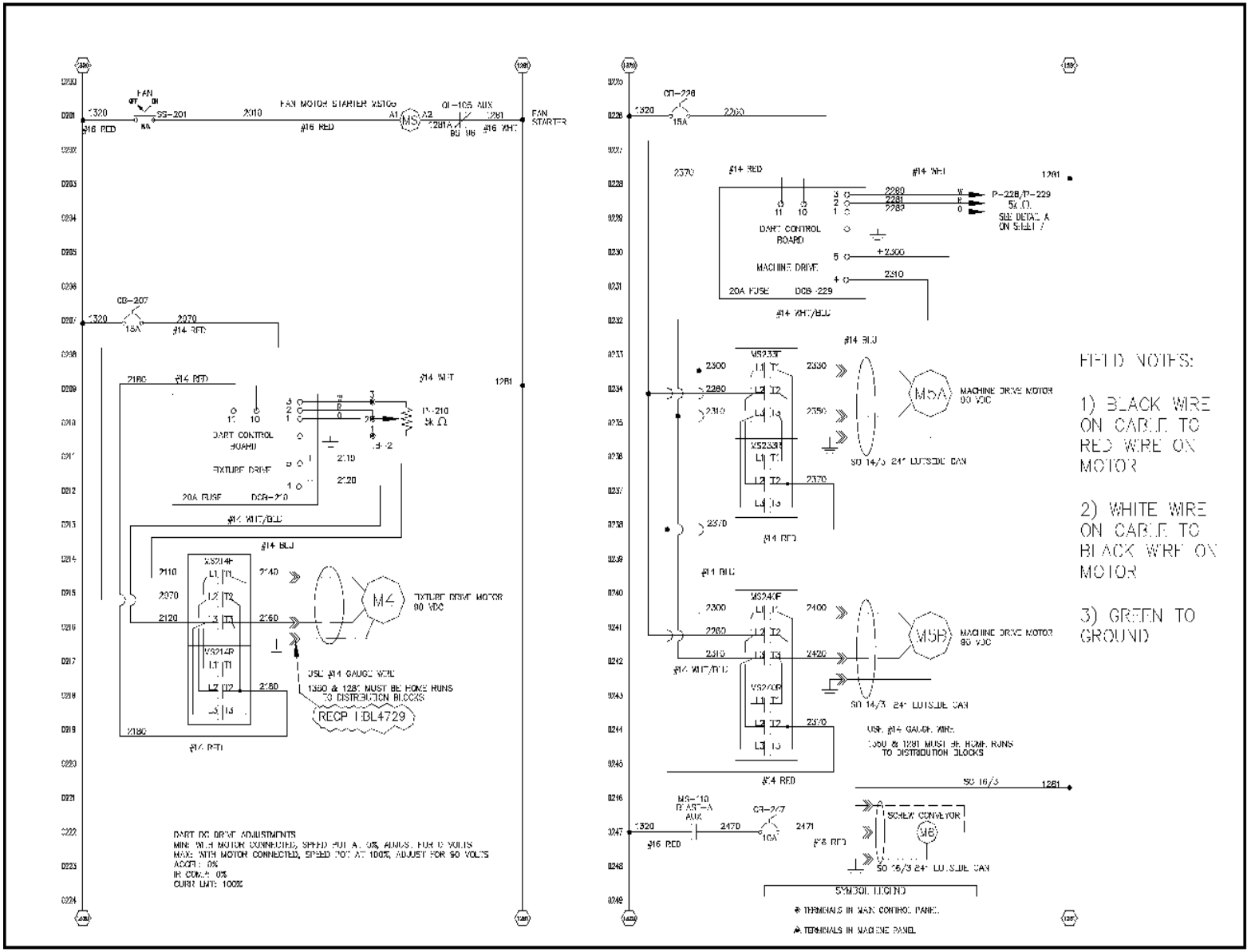


SHEET RBW 701 1 of 14	SCALE N/A; DATE 03/28/03; PROGRAM 1A; PLOT DATE 6/6/2003; DRAWN BY SCW; DWG RBW 701

BOLD CONTROLS INC
2750 FAITH IND DR
Suite 300
Buford Georgia 30518
Ph (770) 831-1820

FasterBlaster Control Panel
RBW ENTERPRISES INC.
169 HILLWOOD CIR
NEWNAN, GA 30263
PART # 700

MARK	DESCRIPTION	DATE
E	NEW PLC	6/29/11
D	[illegible]	8/31/08
C	[illegible]	[illegible]
B	TITLE BLOCK [illegible]	12/11/08
A	[illegible]	[illegible]



HFID NOTES:

1) BLACK WIRE ON CABLE TO RED WIRE ON MOTOR

2) WHITE WIRE ON CABLE TO BLACK WIRE ON MOTOR

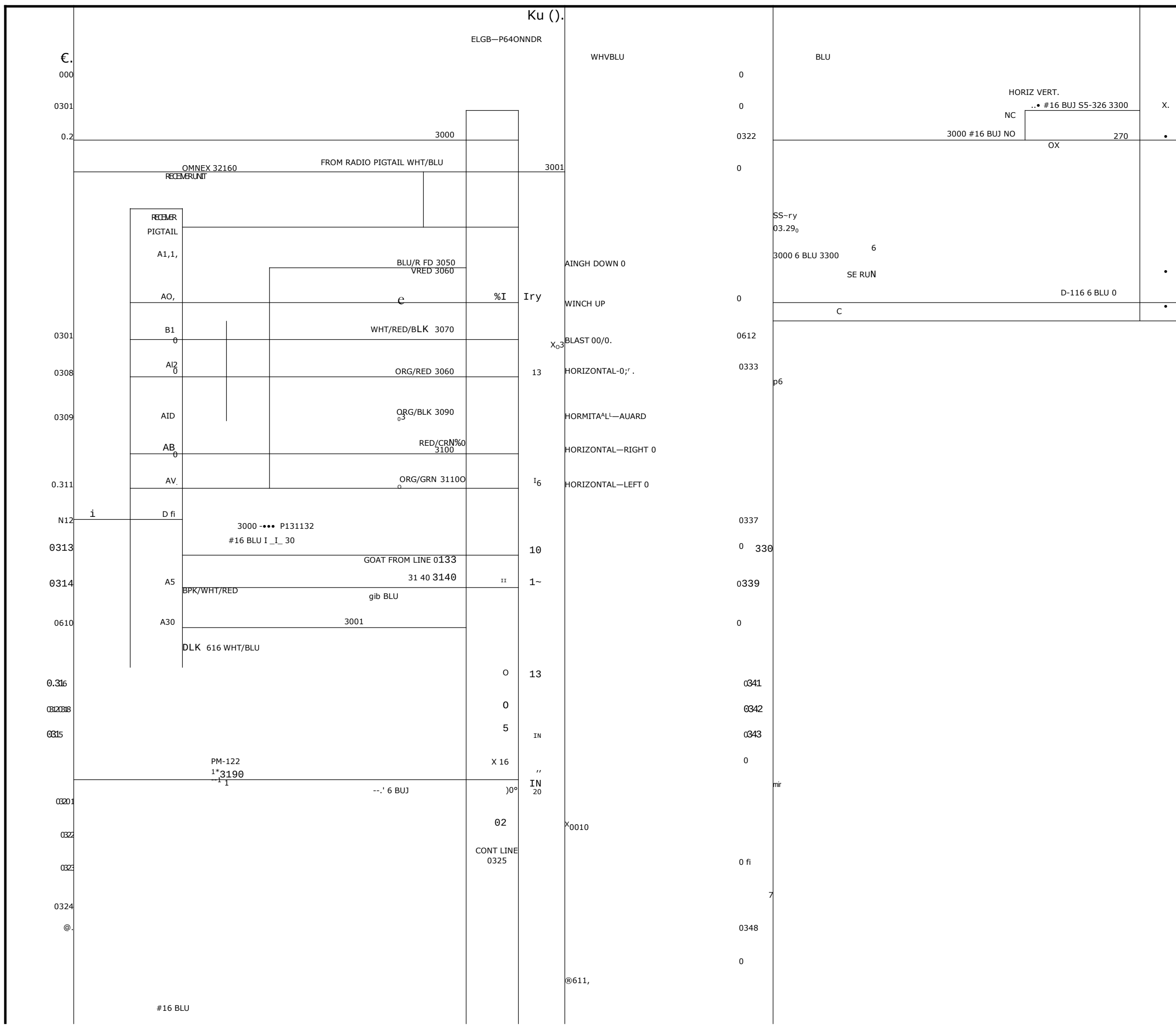
3) GREEN TO GROUND

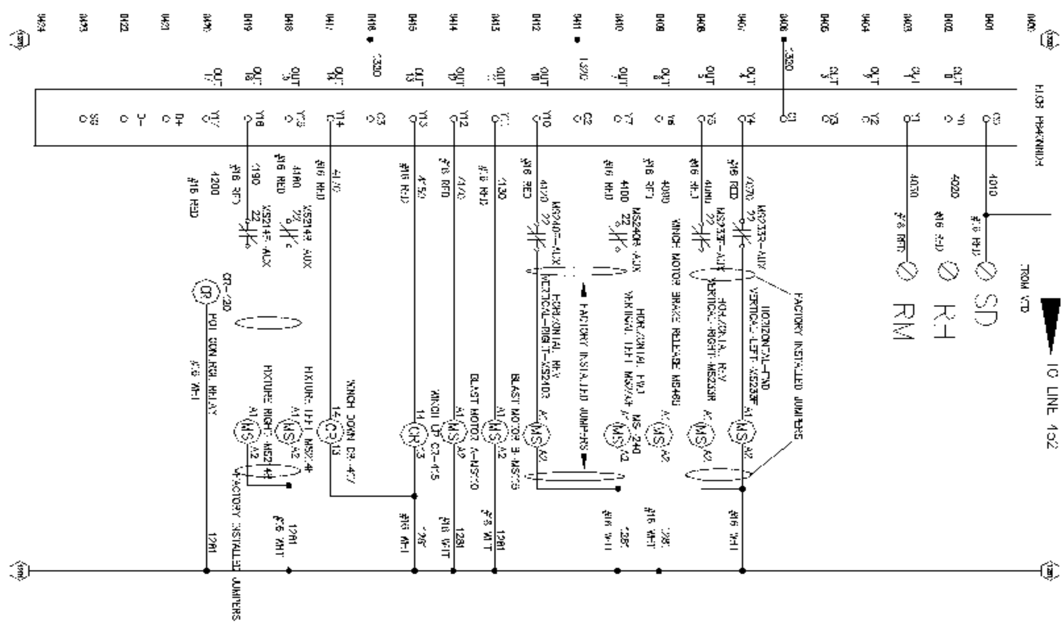
FasterBlaster Control Panel
RBW ENTERPRISES INC
169 HILLWOOD CIR
NEWNAN, GA. 30263
PART # 700

BOLD CONTROLS INC
2750 PARK VIEW DR
SUITE 300
Building Georgia 30518
Ph (770) 831-1920

REW 702

2 of 14 sheets


ELGB—P64ONNDR
WHVBLU
BLU
HORIZ VERT.
#16 BUJ S5-326 3300
NC
3000 #16 BUJ NO
OX
3000
OMNEX 32160
FROM RADIO PIGTAIL WHT/BLU
3001
PIGTAIL
SS-ry
3000 6 BLU 3300
SE RUN
BLU/R FD 3050
VRED 3060
AINGH DOWN 0
D-116 6 BLU 0
WINCH UP
WHT/RED/BLK 3070
BLAST 00/0.
ORG/RED 3060
ORG/BLK 3090
RED/CRN%0
3100
HORIZONTAL—RIGHT 0
ORG/GRN 3110O
HORIZONTAL—LEFT 0
#16 BLU I _I_ 30
GOAT FROM LINE 0133
31 40 3140
BPK/WHT/RED
gib BLU
3001
DLK 616 WHT/BLU
PM-122
3190
CONT LINE
0325
#16 BLU



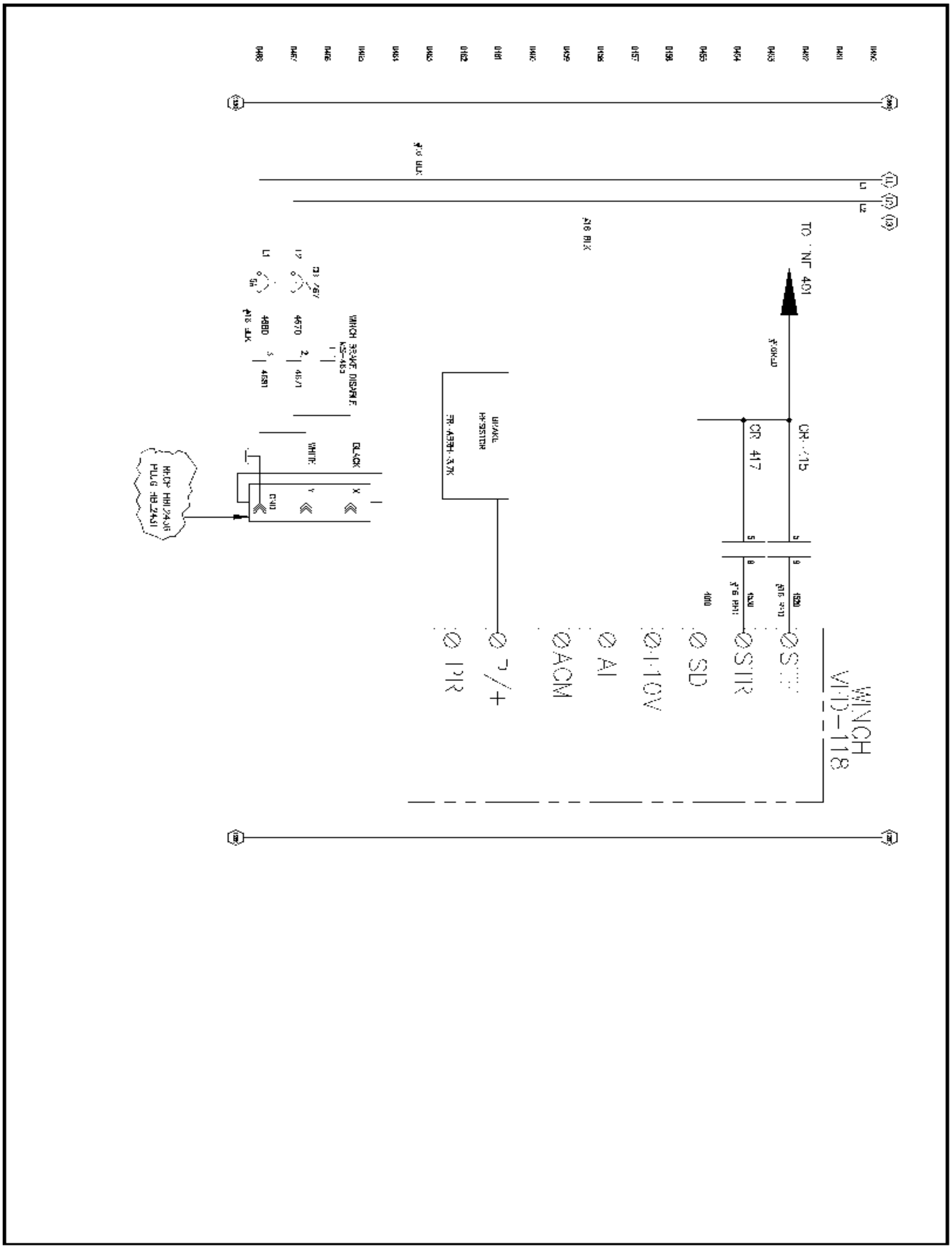
SYMBOL LEGEND

* TERMINALS IN MAIN CONTROL PANEL

Δ TERMINALS IN MACHINE PANEL

RBW 704 4 of 14	SCALE N/A DATE 3/28/03 PROGRAM 1A 3/28/03 SGW RBW 704	BOLD CONTROLS INC 4540 Atwater Court Suite 112 Buford Georgia 30518 Ph (770) 831-1920	FasterBlaster Control Panel RBW ENTERPRISES INC. 169 HILLWOOD CIR NEWNAN, GA 30263 PART # 700	THIS DRAWING IS THE PROPERTY OF BOLD CONTROLS INC. THE DISCLOSURES CONTAINED ON THIS DRAWING ARE MADE WITH THE UNDERSTANDING THAT THEY ARE CONFIDENTIAL AND WILL NOT BE USED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN APPROVAL OF BCI. ALL PRINTS AND ASSOCIATED DOCUMENTS MUST BE RETURNED UPON THE COMPLETION OF THE JOB OR ESTIMATE.	

MARK	DESCRIPTION	DATE
D	NEW PLC	6/26/11
C	XX (WC)	2/17/11
B	TITLE BLOCK (E440)	12/21/09
A	AS BUILT	3/28/03



RBW 705

5 of 14 SHEETS

N/A
3/26/03
3/26/03
SCW
RBW 705

BOLD CONTROLS INC.
2750 FAITH IND DR
Suite 300
Buford Georgia 30518
Ph (770) 831-1920

FasterBlaster Control Panel
RBW ENTERPRISES INC.
FASTERBLASTER
CONTROL PANEL

PART # 700

REV	DESCRIPTION	DATE
E	ADDED BRAKE RESISTOR	[illegible]
D	[illegible]	[illegible]
C	[illegible]	2/17/11
B	TITLE BLOCK (BCI)	[illegible]
A	AS BUILT	[illegible]

RBW 706

6 of 14

N/A

12/11/09

PROGRAM 1A

RBW 706

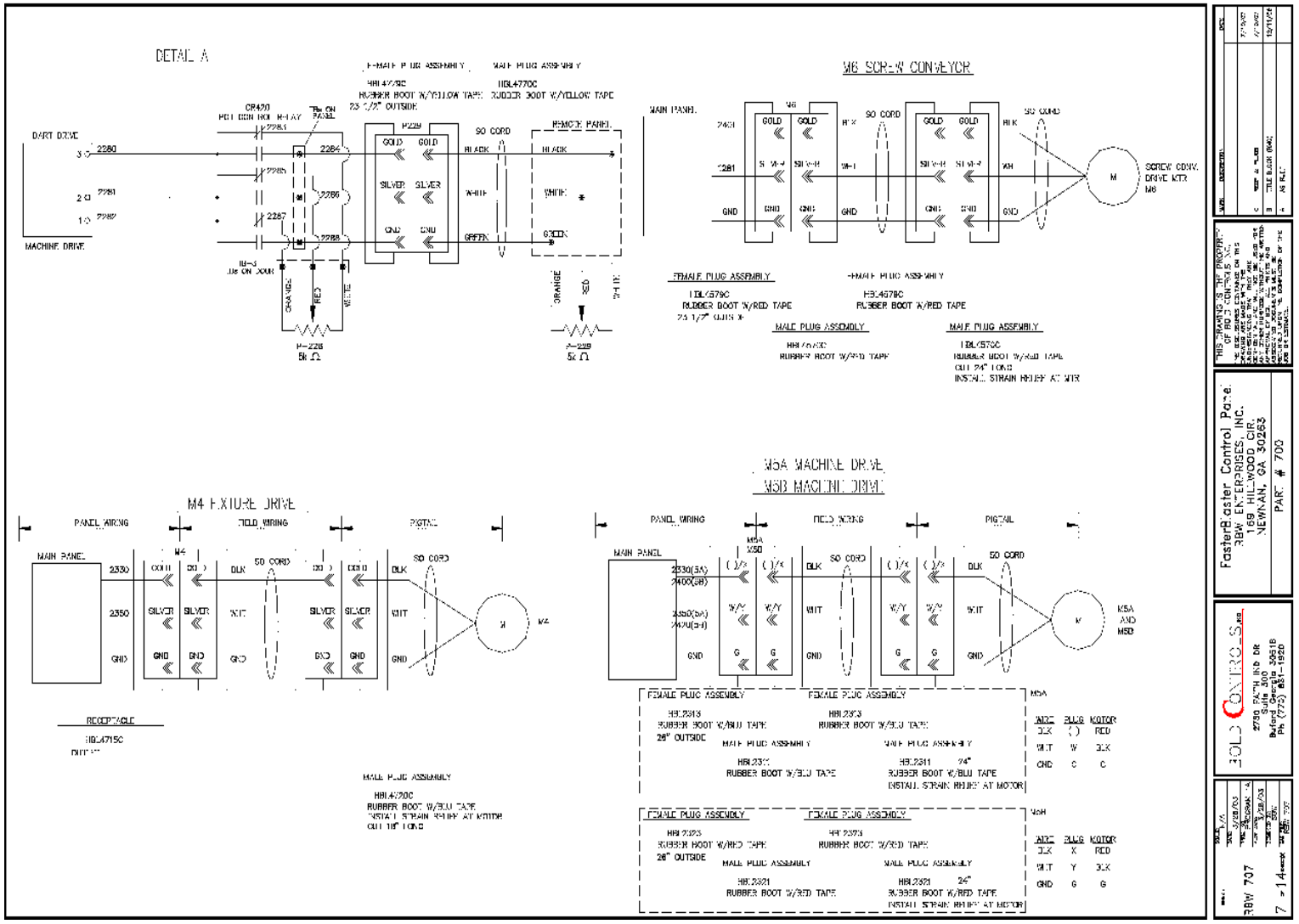
BOLD CONTROLS inc

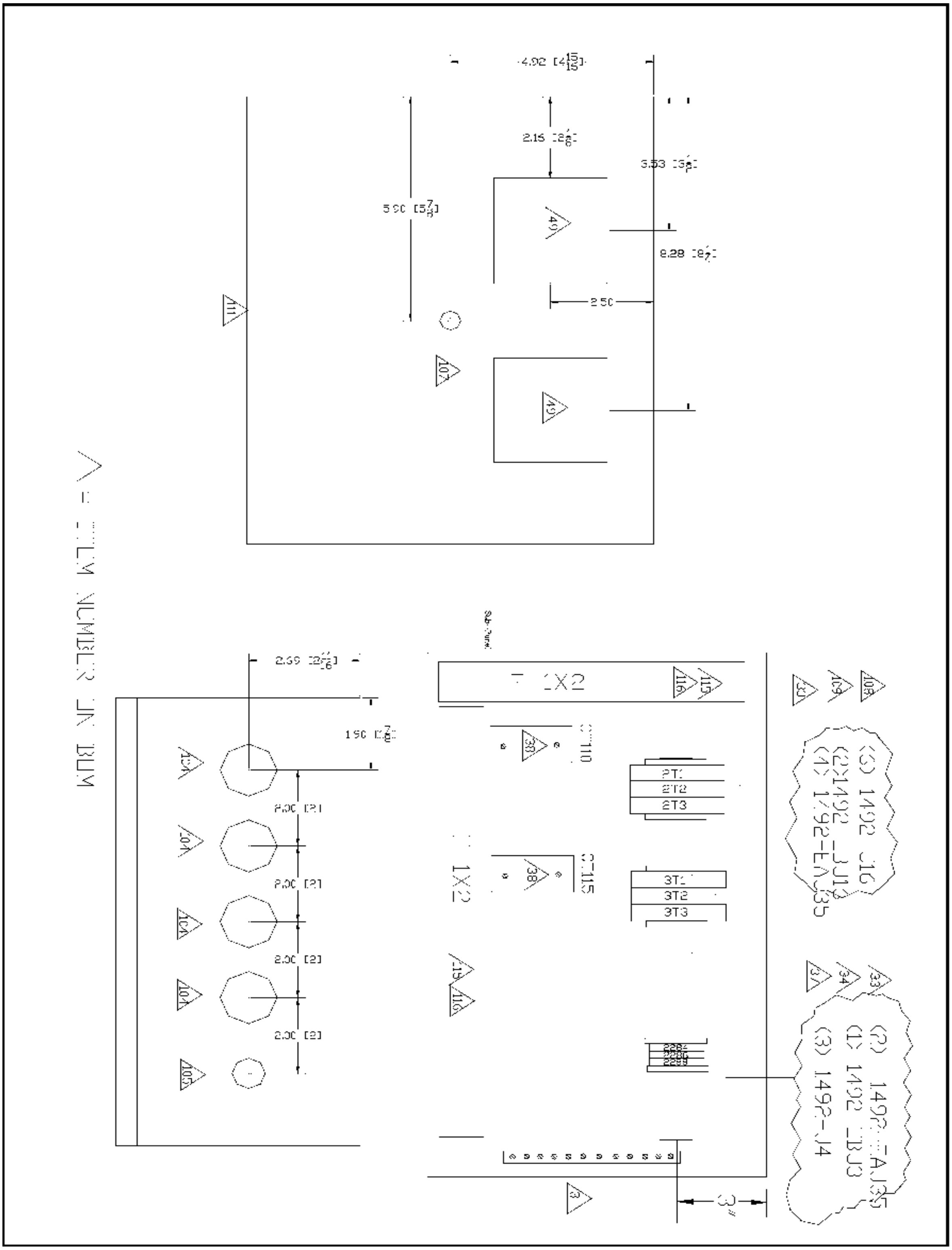
2750 Faith Ind. Drive
Suite 300
Buford Georgia 30518
Ph (770) 831-1320

FasterBlaster Control Panel
RBW ENTERPRISES INC
169 HILLWOOD CIR
NEWNAN ,GA 30263

PART # 700

MARK	DESCRIPTION	DATE
A	TITLE BLOCK (BASE)	12/11/09


DETAIL A
M6 SCREW CONVEYOR
M4 FIXTURE DRIVE
M5A MACHINE DRIVE
M5B MACHINE DRIVE
MACHINE DRIVE
REMOTE PANEL
MAIN PANEL
SCREW CONV. DRIVE MTR M6
RECEPTACLE
FEMALE PLUG ASSEMBLY
MALE PLUG ASSEMBLY
FasterMaster Control Panel
3BW ENTERPRISES, INC.
169 HILLWOOD CIR.
NEWNAN, GA 30263
PART: # 700
3BW 707



RBW 708

N/A

3/28/03

PROGRAM (A)

5/09/03

SGW

RBW 708

8 of 14

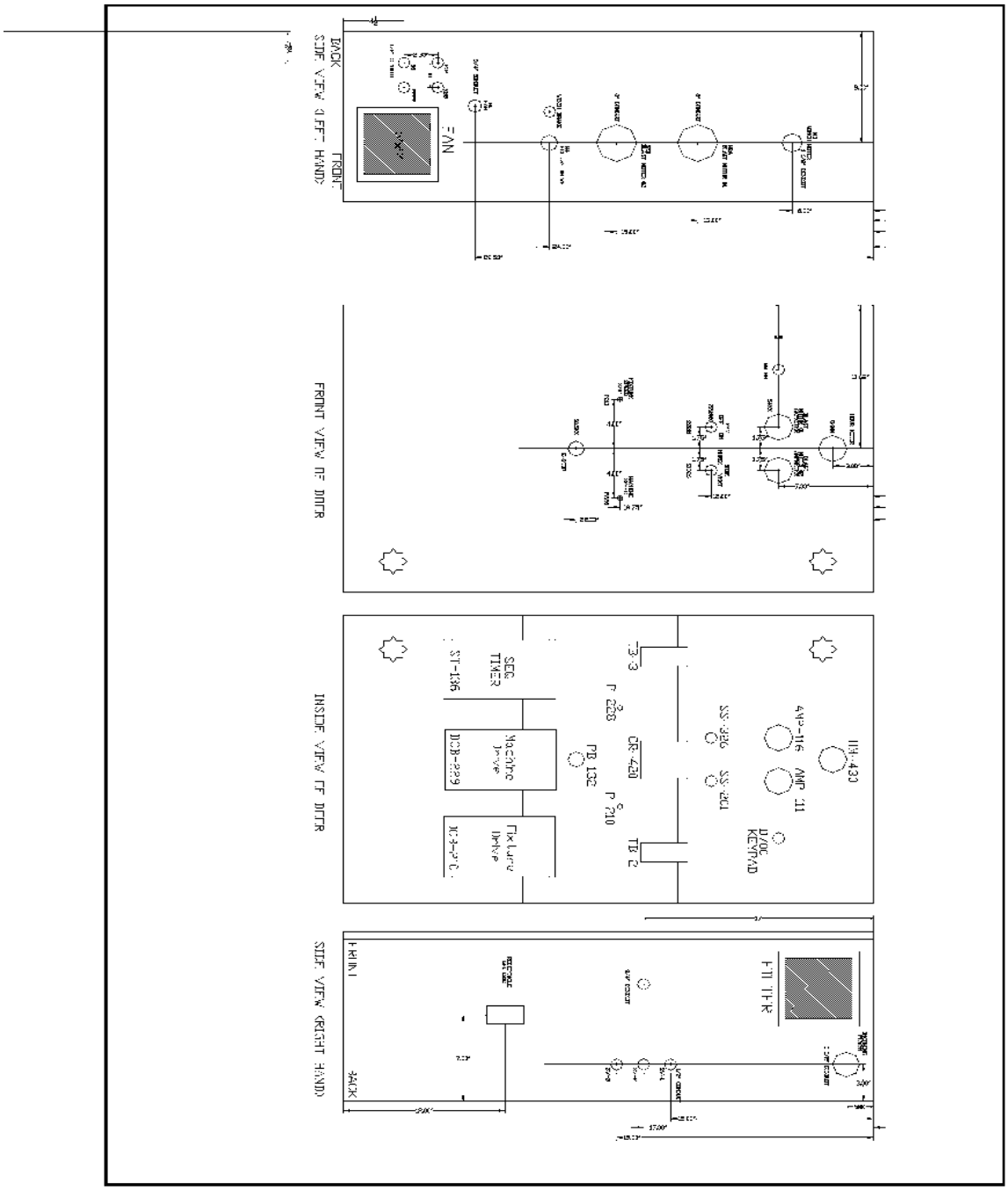
BOLD CONTROLS, INC

2750 FAITH IND DR
Suite 300
Buford Georgia 30518
Ph (770) 631-1920

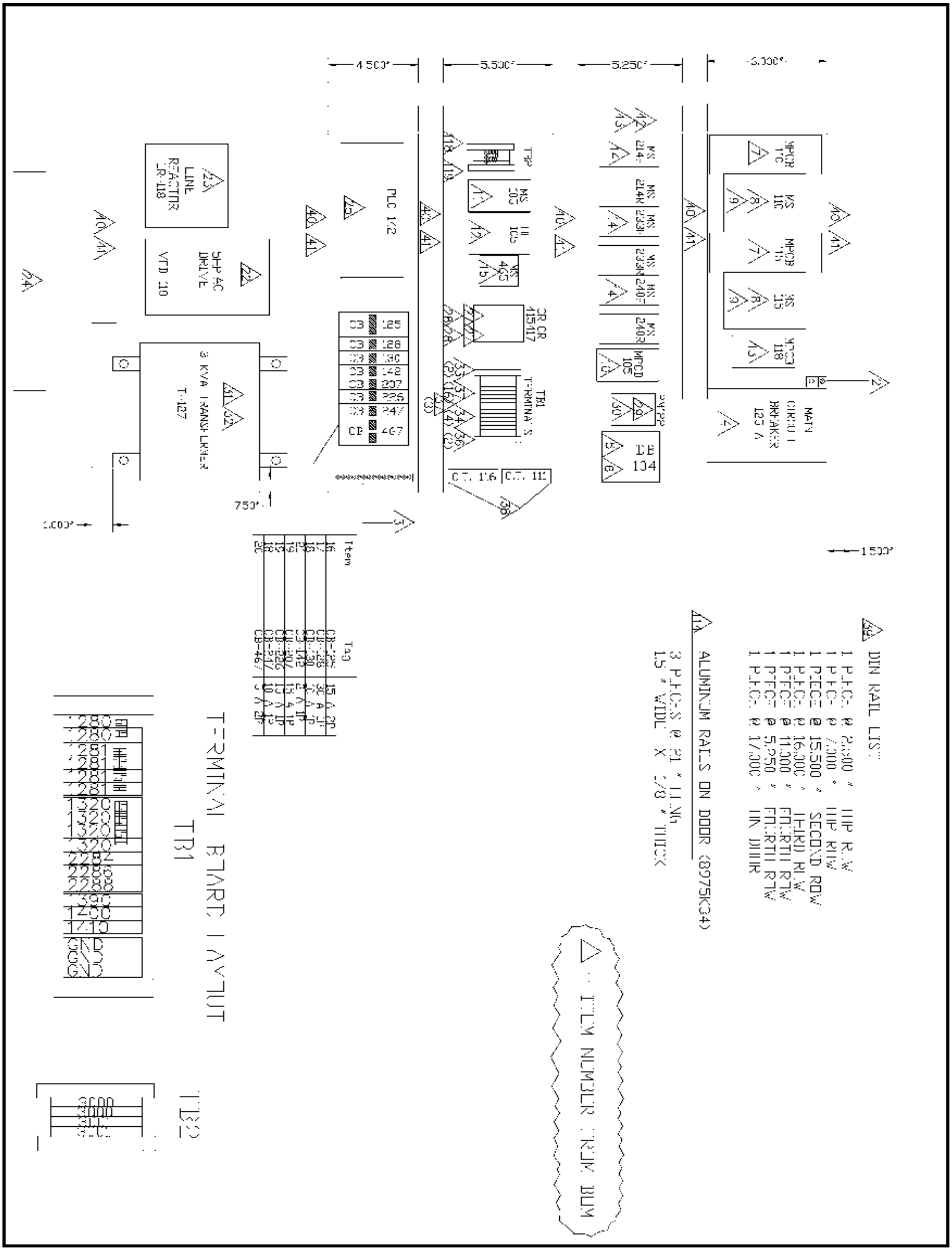
FosterBlaster Control Panel
RBW ENTERPRISES INC
169 HILLWOOD CIR
NEWNAN,GA 30263

PART # 700

MARK	DESCRIPTION	DATE
5	UPDATE	8/08/11
3	ITEMS	7/10/07
6	ITEMS	6/5/06
9	TITLE BLOCK (DWG)	12/11/08
4	AS BUILT	9/07/03



RBW 709 9 of 14	BOLD CONTROLS, Inc. 2760 FAITH IND DR Suite 300 Buford Georgia 30518 Ph (770) 831-1820	FasterBlaster Control Panel RBW ENTERPRISES INC. 169 HILLWOOD CIR NEWNAN, GA. 30265 PART # 700



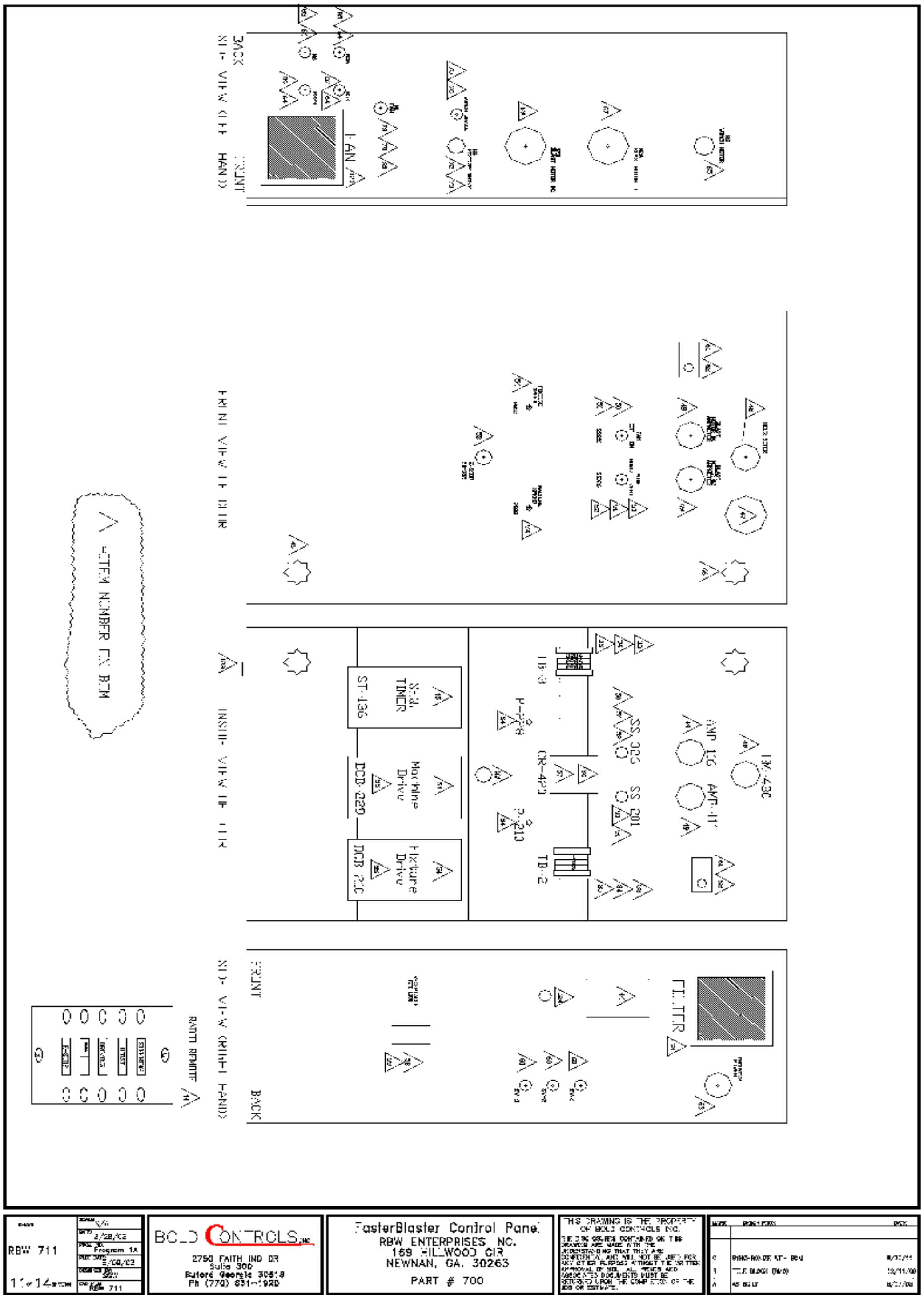
RBW 710	N/A
	3/28/03
	Program 1A
	3/28/03
	SBW
10 of 14	RBW 710

BOLD CONTROLS, INC.
2750 FAITH IND DR
Suite 300
Buford Georgia 30518
Ph (770) 831-1920

FasterBlaster Control Panel
RBW ENTERPRISES INC.
169 HILLWOOD CIR
NEWNAN, GA. 30263

PART # 700

MARK	DESCRIPTION	DATE
	SYNCHRONIZE WITH BOM	6/30/11
D	ITEM NUMBERS	7/9/07
C	ITEM NUMBERS	6/5/06
B	TITLE BLOCK (NEW)	12/11/03
A	AS BUILT	5/07/03


RBW 711
2/28/02
Program 1A
5/09/03
RBW 711
BOLD CONTROLS INC
2750 FAITH IND DR
Suite 300
Buford Georgia 30518
Ph (770) 831-1920
FasterBlaster Control Panel
RBW ENTERPRISES INC.
169 HILLWOOD CIR
NEWNAN, GA. 30263
PART # 700
THIS DRAWING IS THE PROPERTY OF BOLD CONTROLS INC.

FASTERBLAST HOSE ASSEMBLY

LENGHT	DESCRIPTION	PART #	RECEPTACLE	PLUG	
95'	BLUE HOSE	5295K39			
120'	AIR HOSE	5405K6			
110'	M2A	8AWG 4C	HBL460R7W	HBL460P7W	02201017
110'	M2B	8AWG 4C	HBL460R5W	HBL460P5W	02201017
110'	M5A BLUE	14AWG 3C	HBL2313	HBL2311	
110'	V5B RED	14AWG 3C	HBL2323	HBL2321	
110'	V6 WHITE	16AWG 3C	HBL 4579C	HBL 4570C	
110'	P229 YEL W	16AWG 3C	HBL 4779C	HBL 4770C	
	M3 WINCH MTR		HBL420R7W	HBL420P7W	
	M4 FIXTURE		HBL4710C	HBL4720	
	WINCH BRAKE		HBL2436	HBL2431	

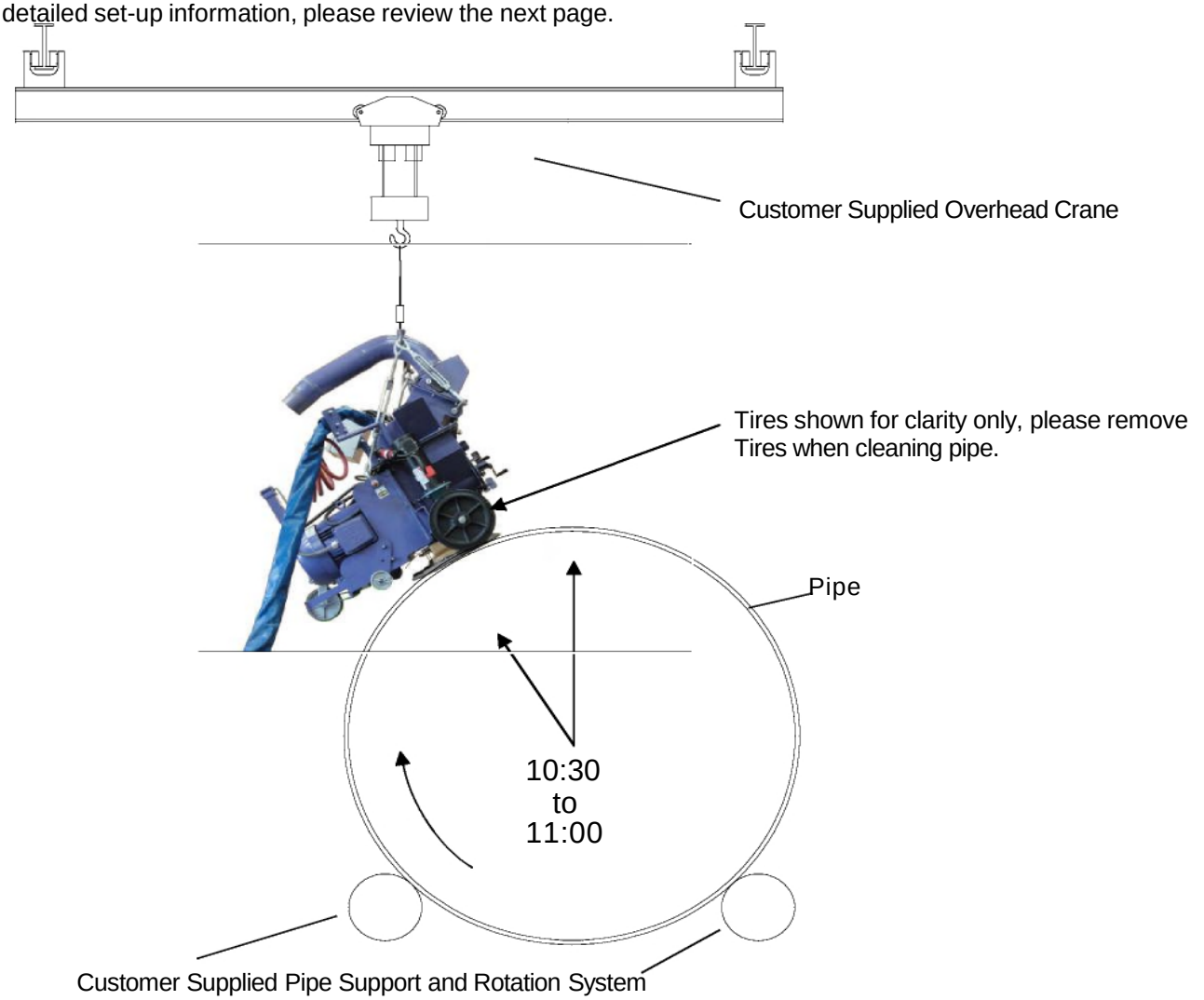
FasterBlaster Control Panel
RBW ENTERPRISES INC
189 HILLWOOD CIR
NEWNAN, GA 30263
PART # 700

RBW 712

Pipe Cleaning Set-Up

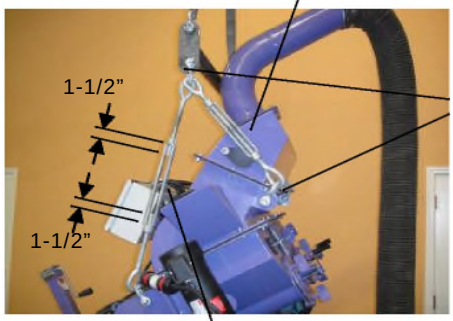
Watch the pipe cleaning video
http://www.youtube.com/watch?feature=youtube gdata player&v=WBfeyM0qBKS

The FasterBlaster can be used to clean large pipe and wind tower sections. The pipe or tower section is supported from two roller stands which rotate the pipe in place as shown below. The machine is supported from an overhead monorail crane system. Through the pick-up points shown below, the turnbuckle arrangement attaches to a load spreader bar. The turnbuckles and spreader bar, furnished by RBW, cock the machine to the proper angle for cleaning pipe. This position is around 10:30 or 20 degrees off top center when looking from the end of the pipe.
The machine tires must be removed before the machine is set on the pipe. Hoist the machine up to the proper height and move the hook towards the pipe. Position the hoist so the machine seal's outer perimeter touches the pipe equally on all sides. When the vacuum is turned on the seal will pull down tightly to the pipe surface. The seal must be cupped to the radius of the pipe to assure a good seal. One seal radius may work ok for various sizes of large pipes, however, the seal radius becomes more critical for smaller diameter pipes. Pipes smaller than 24" diameter will require a different seal arrangement. The seal is held in a curved position by a super glue bond between the top gum rubber seal and the main black rubber seal. To reset the seal to a different radius, cut the glue around the perimeter of the gum rubber seal as shown below. Tape the black seal down to the new curved surface, re-apply super glue and tape down the gum rubber seal. The glue will cure in a few minutes. For more detailed set-up information, please review the next page.



Connect the turnbuckles to the machine at the lift points shown below. Make sure that the turnbuckles are adjusted as indicated.

Short 9” Turnbuckle should be adjusted all the way in as shown.

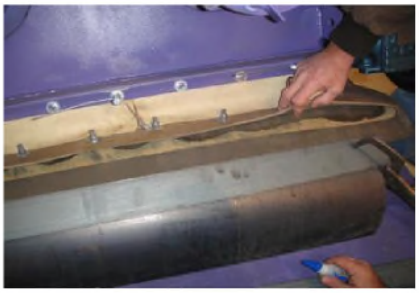


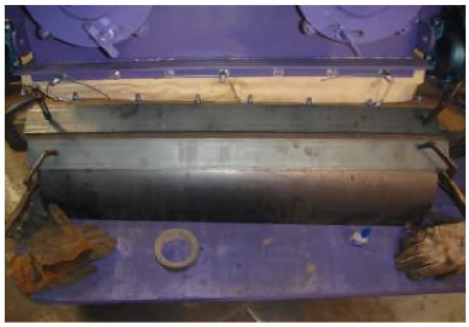
5/8” Shackles

Spreader Bar

The long turnbuckle should be adjusted in 1-1/2” as shown.

To adjust the curvature of the seal, cut the super glue bond between the top gum rubber and the main black seal as shown above.





Clamp the black rubber down to a curved section of pipe and re-glue the gum rubber. Clamp the gum rubber down until the super glue sets, as shown above.

Pipe Cleaning Procedures

1. Make sure that the machine is full of shot and position the machine on the pipe as shown previously.
2. After the machine is properly positioned on the pipe and the seal is properly set, start the dust collector fan.
3. Make sure that the seal vacuums down tightly against the pipe surface.
4. Make sure the machine is set to **Vertical** operation.
5. Start the blast motors by holding down the blast button and the right steering button.
6. Start the pipe rotation in the direction shown. **Caution**- the pipe surface must rotate upward when looking from the machine side as shown below.
7. Adjust the rotation speed down or up to get the cleaning required for the application.
8. After a full rotation is made, slowly move the overhead monorail about 30” down the pipe for the next path.
9. Follow this procedure until the pipe is cleaned.

Caution- Keep your finger on the remote control E-Stop button at all times. If the machine should come away from the pipe or lose the seal- push the red E-Stop on the remote control to stop the blast. The remote control should be hung around the neck with the strap provided so the E-Stop control is always at hand.

Caution- Do not attempt to clean too close to the end of the pipe. The seal should always be kept back from the end a few inches. A pipe extension is required to cleans the ends of the pipe.

Operation Process

(1)

Position the machine in place on the pipe as previously described.

(2)

Turn on power

(3)

Make sure e-Stop is pulled out.

(4)

(5)

Set Mode to Vertical Turn on Fan

(6)

Make sure that the seal vacuums down tightly to the pipe.

(7)

White light will blink

Press Green button to activate Remote Control.

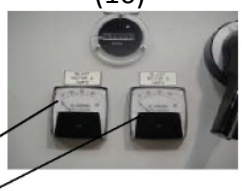
(8)

Press the Blast button and the Right Steering button to start the blast motors. When the first motor starts, let up on the buttons. The second motor will start automatically.

(9)

Crank out the control cage handles CCW to bring shot flow on each motor up to 30 to 35 amps.

(10)



(11)

Start the pipe rotation in the direction shown.

(12)

Wear the remote around your neck at all times so you can quickly stop the machine if the seal should break its vacuum with the pipe.

(13)

To stop the machine operation, push the red E-Stop button. To reactivate the unit, push the green button.