

WD 42 x 24

WD 48 x 24

WD 40 x 40

WD 48 x 48

WD 60 X 30

WD 60 X 48

WD 60 X 60

**PLEASE READ
BEFORE
USING THIS EQUIPMENT**

ECONOLINE®

**FOR OPTIMUM
PERFORMANCE
THIS MACHINE
MUST BE
OPERATED WITH
DUST COLLECTION
SYSTEM.**

WD- Assembly Instructions

PLEASE READ INSTRUCTIONS COMPLETELY BEFORE STARTING

We thank you for purchasing the WD pressure system. This system has been specifically designed for the Dry Blast user who wishes to achieve quality results on a number of surfaces for both low and high volume requirements. Below you will find instructions on how to assemble your unit upon receipt. If you have any questions on how to proceed with any steps, contact **Econoline Technical Service** by phone at **1-800-253-9968** or fax at **1-616-846-6341**.

NOTICE:

The **WD** is delivered skid-mounted to assure safe arrival. If any damage is evident upon receipt, contact the carrier immediately to file your claim.

DO NOT USE QUICK DISCONNECTS

STEP 1 – Unpacking

Cut the packing straps by using heavy-duty scissors or wire cutter. Remove the protective plastic wrap and cardboard. Open the side door and remove the light assembly. With assistance of others, slide unit gently off the skid and place unit in desired work area.

PLATFORM INSTALLATION – The 48x48 WD, 60 x 30 wd, 60 x 48 wd, & 60x60 WD come with a platform. Line up the pre-drilled holes on the platform with the holes in the cabinets front legs and attach using the hardware provided. Be sure the foot pedal hoses are not pinched or kinked.

STEP 2 – Light Fixture Installation

Unwrap the fluorescent light fixture and attach to the top of the cabinet with hardware provided. Be sure to place the plastic

protective sheet between the light fixture and the cabinet to protect the light source from abrasive damage during blasting.

STEP 3 – Window

Loosen wing nuts to remove window frame and peel protective covering off from the window. Re-install and firmly tighten wing nuts to prevent leakage around window.

STEP 4 – Dust Collector set-up

Unpack the dust collector and place within a few feet of the sandblast cabinet. Connect dust collector hose to the air outlet on the right side of the cabinet above the door. Connect the dust collector power cord to the outlet on the back side of the light fixture. Connect the light fixture power cord to your power source. See your dust collector manual for details and operation of your dust collector.

STEP 5 – Attaching air line to sandblast system

NOTE: WE STRONGLY SUGGEST YOU HAVE A WATER / AIR SEPARATOR PLACED BEFORE THE REGULATOR TO ASSURE NO MOISTURE ENTERS THE SYSTEM. MOISTURE MAY LEAD TO CLOGGING OF ABRASIVE MEDIA.

Close all of the ball valves #411121 and attach the airline from your compressor to the hose barb #413421 on your regulator (or water / air separator if you have installed one). The “open” position of the ball valves is when the lever is positioned over the length of the valve. The “closed” position is when the lever is perpendicular to the ball valve. When attaching the air supply to the **WD cabinet** the following assembly instructions are important for your system to function properly.

*Air to the plumbing of your unit should be supplied by hose or pipe with a **minimum of 3/4” I.D.** and we strongly suggest 1” I.D.

***Do not** attach your air supply to the unit with quick connects, as this greatly reduces the volume of air to the system and will adversely affect the units performance.

STEP 6 – Loading abrasive into pressure-pot

Pour the abrasive media into the hopper through the cabinet side door or flip top. Most users start with 50 lbs. of media. Do not over-fill the pressure pot. When pressure vessel is empty, depressurize the tank by lifting your foot off of the foot pedal and media will automatically re-fill the pressure vessel.

To change media, **turn off the air supply**. Next, place a bucket or tray under the pressure vessel and remove the pipe plug on the bottom. Open the steel ball valve #411125 and media will empty into the container. When empty, replace the pipe plug and close the steel ball valve and refill the machine with your new media.

STEP 7 – Filling pressure-pot with air

Be sure ball valve “C” is in the closed position.

Open ball valves “A” & “B” to activate the system. Press on the foot pedal and you will hear a swishing sound indicating that the pressure vessel is filling with air. After a few seconds, the top opening of the vessel will pop closed and the unit will pressurize and begin blasting. When the system is fully activated, both ball valves “A” & “B” should be in the fully opened position.

Set your regulator and gauge to the desired blasting pressure by turning the control on the top of the regulator.

STEP 8 – Controlling the abrasive media flow

The pressure-pot is fitted with an abrasive metering valve #411125 located on the bottom of the vessel. To adjust the valve, align the valve lever perpendicular to the valve body (closed position). Now turn the lever down approximately 30 degrees. This should be a good position to begin adjusting the media flow. Slide your arms into the gloves in the arm ports of the cabinet, grip the blast hose firmly, and depress the foot pedal to begin blasting (it is normal when starting to blast that one or two spurts of abrasives come out of the nozzle before uniform blasting begins). Best blasting is achieved when the abrasive can barely be seen as a mist in the air stream from the nozzle. Too much abrasive in the flow will reduce the ability of the system to blast effectively and will cause surging. Too little abrasive flow will slow your blasting and yield poor results.

Opening the abrasive metering valve will put more media into the mix while closing it will deliver more air and less abrasive. Once the metering valve is properly set, it will require only occasional maintenance.

STEP 9 – Blasting

Best results are achieved by sandblasting between 20 and 80 psi and holding the nozzle at a 90 degree angle to the surface at about 4 to 8 inches away. Maintain a continuous, even movement of the nozzle to prevent the media from cutting too deep into your work surface.

NOTE: IF USING GLASS BEAD KEEP PRESSURE BELOW 40 PSI. GLASS BEAD SHATTERS INTO DUST ON CONTACT WITH ITS TARGET AT PRESSURES OF 40 PSI AND ABOVE.

To stop blasting, release the foot pedal and the air will shut itself off automatically. To begin again, just press down on the foot pedal.

MAINTENANCE

To assure a long efficient life of the system, it is recommended to:

- A. Replace nozzle when compressor can't keep up, or media usage is excessive.
- B. Check abrasive metering valve when you can't get correct abrasive flow. If worn badly, replace.
- C. Check hose barbs after 20 hours of use. If worn badly, replace.
- D. Replace abrasive hose when it begins to soften or leaks media or air.

Water and/or oil in the air line will cause problems with the efficiency of your blasting. Before blasting, always drain water and/or oil from air line. We suggest that a quality water filter be installed in the air line between the compressor and the blast cabinet.

Good visibility speeds up work. Clean dust from window often and replace the plastic window underlayment and window when needed. The lamp shield will also become frosted and require replacement. Visibility is also affected by the condition of the dust collection system. The filter should be cleaned often and the dust emptied from the canister regularly (more than a gallon of debris is too much.)

If after extended use of the machine the gasket around the door or window becomes damaged or worn, it can be replaced (see diagram).

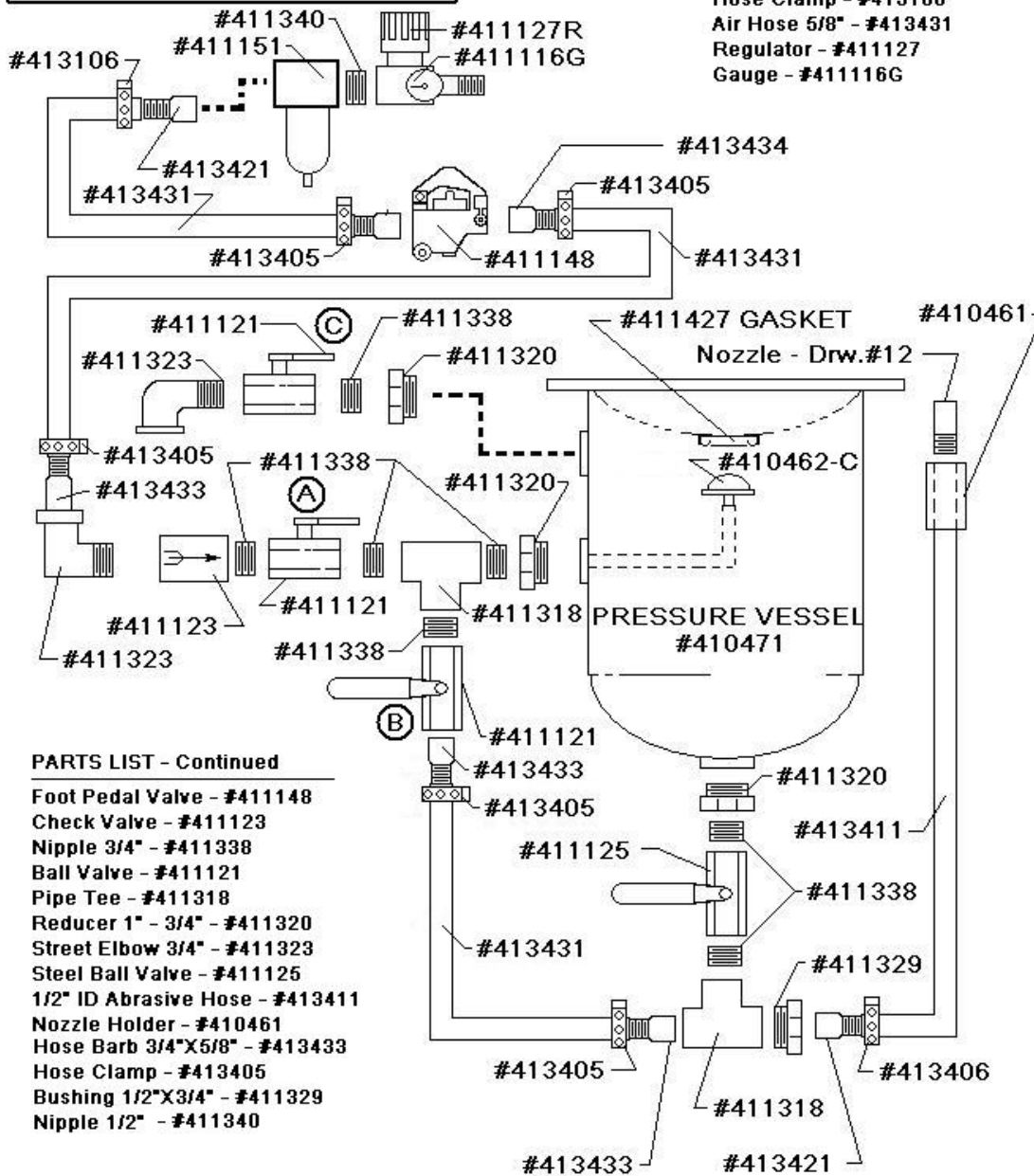
This equipment is engineered to the finest point of simplicity. With reasonable care it should give you many years of excellent service.

This is the plumbing diagram for all the WD cabinets

**DRW 31
PLUMBING SYSTEM
WD - 42 X 24 & 48 x 24**

PARTS LIST

- Filter Water Line - #411151
- Plunger Pressure Pot - #410462-C
- Hose Barb 1/2"x5/8" - #413421
- Hose Barb 3/8"x5/8" - #413434
- Hose Clamp - #413106
- Air Hose 5/8" - #413431
- Regulator - #411127
- Gauge - #411116G



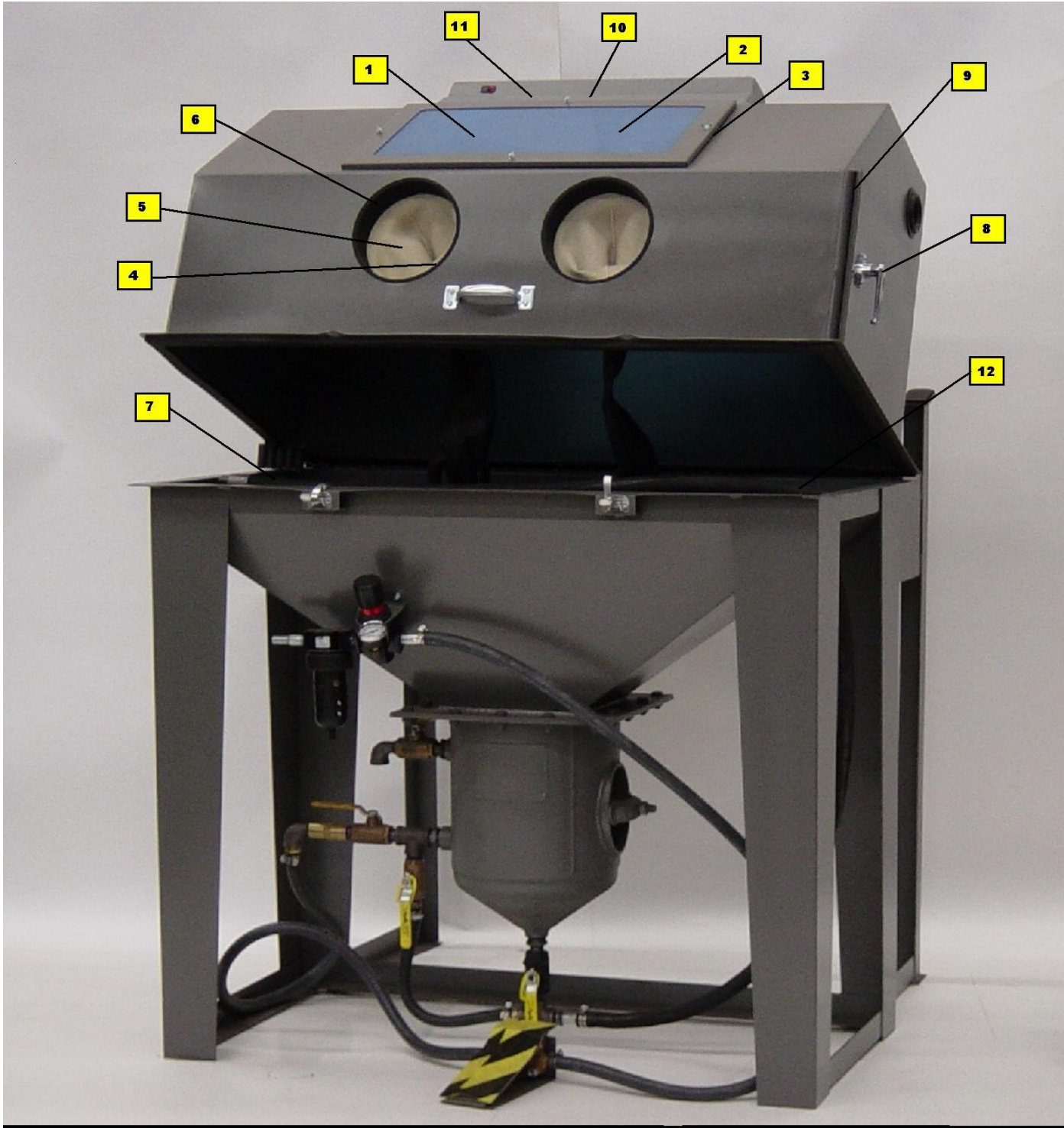
PARTS LIST - Continued

- Foot Pedal Valve - #411148
- Check Valve - #411123
- Nipple 3/4" - #411338
- Ball Valve - #411121
- Pipe Tee - #411318
- Reducer 1" - 3/4" - #411320
- Street Elbow 3/4" - #411323
- Steel Ball Valve - #411125
- 1/2" ID Abrasive Hose - #413411
- Nozzle Holder - #410461
- Hose Barb 3/4"x5/8" - #413433
- Hose Clamp - #413405
- Bushing 1/2"x3/4" - #411329
- Nipple 1/2" - #411340

Parts List For Blast Cabinet

WD 42x24, WD 48x24, WD 40x40, WD48x48, WD 60x30 WD 60x48, WD 60x60

1.	Plexiglas Window	12"x 24"	411405
2.	Window Underlayment (film under window)		313286
3.	Window Gasket Material (sold by the foot)		411403
4.	Glove Clamp (pair)		
		For wd 42x24, wd 48x24 & wd 40x40	414512-2
		For wd 48x48, wd 60x48 & wd 60x60	414513-2
5.	Gloves rubber seamless (pair)		
		24" x 6" For wd 42x24, wd 48x24 & wd 40x40	412402
		33 x 7" For wd 48x48, wd 60x30, wd 60x48 & wd 60x60	412403
6.	Armhole Gasket (sold by the foot)		411402
7.	Work Floor (expanded metal)	- wd 42 x 24	201338
		wd 48 x 24	201347
		wd 40 x 40	201337
		wd 48 x 48	201340
		wd 60 x 30	202707
		wd 60 x 48	201358
		wd 60 x 60	309474-A
8.	Side Door Handle Assembly (set)-	Handle & latch	411700
		Handle only	411701
		Latch only	411702
9.	Side Door Gasket (sold by the foot)		411403
10.	Lamp Box Gasket (sold by the foot)		411403
11.	Lamp shield 12" x 25" (rigid plastic)		411422
12.	Carbon Screen	42 x 24	311136
		48 x 24	311141
		40 x 40	311140
		48 x 48	311139
		60 x 30	203476-A
		60 x 48	203475-A
		60 x 60	203477-A
	Foot Pedal Assembly		203268yw
	Large Light Box Assembly		202835-LED



WD 48 X 24

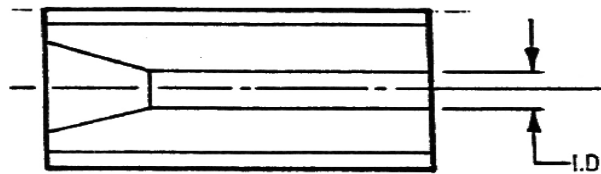
This drawing can be used for all the WD cabinets. Please see the parts list page for specific part numbers to the cabinet you have.

SERVICE PARTS

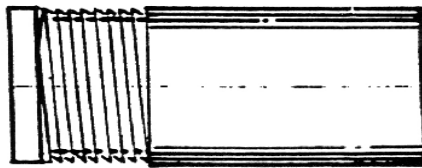
TUNGSTEN CARBIDE NOZZLES – GENERAL ALL PURPOSE
NOZZLE – DESIGNED FOR UP-CLOSE BLASTING – DIRECT
PRESSURE

Part No.	I.D. (Bore)
416533	1/16" (.062)
416534	3/32" (3093)
416529	1/8" (.125)
416530	3/16" (.1875)
416531	1/4" (.250)
416532	5/16" (.3125)

SECTION VIEW NOZZLE



3/4" - 14 N.P.S.



WASHER

NOZZLE I.D.	NOZZLE PRESSURE (PSI)	50	60	70	80	90	100	125
1/8"	AIR	12	13	15	18	19	21	26
	Abrasive lb/hr	70	80	90	100	110	120	135
3/16"	AIR	25	30	35	40	43	45	60
	Abrasive lb/hr	150	170	200	215	238	260	320
1/4 "	AIR	50	55	60	70	75	80	95
	Abrasive lb/hr	270	300	350	400	450	500	675
5/16"	AIR	80	90	100	115	125	140	190
	Abrasive lb/hr	470	530	600	675	750	825	1000

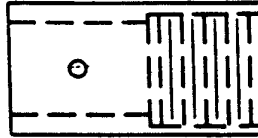
THE PROCESS AND MATERIALS USED TO MANUFACTURE
ABRASIVE HOSE WILL CAUSE VARIANCES IN THE
OUTSIDE DIAMETER OF THE HOSE.
WHEN ASSEMBLING THE NOZZLE HOLDER TO THE HOSE
MAKE SURE THERE ARE NO AIR LEAKS.

SEE DIRECT PRESSURE NOZZLE CHART FOR PART NUMBERS

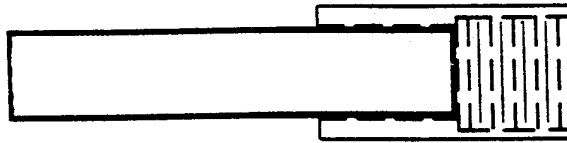
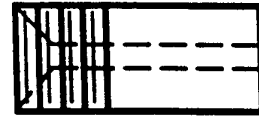
ABRASIVE HOSE
#413411



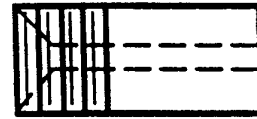
NOZZLE HOLDER
#410461



NOZZLE



ABRASIVE HOSE
MUST SEAT
AGAINST THREADS

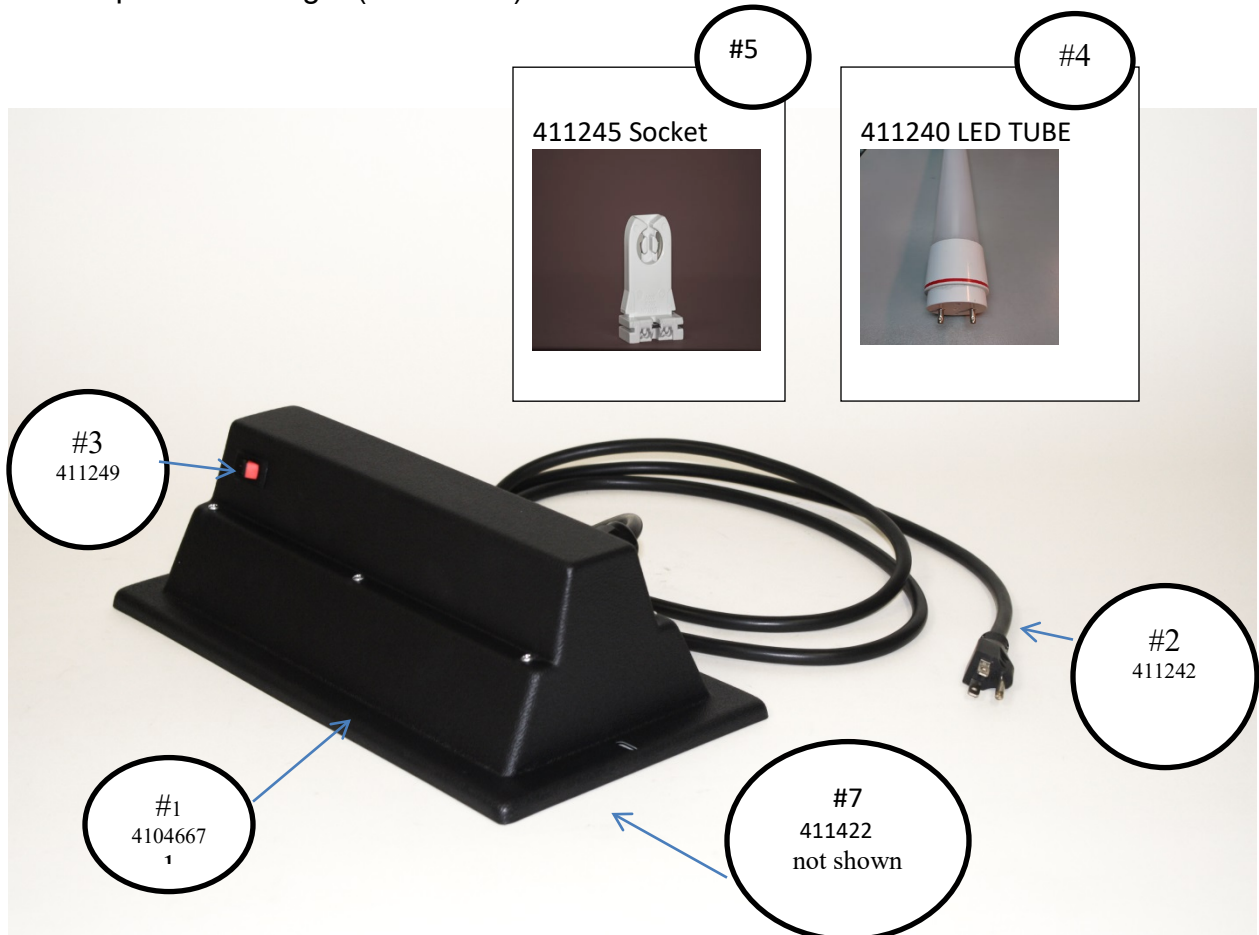


THREAD NOZZLE INTO HOLDER
NOZZLE **MUST SEAT**
AGAINST ABRASIVE HOSE
DO NOT FORCE NOZZLE INTO HOLDER

FAILURE TO ASSEMBLE NOZZLE FLUSH AGAINST
ABRASIVE HOSE WILL RESULT IN PREMATURE WEAR
TO ALL OF THE ABOVE PARTS.

PARTS LIST FOR LARGE LIGHT BOX COMPLETE ASSEMBLY #202835-LED

<u>DESCRIPTION</u>	<u>PART NUMBER</u>
1. Light Box cover only	410466
2. Power Cord	411242
3. Light Switch (on/off)	411249
4. LED tube 7W / T8 / 5000K (2 required)	411240
5. Socket	411245
6. Lamp Shield – large (not shown)	411422



WARNING: This fixture has been modified and no longer operates fluorescent lamps. Ballast has been removed and there is line voltage being supplied to sockets. **DO NOT INSTALL FLUORESCENT LAMPS.**

RA 400 & 600 CFM DUST COLLECTOR **INSTRUCTION MANUAL** **CARTRIDGE**

LARGE CAPACITY DUST COLLECTOR

The Econoline 400 & 600 CFM-C Style Dust Collectors are constructed with a 9" diameter x 24" height Cartridge Style Dust filter. This filter is 98.98% efficient, filtering .5-micron particles at 1.5:1 air to-cloth-ratio. This unit also features the ability to clean the filter utilizing an air-actuated vibrator. This vibrator shakes free the dust adhered to the cartridge depositing it into the units hopper for easy removal. This process allows the dust collector to operate at peak efficiency, clearing your abrasive blast cabinet of dust for better visibility.

SET-UP AND OPERATING INSTRUCTIONS

READ INSTRUCTIONS COMPLETELY BEFORE USE

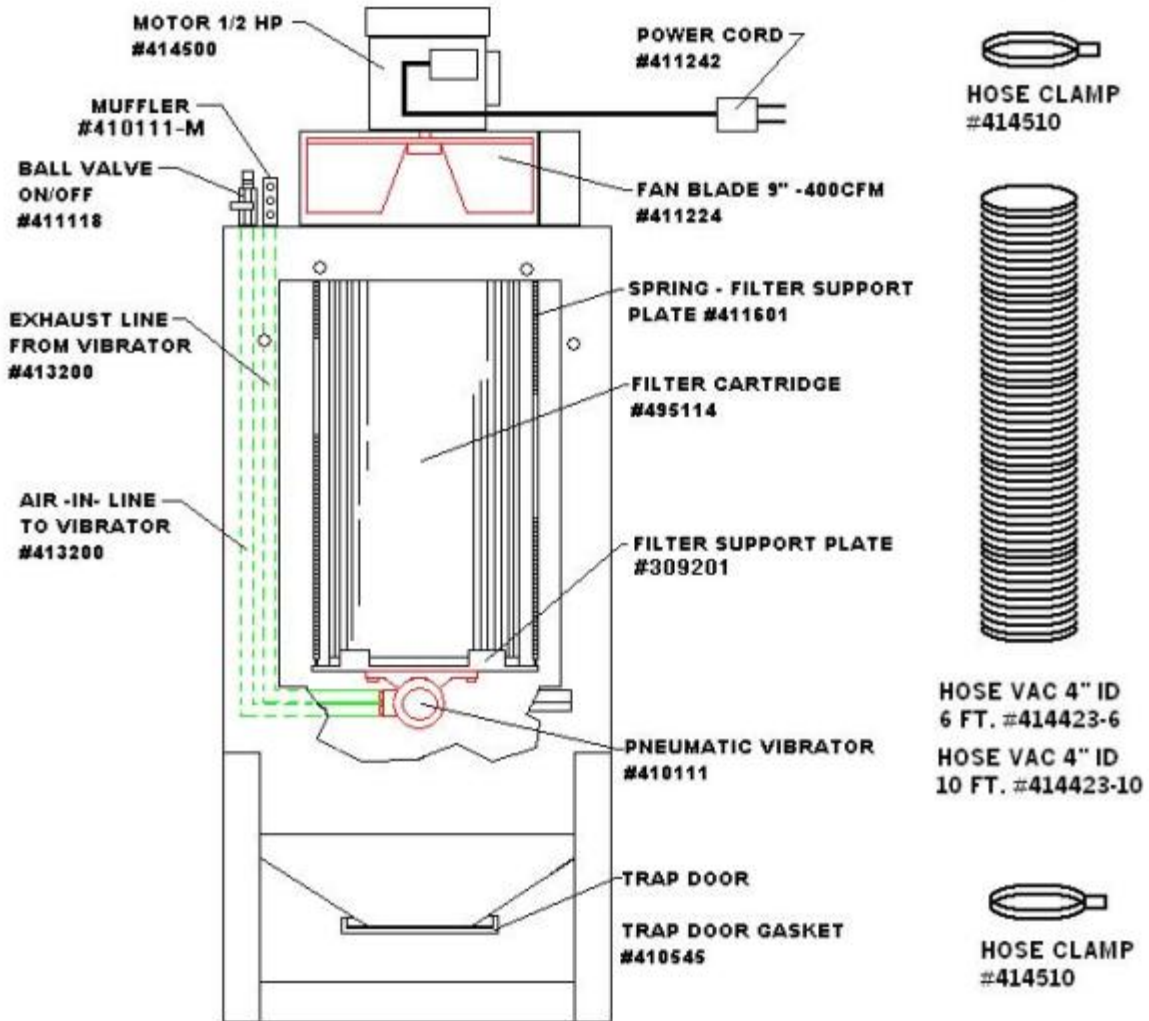
- 1) Locate the 10-foot section of 4" diameter vacuum hose packed inside of unit. Connect one end to 4" diameter tube on back or side of blast cabinet (See drawing). Secure with hose clamp.
- 2) Connect opposite end of vacuum hose to the 4" diameter intake tube on the back of the dust collector (see drawing). Secure with hose clamp.
- 3) Plug power cord on dust collector into the receptacle on the blast cabinet's light box assembly (located on back side). Dust collector will now start when blast cabinet light is turned on.
- 4) Attack airline to ball valve on top of dust collector with quick disconnect (minimum ¼" diameter).
 - a. This air is used to clean filter by actuating vibrator mounted to filter support plate.
 - b. This should be done once every hour or each time you finish blasting.
 - c. Position waste container under unit's trap door; dump waste dust into container by pushing down on trap door.

PARTS LIST 400 & 600 Cartridge DC

QTY	PART #	DESCRIPTION	INFORMATION
4 EACH	411614	S-HOOK	Used on spring to secure filter support plate
2 EACH	411601	SPRING	Used to secure filter support plate
1 EACH	410111	VIBRATOR	Attaches to filter support plate
1 EACH	309201-66	FILTER/VIBRATOR SUPPORT PLATE	Support plate that holds the vibrator and filter
1 EACH	411347	QUICK CONNECT	Threads into ball valve on/off
1 EACH	411118	VALVE BALL	Supplies air to vibrator
3 FEET	413200	3/8" AIR LINE	Supplies air from ball valve to vibrator
1 EACH	411600	SPRING	Spring for trapdoor
4 EACH	495678	WING NUT	Used to attach door to unit
1 EACH	410545	GASKET TRAPDOOR	Seals trap door
1 EACH	411224 OR 411225	FAN BLADE 9" (400 CFM) FAN BLADE 11" (600 CFM)	Used on motor housing assembly
1 EACH	414500 OR	1/2 HP MOTOR (400 CFM)	FOR 400 CFM DC
1 EACH	414501	1 HP MOTOR (600 CFM)	FOR 600 CFM DC
1 EACH	411242	POWER CORD	110 Volt
3 FEET	413401	1/4 AIRLINE	Exhaust air from vibrator to muffler
1 EACH	495114 OR 495114-H	FILTER CARTRIDGE HEPA FILTER CARTRIDGE	HEPA FILTER
PER FOOT	414423	4" VACUUM HOSE	4" Vacuum hose (per foot)
10 FEET	414423-10	4" VACUUM HOSE	4" Vacuum hose 10 feet

DRW 4
400/600 CFM D/C

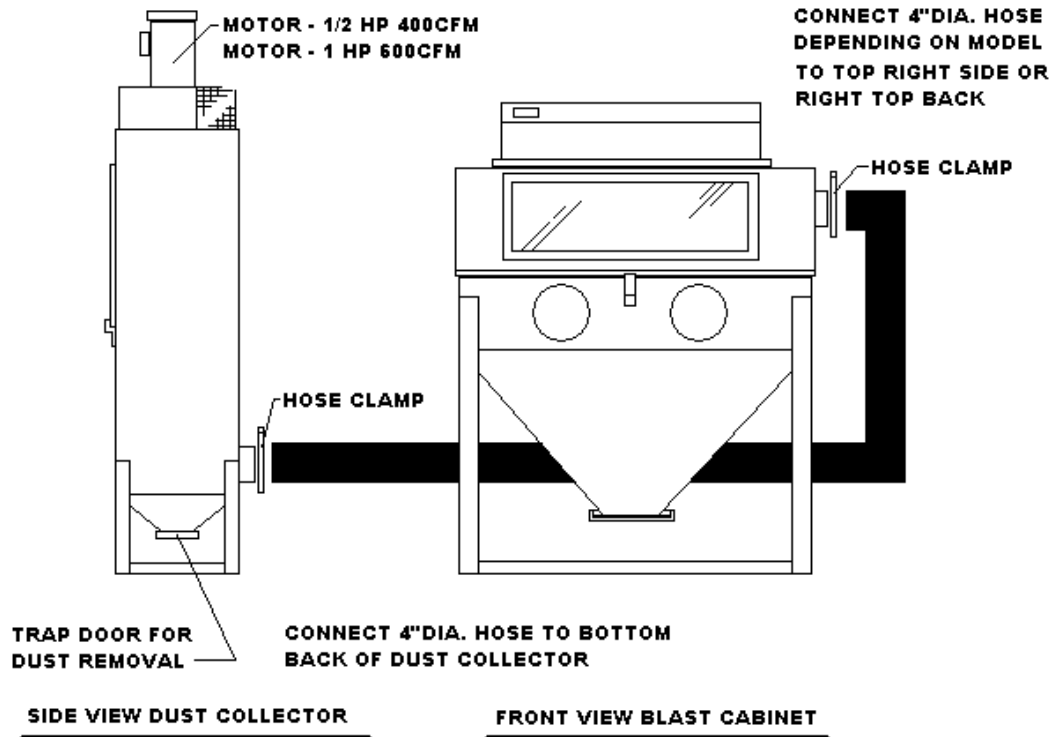
600 CFM
MOTOR 1HP
#414501
FAN BLADE 11" -600CFM
#411225



Notes:

400 - Draw 8.0 Amps - 115 V Draw 4.0 Amps - 230 V
600 - Draw 12.0 Amps - 115 V Draw 6.0 Amps - 230 V
Cartridge Filter - .5 Micron at 1.5:1 air to cloth ratio.

TYPICAL SET-UP 400 OR 600 CFM DUST COLLECTOR



Blasting by its very nature is a high maintenance process. The same forces acting to separate materials from targeted pieces wear on the system itself.

Keep service parts in stock to avoid down time.

HELPFUL HINTS

1. **Air compressor choice:** Secure an air compressor that has the capacity to produce a high volume (cfm) and high-pressure (psi) of moisture –free air.

You must maintain a constant air pressure, not high one minute and low the next, it must be constant.

2. **Air supply line:** Keep the air lines as short as possible. **DO NOT** reduce the air line down to a quick disconnect when attaching it to your blast equipment. In order to maintain the high cfm and psi you need at the blast nozzle; we suggest using a minimum $\frac{3}{4}$: I.D. air line from your compressor to the blast machine.

3. **Blast Nozzles:** the blast nozzle size and design will determine the cfm of air required. The larger the nozzle, the greater the cfm needed.

4. As you begin blasting, record all data, compressor delivery pressure, nozzle size (I.D.), regulator pressure, and abrasive type and mesh size. When you are totally satisfied with your results, be sure to record all data for future use and reference.

ABRASIVES

Econoline Abrasive Products strives to maintain a varied inventory of blasting abrasives. Utilizing a worldwide base of reputable suppliers, Econoline is able to provide consistent delivery of quality abrasive products. Econoline looks forward to servicing your abrasive needs.

What Media To Use

Brown Aluminum Oxide

Widely used as a cutting media. It can produce an “anchor” pattern in preparation for recoating. Excellent for removing heavy foreign matter, deburring, frosting glass and lettering stone. Extremely fast cutting, can be reused many times and is classified in various sizes for a wide selection of finishes.

Glass Beads

Available in a wide range of sizes, glass beads are generally the most popular media used in most cabinets today. This all-purpose media is used for honing, polishing, peening, blending, removing light burrs and cleaning most light foreign matter such as carbon and other surface residues from pistons and valves with no base-metal removal or dimensional change. Weld and solder flaws can also be detected via glass bead blasting.

Black Silicon Carbide

When blasting, silicon carbide is extremely fast cutting. This sharp media is used for cleaning very hard surfaces such as tungsten carbide.

Plastic

This dust free media is a special formulation of plastic materials that has high tensile, compressive and flexural strength combined with comparatively low hardness. Used for deflashing plastic parts and cleaning molds, dies, electronic connections and circuit boards. Can effectively deburr machined-iron castings and nonferrous screw machine parts.

	Aluminum Oxide	Glass Bead	Silicon Carbide	Plastic
FINISHING	X	X	X	
CLEANING/REMOVAL	X	X	X	X
SURFACE TREATMENT	X	X	X	
CLEANING SPEED	HIGH	MED	VERY HI	MED-HI
RE-USE	MED-HI	HIGH	MED-LO	MED
DUST LEVEL	HIGH	LO	MED-L0	MED
PROABLILITY OF METAL REMOVAL	MED-HI	VERY LO	MED-HI	VERY LO
HARDNESS (MOH SCALE)	8-9	5.5	9	3-4
TYPICAL BLAST PRESSURE	20-90	20-55	20-90	20-60
ANGULAR OR SPHERICAL	ANGULAR	SPHERICAL	ANGULAR	BOTH

TROUBLESHOOTING TIPS

PROBLEM

POSSIBLE SOLUTION

Surging of blast flow?

Air pressure too low----- See "Lack of Air"
Too much media----- Adjust media valve

Excessive media consumption?

Media valve open too far----- Close slightly
Air pressure too low----- Check pressure gauge

Clogging and plugging of blast flow?

Debris in media----- Purge & screen
Media size too large----- Use smaller grit size
Nozzle plugs----- Use larger nozzle
Nozzle plugs----- Adjust media valve
Wet media----- Dry media, drain water from air

Moisture in abrasive media?

Wet media----- Change or use dry media
Water in air----- Drain water from air lines
Water in tank----- Empty, dry out and refill

Humid weather?

Moderate humidity----- Keep media dry as possible
Moderate humidity----- Use dryer or moisture separator
High humidity ----- Avoid usage if possible

Overtaxed compressor?

Compressor too small ----- Restrict time used
Nozzle size too large ----- Use smaller size
Too many leaks in plumbing ----- Seal and tighten plumbing
Holes in abrasive hose----- Replace
Air filter on compressor----- Clean

Lack of air pressure?

Compressor too small ----- Use smaller nozzle
Supply valves not on full position-- Open valves
Nozzle size too large ----- Use smaller size
Leaks in plumbing----- Seal & tighten plumbing
Holes in abrasive hose----- Replace hose
Air filter on compressor plugged----- Clean filter
Urethane gasket worn or dirty----- Clean or replace gasket

Lack of abrasive flow?

Blaster tank empty----- Fill tank
Moisture in media----- Dry media
Not enough air pressure----- Check system
Abrasive hose kinked ----- Straighten
Debris in media----- Clean or screen media

WARRANTY

ECONOLINE

THIS PRODUCT HAS BEEN MANUFACTURED AND ENGINEERED TO THE HIGHEST STANDARDS.

FIVE YEAR WARRANTY

ECONOLINE ABRASIVE PRODUCTS GUARANTEES ITS BLAST CABINETS AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF FIVE YEARS FROM THE ESTABLISHED PURCHASE DATE. ECONOLINE WILL REPAIR OR REPLACE, FREE OF CHARGE, ANY DEFECTIVE PARTS DETERMINED TO BE COVERED UNDER THIS WARRANTY BY OUR FACTORY SERVICE PERSONNEL.

THE PARTS MUST BE RETURNED TO THE FACTORY, FREIGHT COLLECT, WITH A LETTER OF EXPLANATION. ON ACCEPTANCE OF CLAIM ECONOLINE WILL REPLACE DEFECTIVE PART.

CONDITIONS

THIS WARRANTY DOES NOT APPLY IF THE UNIT HAS BEEN MISUSED, ALTERED, OR USED FOR ANY PURPOSE OTHER THAN IN ACCORDANCE WITH THE OPERATING AND ASSEMBLY INSTRUCTIONS PROVIDED.

THIS WARRANTY DOES NOT COVER TRANSPORTATION, INTERIOR OR EXTERIOR FINISHES, HOSE ASSEMBLIES, NOZZLES, AIR JETS, WINDOWS, FILTERS, LAMPSHIELDS OR MEDIA VALVE.

OPERATION OF THIS UNIT WITH NATURAL SAND SHALL RENDER THIS WARRANTY NULL AND VOID.

WARNING

DO NOT USE SAND OR ANY ABRASIVE CONTAINING SILICA. USE OF COMPOUNDS CONTAINING SILICA IS A HEALTH HAZARD.

FREE SILICA WHEN INHALED CAN LEAD TO SERIOUS, PERMANENT, DISABLING AND DEADLY DISEASE (SILICOSIS).

