



Portable Systems & Parts Book

December 2017

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General Contents: Warnings

WARNING

DANGER

DO NOT USE SAND OR SILICA-BASED BLAST MEDIA

Silica-based sand is not to be used with any Empire products.

The use of sand / silica-based media in air blasting activities can create silica dust which can be very harmful if breathed. Silica dust is a carcinogen that can cause lung disease and death. To avoid the creation of any harmful dust, do not use any type of sand or silica-based media with this equipment. If any silica-based dust is expected in the workplace, an approved protective hood with a separate, independent air supply must be worn at all times.

Before installing and operating any type of blast or safety equipment read all manufacturers' instructions, installation and operating manuals carefully.

Products subject to change without notice.



SuperBlast® Pressure Systems

Section A: Table of Contents

SuperBlast® Models and Descriptions

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Media Loading Screens	Refer to Section F
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Wet Blast Head	Refer to Section F

Never use silica sand in any Empire equipment.



SuperBlast® 350 Systems

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
PORTABLE 350 Systems (3½ cubic foot capacity, 1" pipe string):			
Super 350 Manual System	Portable 350 Vessel includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517442) <i>Note: Does not include remote control handle and dual-line hose.</i>	211101	250 lb
Super 350 Manual System with Separator	Portable 350 Vessel with DF-2 Dry-Flo moisture and oil separator (290191) includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517442) <i>Note: Does not include remote control handle and dual-line hose.</i>	211102	250 lb
Super 350 with 680 Remote Control System (Bleed Down)	Portable 350 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with manual Sure-Flo® grit valve (290383) • Air valve (518052) • Remote control handle (290164) • 30' dual-line hose with fittings (521962) 	211103	290 lb
Super 350 with 780 Remote Control System (Under Pressure)	Portable 350 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with automatic Sure-Flo® grit valve (290215) • Air valve (518052) • Remote control handle (290164) • 30' dual-line hose with fittings (521962) 	211104	290 lb
STATIONARY 350 Systems (3½ cubic foot capacity, 1" pipe string):			
Super 350S Manual System	Stationary 350 Vessel includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517442) <i>Note: Does not include remote control handle and dual-line hose.</i>	211001	250 lb
Super 350S Manual System with Separator	Stationary 350 Vessel with DF-2 Dry-Flo moisture and oil separator (290191) includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517442) <i>Note: Does not include remote control handle and dual-line hose.</i>	211002	250 lb
Super 350S with 680 Remote Control System (Bleed Down)	Stationary 350 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with manual Sure-Flo® grit valve (290383) • Air valve (518052) • Remote control handle (290164) • 30' dual-line hose with fittings (521962) 	211003	290 lb
Super 350S with 780 Remote Control System (Under Pressure)	Stationary 350 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with automatic Sure-Flo® grit valve (290215) • Air valve (518052) • Remote control handle (290164) • 30' dual-line hose with fittings (521962) 	211004	290 lb

NOTE: These assemblies do not include blast nozzles or blast hose. For details on your many choices of Empire nozzles and hoses, please refer to Section G.



SuperBlast® 350 Systems

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
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OSHA COMPLIANT PACKAGES

Portable Systems (3½ cubic foot capacity) used with compressed air

XL-Super 350 with 680 Remote Control System <i>(Bleed Down)</i>	OSHA Package includes: <ul style="list-style-type: none"> • NOVA 3 respirator helmet (537803) • Package of 50 helmet lenses (538203) • Personal air filter (538142) • 50' starter breathing hose (538012) • 25' section PBH-1 blast hose with couplings (521792) • DC3-4 Di-Carb nozzle (501402) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	213111	375 lb
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XL-Super 350 with 780 Remote Control System <i>(Under Pressure)</i>	OSHA Package includes: <ul style="list-style-type: none"> • NOVA 3 respirator helmet (537803) • Package of 50 helmet lenses (538203) • Personal air filter (538142) • 50' starter breathing hose (538012) • 25' section PBH-1 blast hose with couplings (521792) • DC3-4 Di-Carb Nozzle (501402) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	213112	375 lb
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NOTE: To be fully OSHA compliant, a CO monitor is required when using an air compressor for operator breathing air supply.

Portable Systems (3½ cubic foot capacity) used with ambient air pump

XL-Super 350 with 680 Remote Control System <i>(Bleed Down)</i>	OSHA Package includes: <ul style="list-style-type: none"> • NOVA 2000 respirator helmet (537822) • Ambient air pump (538192) • 50' starter breathing hose (538022) (Helmet, pump and hose available as package, part# 537972) • Package of 50 helmet lenses (538202) • 25' section PBH-1 blast hose with couplings (521792) • DC3-4 Di-Carb nozzle (501402) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	213113	375 lb
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XL-Super 350 with 780 Remote Control System <i>(Under Pressure)</i>	OSHA Package includes: <ul style="list-style-type: none"> • NOVA 2000 respirator helmet (537822) • Ambient air pump (538192) • 50' starter breathing hose (538022) (Helmet, pump and hose available as package, part# 537972) • Package of 50 helmet lenses (538202) • 25' section PBH-1 blast hose with couplings (521792) • DC3-4 Di-Carb Nozzle (501402) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	213114	375 lb
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NOTE: An "Air Conditioner" cannot be used with breathing air pumps.

Refer to Section J for Warnings & OSHA Statements.



SuperBlast® 650 Systems

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
PORTABLE 650 Systems (6½ cubic foot capacity, 1¼" pipe string):			
Super 650 Manual System	Portable 650 Vessel includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) <i>Note: Does not include remote control handle and dual-line hose.</i>	221101	450 lb
Super 650 Manual System with Separator	Portable 650 Vessel with DF-2 Dry-Flo moisture and oil separator (290192) includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) <i>Note: Does not include remote control handle and dual-line hose.</i>	221102	450 lb
Super 650 with 680 Remote Control System (Bleed Down)	Portable 650 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with manual Sure-Flo® grit valve (290383) • Air valve (518052) • Remote control handle (290164) • 30' dual-line hose with fittings (521962) 	221103	490 lb
Super 650 with 780 Remote Control System (Under Pressure)	Portable 650 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with automatic Sure-Flo® grit valve (290215) • Air valve (518062) • Remote control handle (290164) • 55' dual-line hose with fittings (521892) 	221104	490 lb
STATIONARY 650 Systems (6½ cubic foot capacity, 1¼" pipe string):			
Super 650S Manual System	Stationary 650 Vessel includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) <i>Note: Does not include remote control handle and dual-line hose.</i>	221001	450 lb
Super 650S Manual System with Separator	Stationary 650 Vessel with DF-2 Dry-Flo moisture and oil separator (290192) includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) <i>Note: Does not include remote control handle and dual-line hose.</i>	221002	450 lb
Super 650S with 680 Remote Control System (Bleed Down)	Portable 650 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with manual Sure-Flo® grit valve (290383) • Air valve (518052) • Remote control handle (290164) • 30' dual-line hose with fittings (521962) 	221003	490 lb
Super 650S with 780 Remote Control System (Under Pressure)	Stationary 650 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with automatic Sure-Flo® grit valve (290215) • Air valve (518062) • Remote control handle (290164) • 55' dual-line hose with fittings (521892) 	221004	490 lb

NOTE: These assemblies do not include blast nozzles or blast hose. For details on your many choices of Empire nozzles and hoses, please refer to Section G.



SuperBlast® 650 Systems

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
OSHA COMPLIANT PACKAGES			
Portable Systems (6½ cubic foot capacity) used with compressed air			
XL-Super 650 with 680 Remote Control System <i>(Bleed Down)</i>	OSHA Package includes: <ul style="list-style-type: none"> • NOVA 3 respirator helmet (537803) • Package of 50 helmet lenses (538203) • Personal air filter (538142) • 50' starter breathing hose (538012) • 50' section PBH-1 blast hose with couplings (521802) • DCV-5 Di-Carb nozzle (501682) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	223111	600 lb
XL-Super 650 with 780 Remote Control System <i>(Under Pressure)</i>	OSHA Package includes: <ul style="list-style-type: none"> • NOVA 3 respirator helmet (537803) • Package of 50 helmet lenses (538203) • Personal air filter (538142) • 50' starter breathing hose (538012) • 50' section PBH-1 blast hose with couplings (521802) • DCV-5 Di-Carb nozzle (501682) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	213112	600 lb

NOTE: To be fully OSHA compliant, a CO monitor is required when using an air compressor for operator breathing air supply.

Portable Systems (6½ cubic foot capacity) used with ambient air pump			
XL-Super 350 with 680 Remote Control System <i>(Bleed Down)</i>	OSHA Package includes: <ul style="list-style-type: none"> • NOVA 2000 respirator helmet (537822) • Ambient air pump (538192) • 50' starter breathing hose (538022) (Helmet, pump and hose available as package, part# 537972) • Package of 50 helmet lenses (538202) • 50' section PBH-1 blast hose with couplings (521802) • DCV-5 Di-Carb nozzle (501682) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	223113	600 lb
XL-Super 350 with 780 Remote Control System <i>(Under Pressure)</i>	OSHA Package includes: <ul style="list-style-type: none"> • NOVA 2000 respirator helmet (537822) • Ambient air pump (538192) • 50' starter breathing hose (538022) (Helmet, pump and hose available as package, part# 537972) • Package of 50 helmet lenses (538202) • 50' section PBH-1 blast hose with couplings (521802) • DCV-5 Di-Carb nozzle (501682) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	223114	600 lb

NOTE: An "Air Conditioner" cannot be used with breathing air pumps.

Refer to Section J for Warnings & OSHA Statements.



SuperBlast® 1050 Systems

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
PORTABLE 1050 Systems (10½ cubic foot capacity, 1¼" pipe string):			
Super 1050 Manual System	Portable 1050 Vessel includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) <i>Note: Does not include remote control handle and dual-line hose.</i>	241101	750 lb
Super 1050 Manual System with Separator	Portable 1050 Vessel with DF-2 Dry-Flo moisture and oil separator (290192) includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) <i>Note: Does not include remote control handle and dual-line hose.</i>	241102	750 lb
Super 1050 with 680 Remote Control System (Bleed Down)	Portable 1050 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with manual Sure-Flo® grit valve (290383) • Air valve (518062) • Remote control handle (290164) • 55' dual-line hose with fittings (521892) 	241103	790 lb
Super 1050 with 780 Remote Control System (Under Pressure)	Portable 1050 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with automatic Sure-Flo® grit valve (290215) • Air valve (518062) • Remote control handle (290164) • 55' dual-line hose with fittings (521892) 	241104	790 lb
STATIONARY 1050 Systems (10½ cubic foot capacity, 1¼" pipe string):			
Super 1050S Manual System	Stationary 1050 Vessel includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) <i>Note: Does not include remote control handle and dual-line hose.</i>	241001	750 lb
Super 1050S Manual System with Separator	Stationary 1050 Vessel with DF-2 Dry-Flo moisture and oil separator (290192) includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) <i>Note: Does not include remote control handle and dual-line hose.</i>	241002	750 lb
Super 1050S with 680 Remote Control System (Bleed Down)	Stationary 1050 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with manual Sure-Flo® grit valve (290383) • Air valve (518062) • Remote control handle (290164) • 55' dual-line hose with fittings (521892) 	241003	790 lb
Super 1050S with 780 Remote Control System (Under Pressure)	Stationary 1050 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with automatic Sure-Flo® grit valve (290215) • Air valve (518062) • Remote control handle (290164) • 55' dual-line hose with fittings (521892) 	241004	790 lb

NOTE: These assemblies do not include blast nozzles or blast hose. For details on your many choices of Empire nozzles and hoses, please refer to Section G.



SuperBlast® 1050 Systems

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
OSHA COMPLIANT PACKAGES			
Portable Systems (10½ cubic foot capacity) used with compressed air			
XL-Super 1050 with 680 Remote Control System <i>(Bleed Down)</i>	OSHA Package includes: <ul style="list-style-type: none"> • NOVA 3 respirator helmet (537803) • Package of 50 helmet lenses (538203) • Personal air filter (538142) • 50' starter breathing hose (538012) • 50' section PBH-1¼ blast hose with couplings (521842) • DCV-6 Di-Carb nozzle (501692) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	243111	915 lb
XL-Super 1050 with 780 Remote Control System <i>(Under Pressure)</i>	OSHA Package includes: <ul style="list-style-type: none"> • NOVA 3 respirator helmet (537803) • Package of 50 helmet lenses (538203) • Personal air filter (538142) • 50' starter breathing hose (538012) • 50' section PBH-1¼ blast hose with couplings (521842) • DCV-6 Di-Carb nozzle (501692) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	243112	915 lb
NOTE: To be fully OSHA compliant, a CO monitor is required when using an air compressor for operator breathing air supply.			
Portable Systems (10½ cubic foot capacity) used with ambient air pump			
XL-Super 1050 with 680 Remote Control System <i>(Bleed Down)</i>	OSHA Package includes: <ul style="list-style-type: none"> • NOVA 2000 respirator helmet (537822) • Ambient air pump (538192) • 50' starter breathing hose (538022) (Helmet, pump and hose available as package, part# 537972) • Package of 50 helmet lenses (538202) • 50' section PBH-1¼ blast hose with couplings (521842) • DCV-6 Di-Carb nozzle (501692) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	243113	915 lb
XL-Super 1050 with 680 Remote Control System <i>(Under Pressure)</i>	OSHA Package includes: <ul style="list-style-type: none"> • NOVA 2000 respirator helmet (537822) • Ambient air pump (538192) • 50' starter breathing hose (538022) (Helmet, pump and hose available as package, part# 537972) • Package of 50 helmet lenses (538202) • 50' section PBH-1¼ blast hose with couplings (521842) • DCV-6 Di-Carb nozzle (501692) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	243114	915 lb

NOTE: An "Air Conditioner" cannot be used with breathing air pumps.

Refer to Section J for Warnings & OSHA Statements.



SuperBlast® Vessels for Blast Rooms

BLAST ROOM Pressure Vessel Systems:

350 Blast Room Pressure Vessel	3½ Cubic Foot Vessel with 1" pipe string includes: <ul style="list-style-type: none">• Single outlet vessel, ASME approved• 110 volt interlock solenoid (519042)• Two sight glasses (545493)• Automatic Sure-Flo® grit valve (290215)• Air inlet filter, 50 micron (504632)• Pressure regulator, high flow (517295)• MG-78 exhaust valve (290182)• Choke & shut-off valves• Remote control handle (290164)• 55' of dual-line hose with fittings (521892)	235351	350 lb
650 Blast Room Pressure Vessel	6½ Cubic Foot Vessel with 1¼" pipe string includes: <ul style="list-style-type: none">• Single outlet vessel, ASME approved• 110 volt interlock solenoid (519042)• Two sight glasses (545493)• Automatic Sure-Flo® grit valve (290215)• Air inlet filter, 50 micron (504632)• Pressure regulator, high flow (517295)• MG-78 exhaust valve (290182)• Choke & shut-off valves• Remote control handle (290164)• 55' of dual-line hose with fittings (521892)	235651	550 lb
1050 Blast Room Pressure Vessel	10½ Cubic Foot Vessel with 1¼" pipe string includes: <ul style="list-style-type: none">• Single outlet vessel, ASME approved• 110 volt interlock solenoid (519042)• Two sight glasses (545493)• Automatic Sure-Flo® grit valve (290215)• Air inlet filter, 50 micron (504632)• Pressure regulator, high flow (517295)• MG-78 exhaust valve (290182)• Choke & shut-off valves• Remote control handle (290164)• 55' of dual-line hose with fittings (521892)	235051	900 lb

The distributor must review each application carefully with the customer and add additional items as required. Please review required items and considerations when putting a complete system together:

1. **Blast hose assembly** normally recommended is 1" diameter x 50' long. If blast hose is longer than 50', additional dual line must be purchased.
2. **Nozzle size and type**, Di-Carb™ venturi, is fine for most applications. Media type, available air supply and production requirements should define nozzle type and size.
3. **Exhaust blow-down hose** must be attached to MG-78 exhaust valve and connect to the reclaimers, airwash, etc., to assure a clean environment when vessel depressurizes.
4. **Umbrella assembly (Part # 290420)** may be required for installation over the 6" diameter inlet of the vessel when storage hopper feeds media automatically.
5. **For aggressive media**, such as steel grit and aluminum oxide, upgrading to a boron-carbide restrictor kit (Part #290184) in the MG-78 exhaust valve is recommended.
6. **Electric remote controls** are available as an option. (*Refer to Section F.*)
7. **An air vibrator solenoid valve assembly** (Part # 321050) is required when adapting to an existing Empire vibrating airwash system.

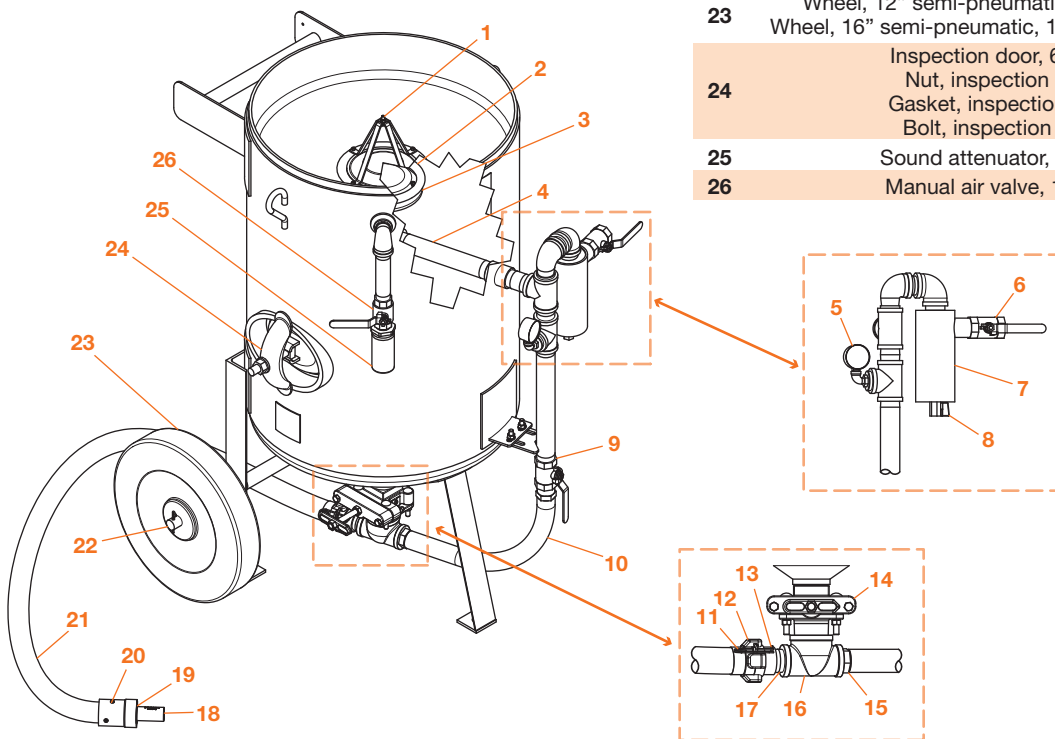


SuperBlast® Control Systems

Manual Control System (Non-OSHA) used on 350, 650 and 1050 Pressure Vessels

Item	Description	PART#
1	E/Z Fill™ bag breaker/screener (See Section F for details.)	290367
2	"O" ring, 6" rubber	523872
3	Sealing plunger (PVC coated)	525072
4	Pipe nipple, 1" x 7" (350)	546272
	Pipe nipple, 1¼" x 10" (650)	546382
	Pipe nipple, 1¼" x 13" (1050)	546891
	Elbow, reducing 1¼" x 1" (350)	543952
	Elbow, 1¼" (650,1050)	543792
4	Pipe nipple, 1¼" x 3½" (vertical all)	546342
5	Air pressure gauge, 0-160 psi, ¼" NPT	550242
6	Manual air valve, 1¼" NPT (350, 650,1050)	518502
7	DF-2 manual drain separator, 1¼" NPT, with built-in check valve	290192
	ADS-2 Automatic air filter, 1¼" NPT (optional)	504632
8	Petcock, ¼" NPT	520642
9	Manual air valve, 1" NPT (350)	518492
	Manual air valve, 1¼" NPT (650, 1050)	518502

Item	Description	PART#
10	Flexible hose w/fittings for 350 (Before 5/1/84)	520922
	Flexible hose w/fittings for 350 (After 5/1/84)	290318
	Flexible hose w/fittings for 650 (Before 5/1/84)	521022
	Flexible hose w/fittings for 650 (After 5/1/84)	290319
	Flexible hose w/fittings for 1050 (Before 5/1/84)	521062
10	Flexible hose w/fittings for 1050 (After 5/1/84)	520982
11	Quick snap coupling (not included) (See Section G.)	-
12	Safety pin	510511
13	Aluminum tank coupling, 1¼" NPT, with washer	753262
14	Manual Sure-Flo® valve assembly (See Section F for details.)	290383
15	Adapter, 1" (350)	522112
	Adapter, 1¼" (650 & 1050)	520262
16	Tee, 2" x 1¼" x 1¼" NPT	545752
17	Close nipple, 1¼" NPT, extra heavy duty	546292
18	Nozzle (not included) (See Section G for details.)	-
19	Nozzle washer (not included) (See Section G.)	-
20	Nozzle coupling (not included) (See Section G.)	-
21	Blast hose (not included) (See Section G.)	-
22	Axle, 5/8" OD x 26" L (350)	504692
	Axle, 1" OD x 32½" L (650)	504702
	Axle, 1" OD x 36½" L (1050)	504712
23	Wheel, 12" semi-pneumatic, 5/8" hub (350)	505062
	Wheel, 16" semi-pneumatic, 1" hub (650 & 1050)	505072
24	Inspection door, 6" x 8"	506152
	Nut, inspection door	552302
	Gasket, inspection door	524152
	Bolt, inspection door	506153
25	Sound attenuator, 1" NPT	753322
26	Manual air valve, 1" NPT	518492



WARNING

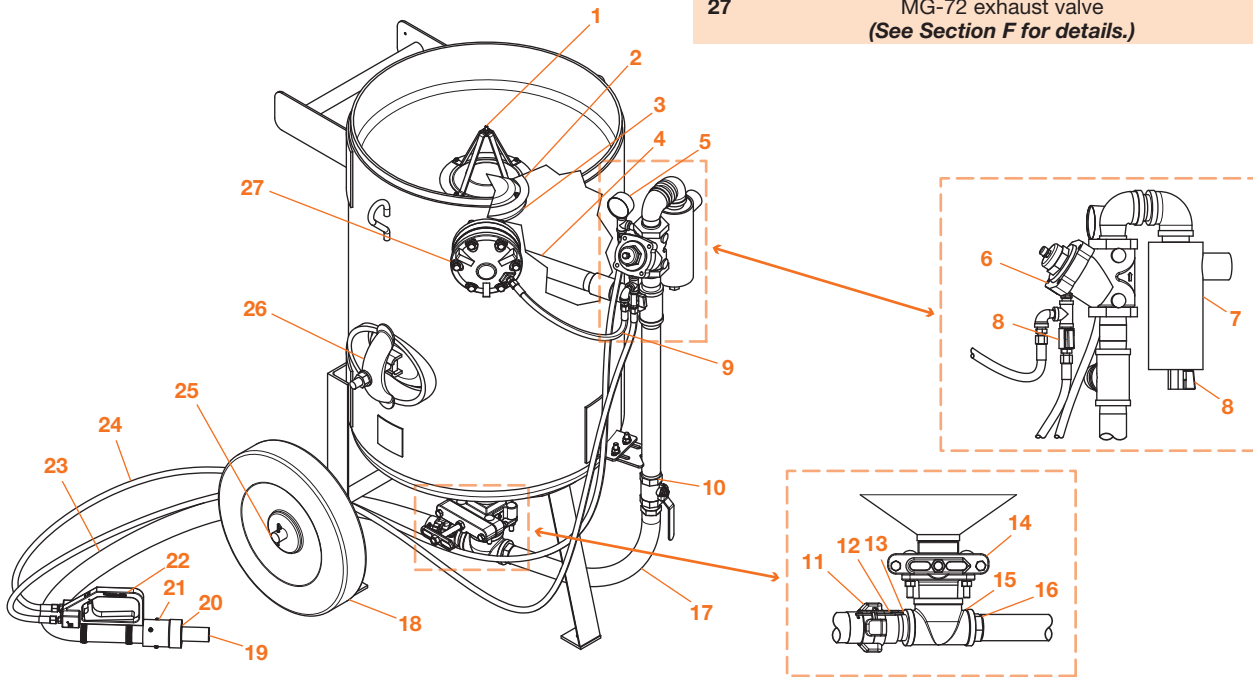
1. Inspect couplings and blast hose daily for splits, bubbles, soft spots, wear, etc. Make sure nozzle washers are in good condition and screw heads are snug against coupling's surface. The safety pin must be in place to prevent quick coupling disconnection.
2. When assembling couplings to blast hose only use #8 x 5/8" large self-tapping sheet metal screw (P/N 554232) for cast brass and aluminum couplings and #8 x 3/8" large self-tapping sheet metal screw (P/N 554242) for all steel couplings.
3. Use of other types of screws may create a safety hazard. Empire will not warrant equipment or assume responsibility for damage or injury resulting from neglect or use of improper parts.



SuperBlast® Control Systems: 680

680 Control System used on 350, 650 & 1050 Pressure Vessels

Item	Description	PART#	Item	Description	PART#
1	E/Z Fill™ bag breaker/screener (See Section F for details.)	290367	15	Tee, 2" x 1¼" x 1¼" NPT	545752
2	"O" ring, 6" rubber	523872	16	Adapter, 1" Adapter, 1¼"	522112 520262
3	Sealing plunger (PVC coated)	525072		Flexible hose w/fittings for 350 (Before 5/1/84)	520922
	Pipe nipple, 1" x 7" (350)	546272		Flexible hose w/fittings for 350 (After 5/1/84)	290318
	Pipe nipple, 1¼" x 10" (650)	546382	17	Flexible hose w/fittings for 650 (Before 5/1/84)	521022
	Pipe nipple, 1¼" x 13" (1050)	546891		Flexible hose w/fittings for 650 (After 5/1/84)	290319
4	Elbow, reducing 1¼" x 1" (350)	543952		Flexible hose w/fittings for 1050 (Before 5/1/84)	521062
	Elbow, 1¼" (650,1050)	543792		Flexible hose w/fittings for 1050 (After 5/1/84)	520982
	Pipe nipple, 1¼" x 3½" (vertical all)	546342	18	Wheel, 12" semi-pneumatic, 5/8" hub (350)	505062
5	Air pressure gauge, 0-160 psi, ¼" NPT	550242		Wheel, 16" semi-pneumatic, 1" hub (650 & 1050)	505072
6	Automatic air valve, 1" NPT, with bleed (350)	518052	19	Nozzle (included with XL packages only)	-
	Automatic air valve, 1¼" NPT, with bleed (650, 1050)	518062		(See Section G for details.)	
7	DF-2 manual drain separator, 1¼" NPT, with built-in check valve	290192	20	Nozzle washer (included with XL packages only)	-
	ADS-2 Automatic air filter, 1¼" NPT (Optional)	504632		(See Section G for details.)	
8	Petcock, ¼" NPT	520642	21	Nozzle coupling (included with XL packages only)	-
	Control hose, ¼" ID w/fittings, 14" L (350)	290372		(See Section G for details.)	
9	Control hose, ¼" ID w/fittings, 14" L (650)	290372	22	Pneumatic Saf-Stop II™ remote control handle	290164
	Control hose, ¼" ID w/fittings, 16" L (1050)	290374		(See Section F for details.)	
10	Manual air valve, 1" NPT (350)	518492	23	Blast hose (included with XL packages only)	-
	Manual air valve, 1¼" NPT (650 & 1050)	518502		(See Section G for details.)	
11	Aluminum tank coupling	753262	24	Dual-line hose w/fittings (30')	521962
12	Safety pin	510511		Dual-line hose w/fittings (55')	521892
13	Close nipple, 1¼" NPT, extra heavy duty	546292	25	Axle, 5/8" OD x 26" L (350)	504692
14	Manual Sure-Flo® valve assembly (See Section F for details.)	290383		Axle, 1" OD x 32½" L (650)	504702
				Axle, 1" OD x 36½" L (1050)	504712
			26	Inspection door, 6" x 8"	506152
				Nut, inspection door	552302
				Gasket, inspection door	524152
				Bolt, inspection door	506153
			27	MG-72 exhaust valve	290181
				(See Section F for details.)	



WARNING

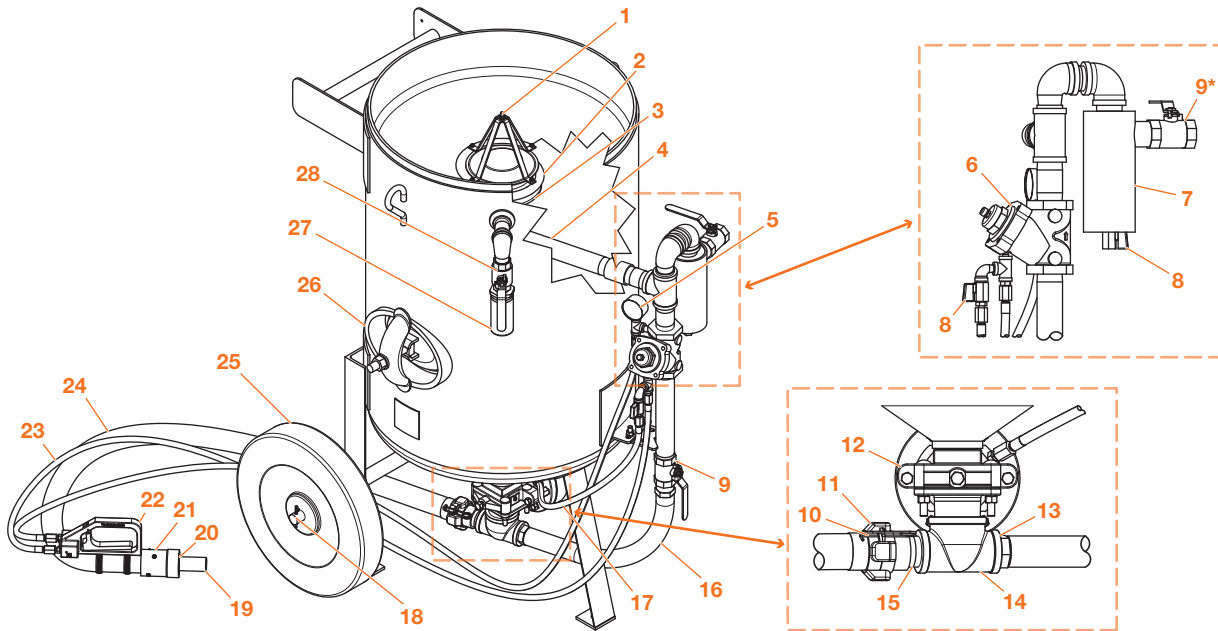
1. Inspect couplings and blast hose daily for splits, bubbles, soft spots, wear, etc. Make sure nozzle washers are in good condition and screw heads are snug against coupling's surface. The safety pin must be in place to prevent quick coupling disconnection.
2. When assembling couplings to blast hose only use #8 x 5/8" large self-tapping sheet metal screw (P/N 554232) for cast brass and aluminum couplings and #8 x 3/8" large self-tapping sheet metal screw (P/N 554242) for all steel couplings.
3. Use of other types of screws may create a safety hazard. Empire will not warrant equipment or assume responsibility for damage or injury resulting from neglect or use of improper parts.



SuperBlast® Control Systems: 780

780 Control System used on 350, 650 & 1050 Pressure Vessels

Item	Description	PART#	Item	Description	PART#
1	E/Z Fill™ bag breaker/screener (See Section F for details.)	290367			
2	"O" ring, 6" rubber	523872			
3	Sealing plunger (PVC coated)	525072			
	Pipe nipple, 1" x 7" (350)	546272			
	Pipe nipple, 1 1/4" x 10" (650)	546382			
	Pipe nipple, 1 1/4" x 13" (1050)	546891			
4	Elbow, reducing 1 1/4" x 1" (350)	543952			
	Elbow, 1 1/4" (650,1050)	543792			
	Pipe nipple, 1 1/4" x 3 1/2" (vertical all)	546342			
5	Air pressure gauge, 0-160 psi, 1/4" NPT	550242			
6	Automatic air valve, 1" NPT, with bleed (350)	518052			
	Automatic air valve, 1 1/4" NPT, with bleed (650, 1050)	518062			
7	DF-2 manual drain separator, 1 1/4" NPT, with built-in check valve	290192			
	ADS-2 Automatic air filter, 1 1/4" NPT (Optional)	504632			
8	Petcock, 1/4" NPT	520642			
9	Manual air valve, 1" NPT (350)	518492			
	Manual air valve, 1 1/4" NPT (650 & 1050)*	518502			
10	Safety pin	510511			
11	Aluminum tank coupling	753262			
12	Automatic Sure-Flo® valve assembly (See Section F for details.)	290215			
13	Adapter, 1"	522112			
	Adapter, 1 1/4"	520262			
14	Tee, 2" x 1 1/4" x 1 1/4" NPT	545752			
15	Close nipple, 1 1/4" NPT, extra heavy duty	546292			
				Flexible hose w/fittings for 350 (Before 5/1/84)	520922
				Flexible hose w/fittings for 350 (After 5/1/84)	290318
			16	Flexible hose w/fittings for 650 (Before 5/1/84)	521022
				Flexible hose w/fittings for 650 (After 5/1/84)	290319
				Flexible hose w/fittings for 1050 (Before 5/1/84)	521062
				Flexible hose w/fittings for 1050 (After 5/1/84)	520982
			17	Control hose, 1/4" ID w/fittings, 23" L (350)	290371
				Control hose, 1/4" ID w/fittings, 27" L (650)	290373
				Control hose, 1/4" ID w/fittings, 36" L (1050)	521902
			18	Axle, 5/8" OD x 26" L (350)	504692
				Axle, 1" OD x 32 1/2" L (650)	504702
				Axle, 1" OD x 36 1/2" L (1050)	504712
			19	Nozzle (included with XL packages only) (See Section G for details.)	-
			20	Nozzle washer (included with XL packages only) (See Section G for details.)	-
			21	Nozzle coupling (included with XL packages only) (See Section G for details.)	-
			22	Pneumatic Saf-Stop II™ remote control handle (See Section F for details.)	290164
			23	Dual-line hose w/fittings (30')	521962
				Dual-line hose w/fittings (55')	521892
			24	Blast hose (included with XL packages only) (See Section G for details.)	-
			25	Wheel, 12" semi-pneumatic, 5/8" hub (350)	505062
				Wheel, 16" semi-pneumatic, 1" hub (650 & 1050)	505072
			26	Inspection door, 6" x 8"	506152
				Nut, inspection door	552302
				Gasket, inspection door	524152
				Bolt, inspection door	506153
			27	Sound attenuator, 1" NPT	753322
			28	Manual air valve, 1" NPT	518492



WARNING

1. Inspect couplings and blast hose daily for splits, bubbles, soft spots, wear, etc. Make sure nozzle washers are in good condition and screw heads are snug against coupling's surface. The safety pin must be in place to prevent quick coupling disconnection.
2. When assembling couplings to blast hose only use #8 x 5/8" large self-tapping sheet metal screw (P/N 554232) for cast brass and aluminum couplings and #8 x 3/8" large self-tapping sheet metal screw (P/N 554242) for all steel couplings.
3. Use of other types of screws may create a safety hazard. Empire will not warrant equipment or assume responsibility for damage or injury resulting from neglect or use of improper parts.

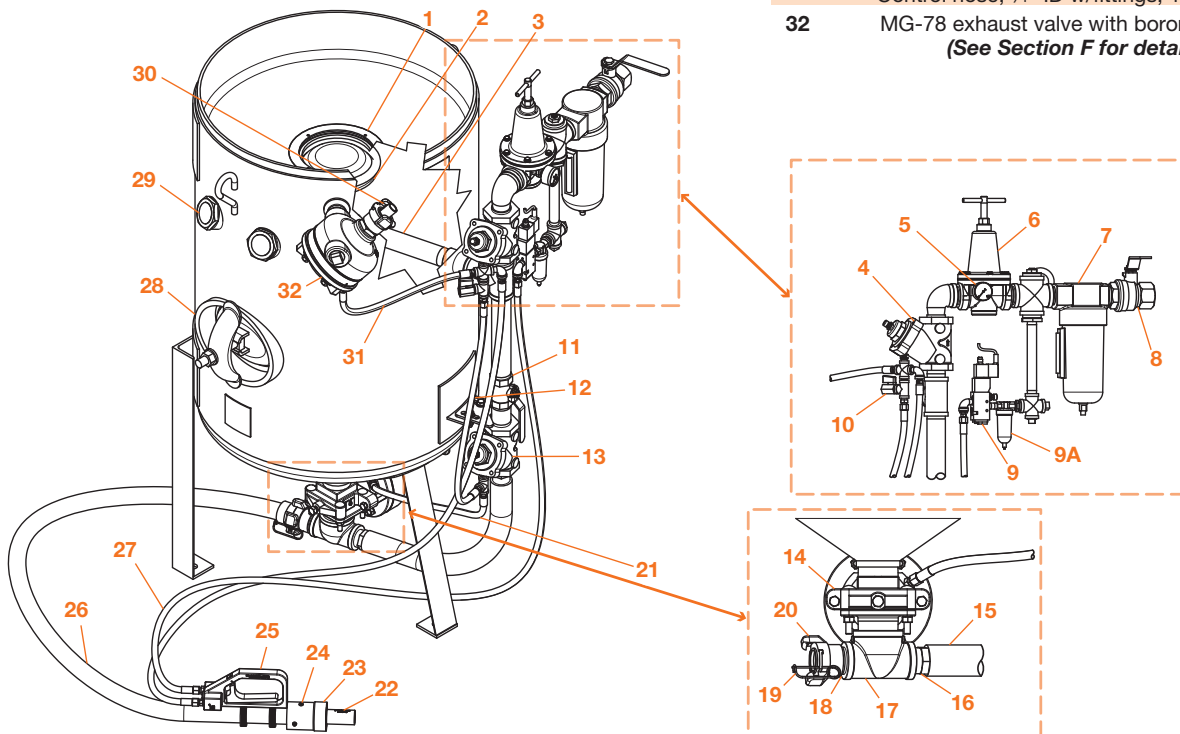


SuperBlast® Control Systems: Blast Room

Blast Room Systems for 350, 650 & 1050 Pressure Vessels

Item	Description	PART#
1	"O" ring , 6" rubber	523872
2	Sealing plunger (PVC coated)	525072
3	Pipe nipple, 1" x 7" (350)	546272
	Pipe nipple, 1¼" x 10" (650)	546382
	Pipe nipple, 1¼" x 13" (1050)	546891
	Elbow, reducing 1¼" x 1" (350)	543952
	Elbow, 1¼" (650,1050)	543792
	Pipe nipple, 1¼" x 3½" (vertical all)	546342
4	Automatic air valve, 1" NPT, with bleed (350)	518052
	Automatic air valve, 1¼" NPT, with bleed (650, 1050)	518062
5	Air pressure gauge, 0-160 psi, ¼" NPT	550242
6	Regulator, relieving, 1¼" NPT, high low	517295
7	ADS-2 Automatic air filter, 1¼" NPT	504632
8	Manual air valve (brass), ¼" NPT, locking	518941
9	Safety interlock solenoid valve, 120 VAC	519042
	Replacement coil, 120 VAC	517086
9A	Filter, ¼" manual	504552
10	Petcock, ¼" NPT	520642
11	Manual air valve, 1" NPT (350)	518492
	Manual air valve, 1¼" NPT (650, 1050)	518502
12	Control hose, ¼" ID w/fittings, 23" L (350, 650)	290371
	Control hose, ¼" ID w/fittings, 40" L (1050)	290376
13	Automatic air valve, 1" NPT, no bleed (350)	517042
	Automatic air valve, 1¼" NPT, no bleed (650, 1050)	517052
14	Automatic Sure-Flo® valve assembly (See Section F for details.)	290215

Item	Description	PART#
	Flexible hose w/fittings for 350	290318
15	Flexible hose w/fittings for 650 (After 5/1/84)	290319
	Flexible hose w/fittings for 1050 (After 5/1/84)	520982
16	Adapter, 1¼" NPT x 1", ball (350)	522112
	Adapter, 1¼" NPT x 1¼", ball (650,1050)	520262
17	Tee, 2" x 1¼" x 1¼" NPT	545752
18	Close nipple, 1¼" NPT, extra heavy duty	546292
19	Safety pin	510511
20	Aluminum tank coupling, 1¼" NPT with washer	753262
	Control hose, ¼" ID w/fittings, 23" L (350)	290371
21	Control hose, ¼" ID w/fittings, 27" L (650)	290373
	Control hose, ¼" ID w/fittings, 36" L (1050)	521902
22	Nozzle (not included) (See Section G for details.)	-
23	Nozzle washer (not included) (See Section G.)	-
24	Nozzle coupling (not included) (See Section G.)	-
25	Saf-Stop II™ pneumatic remote control handle	290164
	Sure Stop remote control handle (optional)	290166
	(See Section F for details.)	
26	Blast hose (not included) (See Section G.)	-
27	Dual-line hose w/fittings (30')	521962
	Dual-line hose w/fittings (55')	521892
28	Inspection door, 6" x 8"	506152
	Nut, inspection door	552302
	Gasket, inspection door	524152
	Bolt, inspection door	506153
29	Sight glass, 2" NPT	545493
30	Aluminum tank coupling, 1¼" NPT with washer	753262
31	Control hose, ¼" ID w/fittings, 14" L (350, 650)	290372
	Control hose, ¼" ID w/fittings, 16" L (1050)	290374
32	MG-78 exhaust valve with boron restrictor (See Section F for details.)	290582



WARNING

1. Inspect couplings and blast hose daily for splits, bubbles, soft spots, wear, etc. Make sure nozzle washers are in good condition and screw heads are snug against coupling's surface. The safety pin must be in place to prevent quick coupling disconnection.
2. When assembling couplings to blast hose only use #8 x 5/8" large self-tapping sheet metal screw (P/N 554232) for cast brass and aluminum couplings and #8 x 3/8" large self-tapping sheet metal screw (P/N 554242) for all steel couplings.
3. Use of other types of screws may create a safety hazard. Empire will not warrant equipment or assume responsibility for damage or injury resulting from neglect or use of improper parts.



Pneumatic Recovery Systems (PRS)

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Pneumatic Saf-Stop II™ Remote Control Handle	Refer to Section F
Pneumatic Sure-Stop Remote Control Handle	Refer to Section F

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Never use silica sand in any Empire equipment.



Pneumatic Recovery System Models

All Pneumatic Recovery Systems include the items listed below:

- 6½ or 10½ cubic-foot media storage hopper
- 900 CFM tunable reclaiming with Ultrawear lining
- Media recovery hopper, 30" width x 30" depth x 12" height
- 25' long, heavy-duty, media conveying hose
- DCM-200hv media filtration system or cartridge dust collector (CDC)
- 10 horsepower blower assembly with fused disconnect
- Blower exhaust damper
- 460 volt/60 hertz/3 phase electricals
- Stationary chassis weldment

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
PRS	Used with existing 6½ or 10½ cubic-foot pressure vessels		
PRS-3		Consult Factory	
PRS-6	6½ cubic-foot storage hopper with DCM-200hv media filtration system	245006	1500 lb
PRS-6CDC	6½ cubic-foot storage hopper with cartridge dust collector (CDC)	245007	1500 lb
PRS-6D	6½ cubic-foot storage hopper with DCM-200hv and rolling chassis	246006	1500 lb
PRS-6DCDC	6½ cubic-foot storage hopper with CDC and rolling chassis	246007	1500 lb
PRS-10	10½ cubic-foot storage hopper with DCM-200hv media filtration system	245010	1750 lb
PRS-10CDC	10½ cubic-foot storage hopper with cartridge dust collector (CDC)	245011	1750 lb
PRS-10D	10½ cubic-foot storage hopper with DCM-200hv and rolling chassis	246010	1750 lb
PRS-10DCDC	10½ cubic-foot storage hopper with CDC and rolling chassis	246011	1750 lb
PRS 780	Includes a 6½ or 10½ cubic-foot pressure vessel equipped with 780 remote controls		
PRS-3		Consult Factory	
PRS-6S	6½ cubic-foot pressure vessel with DCM-200hv media filtration system	247106	2525 lb
PRS-6SCDC	6½ cubic-foot pressure vessel with cartridge dust collector (CDC)	247107	2525 lb
PRS-6SD	6½ cubic-foot pressure vessel with DCM-200hv and rolling chassis	246106	2525 lb
PRS-6SDCDC	6½ cubic-foot pressure vessel with CDC and rolling chassis	246108	2525 lb
PRS-10S	10½ cubic-foot pressure vessel with DCM-200hv media filtration system	247110	2775 lb
PRS-10SCDC	10½ cubic-foot pressure vessel with cartridge dust collector (CDC)	247111	2775 lb
PRS-10SD	10½ cubic-foot pressure vessel with DCM-200hv and rolling chassis	246110	2775 lb
PRS-10SDCDC	10½ cubic-foot pressure vessel with CDC and rolling chassis	246111	2775 lb
PRS Room	Includes a 6½ or 10½ cubic-foot pressure vessel equipped with blast room remote controls		
PRS-3		Consult Factory	
PRS-6S	6½ cubic-foot pressure vessel with DCM-200hv media filtration system	244106	2525 lb
PRS-6SCDC	6½ cubic-foot pressure vessel with cartridge dust collector (CDC)	244107	2525 lb
PRS-10S	10½ cubic-foot pressure vessel with DCM-200hv media filtration system	244110	2775 lb
PRS-10SCDC	10½ cubic-foot pressure vessel with cartridge dust collector (CDC)	244111	2775 lb
PRS-10-2S	10½ ft³ vessel for two operators with DCM-200hv media filtration system	244112	2775 lb
PRS-10-2SCDC	10½ ft³ vessel for two operators with cartridge dust collector (CDC)	244113	2775 lb

Meanings of Suffixes

- “S” includes pressure vessel
- “D” includes rolling chassis (dolly)
- “SD” includes vessel and rolling chassis
- “CDC” includes cartridge dust collector



Pneumatic Recovery System Options

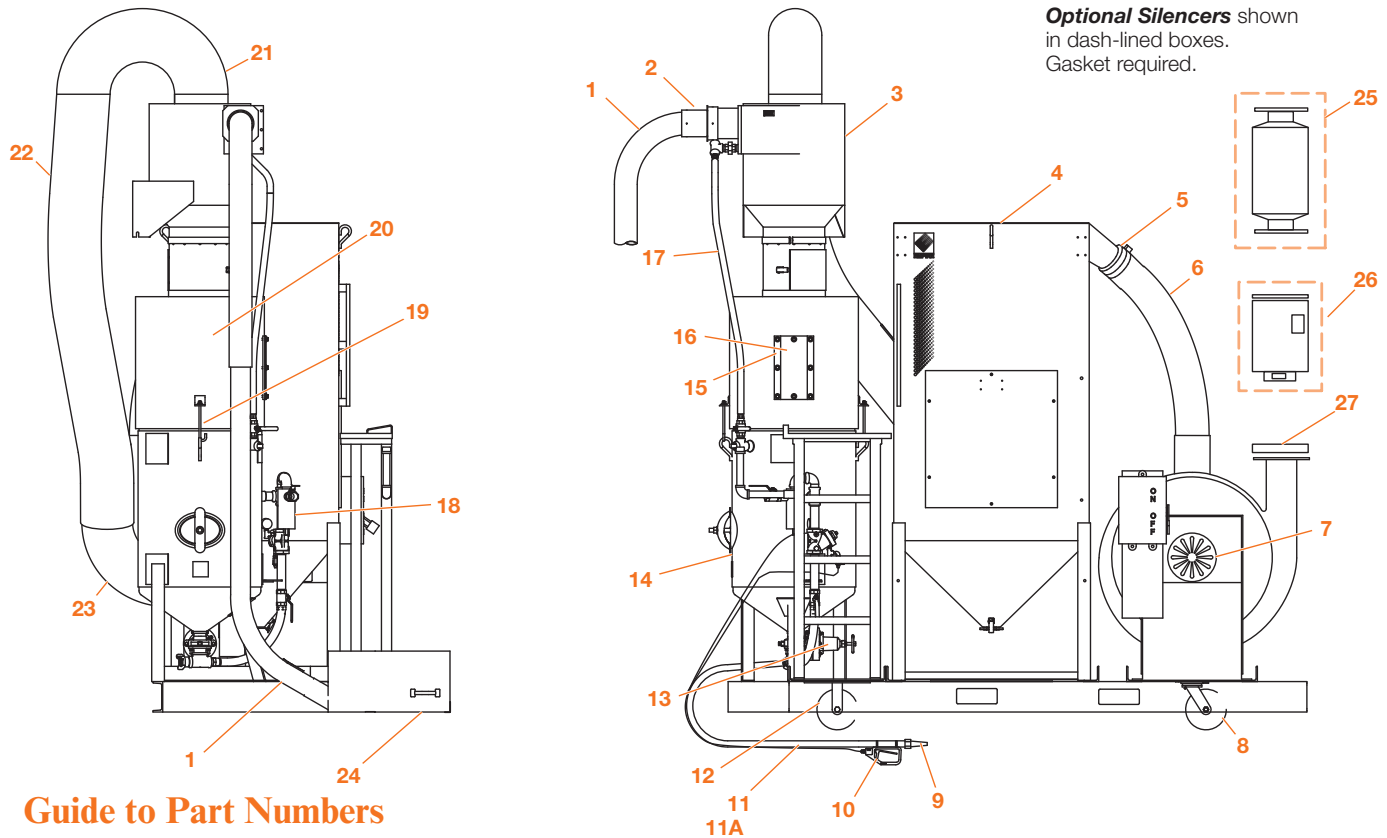
	FACTORY INSTALLED	CUSTOMER INSTALLED
Electrical Options		
208 Volt, 60 Hertz, 3 Phase	290457	–
230 Volt, 60 Hertz, 3 Phase	290445	–
460 Volt, 60 Hertz, 3 Phase	Standard	–
575 Volt, 60 Hertz, 3 Phase	290473	–
380 Volt, 50 Hertz, 3 Phase	290547	–
System Options		
780 to 680 pneumatic remote controls for PRS-6 models	290467	290468
780 to 680 pneumatic remote controls for PRS-10 models	290469	290470
Air gauge, ¼” NPT, 0–160 PSI	550242	550242
Air pressure regulator, 1¼” NPT	517291	517291
Adaptable ring to mount competitive 24” dia. blasters to PRS-6 & PRS-6D	–	290456
Adaptable ring to mount competitive 30” dia. blasters to PRS-10 & PRS-10D	–	290458
Grit cut-off switch assembly for blow-off with 780 remote	290424	290424
Lockable air-inlet valve, 1¼” (<i>requires PN 546332 nipple</i>)	518941	518941
Moisture separator ADS-2, 1¼” automatic	504632	504632
Sound attenuator (90 dBA)	140537	140537
Sound attenuator (85 dBA)	549994	549994
Trouble-shooting gauge for system pneumatics	–	140382
Media Recovery Options		
Magnetic separator, for reclaimer, single layer grate	511572	511572
Vibrating Reclaimer Screen	290447	290447
Sweep-in trough, 8’ long, “W” module (<i>includes deduction of standard hopper</i>)	340160	–
Sweep-in trough, 10’ long, “W” module (<i>includes deduction of standard hopper</i>)	340161	–
Sweep-in trough, 12’ long, “W” module (<i>includes deduction of standard hopper</i>)	340162	–
Sweep-in recovery hopper (<i>includes deduction of standard hopper</i>)	768215	768215
Sweep-up recovery hopper (<i>includes deduction of standard hopper</i>)	768214	768214
<i>(Sweep-in receptacles must be recessed. Consult factory for pit requirements or optional designs.)</i>		
Dust Collector Options		
For DCM-200hv	113300	113300
Bag shaker, automatic electric, 115 volts	140340	140390
Bag shaker, automatic pneumatic	140683	140684
HEPA filter	Consult Factory	
HEPA filter, pressure differential gauge assembly	Consult Factory	
Leg extension kit (includes stand and lid assembly)	140256	140256
SuperSmooth dust bags (30 required with customer installation)	140682	516181
For CDC-hv	113020	113020
HEPA filter	Consult Factory	
HEPA filter, pressure differential gauge assembly	Consult Factory	
Leg extension kit (includes stand and lid assembly)	140257	140257
Photohelic cartridge cleaning, automatic pulse	140900	141900

Never use silica sand in any Empire equipment.



Pneumatic Recovery System Parts

System Assembly



Guide to Part Numbers

MODEL		PRS-6	PRS-10
Item	Description	PART NUMBERS	
1	Hose, heavy duty, 4" diameter (25' standard; lengths to 50')	515911	515911
2	Adapter, 4" x 6", reclaimer inlet	764032	764032
3	Unlined reclaimer assembly, 6" inlet (does not include adapter)	140441	140441
	Ultrawear lining for reclaimer	526193	526193
	Wear plate for reclaimer	514491	514491
4	Dust collector, DCM-200hv PRS	113300	113300
	Dust collector, CDChv	113020	113020
5	Clamp, 6"	520551	520551
6	Hose, 6" x 8', standard	515641	515641
	Hose, 6" x 11', with leg extension	516101	516101
7	Blower assembly, 208V, 60 Hz, 3 phase	549932	549932
	Blower assembly, 460V, 60 Hz, 3 phase	549942	549942
	Blower assembly, 575V, 60 Hz, 3 phase	549952	549952
	Blower motor only, 10 hp, 460V, 60 Hz, 3 phase	549972	549972
	Blower wheel kit (includes wheel and bushing for fan before 2003)	549943	549943
8	Caster, swivel with lock	511511	511511
9	Nozzle, silicon carbide, SCV-5 (5/16")	502732	502732
10	Pneumatic Saf-Stop II remote control handle	290164	290164
	Pneumatic Sure-Stop remote control handle (optional)	290166	290166
11	Dual-line hose (55') with fittings	521892	521892
11A	1" x 50' blast hose assembly with quick connect and nozzle coupling	521802	521802
12	Caster	511521	511521
13	Automatic Sure-Flo® grit valve	290215	290215



Parts: PRS System Assembly

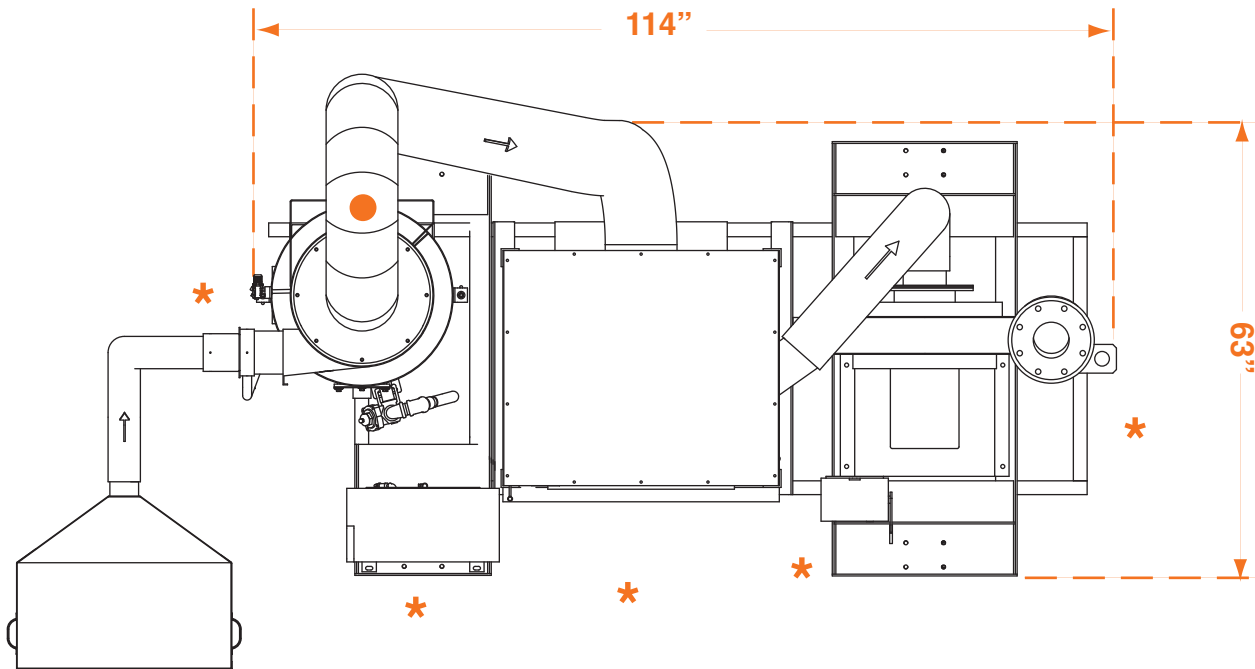
MODEL		PRS-6	PRS-10
Item	Description	PART NUMBERS	
14	Pressure vessel assembly, 780 systems Pressure vessel assembly, room systems	221004 235651	241004 235051
15	Hold down, window	768262	768262
16	Window	526231	526321
17	Exhaust hose assembly, 1"	140691	140691
18	Pipe string assembly, 780 systems Pipe string assembly, room systems	520822 ?	520822 ?
19	J-bolt, 3/8" – 16 x 8"	764484	764484
20	Storage hopper assembly Gasket: 1" x 1 1/2" x 7' for PRS-6; 1" x 2" x 8' for PRS-10	290476 523641	290477 524443
21	Elbow, 10", 180° at top of reclaimers	584010	584010
22	Dust hose, 10" x 10' Dust hose, 10" x 15' (prior to 2011)	516887 516888	516887 516888
23	Elbow, 10", 90° at dust collector inlet	790228	790228
24	Media recovery hopper, 30" x 30" x 12"	768211	768211

Optional

25	Fan sound attenuator (85 dBA)	549994	549994
26	Fan sound attenuator (90 dBA)	140537	140537
27	Gasket	526212	526212



Parts: PRS Plan View



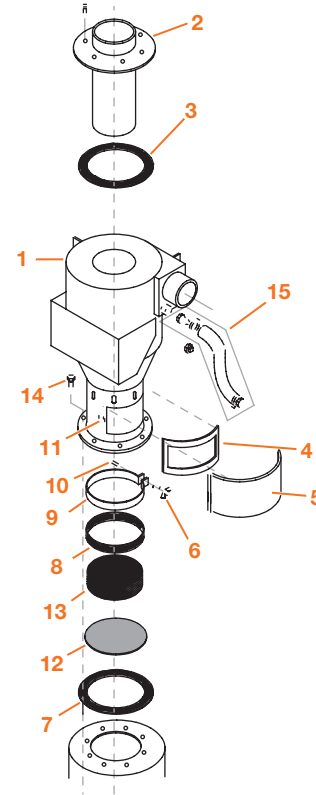
* Indicates access point. ● Indicates highest point on systems: PRS-6 = 137" • PRS-10 = 139" • PRS-6SD = 140" • PRS-10SD = 142"



Parts: PRS Reclaimer

Reclaimer (900 CFM) (Part # 140441)

Item	Description	PART NUMBER
1	Unlined reclaimer assembly, 6" inlet	140441
	Ultrawear lining for reclaimer	526193
	Wear plate for reclaimer <i>(See details below.)</i>	514491
2	Removable top	766751
3	Gasket, reclaimer to storage hopper	524371
4	Gasket, reclaimer door	524331
5	Door, reclaimer	760721
6	Wing nut, 1/4" - 20	552392
7	Gasket, reclaimer to storage hopper	524371
8	Gasket, tuning band, solid	524342
	Gasket, tuning band, with slots	524341
9	Tuning band (steel part only), solid	767581
	Tuning band (steel part only), with slots	760701
10	Bolt, 1/4" - 20 x 2"	551782
11	Latch and keeper (requires welding)	509581
12	Screen, flat, 5/16", 13" OD	760711
13	Screen, fine 11 1/2" OD, 8 mesh (standard)	739041
	Screen, 11 1/2" OD, 4 mesh	739051
14	Bolt, 3/8" - 16 x 1" (8 required)	551852
15	Exhaust hose assembly	140691
	Vibrating reclaimer screen (optional) <i>See page B12 for details.</i>	290447
	Sweep-in recovery troughs (optional) <i>See page B12 for details.</i>	



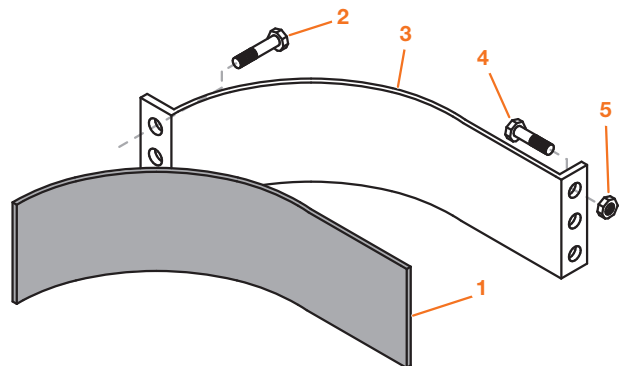
Reclaimer Wear Plate

Factory Installed . . . (Part # 514491)

Customer Installed . . . (Part # 514521)

Reclaimer Wear Plate Components

Item	Description	Part #
1	Rubber band	524891
2	Bolt, 3/8" - 16 x 2" (3 required)	553892
3	Metal band	761621
4	Bolt, 3/8" - 16 x 1 1/2" (3 required)	551262
5	Nut, 3/8" - 16	552542



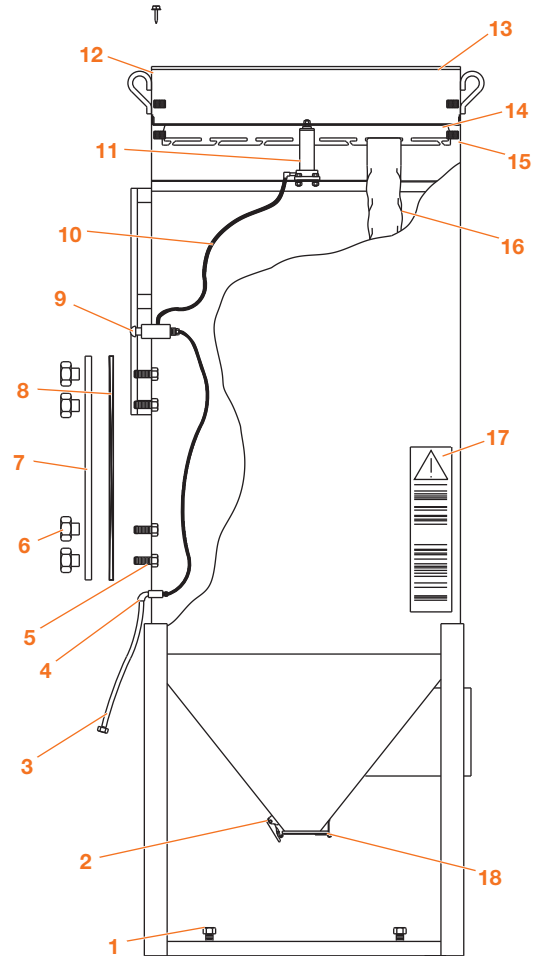
Never use silica sand in any Empire equipment.



Parts: PRS Dust Collectors

DCM-200HV Dust Collector (Part # 113300)

Item	Description	PART#
1	Bolt, levelling, 3/8" - 16 x 2" (4 required)	553892
2	Latch and keeper (requires welding)	509581
3	Hose with fittings, 1/4" x 16', dust collector	523161
4	Adapter, 1/4" tube x 1/4" MPT (inlet)	521081
	Connector, brass, 1/4" MPT x 1/4" ball (outside)	520222
5	Bolt, 3/8" - 16 x 1 1/4" (6 required)	551852
6	Knob, 3/8" - 16 (6 required)	510461
7	Access door, dust collector	768342
8	Gasket, access door, 5/8" x 5/8", 103" section	525711
	Gasket, 5/8" x 5/8" (specify length)	525061
	Valve, push-button, 1/8" NPT & #10 - 32, "3P"	517221
9	Barbed fitting, 1/4" tube x #10 - 32, 2 per assembly	521101
	Adapter, 1/4" tube x 1/8" MPT, 90° (for air cylinder)	520432
10	Tubing, 1/4" OD (8' required)	510541
11	Air cylinder, standard collector and auto shaker	515981
	Air cylinder, auto-pneumatic bag shaker only	515771
12	Gasket, top plate, 1/8" x 1/4" x 12'	523551
13	Top plate	768332
14	Bag-rack weldment	760921
15	Rubber bumper (8 required)	523541
16	Dust bag, cotton sateen (30 required)	515521
17	Decal, Instruction/Warning	567405
18	Gasket, clean-out door, dust collector	524351
	Decal, Empire logo	564305
	Decal, orange dot strip	564301
	Paint, 6 oz. aerosol, beige	564476



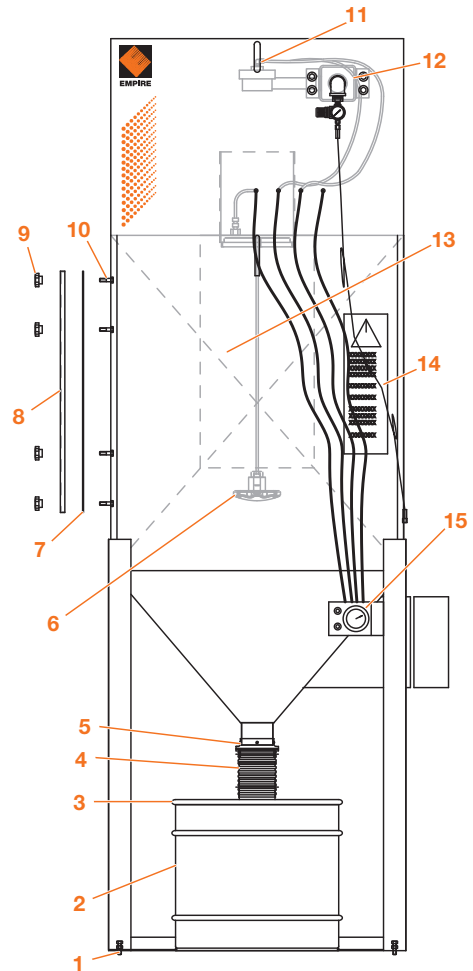
DCM-200hv Options

	PART NUMBERS		
	FACTORY INSTALLED	CUSTOMER INSTALLED	SEE PAGE
Automatic bag shaker cleans bags thoroughly every time the system is turned off.			
Electric shaker	140340	140390	B11
Pneumatic shaker	140683	140684	Call
HEPA filter captures very fine particles.	140215	140215	—
HEPA filter, pressure differential gauge assembly informs operator regarding filter cleanliness.	140221	140221	—
Lid assembly for 55 gallon drum attached securely to clean-out door	140255	140255	B11
Leg extension kit (includes stand and lid assembly) raises collector so larger collection drum can be placed underneath.	140256	140256	—
SuperSmooth dust bag handles severe dust loading (30 required)	516181	516181	—

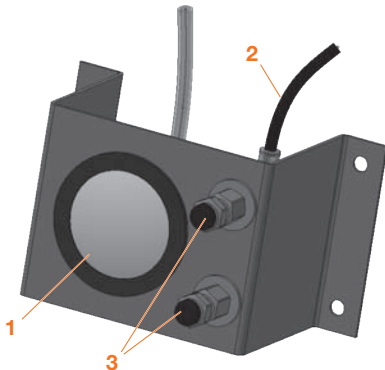
Parts: PRS Dust Collectors

CDC-HV Dust Collector (Part # 113020)

Item	Description	PART#
1	Bolt, levelling, 3/8" - 16 x 2" (4 required)	553892
2	16-gallon drum	504016
3	Lid for 16 gallon drum	850099-1
4	Gasket, dust drum lid, 5" (not shown)	800166
5	Gum rubber tube, 4" (specify length)	523750
6	Hose clamp, 4" (2 required)	520531
7	16 gallon drum assembly (includes items 2 through 5)	113015
8	Knob, filter clamping	515526
9	Gasket, access door, 5/8" x 5/8", 103" section	525061
10	Gasket, 5/8" x 5/8" (specify length)	525061
11	Access door, dust collector	768342
12	Knob, 3/8" - 16 (6 required)	510461
13	Bolt, 3/8" - 16 x 1 1/4" (6 required)	551852
14	Empire logo	564305
15	Diaphragm valve (2 required)	516352
16	Air supply assembly	140851
17	Cartridge filter (2 required)	515525
18	Decal, Instruction/Warning	567406
19	Mini-Helic package (See below)	550450



MiniHelic Gauge Assembly (Part # 550450)



Mini-Helic Components

Item	Description	Part #
1	Gauge, Mini-Helic	504201
2	Tubing, black, 1/4" OD	510541
3	Push-button valve	520393

CDC-hv Options

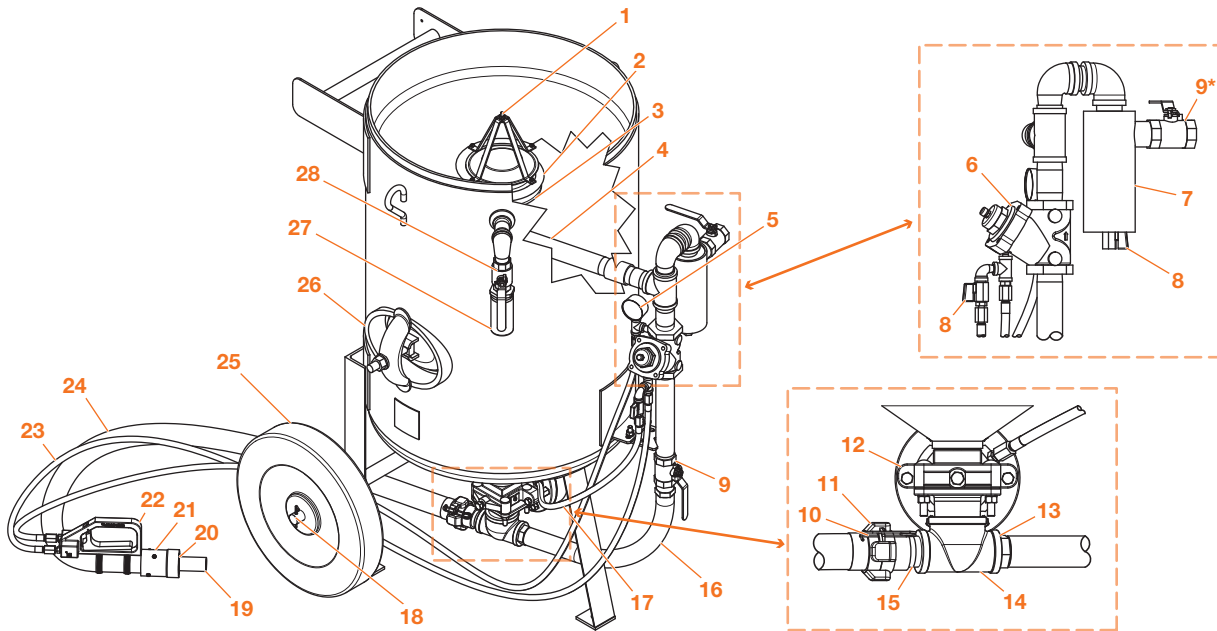
	PART NUMBERS		
	FACTORY INSTALLED	CUSTOMER INSTALLED	SEE PAGE
Photohelic cartridge cleaning improves system performance, saves operator time.	140900	140900	B11
HEPA filter captures very fine particles.	140215	140215	—
HEPA filter, pressure differential gauge assembly informs operator regarding filter cleanliness.	140221	140221	—
Leg extension kit (includes stand and lid assembly) raises collector so larger collection drum can be placed underneath.	140257	140257	—
Lid assembly for 55 gallon drum attached securely to clean-out door	140255	140255	B11

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Parts: PRS Pressure Vessels

Pressure Vessels with 780 Control System (Part #s 221004 & 241004)

Item	Description	PART#	Item	Description	PART#
1	E/Z Fill™ bag breaker/screener (See Section F for details.)	290367			
2	"O" ring, 6" rubber	523872			
3	Sealing plunger (PVC coated)	525072			
	Pipe nipple, 1" x 7" (350)	546272			
	Pipe nipple, 1 1/4" x 10" (650)	546382			
	Pipe nipple, 1 1/4" x 13" (1050)	546891			
4	Elbow, reducing 1 1/4" x 1" (350)	543952			
	Elbow, 1 1/4" (650,1050)	543792			
	Pipe nipple, 1 1/4" x 3 1/2" (vertical all)	546342			
5	Air pressure gauge, 0-160 psi, 1/4" NPT	550242			
6	Automatic air valve, 1" NPT, with bleed (350)	518052			
	Automatic air valve, 1 1/4" NPT, with bleed (650, 1050)	518062			
7	DF-2 manual drain separator, 1 1/4" NPT, with built-in check valve	290192			
	ADS-2 Automatic air filter, 1 1/4" NPT (Optional)	504632			
8	Petcock, 1/4" NPT	520642			
9	Manual air valve, 1" NPT (350)	518492			
	Manual air valve, 1 1/4" NPT (650 & 1050)*	518502			
10	Safety pin	510511			
11	Aluminum tank coupling	753262			
12	Automatic Sure-Flo® valve assembly (See Section F for details.)	290215			
13	Adapter, 1"	522112			
	Adapter, 1 1/4"	520262			
14	Tee, 2" x 1 1/4" x 1 1/4" NPT	545752			
15	Close nipple, 1 1/4" NPT, extra heavy duty	546292			
				Flexible hose w/fittings for 350 (Before 5/1/84)	520922
				Flexible hose w/fittings for 350 (After 5/1/84)	290318
			16	Flexible hose w/fittings for 650 (Before 5/1/84)	521022
				Flexible hose w/fittings for 650 (After 5/1/84)	290319
				Flexible hose w/fittings for 1050 (Before 5/1/84)	521062
				Flexible hose w/fittings for 1050 (After 5/1/84)	520982
			17	Control hose, 1/4" ID w/fittings, 23" L (350)	290371
				Control hose, 1/4" ID w/fittings, 27" L (650)	290373
				Control hose, 1/4" ID w/fittings, 36" L (1050)	521902
			18	Axle, 5/8" OD x 26" L (350)	504692
				Axle, 1" OD x 32 1/2" L (650)	504702
				Axle, 1" OD x 36 1/2" L (1050)	504712
			19	Nozzle (included with XL packages only) (See Section G for details.)	-
			20	Nozzle washer (included with XL packages only) (See Section G for details.)	-
			21	Nozzle coupling (included with XL packages only) (See Section G for details.)	-
			22	Pneumatic Saf-Stop II™ remote control handle (See Section F for details.)	290164
			23	Dual-line hose w/fittings (30')	521962
				Dual-line hose w/fittings (55')	521892
			24	Blast hose (included with XL packages only) (See Section G for details.)	-
			25	Wheel, 12" semi-pneumatic, 5/8" hub (350)	505062
				Wheel, 16" semi-pneumatic, 1" hub (650 & 1050)	505072
			26	Inspection door, 6" x 8"	506152
				Nut, inspection door	552302
				Gasket, inspection door	524152
				Bolt, inspection door	506153
			27	Sound attenuator, 1" NPT	753322
			28	Manual air valve, 1" NPT	518492



WARNING

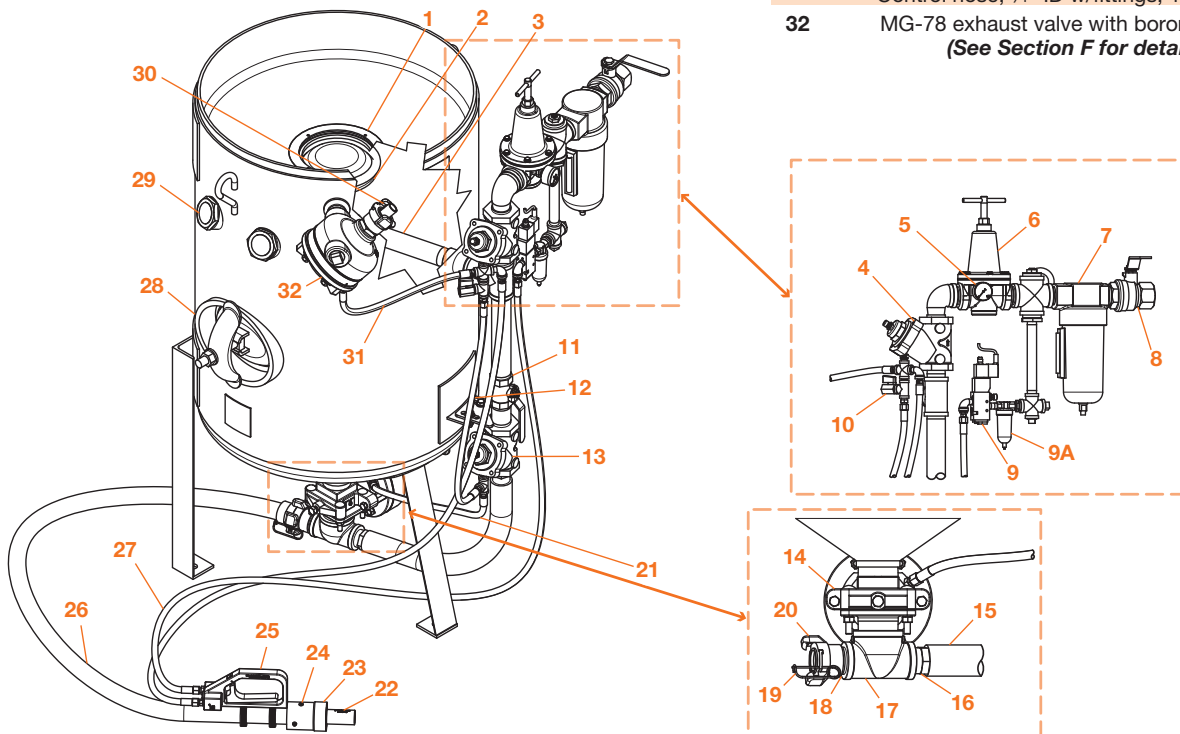
1. Inspect couplings and blast hose daily for splits, bubbles, soft spots, wear, etc. Make sure nozzle washers are in good condition and screw heads are snug against coupling's surface. The safety pin must be in place to prevent quick coupling disconnection.
2. When assembling couplings to blast hose only use #8 x 5/8" large self-tapping sheet metal screw (P/N 554232) for cast brass and aluminum couplings and #8 x 3/8" large self-tapping sheet metal screw (P/N 554242) for all steel couplings.
3. Use of other types of screws may create a safety hazard. Empire will not warrant equipment or assume responsibility for damage or injury resulting from neglect or use of improper parts.

Parts: PRS Pressure Vessels

Pressure Vessels with Blast Room Control System (Part #s 235651 & 235051)

Item	Description	PART#
1	"O" ring, 6" rubber	523872
2	Sealing plunger (PVC coated)	525072
3	Pipe nipple, 1" x 7" (350)	546272
	Pipe nipple, 1¼" x 10" (650)	546382
	Pipe nipple, 1¼" x 13" (1050)	546891
	Elbow, reducing 1¼" x 1" (350)	543952
	Elbow, 1¼" (650,1050)	543792
4	Pipe nipple, 1¼" x 3½" (vertical all)	546342
	Automatic air valve, 1" NPT, with bleed (350)	518052
	Automatic air valve, 1¼" NPT, with bleed (650, 1050)	518062
5	Air pressure gauge, 0-160 psi, ¼" NPT	550242
6	Regulator, relieving, 1¼" NPT, high flow	517295
7	ADS-2 Automatic air filter, 1¼" NPT	504632
8	Manual air valve (brass), ¼" NPT, locking	518941
9	Safety interlock solenoid valve, 120 VAC	519042
	Replacement coil, 120 VAC	517086
9A	Filter, ¼" manual	504552
10	Petcock, ¼" NPT	520642
11	Manual air valve, 1" NPT (350)	518492
	Manual air valve, 1¼" NPT (650, 1050)	518502
12	Control hose, ¼" ID w/fittings, 23" L (350, 650)	290371
	Control hose, ¼" ID w/fittings, 40" L (1050)	290376
13	Automatic air valve, 1" NPT, no bleed (350)	517042
	Automatic air valve, 1¼" NPT, no bleed (650, 1050)	517052
14	Automatic Sure-Flo® valve assembly (See Section F for details.)	290215

Item	Description	PART#
15	Flexible hose w/fittings for 350	290318
	Flexible hose w/fittings for 650 (After 5/1/84)	290319
	Flexible hose w/fittings for 1050 (After 5/1/84)	520982
16	Adapter, 1¼" NPT x 1", ball (350)	522112
	Adapter, 1¼" NPT x 1¼", ball (650,1050)	520262
17	Tee, 2" x 1¼" x 1¼" NPT	545752
18	Close nipple, 1¼" NPT, extra heavy duty	546292
19	Safety pin	510511
20	Aluminum tank coupling, 1¼" NPT with washer	753262
21	Control hose, ¼" ID w/fittings, 23" L (350)	290371
	Control hose, ¼" ID w/fittings, 27" L (650)	290373
	Control hose, ¼" ID w/fittings, 36" L (1050)	521902
22	Nozzle (not included) (See Section G for details.)	-
23	Nozzle washer (not included) (See Section G.)	-
24	Nozzle coupling (not included) (See Section G.)	-
25	Saf-Stop II™ pneumatic remote control handle	290164
	Sure Stop remote control handle (optional)	290166
	(See Section F for details.)	
26	Blast hose (not included) (See Section G.)	-
27	Dual-line hose w/fittings (30')	521962
	Dual-line hose w/fittings (55')	521892
28	Inspection door, 6" x 8"	506152
	Nut, inspection door	552302
	Gasket, inspection door	524152
	Bolt, inspection door	506153
	Sight glass, 2" NPT	545493
29	Aluminum tank coupling, 1¼" NPT with washer	753262
31	Control hose, ¼" ID w/fittings, 14" L (350, 650)	290372
	Control hose, ¼" ID w/fittings, 16" L (1050)	290374
32	MG-78 exhaust valve with boron restrictor (See Section F for details.)	290582



WARNING

1. Inspect couplings and blast hose daily for splits, bubbles, soft spots, wear, etc. Make sure nozzle washers are in good condition and screw heads are snug against coupling's surface. The safety pin must be in place to prevent quick coupling disconnection.
2. When assembling couplings to blast hose only use #8 x 5/8" large self-tapping sheet metal screw (P/N 554232) for cast brass and aluminum couplings and #8 x 3/8" large self-tapping sheet metal screw (P/N 554242) for all steel couplings.
3. Use of other types of screws may create a safety hazard. Empire will not warrant equipment or assume responsibility for damage or injury resulting from neglect or use of improper parts.



Parts & Options: PRS

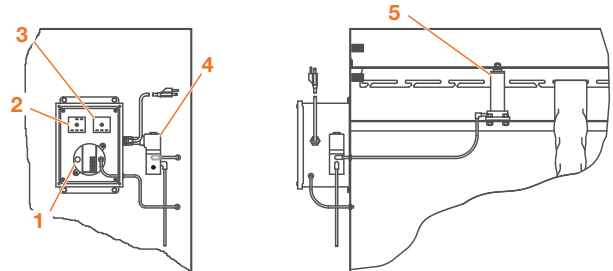
Options for DCM-200hv (Part # 113200)

Bag Shaker, automatic electric, cleans bags thoroughly every time the system is turned off.

PART NUMBERS	
FACTORY INSTALLED	CUSTOMER INSTALLED
140340	140390

Bag Shaker, Automatic Electric Components

Item	Description	PART #
1	Pressure switch, differential	550311
2	Timer	531081
3	Flasher	535313
4	Solenoid valve, 120 VAC	517311
5	Cylinder (not included; standard with collector)	515981

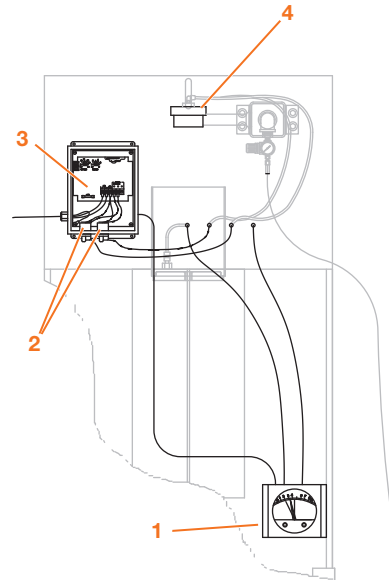


Photohelic Cartridge Cleaning improves system performance, saves operator time.

140900	140900
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Photohelic Cleaning Components

Item	Description	PART #
1	Photohelic gauge	550074
2	Solenoid valve	516335
3	Timer board	585090
4	Diaphragm valve (2 required) (Not included; standard on collector)	516350



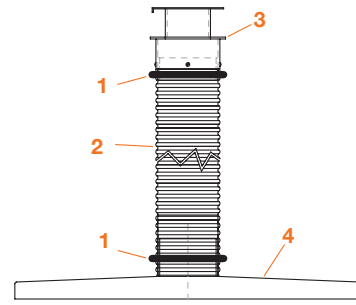
Lid Assembly for Leg Extension for 55 Gallon Waste Drum

For DCM Baghouse Collector use Part# 140255

Also available for Cartridge Collector

For CDC Cartridge Collector use Part# 140155

Item	Description	PART #
1	Hose clamp, 4"	520531
2	Dust hose, light-duty, 4" x 2'	522923
3	Adapter	760412
4	Lid, 55 gallon drum with gasket	140141



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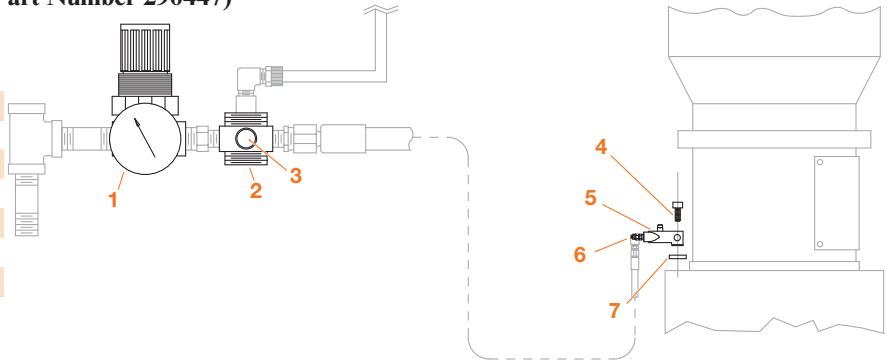


Parts & Options: PRS

Vibrating Reclaimer Screen (Part Number 290447)

Vibrating Screen Components

Item	Description	PART #
1	Regulator, relieving	517612
2	Air valve, pilot operated	519011
3	Breather vent	523161
4	Socket-head cap	553601
5	Vibrator	517971
6	Muffler, 1/8" bronze	517281
7	Spacer	536359



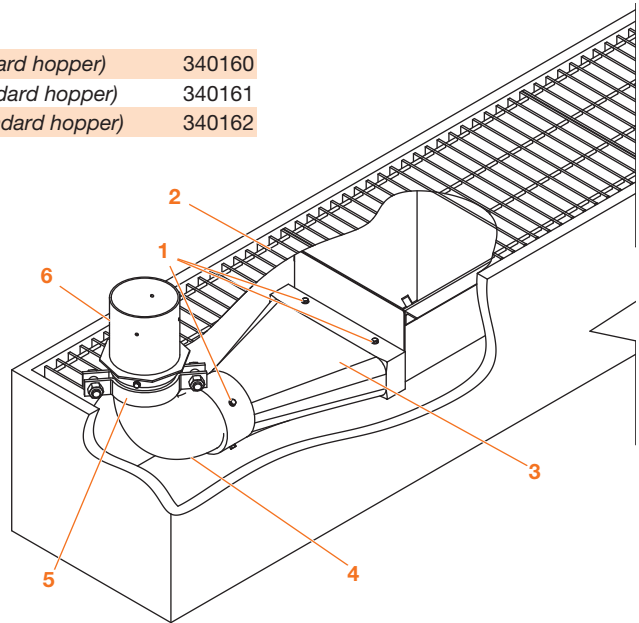
Sweep-in Recovery Troughs

Sweep-in recovery troughs expedite reclamation of blast media.

Sweep-in trough, 8' long, "W" module (Includes deduction of standard hopper)	340160
Sweep-in trough, 10' long, "W" module (Includes deduction of standard hopper)	340161
Sweep-in trough, 12' long, "W" module (Includes deduction of standard hopper)	340162

Recovery Trough Components

Item	Description	Part #
1	Screws, 1/4" x 1", self drilling (10)	551560
2	Grating, 1" thick, 23 1/8" x 13 1/2" each	760076
3	Urethane transition with floor, 4"	580245
4	Urethane elbow, 90°, 4" diameter	580213
5	Pipe clamp, 4" pipe, two bolt	522900
6	Urethane duct work adapter, 4", to dust hose	760064



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FaStrip® Plastic Decoating Systems

Section C: Table of Contents

FaStrip® 200 Series Model Descriptions

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FS-210-2	C2

Options

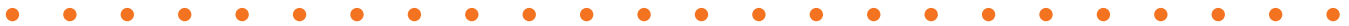
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System	C3
Media Recovery	C3
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Parts

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Vibrating Reclaimer Screen	C6
Dust Collector	C7
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Control Panel	C8
Pipe String	C8

Options Details

Dust Collector	C9
Recovery Troughs	C9

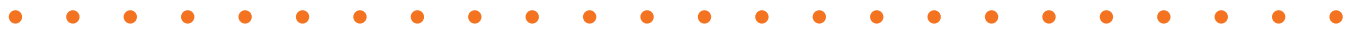


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FaStrip® 200 Series Systems

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
FS-203 Portable, One Operator	3½ Cubic-Foot Pressure System includes: <ul style="list-style-type: none"> • 3½ cubic-foot pressure vessel with 780 controls • 3½ cubic-foot media storage hopper • 900 CFM tunable reclaiming with magnetic separator • Vibrating screen assembly • Media recovery hopper, 30" width x 30" depth x 12" height • 25' long, heavy-duty, media conveying hose • 1¼" pipe string with liquid filled gauges • Pneumatic control panel • DCM-200hv media filtration system • 10 hp blower assembly with fused disconnect • Blower exhaust damper and fan sound attenuator • 460 volt/60 hertz/3 phase electricals • Chassis weldment with rolling casters • 1¼" blast hose assembly x 50' long • SCV-8 nozzle, ½" diameter silicon carbide 	248003	2000 lb
FS-206 Portable, One Operator	Same as Part #248003 except with 6½ cubic-foot pressure system and 6½ cubic-foot media storage hopper	248006	2250 lb
FS-210 Portable, One Operator	Same as Part #248003 except with 10½ cubic-foot pressure system and 10½ cubic-foot media storage hopper	248010	2500 lb
FS-210-2 Portable, Two Operators	Same as Part #248003 except with 10½ cubic-foot pressure system for two operators, 10½ cubic-foot media storage hopper and 2" NPT pipe string	249010	2550 lb



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FaStrip® Options

	FACTORY INSTALLED	CUSTOMER INSTALLED
Electrical Options		
208 Volt, 60 Hertz, 3 Phase	290457	–
230 Volt, 60 Hertz, 3 Phase	290445	–
460 Volt, 60 Hertz, 3 Phase	Standard	–
575 Volt, 60 Hertz, 3 Phase	290473	–
380 Volt, 50 Hertz, 3 Phase	290547	–
System Options		
Grit cut-off switch assembly for blow-off with 780 remote	Refer to Section F	
Lockable air-inlet valve, 1¼" (requires PN 546332 nipple)	518941	518941
Lockable air-inlet valve, 2" for FS-210-2 (requires PN 546452 nipple)	518961	518961
Sound attenuator, 85 dBA upgrade	549994	549994
Media Recovery Options		
Reclaimer wear plate	514491	514521
Sweep-in trough, 8' long, "W" module (includes deduction of standard hopper)	340160	–
Sweep-in trough, 10' long, "W" module (includes deduction of standard hopper)	340161	–
Sweep-in trough, 12' long, "W" module (includes deduction of standard hopper)	340162	–
Sweep-in recovery hopper (includes deduction of standard hopper)	768215	768215
Sweep-up recovery hopper (includes deduction of standard hopper)	768214	768214
<i>(Sweep-in receptacles must be recessed. Consult factory for pit requirements or optional designs.)</i>		
Dust Collector Options for DCM-200hv		
Bag shaker, automatic electric, 115 volts	140340	140390
Bag shaker, automatic pneumatic	140683	140684
HEPA filter	Consult factory	
HEPA filter, pressure differential gauge assembly	Consult factory	
Leg extension kit (includes stand & lid assembly)	Consult factory	
SuperSmooth dust bags (30 required with customer installation)	140682	516181

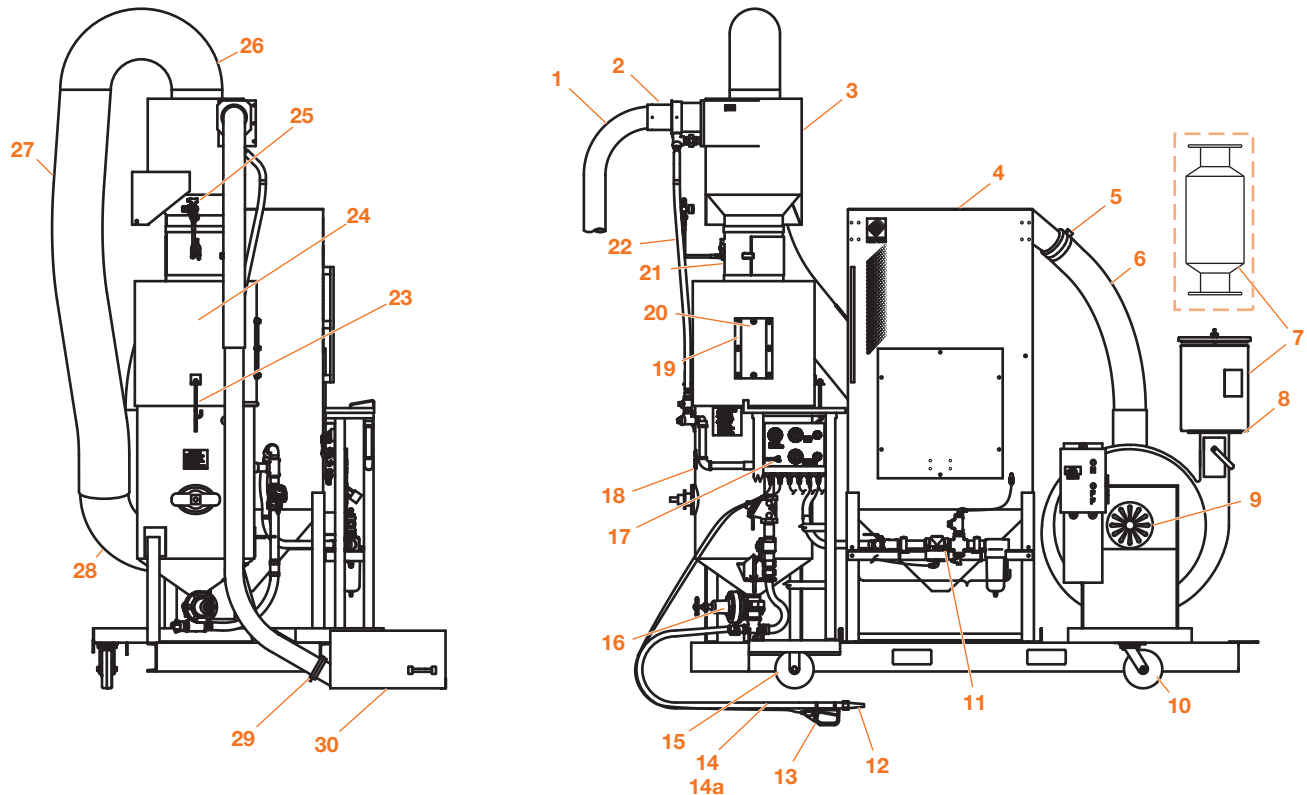


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FaStrip® Parts

System Assembly



Guide to Part Numbers

MODEL		FS-203	FS-206	FS-210	FS-210-2
Item	Description	PART NUMBERS			
1	Hose, heavy duty, 4" diameter (25' standard; lengths to 50')	515911	515911	515911	515911
2	Adapter, 4" x 6", reclaimer inlet	764032	764032	764032	764032
3	Reclaimer assembly, 6" inlet (does not include PN 764032) (See page C6 for details.)	140441	140441	140441	140441
4	Dust collector, DCM-200hv FS (See page C7 for details.)	113200	113200	113200	113200
5	Clamp, 6"	520551	520551	520551	520551
6	Hose, 6" dia. x 8'	515641	515641	515641	515641
7	Fan sound attenuator (90 dBA)	140537	140537	140537	140537
	Fan sound attenuator (85 dBA) (Optional. Shown in box.)	549994	549994	549994	549994
8	Gasket	526212	526212	526212	526212
	Blower assembly, 208V, 60 Hz, 3 phase	549932	549932	549932	549932
	Blower assembly, 460V, 60 Hz, 3 phase	549942	549942	549942	549942
9	Blower assembly, 575V, 60 Hz, 3 phase	549952	549952	549952	549952
	Blower motor only, 10 hp, 460V, 60 Hz, 3 phase	549972	549972	549972	549972
	Blower wheel kit (includes wheel and bushing for fan before 2003)	549943	549943	549943	549943
10	Caster, swivel with lock	511511	511511	511511	511511
11	Pipe string assembly (See page C8 for details.)	290438	290438	290438	290438
12	Nozzle, SCV-8 (1/2" silicon carbide)	502762	502762	502762	502762
13	Pneumatic Saf-Stop II remote control handle (See Section F for details.)	290164	290164	290164	290164
14	Dual-line hose (55') with fittings	521892	521892	521892	521892
14A	Blast hose assembly, 1 1/4" x 50', with quick connect & nozzle couplings	521842	521842	521842	521842
15	Caster	511521	511521	511521	511521

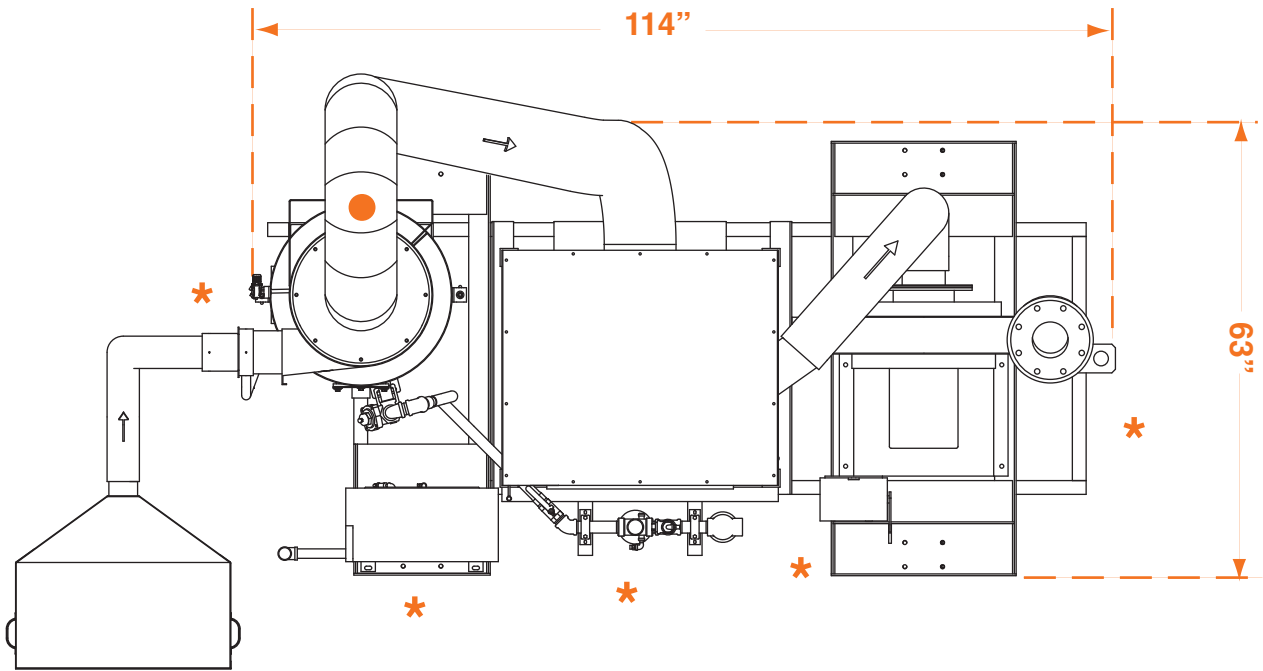


Parts: FaStrip® System Assembly

MODEL		FS-203	FS-206	FS-210	FS-210-2
Item	Description	PART NUMBERS			
16	Automatic Sure-Flo® grit valve (See Section F for details.)	290215	290215	290215	290215
17	Control panel (See page C8 for details.)	290444	290444	290444	290444
18	Pressure vessel assembly (See page C8 for details.)	290434	290435	290436	290437
19	Hold down, window	768262	768262	768262	768262
20	Window	526231	526231	526231	526231
21	Magnetic separator assembly	511572	511572	511572	511572
22	1" exhaust hose assembly	140691	140691	140691	140691
23	J-bolt, 3/8" - 16 x 8"	764484	764484	764484	764484
	Storage hopper assembly	290475	290476	290477	290477
24	Gasket, 1" x 1½" x 5' for FS-203; 1" x 1½" x 7' for FS-206	523641	523641	—	—
	Gasket, 1" x 2" x 8' for FS-210	—	—	524443	524443
25	Vibrating reclaimer screen assembly (See page C6 for details.)	290447	290447	290447	290447
26	Elbow, 10", 180° at top of reclaimer	548010	548010	548010	548010
27	Dust hose, 10" x 10'	516887	516887	516887	516887
28	Elbow, 10", 90° at dust collector inlet	790228	790228	790228	790228
29	Clamp, 4", heavy duty	522953	522953	522953	522953
30	Media recovery hopper, 30" x 30" x 12"	768211	768211	768211	768211



Parts: FaStrip® Plan View



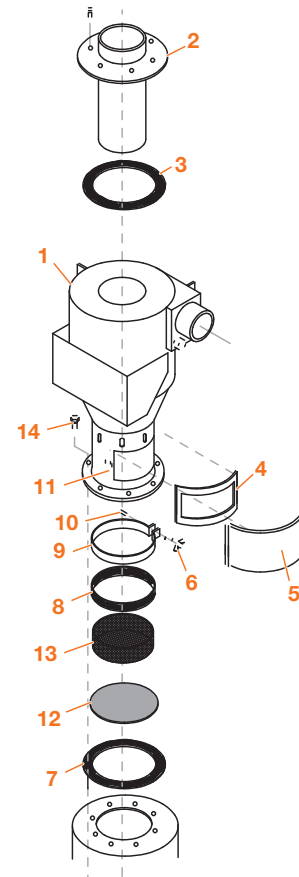
* Indicates access point. ● Indicates highest point on FaStrip systems. FS-203 = 138" • FS-206 = 140" • FS-210 = 142"



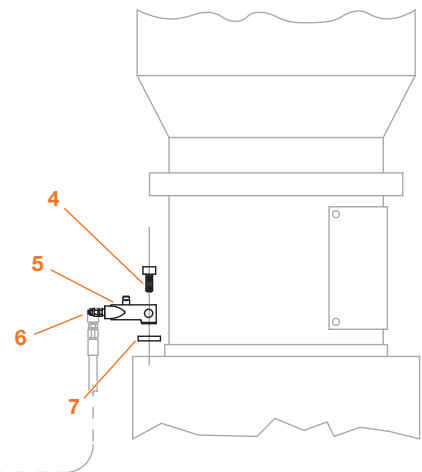
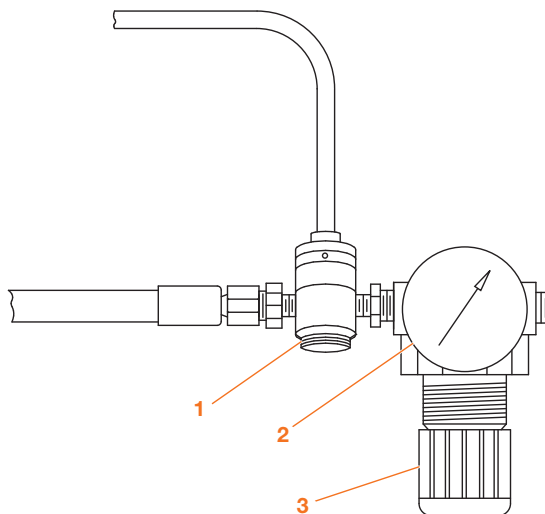
Parts: FaStrip® Reclaimer

Reclaimer (900 CFM) (Part # 140441)

Item	Description	PART NUMBER
1	Reclaimer body assembly, unlined (includes items 1 through 11)	140441
2	Removable top	766751
3	Gasket, reclaimer to storage hopper	524371
4	Gasket, reclaimer door	524331
5	Door, reclaimer	760721
6	Wing nut, 1/4" - 20	552392
7	Gasket, reclaimer to storage hopper	524371
8	Gasket, tuning band, solid	524342
8	Gasket, tuning band, with slots	524341
9	Tuning band (steel part only), solid	767581
9	Tuning band (steel part only), with slots	760701
10	Bolt, 1/4" - 20 x 2"	551782
11	Latch and keeper (requires welding)	509581
12	Screen, flat, 5/16", 13" OD	760711
13	Screen, fine 11 1/2" OD, 8 mesh	739041
13	Screen, 11 1/2" OD, 4 mesh (use with plastic media)	739051
14	Bolt, 3/8" - 16 x 1" (8 required)	551852



Vibrating Reclaimer Screen (Part # 290447)



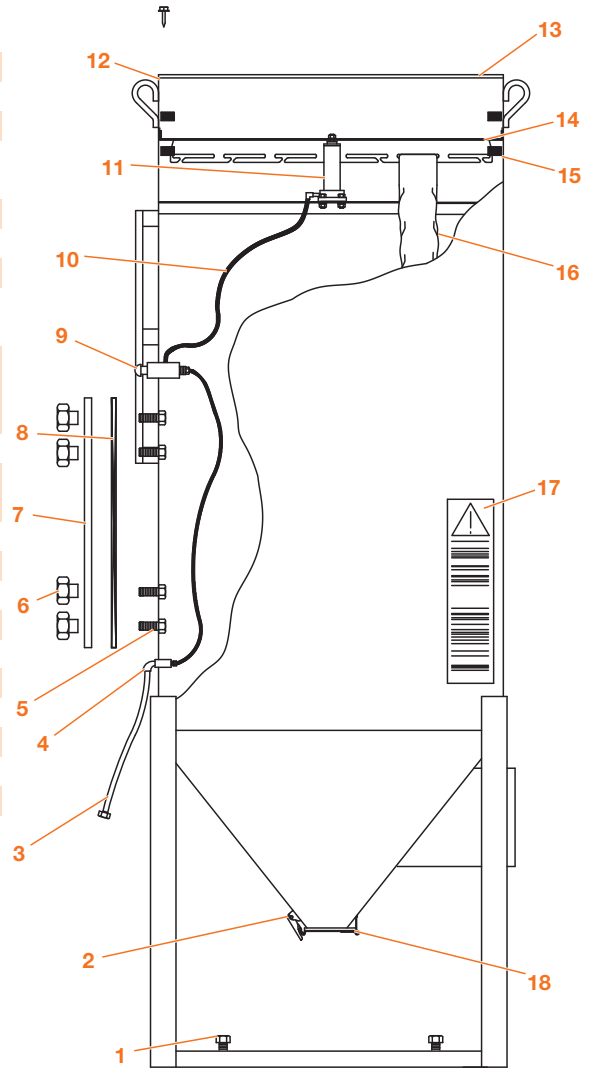
Item	Description	PART #
1	Air valve, pilot operated	518701
2	Pressure gauge	550262
3	Regulator, relieving	517611
4	Socket-head cap	553601
5	Vibrator	517971
6	Muffler, 1/8" bronze	517281
7	Spacer	536359



Parts: FaStrip® Dust Collector

DCM-200hv Dust Collector (Part # 113200)

Item	Description	PART#
1	Bolt, levelling, 3/8" - 16 x 2" (4 required)	553892
2	Latch and keeper (requires welding)	509581
3	Hose with fittings, 1/4" x 16', dust collector	523161
4	Adapter, 1/4" tube x 1/4" MPT (inside)	521081
	Connector, brass, 1/4" MPT x 1/4" BALL (outside)	520222
5	Bolt, 3/8" - 16 x 1 1/4" (6 required)	551852
6	Knob, 3/8" - 16 (6 required)	510461
7	Access door, dust collector	768342
8	Gasket, access door, 5/8" x 5/8", 103" section	525711
	Gasket, 5/8" x 5/8" (specify length)	525061
9	Valve, push-button, 1/8" NPT & #10 - 32, "3P"	517221
	Barbed fitting, 1/4" tube x #10 - 32, 2 per assembly	521101
	Adapter, 1/4" tube x 1/8" MPT, 90° (for air cylinder)	520432
10	Tubing, 1/4" OD (8' required)	510541
11	Air cylinder, standard collector and auto shaker	515981
	Air cylinder, auto-pneumatic bag shaker only	515771
12	Gasket, top plate, 1/8" x 1/4" x 12'	523551
13	Top plate	768332
14	Bag-rack weldment	760921
15	Rubber bumper (8 required)	523541
16	Dust bag, cotton sateen (30 required)	515521
17	Decal, Instruction/Warning	567405
18	Gasket, clean-out door, dust collector	524351
	Decal, Empire logo	564305
	Decal, orange dot strip	564301
	Paint, 6 oz. aerosol, beige	564476



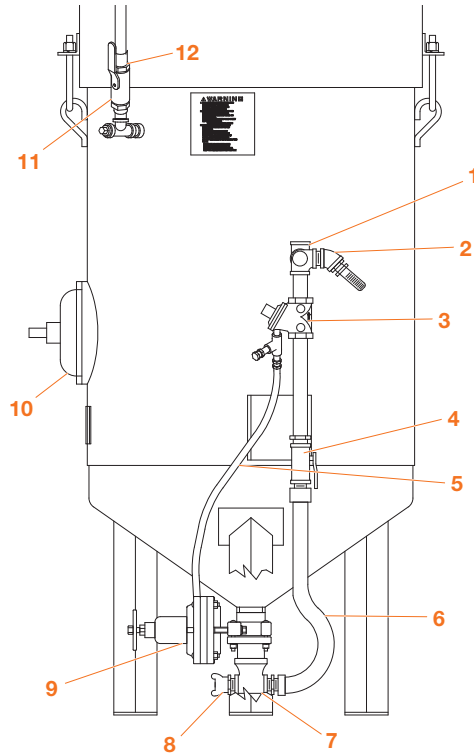
Dust Collector Options

	PART NUMBERS		
	FACTORY INSTALLED	CUSTOMER INSTALLED	SEE PAGE
Automatic bag shaker cleans bags thoroughly every time the system is turned off.			
Electric shaker	140340	140390	C9
Pneumatic shaker	140683	140684	Call
HEPA filter captures very fine particles.	Consult Factory		—
HEPA filter, pressure differential gauge assembly informs operator regarding filter cleanliness.	Consult Factory		—
Leg extension kit (includes stand and lid assembly) raises collector so larger collection drum can be placed underneath.	Consult Factory		—
SuperSmooth dust bags (30 required with customer installation) handle severe dust loading.	140682	516181	—

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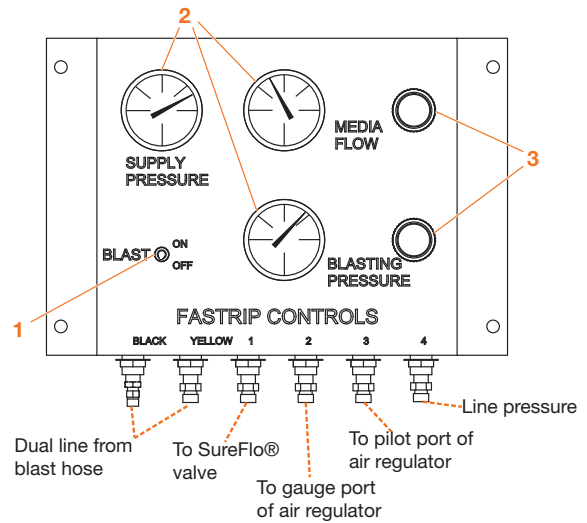
Pressure Vessels with 780 Control System

Item	Description	PART#
1	Tee, 1" NPT	545542
2	Elbow, 1" NPT	543552
3	Automatic air valve, 1" NPT w/bleed (FS-203)	518052
	Automatic air valve, 1 1/4" NPT w/bleed (FS-206 & 210)	518062
4	Manual air valve, 1" NPT (FS-203)	518492
	Manual air valve, 1 1/4" NPT (FS-206 & 210)	518502
5	Control hose, 1/4" ID w/fittings, 23" L (FS-203)	290371
	Control hose, 1/4" ID w/fittings, 27" L (FS-206)	290373
	Control hose, 1/4" ID w/fittings, 36" L (FS-210)	521902
6	Flexible hose w/fittings for FS-203	290318
	Flexible hose w/fittings for FS-206	290319
	Flexible hose w/fittings for FS-210	520982
7	Tee, 2" x 1 1/4" x 1 1/4" NPT	545752
8	Aluminum tank coupling	753262
9	Automatic Sure-Flo® valve assembly (See Section F for details.)	290215
10	Inspection door, 6" x 8"	506152
	Nut, inspection door	552302
	Gasket, inspection door	524152
	Bolt, inspection door	506153
11	Manual air valve, 1" NPT	518492
12	Hose barb, 1" NPT x 1" ID	520181



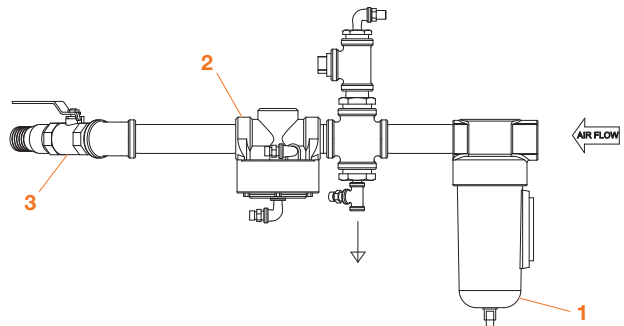
Control Panel (Part # 290444)

Item	Description	PART#
1	ON/OFF switch (valve)	518031
2	Gauge, liquid filled	550391
3	Regulator, 1/4" NPT	517613



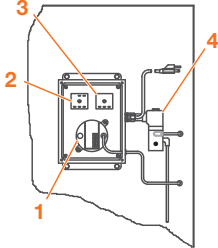
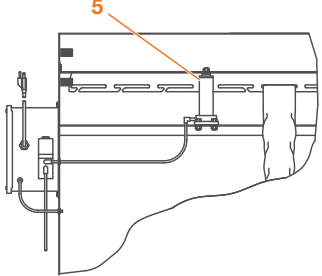
Pipe String Assembly (Part # 290438)

Item	Description	PART#
1	Air filter, automatic	504632
	Element, air filter	508002
	O-ring and gasket kit	505161
2	Regulator, piloted	518691
3	Ball valve	518502



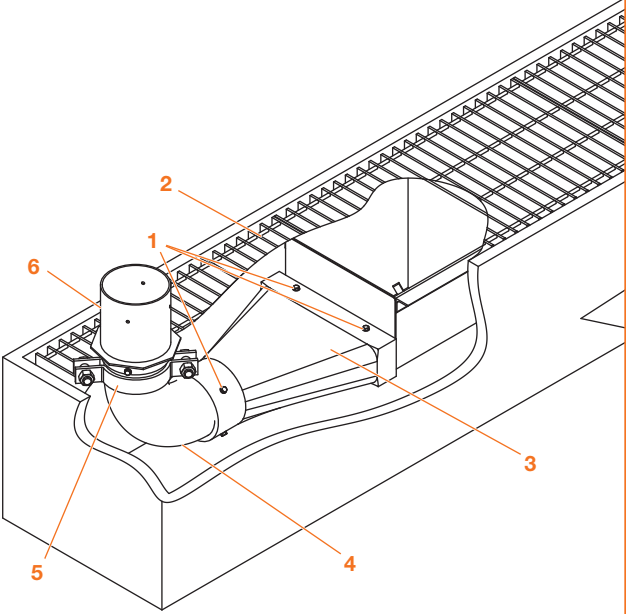
Dust Collector Options

		PART NUMBERS	
		FACTORY INSTALLED	CUSTOMER INSTALLED
Bag shaker, automatic electric, cleans bags thoroughly every time the system is turned off.		140340	140390
Bag Shaker, Automatic Electric Components			
Item	Description	PART #	
1	Pressure switch, differential	550311	
2	Timer	531081	
3	Flasher	535313	
4	Solenoid valve, 120 VAC	517311	
5	Cylinder (not included; standard with collector)	515981	

Sweep-in Recovery Troughs

		PART NUMBERS	
		FACTORY INSTALLED	CUSTOMER INSTALLED
Sweep-in recovery troughs expedite reclamation of blast media.			
Sweep-in trough, 8' long, "W" module (Includes deduction of standard hopper)		340160	–
Sweep-in trough, 10' long, "W" module (Includes deduction of standard hopper)		340161	–
Sweep-in trough, 12' long, "W" module (Includes deduction of standard hopper)		340162	–
Recovery Trough Components			
Item	Description	Part #	
1	Screws, 1/4" x 1", self drilling (10)	551560	
2	Grating, 1" thick, 23 5/16" x 13 1/2" each	760076	
3	Urethane transition with floor, 4"	580245	
4	Urethane elbow, 90°, 4" diameter	580213	
5	Pipe clamp, 4" pipe, two bolt	522900	
6	Urethane duct work adapter, 4", to dust hose	760064	



Never use silica sand in any Empire equipment.



SafeStrip™ Fine Media Pressure Systems

Section D: Table of Contents

SafeStrip™ Models and Descriptions

SB-100 Portable System	D1
SB-150 Portable System	D1

Pressure Vessel Parts for SB-100 and SB-150 Models

SafeStrip™ System	D2
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SafeStrip™ Systems

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
SB-100	Portable 1 cubic-foot blaster for use with fine, light media includes: <ul style="list-style-type: none">• 60° cone bottom tank• 1" pneumatic pipe string• Pressure regulator with gauge• General purpose moisture separator• Pressure differential media flow control• Three (3) media flow control orifices• Automatic Sure-Flo® media regulator• 780 Saf-Stop II™ pneumatic remote control• 25' of PBH, 3/4" blast hose with couplings• Ceramic blast nozzle, CN3-3, 3/16"	260000	250 lb
SB-150	Portable 1.5 cubic-foot blaster for use with fine, light media includes: <ul style="list-style-type: none">• 60° cone bottom tank• 1" pneumatic pipe string• Pressure regulator with gauge• General purpose moisture separator• Pressure differential media flow control• Three (3) media flow control orifices• Automatic Sure-Flo® media regulator• 780 Saf-Stop II™ pneumatic remote control• 25' of PBH, 3/4" blast hose with couplings• Ceramic blast nozzle, CN3-3, 3/16"	260100	275 lb

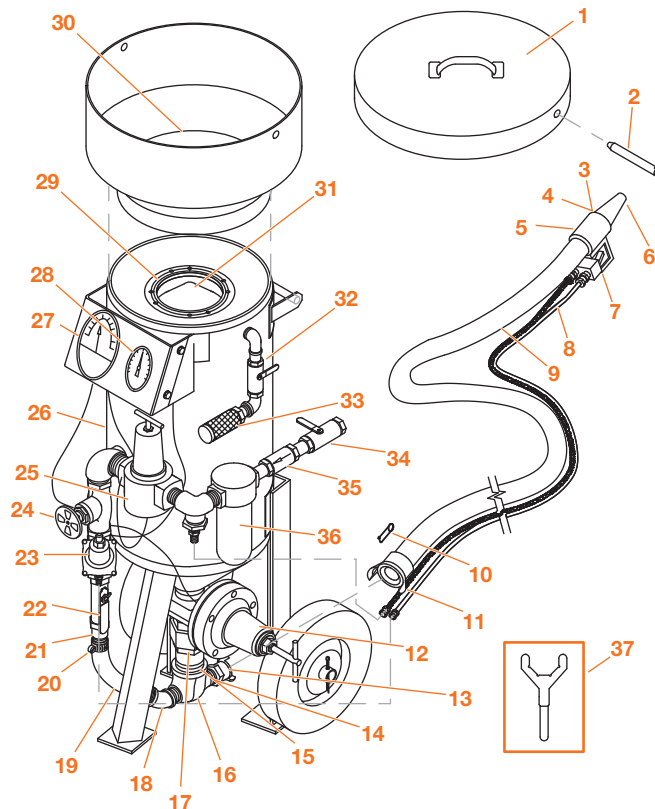
Never use silica sand in any Empire equipment.

SafeStrip™ Parts: System

SafeStrip™ with 780 Saf-Stop II™ Remote Control

Item	Description	PART#
1	Hopper cover	504326
2	Pin, self locking (2 required per assembly)	510506
3	Nozzle adapter, NA-3	504942
4	Nozzle washer, NW-5 (package of 10) (For ceramic nozzles only)	524041
5	Nozzle coupling, 3/4" aluminum <i>(See Section G for details.)</i>	753212
6	Nozzle, CN3-3, ceramic <i>(See Section G for details.)</i>	520362
7	Saf-Stop II™ remote control handle <i>(See Section F for details.)</i>	290164
8	Dual line hose with fittings, 30' <i>(See Section G for details.)</i>	521962
9	Blast hose, 25', with QC/NC <i>(See Section G for details.)</i>	521742
10	Safety pin	510511
11	Quick coupling, 3/4" aluminum	751062
12	Automatic Sure-Flo® valve assembly <i>(See Section F for details.)</i>	290215

Item	Description	PART#
	Tank coupling, 1/4" NPT, aluminum (standard)	753262
13	Tank coupling, 1/4" NPT, brass (optional)	753272
	Coupling washer, TC and QC (package of 10)	524032
14	Nipple, heavy duty, 1/4" x close	546292
15	Nipple, 2" x close	546452
16	Tee, 1/4" x 2"	545752
	Regulator, 2" fixed orifice	340038
17	2" metering disc, 1/8" orifice (factory installed)	754633
	2" metering disc, 5/32" orifice (shipped loose w/system)	754643
	2" metering disc, 3/16" orifice (shipped loose w/system)	754653
18	Reducing bushing, 1/4" x 1"	544512
19	Air hose, 1" (3' required)	520912
20	Hose clamp, 1" (2 required per assembly)	520581
21	Hose barb, 1" steel (2 per assembly)	520181
22	Handle for for air valve	504352
	Valve, automatic, 1" bleed	518052
23	Diaphragm/seal kit	517582
	Internal parts kit, bleed	518352
24	Gate valve, 1" bronze, non-rising stem	515430
25	Regulator, 1", non-relieving	517251
	Inspection door, 6" x 8"	506152
26	Nut, inspection door	552303
	Gasket, inspection door	524152
	Bolt, inspection door	506153
27	Differential pressure gauge	571185
28	Blast pressure gauge, liquid filled	550391
29	O-ring, 6" rubber	523872
30	Hopper with screen	504325
31	Sealing plunger, 6", PVC coated	525072
32	Manual air valve, 1/2" NPT	518472
33	Muffler, 1/2"	506445
34	Manual air valve, 1" NPT	518492
35	Check valve, 1" NPT	517503
36	1" filter, general purpose Filter element	517271 508002
37	Wrench assembly (used with SB-150 only)	140807



Items Not Shown

• Control hose assembly, 1/4" x 9' long	520022-9IN
• Control hose assembly, 1/4" x 14' long	520022-14IN
• Control hose assembly, 1/4" x 21' long	140853
• Control hose assembly, 1/4" x 24' long (SB-100)	520022-24IN
• Control hose assembly, 1/4" x 31' long (SB-150)	520022-31IN

WARNING

1. Inspect couplings and blast hose daily for splits, bubbles, soft spots, wear, etc. Make sure nozzle washers are in good condition and screw heads are snug against coupling's surface. The safety pin must be in place to prevent quick coupling disconnection.
2. When assembling couplings to blast hose only use #8 x 5/8" large self-tapping sheet metal screw (P/N 554232) for cast brass and aluminum couplings and #8 x 3/8" large self-tapping sheet metal screw (P/N 554242) for all steel couplings.
3. Use of other types of screws may create a safety hazard. Empire will not warrant equipment or assume responsibility for damage or injury resulting from neglect or use of improper parts.



Econ-O-Blast™ Pressure Systems

Section E: Table of Contents

Econ-O-Blast™ Models and Descriptions

P-100 Systems	E2
P-150 Systems	E2-3
P-300 Systems	E4-5

Pressure Vessel Parts for 100, 150 and 300 Models

Manual System	E6
680 Remote Control System (bleed down)	E7
780 Remote Control System (under pressure)	E8

Econ-O-Blast™ Options and Upgrades

Grit Cut-Off Switch — Pneumatic and Electric	Refer to Section F
680 Pneumatic Remote Control Conversion Kit	Refer to Section F
780 Pneumatic Remote Control Conversion Kit	Refer to Section F
Moisture and Oil Separators	Refer to Section F
Pressure Regulators	Refer to Section F
Pressure Tester	Refer to Section F
Weather and Debris Lids	Refer to Section F
Wet Blast Head	Refer to Section F



Never use silica sand in any Empire equipment.



Econ-O-Blast™ 100 and 150 Systems

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
P-100 Systems (1 cubic foot capacity, 1/2" pipe string):			
P-100 Manual System	Portable 100 Vessel includes: <ul style="list-style-type: none"> • Air filter, 1/2" (504652) • Manual ball-type grit valve, steel (518482) • Air gauge (550242) • Manual air and choke valves (518472) 	280101	85 lb
P-100 – SE Manual System	NON-OSHA Package with Portable 100 Vessel includes: <ul style="list-style-type: none"> • Air filter, 1/2" (504652) • Manual ball-type grit valve, steel (518482) • Air gauge (550242) • Manual air and choke valves (518472) • ASTRO respirator (537862) • Package of 50 helmet lenses (538222) • Personal air filter (538142) • 50' starter breathing hose (538012) • 10' section PBH-1/2" blast hose with couplings (521672) • (3), 1/4" ceramic nozzles (502372) • Nozzle adapter (504912) <p><i>Note: Lack of a remote control system causes this system to be non-OSHA compliant.</i></p>	281101	125 lb
P-150 Systems (1 1/2 cubic foot capacity, 1/2" pipe string):			
P-150 – 1/2 Manual System	Portable 150 Vessel includes: <ul style="list-style-type: none"> • Air filter, 1/2" (504652) • Manual ball-type grit valve, steel ((518482) • Air gauge (550242) • Manual air and choke valves (518472) <p style="text-align: center;">CAUTION</p> <p><i>Excessive pressure drop will occur when using 1/4 inch or larger nozzle with 1/2 inch piping. Limit use of 1/2 inch blast hose to nozzles under 1/4 inch. Use 3/4 inch blast hose with 1/4 inch nozzles.</i></p>	284101	125 lb
P-150 Systems (1 1/2 cubic foot capacity, 1" pipe string):			
P-150 Manual System	Portable 150 Vessel includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air and choke valves (518492) <p><i>Note: Does not include remote control handle and dual-line hose.</i></p>	286101	135 lb
P-150 Manual System with Separator	Portable 150 Vessel with DF-2 Dry-Flo moisture and oil separator (290192) includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air and choke valves (518492) <p><i>Note: Does not include remote control handle and dual-line hose.</i></p>	286102	150 lb
P-150 with 680 Remote Control System (Bleed Down)	Portable 150 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with manual Sure-Flo® grit valve (290383) • Air valve (518052) • Remote control handle (290164) • 30' dual-line hose with fittings (521962) 	286103	190 lb
P-150 with 780 Remote Control System (Under Pressure)	Portable 150 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with automatic Sure-Flo® grit valve (290215) • Air valves (518052) • Remote control handle (290164) • 30' dual-line hose with fittings (521962) 	286107	190 lb

NOTE: These assemblies do not include blast nozzles or blast hose. For details on your many choices of Empire nozzles and hoses, please refer to Section G.

Refer to Section J for Warnings & OSHA Statements.



Econ-O-Blast™ 150 Systems

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
OSHA COMPLIANT PACKAGES			
P-150 Systems (1½ cubic foot capacity) used with compressed air			
XL-150 with 680 Remote Control System <i>(Bleed Down)</i>	OSHA Package includes: <ul style="list-style-type: none"> • ASTRO respirator helmet (537862) • Package of 50 helmet lenses (538222) • Personal air filter (538142) • 50' starter breathing hose (538012) • 25' section PBH-¾" blast hose with couplings (521742) • DC3-3 Di-Carb nozzle (501392) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	287111	230 lb
XL-150 with 780 Remote Control System <i>(Under Pressure)</i>	OSHA Package includes: <ul style="list-style-type: none"> • ASTRO respirator helmet (537862) • Package of 50 helmet lenses (538222) • Personal air filter (538142) • 50' starter breathing hose (538012) • 25' section PBH-¾" blast hose with couplings (521742) • DC3-3 Di-Carb nozzle (501392) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	287112	230 lb
NOTE: To be fully OSHA compliant, a CO monitor is required when using an air compressor for operator breathing air supply.			
P-150 Systems (1½ cubic foot capacity) used with ambient air pump			
XL-150 with 680 Remote Control System <i>(Bleed Down)</i>	OSHA Package includes: <ul style="list-style-type: none"> • ASTRO respirator helmet (537872) • Ambient air pump (538192) • 50' starter breathing hose (538022) (Helmet, pump and hose available as package, part# 537992) • Package of 50 helmet lenses (538222) • 25' section PBH-¾" blast hose with couplings (521742) • DC3-3 Di-Carb nozzle (501392) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	287113	250 lb
XL-150 with 780 Remote Control System <i>(Under Pressure)</i>	OSHA Package includes: <ul style="list-style-type: none"> • ASTRO respirator helmet (537872) • Ambient air pump (538192) • 50' starter breathing hose (538022) (Helmet, pump and hose available as package, part# 537992) • Package of 50 helmet lenses (538222) • 25' section PBH-¾" blast hose with couplings (521742) • DC3-3 Di-Carb nozzle (501392) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	287114	250 lb
NOTE: An "Air Conditioner" cannot be used with breathing air pumps.			

Refer to Section J for Warnings & OSHA Statements.



Econ-O-Blast™ 300 Systems

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
P-300 Systems (3 cubic foot capacity, 1/2" pipe string):			
P-300 – 1/2 Manual System	Portable 300 Vessel includes: <ul style="list-style-type: none"> • Air filter, 1/2" (504652) • Manual ball-type grit valve, steel (518482) • Air gauge (550242) • Manual air and choke valves (518472) <p style="text-align: center;">CAUTION</p> <p style="text-align: center;"><i>Excessive pressure drop will occur when using 1/4 inch or larger nozzle with 1/2 inch piping. Limit use of 1/2 inch blast hose to nozzles under 1/4 inch. Use 3/4 inch blast hose with 1/4 inch nozzles.</i></p>	206101	135 lb
P-300 Systems (3 cubic foot capacity, 1" pipe string):			
P-300 Manual System	Portable 300 Vessel includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air and choke valves (518492) <p><i>Note: Does not include remote control handle and dual-line hose.</i></p>	208101	165 lb
P-300 Manual System with Separator	Portable 300 Vessel with DF-2 Dry-Flo moisture and oil separator (290192) includes: <ul style="list-style-type: none"> • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air and choke valves (518492) <p><i>Note: Does not include remote control handle and dual-line hose.</i></p>	206102	180 lb
P-300 with 680 Remote Control System (Bleed Down)	Portable 300 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with manual Sure-Flo® grit valve (290383) • Air valve (518052) • Remote control handle (290164) • 30' dual-line hose with fittings (521962) 	206103	220 lb
P-300 with 780 Remote Control System (Under Pressure)	Portable 300 Vessel includes: <ul style="list-style-type: none"> • Pneumatic control system complete with automatic Sure-Flo® grit valve (290215) • Air valves (518052) • Remote control handle (290164) • 30' dual-line hose with fittings (521962) 	206107	220 lb
NOTE: These assemblies do not include blast nozzles or blast hose. For details on your many choices of Empire nozzles and hoses, please refer to Section G.			

Refer to Section J for Warnings & OSHA Statements.



Econ-O-Blast™ 300 Systems

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
OSHA COMPLIANT PACKAGES			
P-300 Systems (3 cubic foot capacity) used with compressed air			
XL-300 with 680 Remote Control System <i>(Bleed Down)</i>	OSHA Package includes: <ul style="list-style-type: none"> • ASTRO respirator helmet (537862) • Package of 50 helmet lenses (538222) • Personal air filter (538142) • 50' starter breathing hose (538012) • 25' section PBH-3/4" blast hose with couplings (521742) • DC3-3 Di-Carb nozzle (501392) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	209100	325 lb
XL-300 with 780 Remote Control System <i>(Under Pressure)</i>	OSHA Package includes: <ul style="list-style-type: none"> • ASTRO respirator helmet (537862) • Package of 50 helmet lenses (538222) • Personal air filter (538142) • 50' starter breathing hose (538012) • 25' section PBH-3/4" blast hose with couplings (521742) • DC3-3 Di-Carb nozzle (501392) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	209101	325 lb
NOTE: To be fully OSHA compliant, a CO monitor is required when using an air compressor for operator breathing air supply.			
P-300 Systems (3 cubic foot capacity) used with ambient air pump			
XL-300 with 680 Remote Control System <i>(Bleed Down)</i>	OSHA Package includes: <ul style="list-style-type: none"> • ASTRO respirator helmet (537872) • Ambient air pump (538192) • 50' starter breathing hose (538022) (Helmet, pump and hose available as package, part# 537992) • Package of 50 helmet lenses (538222) • 25' section PBH-3/4" blast hose with couplings (521742) • DC3-3 Di-Carb nozzle (501392) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	209102	345 lb
XL-300 with 780 Remote Control System <i>(Under Pressure)</i>	OSHA Package includes: <ul style="list-style-type: none"> • ASTRO respirator helmet (537872) • Ambient air pump (538192) • 50' starter breathing hose (538022) (Helmet, pump and hose available as package, part# 537992) • Package of 50 helmet lenses (538222) • 25' section PBH-3/4" blast hose with couplings (521742) • DC3-3 Di-Carb nozzle (501392) • Package of 10 coupling washers (524032) • Package of 10 nozzle washers (524062) 	209103	345 lb

NOTE: An "Air Conditioner" cannot be used with breathing air pumps.

Refer to Section J for Warnings & OSHA Statements.

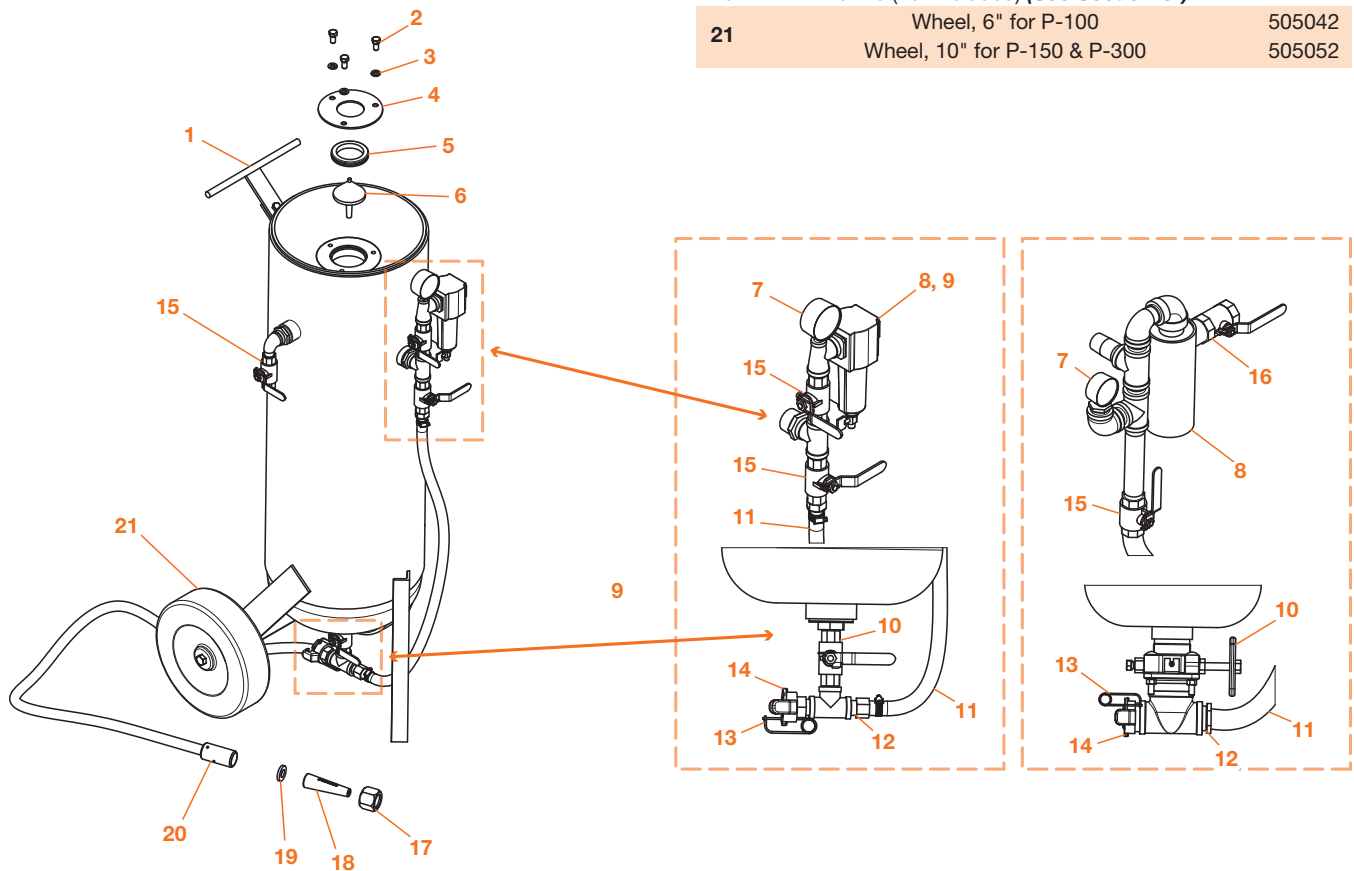


Econ-O-Blast™ Control Systems

Manual Control System (Non-OSHA) used on 100, 150 and 300 Pressure Vessels

Item	Description	PART#
1	Handle for P-100 & P-150	763402
2	3/8"-16 x 3/4" hex bolt	551832
3	3/8" lock washer	552762
4	Sealing ring, cap	545142
5	Sealing ring, grooved	523942
6	Sealing plunger	751312
7	Air-pressure gauge, 0-160 PSI	550242
8	Air filter, 1/2" NPT for 1/2" piping (P-100, 150 & 300)	504652
	DF-2 manual drain filter for 1" piping (P-150 & 300)	290192
9	1/2" air-filter repair kit for part# 504652	508112
10	Manual air valve (steel), 1/2" NPT	518482
	Sure-Flo® valve, manual for 1" piping	290383

Item	Description	PART#
	1/2" air hose assembly for P-100 (21")	522882
11	1/2" air hose assembly for P-150 (27")	522872
	1/2" air hose assembly for P-300 (33")	522892
	1" flex hose assembly for P-150 & 300 (19")	520892
12	1/2" brass swivel adapter for 1/2" piping	520201
	1 1/4" x 1" hex bushing for 1" piping	544512
13	Safety pin	510511
14	1/2" NPT tank coupling for 1/2" piping	505212
	1" NPT tank coupling for 1" piping	753262
15	Manual air valve (brass), 1/2" NPT for 1/2" piping	518472
	Manual air valve (brass), 1" NPT for 1" piping	518492
16	Manual air valve (brass), 1 1/4" NPT	518502
17	Nozzle adapter (not included) (See Section G.)	-
18	Nozzle (not included) (See Section G.)	-
19	Nozzle washer (not included) (See Section G.)	-
20	Nozzle (not included) (See Section G.)	-
21	Wheel, 6" for P-100	505042
	Wheel, 10" for P-150 & P-300	505052



WARNING

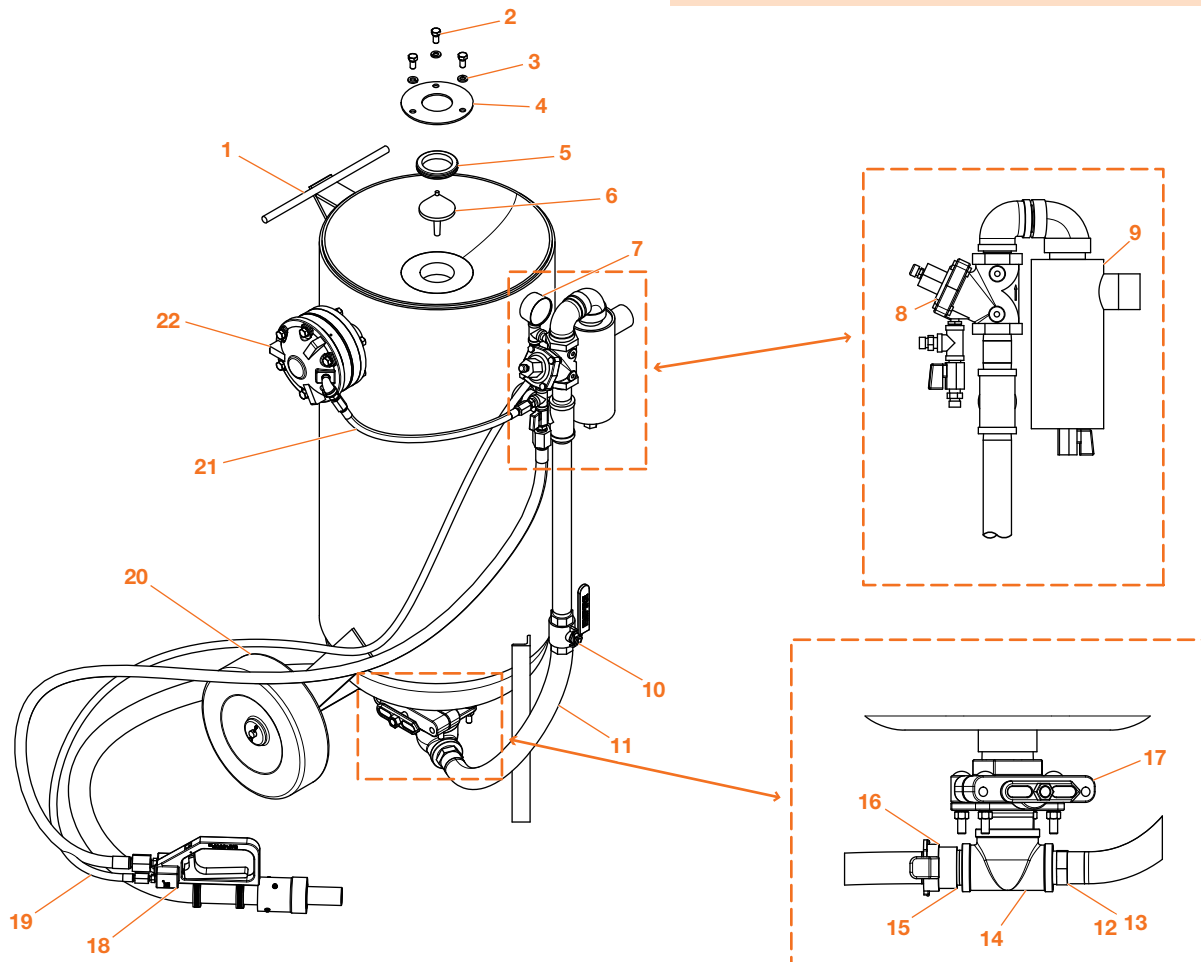
1. Inspect couplings and blast hose daily for splits, bubbles, soft spots, wear, etc. Make sure nozzle washers are in good condition and screw heads are snug against coupling's surface. The safety pin must be in place to prevent quick coupling disconnection.
2. When assembling couplings to blast hose only use #8 x 5/8" large self-tapping sheet metal screw (P/N 554232) for cast brass and aluminum couplings and #8 x 3/8" large self-tapping sheet metal screw (P/N 554242) for all steel couplings.
3. Use of other types of screws may create a safety hazard. Empire will not warrant equipment or assume responsibility for damage or injury resulting from neglect or use of improper parts.



Econ-O-Blast™ Control Systems: 680

680 Control System used on P-150 and P-300 Pressure Vessels

Item	Description	PART#	Item	Description	PART#
1	Handle for P-150	763402	12	Adapter 1¼" NPT x 1" ball	522112
2	¾"-16 x ¾" hex bolt	551832	13	1¼" x 1" hex bushing for 1" piping	544512
3	¾" lock washer	552762	14	Tee, 2" x 1¼" x 1¼" NPT	545752
4	Sealing ring, cap	545142	15	Close nipple, 1¼" NPT, extra heavy duty	546292
5	Sealing ring, grooved	523942	16	Aluminum tank coupling, 1¼" NPT with washer	753262
6	Sealing plunger	751312	17	Manual Sure-Flo® valve assembly	290383
7	Air-pressure gauge, 0-160 PSI	550242	<i>(See Section F for details.)</i>		
8	Automatic air valve, 1" NPT, with bleed	518052	18	Saf-Stop II™ pneumatic remote control handle	290164
<i>(See Section F for details.)</i>			Sure Stop pneumatic remote control handle (optional)		290166
9	DF-2 manual drain filter for 1" piping	290192	<i>(See Section F for details.)</i>		
10	Manual air valve (brass), 1" NPT for 1" piping	518492	19	Dual line hose with fitting (30')	521962
11	Flexible hose with fittings for P-150 & 300	520892	20	Wheel, 10" for P-150 & P-300	505052
			21	Control hose, ¼" ID with fitting, 14" long (P-150)	290372
				Control hose, ¼" ID with fitting, 16" long (P-300)	290374
			22	MG-72 exhaust valve	290181
			<i>(See Section F for details.)</i>		



WARNING

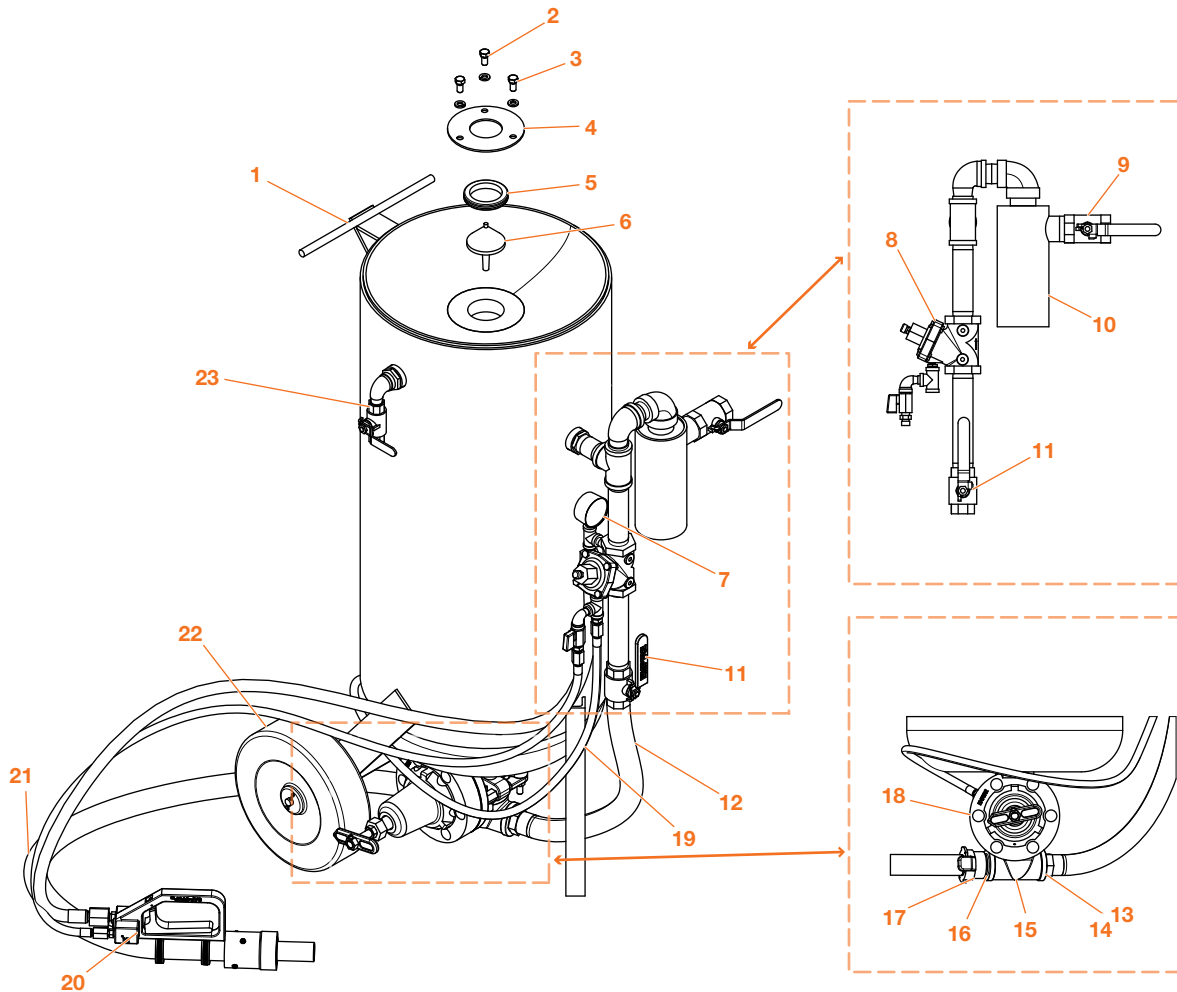
1. Inspect couplings and blast hose daily for splits, bubbles, soft spots, wear, etc. Make sure nozzle washers are in good condition and screw heads are snug against coupling's surface. The safety pin must be in place to prevent quick coupling disconnection.
2. When assembling couplings to blast hose only use #8 x 5/8" large self-tapping sheet metal screw (P/N 554232) for cast brass and aluminum couplings and #8 x 3/8" large self-tapping sheet metal screw (P/N 554242) for all steel couplings.
3. Use of other types of screws may create a safety hazard. Empire will not warrant equipment or assume responsibility for damage or injury resulting from neglect or use of improper parts.



Econ-O-Blast™ Control Systems: 780

780 Control System used on P-150 and P-300 Pressure Vessels

Item	Description	PART#	Item	Description	PART#
1	Handle for P-150	763402	13	Adapter 1¼" NPT x 1" ball	522112
2	¾"-16 x ¾" hex bolt	551832	14	1¼" x 1" hex bushing for 1" piping	544512
3	¾" lock washer	552762	15	Tee, 2" x 1¼" x 1¼" NPT	545752
4	Sealing ring, cap	545142	16	Close nipple, 1¼" NPT, extra heavy duty	546292
5	Sealing ring, grooved	523942	17	Aluminum tank coupling, 1¼" NPT with washer	753262
6	Sealing plunger	751312	18	Automatic Sure-Flo® valve assembly	290215
7	Air-pressure gauge, 0-160 PSI	550242	(See Section F for details.)		
8	Automatic air valve, 1" NPT, with bleed	518052	19	Control hose, ¼" ID with fitting, 14" long (P-150)	290372
(See Section F for details.)				Control hose, ¼" ID with fitting, 16" long (P-300)	290374
9	Manual air valve, 1¼" NPT	518502	20	Saf-Stop II™ pneumatic remote control handle	290164
10	DF-2 manual drain filter for 1" piping	290192		Sure Stop pneumatic remote control handle (optional)	290166
11	Manual air valve (brass), 1" NPT for 1" piping	518492	(See Section F for details.)		
12	Flexible hose with fittings for P-150 & 300	520892	21	Dual line hose with fitting (30')	521962
			22	Wheel, 10" for P-150 & P-300	505052
			23	Manual air exhaust valve, ½" NPT steel	518472
			(See Section F for details.)		



WARNING

1. Inspect couplings and blast hose daily for splits, bubbles, soft spots, wear, etc. Make sure nozzle washers are in good condition and screw heads are snug against coupling's surface. The safety pin must be in place to prevent quick coupling disconnection.
2. When assembling couplings to blast hose only use #8 x 5/8" large self-tapping sheet metal screw (P/N 554232) for cast brass and aluminum couplings and #8 x 3/8" large self-tapping sheet metal screw (P/N 554242) for all steel couplings.
3. Use of other types of screws may create a safety hazard. Empire will not warrant equipment or assume responsibility for damage or injury resulting from neglect or use of improper parts.



Parts & Accessories

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Never use silica sand in any Empire equipment.

Parts & Accessories

Media Regulators

DESCRIPTION	PART #
Manual Sure-Flo® media regulator (grit valve), normally open, 9" clearance required	290383
Automatic Sure-Flo® media regulator (grit valve), normally closed, 9" clearance required	290215

Conversion Kits

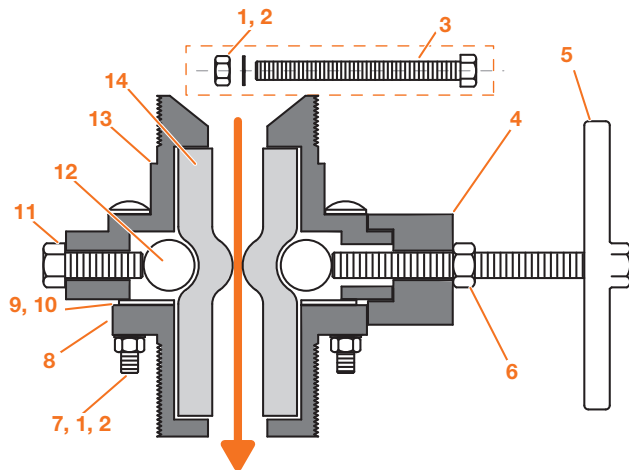
DESCRIPTION	PART #
Converts manual Sure-Flo® to automatic Sure-Flo®	290188
Converts old style manual 412 valve to manual Sure-Flo® valve	290250
Converts old style manual 411 valve to automatic Sure-Flo® valve	290253

Parts: Manual Sure-Flo® Media Regulator

Manual Sure-Flo® Media Regulator (Part Number 290383)

Note: These fasteners are used two places to mount manual body adapter to Sure-Flo® body.

Item	Description	PART #
1	Hex nut, 3/8" – 16 (6 required)	552542
2	Lock washer, 3/8" ID (6 required)	552762
3	Hex bolt, 3/8" – 16 x 3" (2 required)	551902
4	Adapter, manual body, Sure-Flo	753372
5	Handle assembly, 1/2" – 13 x 4"	290384
6	Jam nut, 1/2"	552672
7	Carriage bolt, 3/8" – 16 x 2 1/2" (4 required)	552052
8	Flange, 2" MPT	753292
9	Roller stop, holder	753092
10	Screw, 8 – 32 x 1/2" (2 per assembly)	551352
11	Bolt, 7/16" – 14 x 1 1/4"	552222
12	Pinch roller (2 per assembly)	753632
13	Valve body, 2" MPT	753692
14	Metering tube, 3/4" ID (See below.)	523592



Sure-Flo® metering tubes are available in six sizes for work with differing media types and nozzle sizes.

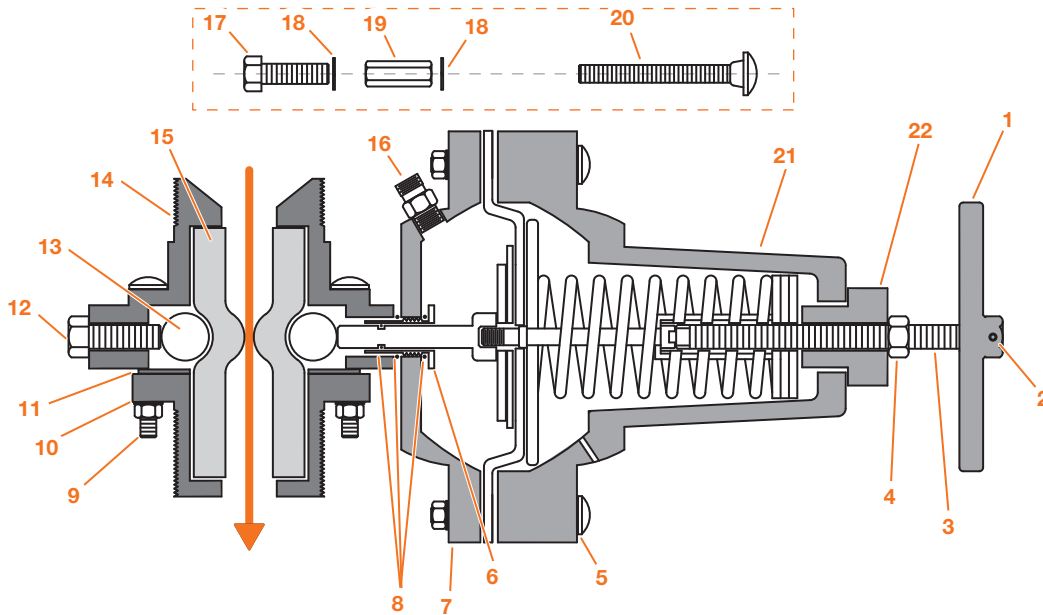
Metering Tube ID	Nozzle Size	Grit Range	Comments	PART NUMBER
3/8"	Small	Fine	Back out roller bolt 1/2"	525451
1/2"	Small-medium	Fine-medium	Back out roller bolt 1/2"	525782
3/4"	Medium-large	Medium	Supplied as standard	523592
3/4"	Medium	Medium	Use below 32° F. (red)	523512
5/8"	Medium	Medium-coarse		525792
7/8"	Large	Coarse	For high-production	525802



Parts: Automatic Sure-Flo® Media Regulator

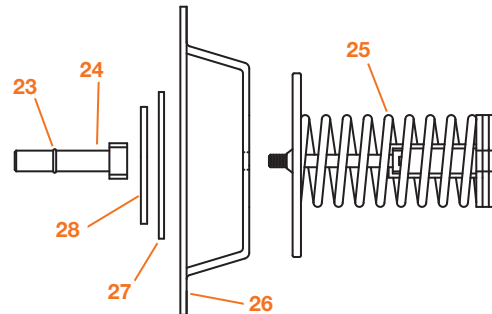
Parts for Automatic Sure-Flo® Media Regulator (Part # 290215)

Note: These fasteners are used two places to mount diaphragm body to Sure-Flo® valve.



Item	Description	PART #
1	Handle assembly, 1/2" - 13, Sure-Flo (after 5/84)	290217
	Handle only, 1/2" - 13	753622
2	Set screw, 1/4" - 20 x 3/8"	551052
3	Shaft handle	505802
4	Jam nut, 1/2" - 13	552672
5	Carriage bolt, 3/8" - 16 x 2 1/2"	552052
	Lock washer, 3/8" ID	552762
	Hex nut, 3/8" - 16	552542
6	Plunger guide	753462
7	Diaphragm cover	753112
8	O-ring kit (includes 2 for guide, 1 for plunger)	561422
	Carriage bolt, 3/8" - 16 x 2 1/2"	552052
	Lock washer, 3/8" ID	552762
	Hex nut, 3/8" - 16	552542
9	Flange, 2" MPT	753292
10	Roller stop holder	753092
	Screw, 8 - 32 x 1/2" (2 per assembly)	551352
11	Bolt, 7/16" - 14 x 1 1/4"	552222
12	Pinch roller (2 per assembly)	753632
13	Valve body, 2" MPT	753692
14	Meter tube, 3/4" (See page F2 for choices.)	523592
15	Adapter, 1/4" NPT x 1/4" tube	521081
16	Bolt, 3/8" - 16 x 1 1/4" (2, Auto Sure-Flo)	551852
17	Lock washer, 3/8" ID	552762
18	Nut extension, 3/8" - 16 (2, Auto Sure-Flo)	552662
19	Carriage bolt, 3/8" - 16 x 2 1/2"	552052
20	Spring enclosure	753682
21	Spring tensioner	505822

Spring & Diaphragm Detail (Part # 290296) (Part # 290296 includes items 23 through 28.)



WARNING: Never attempt to disassemble the spring assembly in the automatic Sure-Flo. The spring is under tension and could cause injury to personnel.

Item	Description	PART #
23	O-ring kit (includes 2 for guide, 1 for plunger)	561422
24	Plunger with O-ring	505872
25	Spring assembly	290296
26	Diaphragm, raised (after 5/84)	525012
	Diaphragm, flat (before 5/84)	523662
27	Diaphragm gasket	525002
28	Washer, 1/2" ID	552842

Parts: Automatic Air Valves

1" Automatic Air Valve with Bleed, used on P-150, P-300 & P-350 (Part # 518052)

DESCRIPTION	PART #
Complete repair kit for 1" automatic air valve with bleed	518352
Diaphragm and seal kit for 1" automatic air valve with bleed	517582
Spring, 1/2" diameter x 1 7/8" high	518432
Lower seat	N/A

1 1/4" Automatic Air Valve with Bleed, used on S-650, S-1050 & Room Vessels (Part # 518062)

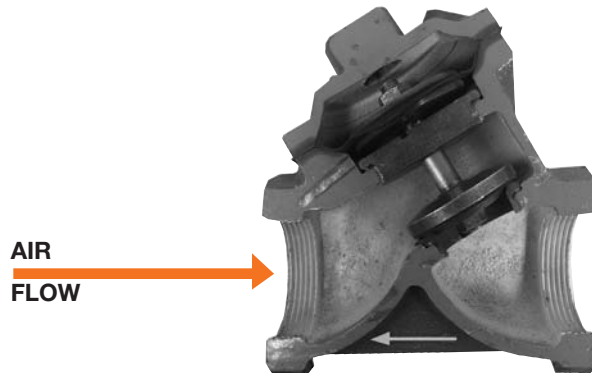
DESCRIPTION	PART #
Complete repair kit for 1 1/4" automatic air valve with bleed	518362
Diaphragm and seal kit for 1 1/4" automatic air valve with bleed	517592
Spring, 1 3/16" diameter x 1 7/8" high	518082
Lower seat	519052

1 1/4" Automatic Air Valve with NO Bleed, used on Blast Room Vessels (Part # 517052)

DESCRIPTION	PART #
Complete repair kit for 1 1/4" automatic air valve with NO bleed	518921
Diaphragm and seal kit for 1 1/4" automatic air valve with NO bleed	517592
Spring, 1 3/16" diameter x 1 7/8" high	518082
Lower seat	519052

Air Valve Tools

DESCRIPTION	PART #
1" wrench for 1" automatic air valves	518512
1 1/4" wrench for 1 1/4" automatic air valves	518522



CAUTION

All air valves **MUST** be installed with **ARROW** pointing in opposite direction of air flow.

Parts: Exhaust Valves

Automatic Exhaust Valves

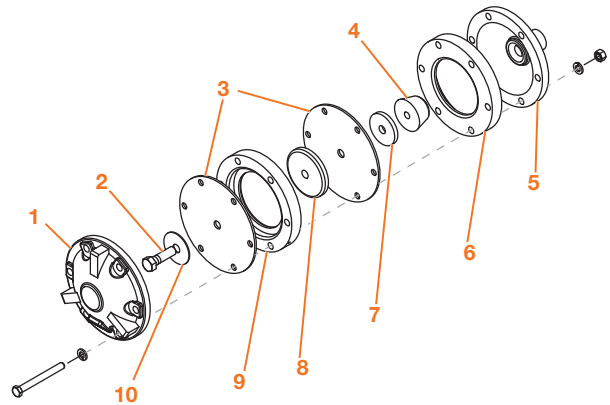
DESCRIPTION

DESCRIPTION	PART #
MG-72 Automatic Exhaust Valve used with standard 680 remote control system	290181
MG-78 Automatic Exhaust Valve used with blast room pressure vessel system, employs ceramic restrictor	290182

(See below for information on boron restrictor upgrades.)

Parts for MG-72 Exhaust Valve (Part # 290181)

Item	Description	PART#
1	Valve cover	753382
2	Hex bolt, 1/2"-13 x 1 1/4"	551962
3	Rubber diaphragms (each)	523672
4	Valve ball	525322
5	Inlet cover	753442
6	Exhaust ring	753722
7	Spacer washer	553412
8	Inner spacer ring	753392
9	Outer spacer ring	753402
10	Washer	552902



Complete rebuild kit, MG72/MG78 valve (Part # 290183)
(Not Shown)

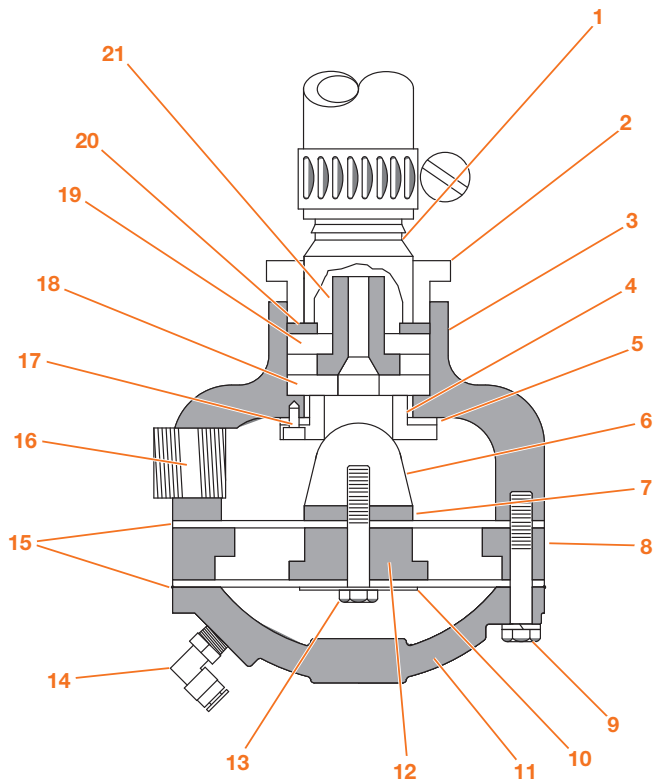
WARNING
All personnel should stay clear of exhaust valve while system is operating. Exhausted particles can cause eye injury.

Parts for MG-78 Exhaust Valve (Part # 290182)

Item	Description	PART #
1	Hose barb, 1"	520181
2	Reducer bushing, 1 1/4" MPT x 1" FPT	544512
3	Valve body	753332
4	Seat, valve ball (steel)	753412
5	Gasket, seat	524132
6	Valve ball	525322
7	Space washer, steel (1/2" ID x 2" OD x 1/4" thick)	553412
8	Spacer ring, outer	753402
9	Bolt, 3/8" - 16 x 2"	553892
10	Lock washer, 3/8"	552762
11	Washer (1/2" ID x 2" OD x 1/16" thick)	552842
12	Valve cover	753382
13	Spacer ring, inner	753392
14	Bolt, 1/2" - 13 x 1 1/4"	551962
15	Elbow, brass (1/4" MPT x 1/4" tube)	520242
16	Pipe bushing, 1/4" x 1/8"	544302
17	Diaphragm (2 per assembly)	523672
18	Pipe nipple, 1" CLOSE	546192
19	Screws, seat, 1/4" - 20 x 1/2" (pack of 3)	551122

RESTRICTOR PARTS

18	Nozzle washer, NW-4 (pack of 10)	524082
19	Nozzle washer, NW-1 (pack of 10)	524062
20	Steel washer	552952
	Ceramic restrictor kit (standard)	290218
	Ceramic nozzle (standard)	502431
21	Boron carbide restrictor kit (customer upgrade)	502081
	Boron carbide restrictor kit (factory upgrade)	290184



TIP: Worn restrictors may result in premature reclaimer failure. Check the restrictor for wear when replacing a reclaimer. Check for wear often when using aggressive media.



Parts & Accessories

Operator Remote Control Packages

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
Pneumatic Control Packages			
680 Pneumatic Control Conversion Kit for Single Chamber Pressure Vessels with 1" Piping <i>(Bleed Down)</i>	680 Pneumatic Control Conversion Kit for 1" pipe string includes: <ul style="list-style-type: none"> • Pneumatic Saf-Stop II™ remote control handle (290164) • 30' dual line hose with fittings (521962) • Manual Sure-Flo® valve (290383) • Complete 1" pipe string assembly • MG-72 exhaust valve (290181) 	290255	45 lb
680 Pneumatic Control Conversion Kit for Single Chamber Pressure Vessels with 1¼" Piping <i>(Bleed Down)</i>	680 Pneumatic Control Conversion Kit for 1¼" pipe string includes: <ul style="list-style-type: none"> • Pneumatic Saf-Stop II™ remote control handle (290164) • 55' dual line hose with fittings (521892) • Manual Sure-Flo® valve (290383) • Complete 1¼" pipe string assembly • MG-72 exhaust valve (290181) 	290257	55 lb
780 Pneumatic Control Conversion Kit for Single Chamber Pressure Vessels with 1" Piping <i>(Under Pressure)</i>	780 Pneumatic Control Conversion Kit for 1" pipe string includes: <ul style="list-style-type: none"> • Pneumatic Saf-Stop II™ remote control handle (290164) • 30' dual line hose with fittings (521962) • Automatic Sure-Flo® valve (290215) • Complete 1" pipe string assembly • Manual exhaust valve with sound attenuator (518492/753322) 	290259	65 lb
780 Pneumatic Control Conversion Kit for Single Chamber Pressure Vessels with 1¼" Piping <i>(Under Pressure)</i>	780 Pneumatic Control Conversion Kit for 1¼" pipe string includes: <ul style="list-style-type: none"> • Pneumatic Saf-Stop II™ remote control handle (290164) • 55' dual line hose with fittings (521892) • Automatic Sure-Flo® valve (290215) • Complete 1¼" pipe string assembly • Manual exhaust valve with sound attenuator (518492/753322) 	290261	75 lb

Electric Control Packages

Electric Remote Control Conversion Kit for Single Chamber Pressure Vessels with 1¼" Piping <i>(Under Pressure)</i>	780-2E - 12 Volt DC Conversion Kit for 1¼" pipe string includes: <ul style="list-style-type: none"> • Electric Saf-Stop II™ remote control handle (290354) • 55' extension cord assembly (530042) • Automatic Sure-Flo® valve (290215) • Complete 1¼" pipe string assembly • Manual exhaust valve with sound attenuator (518492/753322) 	290262	70 lb
12 Volt DC Electric Remote Control Conversion Kit for SuperBlast® and Econ-O-Blast™ systems with pneumatic controls	12 Volt DC Conversion Kit includes: <ul style="list-style-type: none"> • Electric Saf-Stop II™ remote control handle (290354) • Electric control assembly • 55' extension cord assembly (530042) • 20' battery cord (529851) • Two battery clips (528651) 	290334 C.I. 290534 F.I.	15 lb
120 Volt AC Electric Remote Control Conversion Kit for SuperBlast® and Econ-O-Blast™ systems with pneumatic controls	120 Volt AC Conversion Kit includes: <ul style="list-style-type: none"> • Electric Saf-Stop II™ remote control handle (290354) • Electric control assembly • 55' extension cord assembly (530042) • Transformer (533812) • 8' power cord with plug 	290305 C.I. 290505 F.I.	20 lb



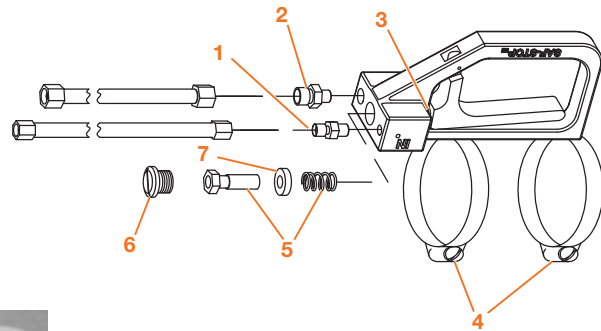
Parts: Operator Remote Control Systems

Operator Remote Control Components

DESCRIPTION	PART #
Saf-Stop II™ pneumatic remote control handle	290164
Sure-Stop pneumatic remote control handle	290166
Saf-Stop II™ electric remote control handle	290354
Sure-Stop electric remote control handle	290349
12 Volt DC electric remote control conversion kit	290334 C.I./290534 F.I.
120 Volt AC electric remote control conversion kit	290305 C.I./290505 F.I.
Grit cut-off switch for 780 pneumatic remote control	290424
Grit cut-off switch for 780 electric remote control, 120V AC	290392 C.I./290394 F.I.

Parts for Pneumatic Saf-Stop II™ Remote Control Handle (Part # 290164)

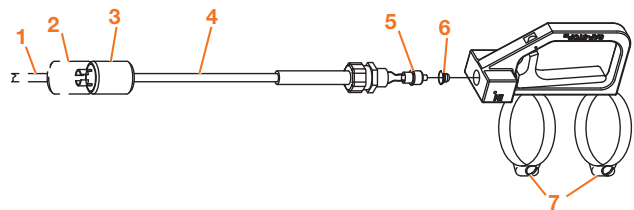
Item	Description	PART #
1	Hose adapter, 1/8" x 1/8"	520212
2	Hose adapter, 1/4" x 1/4"	520222
3	Urethane disc	525112
4	Adjustable clamp, 3" (each)	520521
5	Saf-Stop II plunger kit (includes push rod, nut, spring, washer and "O" ring)	290224
6	Saf-Stop II brass plug	520122
7	Saf-Stop II parts kit (includes washer, urethane disc and two "O" rings)	290225



NOTE: Internal components are the same for Saf-Stop II™ and Sure-Stop handles.

Parts for Electric Saf-Stop II™ Remote Control Handle (Part # 290354)

Item	Description	PART #
	Cable with fitting, 55' (standard)	530042
1	Cable with fitting, 20'	530052
	Cable (specify length)	530062
2	Receptacle	534011
3	Connector	534011
4	Electric Saf-Stop II switch assembly	534001
5	O-ring	523972
6	Push button	534531
7	Adjustable clamp, 3" (each)	520521



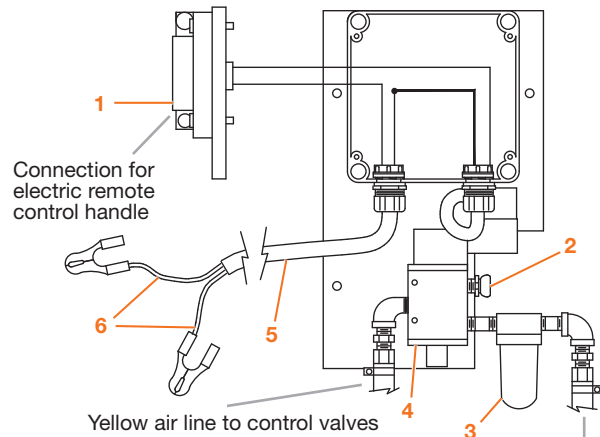
NOTE: Internal components are the same for Saf-Stop II™ and Sure-Stop handles.



Parts: Operator Remote Control Systems

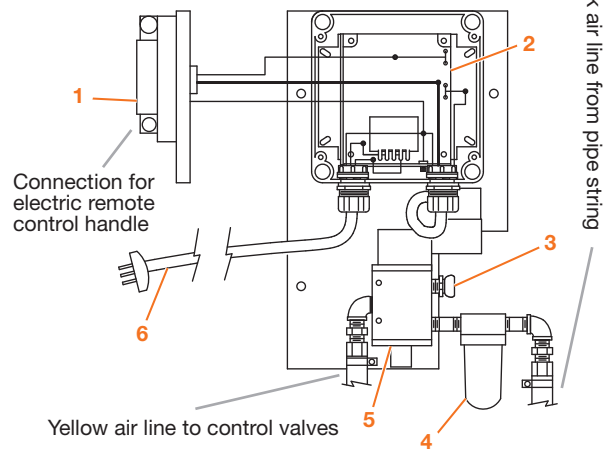
12 Volt DC Electric Remote Control Parts (for 290334)

Item	Description	PART #
1	Receptacle with flip lid	534122
2	Vent, 1/8" NPT	523261
3	Air filter assembly, 1/4" NPT	504552
	Air filter bowl	506882
	Air filter element	506742
4	Solenoid valve, 12 volt, DC	519032
	Replacement coil, 12 volt, DC	517096
5	Electric cord (Specify length)	529851
6	Battery clip	528651



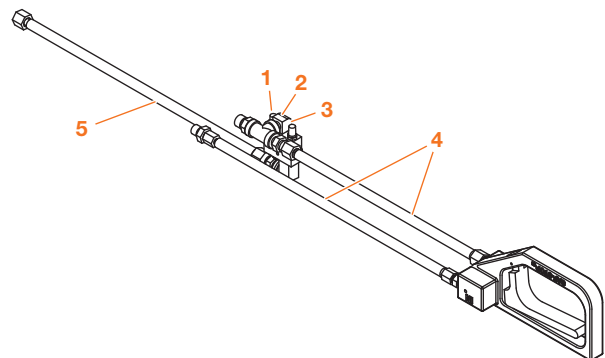
120 Volt AC Electric Remote Control Parts (for 290305)

Item	Description	PART #
1	Receptacle with flip lid	534122
2	Power supply	290484
3	Vent, 1/8" NPT	523261
4	Air filter assembly, 1/4" NPT	504552
	Air filter bowl	506882
	Air filter element	506742
5	Solenoid valve, 12 volt, DC	519032
	Replacement coil, 12 volt, DC	517096
6	Line cord, 8'	529601



Grit Cut-Off Switch for 780 Pneumatic Remote Control (Part # 290424)

Item	Description	PART #
1	Air valve	518031
2	Muffler	517153
3	Boot, toggle switch	534465
4	Hose, dual line, 3'	520872
5	Air hose, 1/4", 55'	520851



Grit Cut-Off Switch for 780 Electric Remote Control (Part # 290392)

Replacement Parts	PART #
Read Head handle assembly with 4' cord	534535
Male plug for handle assembly	534002
Electric cord assembly, 55' long, includes male and female plug	530043
Safety ball and chain	534545
Handle assembly repair kit	Consult factory

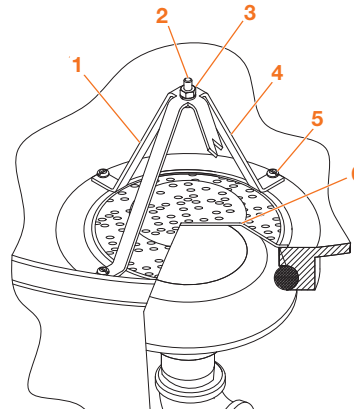




Accessories

Parts for E-Z Fill™ Bag Breaker/Screen (Part # 290388)

Item	Description	PART#
1	Top leg	762982
	Bottom leg	762972
2	Hex bolt assembly, 1/4-20 x 3/4"	551182
3	Hex nut, 1/4"	552522
4	Lock washer, 1/4"	552752
5	Screw, 10-32 x 1/4"	551372
6	Screen	762992



Moisture and Oil Separators

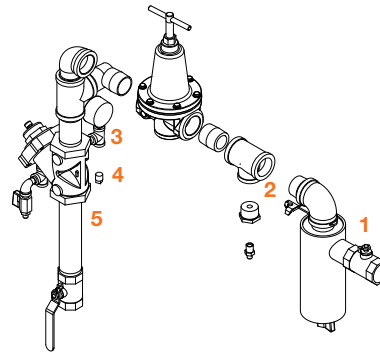
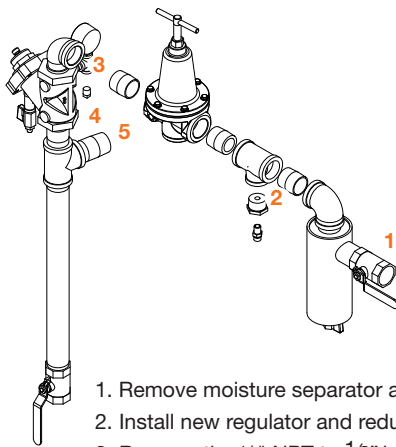
DESCRIPTION	PART #
DF-2 Dry-Flo manual drain separator, 1 1/4" NPT	290192
Manual drain filter, 1/2" NPT	504652
ADS-1 automatic drain filter, 1" NPT	504562
ADS-2 automatic drain filter, 1 1/4" NPT	504632

Pressure Regulators

DESCRIPTION	PART #
Air pressure regulator kit, 1" NPT for 350 vessel	241106
Air pressure regulator kit, 1 1/4" NPT for 650 and 1050 vessels	241108
Air pressure regulator (only), 1" NPT, relieving	517251
Air pressure regulator (only), 1 1/4" NPT, relieving	517291
Air pressure regulator (only), 1 1/4" NPT, relieving, high flow	517295
Air gauge, 0-160 psi, 1/4" NPT	550242

Regulator Kit Installation, 680 Control System

Regulator Kit Installation, 780 Control System

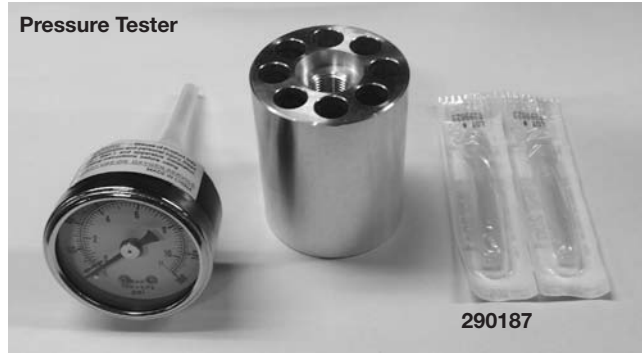


1. Remove moisture separator and elbow from pipe string.
2. Install new regulator and reducing tee as shown above.
3. Remove the 1/4" NPT to 1/8" ball end brass fitting located underneath the air gauge.
4. Plug this port with the 1/4" NPT pipe plug supplied.
5. Install existing brass fitting into new reducing tee supplied with kit.

Accessories

Pressure Tester

DESCRIPTION	PART #
Complete assembly includes gauge, adapter, three needle and case	290187
Replacement needles, quantity 12	506862



Media Loading Screens (Require removal of E-Z Fill™ Bag Breaker/Screeners)

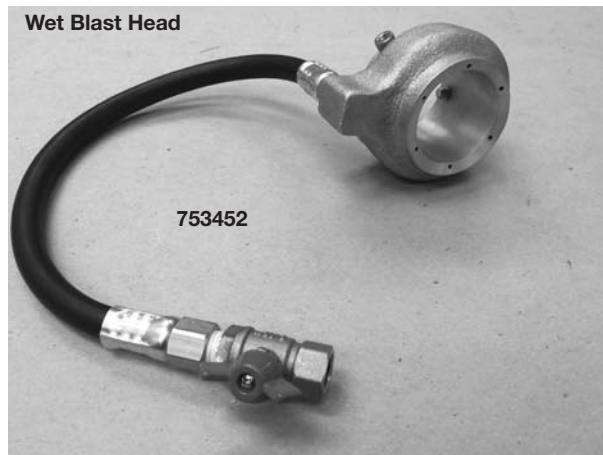
DESCRIPTION	PART #
S-18 for use with 3½ cubic foot pressure vessel, 18" diameter	504302
S-24 for use with 6½ cubic foot pressure vessel, 24" diameter	504312
S-30 for use with 10½ cubic foot pressure vessel, 30" diameter	504322

Weather and Debris Lids

DESCRIPTION	PART #
C-12 for use with P-100 & P-150 Econ-O-Blast™ pressure vessels, 12" diameter	504762
C-16 for use with P-300 Econ-O-Blast™ pressure vessel, 16" diameter	504772
C-18 for use with 3½ cubic foot pressure vessel, 18" diameter	504782
C-24 for use with 6½ cubic foot pressure vessel, 24" diameter	504792
C-30 for use with 10½ cubic foot pressure vessel, 30" diameter	504802

Wet Blast Head

DESCRIPTION	PART #
WBH-1 wet blast head supplied with on/off petcock, 12" water hose and bolts for securing nozzle	753452
50' section of ¼" ID hose with ¼" male and female threads	522032
Faucet adapter	290185





Blast Nozzles, Hoses & Couplings

Section G: Table of Contents

Blast Nozzles

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Silicon Carbide Nozzles	G2
Tungsten Carbide (Di-Carb™) Nozzles	G2-3
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Nozzle Couplings, Adapters and Washers	G5

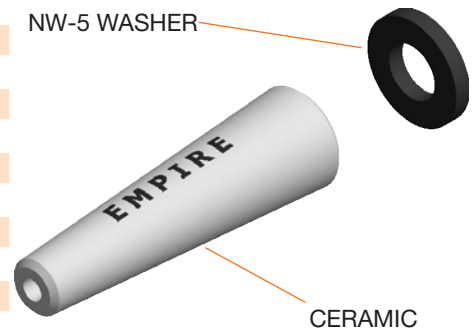
Blast Hose

Hose Couplings	G6
Hose Cut to Length from 50' rolls	G7
Hose Assemblies with Couplings	G7
Dual-Line Hose Assemblies	G7

Nozzles: Ceramic

Straight Bore with Tapered Body (1-1/8" Diameter at Base)

Model	I.D.	Length	Quantity	Part #	Ship WGT
CN3-0	3/32"	3 3/4"	1	502342	1 lb
CN3-0	3/32"	3 3/4"	10	503372	2 1/2 lb
CN3-0	3/32"	3 3/4"	50	503432	12 1/2 lb
CN3-2	1/8"	3 3/4"	1	502352	1 lb
CN3-2	1/8"	3 3/4"	10	503382	2 1/2 lb
CN3-2	1/8"	3 3/4"	50	503442	12 1/2 lb
CN3-3	3/16"	3 3/4"	1	502362	1 lb
CN3-3	3/16"	3 3/4"	10	503392	2 1/2 lb
CN3-3	3/16"	3 3/4"	50	503452	12 1/2 lb
CN3-4	1/4"	3 3/4"	1	502372	1 lb
CN3-4	1/4"	3 3/4"	10	503402	2 1/2 lb
CN3-4	1/4"	3 3/4"	50	503462	12 1/2 lb
CN3-5	5/16"	3 3/4"	1	502382	1 lb
CN3-5	5/16"	3 3/4"	10	503412	2 1/2 lb
CN3-5	5/16"	3 3/4"	50	503472	12 1/2 lb
CN3-6	3/8"	3 3/4"	1	502392	1 lb
CN3-6	3/8"	3 3/4"	10	503422	2 1/2 lb
CN3-6	3/8"	3 3/4"	50	503482	12 1/2 lb



Nozzles: Silicon Carbide

Production Venturi with Blue Polymer Jacket

Silicon carbide liner • 1/4" NPT brass thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
SCV-3	3/16"	4 1/4"	1	502712	1 lb
SCV-4	1/4"	5 1/4"	1	502722	1 lb
SCV-5	5/16"	6"	1	502732	1 lb
SCV-6	3/8"	6 3/4"	1	502742	1 lb
SCV-7	7/16"	8"	1	502752	1 lb
SCV-8	1/2"	9 1/4"	1	502762	1 lb

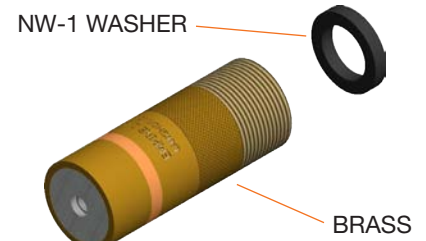


Nozzles: Tungsten Carbide (Di-Carb™)

Production Venturi with Brass Jacket

Tungsten carbide liner • 1/4" NPT brass thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
DCV-3	3/16"	4 1/4"	1	501662	1 lb
DCV-4	1/4"	5 1/4"	1	501672	1 1/2 lb
DCV-5	5/16"	6"	1	501682	1 3/4 lb
DCV-6	3/8"	6 3/4"	1	501692	2 lb
DCV-7	7/16"	8"	1	501702	2 1/2 lb
DCV-8	1/2"	9 1/4"	1	501712	3 lb



Production Venturi with Yellow Polymer Jacket

Tungsten carbide liner • 1/4" NPT brass thread

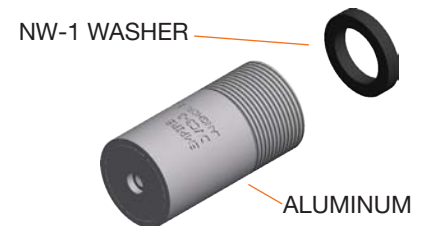
Model	I.D.	Length	Quantity	Part #	Ship WGT
DCYV-3	3/16"	4 1/4"	1	501742	1 lb
DCYV-4	1/4"	5 1/4"	1	501752	1 lb
DCYV-5	5/16"	6"	1	501762	1 lb
DCYV-6	3/8"	6 3/4"	1	501772	1 lb
DCYV-7	7/16"	8"	1	501782	1 1/4 lb
DCYV-8	1/2"	9 1/4"	1	501792	1 1/2 lb



Venturi with Aluminum Jacket

Tungsten carbide liner • 1/4" NPT thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
DCV3-3	3/16"	3"	1	501582	1 lb
DCV3-4	1/4"	3"	1	501952	1 lb
DCV3-5	5/16"	3"	1	501602	1 lb
DCV3-6	3/8"	3"	1	501612	1 lb
DCV3-7	7/16"	3"	1	501622	1 lb
DCV3-8	1/2"	3"	1	501632	1 lb



Straight Bore with Aluminum Jacket

Tungsten carbide liner • 1/4" NPT thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
DC3-2	1/8"	3"	1	501382	1 lb
DC3-3	3/16"	3"	1	501392	1 lb
DC3-4	1/4"	3"	1	501402	1 lb
DC3-5	5/16"	3"	1	501412	1 lb
DC3-6	3/8"	3"	1	501422	1 lb
DC3-7	7/16"	3"	1	501432	1 lb
DC3-8	1/2"	3"	1	501442	1 lb
DC3-10	5/8"	3"	1	501452	1 lb



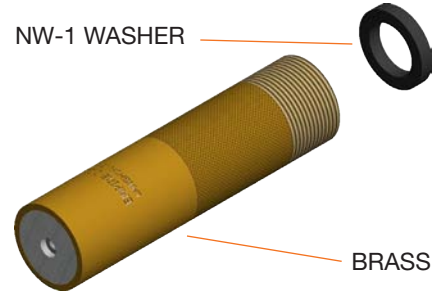


Nozzles: Tungsten Carbide (Di-Carb™)

Straight Bore with Brass Jacket

Tungsten carbide liner • 1/4" NPT brass thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
DC6-2	1/8"	6"	1	501552	1 1/4 lb
DC6-3	3/16"	6"	1	501492	1 1/4 lb
DC6-4	1/4"	6"	1	501502	1 1/4 lb
DC6-5	5/16"	6"	1	501512	1 1/4 lb
DC6-6	3/8"	6"	1	501522	1 1/4 lb
DC6-7	7/16"	6"	1	501532	1 1/4 lb
DC6-8	1/2"	6"	1	501542	1 1/4 lb
DC6-10	5/8"	6"	1	501462	1 1/4 lb



Double Venturi with Aluminum Jacket

Tungsten carbide liner • 1/4" NPT brass thread

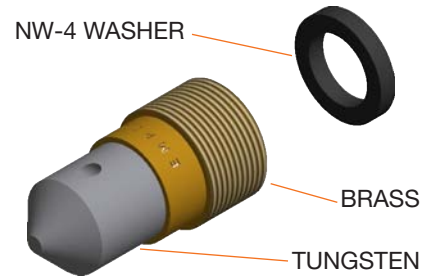
Model	I.D.	Length	Quantity	Part #	Ship WGT
DC2V-4	1/4"	9 1/4"	1	503552	3 lb
DC2V-5	5/16"	9 1/4"	1	503542	3 lb
DC2V-6	3/8"	9 1/4"	1	503532	3 lb
DC2V-7	7/16"	9 1/4"	1	503522	3 lb
DC2V-8	1/2"	9 1/4"	1	503512	3 lb



Angle, 45 Degree with Brass Jacket

Tungsten carbide liner • 1/4" NPT thread

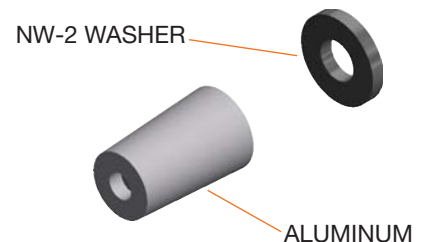
Model	I.D.	Length	Orifices	Part #	Ship WGT
TNA-32	1/8"	3"	3	501802	1 1/2 lb
TNA-13	3/16"	3"	1	501812	1 1/2 lb
TNA-23	3/16"	3"	2	501822	1 1/2 lb
TNA-33	3/16"	3"	3	501832	1 1/2 lb
TNA-14	1/4"	3"	1	501842	1 1/2 lb
TNA-24	1/4"	3"	2	501852	1 1/2 lb
TNA-34	1/4"	3"	3	501862	1 1/2 lb
TNA-15	5/16"	3"	1	501872	1 1/2 lb
TNA-25	5/16"	3"	2	501882	1 1/2 lb
TNA-35	5/16"	3"	3	501892	1 1/2 lb



Straight Bore with Tapered Body and Aluminum Jacket

Tungsten carbide liner • 1 1/8" diameter at base

Model	I.D.	Length	Quantity	Part #	Ship WGT
DC2F-2	1/8"	2"	1	501272	1 lb
DC2F-3	3/16"	2"	1	501282	1 lb
DC2F-4	1/4"	2"	1	501292	1 lb
DC2F-5	5/16"	2"	1	501302	1 lb





Nozzles: Boron Carbide

Venturi with Aluminum Jacket

Boron carbide liner • 1 1/4" NPT thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
NNV-4	1/4"	4"	1	502282	1 lb
NNV-5	5/16"	4"	1	502292	1 lb
NNV-6	3/8"	4"	1	502302	1 lb
NNV-7	7/16"	4"	1	502312	1 lb
NNV-8	1/2"	4"	1	502322	1 lb



Straight Bore with Aluminum Jacket

Boron carbide liner • 1 1/4" NPT thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
NN3-2	1/8"	3"	1	502132	1 lb
NN3-3	3/16"	3"	1	502142	1 lb
NN3-4	1/4"	3"	1	502152	1 lb
NN3-5	5/16"	3"	1	502162	1 lb
NN3-6	3/8"	3"	1	502172	1 lb
NN3-7	7/16"	3"	1	502182	1 lb
NN3-8	1/2"	3"	1	502192	1 lb



Straight Bore with Aluminum Jacket

Boron carbide liner • 1 1/4" NPT thread

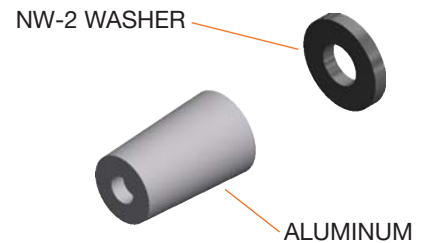
Model	I.D.	Length	Quantity	Part #	Ship WGT
NN6-5	5/16"	6"	1	502222	1 1/4 lb
NN6-6	3/8"	6"	1	502232	1 1/4 lb
NN6-7	7/16"	6"	1	502242	1 1/4 lb
NN6-8	1/2"	6"	1	502252	1 1/4 lb



Straight Bore with Tapered Body and Aluminum Jacket

Boron carbide liner

Model	I.D.	Length	Quantity	Part #	Ship WGT
NN2F-2	1/8"	1 3/4"	1	502022	1 lb
NN2F-3	3/16"	1 3/4"	1	502032	1 lb
NN2F-4	1/4"	1 3/4"	1	502042	1 lb





Nozzles: Couplings, Adapters, Screws & Washers

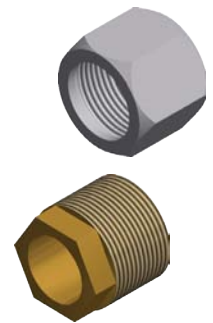
Nozzle Couplings (For connecting nozzle to blast hose)

Model	Description	Part #	Ship WGT
NC-1/2	Steel coupling, fits 1/2" I.D. blast hose, 1" MPT	505232	1 lb
NC-3/4	Aluminum coupling, fits 3/4" I.D. blast hose, 1 1/4" FPT	753212	1 lb
NC-1	Aluminum coupling, fits 1" I.D. blast hose, 1 1/4" FPT	753222	1 lb
NC-1 1/4	Aluminum coupling, fits 1 1/4" I.D. blast hose, 1 1/4" FPT	753232	1 lb
NC-1 1/2	Aluminum coupling, fits 1 1/2" I.D. blast hose, 1 1/4" FPT	753242	1 lb
NCVB	Quick disconnect nozzle coupling with 1 1/4" straight thread	753252	1 lb
	Quick disconnect nozzle coupling for flanged nozzles	753102	1 lb



Flanged Nozzle Adapters

Model	Description	Part #	Ship WGT
NA-2	Steel adapter, 1" FPT, secures CN3, DC2F & NN2F nozzles to NC-1/2 coupling	504912	1 lb
NA-3	Brass adapter secures CN3 nozzles to NC-3/4 coupling, 1 1/4" MPT	504942	1 lb



Nozzle Washers (For installation inside nozzle coupling to seat nozzle)

Model	Description	Part #	Ship WGT
NW-1	1" ID x 1 1/2" OD - Use with SCV, DCV, NNV, DC3 & DC6 nozzles (Quantity: Ten)	524062	1 lb
NW-2	1/2" ID x 1 1/8" OD - Use with DC2F & NN2F nozzles (Quantity: Ten)	524052	1 lb
NW-4	3/4" ID x 1 1/2" OD - Use with NN3, NN6 & TNA nozzles (Quantity: Ten)	524082	1 lb
NW-5	5/8" ID x 1 1/8" OD - Use with CN3 nozzles (Quantity: Ten)	524041	1 lb



Coupling Screws

Model	Description	Part #	Ship WGT
SCW-5/8	#8 x 5/8" large sheet metal screws for cast aluminum and brass couplings only (Package of four)	554232	1 lb
SCW-3/8	#8 x 3/8" large sheet metal screws for steel couplings only (Package of four)	554242	1 lb

WARNING

1. Inspect couplings and blast hose daily for splits, bubbles, soft spots, wear, etc. Make sure nozzle washers are in good condition and screw heads are snug against coupling's surface. The safety pin must be in place to prevent quick coupling disconnection.
2. When assembling couplings to blast hose only use #8 x 5/8" large self-tapping sheet metal screw (P/N 554232) for cast brass and aluminum couplings and #8 x 3/8" large self-tapping sheet metal screw (P/N 554242) for all steel couplings.
3. Use of other types of screws may create a safety hazard. Empire will not warrant equipment or assume responsibility for damage or injury resulting from neglect or use of improper parts.



Blast Hose: Couplings, Washers & Pins

Quick-Snap Hose Couplings (For connecting blast hose to a tank coupling or another hose section)

CAUTION: All couplings require safety pins for safe operation.

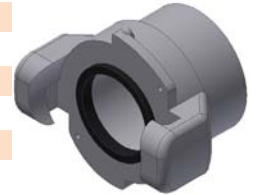
Model	Description	Part #	Ship WGT
QC-1/2	Steel coupling, fits 1 1/8" O.D. blast hose	505222	1 lb
QC-3/4	Aluminum coupling, fits 1 1/2" O.D. blast hose	751062	1 lb
QC-1	Aluminum coupling, fits 1 7/8" O.D. blast hose	751092	1 lb
QC-1-1/4	Aluminum coupling, fits 2 5/32" O.D. blast hose	751102	1 lb
QC-1-1/2	Aluminum coupling, fits 2 3/8" O.D. blast hose	751142	1 lb
QCB-3/4	Brass coupling, fits 1 1/2" O.D. blast hose	751072	1 1/2 lb
QCB-1	Brass coupling, fits 1 7/8" O.D. blast hose	751082	1 1/4 lb
QCB-1-1/4	Brass coupling, fits 2 5/32" O.D. blast hose	751132	2 1/2 lb
QCB-1-1/2	Brass coupling, fits 2 3/8" O.D. blast hose	751152	3 lb



Tank Couplings (For connecting blast hose to a vessel)

CAUTION: All couplings require safety pins for safe operation.

Model	Description	Part #	Ship WGT
TC	Aluminum coupling, quick snap with 1/4" FPT	753262	1 lb
TCB	Brass coupling, quick snap with 1/4" FPT	753272	1 1/4 lb
TC-37	Steel coupling, quick snap with 3/8" FPT (P-105)	506832	1 lb
TC-50	Steel coupling, quick snap w/ 1/2" FPT (P-100, P-150 & P-300)	505212	1 lb
UF-100	Steel coupling, quick snap with 1" FPT (Std. 1 Cubic Ft. P.V.)	505782	1 lb



Washers for Blast-Hose Couplings

Model	Description	Quantity	Part #	Ship WGT
Fits all hose couplings listed above except QC-1/2, Part # 505222				
QCW	1/4" ID x 1 7/8" OD	10	524032	1 lb
QCW	1/4" ID x 1 7/8" OD	25	525092	1 lb
Fits hose coupling QC-1/2, Part # 505222				
AHCW	3/4" ID x 1 3/8" OD to fit QC-1/2	10	524101	1 lb
AHCW	3/4" ID x 1 3/8" OD to fit QC-1/2	25	525102	1 lb



Safety Pins (Required on all quick-snap tank couplings for safe operation)

Description	Part #	Ship WGT
Safety pin for quick-snap couplings	510511	1 lb



Blast Hose Safety Cable Restraints

Model	Description	Part #	Ship WGT
WB1	1/2" x 1 1/4" OB, 20 1/4' length	520808	1 lb
WA2	1 1/2" x 3" OB, 38 1/4' length	520809	1 lb



WARNING

1. Inspect couplings and blast hose daily for splits, bubbles, soft spots, wear, etc. Make sure nozzle washers are in good condition and screw heads are snug against coupling's surface. The safety pin must be in place to prevent quick coupling disconnection.
2. When assembling couplings to blast hose only use #8 x 5/8" large self-tapping sheet metal screw (P/N 554232) for cast brass and aluminum couplings and #8 x 3/8" large self-tapping sheet metal screw (P/N 554242) for all steel couplings.
3. Use of other types of screws may create a safety hazard. Empire will not warrant equipment or assume responsibility for damage or injury resulting from neglect or use of improper parts.



Blast Hose

Premium Blast Hose (Hose is 4 ply rated, static dissipating, nylon wrapped construction with a maximum working pressure of 150 psi on hoses with interior diameters from 1" to 1/2" and 125 psi on 1 1/4" and 1 1/2" ID hoses.)

Model	Description	Part #	Ship WGT
PBH-1/2	1/2" ID x 1 1/16" OD Blast hose	520792	1/2 lb per ft.
PBH-5/8	5/8" ID x 1 1/4" OD Blast hose	520802	1/2 lb per ft.
PBH-3/4	3/4" ID x 1 1/2" OD Blast hose	520812	3/4 lb per ft.
PBH-1	1" ID x 1 7/8" OD Blast hose	520822	1 lb per ft.
PBH-1THN	1" ID x 1 7/8" OD Blast hose	520823	1 lb per ft.
PBH-1-1/4	1 1/4" ID x 2 5/32" OD Blast hose	520832	1 1/4 lb per ft.
PBH-1-1/2	1 1/2" ID x 2 3/8" OD Blast hose	520842	1 1/2 lb per ft.

Blast Hose with Aluminum Couplings Installed

Model	Description	Part #	Ship WGT
PBH-1/2	(10') 1/2" Blast hose w/ quick snap & nozzle coupling	521672	6 1/2 lb
PBH-1/2	(25') 1/2" Blast hose w/ quick snap & nozzle coupling	521682	15 1/2 lb
PBH-1/2	(50') 1/2" Blast hose w/ quick snap & nozzle coupling	521692	26 1/2 lb
PBH-1/2	(10') 1/2" Blast hose w/ two (2) quick snap couplings	521702	6 1/2 lb
PBH-1/2	(25') 1/2" Blast hose w/ two (2) quick snap couplings	521712	15 1/2 lb
PBH-1/2	(50') 1/2" Blast hose w/ two (2) quick snap couplings	521722	26 1/2 lb
PBH-3/4	(10') 3/4" Blast hose w/ quick snap & nozzle coupling	521732	9 lb
PBH-3/4	(25') 3/4" Blast hose w/ quick snap & nozzle coupling	521742	20 lb
PBH-3/4	(50') 3/4" Blast hose w/ quick snap & nozzle coupling	521752	40 lb
PBH-3/4	(25') 3/4" Blast hose w/ two (2) quick snap couplings	521762	20 lb
PBH-3/4	(50') 3/4" Blast hose w/ two (2) quick snap couplings	521772	40 lb
PBH-1	(10') 1" Blast hose w/ quick snap & nozzle coupling	521782	12 lb
PBH-1	(25') 1" Blast hose w/ quick snap & nozzle coupling	521792	27 lb
PBH-1	(50') 1" Blast hose w/ quick snap & nozzle coupling	521802	52 lb
PBH-1	(25') 1" Blast hose w/ two (2) quick snap couplings	521812	27 lb
PBH-1	(50') 1" Blast hose w/ two (2) quick snap couplings	521822	52 lb
PBH-1-1/4	(25') 1 1/4" Blast hose w/ quick snap & nozzle coupling	521832	32 lb
PBH-1-1/4	(50') 1 1/4" Blast hose w/ quick snap & nozzle coupling	521842	64 lb
PBH-1-1/4	(50') 1 1/4" Blast hose w/ two (2) quick snap couplings	521852	64 lb
PBH-1-1/2	(50') 1 1/2" Blast hose w/ quick snap & nozzle coupling	521862	77 lb
PBH-1-1/2	(50') 1 1/2" Blast hose w/ two (2) quick snap couplings	521872	77 lb

Dual-Line Hose Assemblies

Description	Part #	Ship WGT
(30') Dual-line hose with fittings	521962	5 lb
(55') Dual-line hose with fittings	521892	9 lb

NOTE: Manufactured using crimped ferrules.
When repairing, use worm gear clamps and swivels listed above.

Dual-Line Hose Parts

Description	Part #	Ship WGT
Dual-line hose per foot	520872	1/4 lb
Female swivel hose barb, 1/8"	520352	1/4 lb
Female swivel hose barb, 1/4"	520342	1/4 lb
Connector, 1/8" to 1/8"	520782	1/4 lb
Connector, 1/4" to 1/4"	520032	1/4 lb
Worm gear clamp for 3/16" dual line	520492	1/4 lb

WARNING

- Inspect couplings and blast hose daily for splits, bubbles, soft spots, wear, etc. Make sure nozzle washers are in good condition and screw heads are snug against coupling's surface. The safety pin must be in place to prevent quick coupling disconnection.
- When assembling couplings to blast hose only use #8 x 5/8" large self-tapping sheet metal screw (P/N 554232) for cast brass and aluminum couplings and #8 x 3/8" large self-tapping sheet metal screw (P/N 554242) for all steel couplings.
- Use of other types of screws may create a safety hazard. Empire will not warrant equipment or assume responsibility for damage or injury resulting from neglect or use of improper parts.



Operator Safety Equipment

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Refer to Section J for Warnings & OSHA Statements.



Operator Safety Equipment

RPB Safety Clothing

Description	RPB Part#	Empire Part#
Heavy-duty leather gloves	07-701	509901
Blast suit with replaceable knee pads		
Small	07-755-S	536636
Medium	07-755-M	536637
Large	07-755-L	536638
X-Large	07-755-XL	536639
XX-Large	07-755-XXL	536640
XXX-Large	07-755-XXXL	536641
XXXX-Large	07-755-XXXXL	536642
Knee pads, replacements for RPB blast suits	07-761	538503



Empire Safety Clothing

Description	Empire Part #
Canvas jacket	
Medium — chest size, 40-42	504462
Large — chest size, 44-46	504472
X-Large — chest size, 48 +	504482
Canvas pants	
Medium — waist size, 36-38	504492
Large — waist size, 40-42	504502
X-Large — waist size 44-46	504512
OSHA protective clothing packages include:	
Medium canvas pants and jacket, leather gloves	290150
Large canvas pants and jacket, leather gloves	290149
X-Large canvas pants and jacket, leather gloves	290148



NOVA 3 Blast Hoods

Description	RPB Part#	Empire Part#
Nova 3 Hood with 28" nylon cape for use with compressors	NV3-702-50	537803
Nova 3 Hood with 38" nylon cape for use with compressors	NV3-702-51	537813
Nova 3 Hood with 28" leather cape for use with compressors	NV3-702-52	537843

NOTE: NOVA 3 hoods are not available for use with an air pump.

NOVA 3 Hood Respirator Systems

Description	RPB Part#	Empire Part#
Nova 3 Hood with 28" nylon cape and cool tube for use with compressors	NV3-703-50	537883
Nova 3 Hood with 38" nylon cape and cool tube for use with compressors	NV3-703-51	537893
Nova 3 Hood with 28" nylon cape and hot tube for use with compressors	NV3-704-50	537903
Nova 3 Hood with 38" nylon cape and hot tube for use with compressors	NV3-704-51	537913
Nova 3 Hood with 28" leather cape and cool tube for use with compressors	NV3-703-52	537923
Nova 3 Hood with 28" leather cape and hot tube for use with compressors	NV3-704-52	537933
Nova 3 Hood with cool tube, filter and 50' air hose for compressors	—	537942
Nova 3 Hood with hot tube, filter and 50' air hose for compressors	—	537952
Nova 3 Hood with filter and 50' air hose for compressors	—	537962

NOVA 3 Respirator Breathing Air Supply Hoses

Description	RPB Part#	Empire Part#
Hose used with compressed air, 3/8" ID, 25' length	NV2028	538002
Hose used with compressed air, 3/8" ID, 50' length	NV2029	538012
Hose used with compressed air, 3/8" ID, 100' length	NV2027	538004
Quick release coupler, 1/4" female thread	NV2025	538037
Quick release, 3/8" hose tail	NV2024	538036
Hose tail, 1/4" male thread	NV2033	538020



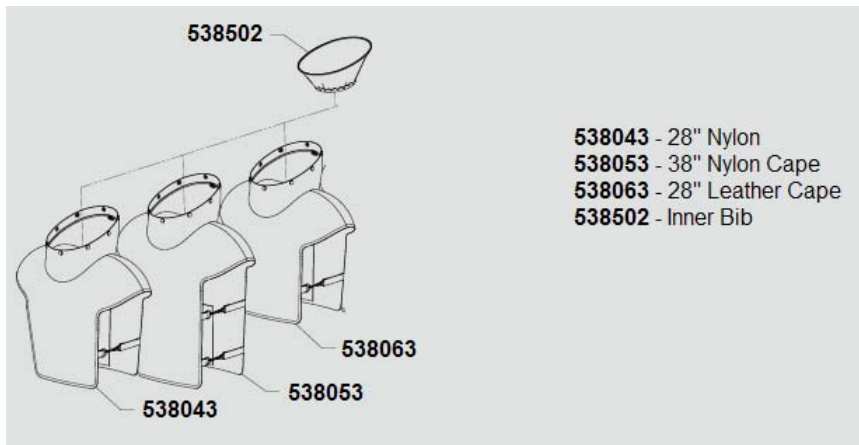
Operator Safety Equipment

NOVA 3 Blast Hood Light Packages

Description	RPB Part#	Empire Part#
Nova 3 L4 Blast Hood light assembly (4 hours)	09-501-4	538224

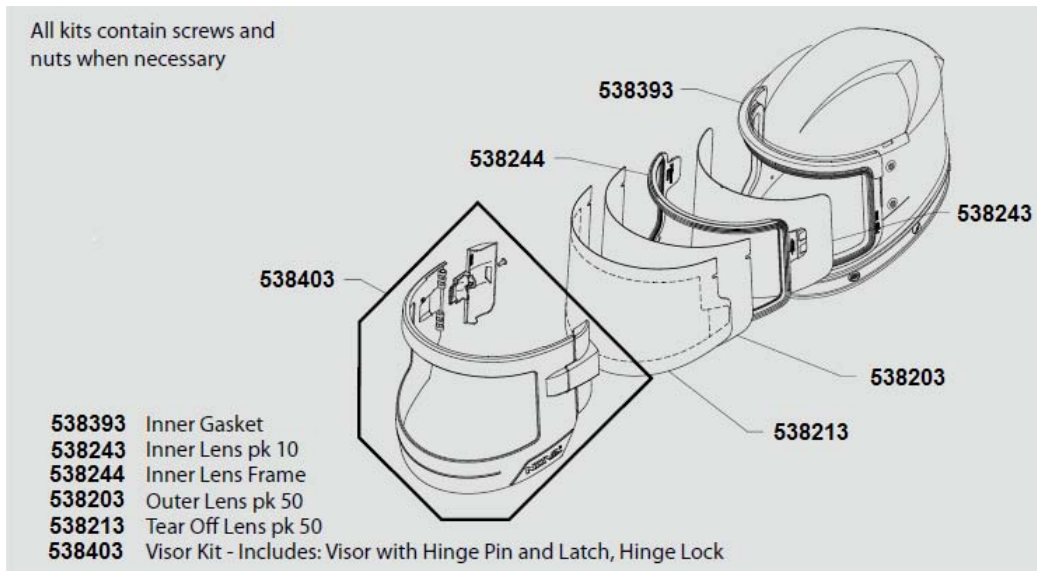
NOVA 3 Respirator Capes

Description	RPB Part#	Empire Part#
Nova 3, 28" nylon cape with inner rib	NV-750	538043
Nova 3, 38" nylon cape with inner rib	NV-751	538053
Nova 3, 28" leather cape with inner rib	NV-752	538063
Nova 3, 38" leather cape with inner rib	NV3-753	538066
Nova 3 inner bib for cape	NV-2012	538502
Nova 3, nylon blast jacket, X-Large	NV3-754	538064
Nova 3, nylon blast jacket, XX-Large	NV3-755	538065



NOVA 3 Visor and Lenses

Description	RPB Part#	Empire Part#
Nova 3 outer lens (.020), pack of 50	NV3-724	538203
Nova 3 tear-off lens, pack of 50	NV3-725	538213
Cassette lens system (1 outer/5 tear-off)	NV3-745	538201
Nova 3 inner lens, pack of 10	NV3-722	538243
Nova 3 tinted inner lens, pack of 10	NV3-722T	538245
Nova 3 window-frame gasket	NV3-721	538393
Nova 3 visor kit	NV3-726	538403
Nova 3 inner lens frame	NV3-723	538244



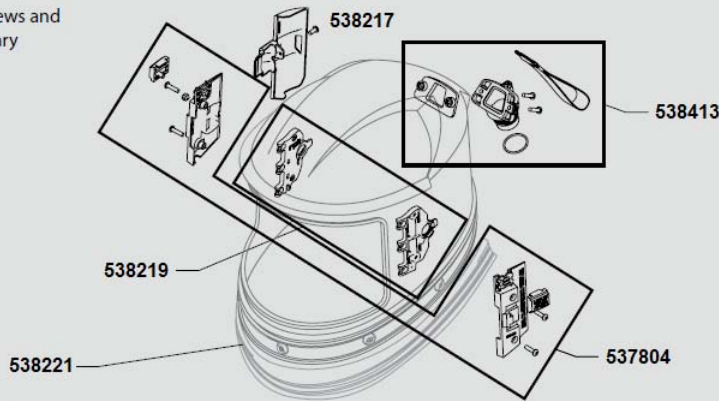


Operator Safety Equipment

NOVA 3 Helmet Components

Description	RPB Part#	Empire Part#
Nova 3 visor latch mounting kit	NV3-727/8	537804
Nova 3 hinge lock	NV3-727-2	538217
Nova 3 air inlet kit	NV3-729	538413
Nova 3 padding connectors (left & right)	NV3-730	538219
Nova 3 cape cover band	NV3-759	538221
Nova 3 breathing tube	NV2021B	538443

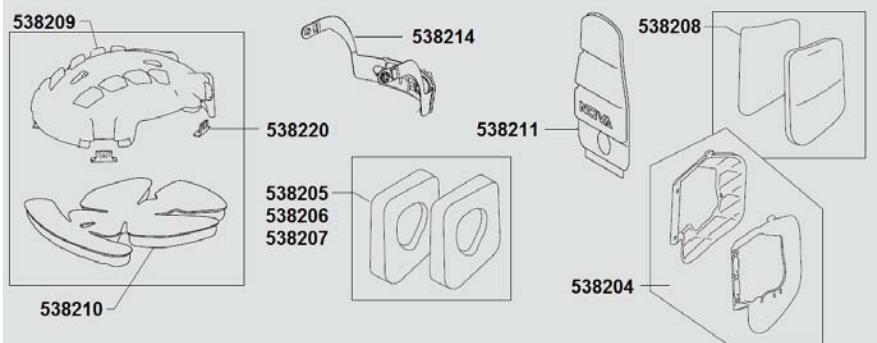
All kits contain screws and nuts when necessary



- 538217** Visor Hinge Lock
- 537804** Visor Latch Mount Kit - Includes: Latch Mount, Hinge Mount, Covers
- 538413** Air Inlet Kit - Includes: Air Inlet, O-Ring, Back Plate, Hanging Strap
- 538219** Padding Connectors (left & right)
- 538221** Cape Coverband

NOVA 3 Padding Systems

Description	RPB Part#	Empire Part#
Nova 3 side-padding frames (left & right)	NV3-731	538204
Nova 3 side-padding foam pads, pack of 5, type A, size 10	NV3-732-A10	538205
Nova 3 side-padding foam pads, pack of 5, type A, size 15	NV3-732-A15	538206
Nova 3 side-padding foam pads, pack of 5, type A, size 20	NV3-732-A20	538207
Nova 3 side-padding covers	NV3-733	538208
Nova 3 head-liner kit	NV3-734	538209
Nova 3 head-liner clips, pack of 4	NV3-734-1	538220
Nova 3 head-liner foam pad	NV3-735	538210
Nova 3 neck pad	NV3-735-1	538211
Nova 3 adjustable head support	07-900	538214



- 538204** Side Padding Frames (left & right)
- 538205/6/7** Side Padding Foam Pads pk 5 pairs (A10 Thin - A15 Medium - A20 Thick) **
- 538209** Head Liner Kit - Includes: Head Liner, Head Liner Foam Padding, Head Liner Clips x4
- 538220** Head Liner Clips, pack of 4
- 538210** Head Liner Padding
- 538211** Neck Pad
- 538214** Adjustable Head Support

538208 Side Padding Covers

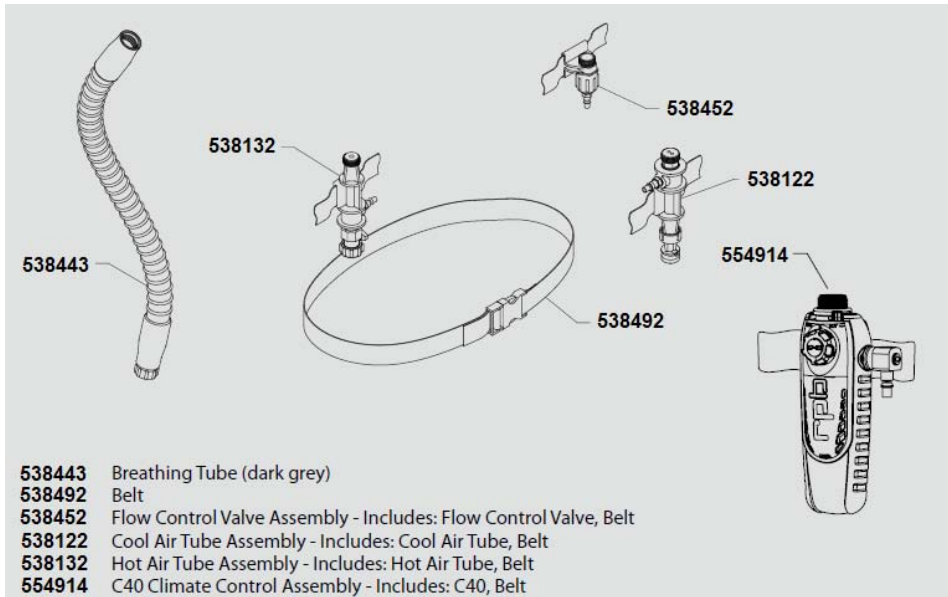
NOTE: A10 is for larger head sizes and A20 for smaller head sizes.



Operator Safety Equipment

NOVA 3 Breathing Tube and Flow Control Devices

Description	RPB Part#	Empire Part#
Nova 3 breathing tube	NV2021B	538443
C40 temperature control system (cold/hot) with belt	03-501	554914
Cool air tube with belt	4000-01	538122
Hot air tube with belt	4000-20	538132
Flow control valve with belt	NV2016	538452
Adjustable belt	NV2022	538492



NOVA 3 Climate Control Replacement Parts (not shown)

Description	RPB Part#	Empire Part#
RPB cold air spinner	4000-04	538104
RPB breaker	4000-07	538107
RPB regulator assembly	4000-11	538134
RPB silencer disc	4000-16	538136



Operator Safety Equipment

NOVA 2000 Blast Hoods

Description	RPB Part#	Empire Part#
Nova 2000 hood with 28" nylon cape for use with compressors	NV2000	537802
Nova 2000 hood with 38" nylon cape for use with compressors	NV2000XL	537812
Nova 2000 hood with 28" leather cape for use with compressors	NV2000L	537842
Nova 2000 hood with 28" nylon cape for use with air pump	NV2000LP	537822

NOVA 2000 Hood Respirator Systems

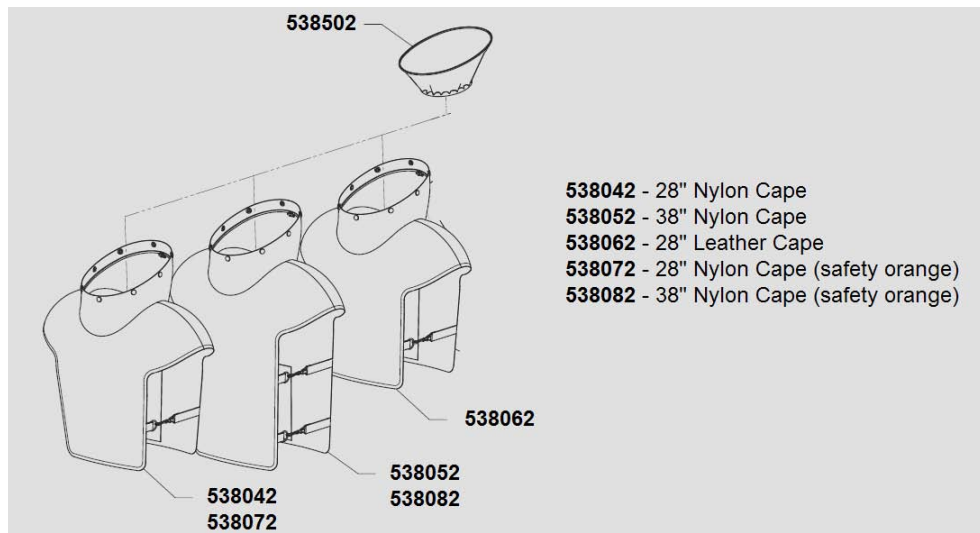
Description	RPB Part#	Empire Part#
Nova 2000 hood with 28" nylon cape and cool tube for use with compressors	NV2000CT	537882
Nova 2000 hood with 38" nylon cape and cool tube for use with compressors	NV2000XLCT	537892
Nova 2000 hood with 28" leather cape and cool tube for use with compressors	NV2000LCT	537922
Nova 2000 hood with 28" nylon cape and hot tube for use with compressors	NV2000HT	537902

NOVA 2000 Respirator Breathing Air Supply Hoses

Description	RPB Part#	Empire Part#
Hose used with compressed air, 3/8" ID, 25' length	NV2028	538002
Hose used with compressed air, 3/8" ID, 50' length	NV2029	538012
Hose used with compressed air, 3/8" ID, 100' length	NV2027	538004
Quick release coupler, 1/4" female thread	NV2025	538037
Quick release, 3/8" hose tail	NV2024	538036
Hose tail, 1/4" male thread	NV2033	538020
Hose used with air pump, 1/2" ID, 50' length	NV2035	538022
Hose used with air pump, 1/2" ID, 100' length	NV2036	538032

NOVA 2000 Respirator Capes

Description	RPB Part#	Empire Part#
Nova 2000, 28" nylon cape with inner bib	NV2002	538042
Nova 2000, 38" nylon cape with inner bib	NV2002XL	538052
Nova 2000, 28" leather cape with inner bib	NV2002L	538062
Nova 2000, inner bib for cape	NV2012	538502
Cover band for cape (not shown)	NV2013	538052
Nova 2000, nylon blast jacket, X-Large	NV2002HB-XL	538083
Nova 2000, nylon blast jacket, XX-Large	NV2002HB-XXL	538084

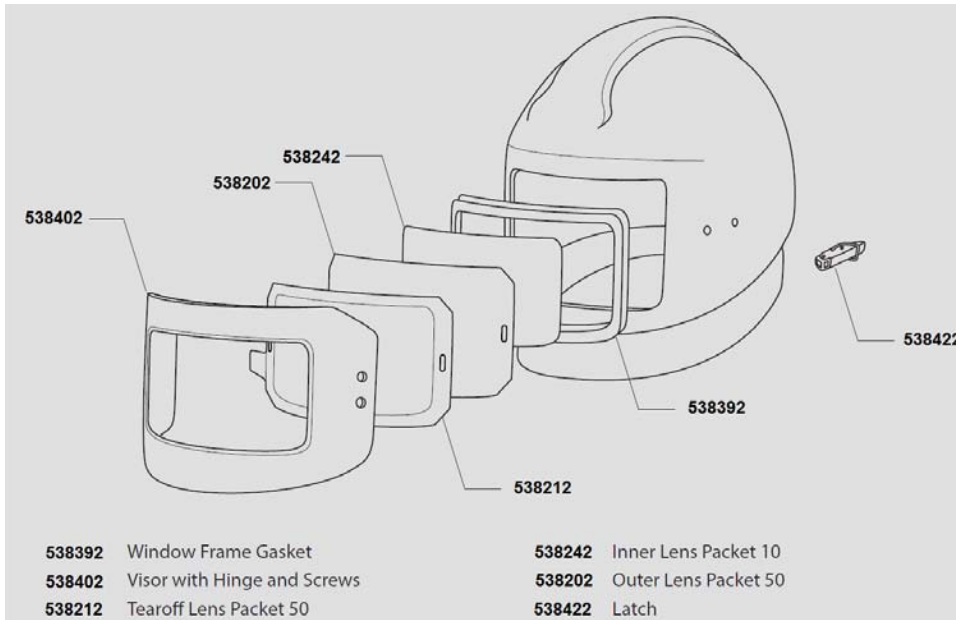




Operator Safety Equipment

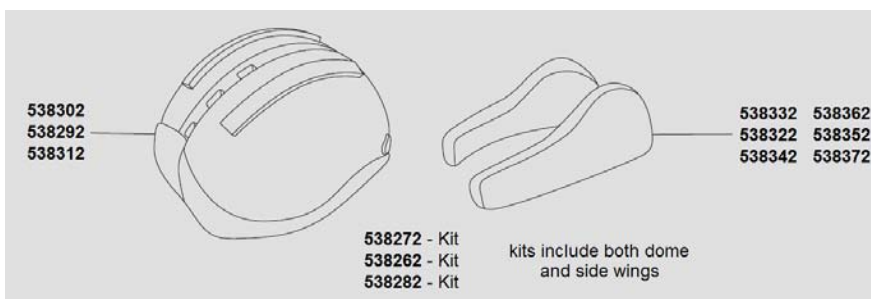
NOVA 2000 Visors and Lenses

Description	RPB Part#	Empire Part#
Nova 2000 outer lens (.020), pack of 50	NV2031	538202
Nova 2000 tear-off lens, pack of 50	NV2017	538212
Nova 2000 inner lens, pack of 10	NV2018	538242
Nova 2000 window frame gasket	NV2003	538392
Nova 2000 visor kit with hinge and screws	NV2004	538402
Nova 2000 visor latch with screws	NV2008	538422



NOVA 2000 Padding System

Description	RPB Part#	Empire Part#
Nova 2000 helmet lining kit, small	NV2009/10SH	538272
Nova 2000 helmet lining kit, medium	NV2009/10	538262
Nova 2000 helmet lining kit, large	NV2009/10LH	538282
Nova 2000 head dome, small	NV2009SH	538302
Nova 2000 head dome, medium	NV2009	538292
Nova 2000 head dome, large	NV2009LH	538312
Nova 2000 pair of side wings, small	NV2010SH	538332
Nova 2000 pair of side wings, medium	NV2010	538322
Nova 2000 pair of side wings, large	NV2010LH	538342
Nova 2000 pair of side wings for wearer with glasses, small	NV2010GSH	538362
Nova 2000 pair of side wings for wearer with glasses, medium	NV2010G	538352
Nova 2000 pair of side wings for wearer with glasses, large	NV2010GLH	538372
Nova 2000 Velstuds, pack of 6	NV2038	538382

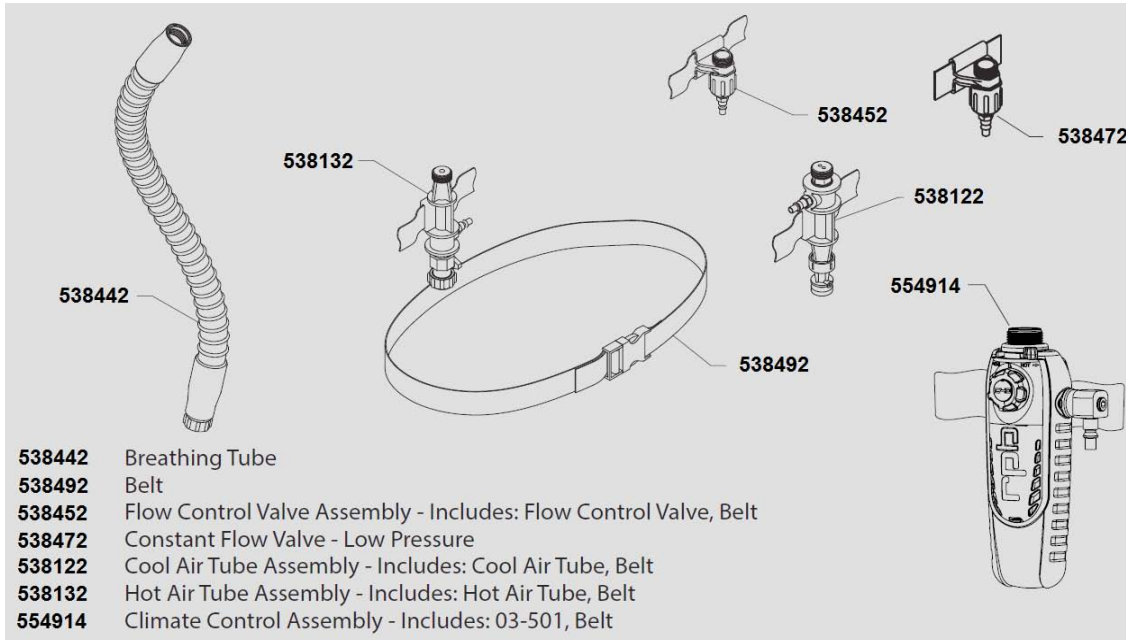




Operator Safety Equipment

NOVA 2000 Breathing Tube and Flow Control Devices

Description	RPB Part#	Empire Part#
Nova 2000 breathing tube	NV2021	538442
C40 temperature control system (cold/hot) with belt	03-501	554914
Cool air tube with belt	4000-01	538122
Hot air tube with belt	4000-20	538132
Flow control valve with belt	NV2016	538452
Adjustable belt	NV2022	538492
Constant flow valve with belt (air pump)	NV2015	538472
Cool air tube with GHT (garden hose thread)	4000-02	538123



NOVA 2000 Climate Control Replacement Parts (not shown)

Description	RPB Part#	Empire Part#
RPB cold air spinner	4000-04	538104
RPB breaker	4000-07	538107
RPB regulator assembly	4000-11	538134
RPB silencer disc	4000-16	538136



Operator Safety Equipment

ASTRO Hoods

OBSOLETE – No longer available (See below for parts and accessories still being offered.)

ASTRO Hood Respirator Systems

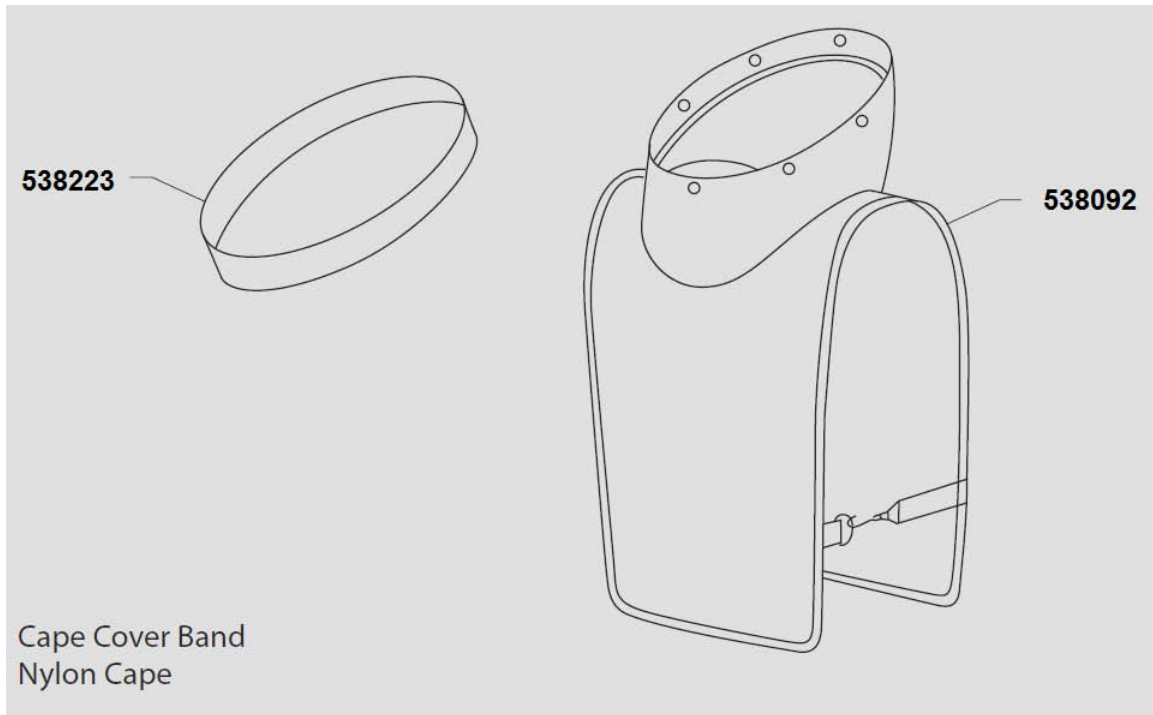
OBSOLETE – No longer available (See below for parts and accessories still being offered.)

ASTRO Respirator Breathing Air Supply Hoses

Description	RPB Part#	Empire Part#
Hose used with compressed air, 3/8" ID, 25' length	NV2028	538002
Hose used with compressed air, 3/8" ID, 50' length	NV2029	538012
Hose used with compressed air, 3/8" ID, 100' length	NV2027	538004
Quick release coupler, 1/4" female thread	NV2025	538037
Quick release, 3/8" hose tail	NV2024	538036
Hose tail, 1/4" male thread	NV2033	538020
Hose used with air pump, 1/2" ID, 50' length	NV2035	538022
Hose used with air pump, 1/2" ID, 100' length	NV2036	538032

ASTRO Respirator Capes

Description	RPB Part#	Empire Part#
ASTRO 28" nylon cape	02-813	538092
ASTRO cover band	02-812	538223
ASTRO inner bib for cape (not shown)	NV2012	538502

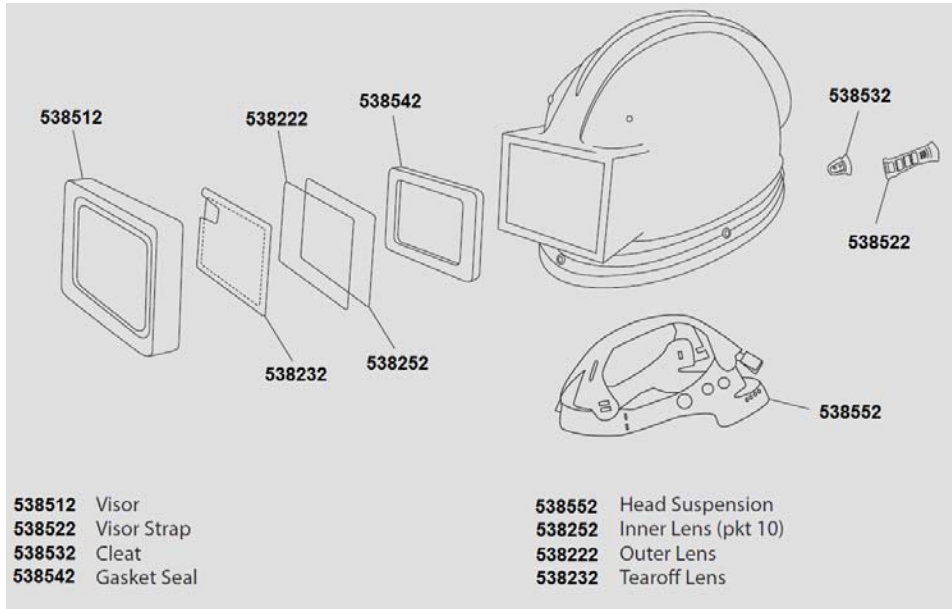




Operator Safety Equipment

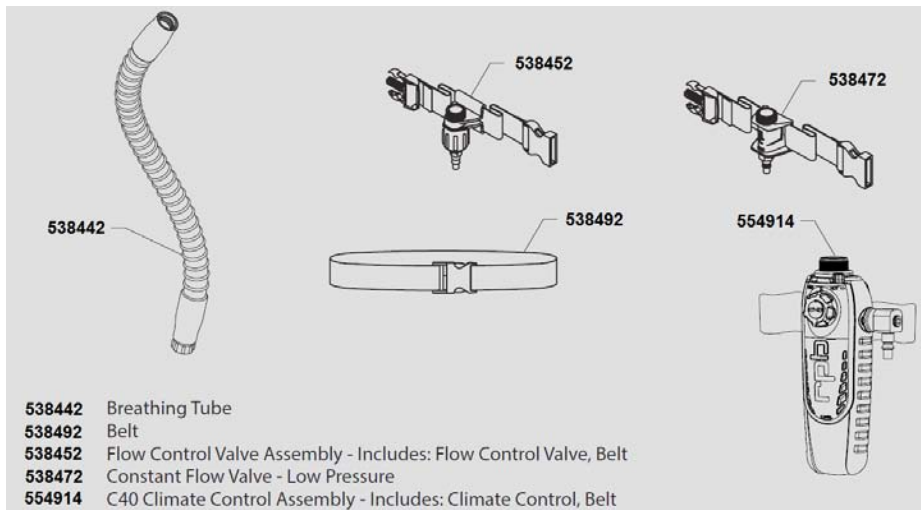
ASTRO Visor and Lenses

Description	RPB Part#	Empire Part#
Astro outer lens , .015" thick, pack of 50	02-811-015	538222
Astro tear-off lens, pack of 50	02-816	538232
Astro inner lens, pack of 10	02-810	538252
Astro window-frame gasket	02-807	538542
Astro visor kit	02-804	538512
Astro visor cleat with screws	02-806	538532
Astro visor strap	02-805	538522
Astro head suspension	02-809	538552



ASTRO Breathing Tube and Flow Control Devices

Description	RPB Part#	Empire Part#
Astro breathing tube	NV2021	538442
C40 temperature control system (cold/hot) with belt	03-501	554914
Flow control valve with belt	NV2016	538452
Constant flow control valve with belt (low pressure for air pump)	NV2015	538472
Adjustable belt	NV2022	538492





Operator Safety Equipment

Bullard Blast Hoods

Description	Bullard Part#	Empire Part#
Bullard BH-8 hood with 28" cape for use with compressors	88VX3230	527912
Bullard BH-8VXP hood with 28" cape for use with air pump	88VX3235	527932

Bullard Hood Respirator Systems

Description	Bullard Part#	Empire Part#
Bullard BH-PVX hood with air conditioner, 50' hose and air pump	88VXSYS	528232

Respirator Breathing Air Supply Hoses

Description	Bullard Part#	Empire Part#
Starter hose used with compressed air, 3/8" ID x 25' length	4696	522002
Extension hose used with compressed air, 3/8" ID x 25' length	5454	526952
Extension hose used with compressed air, 3/8" ID x 50' length	5457	528352
Extension hose used with compressed air, 3/8" ID x 100' length	5858	528342
Extension hose used with air pump, 1/2" ID x 50' length	V2050ST	528332
Extension hose, 1/2" ID x 100' length, with fittings used with air pump	V20100ST	527432

88VX Series Hood Respirators (NIOSH Certified) (Old 8 Series)

Replacement Parts

Description	Bullard Part#	Empire Part#
Cape, medium weight nylon, 28" long	46VX	527122
Cape, medium weight nylon, 38" long	13VX	527112
Cape, golden gate medium weight nylon, 38" long	21VX	528082
Adjustable headband suspension with brow pad	88VXTGP	528092
Breathing tube (fittings not included)	88VXBT	528052
Adjustable Ratchet Headband Suspension	88VXRTP	527962
Chin strap	88CS	528002
Chin strap - 88VX	20NC	528004
Constant flow control valve used with compressed air	F-30	527841
Constant flow control valve used with air pump	F-35	527842
Adjustable control valve used with compressed air	F-40	527843
Breathing tube assembly with constant flow control valve used with compressed air	EVX30	Call
Breathing tube assembly with constant flow control valve used with air pump	EVX35	528002
Breathing tube assembly with adjustable flow control valve used with compressed air	EVX40	528032
Nylon belt	4612	526842

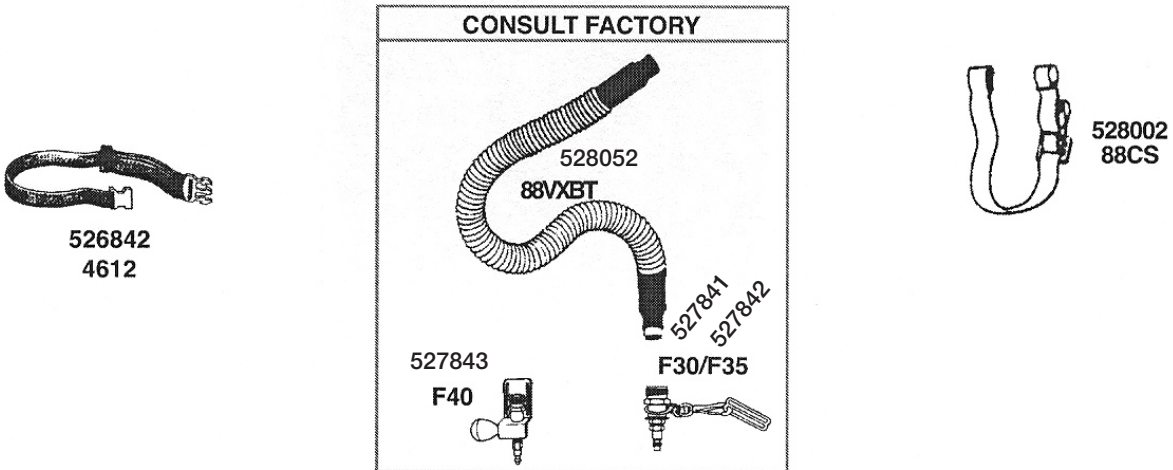
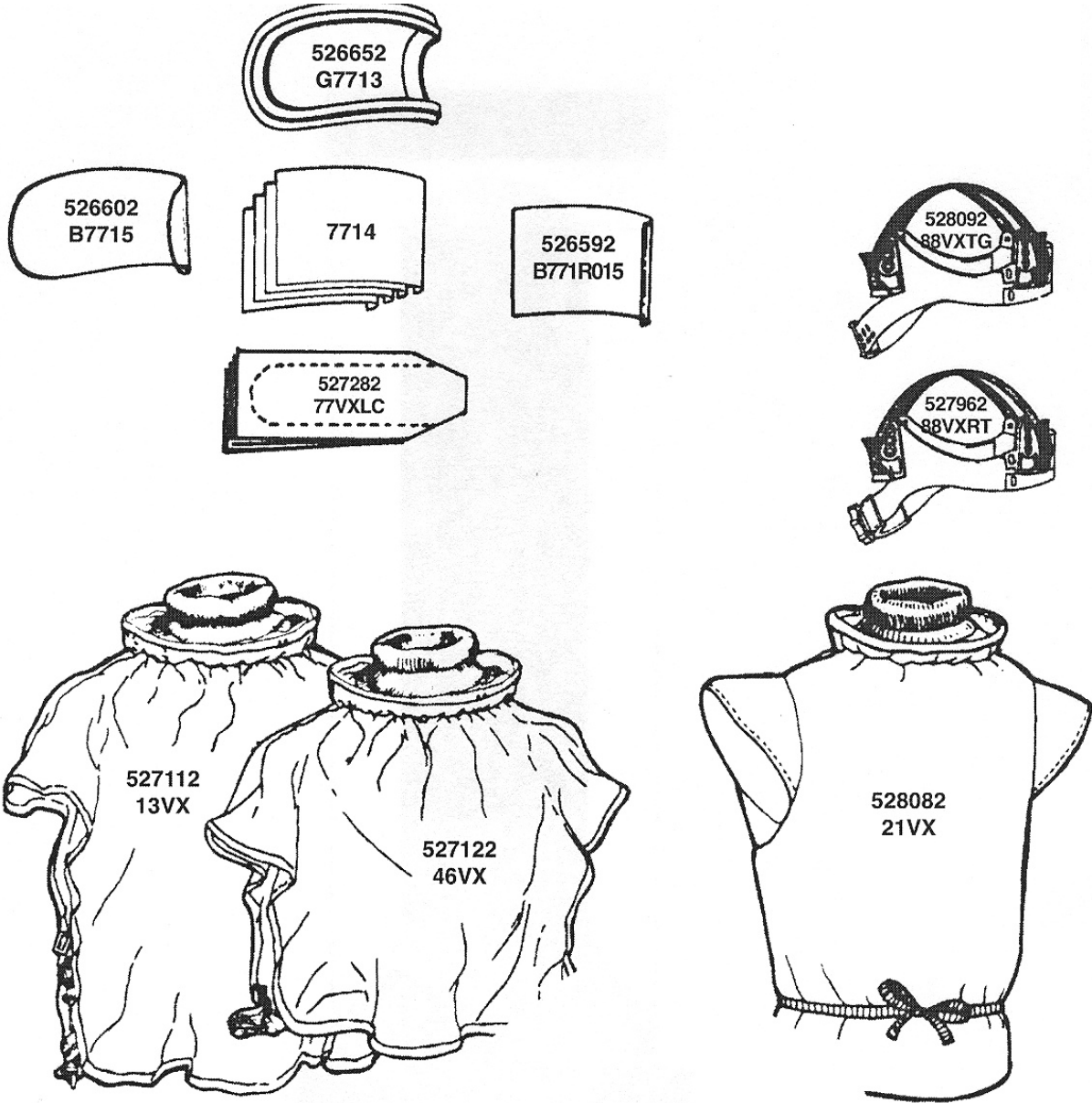
Replacement Lenses

Description	Bullard Part#	Empire Part#
Outer plastic lens, .015" thick (100 pack)	B771R015	526592
Outer plastic lens, .020" thick (100 pack)	B771R020	527292
Inner lens, .040" thick (each)	B7715	526602
Clear Mylar lens cover, perforated edges (25 pack)	88VXLC	527282
Maintenance kit with door, gasket and latch	88VXAK	526623
Window frame gasket	G7713	526652

Refer to Section J for Warnings & OSHA Statements.

Operator Safety Equipment

Replacement Parts for BH-8/88VX Series Respirators

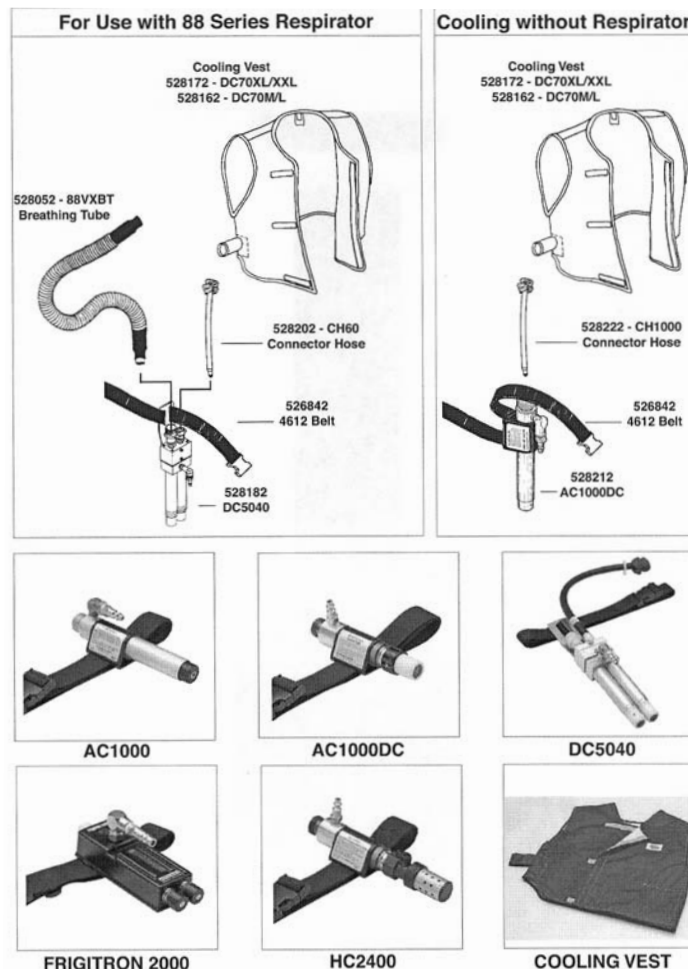




Operator Safety Equipment

Climate Control Devices

Description	Bullard Part#	Empire Part #
Air Conditioners		
Cool tube with ¼" industrial interchange quick-disconnect nipple for BH-8 with compressed air system	AC1000	527202
Cool tube with ¼" industrial interchange quick-disconnect nipple includes connector hose and belt for use with Cooling Vests only	AC1000DC	528212
DUAL-COOL tube with ¼" industrial interchange quick-disconnect nipple includes connector hose and belt for BH-8 with compressed air system	DC5040	528182
Hot/Cold tube assembly with flow control valve and ¼" industrial interchange quick-disconnect nipple includes connector hose and belt for BH-8 with compressed air system	HC2400	527972
Muffler assembly for HC2400	MV2400	528324
Frigitron 2000 Series Cool Tube Assembly with ½" industrial interchange quick-disconnect nipple includes connector hose and belt for BH-8 with air pump.	FRIGITRON 2000	527952
Cooling Vests		
Cooling Vest, medium/large, used with BH-8 respirators	DC70M/L	528162
Cooling Vest, X-large/XX-large, used with BH-8 respirators	DC70XL/XXL	528172
Replacement Parts		
Connector hose for use with DC5040 DUAL COOL	CH60	528202
Connector hose for use with AC1000DC	CH1000	528222





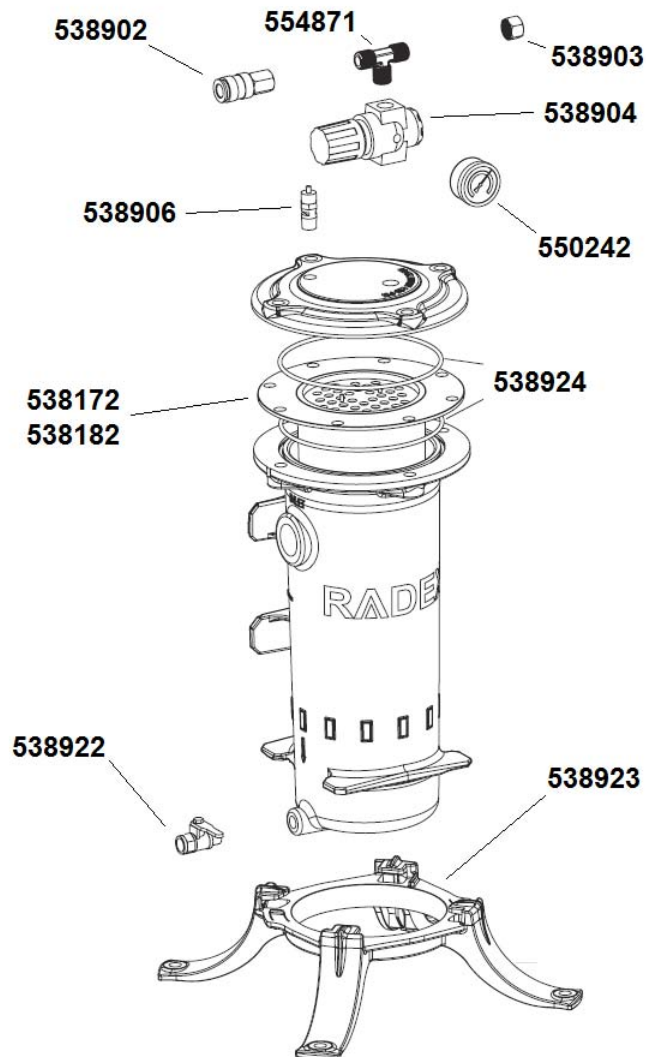
Operator Safety Equipment

Radex (RPB) Airline Filters

Description	RPB Part#	Empire Part#
Radex airline filter, complete (2 outlet ports)	04-900	538142
Radex airline filter, complete (3-6 outlet ports)	04-906	538156

Replacement Parts

Description	RPB Part#	Empire Part#
Filter refill, Radex and various brands	APF3100	538172
Filter refill, various brands	AFC100	538182
Quick disconnect coupler	04-911	538902
3/8" Cap	04-913	538903
Brass tee, 3/8" NPT	—	554871
Pressure regulator	04-914	538904
Air pressure gauge	—	550242
Pressure relief valve, 150 psi	04-916	538906
Drain tap	04-922	538922
Base mount	04-923	538923
O-rings (set of 2)	04-919	538924





Operator Safety Equipment

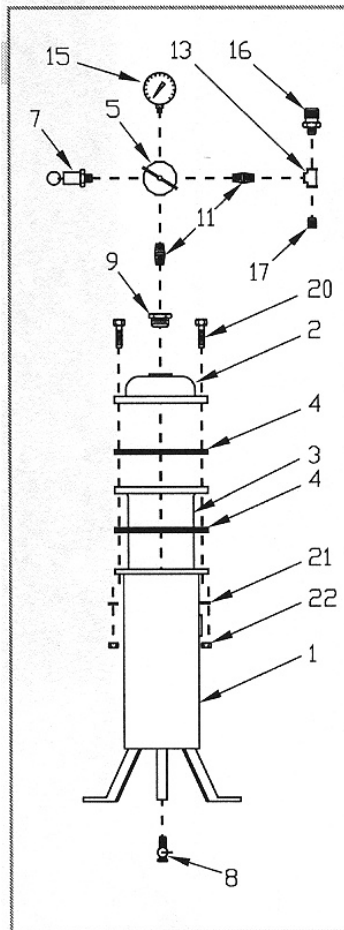
Personal Air Filters

Air Filter Assemblies

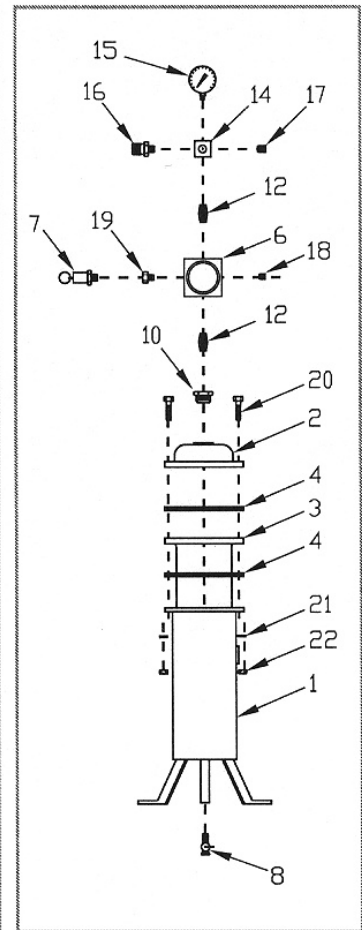
Description	EMPIRE PART#
Personal air filter, AP2-C with two outlets	290189
Personal air filter, AP2-C with two outlets, without fittings	290386
Personal air filter, AP2-C with two outlets for FaSrtrip® 200 Series	290448
Personal air filter, AP4-C with four outlets	290190

Air Filter Replacement Parts

Item	Description	EMPIRE Part#
1	Body	290186
2	Cap	753282
3	Filter	504682
4	Gasket	524112
5	Pressure regulator	517602
6	Pressure regulator	517141
7	Relief valve, 1/4" NPT	517672
8	Air valve, 1/4" NPT	520642
9	Bushing, 1" x 1/4" NPT	544482
10	Bushing, 1" x 1/2" NPT	544492
11	Nipple, 1/4" NPT	545912
12	Nipple, 1/2" NPT	546022
13	Tee, 1/4" NPT	545502
14	Manifold	763362
15	Air gauge	550242
16	Connector	520712
17	Plug, 1/4"	545441
18	Plug, 1/8"	544052
19	Adapter	520192
20	Hex bolt, 3/8" -16 x 2"	551872
21	Lock washer, 3/8"	552762
22	Hex nut, 3/8" -16	552542



(1) AP2-C



(1A) AP4-C

WARNING: Personal air filters will not remove carbon monoxide and other toxic gases.



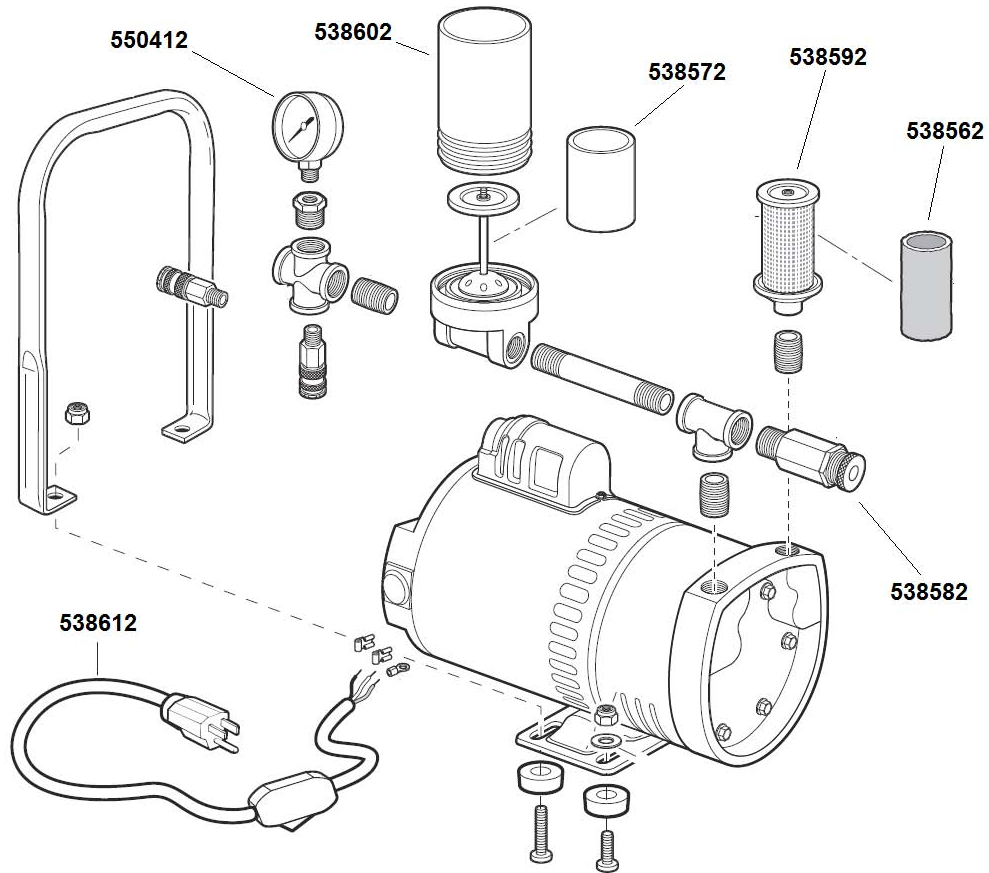
Operator Safety Equipment

RPB Ambient Air Breathing Pump

Description	RPB Part#	Empire Part#
¾ hp electric powered air pump, 1 person, manufactured by Allegro	06-100	538192

RPB Air Pump Replacement Parts

Description	RPB Part#	Empire Part#
RPB inlet filter element	9700-01	538562
RPB exhaust filter element	9700-02	538572
RPB pressure relief valve	9700-03	538582
RPB inlet filter assembly with filter	9700-08	538592
RPB exhaust filter canister	9700-15	538602
RPB 6½' long power cord with switch	9512-02	538612
Air pressure gauge, 0-30 psi	—	550412

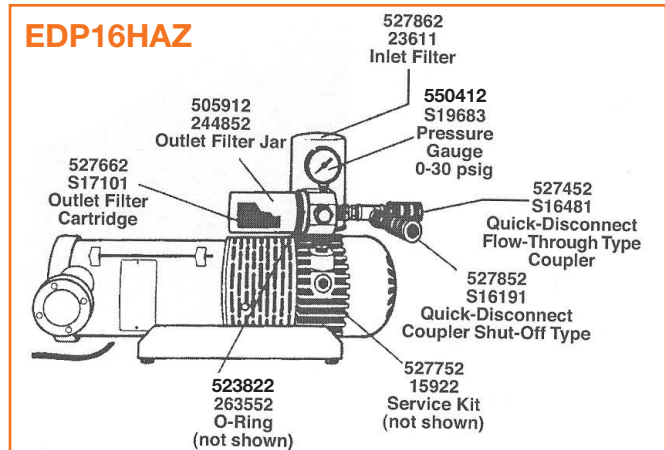
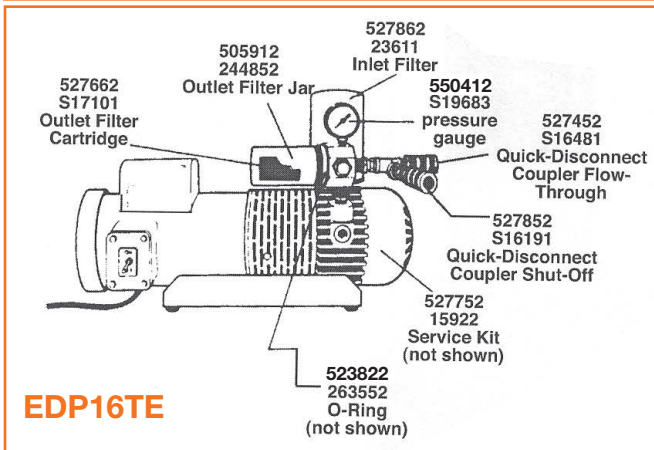
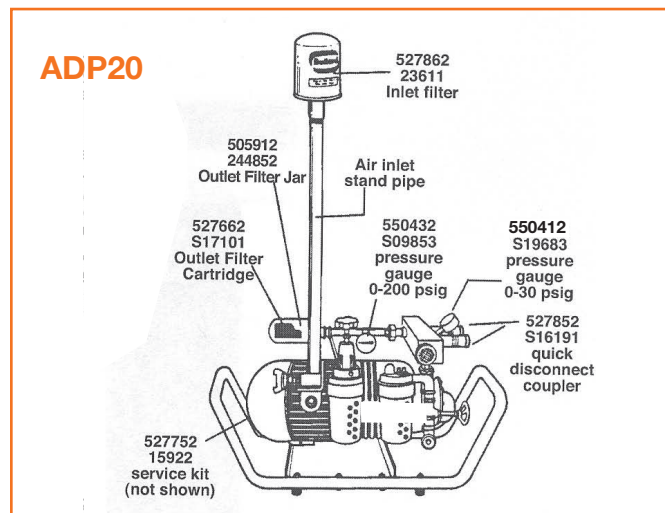
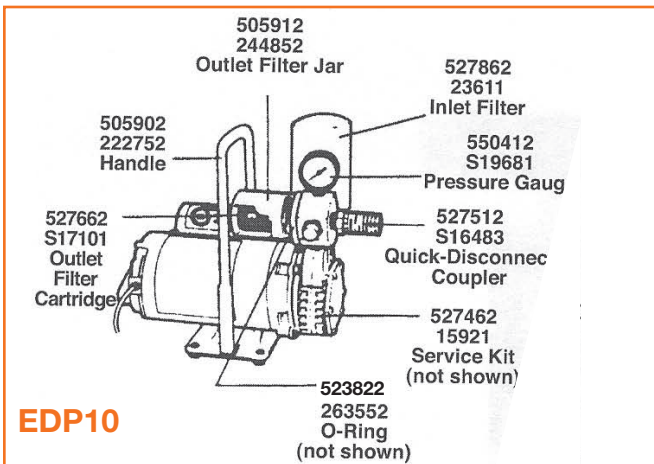


Operator Safety Equipment

Bullard Ambient Air Breathing Pumps

Description	Bullard Part#	Empire Part #
Electrically driven, oil-less air pump with open type ¾ horsepower, 115 volt, single-phase drive motor, includes inlet and outlet filters, carrying handle, on/off switch, electric cord and 0-15 psig gauge. Supplies air to one operator wearing a continuous flow helmet.	EPD10	505922
Electrically driven, oil-less air pump with totally enclosed (TEFC) type 1½ horsepower, 115 volt, single-phase drive motor, includes inlet and outlet filters, on/off switch, electric cord and 0-30 psig gauge. Supplies air to one or two operators wearing continuous flow helmets.	EPD16TE	505932
Electrically driven, oil-less air pump with hazardous duty (HAZ) type 1½ horsepower, 230-460 volt, three-phase drive motor, (motor starter to be supplied by customer) includes inlet and outlet filters and 0-30 psig gauge. Supplies air to one or two operators wearing continuous flow helmets.	EPD16HAZ	505962
Electrically driven, oil-less air pump with open type 5 horsepower, 230 volt, single-phase drive motor includes inlet and outlet filters and 0-30 psig gauge. Supplies air to one to four operators wearing continuous flow helmets or two operators using Frigatron 2000 air conditioners with continuous flow respirators. (Not shown below.)	EPD30A230	505862
Air driven, oil-less air pump, requiring 85 cfm at 95 psig for optimum performance, includes inlet and outlet filters and 0-30 psig gauge. Supplies air to one to four operators wearing continuous flow helmets or two operators using Frigatron 2000 air conditioners with continuous flow respirators.	APD20	505842

Replacement Parts for "Free Air" Pump



WARNING: If this air pump is to be used as a breathing source, the air inlet MUST be located in a CLEAN AIR area where breathable air can be assured at all times. Exhaust filter DOES NOT remove dangerous organic vapors or gases. DO NOT use this equipment if organic vapors or gases are present.



Operator Safety Equipment

RPB Gas Monitor

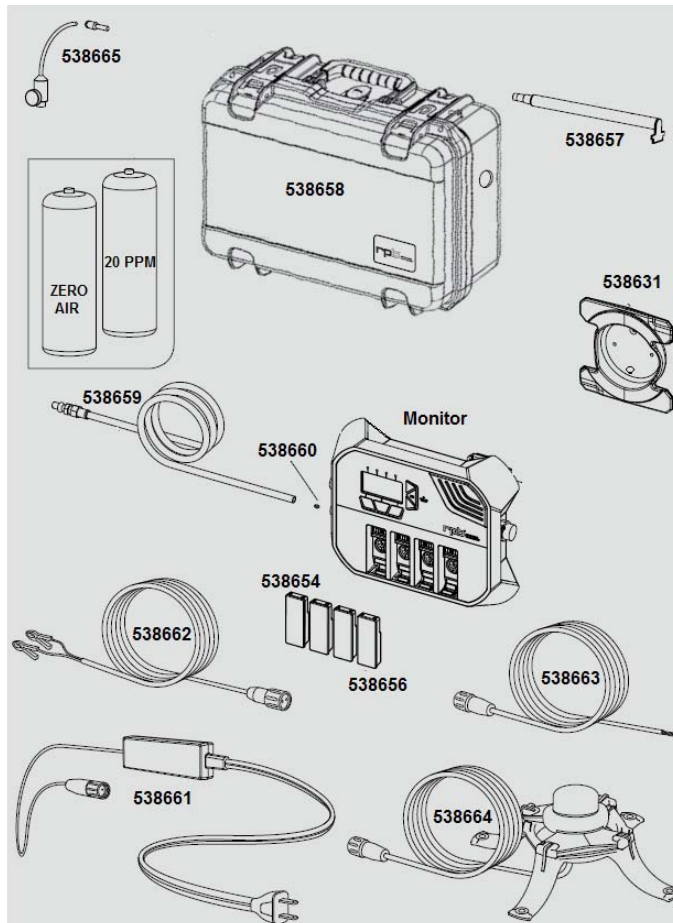
Description	RPB Part#	Empire Part#
GX4 gas monitor with 120 volt adapter and 10 PPM cartridge	08-400-01	538650
GX4 gas monitor with 12 volt adapter and 10 PPM cartridge	08-401-01	538652
GX4 gas monitor with 120 volt adapter and 5 PPM cartridge (Canada)	08-400-02	538650-CAN
GX4 gas monitor with 12 volt adapter and 5 PPM cartridge (Canada)	08-401-02	538652-CAN

Gas Test Parts

Description	RPB Part#	Empire Part#
GX4 gas test regulator kit	08-451	538665
GX4 replacement gas cylinders (zero air)	08-460	538666
GX4 replacement gas cylinders (20 ppm)	08-461	—

GX4 Gas Monitor Replacement Parts

Description	RPB Part#	Empire Part#
Cartridge, carbon monoxide 10 ppm, GX4	08-420-01	538654
Cartridge, carbon monoxide 5 ppm, GX4	08-420-02	538654-CAN
Cartridge, blank, GX4	08-420	538656
Manifold tube sensor	08-422	538657
Heavy duty field case	08-424	538658
3/8" x 4' air supply line with one-touch connector	08-428	538659
Inlet filter, sintered brass, M5	08-429	538660
120 volt AC adapter with power cord	08-021	538661
12 volt DC battery clips with 6' cord	08-431	538662
Auxiliary signal cable, 50' with bare ends	08-434	538663
Strobe light with alarm and 50' of cable with plug	08-436	538664
Aluminum wall mounting bracket	08-231	538631





Operator Safety Equipment

AIR SYSTEMS C.O. Monitor Gas Calibration Parts

Description	ASI Part#	Empire Part#
Gas cylinder, zero air	BBG0	513450
Gas cylinder, 20 ppm	BBG20	513448

AIR SYSTEMS Gas Monitor Replacement Parts

Description	ASI Part#	Empire Part#
Carbon monoxide replacement sensor	Consult factory	Consult factory
Replacement filter kit, all three stages, 30 cfm	BB30FK	513447

MST C.O. Monitor and Replacement Parts

Description	MST Part#	Empire Part#
Carbon monoxide replacement sensor	Consult factory	Consult factory

MST C.O. Gas Calibration Parts

Description	MST Part#	Empire Part#
MST calibration kit (1 each, zero air and 20 ppm)	—	538629



Refer to Section J for Warnings & OSHA Statements.



Obsolete Equipment Replacement Parts

Section I: Table of Contents

Suction Blasters

S-100 Suction Blaster	I2
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Pressure Blasters

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P-160 Pressure Blaster	I3
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Pressure Blasters (Models P-350 and Larger) before 10/15/80	I4
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Remote Controls

Saf-Stop II™ Electric Remote Controls for SuperBlast®	I5
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Saf-Stop™ 600 & 700 Series Pneumatic & Electric Systems	I6
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Saf-Stop™ 600 & 700 Series Pneumatic & Electric Systems (Before 10/15/80)	I7
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SuperBlast® Machines

SuperBlast® Dual Chamber Blasters with Manual Controls	I9-10
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SuperBlaster Production Machines	I11-12
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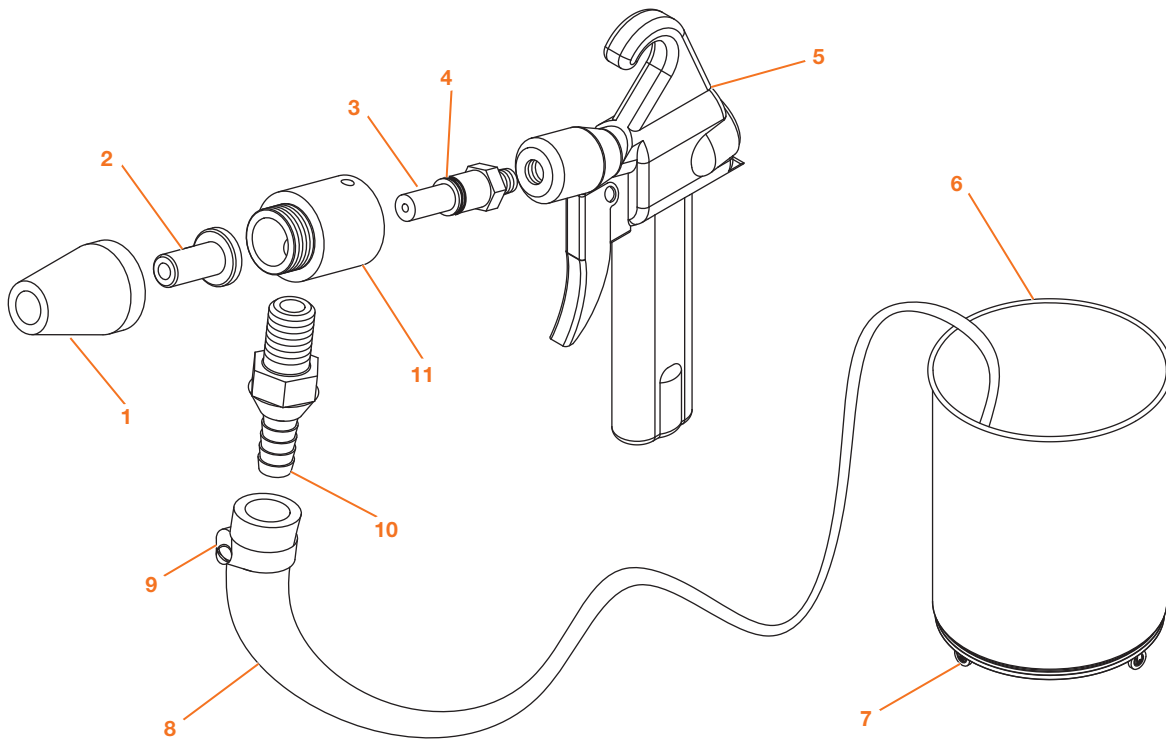
Never use silica sand in any Empire equipment.



Parts: Suction Blasters

S-100 Suction Blaster

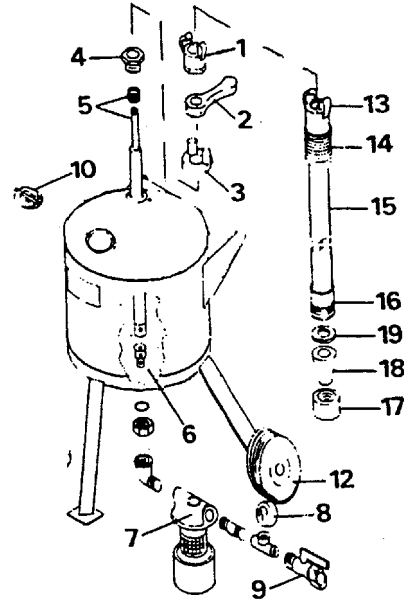
Item	Description	Part Number	Ship Weight
1	Nozzle adapter	504901	1 lb
2	Ceramic nozzle 5/16" (Quantity of 1)	502701	1 lb
	Ceramic nozzle 5/16" (Quantity of 10)	502411	1 lb
	Di-Carb™ nozzle 5/16" (Quantity of 1)	501321	1 lb
3	Air jet, 1/8"	504811	1 lb
4	O-ring	523891	1 lb
5	Gun body	505171	1 lb
	Repair kit for gun marked "74-1P"	505191	1 lb
	Gun with 5/16" ceramic nozzle	505422	1 lb
	Gun with 5/16" Di-Carb™ nozzle	505402	1 lb
6	S-100 container body	504012	17 lb
7	Casters (4 required)	505082	1 lb
8	Blast hose, 1/2" ID x 8' long with fittings	522022	4 lb
9	Adjustable clamp	520502	1 lb
10	Barbed fitting	520372	1 lb
11	Suction head	505331	1 lb



Parts: Pressure Blasters

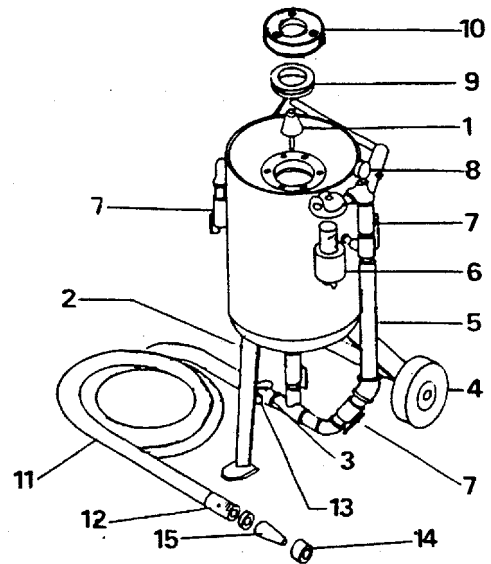
P-105 Pressure Blaster

	Part Number	Description	Net Wt.
(1)	506832	Tank Coupling, 3/8" NPT	1/2 lb.
	525102	Coupling Washer (Qty. of 25)	10 ozs.
(2)	-	-	-
(3)	-	-	-
(4)	544582	Hex Bushing	1/4 lb.
(5)	506062	Discharge Tube w/packing	2 1/4 lbs.
(6)	506172	Jet Assembly	6 ozs.
(7)	504592	Air Filter Assembly	4 1/4 lbs.
	506012	Air Filter Element (gauze)	1/4 lb.
	506212	Air Filter Element (watts)	1/4 lb.
(8)	550242	Air Gauge, 1/4" NPT	1/2 lb.
(9)	522042	Air Valve, 3/8" NPT	3/4 lb.
(10)	506792	Plug	1 1/4"
(11)	-	-	-
(12)	505042	Wheel, 6"	3 lbs.
(13)	505222	Blast Hose Coupling, QC- 1/2	3/4 lb.
(14)	-	-	-
(15)	-	PBH- 1/2 Blast Hose	Page 16
(16)	505232	Nozzle Coupling, 1/2" NPT	1/4 lb.
(17)	504912	Nozzle Adapter	2 ozs.
(18)	-	CN3 - Ceramic Nozzles	Page 14
	-	DC2F - Di-Carb Nozzles	Page 13
(19)	-	Nozzle Washers	Page 15



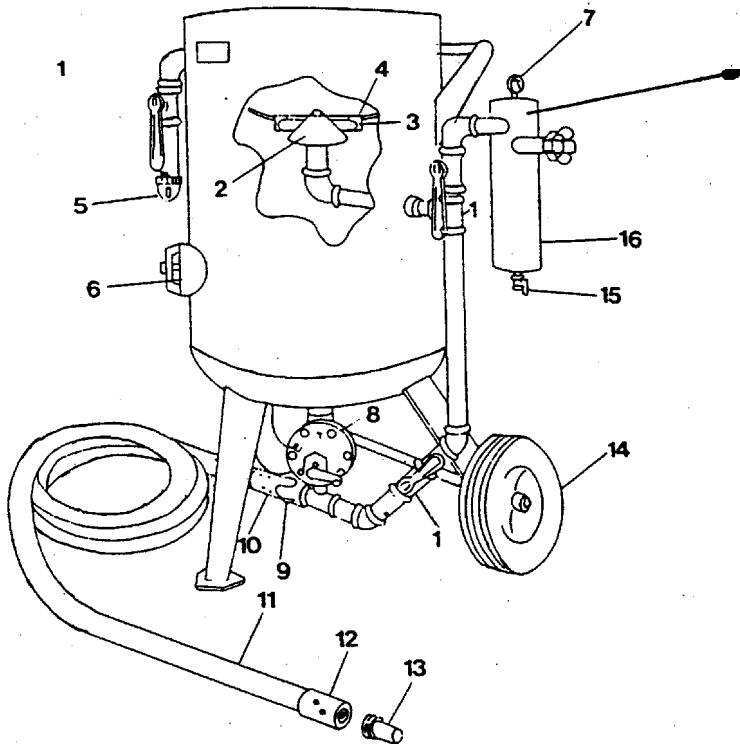
P-160 Pressure Blaster

	Part Number	Description	Net Wt.
(1)	751312	Sealing Plunger	3/4 lb.
(2)	290159	Grit Valve	2 lbs.
(3)	505212	Tank Coupling, 1/2" NPT	1/2 lb.
	525102	Coupling Washer (Qty. of 25)	10 ozs.
(4)	505052	Wheel, 10"	6 lbs.
(5)	-	Side Piping	-
(6)	504652	Air Filter, 1/2" NPT	5 lbs.
	504612	Air Filter Element (watts)	1/4 lb.
	504612	Air Filter Element (gauze)	1/4 lb.
(7)	518472	Air Valve, 1/2" NPT	1 lb.
(8)	550242	Air Gauge, 1/4" NPT	1/2 lb.
(9)	523942	"O" Ring	3 ozs.
(10)	545142	Sealing Ring Cap	4 lbs.
(11)	-	PBH - 1/2 Blast Hose	Page 16
(12)	505232	Nozzle Coupling, 1/2" NPT	1/4 lb.
(13)	505222	Blast Hose Coupling, QC- 1/2	3/4 lb.
(14)	504912	Nozzle Adapter	2 ozs.
(15)	-	CN3-Ceramic Nozzles	Page 14
	-	DC2F-Di-Carb Nozzles	Page 13
	-	Nozzle Washers	Page 15



Parts: Pressure Blasters

Pressure Blasters (Models P-350 and Larger) Manufactured prior to 10/15/80



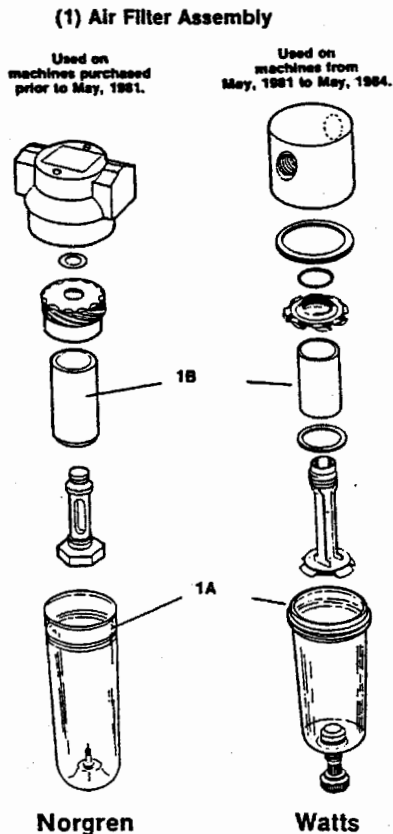
NOTE: This separator replaced by new DF-1 and DF-2 Dry-Flo separator. See #16 below.

Part Number	Description	Net Wt.
(1) 517422	Air valve (brass) with handle - 1" S.P.T.	4 1/2 lbs.
517452	Air valve (brass) with handle - 1 1/4" S.P.T.	6 lbs.
504352	Replaceable handle for 1" valve	1/2 lb.
505272	Replaceable handle for 1 1/4" valve	3/4 lb.
(2) 753152	Sealing plunger, 4"	2 1/2 lbs.
(3) 523862	Rubber "O" ring, 4"	1/4 lb.
(4) -	-	-
(5) 753322	Silencer - 1" S.P.T.	1/2 lb.
(6) -	-	-
524292	Door gasket	2 ozs.
(7) 550242	Pressure gauge - 1/4" M.P.T.	1/2 lb.
(8) 290160	411 Abrasive regulator (Automatic Valve—normally open)	24 lbs.
290161	412 Abrasive regulator (Manual Valve—normally open)	20 lbs.
(9) 753262	Tank coupling—aluminum	3/4 lb.
753272	Tank coupling—brass	1 1/4 lb.
(10) -	Quick snap hose coupling—(See page 15)	-
(11) -	Blast hose—(See page 16)	-
(12) -	Nozzle coupling—(See page 15)	-
(13) -	Nozzle—(See pages 12-14)	-
(14) 505052	Wheel—10" O.D. x 1/2" axle (A 1/2" axle must be used with 10" wheel. Please specify length of axle when ordering.)	6 lbs.
505062	Wheel—12" O.D. x 5/8" axle	9 lbs.
505072	Wheel—16" O.D. x 1" axle	22 lbs.
(15) 518252	Drain valve - 1/4" F.P.T.	1/2 lb.
(16) 290191	DF-1 Dry-Flo manual drain separator - 1" S.P.T. with built in swing check (not supplied with gauge or drain valve)	22 lbs.
290192	DF-2 Dry-Flo manual drain separator - 1 1/4" S.P.T. with built in swing check (not supplied with gauge or drain valve)	30 lbs.
504562	ADS-1 automatic drain separator - 1" S.P.T. (not supplied with gauge)	10 1/2 lbs.
504662	ADS-2 automatic drain separator - 1 1/4" S.P.T. (not supplied with gauge)	14 3/4 lbs.

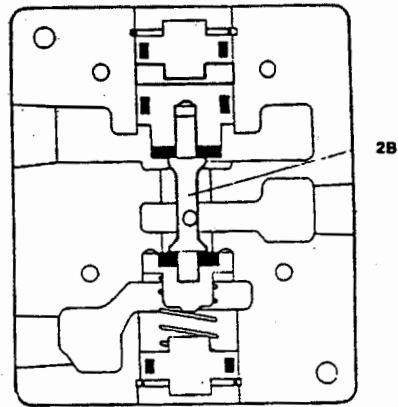
Parts: Remote Controls

Saf-Stop II™ Electric Remote Controls for SuperBlast®

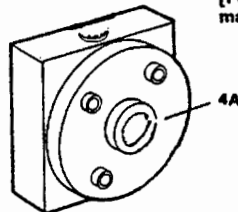
Part Number	Description	Net Wt.
(1) 504552	Air Filter Assembly, ¼"	1 lb.
(1A) 504572	Air Filter Bowl (Used from 5/81 to 5/84)	6 ozs.
506882	Air Filter Bowl (Used before 5/81)	6 ozs.
(1B) 505292	Air Filter Element (Used from 5/81 to 5/84)	3 ozs.
506742	Air Filter Element (Use before 5/81)	3 ozs.
(2) 290461	Pneumatic Pilot Valve Assembly, Old Style, Normally Open, (Not Shown)	1 lb.
518112	Pneumatic Pilot Valve Assembly, New Style Normally Closed (Not Shown)	1 lb.
(2A) 517132	Pilot Valve Repair Kit — includes (4) "O" Rings, (2) Seals	1 oz.
(2B) 518222	Pilot Valve Spindle	1 oz.
(3) 518122	Pilot Valve Assembly, Old Style, Normally Closed	3 lbs.
(3A) 290222	Actuator Assembly, Old Style, 12 V.D.C.	8 lbs.
517092	12 Volt Actuator	4 lbs.
(3B) 517802	12 Volt Coil	5 ozs.
(4) 517102	Pilot Valve w/Air Actuator, Old Style, Normally Open	1 lb.
517712	Pilot Valve w/Air Actuator, New Style, Normally Closed	1 lb.
(4A) 290221	Pneumatic Actuator Kit	8 ozs.
Not Shown		
290460	Electric Option, 24 Volt upgrade	8 ozs.



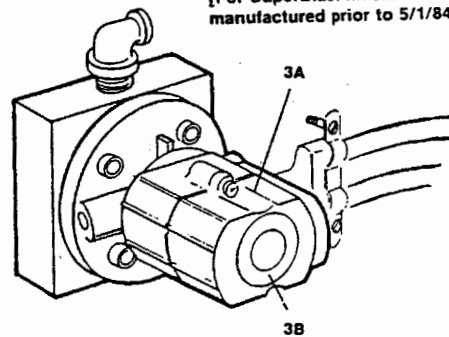
[2A] Pilot Valve Repair Kit
[For SuperBlast machines manufactured prior to 5/1/84]



[4] Pneumatic Pilot Valve
[For SuperBlast machines manufactured prior to 5/1/84]

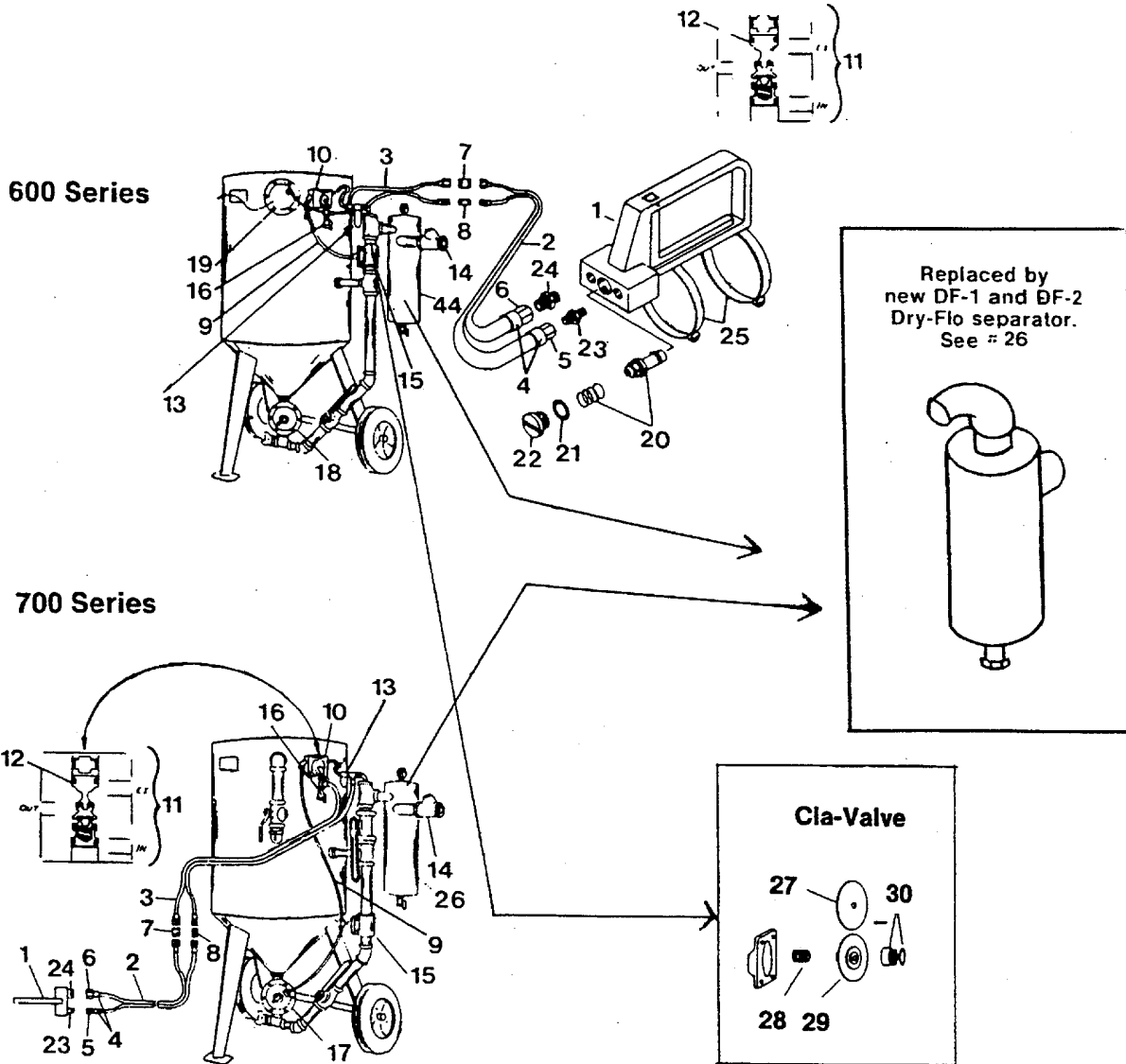


[3] Electric Pilot Valve
[For SuperBlast machines manufactured prior to 5/1/84]



Parts: Remote Controls

Saf-Stop™ 600 & 700 Series Pneumatic & Electric Systems (Normally Open)



Part Number	Description	Net Wt.
(1) 290164	77 Saf-Stop™ Operator Control for use with dual line	1½ lbs.
(2) 521882	Dual control hose 50' with fittings installed	8 lbs.
(3) 521892	Dual control hose 55' with fittings installed	9 lbs.
520872	Dual control hose per foot (no fittings)	—
(4) 520492	Hose clamp for 3/16" dual line	1 oz.
(5) 520352	1/8" swivel female	2 ozs.
(6) 520342	1/4" swivel female	2 ozs.
(7) 520032	1/4" connector	4 ozs.
(8) 520782	1/8" connector	4 ozs.
(9) 521902	Single control hose 1/4" I.D. with fittings installed	½ lb.
(10) 517102	Pilot valve	1 lb.
(11) 517132	Pilot valve repair kit—includes: (four) "O" rings, (two) seals	¼ lb.
(12) 517112	Pilot valve spindle with bleed hole	1 oz.



Parts: Remote Controls

Saf-Stop™ 600 & 700 Series Pneumatic & Electric Systems (Normally Open) (Manufactured before 10/15/80)

Part Number	Description	Net Wt.
(13) 504552	Air filter assembly— ¼"	1 lb.
(14) 517503	1" swing check valve (Not required with DF-1 Dry-Flo Separator)	2 lbs.
517552	1¼" swing check valve (Not required with DF-2 Dry-Flo Separator)	3 lbs.
(15) 517692	1" diaphragm valve complete	6 lbs.
518132	1¼" diaphragm valve complete	4 lbs.
(16) 520642	Drain valve	¼ lb.
(17) 290160	411 Abrasive regulator (Automatic Valve—normally open)	24 lbs.
(18) 290161	412 Abrasive regulator (Manual Valve)	20 lbs.
(19) 290181	MG 72 Exhaust valve complete (600 and 680 series only)	17 lbs.
(20) 290224	77 Control Plunger Kit—includes: push rod, nut, spring, washer, "O" ring	½ lb.
(21) 290225	77 Control Rubber Parts Kit—includes: washer, (two) "O" rings, urethane disc	½ lb.
(22) 520122	77 Control brass plug	½ lb.
(23) 520212	⅝" x ⅝" brass male adapter	2 ozs.
(24) 520222	¼" x ¼" brass male adapter	2 ozs.
(25) 520512	Handle clamp (each)	¼ lb.
(26) 290191	DF-1 Dry-Flo Manual Drain Separator with built-in swing check (not supplied with gauge or drain valve)—1" SPT	22 lbs.
290192	DF-2 Dry-Flo Manual Drain Separator with built-in swing check (not supplied with gauge or drain valve)—1¼" SPT	30 lbs.
(27) 523692	Diaphragm for 1" valve	—
523702	Diaphragm for 1¼" valve	—
(28) 506112	Spring for 1" valve	—
517022	Spring for 1¼" valve	—
(29) 517682	Diaphragm assembly for 1" valve	—
523712	Diaphragm assembly for 1¼" valve	—
(30) 517862	Seat for 1" valve	—
517702	Seat for 1¼" valve	—

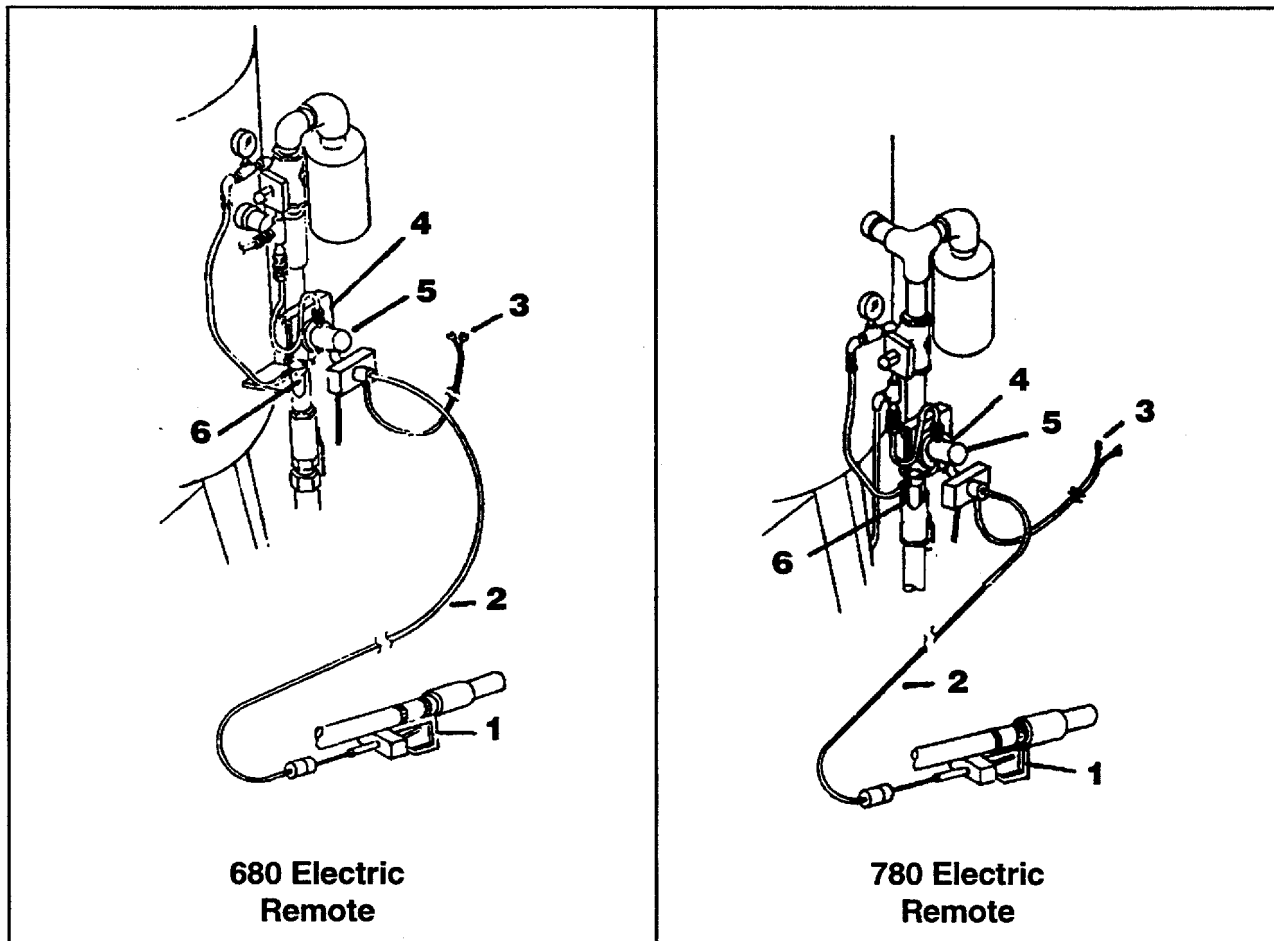
Parts for Electric Remote Controls

290223	Conversion Kit—Pneumatic remote to Electric 600 or 700 series (12V)	30 lbs.
517311	Solenoid valve—used in place of pilot valve (not for Big E)	2 lbs.
517392	Solenoid repair kit for use with standard portables	1 lb.
290354	77E Electric operator control	1½ lbs.

Parts: Remote Controls

Saf-Stop™ 680 & 780 Series Electric Remote Control Systems (Manufactured between 6/1/84 & 3/1/96)

Item	Part #	Description	Ship Weight
1	290354	Electric Saf-Stop II Remote Control Handle (refer to Section G for parts)	2 lbs.
2	530042	50' cable w/fittings	27 1/2 lbs.
	530052	20' cable w/fittings	10 lbs.
	530062	Cable per foot	1 lb.
3	528651	Battery Clips	1 lb.
4	517092	12 volt Electric Actuator	2 lbs.
5	290462	12 volt Electric Actuator Assembly	4 lbs.
	517082	12 volt Coil	2 lbs.
6	504552	Air Filter Assembly, 1/4" NPT (Norgren)	2 lbs.
	506882	Air Filter Bowl	1 lb.
	506742	Air Filter Element	1 lb.



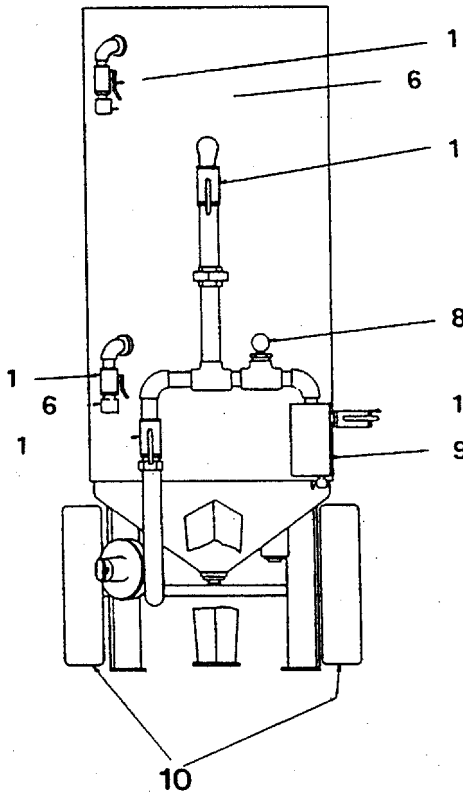


SuperBlast® Dual Chamber Blasters with Manual Controls

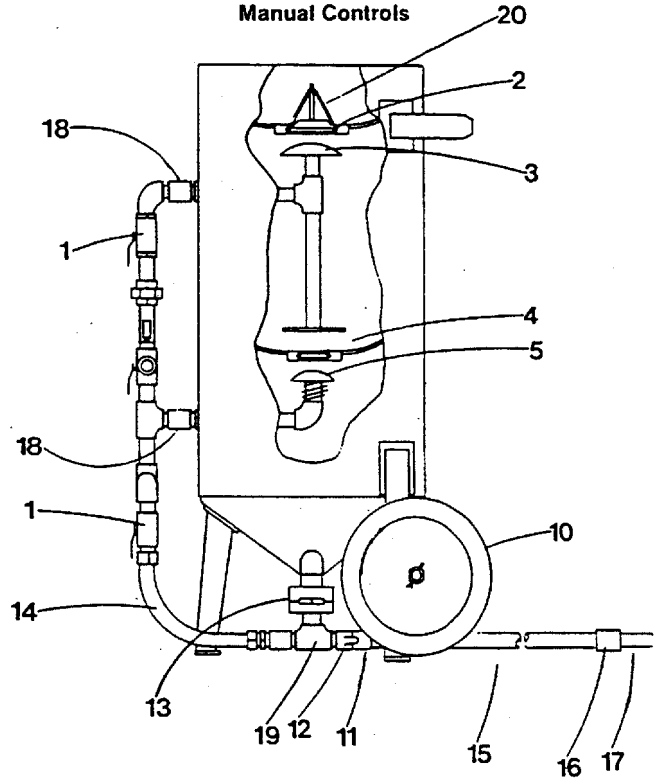
Part Number	Net Description	Wt.
(1) 517442	Air Valve (brass) with handle—1" S.P.T. (For manual exhaust).	4½ lbs.
517452	Air Valve (brass) with handle—1¼" S.P.T.	6 lbs.
504352	Replaceable Handle (with right angle stop tab) for 1" Valve.	½ lb.
505272	Replaceable Handle (with right angle stop tab) for 1¼" Valve.	¾ lb.
507132	Replaceable Handle (with straight stop tab) for 1" Valve.	½ lb.
507142	Replaceable Handle (with straight stop tab) for 1¼" Valve	½ lb.
(2) 523872	Rubber "O" Ring—6" (Upper Chamber).	½ lb.
(3) 525072	Sealing Plunger—Coated 6" (Upper Chamber).	4 lbs.
(4) 523862	Rubber "O" Ring—4" (Bottom Chamber).	4 ozs.
(5) 753152	Sealing Plunger—Coated 4" (Bottom Chamber).	4 lbs.
(6) 753322	Silencer	½ lb.
(7) 506152	OBSOLETE	
524152	Door Gasket.	2 ozs.
(8) 550242	Pressure Gauge—¼" M.P.T.	½ lb.
(9) 290192	DF-2 Dry-Flo Manual Drain Separator—1¼" S.P.T. with built-in Swing	22 lbs.
504662	Automatic Drain Separator—1¼" S.P.T. (not supplied with Gauge).	14¾ lbs.
518252	Drain Valve—¼" F.P.T.	½ lb.
(10) 505072	Wheel—16" Semi Pneumatic.	22 lbs.
(11)	Quick Snap Hose Coupling—(See page 15).	
(12) 753262	Tank Coupling—Aluminum.	¾ lb.
753272	Tank Coupling—Brass.	1¼ lbs.
(13) 290383	Manual Sure-Flo Grit Valve.	25 lbs.
(14) 290319	Flexible Hose Assembly with (1) fixed and (1) swivel fitting installed— SuperBlast 850 or 850D with Manual Controls.	2 lbs.
(15) —	Blast Hose—(See page 16).	
(16) —	Nozzle Couplings—(See page 15).	
(17) —	Nozzles—(See pages 12-14).	
(18) 517552	1¼" Swing Check Valve.	3 lbs.
(19) 545752	1¼" x 1¼" x 2" Tee	1 lb.
(20) 290367	E-Z Fill™ Bag Breaker/Screeners Complete.	1 lb.
(20A) 762992	Screen.	6 ozs.
(20B) 762972	Top legs.	4 ozs.
(20C) 762982	Bottom legs.	4 ozs.
(20D) 552112	Bolt with lock washer & nut.	2 ozs.
(20E) 551372	Screw.	1 oz.

SuperBlast® Dual Chamber Blasters with Manual Controls

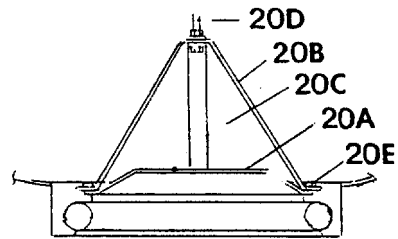
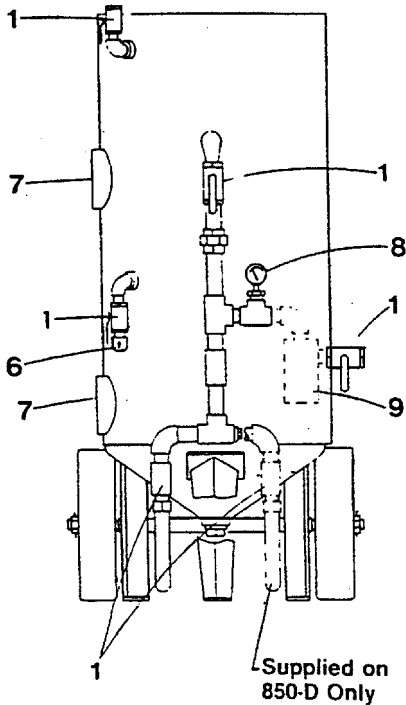
**Model 850
with Manual Controls**



**Side View
Models 850 & 850D
Manual Controls**



**Model 850D (Dual Outlet)
with Manual Controls**



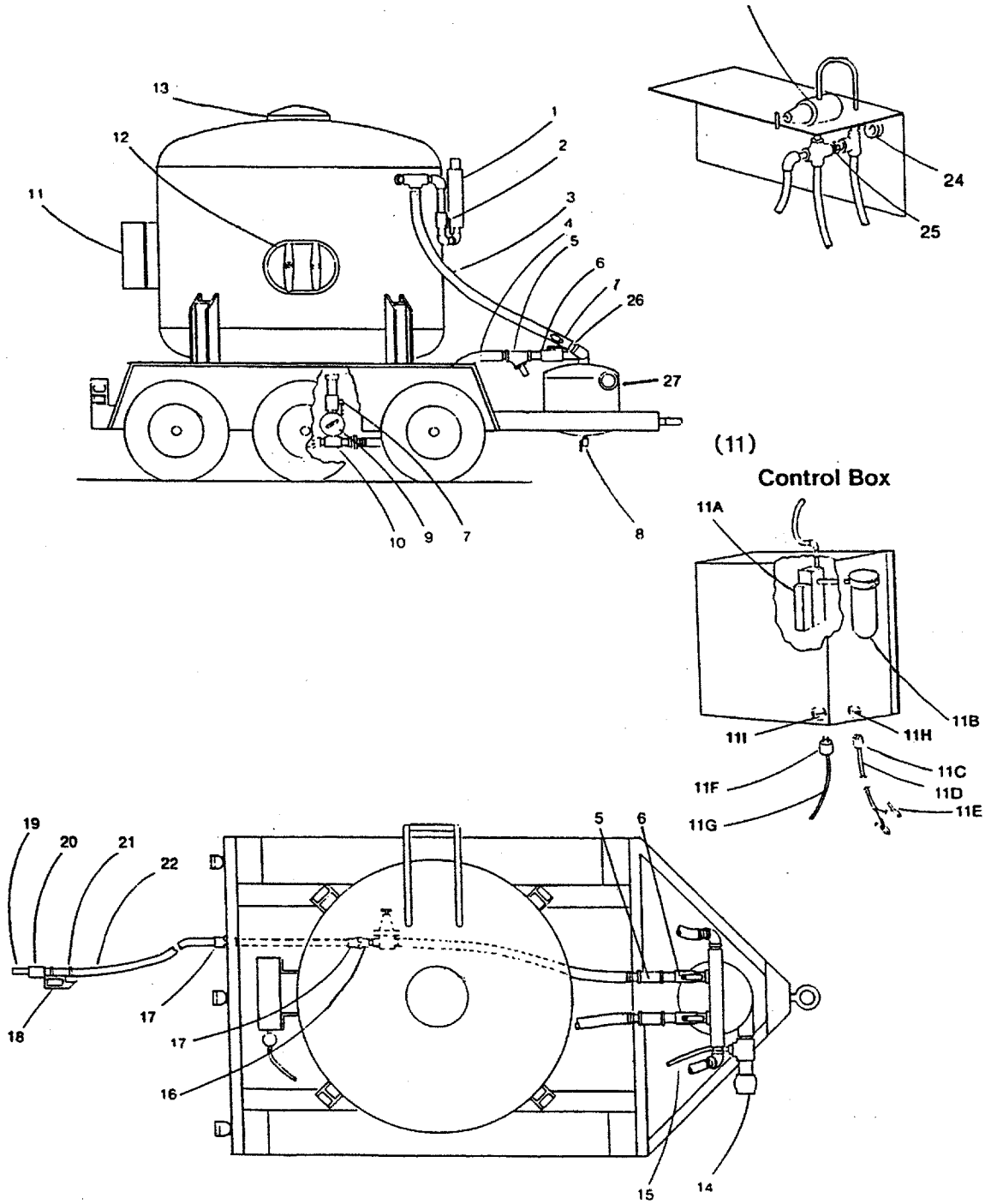
**(20) E-Z Fill Bag
Breaker/Screener**



SuperBlaster Production Machines

Part Number	Description	Net Wt.
(1) 504422	Exhaust Sound Suppressor	3 lbs.
(2) 517452	Air Valve, 1" NPT	4½ lbs.
(3) 520962	Air Hose, 2" ID	4 lbs.
(4) 520942	Air Hose, 1¼" ID	3 lbs.
(5) 517052	Automatic Air Valve, 1¼" NPT	1 lb.
(6) 517452	Air Valve, 1¼" NPT	6 lbs.
(7) 517482	Air Valve, 2" NPT	2 lbs.
(8) 520642	Air/Drain Valve, ¼" NPT	1 lb.
(9) 290215	Automatic Sure-Flo	30 lbs.
(10) 545752	Tee, 2" x 1¼" x 1¼" NPT	1 lb.
(11) —	Control Box	—
(11A) 517322	Solenoid Valve	4 lbs.
(11B) 505301	Filter/Moisture Separator	8 lbs.
(11C) 534011	Plug	6 ozs.
(11D) 529551	Cord only (per foot)	6 ozs.
(11E) 528651	Battery Clips	4 ozs.
(11F) 530042	Extension Cord w/fittings (55')	1½ lbs.
(11G) 529571	Electric Remote Wire only (per foot)	6 ozs.
(11H) 533992	Receptacle (Female)	
(11I) 534051	Plug, Flanged Inlet (Male)	6 ozs.
(12) 524271	Door Gasket	2 ozs.
(13) 523802	"O" Ring, 12"	½ lb.
(14) 517562	Swing Check Valve, 2" NPT	1½ lbs.
(15) 520861	Air Hose, ½" ID	1 lb.
(16) 753262	Tank Coupling, 1¼" NPT	¾ lb.
(17) 751102	Blast Hose Coupling, 1¼" NPT	1 lb.
(18) 290164	77 Saf-Stop II	1½ lb.
(19) —	Nozzles (see page 12-14)	—
(20) —	Nozzle Couplings (see page 15)	—
(21) 520512	Adjustable Clamp	1 oz.
(22) —	Blast Hose (see page 16)	—
(23) 517602	Pressure Regulator, ¼" NPT	1 lb.
(24) 550222	Air Gauge	½ lb.
(25) 517572	Check Valve, ¼" NPT	4 ozs.
(26) 520162	Hose Barb, 2"	½ lb.
(27) 504152	Separator, moisture	100 lbs.

SuperBlaster Production Machines





SuperBlaster Conversion Kits for Bulk Blasters

780-1¼ System for most Bulk Blasters

		Net WL
290287	Electric Remote Kit — Bulk Blasters (1 outlet) — Includes: (1) 780-1¼E Saf-Stop II electric remote control for Bulk Blaster with lapped spool and sleeve solenoid valve mounted in a dust proof electrical box and all necessary fittings and hoses for installation on most 100 cu. ft. and larger Bulk Blasters.	95 lbs.
290288	Same as above except for 2 outlets	180 lbs.
290289	Same as above except for 3 outlets	275 lbs.
290290	Same as above except for 4 outlets	370 lbs.
290291	Same as above except for 5 outlets	465 lbs.
290292	Same as above except for 6 outlets	570 lbs.
290293	Same as above except for 7 outlets	665 lbs.
290294	Same as above except for 8 outlets	760 lbs.
290426	Add to SuperBlaster 12 volt electric remote controls to change to 24 volt. Add (1) for each operator.	1 lb.

290271	Pneumatic Remote Kit — Bulk Blasters (1 outlet) — Includes: (1) Grit-Mizer-1¼ Saf-Stop II pneumatic remote control for Bulk blasters and all necessary fittings and hoses for installation on most 100 cu. ft. and larger Bulk Blasters.	75 lbs.
290272	Same as above except for 2 outlets	140 lbs.
290273	Same as above except for 3 outlets	215 lbs.
290274	Same as above except for 4 outlets	290 lbs.
290275	Same as above except for 5 outlets	365 lbs.
290276	Same as above except for 6 outlets	450 lbs.
290277	Same as above except for 7 outlets	525 lbs.
290278	Same as above except for 8 outlets	600 lbs.

Fine Tuning for 780-1¼ Electric Saf-Stop II Bulk Blaster Conversion Kits

290279	Fine Tuning for (1 outlet) System: Allows adjustment of grit from electric or pneumatic control box location without shutting down.	25 lbs.
290280	Same as above except for 2 outlets	40 lbs.
290281	Same as above except for 3 outlets	65 lbs.
290282	Same as above except for 4 outlets	90 lbs.
290283	Same as above except for 5 outlets	115 lbs.
290284	Same as above except for 6 outlets	150 lbs.
290285	Same as above except for 7 outlets	175 lbs.
290286	Same as above except for 8 outlets	200 lbs.





Appendix

Section J: Table of Contents

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Extended Limited Warranty

Empire Abrasive Equipment Company (“Empire”) warrants all parts and equipment against defects in material and workmanship to the original purchaser for a period of **three (3)** years after shipment. Upon prompt notification by the buyer to Empire, components that are determined by Empire to be defective will be repaired or replaced at no additional charge.

LIMITATIONS:

1. This warranty does not apply to normal wear items such as nozzles, blast hose, reclaimers or to other components that are exposed to direct contact with blast media.
2. All recommended maintenance schedules must be followed by the buyer, see Operating Instruction.
3. Does not apply to misapplication of product.
4. Unauthorized service, repair, improper installation, improper operation, improper maintenance, alterations, misuse, neglect, accident or excessive ambient conditions will void the warranty.
5. **If genuine Empire replacement parts are not used the warranty is void.**
6. Returned Materials Authorization (RMA) form must be completed and accompany all returned materials. Returns are not recognized without prior authorization and RMA number.
7. Associated installation costs are excluded.
8. Freight costs for goods returned to Empire are to be assumed by the buyer unless the parts are determined defective by Empire.
9. Parts not supplied by Empire are not covered. Commercial components are warranted under term of the original manufacturer.

Warnings

1. **SILICA SAND NOT TO BE USED IN ANY EMPIRE BLAST EQUIPMENT**
2. Before installing and operating any type of blast or safety equipment, read all manufacturers’ installation and operating manuals carefully.
3. Always use “**safety pins**” when joining blast hose and air hose couplings.
4. OSHA requires the use of operator safety equipment for all blasting operators. Refer to OSHA statements on next page for more detailed information.
5. All operator’s breathing apparatus **must** be supplied with clean, breathable Grade “D” quality or better air as defined by the Compressed Gas Association Commodity Specification G-7.1, 1989.
6. There are three safe ways to provide the correct air quality to the operator:
 - a. An ambient air breathing pump with a hood respirator
 - b. A self-contained air respirator system
 - c. An air compressor equipped with a high temperature alarm, carbon monoxide filter, and a carbon monoxide alarm.
7. The following is mandatory respiratory equipment when abrasive blasting:
 - a. You must use an air supplied respirator when open blasting with any media.
 - b. You must have the air supplied respirator attached to a good air source. A good air source is defined as the following: ambient air pump, self-contained air respirator or an air compressor that has a high temperature alarm, carbon monoxide filter and carbon monoxide monitor.
 - c. Personal air filter must be attached between the air compressor and the air-supplied respirator. This unit only removes oil and moisture. **It does not remove carbon monoxide (CO)**. It will **never** remove carbon monoxide.
 - d. Remember, carbon monoxide is an odorless, tasteless gas that kills without warning. You need protection against this gas. You need the proper air source described above. **Never accept or recommend substitutes.**



OSHA Statements

Empire is providing this information to educate you, the distributor, on government requirements for safe breathing air sources and apparatus while abrasive blasting. Every customer must put the operator's safety and health FIRST. Failing to do this could result in government fines, possible law suits and even operator death.

COMPRESSED AIR SOURCES FOR BLASTING

- 1910.94 a 6 The air from the regular compressed air line of the plant may be used for the abrasive blasting respirator if (i) a trap and carbon filter are installed and regularly maintained, to remove oil, water, scale and odor, (ii) a pressure reducing diaphragm or valve is installed to reduce the pressure down to requirements of the particular type of abrasive blasting respirator, and (iii) an automatic control is provided to either sound an alarm or shut down the compressor in case of overheating.
- 1910.134 d 2 ii The compressor for supply air shall be equipped with necessary safety and standby devices. A breathing air-type compressor shall be used. Compressors shall be constructed and situated so as to avoid entry of contaminated air into the system and suitable in-line air purifying sorbent beds and filter installed to further ensure breathing air quality. A receiver of sufficient capacity to enable the respirator wearer to escape from a contaminated atmosphere in event of compressor failure, and alarms to indicate compressor failure and overheating shall be installed in the system. If an oil-lubricated compressor is used, it shall have a high temperature or carbon monoxide alarm, or both. If only a high temperature alarm is used, the air from the compressor must be tested at intervals sufficient to prevent carbon monoxide in the breathing air from exceeding 10 ppm, as described in CGA specification G.7.1 - 1989.

Grade "D" Breathing Air Requirements

As stated by OSHA, all operator's breathing apparatus must be supplied with clean, breathable Grade "D" quality or better air as defined by ANSI/Compressed Gas Association (CGA) G-7.1, 1989. The following requirements define Grade "D" breathing air per the 1989 specification:

- Oxygen 19.5% to 23.5%
- Hydrocarbons (condensed oil) 5 mg per cubic meter maximum
- Carbon monoxide 1,000 ppm maximum
- Odor No detectable tastes or smells
- Water content 1.) High pressure cylinder air must have a dew point of at least -50°F at one atmosphere
2.) Low pressure breathing air must have a dew point of at least 10°F below the ambient temperature at one atmosphere
- No toxic contaminants at levels that make air unsafe to breather

••• Contact your Compressed Air Supplier •••

OPERATOR'S BREATHING APPARATUS

- 1910.94 a 5 ii Abrasive blasting respirators (air-fed hoods) shall be worn by all abrasive blasting operators:
 - a. When working inside of blast-cleaning rooms, or
 - b. When using silica sand (**NEVER to be used in any Empire equipment**) in manual blasting operations where the nozzle and blast are not physically separated from the operator in an exhaust ventilated enclosure, or
 - c. Where concentrations of toxic dust dispersed by the abrasive blasting may exceed the limits set in 1910.1000 and the nozzle and blast are not physically separated from the operator in an exhaust ventilated enclosure.
- a 5 iii a Dust filter respirators may be used to protect the operator of outside abrasive blasting operations where non-silica abrasives are used on materials having low toxicities.
- a 5 v Operators shall be equipped with heavy canvas or leather gloves and aprons or equivalent protection to protect them from the impact of abrasives.
- a 5 v b Equipment for protection of the eyes and face shall be supplied to the operator when the respirator design does not provide such protection and to any other personnel working in the vicinity of abrasive blasting operations. This equipment shall conform to the requirements of 1910.133.
- a 5 i Only respiratory protective equipment approved by The Mine Safety and Health Administration and The National Institute of Occupational Safety and Health shall be used for the protection of personnel against dusts produced during abrasive blasting operations.



Appendix

PRESSURE VESSELS

1910.106 Pressure vessels shall be built in accordance with the code for unfired Pressure Vessels, Section VIII (b) of the ASME Boiler and Pressure Vessel code 1968.

REMOTE (DEADMAN) CONTROLS

19.0.244 The blast cleaning nozzles shall be equipped with an operating valve which must be held open (b) manually.

Air Requirements and Media Consumption

Nozzle Inside Orifice		60 psi	70 psi	80 psi	90 psi	100 psi	120 psi
3/16"	Air (cfm)	30	33	38	41	45	–
	Horsepower	7.0	7.5	8.5	9.5	10.0	–
	Media (lb)/hour*	171	196	216	238	264	–
1/4"	Air (cfm)	54	61	68	74	81	97
	Horsepower	12.0	13.5	15.0	16.5	18.0	21.5
	Media (lb)/hour*	312	354	408	448	494	582
5/16"	Air (cfm)	89	101	113	126	137	152
	Horsepower	20.0	22.5	25.5	28.0	30.5	34.0
	Media (lb)/hour*	534	604	672	740	812	912
3/8"	Air (cfm)	126	143	161	173	196	220
	Horsepower	28.0	32.0	36.0	38.5	44.0	49.0
	Media (lb)/hour*	764	864	960	1,052	1,152	1,320
7/16"	Air (cfm)	170	194	217	240	254	300
	Horsepower	38.0	43.5	48.5	53.5	56.5	67.0
	Media (lb)/hour*	1,032	1,176	1,312	1,448	1,584	1,800
1/2"	Air (cfm)	224	252	280	309	338	392
	Horsepower	50.0	56.0	62.5	69.0	75.0	87.5
	Media (lb)/hour*	1,336	1,512	1,680	1,856	2,024	2,352
5/8"	Air (cfm)	356	404	452	504	548	611
	Horsepower	79.5	90.0	100.5	112.0	122.0	136.0
	Media (lb)/hour*	2,136	2,424	2,712	3,024	3,288	3,668

* Media consumption rates are based on media with a bulk density of 100 pounds per cubic foot.

Registered and Trademark Names

SuperBlast® Number 1,188,398
 Sure-Flo® Number 1,295,667
 E-Z Fill® Number 1,358,621
 Grit-Mizer® Number 1,402,885
 FaStrip® Number 1,441,793

Saf-Stop II Patent Number 3,834,082
 Sure-Flo® Patent Number 4,518,145
 E-Z Fill® Patent Number 4,557,825

