Portable Systems & Parts Book

December 2017

General Table of Contents

EMPIRE ABRASIVE EQUIPMENT

2101 West Cabot Boulevard, Langhorne, PA 19047-1893
Phone: (215) 752-8800   E-Mail: Airblast@empire-airblast.com
Fax: (215) 752-9373   Visit: www.empire-airblast.com

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

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: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517442) *Note: Does not include remote control handle and dual-line hose.*	211101	250 lb
Super 350 Manual System with Separator	**Portable 350 Vessel** with DF-2 Dry-Flo moisture and oil separator (290191) includes: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517442) *Note: Does not include remote control handle and dual-line hose.*	211102	250 lb
Super 350 with 680 Remote Control System *(Bleed Down)*	**Portable 350 Vessel** includes: • 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: • 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: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517442) *Note: Does not include remote control handle and dual-line hose.*	211001	250 lb
Super 350S Manual System with Separator	**Stationary 350 Vessel** with DF-2 Dry-Flo moisture and oil separator (290191) includes: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517442) *Note: Does not include remote control handle and dual-line hose.*	211002	250 lb
Super 350S with 680 Remote Control System *(Bleed Down)*	**Stationary 350 Vessel** includes: • 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: • 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

OSHA COMPLIANT PACKAGES

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

XL-Super 350 with 680 Remote Control System *(Bleed Down)*	**OSHA Package** includes: • 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
XL-Super 350 with 780 Remote Control System *(Under Pressure)*	**OSHA Package** includes: • 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

> **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 *(Bleed Down)*	**OSHA Package** includes: • 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
XL-Super 350 with 780 Remote Control System *(Under Pressure)*	**OSHA Package** includes: • 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

> **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: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) *Note: Does not include remote control handle and dual-line hose.*	221101	450 lb
Super 650 Manual System with Separator	**Portable 650 Vessel** with DF-2 Dry-Flo moisture and oil separator (290192) includes: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) *Note: Does not include remote control handle and dual-line hose.*	221102	450 lb
Super 650 with 680 Remote Control System *(Bleed Down)*	**Portable 650 Vessel** includes: • 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: • 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: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) *Note: Does not include remote control handle and dual-line hose.*	221001	450 lb
Super 650S Manual System with Separator	**Stationary 650 Vessel** with DF-2 Dry-Flo moisture and oil separator (290192) includes: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) *Note: Does not include remote control handle and dual-line hose.*	221002	450 lb
Super 650S with 680 Remote Control System *(Bleed Down)*	**Portable 650 Vessel** includes: • 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: • 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

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
XL-Super 650 with 680 Remote Control System *(Bleed Down)*	**OSHA Package** includes: • 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 *(Under Pressure)*	**OSHA Package** includes: • 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

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
XL-Super 350 with 680 Remote Control System *(Bleed Down)*	**OSHA Package** includes: • 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 *(Under Pressure)*	**OSHA Package** includes: • 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):

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
Super 1050 Manual System	**Portable 1050 Vessel** includes: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) *Note: Does not include remote control handle and dual-line hose.*	241101	750 lb
Super 1050 Manual System with Separator	**Portable 1050 Vessel** with DF-2 Dry-Flo moisture and oil separator (290192) includes: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) *Note: Does not include remote control handle and dual-line hose.*	241102	750 lb
Super 1050 with 680 Remote Control System *(Bleed Down)*	**Portable 1050 Vessel** includes: • 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: • 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):

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
Super 1050S Manual System	**Stationary 1050 Vessel** includes: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) *Note: Does not include remote control handle and dual-line hose.*	241001	750 lb
Super 1050S Manual System with Separator	**Stationary 1050 Vessel** with DF-2 Dry-Flo moisture and oil separator (290192) includes: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air, choke & shut-off valves (517452) *Note: Does not include remote control handle and dual-line hose.*	241002	750 lb
Super 1050S with 680 Remote Control System *(Bleed Down)*	**Stationary 1050 Vessel** includes: • 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: • 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 *(Bleed Down)*	**OSHA Package** includes: • 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 *(Under Pressure)*	**OSHA Package** includes: • 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 *(Bleed Down)*	**OSHA Package** includes: • 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 *(Under Pressure)*	**OSHA Package** includes: • 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: • 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: • 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: • 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 reclaimer, 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.
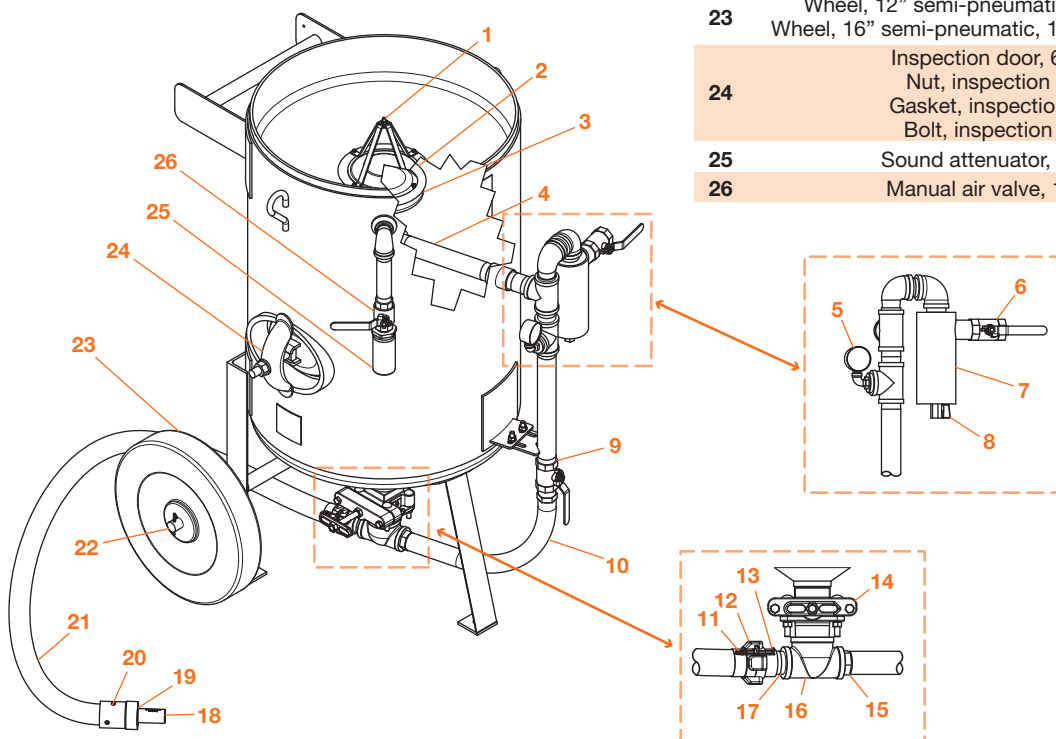
SuperBlast® Control Systems

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) Pipe nipple, 1¼" x 10" (650) Pipe nipple, 1¼" x 13" (1050) Elbow, reducing 1¼" x 1" (350) Elbow, 1¼" (650,1050) Pipe nipple, 1¼" x 3½" (vertical all)	546272 546382 546891 543952 543792 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 ADS-2 Automatic air filter, 1¼" NPT (optional)	290192 504632
8	Petcock, ¼" NPT	520642
9	Manual air valve, 1" NPT (350) Manual air valve, 1¼" NPT (650, 1050)	518492 518502

Item	Description	PART#
10	Flexible hose w/fittings for 350 (Before 5/1/84) Flexible hose w/fittings for 350 (After 5/1/84) Flexible hose w/fittings for 650 (Before 5/1/84) Flexible hose w/fittings for 650 (After 5/1/84) Flexible hose w/fittings for 1050 (Before 5/1/84) Flexible hose w/fittings for 1050 (After 5/1/84)	520922 290318 521022 290319 521062 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) Adapter, 1¼" (650 & 1050)	522112 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, ⅝" OD x 26" L (350) Axle, 1" OD x 32½" L (650) Axle, 1" OD x 36½" L (1050)	504692 504702 504712
23	Wheel, 12" semi-pneumatic, ⅝" hub (350) Wheel, 16" semi-pneumatic, 1" hub (650 & 1050)	505062 505072
24	Inspection door, 6" x 8" Nut, inspection door Gasket, inspection door Bolt, inspection door	506152 552302 524152 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#
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
	Pipe nipple, 1¼" x 3½" (vertical all)	546342
5	Air pressure gauge, 0-160 psi, ¼" NPT	550242
6	Automatic air valve, 1" NPT, with bleed (350)	518052
	Automatic air valve, 1¼" NPT, with bleed (650, 1050)	518062
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	Control hose, ¼" ID w/fittings,14" L (350)	290372
	Control hose, ¼" ID w/fittings,14" L (650)	290372
	Control hose, ¼" ID w/fittings,16" L (1050)	290374
10	Manual air valve, 1" NPT (350)	518492
	Manual air valve, 1¼" NPT (650 & 1050)	518502
11	Aluminum tank coupling	753262
12	Safety pin	510511
13	Close nipple, 1¼" NPT, extra heavy duty	546292
14	Manual Sure-Flo® valve assembly *(See Section F for details.)*	290383

Item	Description	PART#
15	Tee, 2" x 1¼" x 1¼" NPT	545752
16	Adapter, 1"	522112
	Adapter, 1¼"	520262
17	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
	Flexible hose w/fittings for 1050 (After 5/1/84)	520982
18	Wheel, 12" semi-pneumatic, ⅝" hub (350)	505062
	Wheel, 16" semi-pneumatic, 1" hub (650 & 1050)	505072
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	Blast hose (included with XL packages only) *(See Section G for details.)*	–
24	Dual-line hose hose w/fittings (30')	521962
	Dual-line hose hose w/fittings (55')	521892
25	Axle, ⅝" OD x 26" L (350)	504692
	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 *(See Section F for details.)*	290181

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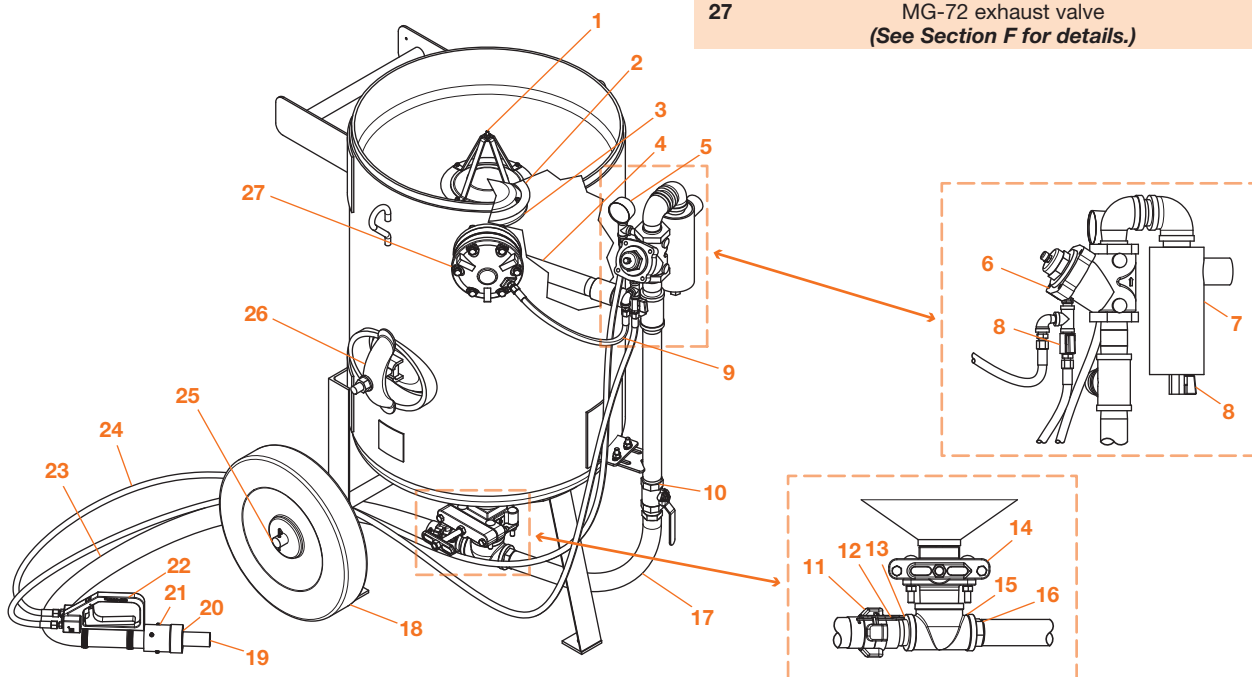
780 Control System used on 350, 650 & 1050 Pressure Vessels

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
	Pipe nipple, 1¼" x 3½" (vertical all)	546342
5	Air pressure gauge, 0-160 psi, ¼" NPT	550242
6	Automatic air valve, 1" NPT, with bleed (350)	518052
	Automatic air valve, 1¼" NPT, with bleed (650, 1050)	518062
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
10	Safety pin	510511
11	Aluminum tank coupling	753262
12	Automaticl Sure-Flo® valve assembly **(See Section F for details.)**	290215
13	Adapter, 1"	522112
	Adapter, 1¼"	520262
14	Tee, 2" x 1¼" x 1¼" NPT	545752
15	Close nipple, 1¼" NPT, extra heavy duty	546292

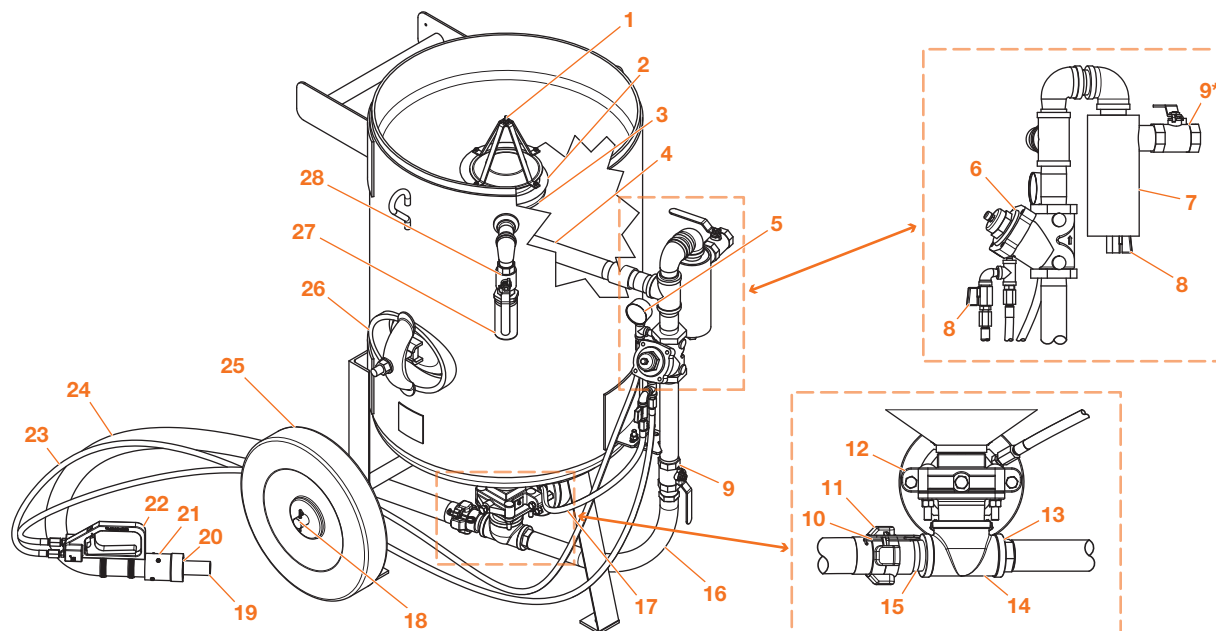| Item	Description	PART#
16	Flexible hose w/fittings for 350 (Before 5/1/84)	520922
	Flexible hose w/fittings for 350 (After 5/1/84)	290318
	Flexible hose w/fittings for 650 (Before 5/1/84)	521022
	Flexible hose w/fittings for 650 (After 5/1/84)	290319
	Flexible hose w/fittings for 1050 (Before 5/1/84)	521062
	Flexible hose w/fittings for 1050 (After 5/1/84)	520982
17	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
18	Axle, ⅝" OD x 26" L (350)	504692
	Axle, 1" OD x 32½" L (650)	504702
	Axle, 1" OD x 36½" 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 hose w/fittings (30')	521962
	Dual-line hose hose w/fittings (55')	521892
24	Blast hose (included with XL packages only) **(See Section G for details.)**	–
25	Wheel, 12" semi-pneumatic, ⅝" 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.
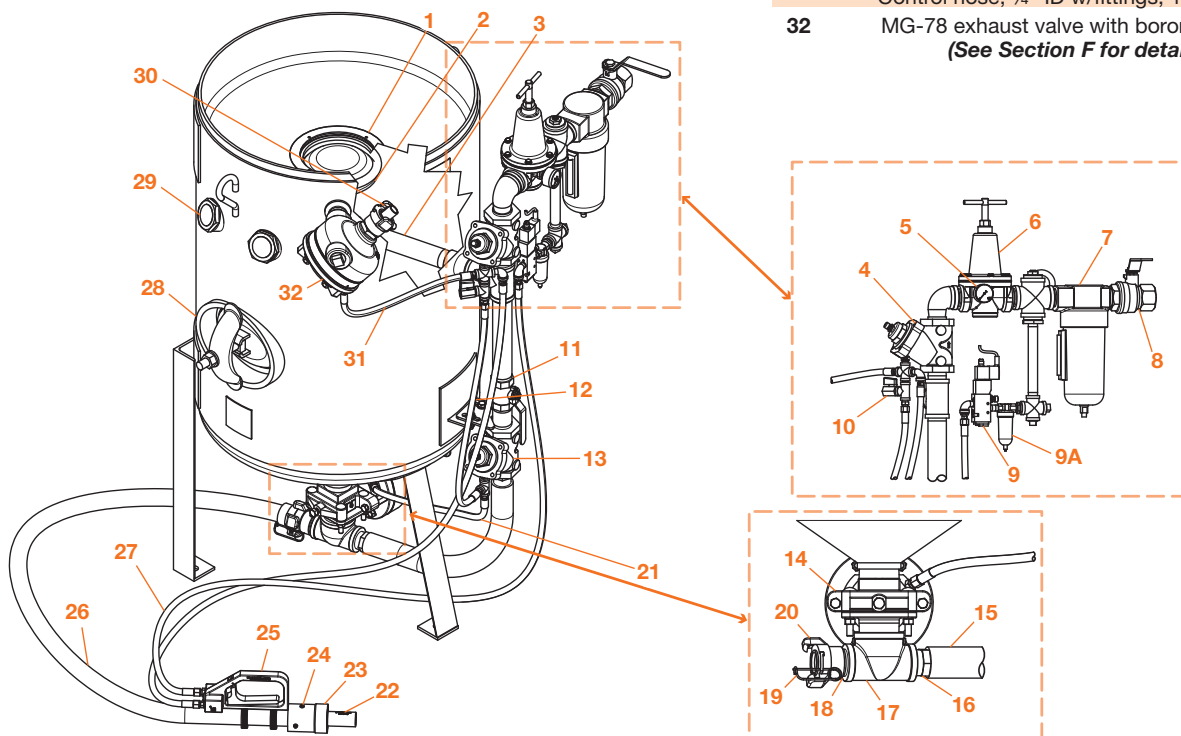
Blast Room Systems for 350, 650 & 1050 Pressure Vessels

Item	Description	PART#
1	"O" ring , 6" rubber	523872
2	Sealing plunger (PVC coated)	525072
3	Pipe nipple, 1" x 7" (350) Pipe nipple, 1¼" x 10" (650) Pipe nipple, 1¼" x 13" (1050) Elbow, reducing 1¼" x 1" (350) Elbow, 1¼" (650,1050) Pipe nipple, 1¼" x 3½" (vertical all)	546272 546382 546891 543952 543792 546342
4	Automatic air valve, 1" NPT, with bleed (350) Automatic air valve, 1¼" NPT, with bleed (650, 1050)	518052 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 Replacement coil, 120 VAC	519042 517086
9A	Filter, ¼" manual	504552
10	Petcock, ¼" NPT	520642
11	Manual air valve, 1" NPT (350) Manual air valve, 1¼" NPT (650, 1050)	518492 518502
12	Control hose, ¼" ID w/fittings, 23" L (350, 650) Control hose, ¼" ID w/fittings, 40" L (1050)	290371 290376
13	Automatic air valve, 1" NPT, no bleed (350) Automatic air valve, 1¼" NPT, no bleed (650, 1050)	517042 517052
14	Automatic Sure-Flo® valve assembly *(See Section F for details.)*	290215

Item	Description	PART#
15	Flexible hose w/fittings for 350 Flexible hose w/fittings for 650 (After 5/1/84) Flexible hose w/fittings for 1050 (After 5/1/84)	290318 290319 520982
16	Adapter, 1¼" NPT x 1", ball (350) Adapter, 1¼" NPT x 1¼", ball (650,1050)	522112 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) Control hose, ¼" ID w/fittings, 27" L (650) Control hose, ¼" ID w/fittings, 36" L (1050)	290371 290373 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 Sure Stop remote control handle (optional) *(See Section F for details.)*	290164 290166
26	Blast hose (not included) *(See Section G.)*	–
27	Dual-line hose hose w/fittings (30') Dual-line hose hose w/fittings (55')	521962 521892
28	Inspection door, 6" x 8" Nut, inspection door Gasket, inspection door Bolt, inspection door	506152 552302 524152 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) Control hose, ¼" ID w/fittings, 16" L (1050)	290372 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)

Section B: Table of Contents

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 reclaimer 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

	FACTORY INSTALLED	CUSTOMER INSTALLED
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

	FACTORY INSTALLED	CUSTOMER INSTALLED
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" *(requires PN 546332 nipple)*	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

	FACTORY INSTALLED	CUSTOMER INSTALLED
Magnetic separator, for reclaimer, single layer grate	511572	511572
Vibrating Reclaimer Screen	290447	290447
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

(Sweep-in receptacles must be recessed. Consult factory for pit requirements or optional designs.)

Dust Collector Options

	FACTORY INSTALLED	CUSTOMER INSTALLED
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

Optional Silencers shown in dash-lined boxes. Gasket required.
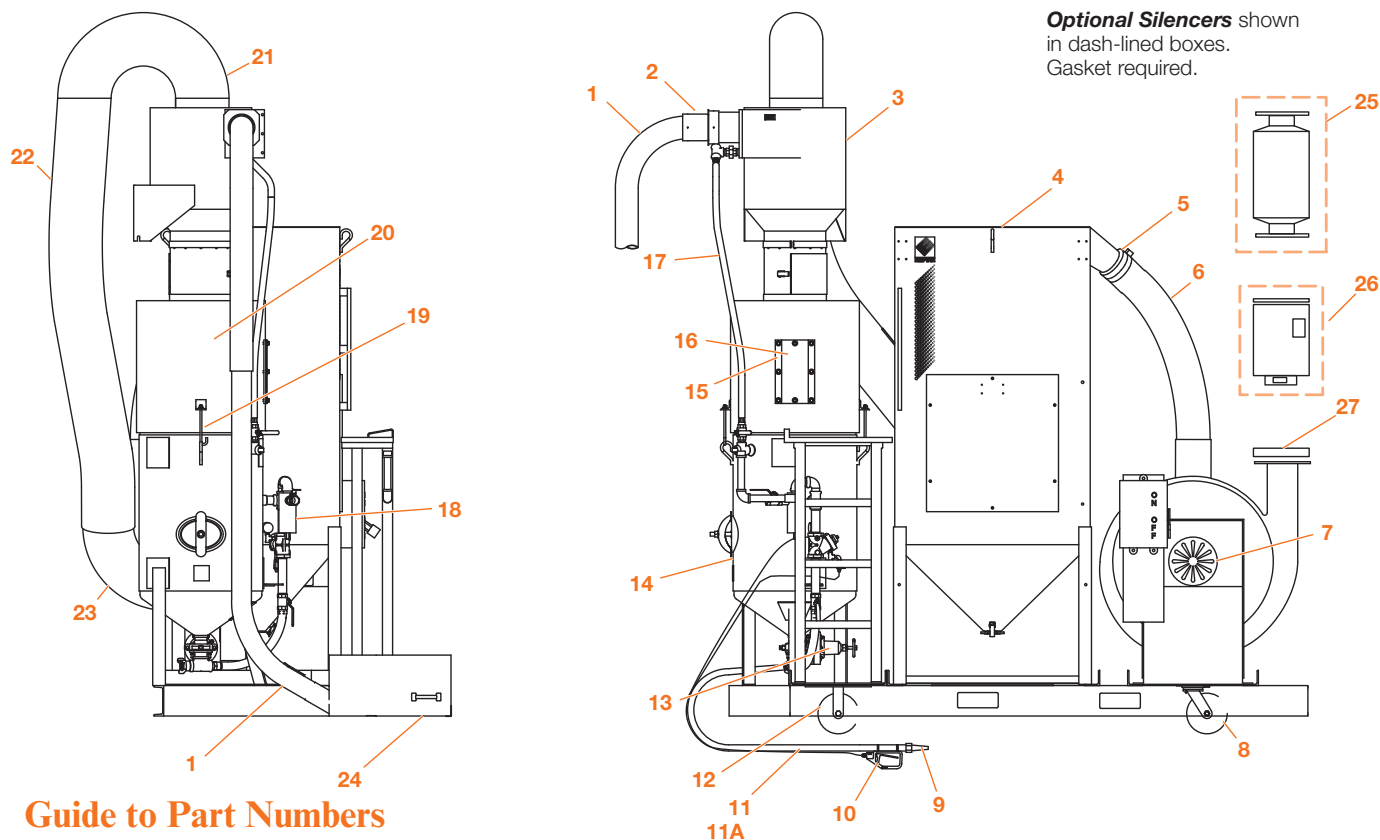
Guide to Part Numbers

| 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
3	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

MODEL Item	Description	PRS-6	PRS-10
		PART NUMBERS	
14	Pressure vessel assembly, 780 systems	221004	241004
	Pressure vessel assembly, room systems	235651	235051
15	Hold down, window	768262	768262
16	Window	526231	526321
17	Exhaust hose assembly, 1"	140691	140691
18	Pipe string assembly, 780 systems	520822	520822
	Pipe string assembly, room systems	?	?
19	J-bolt, ⅜" — 16 x 8"	764484	764484
20	Storage hopper assembly	290476	290477
	Gasket: 1" x 1½" x 7' for PRS-6; 1" x 2" x 8' for PRS-10	523641	524443
21	Elbow, 10", 180° at top of reclaimer	584010	584010
22	Dust hose, 10" x 10'	516887	516887
	Dust hose, 10" x 15' (prior to 2011)	516888	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
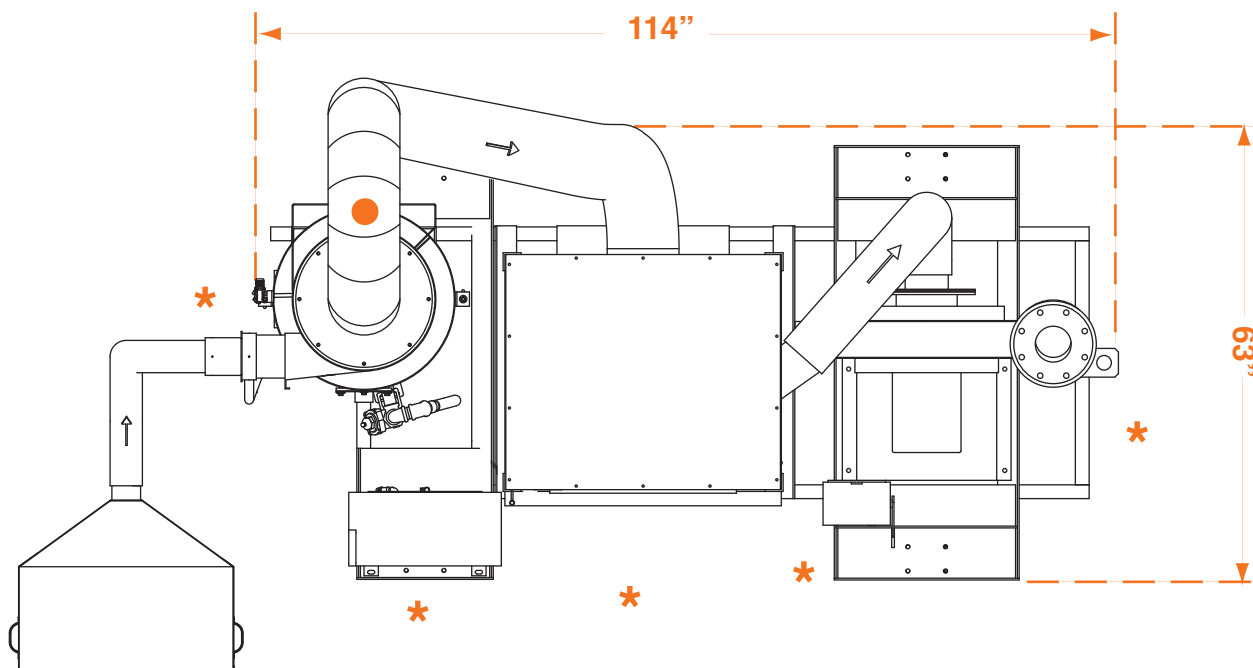
★ Indicates access point.   ⬤ Indicates highest point on systems: PRS-6 = 137" • PRS-10 = 139" • PRS-6SD = 140" • PRS-10SD =142"

Reclaimer (900 CFM) (Part # 140441)

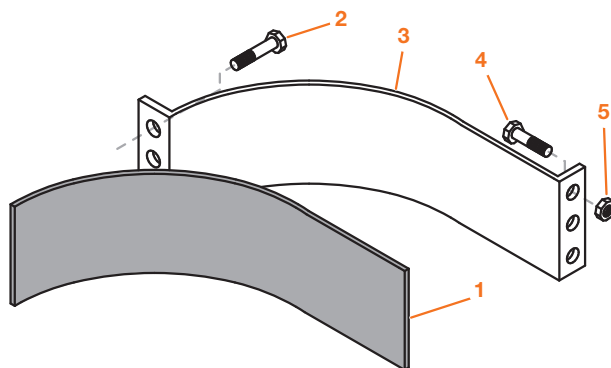| Item	Description	PART NUMBER
1	Unlined reclaimer assembly, 6" inlet	140441
	Ultrawear lining for reclaimer	526193
	Wear plate for reclaimer *(See details below.)*	514491
2	Removable top	766751
3	Gasket, reclaimer to storage hopper	524371
4	Gasket, reclaimer door	524331
5	Door, reclaimer	760721
6	Wing nut, ¼" - 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, ¼" - 20 x 2"	551782
11	Latch and keeper (requires welding)	509581
12	Screen, flat, ⁵⁄₁₆", 13" OD	760711
13	Screen, fine 11½" OD, 8 mesh (standard)	739041
	Screen, 11½" OD, 4 mesh	739051
14	Bolt, ⅜" - 16 x 1" (8 required)	551852
15	Exhaust hose assembly	140691
	Vibrating reclaimer screen (optional) *See page B12 for details*.	290447
	Sweep-in recovery troughs (optional) *See page B12 for details*.	
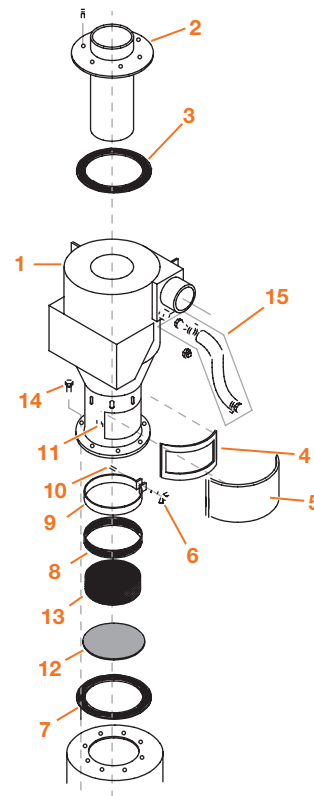
Reclaimer Wear Plate
Factory Installed . . . . (Part # 514491)
Customer Installed . . . (Part # 514521)

Reclaimer Wear Plate Components

Item	Description	Part #
1	Rubber band	524891
2	Bolt, ⅜" - 16 x 2" (3 required)	553892
3	Metal band	761621
4	Bolt, ⅜" - 16 x 1½" (3 required)	551262
5	Nut, ⅜" - 16	552542

Never use silica sand in any Empire equipment.

DCM-200HV Dust Collector (Part # 113300)

Item	Description	PART#
1	Bolt, levelling, ⅜" - 16 x 2" (4 required)	553892
2	Latch and keeper (requires welding)	509581
3	Hose with fittings, ¼" x 16', dust collector	523161
4	Adapter, ¼" tube x ¼" MPT (inlet)	521081
	Connector, brass, ¼" MPT x ¼" ball (outside)	520222
5	Bolt, ⅜" - 16 x 1¼" (6 required)	551852
6	Knob, ⅜" - 16 (6 required)	510461
7	Access door, dust collector	768342
8	Gasket, access door, ⅝" x ⅝", 103" section	525711
	Gasket, ⅝" x ⅝" (specify length)	525061
9	Valve, push-button, ⅛" NPT & #10 - 32, "3P"	517221
	Barbed fitting, ¼" tube x #10 - 32, 2 per assembly	521101
	Adapter, ¼" tube x ⅛" MPT, 90° (for air cylinder)	520432
10	Tubing, ¼" 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, ⅛" x ¼" 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

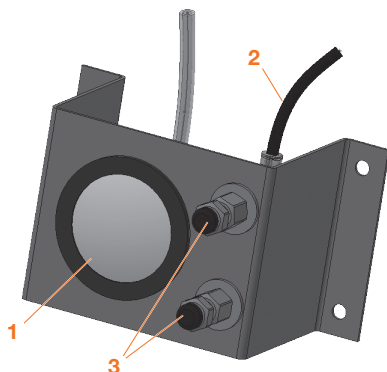| DCM-200hv Options	PART NUMBERS		
	FACTORY INSTALLED	CUSTOMER INSTALLED	SEE PAGE
Automatic bag shaker cleans bags thoroughly every time the system is turned off.			
Electric shaker	140340	140390	B11
Pneumatic shaker	140683	140684	Call
HEPA filter captures very fine particles.	140215	140215	—
HEPA filter, pressure differential gauge assembly informs operator regarding filter cleanliness.	140221	140221	—
Lid assembly for 55 gallon drum attached securely to clean-our 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	—

CDC-HV Dust Collector (Part # 113020)

Item	Description	PART#
1	Bolt, levelling, ⅜" - 16 x 2" (4 required)	553892
2	16-gallon drum	504016
3	Lid for 16 gallon drum	850099-1
	Gasket, dust drum lid, 5' (not shown)	800166
4	Gum rubber tube, 4" (specify length)	523750
5	Hose clamp, 4" (2 required)	520531
	16 gallon drum assembly (includes items 2 through 5)	113015
6	Knob, filter clamping	515526
7	Gasket, access door, ⅝" x ⅝", 103" section	525061
	Gasket, ⅝" x ⅝" (specify length)	525061
8	Access door, dust collector	768342
9	Knob, ⅜" - 16 (6 required)	510461
10	Bolt, ⅜" - 16 x 1¼" (6 required)	551852
	Empire logo	564305
11	Diaphragm valve (2 required)	516352
12	Air supply assembly	140851
13	Cartridge filter (2 required)	515525
14	Decal, Instruction/Warning	567406
15	Mini-Helic package (See below)	550450
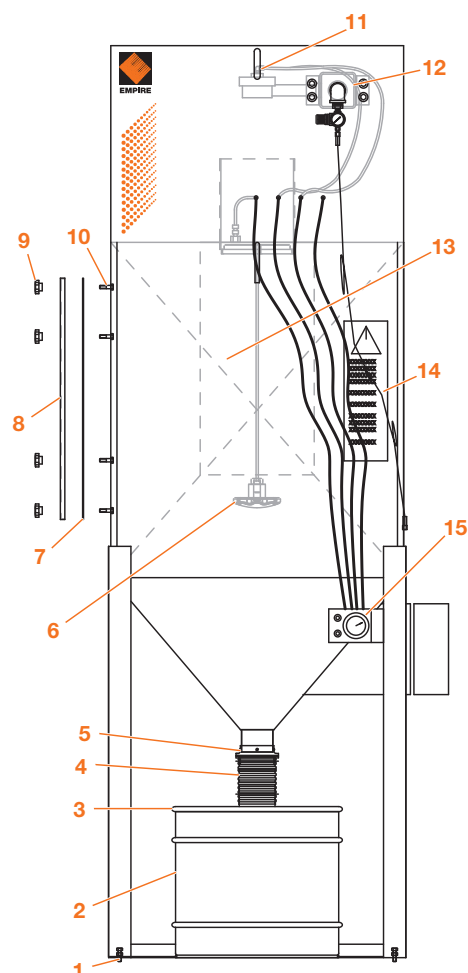
MiniHelic Gauge Assembly (Part # 550450)

Mini-Helic Components

Item	Description	Part #
1	Gauge, Mini-Helic	504201
2	Tubing, black, ¼" OD	510541
3	Push-button valve	520393

CDC-hv Options

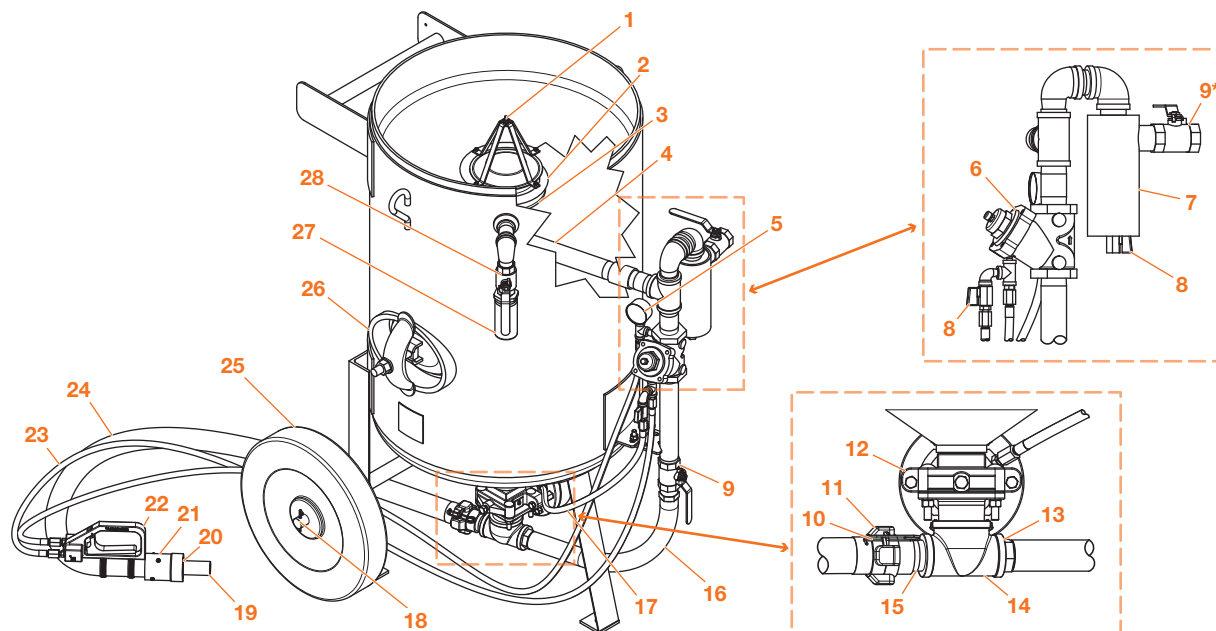|	PART NUMBERS		
	FACTORY INSTALLED	CUSTOMER INSTALLED	SEE PAGE
Photohelic cartridge cleaning improves system performance, saves operator time.	140900	140900	B11
HEPA filter captures very fine particles.	140215	140215	—
HEPA filter, pressure differential gauge assembly informs operator regarding filter 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-our door	140255	140255	B11

Never use silica sand in any Empire equipment.

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

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) Pipe nipple, 1¼" x 10" (650) Pipe nipple, 1¼" x 13" (1050) Elbow, reducing 1¼" x 1" (350) Elbow, 1¼" (650,1050) Pipe nipple, 1¼" x 3½" (vertical all)	546272 546382 546891 543952 543792 546342
5	Air pressure gauge, 0-160 psi, ¼" NPT	550242
6	Automatic air valve, 1" NPT, with bleed (350) Automatic air valve, 1¼" NPT, with bleed (650, 1050)	518052 518062
7	DF-2 manual drain separator, 1¼" NPT, with built-in check valve ADS-2 Automatic air filter, 1¼" NPT (Optional)	290192 504632
8	Petcock, ¼" NPT	520642
9	Manual air valve, 1" NPT (350) Manual air valve, 1¼" NPT (650 & 1050)*	518492 518502
10	Safety pin	510511
11	Aluminum tank coupling	753262
12	Automaticl Sure-Flo® valve assembly **(See Section F for details.)**	290215
13	Adapter, 1" Adapter, 1¼"	522112 520262
14	Tee, 2" x 1¼" x 1¼" NPT	545752
15	Close nipple, 1¼" NPT, extra heavy duty	546292

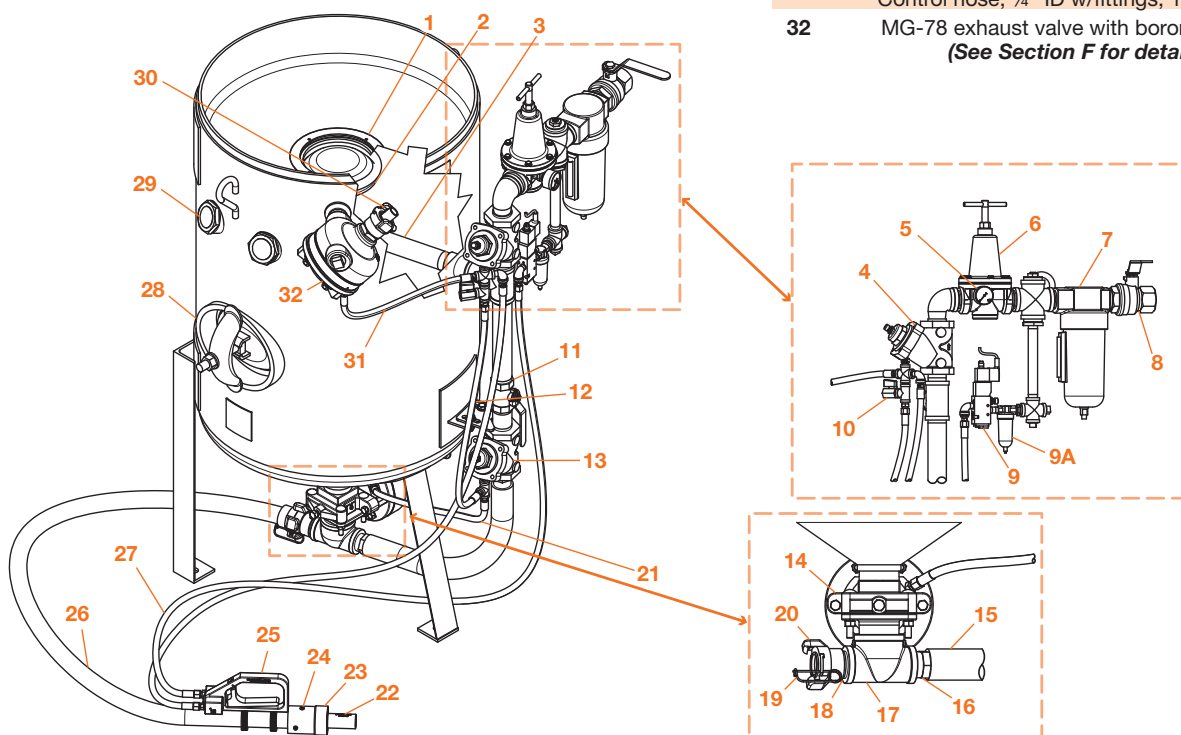| Item	Description	PART#
16	Flexible hose w/fittings for 350 (Before 5/1/84) Flexible hose w/fittings for 350 (After 5/1/84) Flexible hose w/fittings for 650 (Before 5/1/84) Flexible hose w/fittings for 650 (After 5/1/84) Flexible hose w/fittings for 1050 (Before 5/1/84) Flexible hose w/fittings for 1050 (After 5/1/84)	520922 290318 521022 290319 521062 520982
17	Control hose, ¼" ID w/fittings, 23" L (350) Control hose, ¼" ID w/fittings, 27" L (650) Control hose, ¼" ID w/fittings, 36" L (1050)	290371 290373 521902
18	Axle, ⅝" OD x 26" L (350) Axle, 1" OD x 32½" L (650) Axle, 1" OD x 36½" L (1050)	504692 504702 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 hose w/fittings (30') Dual-line hose hose w/fittings (55')	521962 521892
24	Blast hose (included with XL packages only) **(See Section G for details.)**	–
25	Wheel, 12" semi-pneumatic, ⅝" hub (350) Wheel, 16" semi-pneumatic, 1" hub (650 & 1050)	505062 505072
26	Inspection door, 6" x 8" Nut, inspection door Gasket, inspection door Bolt, inspection door	506152 552302 524152 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.

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) Pipe nipple, 1¼" x 10" (650) Pipe nipple, 1¼" x 13" (1050) Elbow, reducing 1¼" x 1" (350) Elbow, 1¼" (650,1050) Pipe nipple, 1¼" x 3½" (vertical all)	546272 546382 546891 543952 543792 546342
4	Automatic air valve, 1" NPT, with bleed (350) Automatic air valve, 1¼" NPT, with bleed (650, 1050)	518052 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 Replacement coil, 120 VAC	519042 517086
9A	Filter, ¼" manual	504552
10	Petcock, ¼" NPT	520642
11	Manual air valve, 1" NPT (350) Manual air valve, 1¼" NPT (650, 1050)	518492 518502
12	Control hose, ¼" ID w/fittings, 23" L (350, 650) Control hose, ¼" ID w/fittings, 40" L (1050)	290371 290376
13	Automatic air valve, 1" NPT, no bleed (350) Automatic air valve, 1¼" NPT, no bleed (650, 1050)	517042 517052
14	Automatic Sure-Flo® valve assembly *(See Section F for details.)*	290215

Item	Description	PART#
15	Flexible hose w/fittings for 350 Flexible hose w/fittings for 650 (After 5/1/84) Flexible hose w/fittings for 1050 (After 5/1/84)	290318 290319 520982
16	Adapter, 1¼" NPT x 1", ball (350) Adapter, 1¼" NPT x 1¼", ball (650,1050)	522112 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) Control hose, ¼" ID w/fittings, 27" L (650) Control hose, ¼" ID w/fittings, 36" L (1050)	290371 290373 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 Sure Stop remote control handle (optional) *(See Section F for details.)*	290164 290166
26	Blast hose (not included) *(See Section G.)*	–
27	Dual-line hose hose w/fittings (30') Dual-line hose hose w/fittings (55')	521962 521892
28	Inspection door, 6" x 8" Nut, inspection door Gasket, inspection door Bolt, inspection door	506152 552302 524152 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) Control hose, ¼" ID w/fittings, 16" L (1050)	290372 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.

Options for DCM-200hv (Part # 113200)

PART NUMBERS

FACTORY INSTALLED	CUSTOMER INSTALLED
140340	140390

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

Bag Shaker, Automatic Electric Components

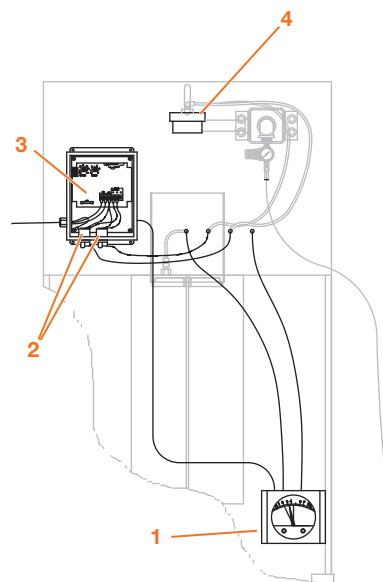| Item	Description	PART #
1	Pressure switch, differential	550311
2	Timer	531081
3	Flasher	535313
4	Solenoid valve, 120 VAC	517311
5	Cylinder (not included; standard with collector)	515981
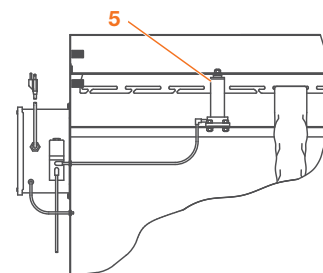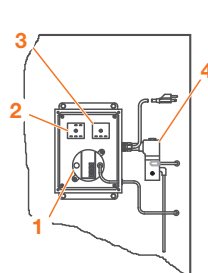
Photohelic Cartridge Cleaning improves system performance, saves operator time.

140900	140900

Photohelic Cleaning Components

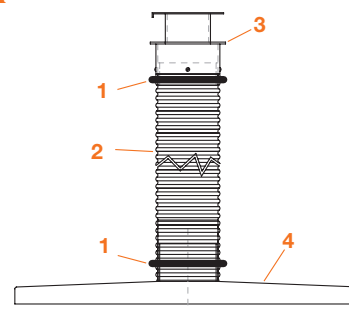| Item	Description	PART #
1	Photohelic gauge	550074
2	Solenoid valve	516335
3	Timer board	585090
4	Diaphragm valve (2 required)	516350
	(Not included; standard on collector)	

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

Never use silica sand in any Empire equipment.

Vibrating Reclaimer Screen (Part Number 290447)

Vibrating Screen Components

Item	Description	PART #
1	Regulator, relieving	517612
2	Air valve, piilot operated	519011
3	Breather vent	523161
4	Socket-head cap	553601
5	Vibrator	517971
6	Muffler, ⅛" bronze	517281
7	Spacer	536359
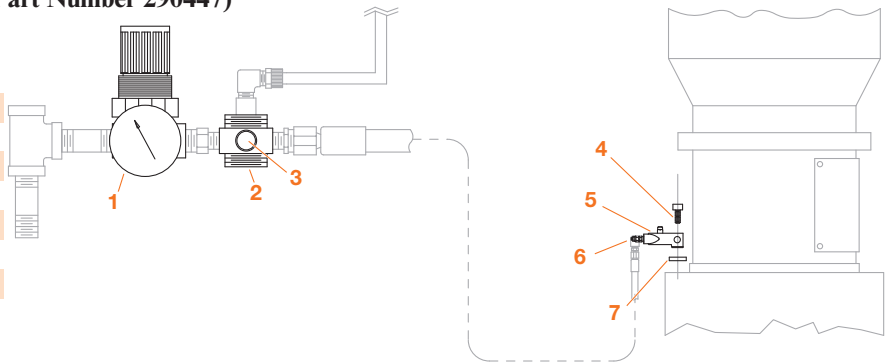
Sweep-in Recovery Troughs

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, ¼" x 1", self drilling (10)	551560
2	Grating, 1" thick, 23¹⁵⁄₁₆" x 13½" 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.

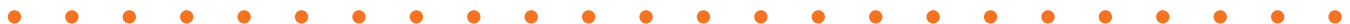# FaStrip® Plastic Decoating Systems

Section C: Table of Contents

Never use silica sand in any Empire equipment.

FaStrip® 200 Series Systems

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
FS-203 Portable, One Operator	3½ Cubic-Foot Pressure System includes: • 3½ cubic-foot pressure vessel with 780 controls • 3½ cubic-foot media storage hopper • 900 CFM tunable reclaimer 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

Never use silica sand in any Empire equipment.

FaStrip® Options

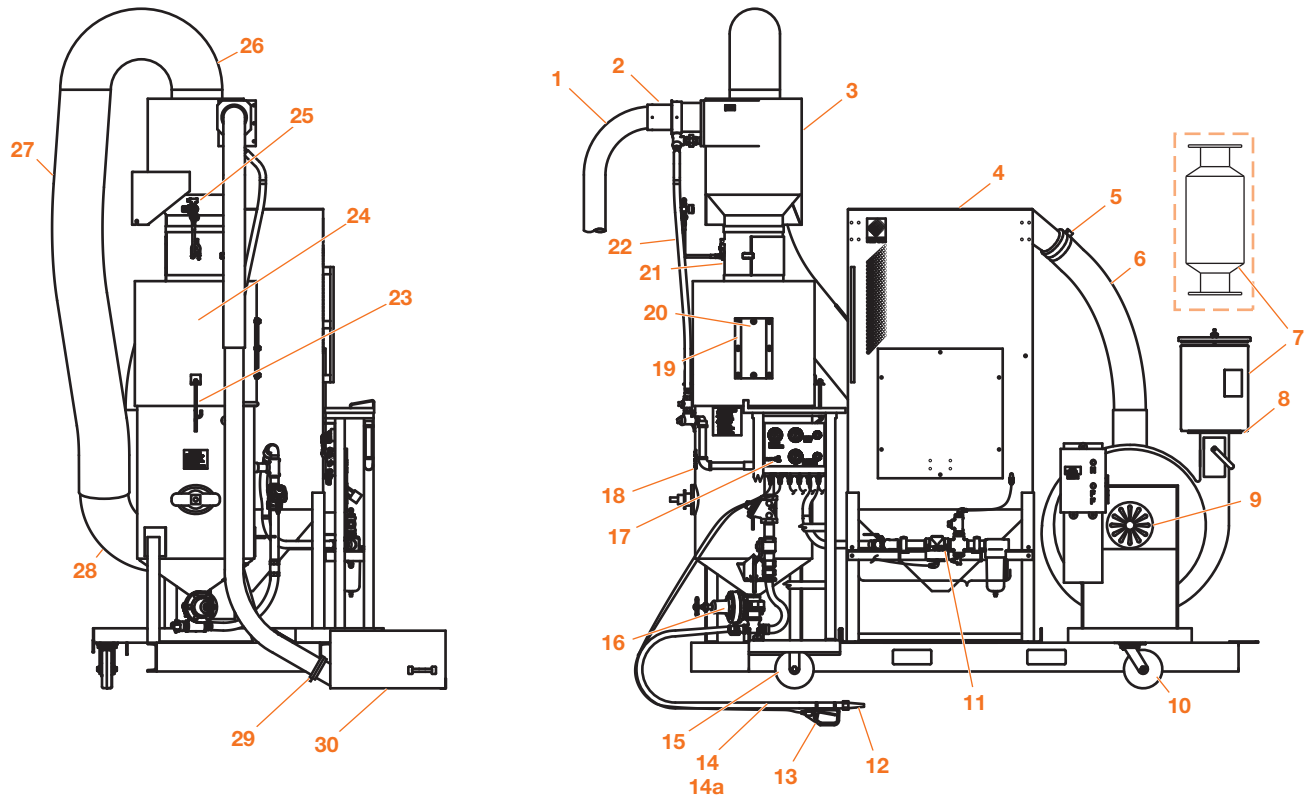|	FACTORY INSTALLED	CUSTOMER INSTALLED
Electrical Options		
208 Volt, 60 Hertz, 3 Phase	290457	–
230 Volt, 60 Hertz, 3 Phase	290445	–
460 Volt, 60 Hertz, 3 Phase	Standard	–
575 Volt, 60 Hertz, 3 Phase	290473	–
380 Volt, 50 Hertz, 3 Phase	290547	–
System Options		
Grit cut-off switch assembly for blow-off 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
(Sweep-in receptacles must be recessed. Consult factory for pit requirements or optional designs.)		
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

Never use silica sand in any Empire equipment.
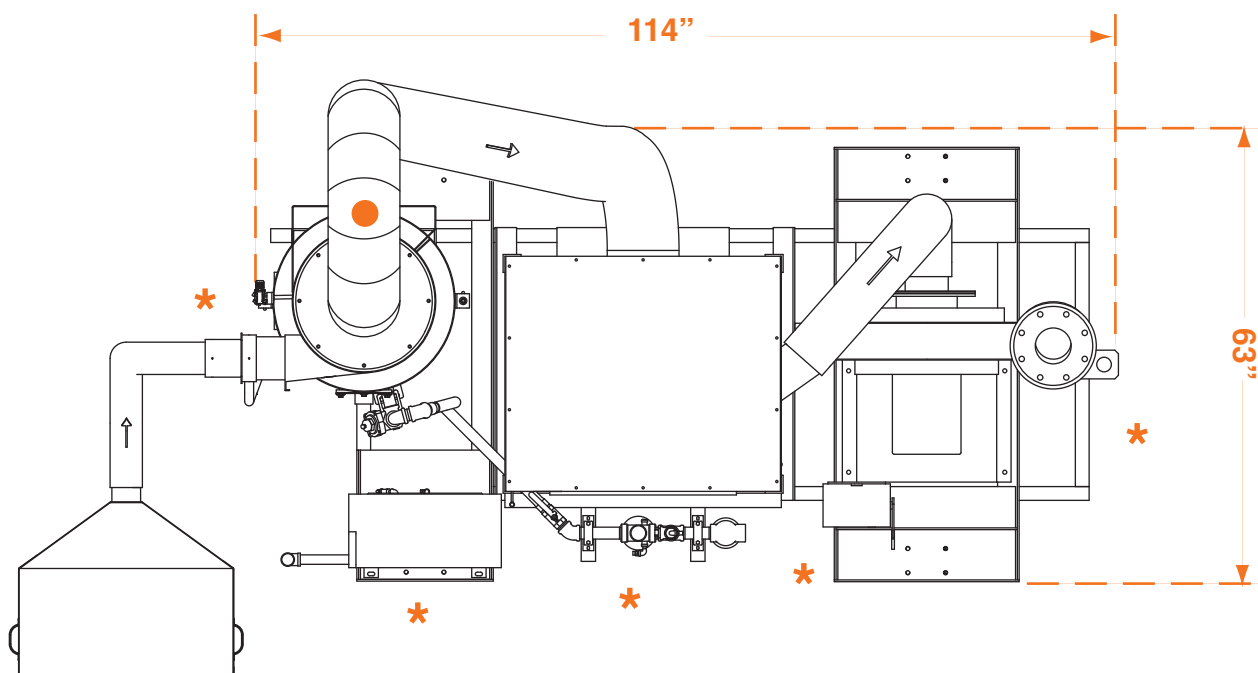
FaStrip® Parts

System Assembly

Guide to Part Numbers

MODEL Item	Description	FS-203	FS-206	FS-210 PART NUMBERS	FS-210-2
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
9	Blower assembly, 208V, 60 Hz, 3 phase	549932	549932	549932	549932
	Blower assembly, 460V, 60 Hz, 3 phase	549942	549942	549942	549942
	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	290439
12	Nozzle, SCV-8 (½" 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, 1¼" x 50', with quick connect & nozzle couplings	521842	521842	521842	521842
15	Caster	511521	511521	511521	511521

| 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, ⅜" - 16 x 8"	764484	764484	764484	764484
24	Storage hopper assembly	290475	290476	290477	290477
	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

114"

63"

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

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, ¼" - 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, ¼" - 20 x 2"	551782
11	Latch and keeper (requires welding)	509581
12	Screen, flat, 5⁄16", 13" OD	760711
13	Screen, fine 11½" OD, 8 mesh	739041
13	Screen, 11½" OD, 4 mesh (use with plastic media)	739051
14	Bolt, ⅜" - 16 x 1" (8 required)	551852
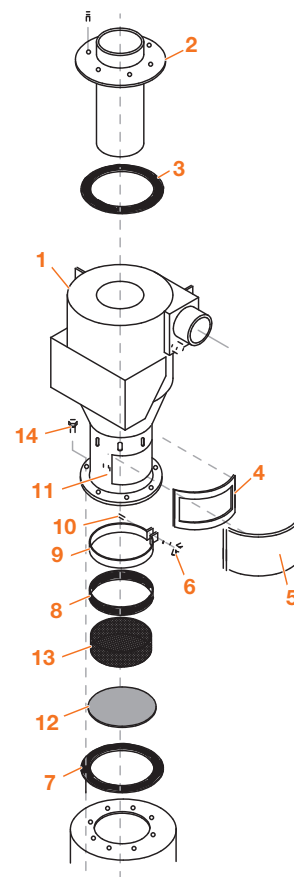
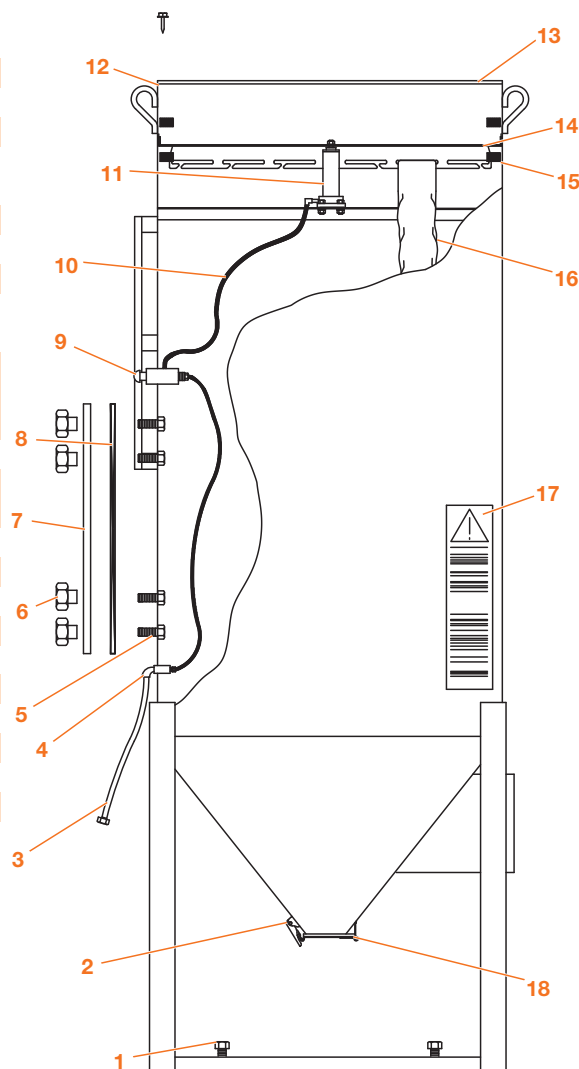## Vibrating Reclaimer Screen (Part # 290447)
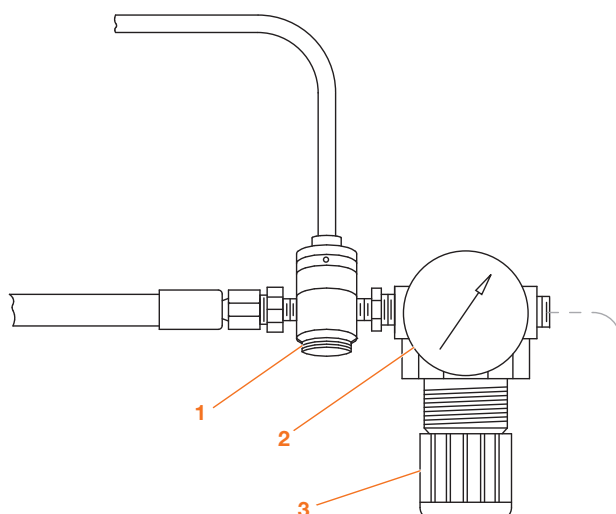
Item	Description	PART #
1	Air valve, pilot operated	518701
2	Pressure gauge	550262
3	Regulator, relieving	517611
4	Socket-head cap	553601
5	Vibrator	517971
6	Muffler, ⅛" bronze	517281
7	Spacer	536359
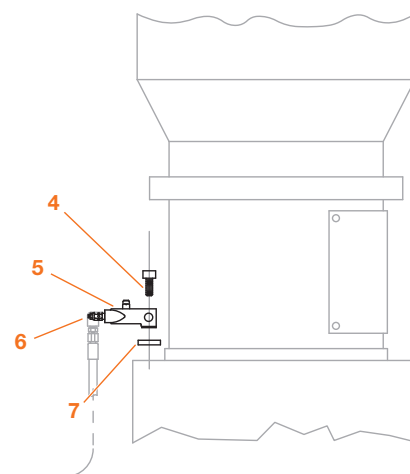
DCM-200hv Dust Collector (Part # 113200)

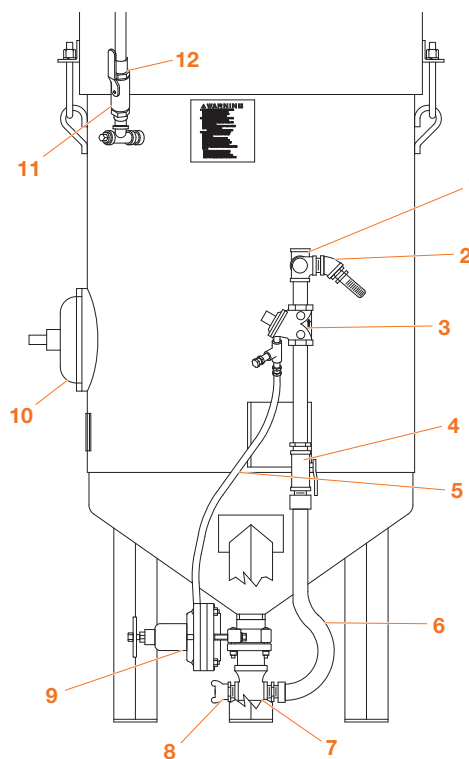| Item	Description	PART#
1	Bolt, levelling, ⅜" - 16 x 2" (4 required)	553892
2	Latch and keeper (requires welding)	509581
3	Hose with fittings, ¼" x 16', dust collector	523161
4	Adapter, ¼" tube x ¼" MPT (inside)	521081
	Connector, brass, ¼" MPT x ¼" BALL (outside)	520222
5	Bolt, ⅜" - 16 x 1¼" (6 required)	551852
6	Knob, ⅜" - 16 (6 required)	510461
7	Access door, dust collector	768342
8	Gasket, access door, ⅝" x ⅝", 103" section	525711
	Gasket, ⅝" x ⅝" (specify length)	525061
9	Valve, push-button, ⅛" NPT & #10 - 32, "3P"	517221
	Barbed fitting, ¼" tube x #10 - 32, 2 per assembly	521101
	Adapter, ¼" tube x ⅛" MPT, 90° (for air cylinder)	520432
10	Tubing, ¼" 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, ⅛" x ¼" 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	—

Never use silica sand in any Empire equipment.

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, 1¼" NPT w/bleed (FS-206 & 210)	518062
4	Manual air valve, 1" NPT (FS-203)	518492
	Manual air valve, 1¼" NPT (FS-206 & 210)	518502
5	Control hose, ¼" ID w/fittings, 23" L (FS-203)	290371
	Control hose, ¼" ID w/fittings, 27" L (FS-206)	290373
	Control hose, ¼" 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 ¼" x 1¼" NPT	545752
8	Aluminum tank coupling	753262
9	Automatic Sure-Flo® valve assembly	290215
	(See Section F for details.)	
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, ¼" NPT	517613
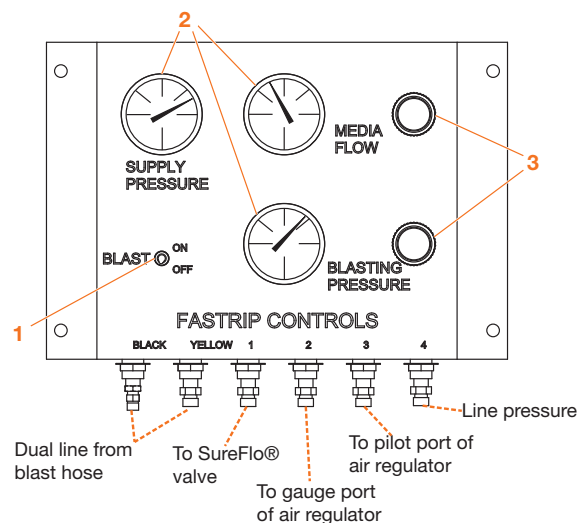
Pipe String Assembly (Part # 290438)

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

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

Sweep-in recovery troughs expedite reclamation of blast media.

	FACTORY INSTALLED	CUSTOMER INSTALLED
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, ¼" x 1", self drilling (10)	551560
2	Grating, 1" thick, 23$^{15}/_{16}$" x 13½" 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™ Systems

| MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
SB-100	**Portable 1 cubic-foot blaster for use with fine, light media includes:** • 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, ¾" 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:** • 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, ¾" blast hose with couplings • Ceramic blast nozzle, CN3-3, ³⁄₁₆"	260100	275 lb

Never use silica sand in any Empire equipment.

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, ¾" aluminum *(See Section G for details.)*	753212
6	Nozzle, CN3-3, ceramic *(See Section G for details.)*	520362
7	Saf-Stop II™ remote control handle *(See Section F for details.)*	290164
8	Dual line hose with fittings, 30' *(See Section G for details.)*	521962
9	Blast hose, 25', with QC/NC *(See Section G for details.)*	521742
10	Safety pin	510511
11	Quick coupling, ¾" aluminum	751062
12	Automatic Sure-Flo® valve assembly *(See Section F for details.)*	290215

Item	Description	PART#
13	Tank coupling, 1¼" NPT, aluminum (standard)	753262
	Tank coupling, 1¼" NPT, brass (optional)	753272
	Coupling washer, TC and QC (package of 10)	524032
14	Nipple, heavy duty, 1¼" x close	546292
15	Nipple, 2" x close	546452
16	Tee, 1¼" x 2"	545752
17	Regulator, 2" fixed orifice	340038
	2" metering disc, ⅛" 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, 1¼" 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
23	Valve, automatic, 1" bleed	518052
	Diaphragm/seal kit	517582
	Internal parts kit, bleed	518352
24	Gate valve, 1" bronze, non-rising stem	515430
25	Regulator, 1", non-relieving	517251
26	Inspection door, 6" x 8"	506152
	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, ½" NPT	518472
33	Muffler, ½"	506445
34	Manual air valve, 1" NPT	518492
35	Check valve, 1" NPT	517503
36	1" filter, general purpose	517271
	Filter element	508002
37	Wrench assembly (used with SB-150 only)	140807
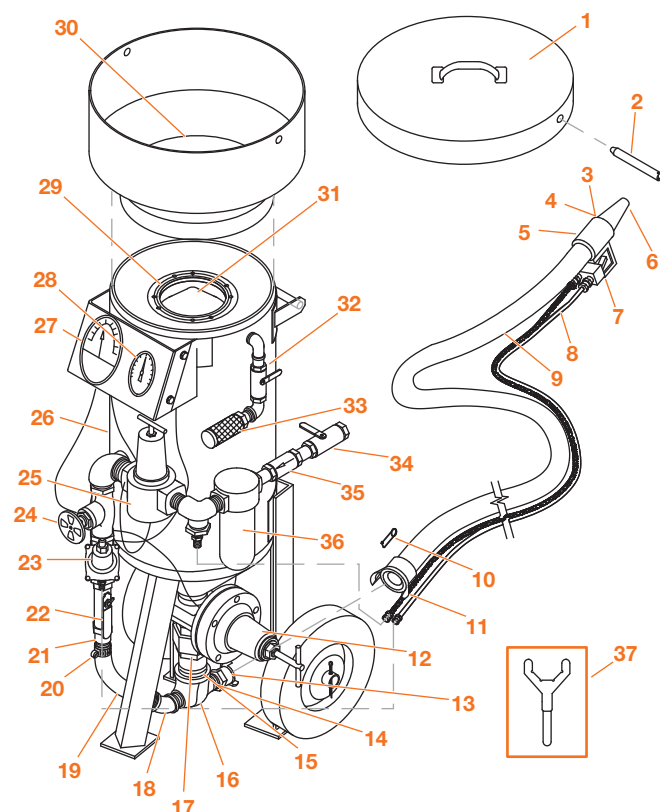
Items Not Shown

• Control hose assembly, ¼" x 9' long	520022-9IN
• Control hose assembly, ¼" x 14' long	520022-14IN
• Control hose assembly, ¼" x 21' long	140853
• Control hose assembly, ¼" x 24' long (SB-100)	520022-24IN
• Control hose assembly, ¼" 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

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, ½" pipe string):			
P-100 Manual System	**Portable 100 Vessel** includes: • Air filter, ½" (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: • Air filter, ½" (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-½" blast hose with couplings (521672) • (3), ¼" ceramic nozzles (502372) • Nozzle adapter (504912) *Note: Lack of a remote control system causes this system to be non-OSHA compliant.*	281101	125 lb
P-150 Systems (1½ cubic foot capacity, ½" pipe string):			
P-150 – 1/2 Manual System	**Portable 150 Vessel** includes: • Air filter, ½" (504652) • Manual ball-type grit valve, steel ((518482) • Air gauge (550242) • Manual air and choke valves (518472)	284101	125 lb

<div align="center">

CAUTION

Excessive pressure drop will occur when using ¼ inch or larger nozzle with ½ inch piping.
Limit use of ½ inch blast hose to nozzles under ¼ inch. Use ¾ inch blast hose with ¼ inch nozzles.

</div>

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
P-150 Systems (1½ cubic foot capacity, 1" pipe string):			
P-150 Manual System	**Portable 150 Vessel** includes: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air and choke valves (518492) *Note: Does not include remote control handle and dual-line hose.*	286101	135 lb
P-150 Manual System with Separator	**Portable 150 Vessel** with DF-2 Dry-Flo moisture and oil separator (290192) includes: • Manual Sure-Flo® grit valve (290383) • Air gauge (550242) • Manual air and choke valves (518492) *Note: Does not include remote control handle and dual-line hose.*	286102	150 lb
P-150 with 680 Remote Control System *(Bleed Down)*	**Portable 150 Vessel** includes: • 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: • 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 *(Bleed Down)*	**OSHA Package** includes: • 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 *(Under Pressure)*	**OSHA Package** includes: • 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 *(Bleed Down)*	**OSHA Package** includes: • 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 *(Under Pressure)*	**OSHA Package** includes: • 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.**

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT

P-300 Systems (3 cubic foot capacity, ½" pipe string):

P-300 – 1/2 Manual System

Portable 300 Vessel includes:
- Air filter, ½" (504652)
- Manual ball-type grit valve, steel (518482)
- Air gauge (550242)
- Manual air and choke valves (518472)

206101   135 lb

CAUTION
Excessive pressure drop will occur when using ¼ inch or larger nozzle with ½ inch piping.
Limit use of ½ inch blast hose to nozzles under ¼ inch. Use ¾ inch blast hose with ¼ inch nozzles.

P-300 Systems (3 cubic foot capacity, 1" pipe string):

P-300 Manual System

Portable 300 Vessel includes:
- Manual Sure-Flo® grit valve (290383)
- Air gauge (550242)
- Manual air and choke valves (518492)
Note: Does not include remote control handle and dual-line hose.

208101   165 lb

P-300 Manual System with Separator

Portable 300 Vessel with DF-2 Dry-Flo moisture and oil separator (290192) includes:
- Manual Sure-Flo® grit valve (290383)
- Air gauge (550242)
- Manual air and choke valves (518492)
Note: Does not include remote control handle and dual-line hose.

206102   180 lb

P-300 with 680 Remote Control System *(Bleed Down)*

Portable 300 Vessel includes:
- 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:
- 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 *(Bleed Down)*

OSHA Package includes:
• 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)

209100   325 lb

XL-300 with 780 Remote Control System *(Under Pressure)*

OSHA Package includes:
• 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)

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 *(Bleed Down)*

OSHA Package includes:
• 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)

209102   345 lb

XL-300 with 780 Remote Control System *(Under Pressure)*

OSHA Package includes:
• 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)

209103   345 lb

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

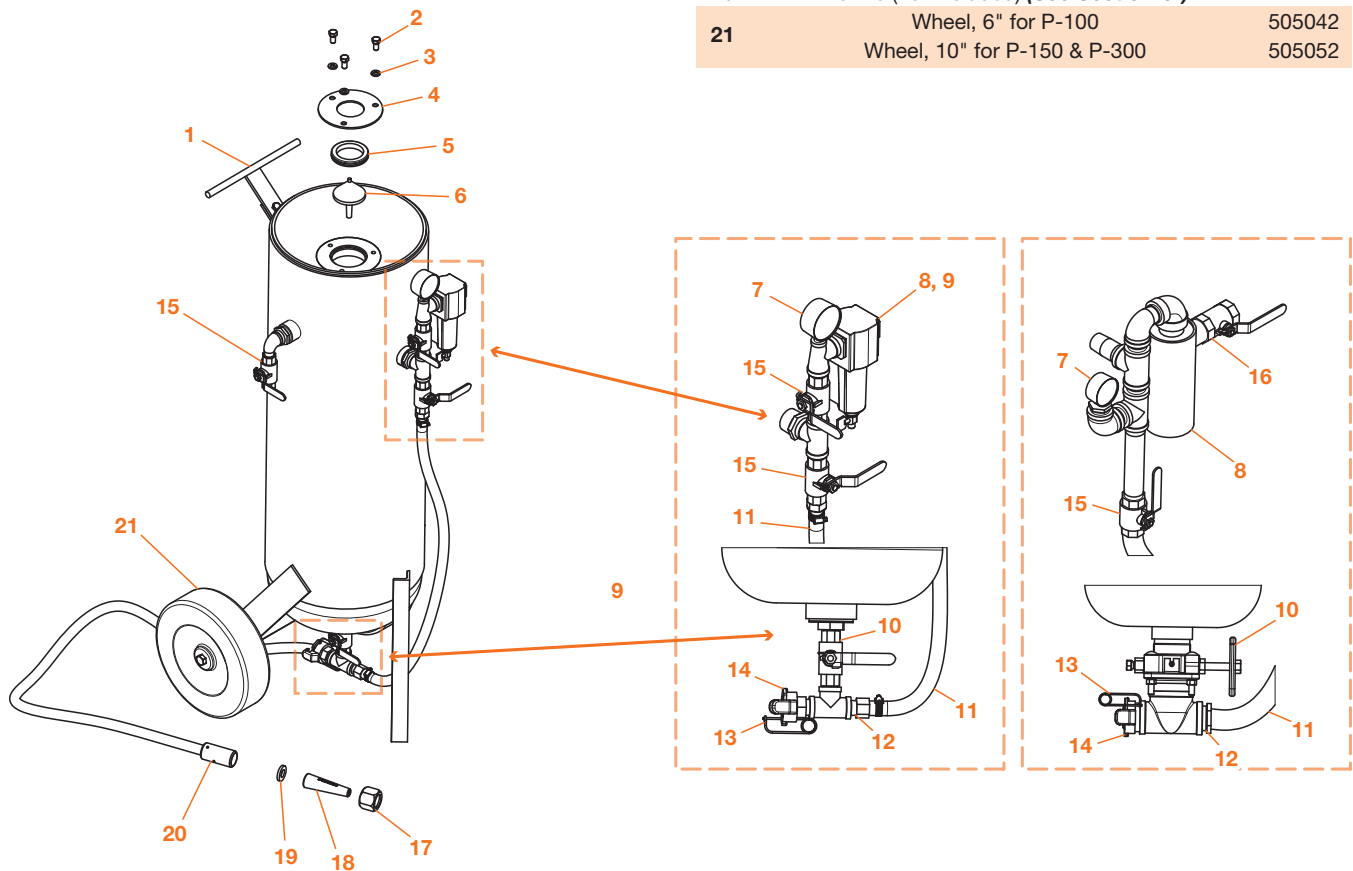> **Refer to Section J for Warnings & OSHA Statements.**

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	⅜"-16 x ¾" hex bolt	551832
3	⅜" 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, ½" NPT for ½" piping (P-100, 150 & 300)	504652
8	DF-2 manual drain filter for 1" piping (P-150 & 300)	290192
9	½" air-filter repair kit for part# 504652	508112
10	Manual air valve (steel), ½" NPT	518482
10	Sure-Flo® valve, manual for 1" piping	290383

Item	Description	PART#
11	½" air hose assembly for P-100 (21")	522882
11	½" air hose assembly for P-150 (27")	522872
11	½" air hose assembly for P-300 (33")	522892
11	1" flex hose assembly for P-150 & 300 (19")	520892
12	½" brass swivel adapter for ½" piping	520201
12	1¼" x 1" hex bushing for 1" piping	544512
13	Safety pin	510511
14	½" NPT tank coupling for ½" piping	505212
14	1" NPT tank coupling for 1" piping	753262
15	Manual air valve (brass), ½" NPT for ½" piping	518472
15	Manual air valve (brass), 1" NPT for 1" piping	518492
16	Manual air valve (brass), 1¼" 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
21	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.

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

Item	Description	PART#
1	Handle for P-150	763402
2	⅜"-16 x ¾" hex bolt	551832
3	⅜" 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	Automatic air valve, 1" NPT, with bleed	518052
	(See Section F for details.)	
9	DF-2 manual drain filter for 1" piping	290192
10	Manual air valve (brass), 1" NPT for 1" piping	518492
11	Flexible hose with fittings for P-150 & 300	520892

Item	Description	PART#
12	Adapter 1¼" NPT x 1" ball	522112
13	1¼" x 1" hex bushing for 1" piping	544512
14	Tee, 2" x 1¼" x 1¼" NPT	545752
15	Close nipple, 1¼" NPT, extra heavy duty	546292
16	Aluminum tank coupling, 1¼" NPT with washer	753262
17	Manual Sure-Flo® valve assembly	290383
	(See Section F for details.)	
18	Saf-Stop II™ pneumatic remote control handle	290164
	Sure Stop pneumatic remote control handle (optional)	290166
	(See Section F for details.)	
19	Dual line hose with fitting (30')	521962
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
	(See Section F for details.)	

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

Item	Description	PART#
1	Handle for P-150	763402
2	⅜"-16 x ¾" hex bolt	551832
3	⅜" 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	Automatic air valve, 1" NPT, with bleed *(See Section F for details.)*	518052
9	Manual air valve, 1¼" NPT	518502
10	DF-2 manual drain filter for 1" piping	290192
11	Manual air valve (brass), 1" NPT for 1" piping	518492
12	Flexible hose with fittings for P-150 & 300	520892

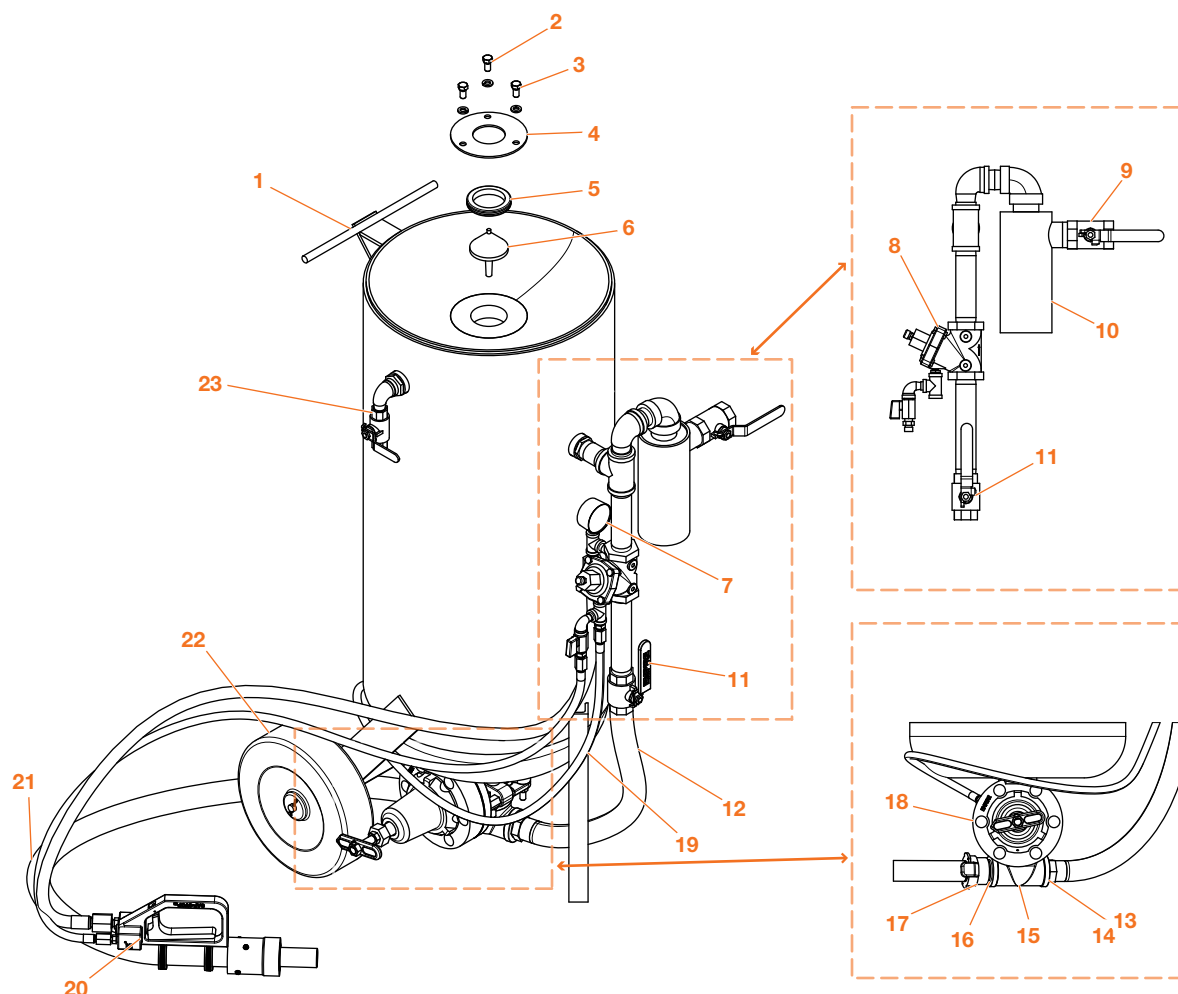| Item	Description	PART#
13	Adapter 1¼" NPT x 1" ball	522112
14	1¼" x 1" hex bushing for 1" piping	544512
15	Tee, 2" x 1¼" x 1¼" NPT	545752
16	Close nipple, 1¼" NPT, extra heavy duty	546292
17	Aluminum tank coupling, 1¼" NPT with washer	753262
18	Automatic Sure-Flo® valve assembly *(See Section F for details.)*	290215
19	Control hose, ¼" ID with fitting, 14" long (P-150)	290372
	Control hose, ¼" ID with fitting, 16" long (P-300)	290374
20	Saf-Stop II™ pneumatic remote control handle	290164
	Sure Stop pneumatic remote control handle (optional)	290166
	(See Section F for details.)	
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 *(See Section F for details.)*	518472

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

Section F: Table of Contents

Never use silica sand in any Empire equipment.

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)

Item	Description	PART #
1	Hex nut, ⅜" – 16 (6 required)	552542
2	Lock washer, ⅜" ID (6 required)	552762
3	Hex bolt, ⅜" – 16 x 3" (2 required)	551902
4	Adapter, manual body, Sure-Flo	753372
5	Handle assembly, ½"– 13 x 4"	290384
6	Jam nut, ½"	552672
7	Carriage bolt, ⅜" – 16 x 2½" (4 required)	552052
8	Flange, 2" MPT	753292
9	Roller stop, holder	753092
10	Screw, 8 – 32 x ½" (2 per assembly)	551352
11	Bolt, ⁷⁄₁₆" – 14 x 1¼"	552222
12	Pinch roller (2 per assembly)	753632
13	Valve body, 2" MPT	753692
14	Metering tube, ¾" ID (See below.)	523592

Note: These fasteners are used two places to mount manual body adapter to Sure-Flo® body.
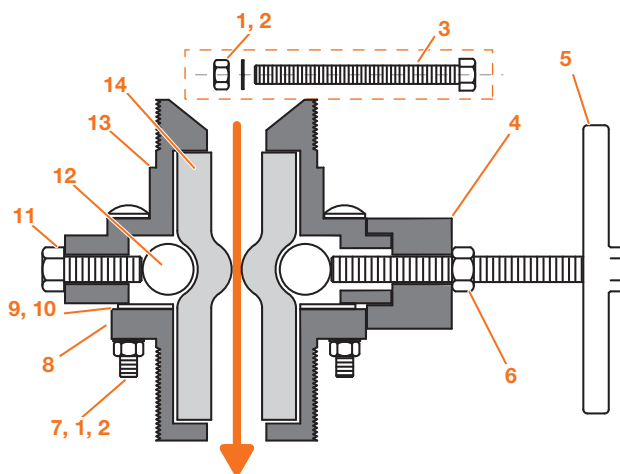
Sure-Flo® metering tubes are available in six sizes for work with differing media types and nozzle sizes.

Metering Tube ID	Nozzle Size	Grit Range	Comments	PART NUMBER
⅜"	Small	Fine	Back out roller bolt ½"	525451
½"	Small-medium	Fine-medium	Back out roller bolt ½"	525782
¾"	Medium-large	Medium	Supplied as standard	523592
¾"	Medium	Medium	Use below 32° F. (red)	523512
⅝"	Medium	Medium-coarse		525792
⅞"	Large	Coarse	For high-production	525802

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

Note: These fasteners are used two places to mount diaphragm body to Sure-Flo® valve.
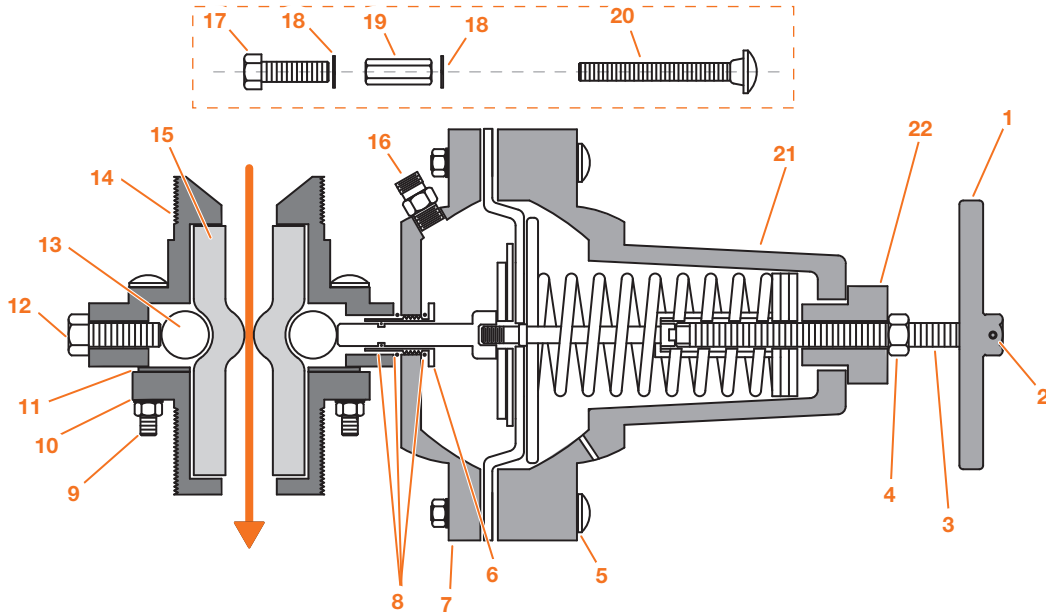
Item	Description	PART #
1	Handle assembly, ½" - 13, Sure-Flo (after 5/84)	290217
	Handle only, ½" - 13	753622
2	Set screw, ¼" - 20 x ⅜"	551052
3	Shaft handle	505802
4	Jam nut, ½" - 13	552672
5	Carriage bolt, ⅜" - 16 x 2½"	552052
	Lock washer, ⅜" ID	552762
	Hex nut, ⅜" - 16	552542
6	Plunger guide	753462
7	Diaphragm cover	753112
8	O-ring kit (includes 2 for guide, 1 for plunger)	561422
9	Carriage bolt, ⅜" - 16 x 2½"	552052
	Lock washer, ⅜" ID	552762
	Hex nut, ⅜" - 16	552542
10	Flange, 2" MPT	753292
11	Roller stop holder	753092
	Screw, 8 - 32 x ½" (2 per assembly)	551352
12	Bolt, ⁷⁄₁₆" - 14 x 1¼"	552222
13	Pinch roller (2 per assembly)	753632
14	Valve body, 2" MPT	753692
15	Meter tube, ¾" *(See page F2 for choices.)*	523592
16	Adapter, ¼" NPT x ¼" tube	521081
17	Bolt, ⅜" - 16 x 1¼" (2, Auto Sure-Flo)	551852
18	Lock washer, ⅜" ID	552762
19	Nut extension, ⅜" - 16 (2, Auto Sure-Flo)	552662
20	Carriage bolt, ⅜" - 16 x 2½"	552052
21	Spring enclosure	753682
22	Spring tensioner	505822

Spring & Diaphragm Detail (Part # 290296)
(Part # 290296 includes items 23 through 28.)
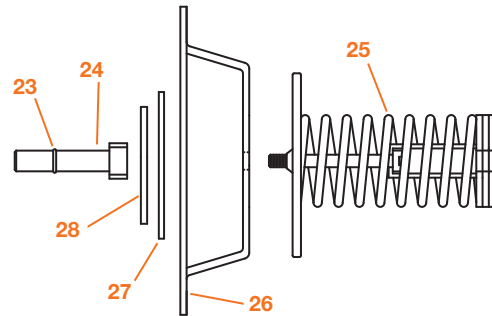
WARNING: Never attempt to disassemble the spring assembly in the automatic Sure-Flo. The spring is under tension and could cause injury to personnel.

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, ½" ID	552842

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, ½" diameter x 1⅞" high	518432
Lower seat	N/A

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

DESCRIPTION	PART #
Complete repair kit for 1¼" automatic air valve with bleed	518362
Diaphragm and seal kit for 1¼" automatic air valve with bleed	517592
Spring, 1³⁄₁₆" diameter x 1⅞" high	518082
Lower seat	519052

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

DESCRIPTION	PART #
Complete repair kit for 1¼" automatic air valve with NO bleed	518921
Diaphragm and seal kit for 1¼" automatic air valve with NO bleed	517592
Spring, 1³⁄₁₆" diameter x 1⅞" high	518082
Lower seat	519052

Air Valve Tools

DESCRIPTION	PART #
1" wrench for 1" automatic air valves	518512
1¼" wrench for 1¼" automatic air valves	518522
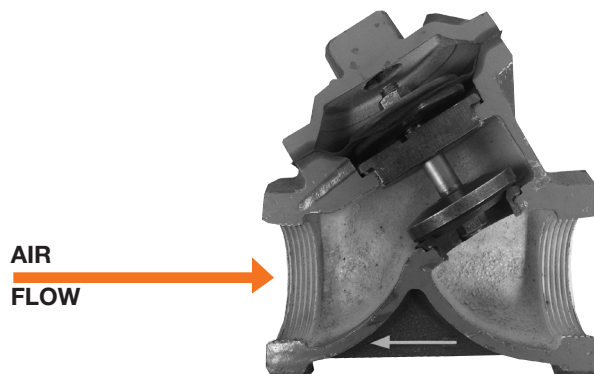
AIR FLOW →

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

Automatic Exhaust Valves

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, ½"-13 x 1¾"	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

WARNING
All personnel should stay clear of exhaust valve while system is operating. Exhausted particles can cause eye injury.
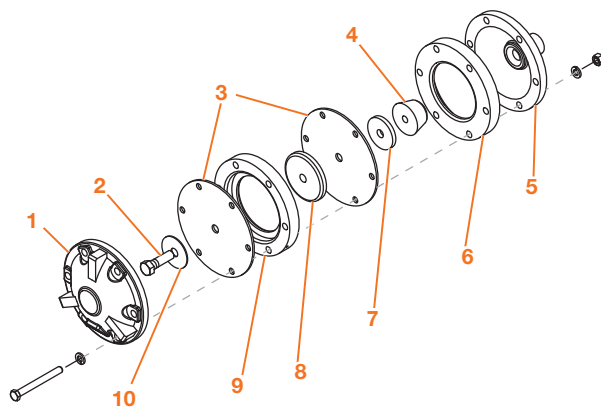
Complete rebuild kit, MG72/MG78 valve (Part # 290183)
(Not Shown)

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

Item	Description	PART #
1	Hose barb, 1"	520181
2	Reducer bushing, 1¼" 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 (½" ID x 2" OD x ¼" thick)	553412
8	Spacer ring, outer	753402
9	Bolt, ⅜" - 16 x 2"	553892
9	Lock washer, ⅜"	552762
10	Washer (½" ID x 2" OD x ¹⁄₁₆" thick)	552842
11	Valve cover	753382
12	Spacer ring, inner	753392
13	Bolt, ½" - 13 x 1¾"	551962
14	Elbow, brass (¼" MPT x ¼" tube)	520242
14	Pipe bushing, ¼" x ⅛"	544302
15	Diaphragm (2 per assembly)	523672
16	Pipe nipple,1" CLOSE	546192
17	Screws, seat, ¼" - 20 x ½" (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
21	Ceramic restrictor kit (standard)	290218
21	Ceramic nozzle (standard)	502431
21	Boron carbide restrictor kit (customer upgrade)	502081
21	Boron carbide restrictor kit (factory upgrade)	290184
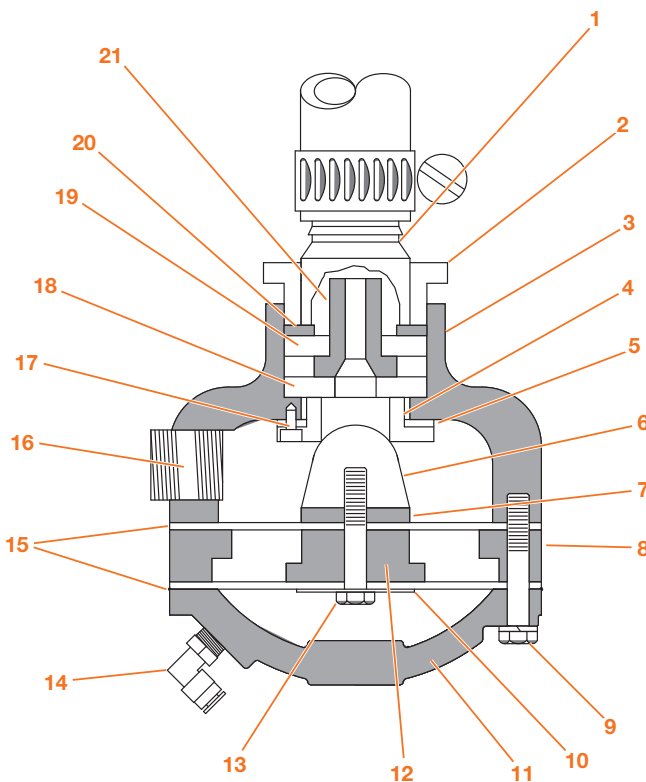
TIP: Worn restrictors may result in premature reclaimer failure. Check the restrictor for wear when replacing a reclaimer. Check for wear often when using aggressive media.

Operator Remote Control Packages

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT

Pneumatic Control Packages

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
680 Pneumatic Control Conversion Kit for Single Chamber Pressure Vessels with 1" Piping *(Bleed Down)*	**680 Pneumatic Control Conversion Kit for 1" pipe string** includes: • 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 *(Bleed Down)*	**680 Pneumatic Control Conversion Kit for 1¼" pipe string** includes: • 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 *(Under Pressure)*	**780 Pneumatic Control Conversion Kit for 1" pipe string** includes: • 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 *(Under Pressure)*	**780 Pneumatic Control Conversion Kit for 1¼" pipe string** includes: • 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

MODEL	SYSTEM DESCRIPTION	PART NUMBER	SHIPPING WEIGHT
Electric Remote Control Conversion Kit for Single Chamber Pressure Vessels with 1¼" Piping *(Under Pressure)*	**780-2E - 12 Volt DC Conversion Kit for 1¼" pipe string** includes: • 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: • 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: • 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

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, ⅛" x ⅛"	520212
2	Hose adapter, ¼" x ¼"	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

Saf-Stop II™ 290164

Sure-Stop 290166
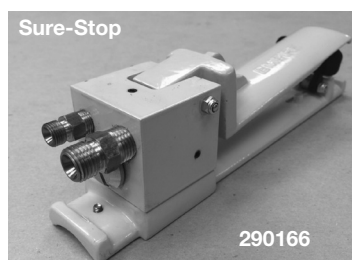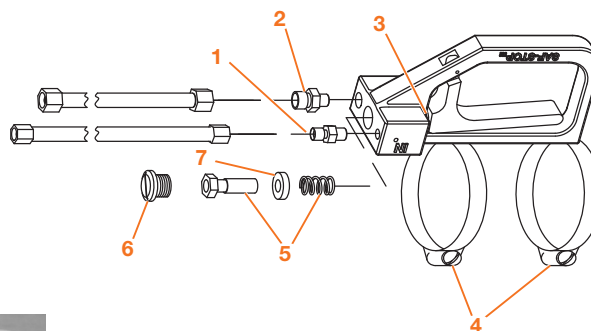
NOTE: Internal components are the same for Saf-Stop II™ and Sure-Stop handles.

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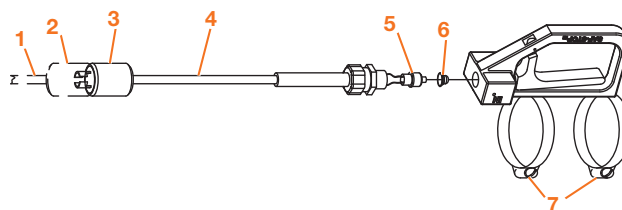
NOTE: Internal components are the same for Saf-Stop II™ and Sure-Stop handles.

Saf-Stop II™ Electric 290354

Sure-Stop Electric 290349

12 Volt DC Electric Remote Control Parts (for 290334)

Item	Description	PART #
1	Receptacle with flip lid	534122
2	Vent, ⅛" NPT	523261
3	Air filter assembly, ¼" 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

Connection for electric remote control handle

Yellow air line to control valves

Covers removed to show internal wiring

Black air line from pipe string
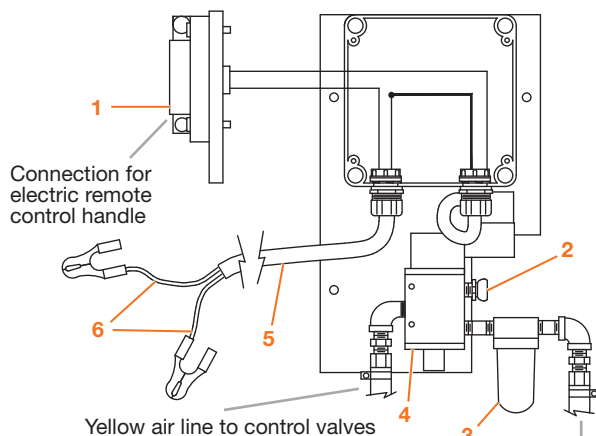
120 Volt AC Electric Remote Control Parts (for 290305)

Item	Description	PART #
1	Receptacle with flip lid	534122
2	Power supply	290484
3	Vent, ⅛" NPT	523261
4	Air filter assembly, ¼" 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

Connection for electric remote control handle

Yellow air line to control valves
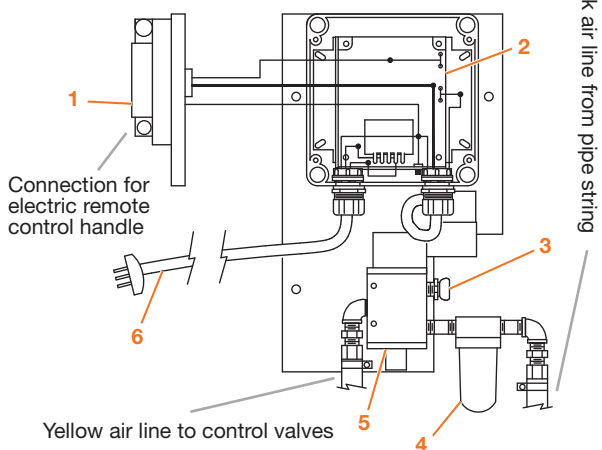
Grit Cut-Off Switch for 780 Pneumatic Remote Control (Part # 290424)

Item	Description	PART #
1	Air valve	518031
2	Muffler	517153
3	Boot, toggle switch	534465
4	Hose, dual line, 3'	520872
5	Air hose, ¼", 55'	520851
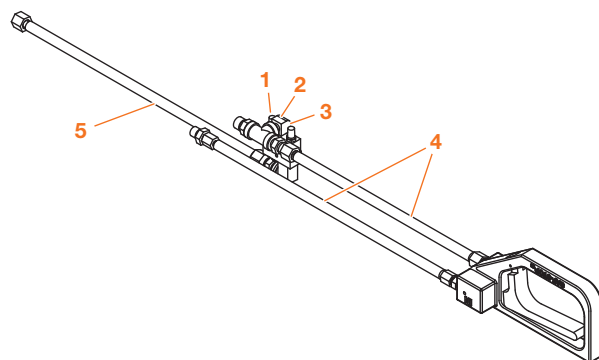
Grit Cut-Off Switch for 780 Electric Remote Control (Part # 290392)

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

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

Item	Description	PART#
1	Top leg	762982
	Bottom leg	762972
2	Hex bolt assembly, ¼-20 x ¾"	551182
3	Hex nut, ¼"	552522
4	Lock washer, ¼"	552752
5	Screw, 10-32 x ¼"	551372
6	Screen	762992
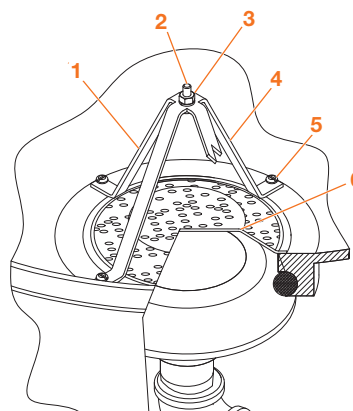
Moisture and Oil Separators

DESCRIPTION	PART #
DF-2 Dry-Flo manual drain separator, 1¼" NPT	290192
Manual drain filter, ½" NPT	504652
ADS-1 automatic drain filter, 1" NPT	504562
ADS-2 automatic drain filter, 1¼" NPT	504632

Pressure Regulators

DESCRIPTION	PART #
Air pressure regulator kit, 1" NPT for 350 vessel	241106
Air pressure regulator kit, 1¼" NPT for 650 and 1050 vessels	241108
Air pressure regulator (only), 1" NPT, relieving	517251
Air pressure regulator (only), 1¼" NPT, relieving	517291
Air pressure regulator (only), 1¼" NPT, relieving, high flow	517295
Air gauge, 0-160 psi, ¼" NPT	550242

Regulator Kit Installation, 680 Control System   **Regulator Kit Installation, 780 Control System**
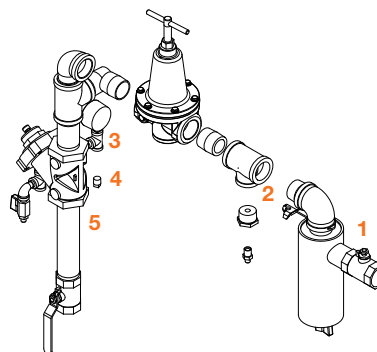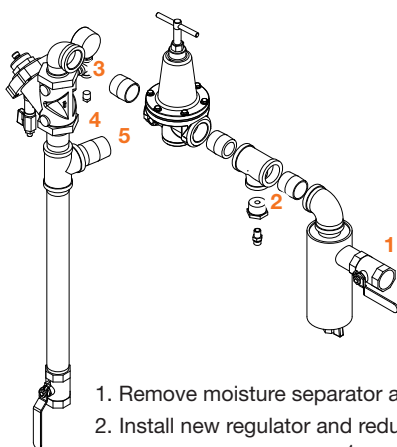
1. Remove moisture separator and elbow from pipe string.
2. Install new regulator and reducing tee as shown above.
3. Remove the ¼" NPT to $1/8$" ball end brass fitting located underneath the air gauge.
4. Plug this port with the ¼" NPT pipe plug supplied.
5. Install existing brass fitting into new reducing tee supplied with kit.

Pressure Tester

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

Pressure Tester

290187
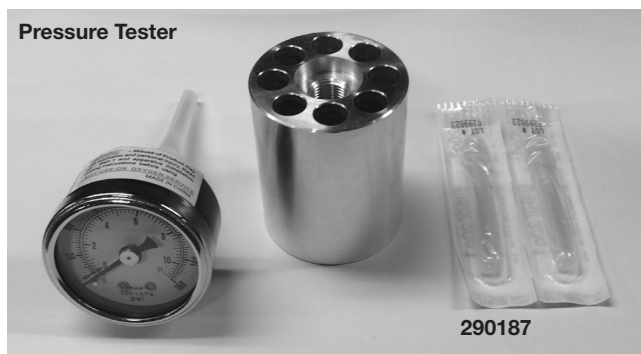
Media Loading Screens (Require removal of E-Z Fill™ Bag Breaker/Screener)

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

Wet Blast Head

753452

Blast Nozzles, Hoses & Couplings

Section G: Table of Contents

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"	3¾"	1	502342	1 lb
CN3-0	³⁄₃₂"	3¾"	10	503372	2½ lb
CN3-0	³⁄₃₂"	3¾"	50	503432	12½ lb
CN3-2	⅛"	3¾"	1	502352	1 lb
CN3-2	⅛"	3¾"	10	503382	2½ lb
CN3-2	⅛"	3¾"	50	503442	12½ lb
CN3-3	³⁄₁₆"	3¾"	1	502362	1 lb
CN3-3	³⁄₁₆"	3¾"	10	503392	2½ lb
CN3-3	³⁄₁₆"	3¾"	50	503452	12½ lb
CN3-4	¼"	3¾"	1	502372	1 lb
CN3-4	¼"	3¾"	10	503402	2½ lb
CN3-4	¼"	3¾"	50	503462	12½ lb
CN3-5	⁵⁄₁₆"	3¾"	1	502382	1 lb
CN3-5	⁵⁄₁₆"	3¾"	10	503412	2½ lb
CN3-5	⁵⁄₁₆"	3¾"	50	503472	12½ lb
CN3-6	⅜"	3¾"	1	502392	1 lb
CN3-6	⅜"	3¾"	10	503422	2½ lb
CN3-6	⅜"	3¾"	50	503482	12½ lb

NW-5 WASHER

CERAMIC

EMPIRE
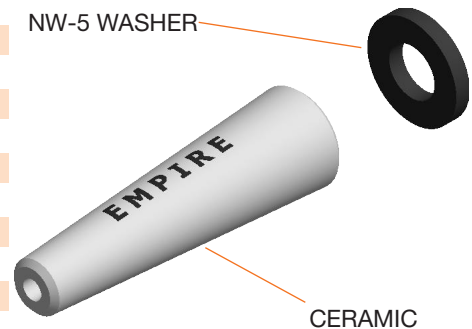
Nozzles: *Silicon Carbide*

Production Venturi with Blue Polymer Jacket

Silicon carbide liner • 1¼" NPT brass thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
SCV-3	³⁄₁₆"	4¼"	1	502712	1 lb
SCV-4	¼"	5¼"	1	502722	1 lb
SCV-5	⁵⁄₁₆"	6"	1	502732	1 lb
SCV-6	⅜"	6¾"	1	502742	1 lb
SCV-7	⁷⁄₁₆"	8"	1	502752	1 lb
SCV-8	½"	9¼"	1	502762	1 lb

NW-1 WASHER

BLUE URETHANE

Nozzles: *Tunsgten Carbide (Di-Carb™)*

Production Venturi with Brass Jacket

Tungsten carbide liner • 1¼" NPT brass thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
DCV-3	³⁄₁₆"	4¼"	1	501662	1 lb
DCV-4	¼"	5¼"	1	501672	1½ lb
DCV-5	⁵⁄₁₆"	6"	1	501682	1¾ lb
DCV-6	⅜"	6¾"	1	501692	2 lb
DCV-7	⁷⁄₁₆"	8"	1	501702	2½ lb
DCV-8	½"	9¼"	1	501712	3 lb

NW-1 WASHER

BRASS

Production Venturi with Yellow Polymer Jacket

Tungsten carbide liner • 1¼" NPT brass thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
DCYV-3	³⁄₁₆"	4¼"	1	501742	1 lb
DCYV-4	¼"	5¼"	1	501752	1 lb
DCYV-5	⁵⁄₁₆"	6"	1	501762	1 lb
DCYV-6	⅜"	6¾"	1	501772	1 lb
DCYV-7	⁷⁄₁₆"	8"	1	501782	1¼ lb
DCYV-8	½"	9¼"	1	501792	1½ lb
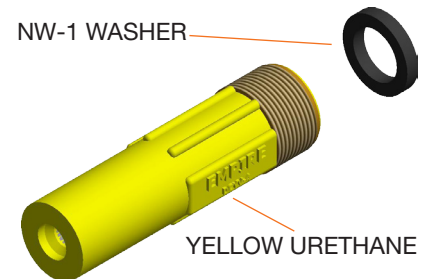
NW-1 WASHER

YELLOW URETHANE

Venturi with Aluminum Jacket

Tungsten carbide liner • 1¼" NPT thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
DCV3-3	³⁄₁₆"	3"	1	501582	1 lb
DCV3-4	¼"	3"	1	501952	1 lb
DCV3-5	⁵⁄₁₆"	3"	1	501602	1 lb
DCV3-6	⅜"	3"	1	501612	1 lb
DCV3-7	⁷⁄₁₆"	3"	1	501622	1 lb
DCV3-8	½"	3"	1	501632	1 lb
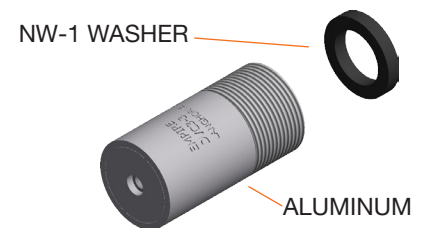
NW-1 WASHER

ALUMINUM

Straight Bore with Aluminum Jacket

Tungsten carbide liner • 1¼" NPT thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
DC3-2	⅛"	3"	1	501382	1 lb
DC3-3	³⁄₁₆"	3"	1	501392	1 lb
DC3-4	¼"	3"	1	501402	1 lb
DC3-5	⁵⁄₁₆"	3"	1	501412	1 lb
DC3-6	⅜"	3"	1	501422	1 lb
DC3-7	⁷⁄₁₆"	3"	1	501432	1 lb
DC3-8	½"	3"	1	501442	1 lb
DC3-10	⅝"	3"	1	501452	1 lb

NW-1 WASHER

ALUMINUM
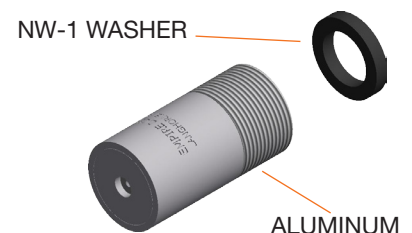
Nozzles: *Tungsten Carbide (Di-Carb™)*

Straight Bore with Brass Jacket

Tungsten carbide liner • 1¼" NPT brass thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
DC6-2	⅛"	6"	1	501552	1¾ lb
DC6-3	3⁄16"	6"	1	501492	1¾ lb
DC6-4	¼"	6"	1	501502	1¾ lb
DC6-5	5⁄16"	6"	1	501512	1¾ lb
DC6-6	⅜"	6"	1	501522	1¾ lb
DC6-7	7⁄16"	6"	1	501532	1¾ lb
DC6-8	½"	6"	1	501542	1¾ lb
DC6-10	⅝"	6"	1	501462	1¾ lb

NW-1 WASHER
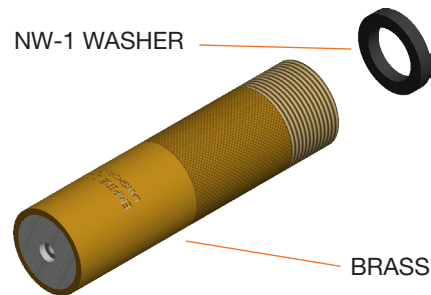
BRASS
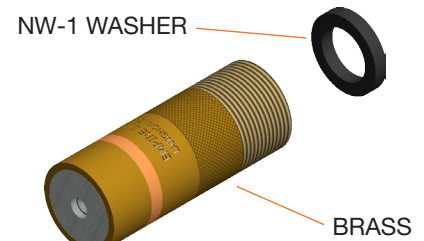
Double Venturi with Aluminum Jacket

Tungsten carbide liner • 1¼" NPT brass thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
DC2V-4	¼"	9¼"	1	503552	3 lb
DC2V-5	5⁄16"	9¼"	1	503542	3 lb
DC2V-6	⅜"	9¼"	1	503532	3 lb
DC2V-7	7⁄16"	9¼"	1	503522	3 lb
DC2V-8	½"	9¼"	1	503512	3 lb

NW-1 WASHER

ALUMINUM

Angle, 45 Degree with Brass Jacket

Tungsten carbide liner • 1¼" NPT thread

Model	I.D.	Length	Orifices	Part #	Ship WGT
TNA-32	⅛"	3"	3	501802	1½ lb
TNA-13	3⁄16"	3"	1	501812	1½ lb
TNA-23	3⁄16"	3"	2	501822	1½ lb
TNA-33	3⁄16"	3"	3	501832	1½ lb
TNA-14	¼"	3"	1	501842	1½ lb
TNA-24	¼"	3"	2	501852	1½ lb
TNA-34	¼"	3"	3	501862	1½ lb
TNA-15	5⁄16"	3"	1	501872	1½ lb
TNA-25	5⁄16"	3"	2	501882	1½ lb
TNA-35	5⁄16"	3"	3	501892	1½ lb

NW-4 WASHER

BRASS
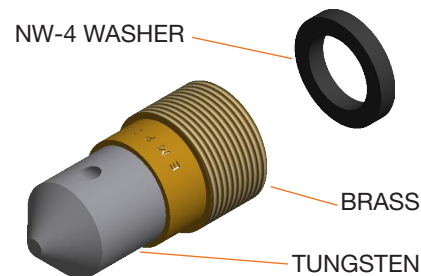
TUNGSTEN

Straight Bore with Tapered Body and Aluminum Jacket

Tungsten carbide liner • 1⅛" diameter at base

Model	I.D.	Length	Quantity	Part #	Ship WGT
DC2F-2	⅛"	2"	1	501272	1 lb
DC2F-3	3⁄16"	2"	1	501282	1 lb
DC2F-4	¼"	2"	1	501292	1 lb
DC2F-5	5⁄16"	2"	1	501302	1 lb
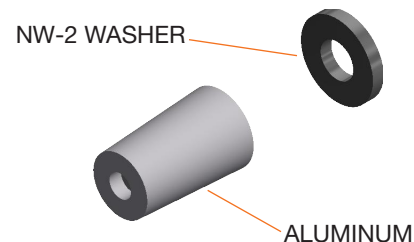
NW-2 WASHER

ALUMINUM

Venturi with Aluminum Jacket

Boron carbide liner • 1¼" NPT thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
NNV-4	¼"	4"	1	502282	1 lb
NNV-5	⁵⁄₁₆"	4"	1	502292	1 lb
NNV-6	⅜"	4"	1	502302	1 lb
NNV-7	⁷⁄₁₆"	4"	1	502312	1 lb
NNV-8	½"	4"	1	502322	1 lb

NW-1 WASHER

ALUMINUM

Straight Bore with Aluminum Jacket

Boron carbide liner • 1¼" NPT thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
NN3-2	⅛"	3"	1	502132	1 lb
NN3-3	³⁄₁₆"	3"	1	502142	1 lb
NN3-4	¼"	3"	1	502152	1 lb
NN3-5	⁵⁄₁₆"	3"	1	502162	1 lb
NN3-6	⅜"	3"	1	502172	1 lb
NN3-7	⁷⁄₁₆"	3"	1	502182	1 lb
NN3-8	½"	3"	1	502192	1 lb

NW-4 WASHER

ALUMINUM

Straight Bore with Aluminum Jacket

Boron carbide liner • 1¼" NPT thread

Model	I.D.	Length	Quantity	Part #	Ship WGT
NN6-5	⁵⁄₁₆"	6"	1	502222	1¼ lb
NN6-6	⅜"	6"	1	502232	1¼ lb
NN6-7	⁷⁄₁₆"	6"	1	502242	1¼ lb
NN6-8	½"	6"	1	502252	1¼ lb

NW-4 WASHER
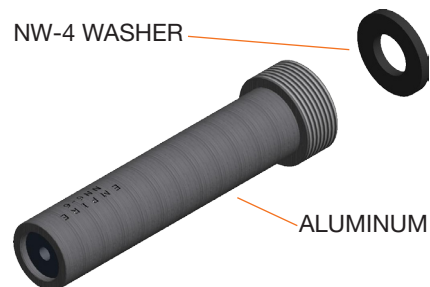
ALUMINUM

Straight Bore with Tapered Body and Aluminum Jacket

Boron carbide liner

Model	I.D.	Length	Quantity	Part #	Ship WGT
NN2F-2	⅛"	1¾"	1	502022	1 lb
NN2F-3	³⁄₁₆"	1¾"	1	502032	1 lb
NN2F-4	¼"	1¾"	1	502042	1 lb

NW-2 WASHER
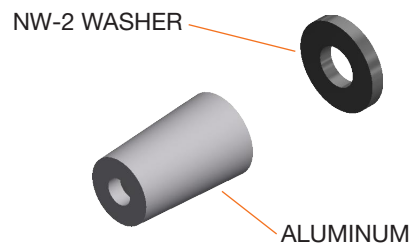
ALUMINUM

Nozzle Couplings (For connecting nozzle to blast hose)

Model	Description	Part #	Ship WGT
NC-1/2	Steel coupling, fits ½" I.D. blast hose, 1" MPT	505232	1 lb
NC-3/4	Aluminum coupling, fits ¾" I.D. blast hose, 1¼" FPT	753212	1 lb
NC-1	Aluminum coupling, fits 1" I.D. blast hose, 1¼" FPT	753222	1 lb
NC-1 1/4	Aluminum coupling, fits 1¼" I.D. blast hose, 1¼" FPT	753232	1 lb
NC-1 1/2	Aluminum coupling, fits 1½" I.D. blast hose, 1¼" FPT	753242	1 lb
NCVB	Quick disconnect nozzle coupling with 1¼" straight thread	753252	1 lb
	Quick disconnect nozzle coupling for flanged nozzles	753102	1 lb
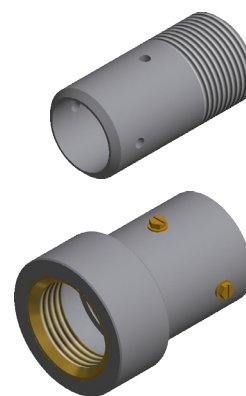
Flanged Nozzle Adapters

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, 1¼" MPT	504942	1 lb
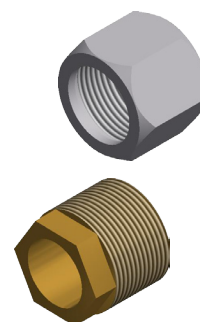
Nozzle Washers (For installation inside nozzle coupling to seat nozzle)

Model	Description	Part #	Ship WGT
NW-1	1" ID x 1½"OD - Use with SCV, DCV, NNV, DC3 & DC6 nozzles (Quantity: Ten)	524062	1 lb
NW-2	½" ID x 1⅛" OD - Use with DC2F & NN2F nozzles (Quantity: Ten)	524052	1 lb
NW-4	¾" ID x 1½" OD - Use with NN3, NN6 & TNA nozzles (Quantity: Ten)	524082	1 lb
NW-5	⅝" ID x 1⅛" OD - Use with CN3 nozzles (Quantity: Ten)	524041	1 lb
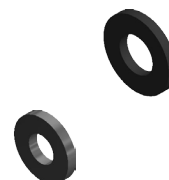
Coupling Screws

Model	Description	Part #	Ship WGT
SCW-5/8	#8 x ⅝" large sheet metal screws for cast aluminum and brass couplings only (Package of four)	554232	1 lb
SCW-3/8	#8 x ⅜" large sheet metal screws for steel couplings only (Package of four)	554242	1 lb

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 1⅛" O.D. blast hose	505222	1 lb
QC-3/4	Aluminum coupling, fits 1½" O.D. blast hose	751062	1 lb
QC-1	Aluminum coupling, fits 1⅞" O.D. blast hose	751092	1 lb
QC-1-1/4	Aluminum coupling, fits 2⁵⁄₃₂" O.D. blast hose	751102	1 lb
QC-1-1/2	Aluminum coupling, fits 2⅜" O.D. blast hose	751142	1 lb
QCB-3/4	Brass coupling, fits 1½" O.D. blast hose	751072	1½ lb
QCB-1	Brass coupling, fits 1⅞" O.D. blast hose	751082	1¼ lb
QCB-1-1/4	Brass coupling, fits 2⁵⁄₃₂" O.D. blast hose	751132	2½ lb
QCB-1-1/2	Brass coupling, fits 2⅜" 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 1¼" FPT	753262	1 lb
TCB	Brass coupling, quick snap with 1¼" FPT	753272	1¼ lb
TC-37	Steel coupling, quick snap with ⅜" FPT (P-105)	506832	1 lb
TC-50	Steel coupling, quick snap w/ ½" 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
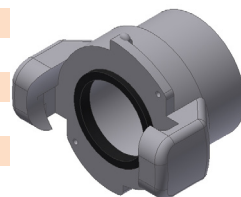
Washers for Blast-Hose Couplings

Model	Description	Quantity	Part #	Ship WGT
Fits all hose couplings listed above except QC-1/2, Part # 505222				
QCW	1¼" ID x 1⅞" OD	10	524032	1 lb
QCW	1¼" ID x 1⅞" OD	25	525092	1 lb
Fits hose coupling QC-1/2, Part # 505222				
AHCW	¾" ID x 1⅜" OD to fit QC-1/2	10	524101	1 lb
AHCW	¾" ID x 1⅜" 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

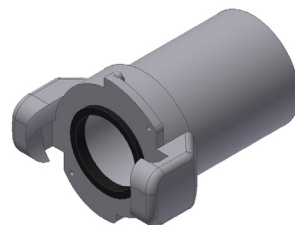| Model	Description	Part #	Ship WGT
WB1	½" x 1¼" OB, 20¼' length	520808	1 lb
WA2	1½" x 3" OB, 38¼' length	520809	1 lb

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.

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 ½" and 125 psi on 1¼" and 1½" ID hoses.)

Model	Description	Part #	Ship WGT
PBH-1/2	½" ID x 1¹⁄₁₆" OD Blast hose	520792	½ lb per ft.
PBH-5/8	⅝" ID x 1¹⁄₁₆" OD Blast hose	520802	½ lb per ft.
PBH-3/4	¾" ID x 1½" OD Blast hose	520812	¾ lb per ft.
PBH-1	1" ID x 1⅞" OD Blast hose	520822	1 lb per ft.
PBH-1THN	1" ID x 1⅞" OD Blast hose	520823	1 lb per ft.
PBH-1-1/4	1¼" ID x 2⁵⁄₃₂" OD Blast hose	520832	1¼ lb per ft.
PBH-1-1/2	1½" ID x 2⅜" OD Blast hose	520842	1½ lb per ft.

Blast Hose with Aluminum Couplings Installed

Model	Description	Part #	Ship WGT
PBH-1/2	(10') ½" Blast hose w/ quick snap & nozzle coupling	521672	6½ lb
PBH-1/2	(25') ½" Blast hose w/ quick snap & nozzle coupling	521682	15½ lb
PBH-1/2	(50') ½" Blast hose w/ quick snap & nozzle coupling	521692	26½ lb
PBH-1/2	(10') ½" Blast hose w/ two (2) quick snap couplings	521702	6½ lb
PBH-1/2	(25') ½" Blast hose w/ two (2) quick snap couplings	521712	15½ lb
PBH-1/2	(50') ½" Blast hose w/ two (2) quick snap couplings	521722	26½ lb
PBH-3/4	(10') ¾" Blast hose w/ quick snap & nozzle coupling	521732	9 lb
PBH-3/4	(25') ¾" Blast hose w/ quick snap & nozzle coupling	521742	20 lb
PBH-3/4	(50') ¾" Blast hose w/ quick snap & nozzle coupling	521752	40 lb
PBH-3/4	(25') ¾" Blast hose w/ two (2) quick snap couplings	521762	20 lb
PBH-3/4	(50') ¾" 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') 1¼" Blast hose w/ quick snap & nozzle coupling	521832	32 lb
PBH-1-1/4	(50') 1¼" Blast hose w/ quick snap & nozzle coupling	521842	64 lb
PBH-1-1/4	(50') 1¼" Blast hose w/ two (2) quick snap couplings	521852	64 lb
PBH-1-1/2	(50') 1½" Blast hose w/ quick snap & nozzle coupling	521862	77 lb
PBH-1-1/2	(50') 1½" 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	¼ lb
Female swivel hose barb, ⅛"	520352	¼ lb
Female swivel hose barb, ¼"	520342	¼ lb
Connector, ⅛" to ⅛"	520782	¼ lb
Connector, ¼" to ¼"	520032	¼ lb
Worm gear clamp for ³⁄₁₆" dual line	520492	¼ 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.

Operator Safety Equipment

Section H: Table of Contents

Refer to Section J for Warnings & OSHA Statements.

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, ⅜" ID, 25' length	NV2028	538002
Hose used with compressed air, ⅜" ID, 50' length	NV2029	538012
Hose used with compressed air, ⅜" ID, 100' length	NV2027	538004
Quick release coupler, ¼" female thread	NV2025	538037
Quick release, ⅜" hose tail	NV2024	538036
Hose tail, ¼" male thread	NV2033	538020

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

538502

538043 - 28" Nylon
538053 - 38" Nylon Cape
538063 - 28" Leather Cape
538502 - Inner Bib

538063
538053
538043
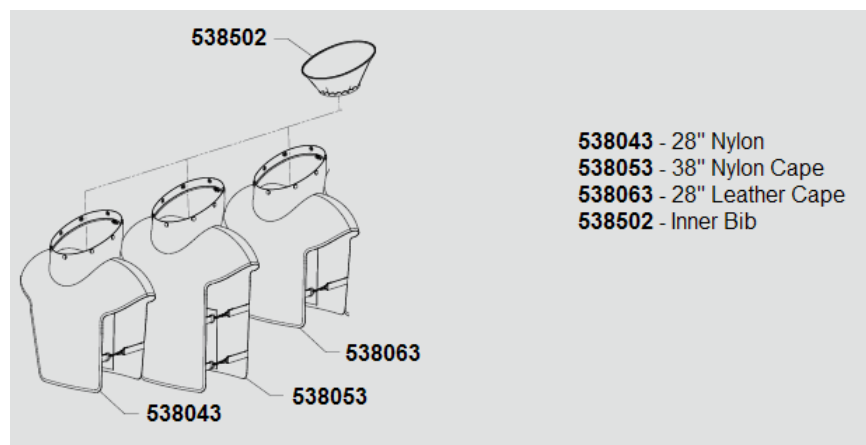
NOVA 3 Visor and Lenses

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

All kits contain screws and
nuts when necessary

538393
538244
538243
538403
538203
538213

538393   Inner Gasket
538243   Inner Lens pk 10
538244   Inner Lens Frame
538203   Outer Lens pk 50
538213   Tear Off Lens pk 50
538403   Visor Kit - Includes: Visor with Hinge Pin and Latch, Hinge Lock
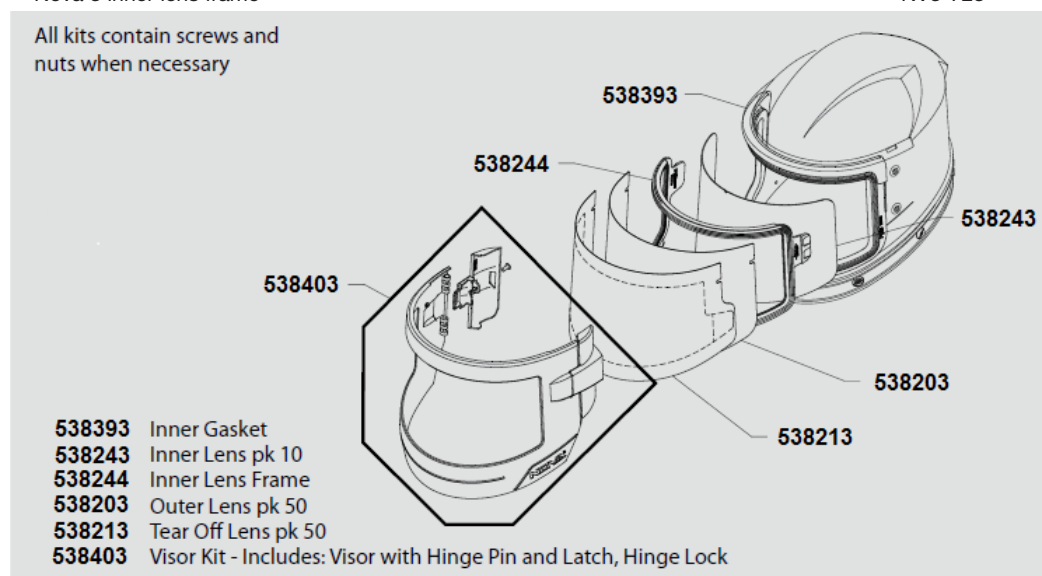
NOVA 3 Helmet Components

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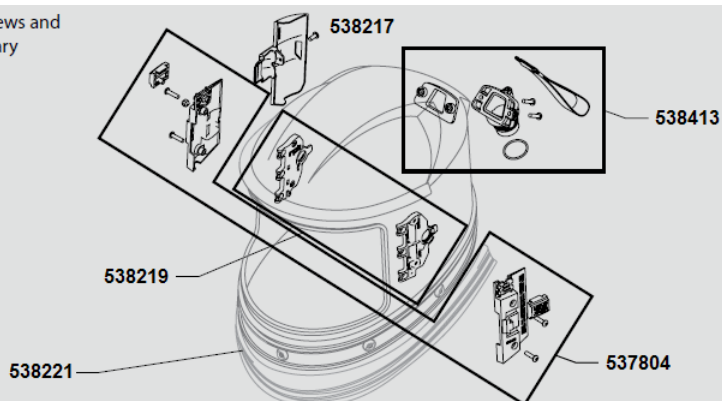
538217	Visor Hinge Lock
537804	Visor Latch Mount Kit - Includes: Latch Mount, Hinge Mount, Covers
538413	Air Inlet Kit - Includes: Air Inlet, O-Ring, Back Plate, Hanging Strap
538219	Padding Connectors (left & right)
538221	Cape Coverband

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

538209 — 538214 — 538208 — 538220 — 538211 — 538205 538206 538207 — 538210 — 538204
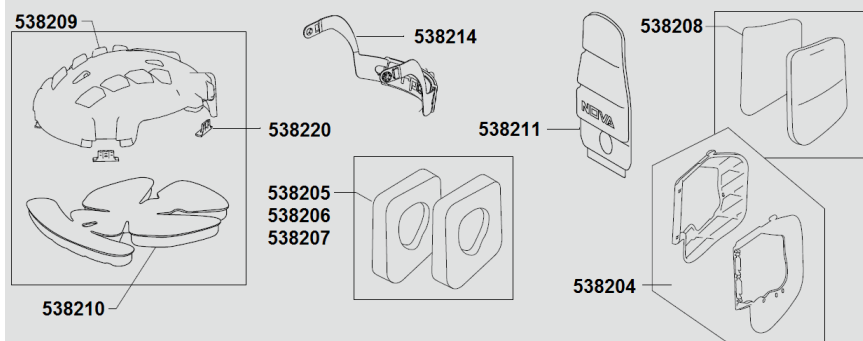
538204	Side Padding Frames (left & right)
538205/6/7	Side Padding Foam Pads pk 5 pairs (A10 Thin - A15 Medium - A20 Thick) **
538209	Head Liner Kit - Includes: Head Liner, Head Liner Foam Padding, Head Liner Clips x4
538220	Head Liner Clips, pack of 4
538210	Head Liner Padding
538211	Neck Pad
538214	Adjustable Head Support
538208	Side Padding Covers

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

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
Hor air tube with belt	4000-20	538132
Flow control valve with belt	NV2016	538452
Adjustable belt	NV2022	538492

538443	Breathing Tube (dark grey)
538492	Belt
538452	Flow Control Valve Assembly - Includes: Flow Control Valve, Belt
538122	Cool Air Tube Assembly - Includes: Cool Air Tube, Belt
538132	Hot Air Tube Assembly - Includes: Hot Air Tube, Belt
554914	C40 Climate Control Assembly - Includes: C40, Belt
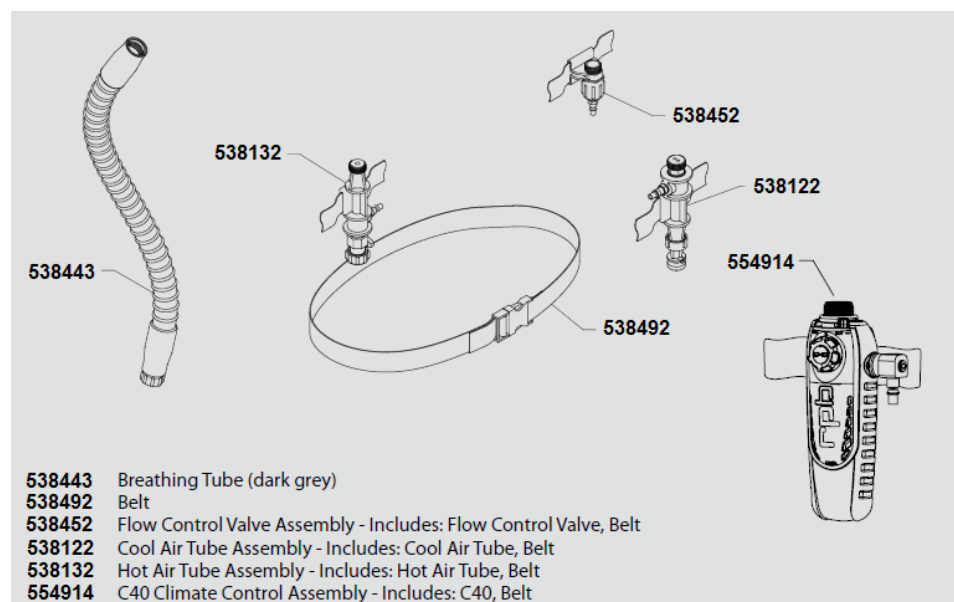
NOVA 3 Climate Control Replacement Parts (not shown)

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

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, ⅜" ID, 25' length	NV2028	538002
Hose used with compressed air, ⅜" ID, 50' length	NV2029	538012
Hose used with compressed air, ⅜" ID, 100' length	NV2027	538004
Quick release coupler, ¼" female thread	NV2025	538037
Quick release, ⅜" hose tail	NV2024	538036
Hose tail, ¼" male thread	NV2033	538020
Hose used with air pump, ½" ID, 50' length	NV2035	538022
Hose used with air pump, ½" 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

538502

538042 - 28" Nylon Cape
538052 - 38" Nylon Cape
538062 - 28" Leather Cape
538072 - 28" Nylon Cape (safety orange)
538082 - 38" Nylon Cape (safety orange)

538062

538052
538082

538042
538072
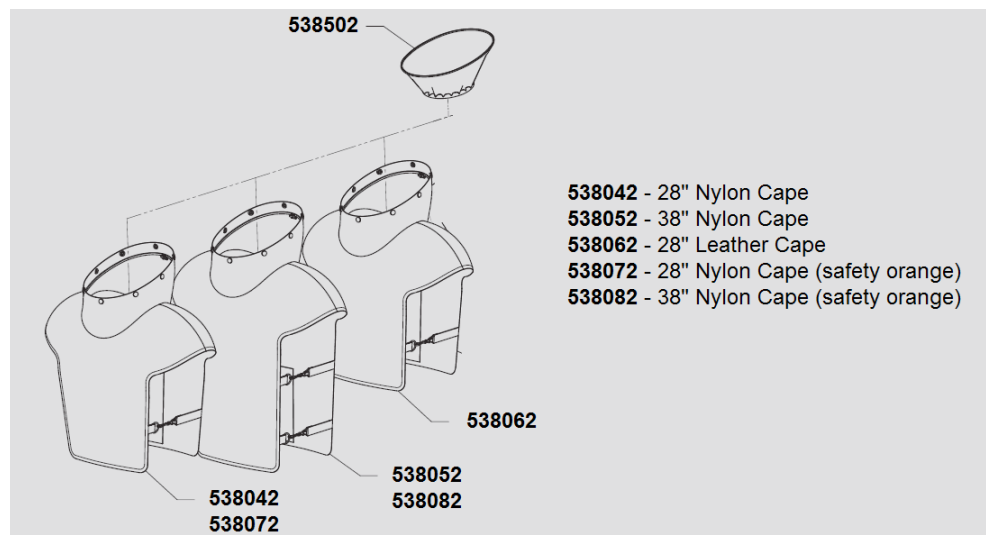
NOVA 2000 Visors and Lenses

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

538392	Window Frame Gasket	538242	Inner Lens Packet 10
538402	Visor with Hinge and Screws	538202	Outer Lens Packet 50
538212	Tearoff Lens Packet 50	538422	Latch
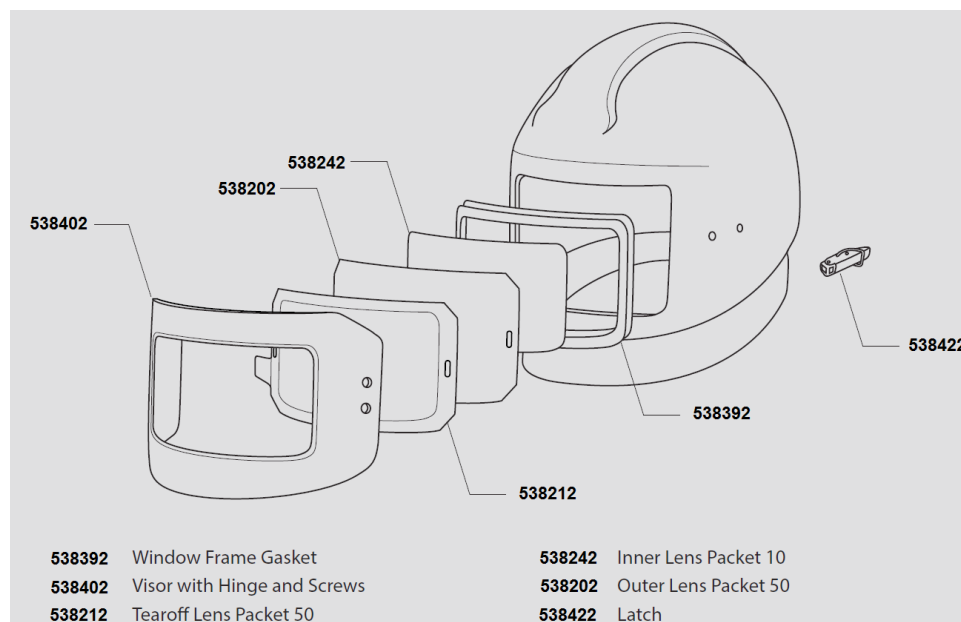
NOVA 2000 Padding System

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

538302
538292
538312

538332 538362
538322 538352
538342 538372

538272 - Kit
538262 - Kit
538282 - Kit

kits include both dome and side wings
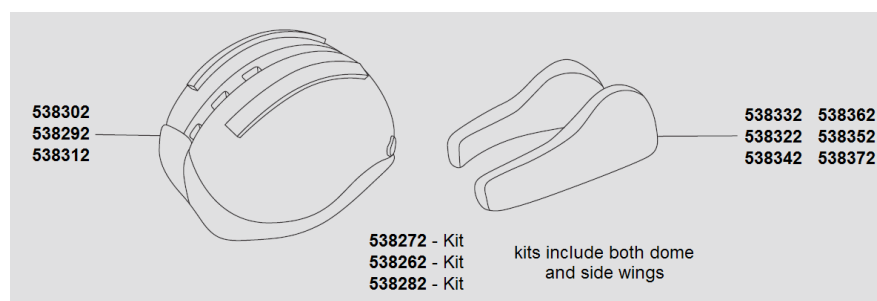
NOVA 2000 Breathing Tube and Flow Control Devices

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

538442	Breathing Tube
538492	Belt
538452	Flow Control Valve Assembly - Includes: Flow Control Valve, Belt
538472	Constant Flow Valve - Low Pressure
538122	Cool Air Tube Assembly - Includes: Cool Air Tube, Belt
538132	Hot Air Tube Assembly - Includes: Hot Air Tube, Belt
554914	Climate Control Assembly - Includes: 03-501, Belt
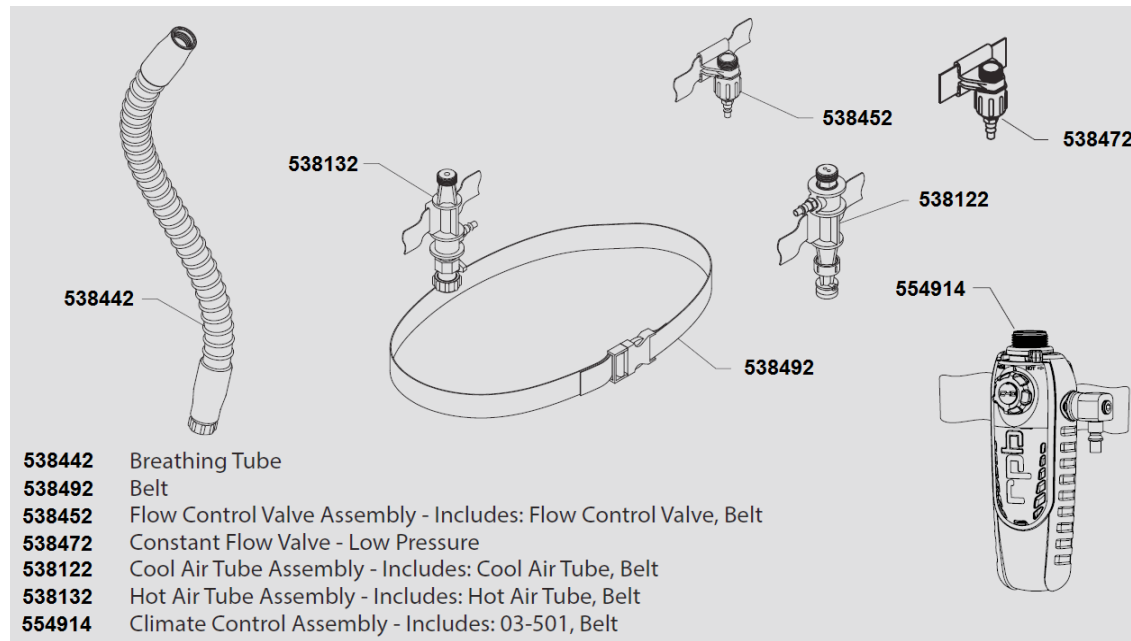
NOVA 2000 Climate Control Replacement Parts (not shown)

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

ASTRO Hoods

OBSOLETED — No longer available *(See below for parts and accessories still being offered.)*

ASTRO Hood Respirator Systems

OBSOLETED — 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, ⅜" ID, 25' length	NV2028	538002
Hose used with compressed air, ⅜" ID, 50' length	NV2029	538012
Hose used with compressed air, ⅜" ID, 100' length	NV2027	538004
Quick release coupler, ¼" female thread	NV2025	538037
Quick release, ⅜" hose tail	NV2024	538036
Hose tail, ¼" male thread	NV2033	538020
Hose used with air pump, ½" ID, 50' length	NV2035	538022
Hose used with air pump, ½" 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

538223

538092

Cape Cover Band
Nylon Cape
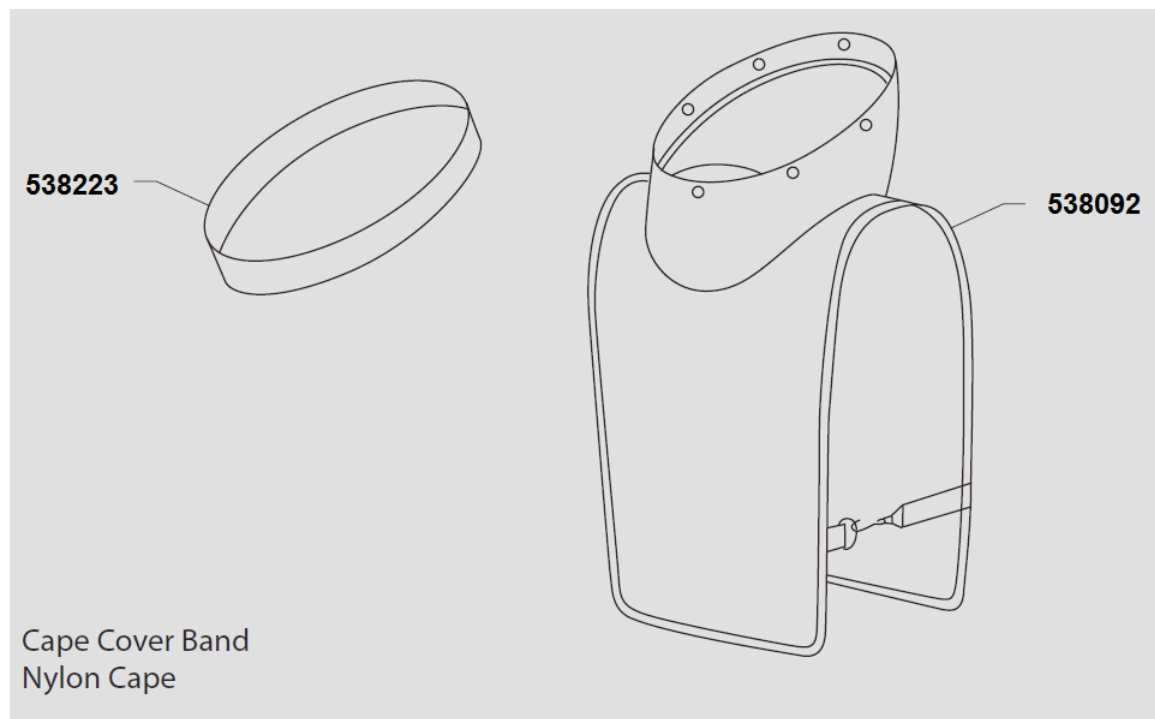
ASTRO Visor and Lenses

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

538512 Visor		**538552** Head Suspension	
538522 Visor Strap		**538252** Inner Lens (pkt 10)	
538532 Cleat		**538222** Outer Lens	
538542 Gasket Seal		**538232** Tearoff Lens	
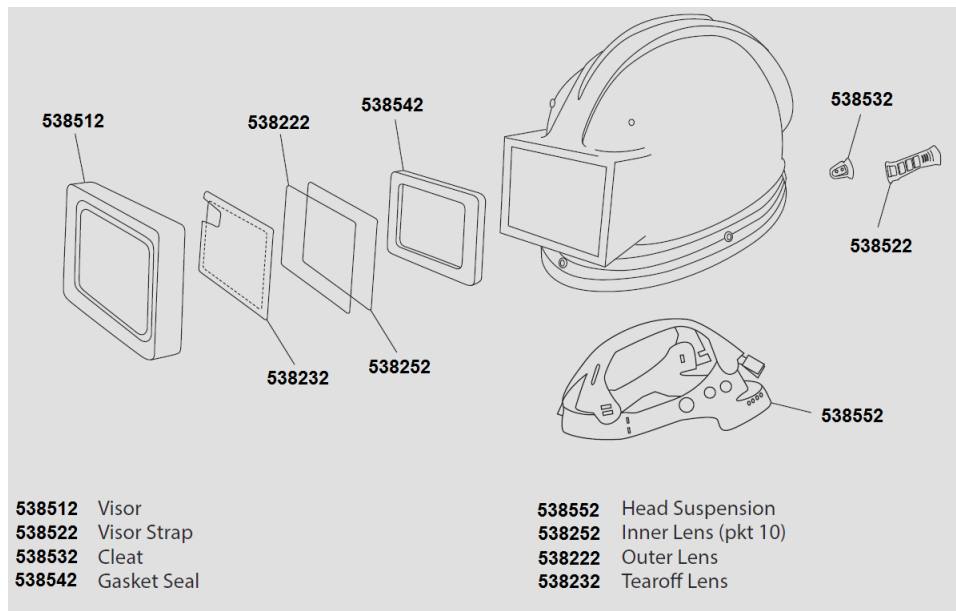
ASTRO Breathing Tube and Flow Control Devices

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

538442 Breathing Tube
538492 Belt
538452 Flow Control Valve Assembly - Includes: Flow Control Valve, Belt
538472 Constant Flow Valve - Low Pressure
554914 C40 Climate Control Assembly - Includes: Climate Control, Belt
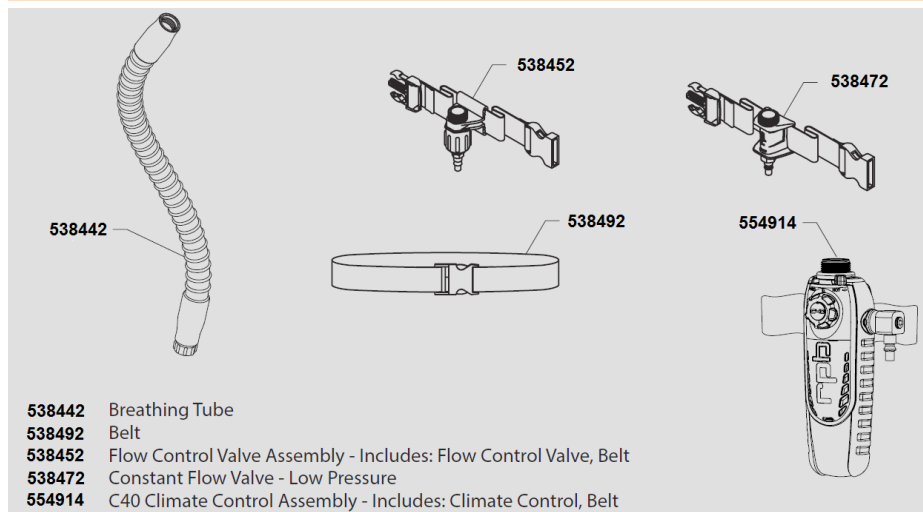
Operator Safety Equipment

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, ⅜" ID x 25' length	4696	522002
Extension hose used with compressed air, ⅜" ID x 25' length	5454	526952
Extension hose used with compressed air, ⅜"ID x 50' length	5457	528352
Extension hose used with compressed air, ⅜" ID x 100' length	5858	528342
Extension hose used with air pump, ½" ID x 50' length	V2050ST	528332
Extension hose, ½" ID x 100' length, with fittings used with air pump	V20100ST	527432

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

Replacement Parts

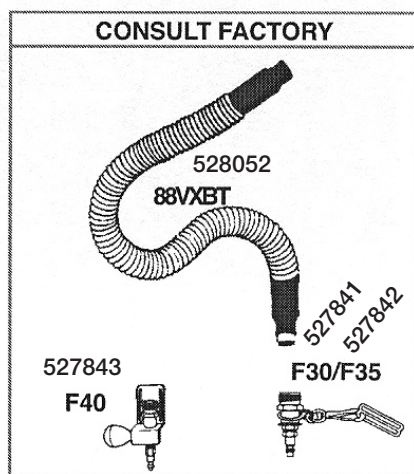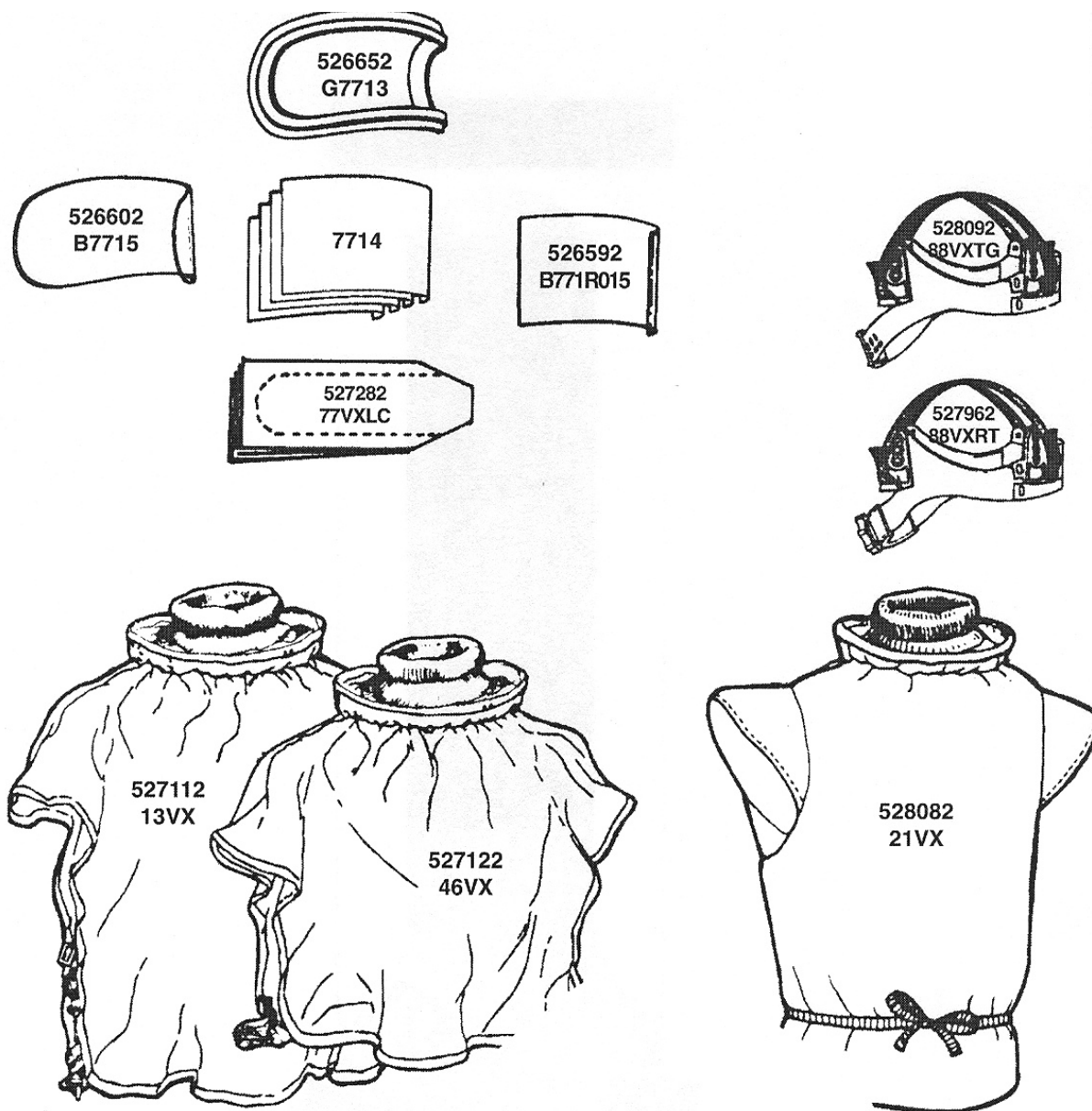| Description	Bullard Part#	Empire Part#
Cape, medium weight nylon, 28" long	46VX	527122
Cape, medium weight nylon, 38" long	13VX	527112
Cape, golden gate medium weight nylon, 38" long	21VX	528082
Adjustable headband suspension with brow pad	88VXTGP	528092
Breathing tube (fittings not included)	88VXBT	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.

Replacement Parts for BH-8/88VX Series Respirators

526652
G7713

526602
B7715

7714

526592
B771R015

528092
88VXTG

527282
77VXLC

527962
88VXRT

527112
13VX

527122
46VX

528082
21VX

CONSULT FACTORY

528052
88VXBT

527841

527842

528002
88CS

526842
4612

527843
F40

F30/F35

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
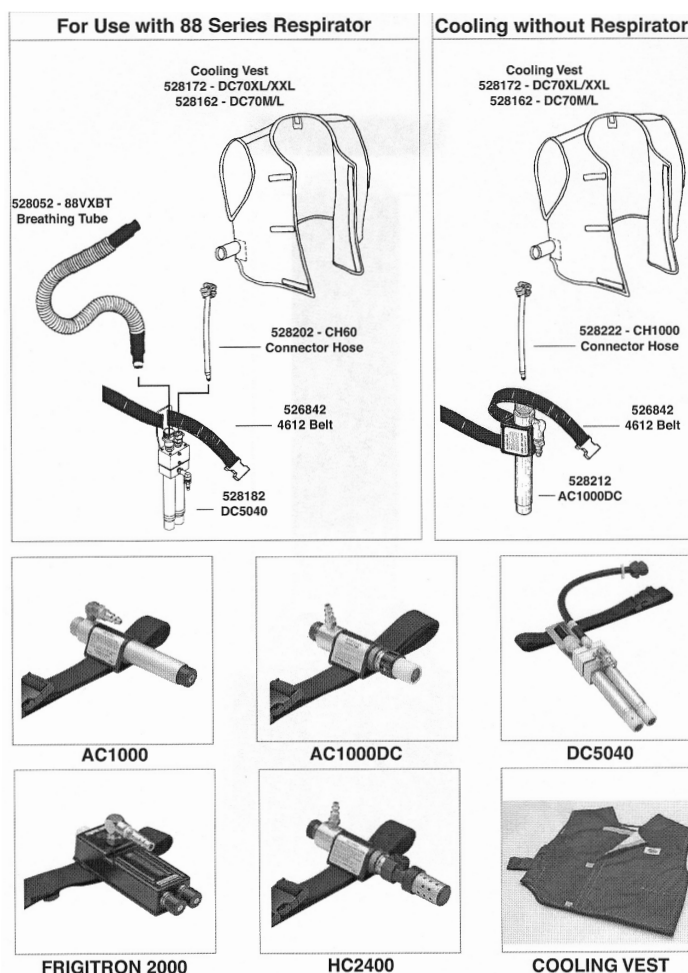
Radex (RPB) Airline Filters

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
⅜" Cap	04-913	538903
Brass tee, ⅜" 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
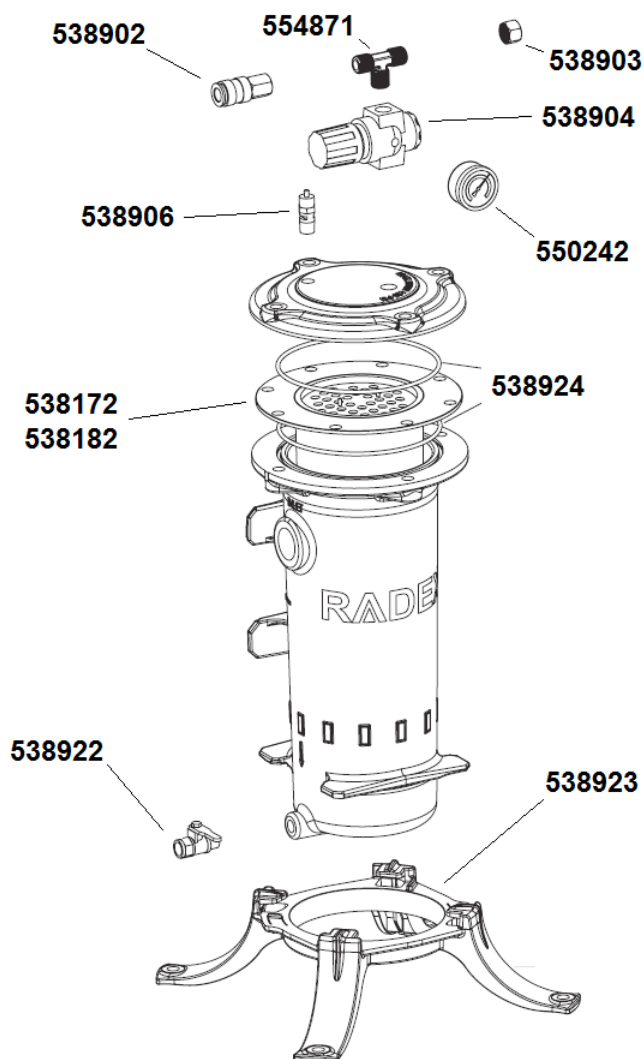
Personal Air Filters

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

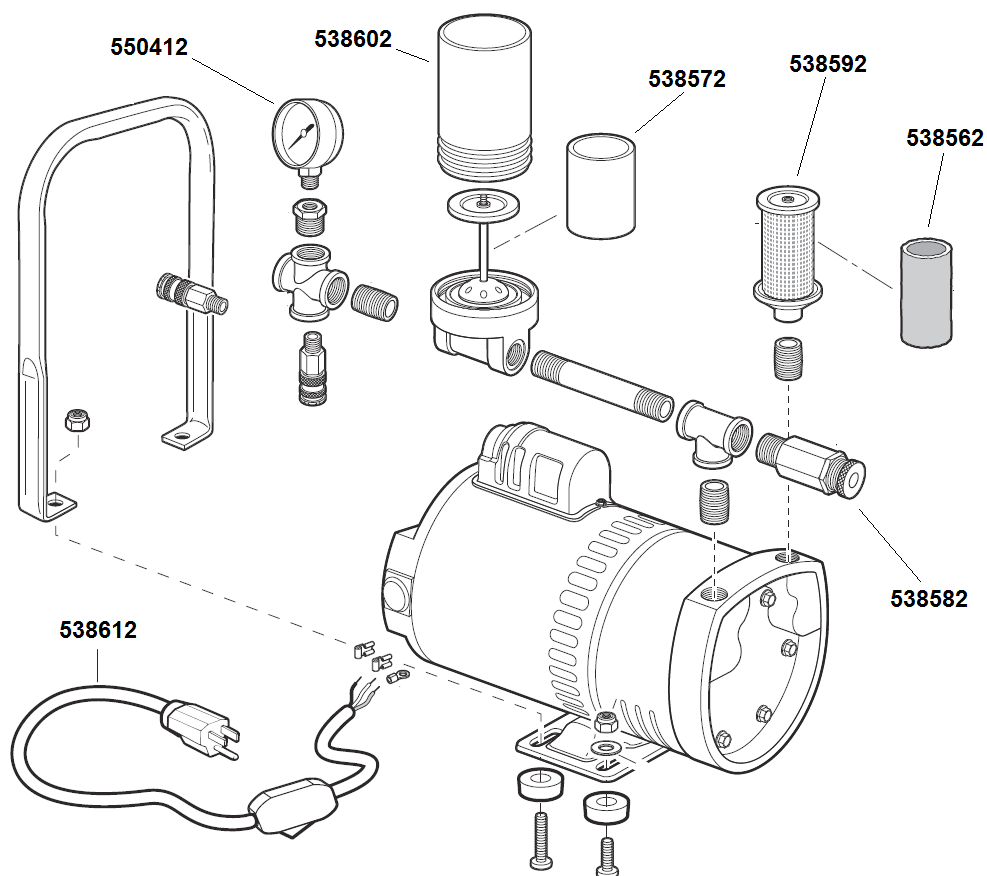| Item	Description	EMPIRE Part#
1	Body	290186
2	Cap	753282
3	Filter	504682
4	Gasket	524112
5	Pressure regulator	517602
6	Pressure regulator	517141
7	Relief valve, ¼" NPT	517672
8	Air valve, ¼" NPT	520642
9	Bushing, 1" x ¼" NPT	544482
10	Bushing, 1" x ½" NPT	544492
11	Nipple, ¼" NPT	545912
12	Nipple, ½" NPT	546022
13	Tee, ¼" NPT	545502
14	Manifold	763362
15	Air gauge	550242
16	Connector	520712
17	Plug, ¼"	545441
18	Plug, ⅛"	544052
19	Adapter	520192
20	Hex bolt, ⅜" -16 x 2"	551872
21	Lock washer, ⅜"	552762
22	Hex nut, ⅜" -16	552542
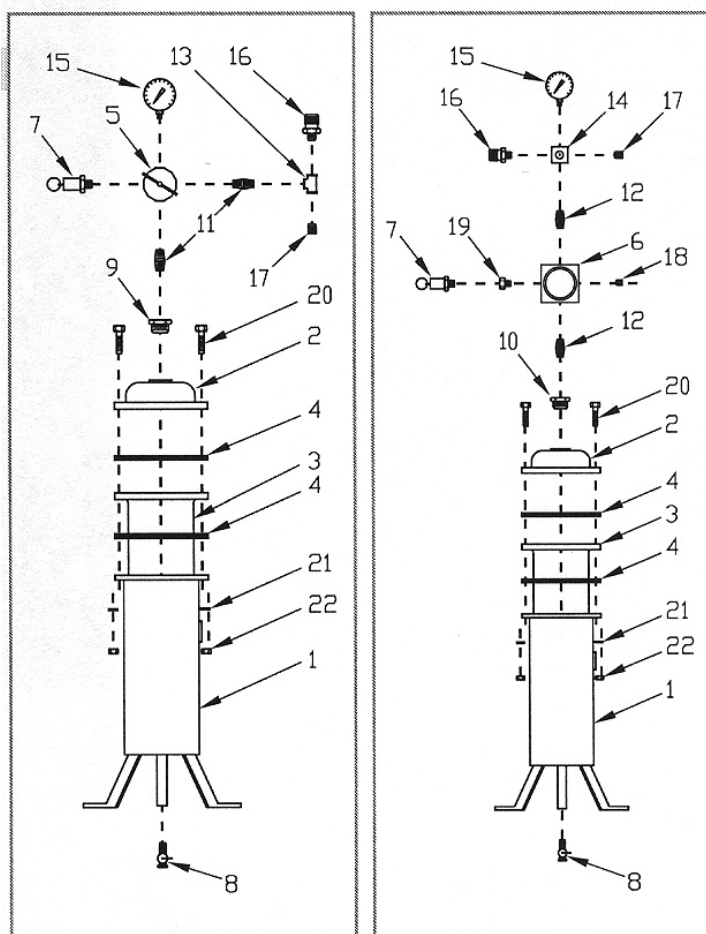
(1) AP2-C

(1A) AP4-C

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

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

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 helmet**s.	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 Frigitron 2000 air conditioners with continuous flow respirators.** *(Not shown below.)*	EPD30A230	505862
Air driven, oil-less a**ir pu**mp, 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 Frigitron 2000 air conditioners with continuous flow respirators.**	APD20	505842

Replacement Parts for "Free Air" Pump

ADP20

EDP10

EDP16TE

EDP16HAZ
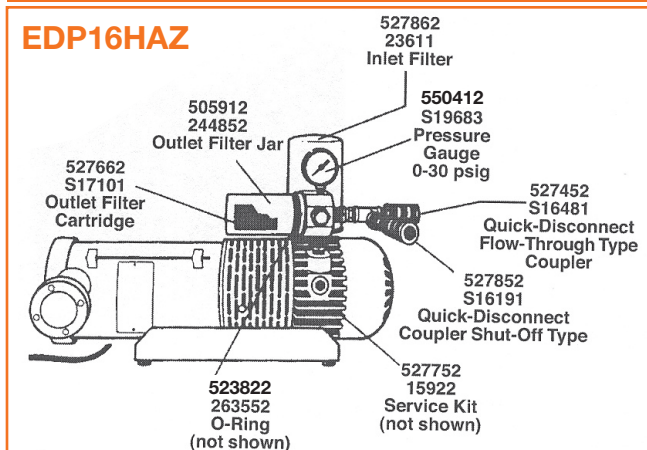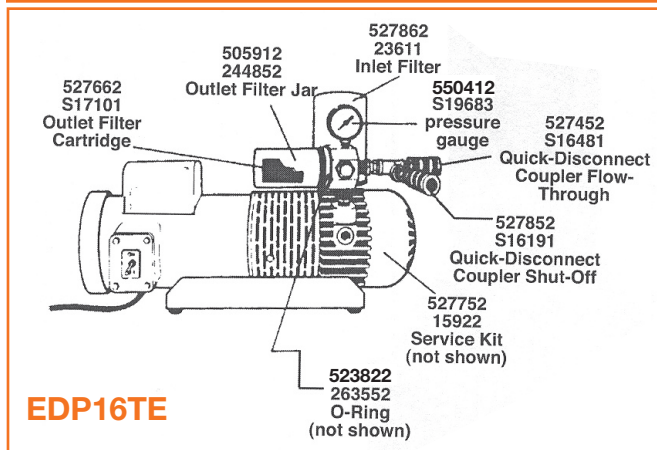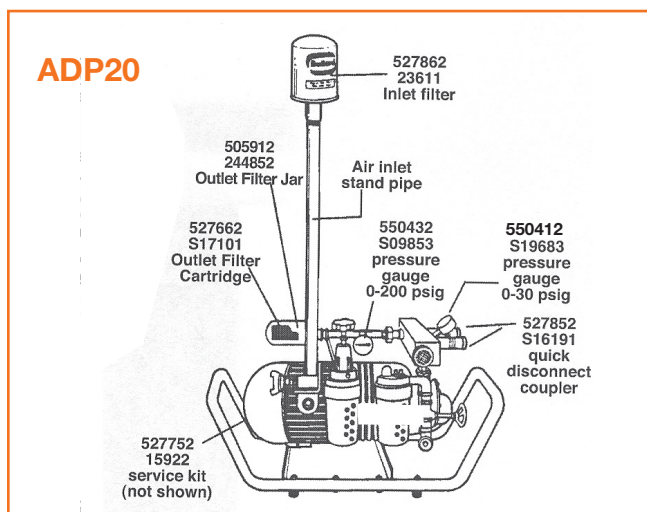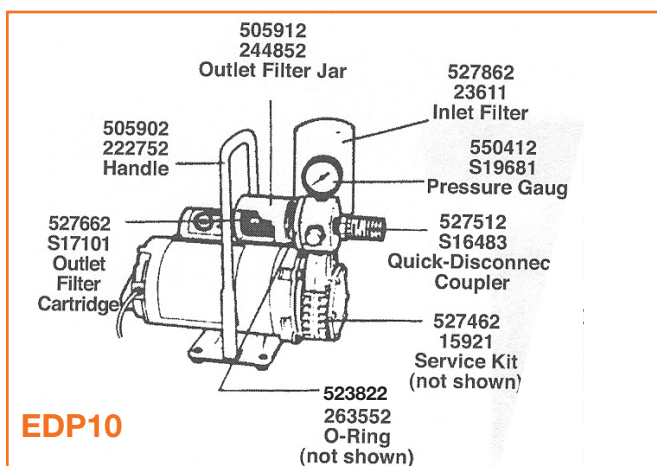
WARNING: If this air pump is to be used as a breathing source, the air inlet MUST be located in a CLEAN AIR area where breathable air can be assured at all times. Exhaust filter DOES NOT remove dangerous organic vapors or gases. DO NOT use this equipment if organic vapors or gases are present.
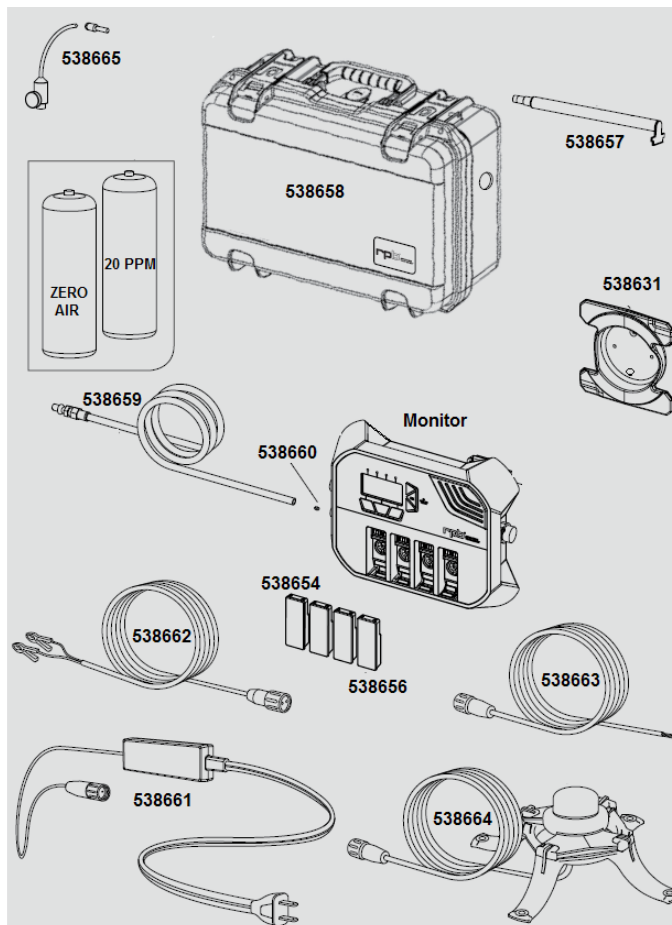
RPB Gas Monitor

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
⅜" 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

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

Never use silica sand in any Empire equipment.

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, ⅛"	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, ½" 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
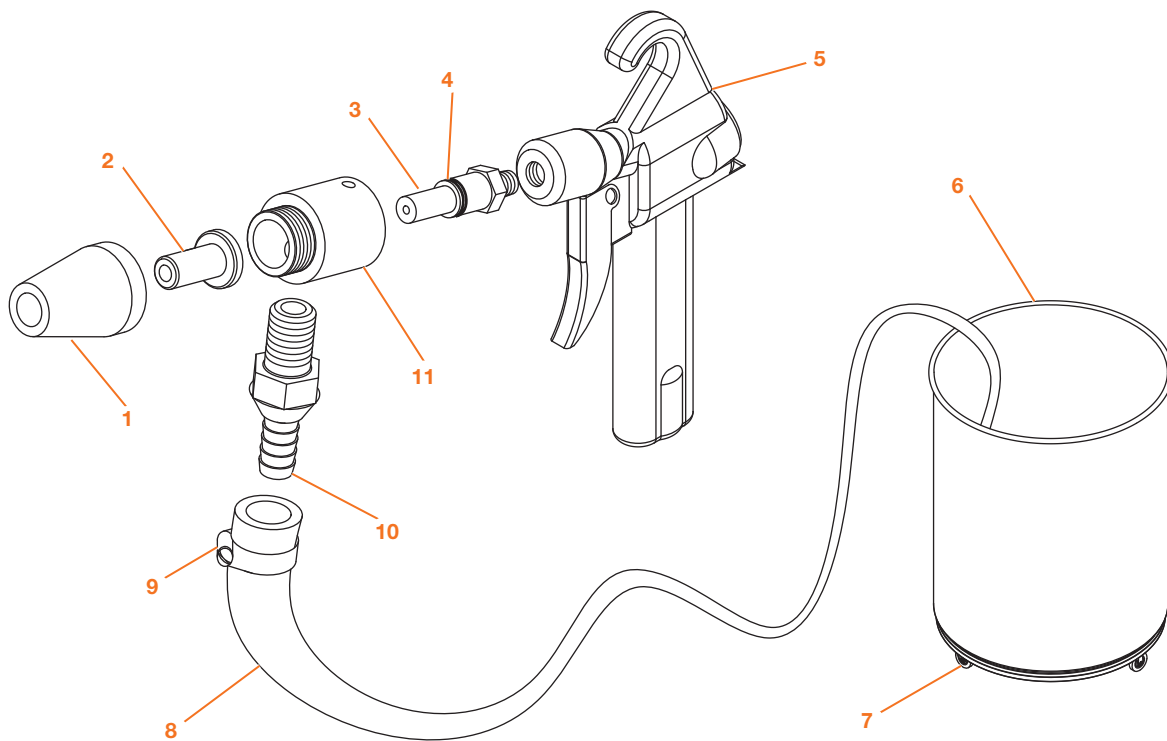
P-105 Pressure Blaster

	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 (If purchased after 6/80)	4 1/4 lbs.
	506012	Air Filter Element (gauze) (If purchased prior to 6/80)	1/4 lb.
	506212	Air Filter Element (watts) (If purchased after 6/80)	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
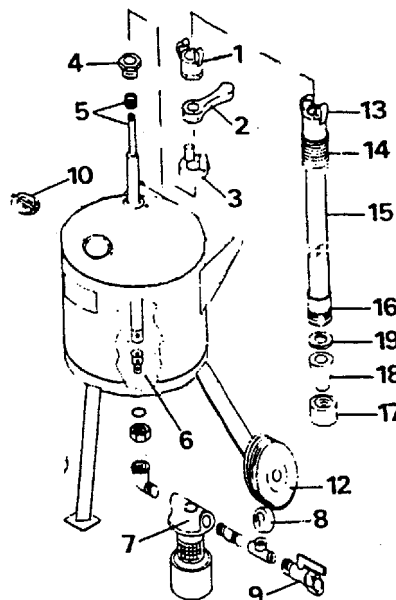
P-160 Pressure Blaster

	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 (If purchased after 6/80)	5 lbs.
	504612	Air Filter Element (watts) (If purchased after 6/80)	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
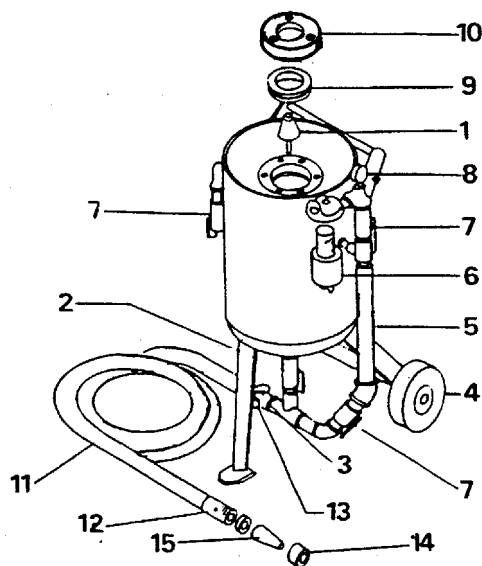
Pressure Blasters (Models P-350 and Larger) Manufactured prior to 10/15/80
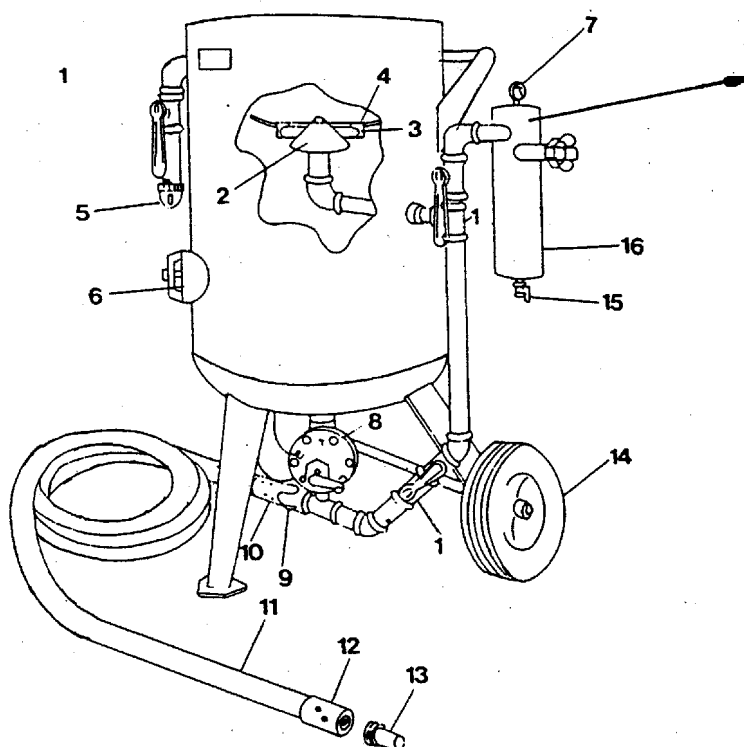
NOTE: This separator replaced by new DF-1 and DF-2 Dry-Flo separator. See #16 belw.

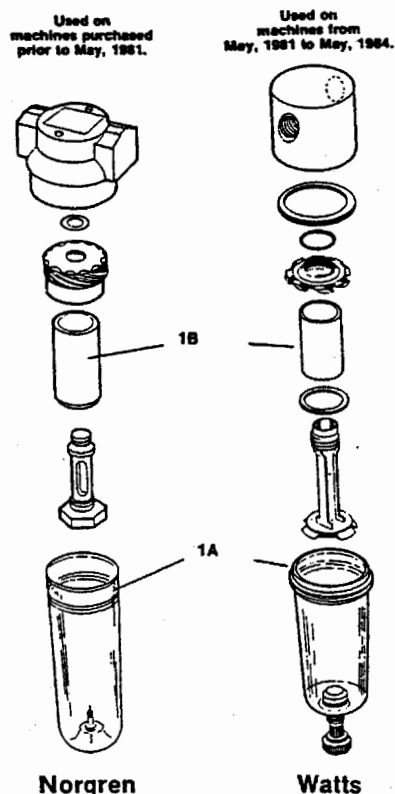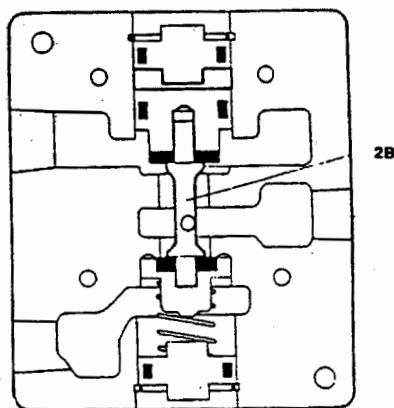|	Part Number	Description	Net Wt.
(1)	517422	Air valve (brass) with handle - 1" S.P.T.	4 1/2 lbs.
	517452	Air valve (brass) with handle - 1 1/4" S.P.T.	6 lbs.
	504352	Replaceable handle for 1" valve	1/2 lb.
	505272	Replaceable handle for 1 1/4" valve	3/4 lb.
(2)	753152	Sealing plunger, 4"	2 1/2 lbs.
(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

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.

(1) Air Filter Assembly

Used on machines purchased prior to May, 1981.

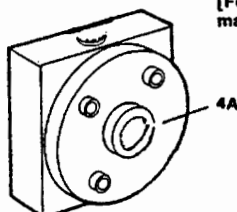Used on machines from May, 1981 to May, 1984.
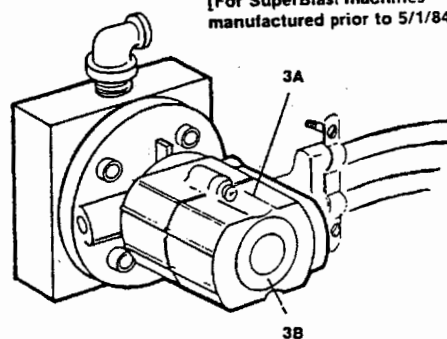
1B

1A

Norgren

Watts

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

2B

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

4A

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

3A

3B

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

600 Series

700 Series

Replaced by
new DF-1 and DF-2
Dry-Flo separator.
See # 26

Cla-Valve
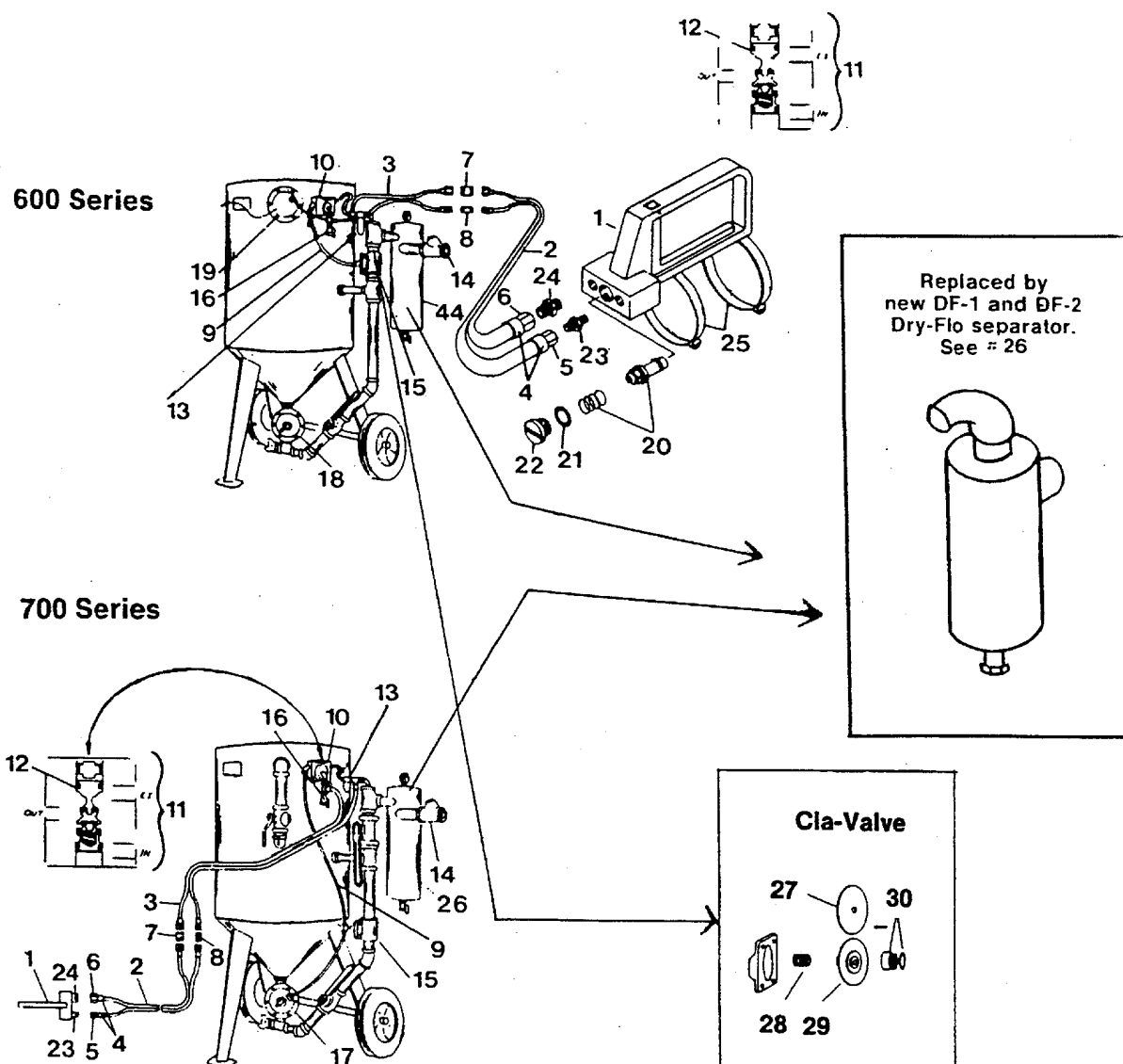
Part Number	Description	Net Wt.
(1) 290164	77 Saf-Stop™ Operator Control for use with dual line	1½ lbs.
(2) 521882	Dual control hose 50' with fittings installed	8 lbs.
(3) 521892	Dual control hose 55' with fittings installed	9 lbs.
520872	Dual control hose per foot (no fittings)	—
(4) 520492	Hose clamp 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.

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	⅛" x ⅛" 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.

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.
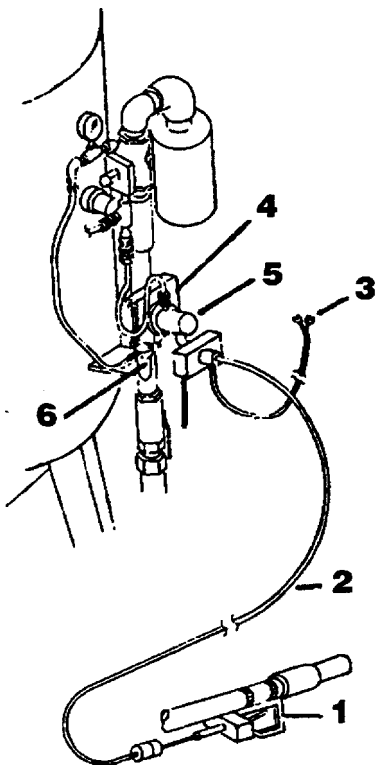
680 Electric Remote
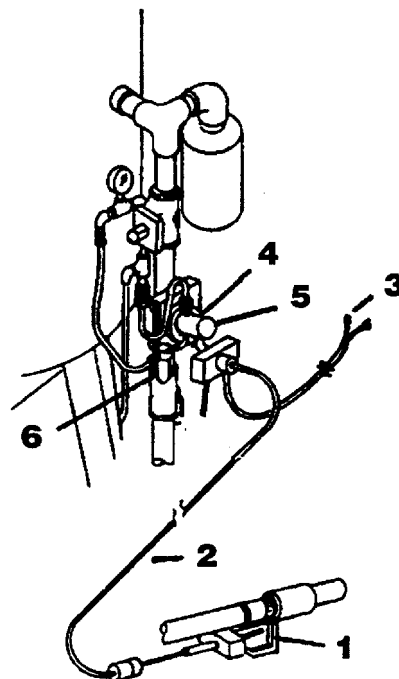
780 Electric Remote

SuperBlast® Dual Chamber Blasters with Manual Controls

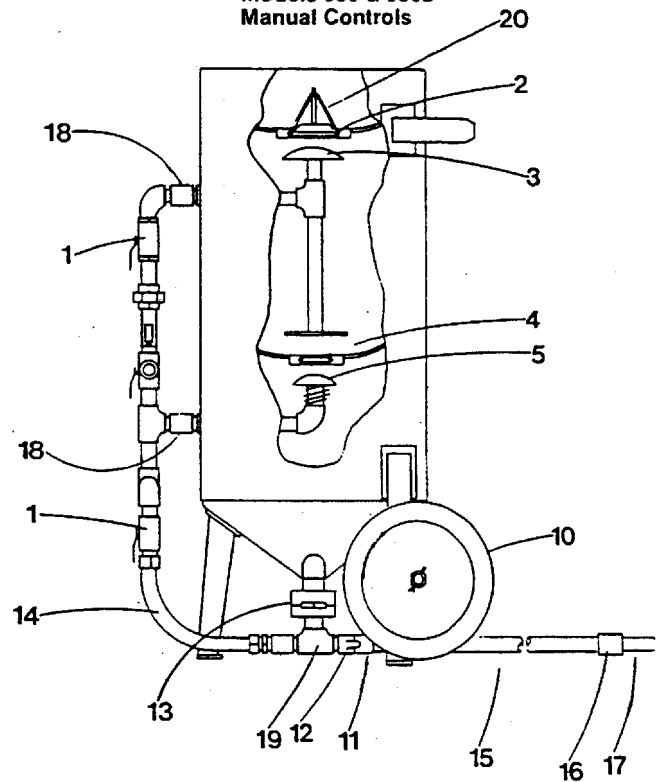| Part Number	Net Description	Wt.
(1) 517442	Air Valve (brass) with handle—1" S.P.T. (For manual exhaust).	4½ lbs.
517452	Air Valve (brass) with handle—1¼" S.P.T.	6 lbs.
504352	Replaceable Handle (with right angle stop tab) for 1" Valve.	½ lb.
505272	Replaceable Handle (with right angle stop tab) for 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/Screener 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**

1
6
1
8
1
6
1
1
9
10
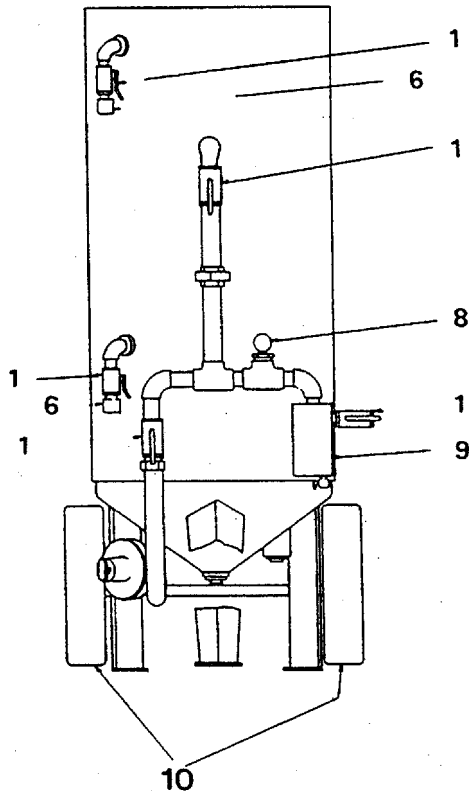
**Side View
Models 850 & 850D
Manual Controls**

20
2
18
3
1
4
5
18
1
10
14
13
19 12 11
15
16 17

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

1
7
1
8
1
1
6
7
9
1
Supplied on
850-D Only

20D
20B
20C
20A
20E
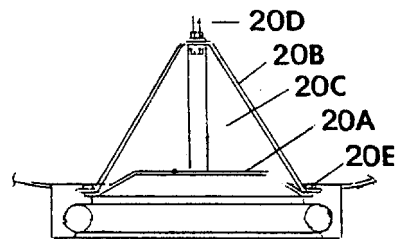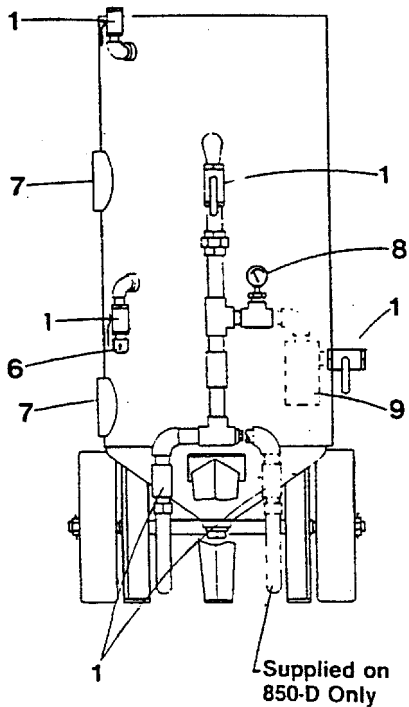
**(20) E-Z Fill Bag
Breaker/Screener**

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)	
(11 I) 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
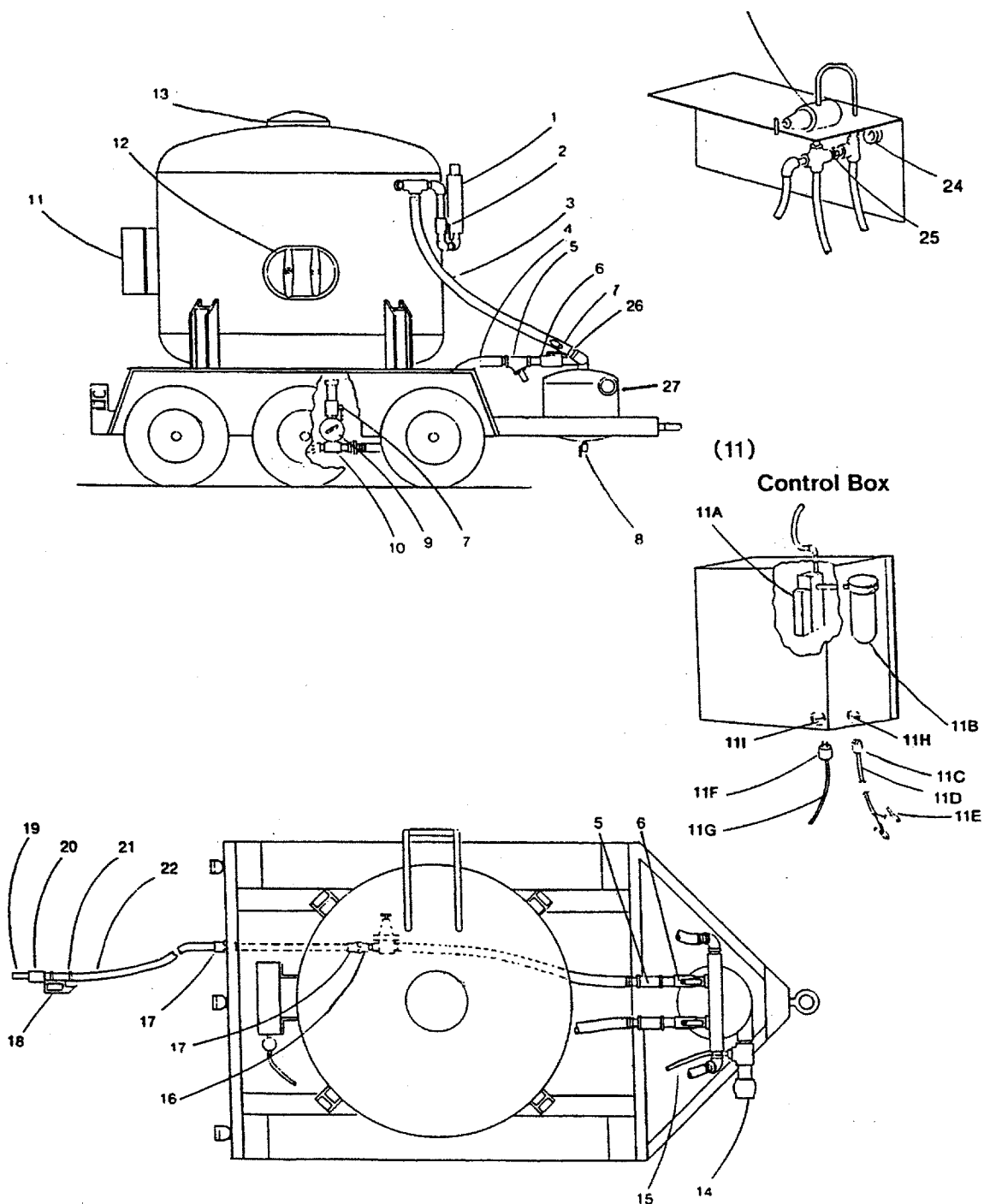
SuperBlaster Conversion Kits for Bulk Blasters

780-1¼ System for most Bulk Blasters

		Net Wt.
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

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 suppled 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.

PRESSURE VESSELS

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

REMOTE (DEADMAN) CONTROLS

19.0.244 (b)	The blast cleaning nozzles shall be equipped with an operating valve which must be held open 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	–
¼"	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
½"	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