

# CLEMCO®



## ABRASIVE BLAST MACHINES **CONTRACTOR SERIES** PRODUCTIVITY, SAFETY AND VERSATILITY



Authorized Distributor:



**Fortune Metal Finishing Corp.**  
116 Gould Street  
Needham Heights, MA 02494  
866.449.4160  
[sales@fortunemetal.com](mailto:sales@fortunemetal.com)



Clemco Industries Corp. • ISO 9001 Certified





# Contractor Blast Machine Systems



Exclusively from...

**CLEMCO**<sup>®</sup>  
INDUSTRIES CORP.

Your Contractor Blast Machine comes mounted on an ergonomic cart made from heavy-duty steel tubing. This built-in cart makes it easy to move your blast machine—both at the blast site and onto or off your pickup or trailer.

The cart's handles form a cage that protects the components most likely to be damaged—remote control valves, piping, CPF breathing air filter.

On four-cubic-foot and six-cubic-foot models, large rear tires and smaller front tires make moving your Contractor Blast Machine a breeze. The free-wheeling tires roll easily over minor surface irregularities and the cart safely supports the weight to eliminate the strain on your back.

On the lighter two-cubic-foot model, two wheels are provided.

All Contractor Blast Machines are rated for 150 psi working pressure—meeting the demands of high productivity of commercial and industrial jobs.

Your Contractor Blast Machine is built in compliance with ASME code, which is your assurance that the pressure vessel will stand up to years of high-production blasting.

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# Contractor Blast Machine Systems

## Not just different ... better

Aside from the pressure vessel, everything else about your Contractor Blast Machine looks different from conventional machines. Our engineers started with a blank screen and a mandate to design a versatile system that is as productive as current technology allows.

Details make the difference. The diameter of the formed steel tubing was selected, not just for its structural properties, but for the way it fits comfortably in the average adult hand. This makes moving the cart easier and safer.

Hookup points for blast hose and remote controls

are all mounted on the front leg, and a space is provided for your breathing air line, so you spend less time fumbling with connections and more time blasting.

When your Contractor Blast Machine does need service, you will appreciate our engineers' other mandate—keep it simple.

The unique, Millennium inlet/outlet remote control valve has just two moving parts and can be field serviced with standard tools. The Quantum metering valve handles all conventional abrasives and is designed to be easy to use and easy to maintain.



**2-cuft**  
Contractor Blast Machine



**4-cuft**  
Contractor Blast Machine



**6-cuft**  
Contractor Blast Machine





## ● **Durability** *Designed to Last, Built to Last*

Clemco manufactures your Contractor Blast Machine to stand up to years of field use.

The ASME-certified welders at Clemco's plant in Washington, MO have an average of 10 years of experience. Using computer-controlled equipment, these craftsmen lay down smooth, continuous welds along every seam, so the pressure vessel is durable and leak-proof.

The plate steel walls and the spun steel cone and head meet ASME standards.



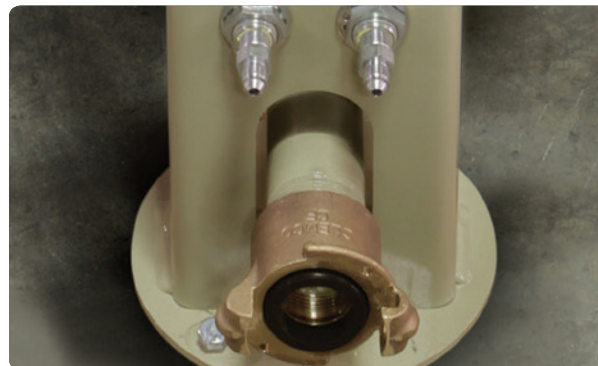
## ● **Contractor Series** *Your Key to Efficiency*

The Contractor Series concept represents Clemco's commitment to keeping you, the contractor, operating safely and at peak efficiency.

With that in mind, the Contractor Series product line includes safety equipment, nozzles, holders, couplings, and hoses to complement the performance and reliability of your Contractor Blast Machine—built to the highest quality.



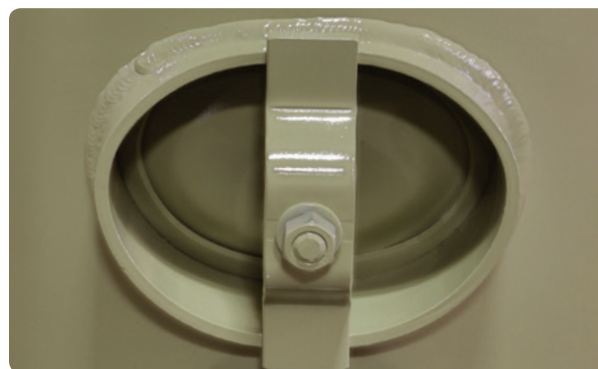
The steel handles double as skids to allow you to pull the blast machine into the truck bed and leave it horizontal, resting on the handles, to reduce your truck's center of gravity. The handles serve to protect the valves from damage.



Convenient hookup points for hoses.



In the front leg—a weather-tight storage bin for your owner's manuals, so your operating instructions, maintenance schedule, and replacement parts lists are always at your fingertips.



The large hand hole is reinforced with a ring of 3/8-inch steel, cut to conform to the wall of the blast machine and welded inside and out, leaving fewer nooks and crannies where abrasive can collect.



# Millennium Remote Control System

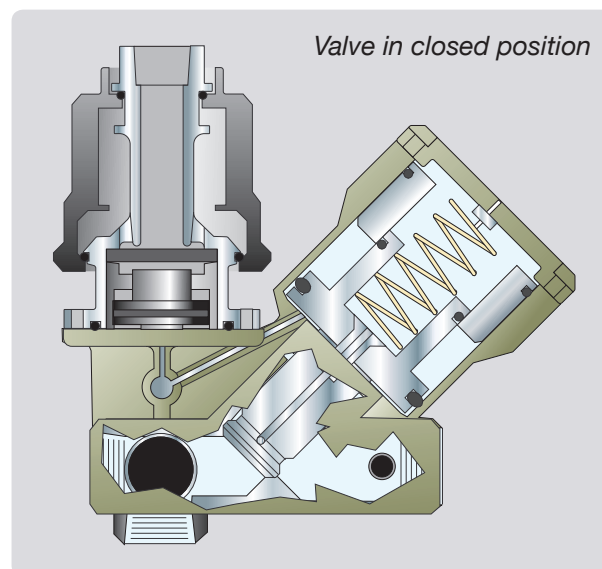
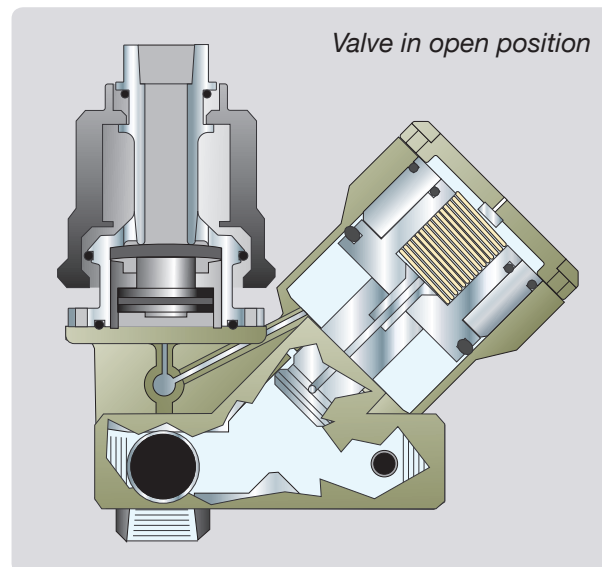
## Reliable, integrated remote control valve and exhaust muffler

All Contractor Blast Machines come with Clemco's exclusive Millennium pneumatic remote control valve, which combines inlet and outlet functions. It starts and stops faster, so you spend less time waiting, and more time blasting.

Pressing the remote control handle simultaneously actuates both the inlet and outlet portions of the valve. Some systems activate one valve then the other, which can slow response times.

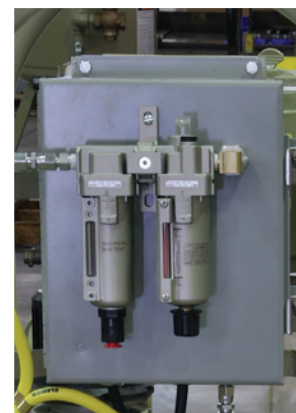
For repetitive short-cycle blasting, order the Contractor Blast Machine configured for pressure-hold operation. It eliminates the delay between the time you actuate the remote control and blasting begins. Also, this system includes an abrasive cutoff switch for remote control actuation of the abrasive flow, which allows air-only blasting to dry surfaces after wetblasting.

Shown here as a simple pressure system, inlet and outlet functions are combined in the Millennium Remote Control Valve.



*The Millennium pneumatic remote control valve combines inlet and outlet functions.*

*Optional electric remote controls.*





## ● Quality

### *Our Promise: a Well-made Machine*

All blast machines are built in compliance with ASME code and are hydrostatically tested to ensure vessel integrity. During final assembly, Clemco employees test each component—then double check the entire blast machine for leaks, remote control operation, and overall fit and function.

Clemco has been building blast machines since 1949.



## ● Reliability

### *Integrated Remote Controls and Metering Valves*

The Millennium and Quantum valves were designed, tested and refined simultaneously, so they operate at the same pressures and share common air fittings. There's nothing to adapt, no bushings to reduce, no orifice fittings to mismatch.

The Millennium and Quantum valves share a design philosophy. We design them to last and build them with precision. We incorporate die-cast housings and tough steel actuators.

## Contractor Systems

*All You Need For Blasting—Except abrasive, air hose, and compressed air.*

Each system includes:

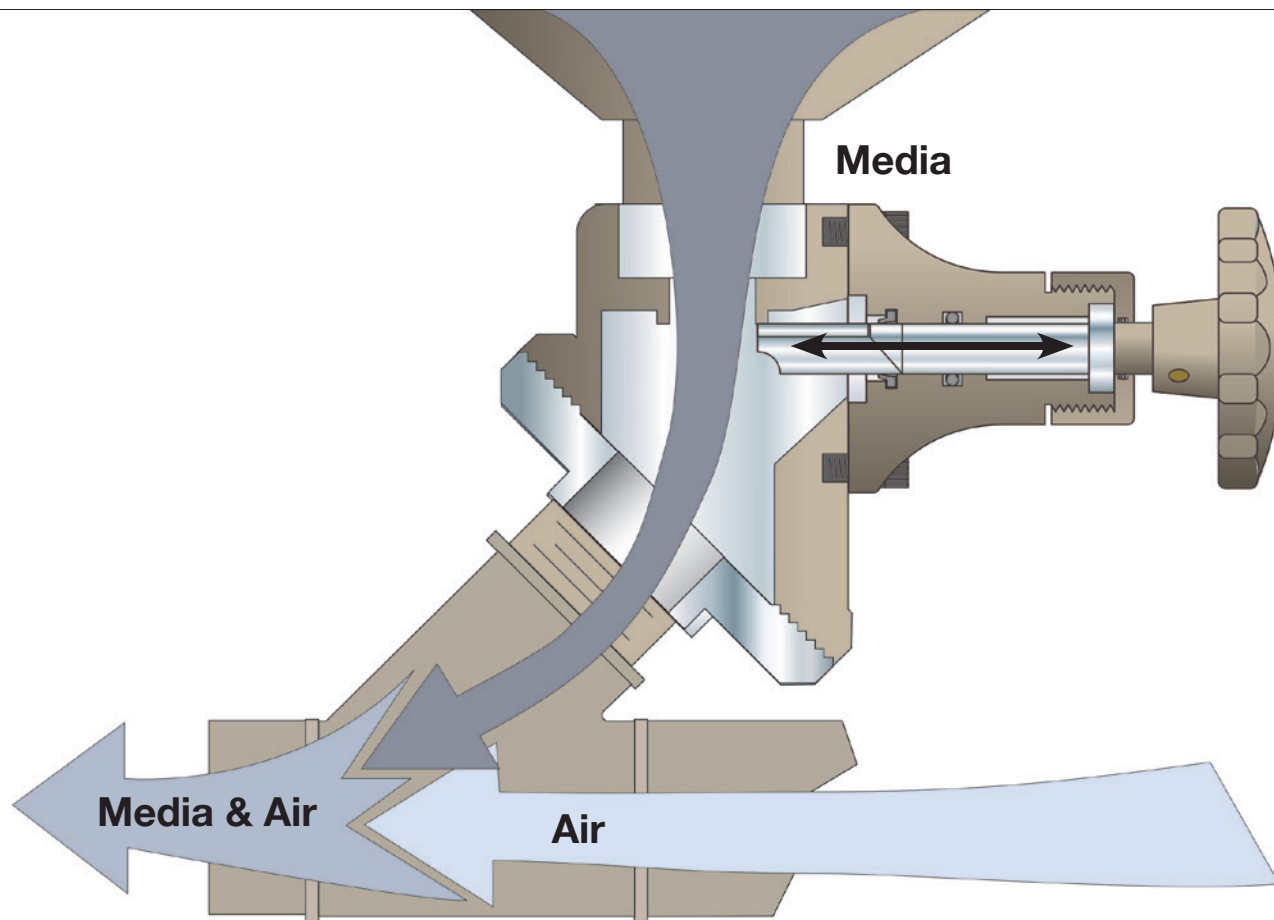
- **Blast machine**
- **RLX handle assembly**
- **Quantum abrasive valve**
- **Abrasive trap**
- **Air filter**
- **Millennium remotes**
- **Nozzle**
- **Blast hose**
- **Nozzle holder**
- **Quick coupling**
- **Blast hose safety cable**
- **Blast machine screen**
- **Apollo respirator\***
- **Air conditioner (CA systems)**
- **Respirator hose**
- **CPF Filter (CA systems)**
- **Leather gloves**
- **Apollo lenses**
- **Coupling gaskets**
- **Nozzle washers**
- **Abrasive trap screens**
- **Nylon ties**
- **Poly all-weather cover**

*\*Not included but recommended is CMS-3 monitor/alarm for continuous monitoring of breathing air to protect operator from dangerous carbon monoxide gas. (Can be used with high-pressure and low-pressure respirators.)*



# Quantum Metering Valve

## Precise manual or automatic control of media



*Metering and valve actuation are separate functions in the Quantum. Precision screw control accurately meters all common blast media.*

**For Complete Control**—The Quantum meters all common blast media—from coarse steel grit to slag to glass bead. Just empty the blast machine, pour in the new media, and start blasting.

For contractors, the Quantum's flexibility reduces downtime between jobs that require different blast media. For rental outlets, owning Contractor Series systems makes every blast machine ready to roll out the door regardless of the application. Most common blasting media the customer chooses will be compatible.

Metering and valve actuation are separate functions on the Quantum. In fact, the simple metering portion alone is all that's needed for most contractors with pressure-release applications.

Inside the Quantum, a hardened steel metering plate precisely controls the flow of abrasive. The contractor adjusts abrasive flow by turning the knob.

The metering plate, which receives most of the wear, can be replaced in the field in minutes using standard tools.





## ● **Quantum** *Engineered for Lasting Economy*

All parts normally exposed to abrasive flow are made from durable, wear-resistant material. Even the metering adjustment knob is designed and built to stand up to real world use and abuse.

The Quantum is designed for precise metering and easy maintenance.

Available in models for manual operation, abrasive cut-off, and pressure-hold applications.



## ● **Performance** *The Ideal Combination of Engineering and Energy*

Clemco provides the quality tools for your toughest jobs.

Our blast machine systems are designed for maximum air flow and reduced pressure loss, delivering energy to the blast surface and getting the job done—fast.

The Quantum's remote control actuator section, which is included only on systems equipped for pressure-hold or remote abrasive cutoff, stops the flow of abrasive positively and instantly.

As with all the remote control valves on your Contractor Blast Machine, the Quantum's actuator has a built-in fail-to-safe feature that stops the flow of abrasive if the signal from the remote control handle is interrupted for any reason.



*The Quantum Metering Valve features precision adjustment.*



# Safety

## Personal Protection Equipment

### Apollo 600 Supplied-Air Respirators

They are NIOSH-approved, OSHA-required respiratory protection for the blast operator. HP models are for compressed-air breathing-air supplies; LP models are for use with an ambient air pump. For maximum operator comfort, Apollo DLX models are equipped with a washable and replaceable comfort fit suspension. Standard contractor systems include Apollo 600 with DLX suspension and Clem-Cool air conditioner.

### The Clemco CPF 20 and 80 Breathing Air Filter

These systems are OSHA-required filtering devices that capture contaminants that may be present in the compressed air supply. It does not remove carbon monoxide (CO). The breathing air should be monitored for the presence of CO. See Clemco CO monitoring equipment below.

### Carbon Monoxide Monitors/Alarms

They provide continuous breathing-air monitoring. CMS-2 is field portable for use with high-pressure systems. CMS-3 mounts inside the helmet for use with both high-pressure and low-pressure systems.

### Clemco Ambient Air Pumps

Offered in three models, they provide clean air to any NIOSH-approved low-pressure helmet. Ambient air pumps are available for one to four operators.

### Blast Hose Safety Cable

Helps prevent death, injury, or property damage in the event of coupling failure and helps support blast hose when run vertically or across horizontal spans. It prolongs the life of the hose; comes in three sizes for 1/2" to 1-1/4" OD, 1-1/2" to 3" OD and 1-1/2" to 4" OD blast hose.

### Clemco Gloves

The gloves protect the operator's hands from rebounding abrasive and help keep dust and abrasive from entering the blast suit at the wrists.







## ● Safety

### *Anticipation of the Unthinkable*

Clemco's over seven decades in the blasting business has taught us that when it comes to safety, theory is often overtaken by events.

It isn't possible to plan for every contingency; but it is possible to anticipate likely dangers and to design equipment that more than half-way meets the real world head-on.

Abrasive impact, dangerous compounds, sudden failure of equipment and the ever lurking threat of carbon monoxide.

***We know what can happen.  
We have it covered!***



## ● Working Conditions

### *More Than Feeling Comfortable*

Maintaining a safe and healthy body temperature is critically important. On a day when the ambient temperature has the weather service issuing excessive heat alerts or the wind-chill factor has the mercury down in the single digits, it is useful to know these extremes can be overcome and the job can be completed by the deadline.

Whether in the desert or under a bridge spanning a frozen river, Clemco has addressed the problem of operator comfort and health.

A comfortable operator is better able to focus on his job, making him more efficient and better able to concentrate on the job at hand and on potential safety issues as well.

## The Clemco Advantage

Clemco Industries Corp. has been manufacturing high-quality abrasive blasting equipment for more than 75 years. The Contractor Series represents the future of portable air-powered abrasive blasting—products designed and built to withstand the rigors of field use, yet packed with features that make them safe, easy to operate, and easy to maintain.

Clemco is proud of its reputation for innovative products and services. Your use of Clemco's products makes that innovation possible. Thank you.

Our products are available exclusively through our vast network of distributors and dealers throughout the U.S. and Canada. Clemco International supports a network of subsidiaries and distributors to serve the needs of contractors around the world.



# Comfort

## **Clemco's Industrial Blast Suit**

Has a heavy cotton fabric back, durable leather front, protecting workers from rebound and keeping out dust and abrasive.

## **Seasonal Blast Suit**

Represents a cost-effective alternative to an industrial suit for warm-weather or short-term blasting, and for nearby personnel.

## **Clemco Comfort Vest**

Performs dual functions—safety and comfort. Operators are able to control their immediate environment and enjoy a level of comfort absent from most blasting operations. Comfort helps them to avoid distractions resulting from excessive heat or cold and greatly aids productivity. Clemco offers the Comfort Vest with Clem-Cool or Climate Control Tube to allow operators to control their personal environment, whether the situation calls for cooling in the summer or the tropics, or heating in the deep freeze of winter.

*Industrial Blast Suit*



*Comfort Vest*



*Seasonal Blast Suit*

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## Apollo Operator Comfort Air Controls



### HP and LP Constant Flow Connector

Constant flow connectors provide a fixed volume at maximum air flow to the respirator with no adjustment required by the blast operator and are available in both high-pressure and low-pressure configurations.



### Air Control Valve

Adjusts the flow of incoming compressed air at the temperature generated by the compressor and the ambient environment.



### Clem-Cool Air Conditioner

Offers powerful 50° cooling and is designed with value in mind—economical to replace; no maintenance. Used with Apollo HP respirators and comfort vests.



### Cool Air Tube

Provides up to 50° of cooling in an aluminum tube that allows internal maintenance, offering years of service.



### Climate Control Tube

Offers cooling or warming of incoming compressor air, up to 40°, in one convenient device—making it ideal for all seasons.



# Contractor Blast Machine Accessories

## Rubber-Jacketed Nozzles

The Contractor Series blast machine systems come with TMP series nozzles. These rubber-jacketed, tungsten-carbide-lined nozzles offer hundreds of hours of service. They feature wide, deep-pitched “contractor” threading for quick and easy replacement when changing nozzles mid-job or when replacing worn nozzles. The large thread prevents galling commonly experienced with fine-thread nozzles when trapped dust, dirt, and abrasive particles make nozzle removal extremely difficult.

## Nylon Couplings and Nozzle Holders

Clemco introduced nylon couplings in the early 1980s and they have become the industry standard. The nylon material is fiber-reinforced so it springs back from most impacts, making them an excellent choice for a long service life. Built-in lock-springs eliminate the need for safety pins.

Nylon nozzle holders and couplings are lightweight, high-impact, and extremely durable—they can even pop back to their original shape after temporary crushing from a car or light truck tire.

## SUPA™ Blast Hose

Another Clemco innovation, the super-flexible, lightweight, blast hose is made with an SBR rubber tube reinforced with rubber-impregnated fiber winding and treated with a static-dissipating compound. Its outer casing is pin-pricked to prevent the formation of air pockets. Its popularity is unsurpassed.

## Quality Spares & Consumables

Built to our quality standards, genuine Clemco replacement parts last longer, protect your safety and health, and deliver the maximum performance you demand.

## Technical Support

Clemco offers free factory training for every Distributor. For the contractor, we offer detailed operation and maintenance instructions and troubleshooting advice. Every blast machine comes with a complimentary copy of Clemco’s Abrasive Blasting Safety Practices booklet to help you protect your workers on the job every day while they perform under the most challenging conditions.





## SYSTEM COMPONENTS AND OPTIONS

### CONTRACTOR SYSTEMS

	CA & HP indicate compressed-air source for Apollo High-Pressure Respirator			AA & LP indicate ambient-air supply for Apollo Low-Pressure Respirator		
	2016 CA	2020 CA	2024 CA	2016 AA	2020 AA	2024 AA
• Model	16 inches	20 inches	24 inches	16 inches	20 inches	24 inches
• Machine Diameter	2	4	6	2	4	6
• Machine Cap. — Volume in cuft	200	400	600	200	400	600
• Lbs of Mineral Abrasive	21547	21548	21549	21840	21841	21842
• System Stock No.	450	550	685	430	530	665
• System Weight						

NOTE: All contractor machines include Millennium Remote Controls with RLX Handle and Quantum Abrasive Metering Valve.

Blast Machine with CPF Filter	21544	21545	21546			
Blast Machine without CPF Filter				21490	21505	21610

### CONTRACTOR SYSTEMS ARE EQUIPPED WITH THE FOLLOWING:

Quantum Metering Valve	22845	22845	22845	22845	22845	22845
Abrasive Trap	02011	02011	02011	02011	02011	02011
RLX Handle Assembly	10565	10565	10565	10565	10565	10565
Blast Nozzle	TMP-4, 23520	TMP-5, 23521	TXP-6, 23525	TMP-4, 23520	TMP-5, 23521	TXP-6, 23525
Blast Hose, SUPA™, 50 ft., coupled	1" ID, 23480	1" ID, 23480	1-1/4" ID, 23481	1" ID, 23480	1" ID, 23480	1-1/4" ID, 23481
Nozzle Holder	NHP-1, 04106	NHP-1, 04106	NHP-2, 04127	NHP-1, 04106	NHP-1, 04106	NHP-2, 04127
Coupling	CQPS-1, 21088	CQPS-1, 21088	CQPS-2, 08413	CQPS-1, 21088	CQPS-1, 21088	CQPS-2, 08413
Air Filter with Manual Drain	1", 22424	1-1/2", 22363	1-1/2", 22363	1", 22424	1-1/2", 22363	1-1/2", 22363
Safety Cable	15013	15013	15013	15013	15013	15013
Coupling Gaskets, 10-pk	21584	21584	08853	21584	21584	08853
Nozzle Washers, 10-pk	91024	91024	91026	91024	91024	91026
Abrasive Trap Screen, 6, shown each	02012	02012	02012	02012	02012	02012
Nylon Tie, 8, shown each	02195	02195	02195	02195	02195	02195
Poly All-weather Cover	15097	15143	15143	15097	15143	15143
Blast Machine Screen	03099	20357	03100	03099	20357	03100
Apollo 600 with DLX Suspension	25194	25194	25194	25195	25195	25195
Apollo Respirator Hose, 50 ft.	04415	04415	04415	22510	22510	22510
CPF-20 Breathing-Air Filter w/o Base Bracket	22540	22540	22540	Not Included	Not Included	Not Included
Apollo Lenses—outer, 25-pk	04361	04361	04361	04361	04361	04361
Apollo Lenses—intermediate, 10-pk	24943	24943	24943	24943	24943	24943
Leather Gloves	02243	02243	02243	02243	02243	02243

### OPTIONAL ITEMS

Blast Machine Steel Cover	02335	20358	02336	02335	20358	02336
Carbon Monoxide Monitor/Alarm, CMS-3 Pkg.	24612	For use with ALL Apollo Respirator Models				
Ambient Air Pump, Single-Op, CALIPSO	25908	For use with Apollo LP Respirators Only				
Ambient Air Pump, 4-Op, CAP-4	22530	For use with Apollo LP Respirators Only				
Ambient Air Pump w/Integral Cart, 4-Op, CAP-4C	22384	For use with Apollo LP Respirators Only				

### CONTRACTOR BLAST MACHINES WITH MILLENNIUM REMOTE CONTROL OPTIONS (Factory-Installed)

	Electric		Abrasive Cut-Off			Pressure-Hold		
	12 Volts	120 Volts	Pneumatic	12 Volts	120 Volts	Pneumatic	E-12 Volts	E-120 Volts
4 cuft	21509	21538	22554	22541	22543	22545	22547	22549
6 cuft	21543	21606	22555	22542	22544	22546	22548	22550

### FIELD-INSTALLED MILLENNIUM REMOTE CONTROL OPTIONS

	Converting to Electric		Adding Abrasive Cut-Off	
	12 Volts	120 Volts	12 Volts	120 Volts
4 cuft	21678	21679	22551	
6 cuft	21678	21679	22551	

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