

## INDUSTRIAL SANDBLASTING CABINETS

### M SERIES



Industrial M Series Sandblasting Cabinets are the most powerful and sophisticated cabinets available on the market today. Built with strong 12-gage steel and equipped with cutting-edge technologies, the Industrial M Series can accomplish any heavy-duty tasks you can imagine.

Fully customizable in sizes and configurations, Industrial M Series cabinets are delivered with powerful DCM Series high-efficiency impeller dust collector and tunable media reclaimer. For better ergonomics and performance, various features can be added.

Depending on your application, you can choose between two systems – suction or pressure – to reach the best output and lower your operation costs.

#### MARKET

- General Manufacturing
- Aerospace & Aviation
- Mechanical Workshop & Bodyshop
- Machine & Repair Shop
- Transport & Automotive
- Metal Forming & Finishing
- Self-adjusting door latch ensures continued tight seal as door gaskets age
- Simple, pneumatic controls deliver greater reliability than electric controls employing limit switches and solenoids that often stick and burn
- Foot treadle enables operation with either foot (optional no-contact pedal available)
- Air blow gun inside cabinet
- Can be operated with either DCM100 to 330 bag-type, or DCM600 to 1800 cartridge-type motorized dust collectors for improved efficiency and durability
- 2-Year IST Industrial Warranty

#### KEY FEATURES

- Dust collector featuring energy-saving air-filtration system that captures 99% of all particles five (5) microns or larger
- Impeller mounted on dust collector rather than cabinet to prevent abrasive wear to fan housing and impeller
- 1.3 ft<sup>3</sup> pressure vessel minimizes refilling time and seals automatically for fast, easy startup (pressure cabinets only)
- Tunable media reclaimer can be adjusted to control media size and contamination level
- Rigid, dual-panel doors stand up to abrasives and seal more tightly than single-panel doors
- Optional safety-door switches prevent accidental blasting when doors are open



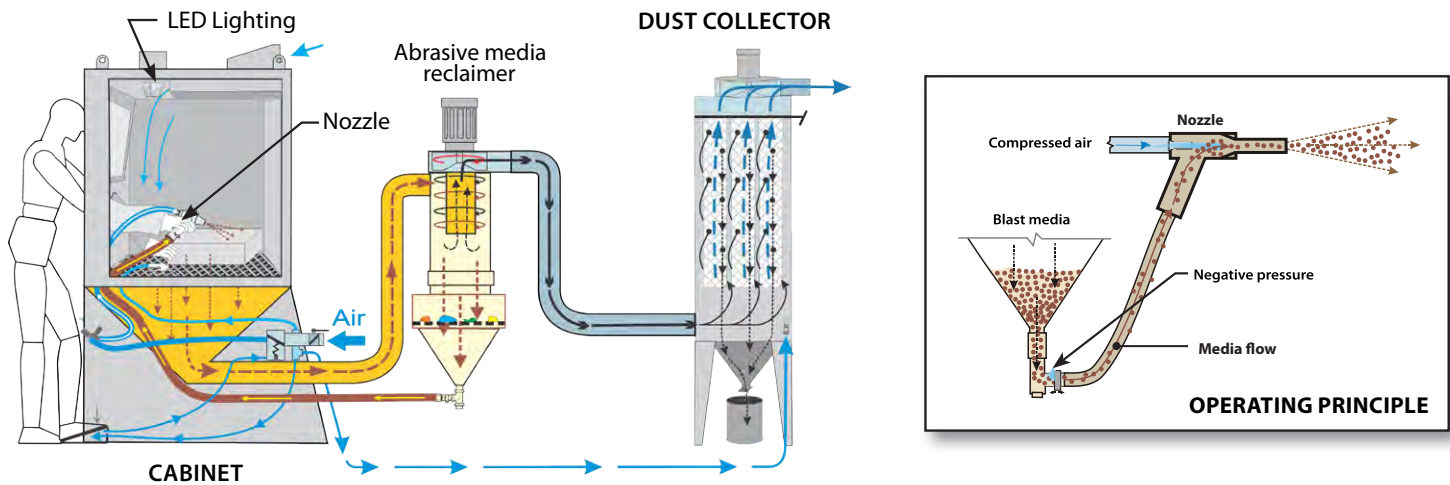
## SUCTION CABINET

An economical suction-type cabinet is ideal for everyday maintenance and light-duty jobs. Compressed air (released by operator pedal or trigger gun) enters gun and creates a vacuum that draws and expels abrasive onto the workpiece.

Blasting uses the Venturi principle of sucking media from a hopper. Air jet diameter is half the interior diameter of the nozzle and, as the air stream passes through both, it creates suction which pulls the media from the hopper into the air stream. Media acceleration distance from nozzle to workpiece is short (approximately 4 to 14 in). The suction system works fine and can continuously blast as long as there is blasting media in the hopper.

However, suction systems have limits on suction capacity and propelling heavier media. Very heavy blasting media (larger steel media) cannot be conveyed into air stream with suction blasting. Nonetheless, most industrial blast cabinets use suction systems due to their lower cost and because they work well for most applications.

### HOW IT WORKS



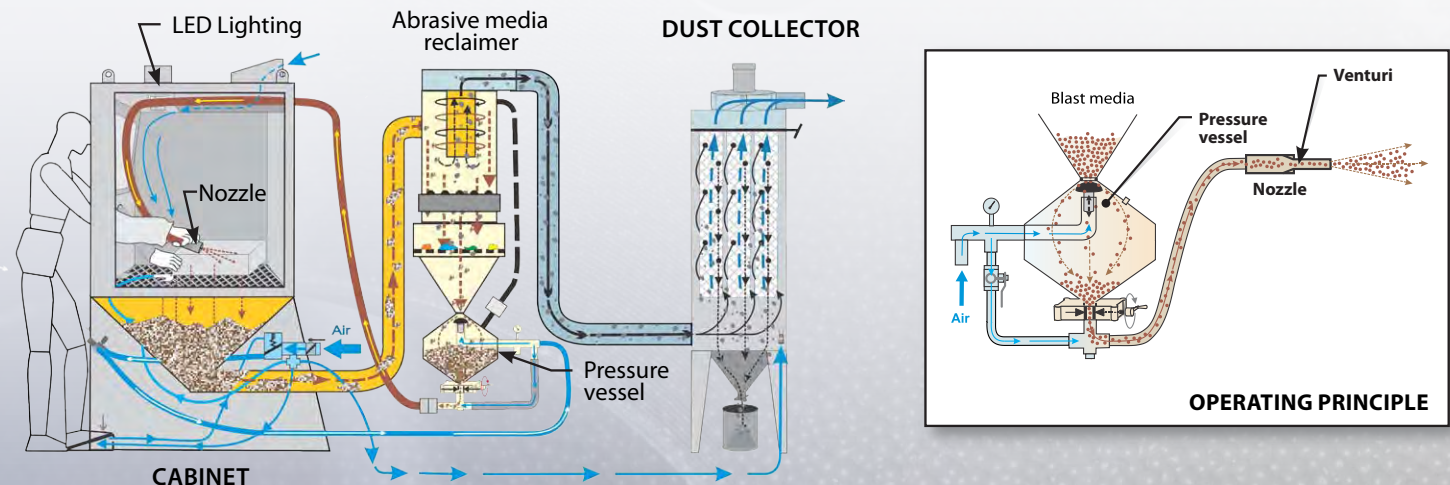
## PRESSURE CABINET

For rapid results in hard-to-reach areas, high performance pressure-type cabinets have 1.3 ft<sup>3</sup> pressure vessel that forces media through blasting hose and nozzle.

The pressure pot contains media that pressurizes the pot as it is energized with compressed air. When air/media mix is released from the pot, it accelerates through at least 5-10 feet of hose and then picks up even more speed as it travels through the Venturi of the nozzle. The acceleration rates of air/media mix are much higher in pressure blasting than suction blasting.

When pressure pot empties of media, it must be depressurized to be refilled with media. Pressure blasting systems are much more productive than suction systems. Additionally, pressure systems can blast all types of media regardless of weight or size, but require a minimum of 25 psi to operate.

### HOW IT WORKS



**STANDARD COMPONENTS**

**EXTERIOR VIEW**

**LARGE SAFETY-GLASS**



Large glass means greater visibility and productivity


**PNEUMATIC FOOT TREADLE CONTROL**



Start blasting operations by stepping on the pedal



**ABRASIVE MEDIA RECLAIMER**



Tunable cyclonic separator can be adjusted to control media size

**CUSTOM DESIGN**

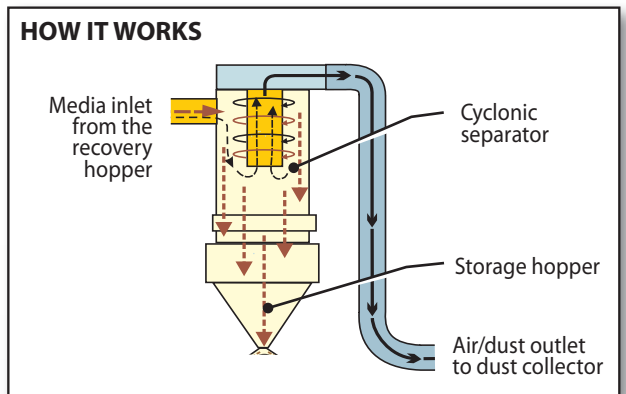


Design can be drawn according to the customer specifications.

**MEDIA RECLAIMER**



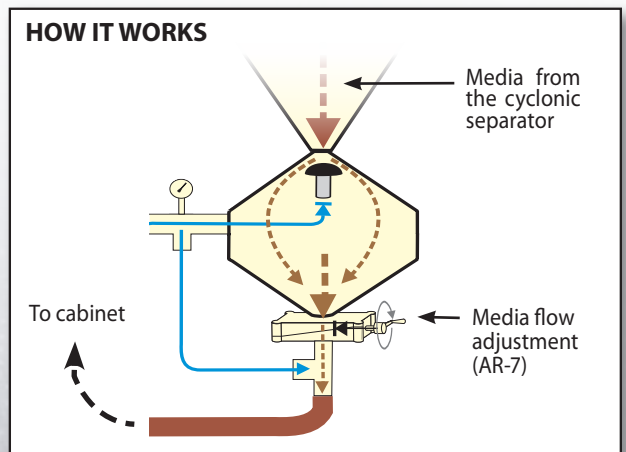
Media recycling reclaimers save time and money by continuously separating the good blast media particles from the dust, paint chips, and fragmented media. All reclaimers include a wear plate, which extends their usable life. Standard with externally adjustable vortex, let you tune the reclaimer to handle different size density media particles.



**PRESSURE VESSEL (PRESSURE-TYPE CABINETS ONLY)**



Pressure-type sandblast cabinets are equipped with a 1.3 ft<sup>3</sup> pressure vessel and a metering valve for defined efficiency. This valve allows for the fine-tuning of the flow of media to the mixing point where the abrasive meets the airflow. The pressurization / depressurization of the pressure vessel is controlled by the foot pedal and an air valve.



**STANDARD COMPONENTS (CONT'D)**

**INSIDE VIEW & STANDARD DIMENSIONS**

**LED LIGHTING SYSTEM**

**DUST-OFF GUN**

**PROTECTIVE LEATHER GLOVES**

**G-5 BLAST GUN (SUCTION CABINET)**  
See page 9 for nozzle combinations

**500 LB CAPACITY 3/16" PERFORATED FLOOR**

**SANDBLAST HOSE WITH NOZZLE (PRESSURE CABINET)**  
See page 10 for nozzle combinations

**SPECIFICATIONS**

Description	M2636	M2844	M3636	M3648	M3660
Interior dim's (D x W x H)	26" x 36" x 36"	28" x 44" x 30"	36" x 36" x 33"	36" x 48" x 33"	36" x 60" x 33"
*Suggested layout (D x W x H)	62" x 65" x 103"	64" x 71" x 103"	72" x 67" x 103"	74" x 77" x 103"	74" x 89" x 103"
Door opening (W x H)	20" x 33"	22" x 28"	30" x 30"		
Standard Dust Collector	DCM100				

Description	M4248	M4848	M4860	M6060	M7272
Interior dim's (D x W x H)	42" x 48" x 44"	48" x 48" x 44"	48" x 60" x 44"	60" x 60" x 44"	72" x 72" x 44"
*Suggested layout (D x W x H)	84" x 80" x 105"	92" x 82" x 105"	92" x 94" x 105"	108" x 100" x 114"	124" x 107" x 114"
Door opening (W x H)	36" x 41"	42" x 41"		54" x 41"	60" x 41"

\* Floor layouts are adapted to each project, based on options chosen and the floor space available.

## AVAILABLE OPTIONS

### TURNTABLES & WORK CAR

Turntables facilitate handling of heavy parts. Manual turntable with dolly and outside platform are available in various diameters with a loading capacity ranging from 500 to 2,000 lb. For heavier parts, a loading/unloading rail can be added for easier handling.

#### TURNTABLES

##### FIXED

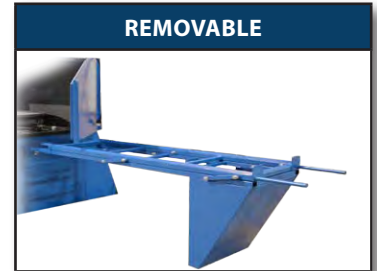


##### ON RAIL



#### WORK CARS

##### REMOVABLE



##### FOLDABLE



#### TURNTABLE

Standard capacity turntables are rated for 250 to 2,000 lb and let you manually rotate the workpiece inside the cabinet.

Optional pneumatic or electric powered turntables, with fixed or variable speed operation, move parts for manual or automated blasting processes.



#### WORK CAR

The work car system is designed to convey parts in the blasting enclosure using a mobile turntable on rail.

Work car rides on an inverted angle V-track with steel base plates designed to be mounted directly on top of the floor grating.

**AVAILABLE OPTIONS (CONT'D)**

**DOORS AND LINING OPTIONS**

**DOORS**

Several door options and configurations to accommodate parts of any sizes, flow processes and security requirements.



1. Stops blasting on door opening
2. Locks doors during operation to prevent injuries



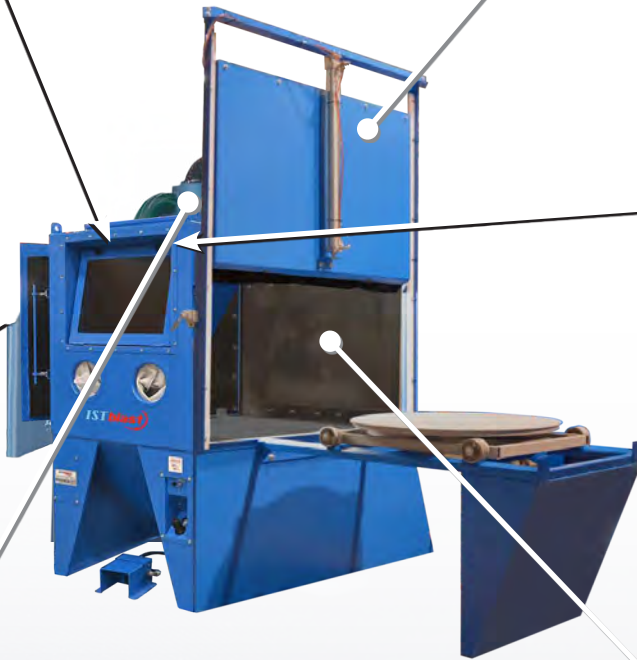
Mounted on dust hose linking the media reclaimer to the dust collector in order to eliminate the risk of fire



Vertical pneumatic door allows for wider openings and reduced footprint.



Additional side door offers a pass through environment for loading / unloading parts.



Chain block slot allows operator to use a chain hoist to load / unload parts.

**LININGS**



Extended-wear options extend equipment life while minimizing maintenance and downtime: black or red rubber curtains in; replaceable window protectors; heavy-duty, media-conveying duct and reclaimers can be upgraded with replaceable wear plate.



**AVAILABLE OPTIONS (CONT'D)**

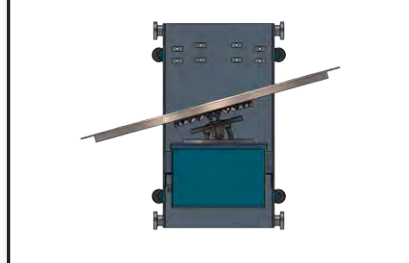
**ERGONOMIC FEATURES**

**WIDE OPENING OVAL  
SHAPE GLOVES**



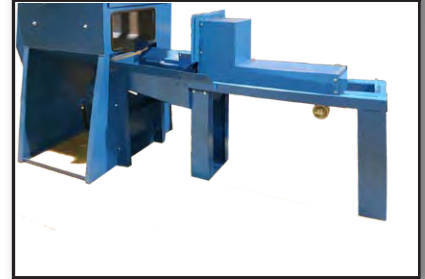
Wide opening oval shape gloves mean ease of moving nozzle to reach part from various angles and less stress on arms during operation.

**TILTING TURNTABLE**

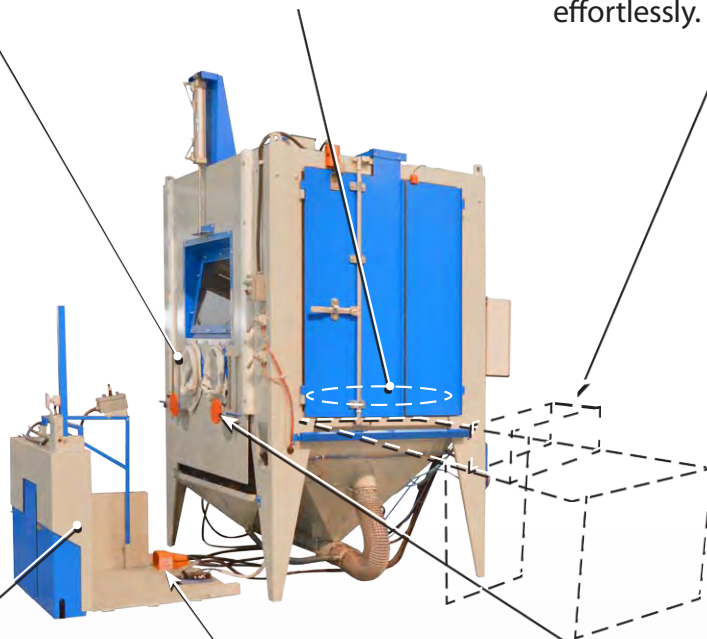


Tilting turntable offers an ergonomic working angle.

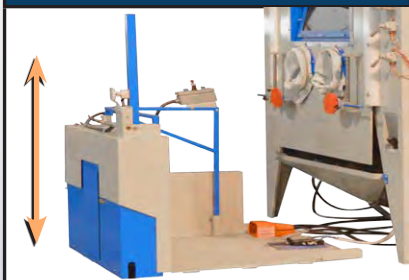
**MOTORIZED CART**



Motorized cart system facilitate loading / unloading of parts, effortlessly.



**ELEVATING WORK PLATFORM**



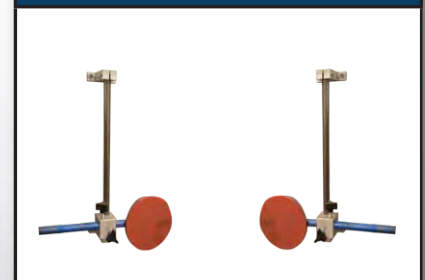
Elevating work platform offers optimal working position to operators of any heights.

**NO-CONTACT PEDAL**



No-contact pedal reduces foot straining and increases operator's comfort during operation.

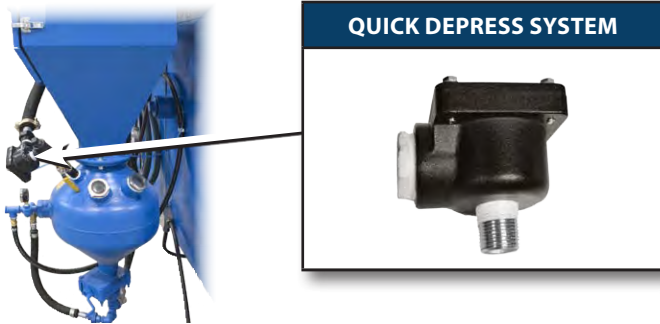
**ADJUSTABLE ARMRESTS**



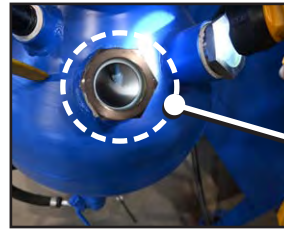
Adjustable armrests reduce work impact on operator's back and shoulders.

## AVAILABLE OPTIONS (CONT'D)

### AVAILABLE OPTIONS ON PRESSURE VESSEL



The quick depress system increases the blaster's productivity by filing up the pot 3 times faster than traditional system and it reduces wear on critical components and maintenance downtimes.



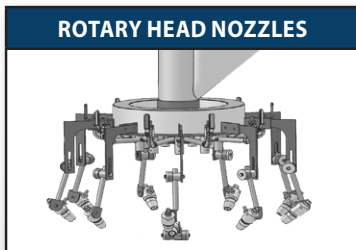
The media level sight glass allows you to see through your blast pot and check for media left in the reservoir

### AUTOMATION & EFFICIENCY

IST offers reliable sandblasting systems designed to increase efficiency of batch production and semi-automated processes. These solutions include timers, motorized systems as well as blast nozzles arrangements to achieve highest production requirements with the least effort.



Fixed-gun holder with adjustable arm frees operator's hands for parts blasting and can be synchronized with motorized turntables for automated process.



Available with 6, 9 or 11 nozzles, the rotary head rotation speed, duration of the exposure to media flow, and nozzle direction can be adjusted to achieve an even surface treatment on workpiece.



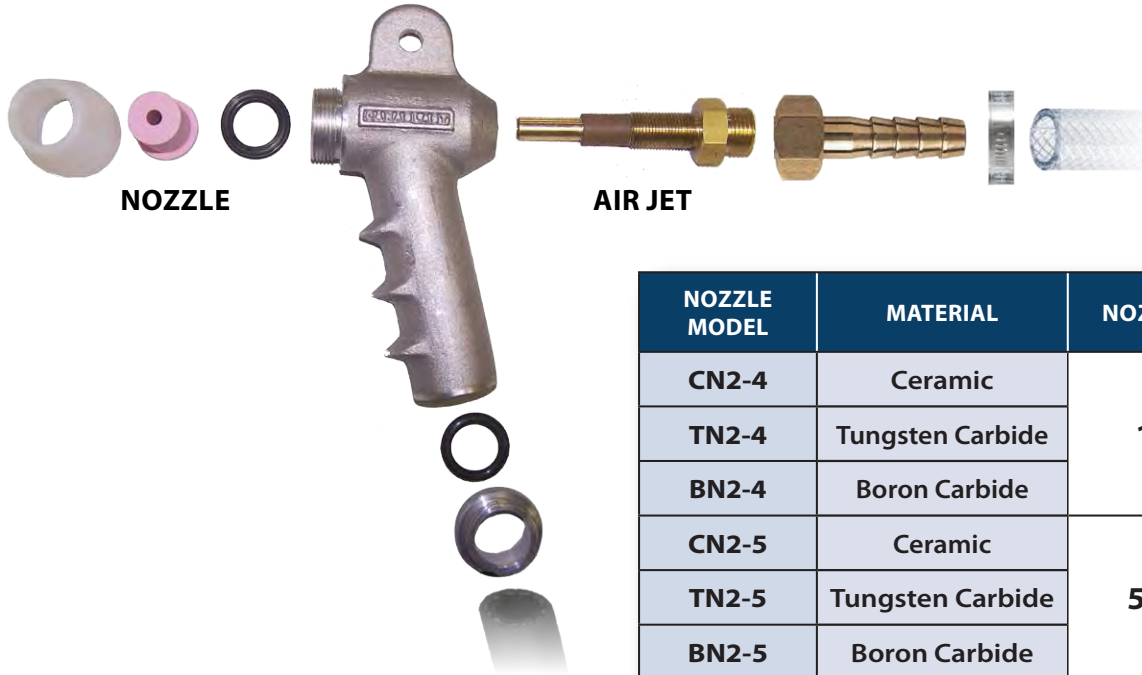
The combination of the basket inclination, rotation speed and time of exposition to media flow can speed up an increase blasting quality of batches of small parts.



**NOZZLES SELECTION**

**SUCTION-TYPE CABINET**

All suction cabinets come with G5 trigger less sandblast gun (operated by a foot pedal) which can be fitted with several nozzle / air jet combinations to better meet your application output



NOZZLE MODEL	MATERIAL	NOZZLE ID	AIR JET ORIFICE
CN2-4	Ceramic	1/4"	1/8"
TN2-4	Tungsten Carbide		
BN2-4	Boron Carbide		
CN2-5	Ceramic	5/16"	5/32"
TN2-5	Tungsten Carbide		
BN2-5	Boron Carbide		
CN2-6	Ceramic	3/8"	3/16"
TN2-6	Tungsten Carbide		
BN2-6	Boron Carbide		

**AIR CONSUMPTION TABLE**

Nozzle I.D.	Pressure (psi <sup>1</sup> )					
	40	50	60	70	80	100 <sup>0</sup>
1/4"	12	15	17	19	21	26
5/16"	19	23	27	30	34	42
3/8"	27	33	38	43	48	58

**LEGEND**

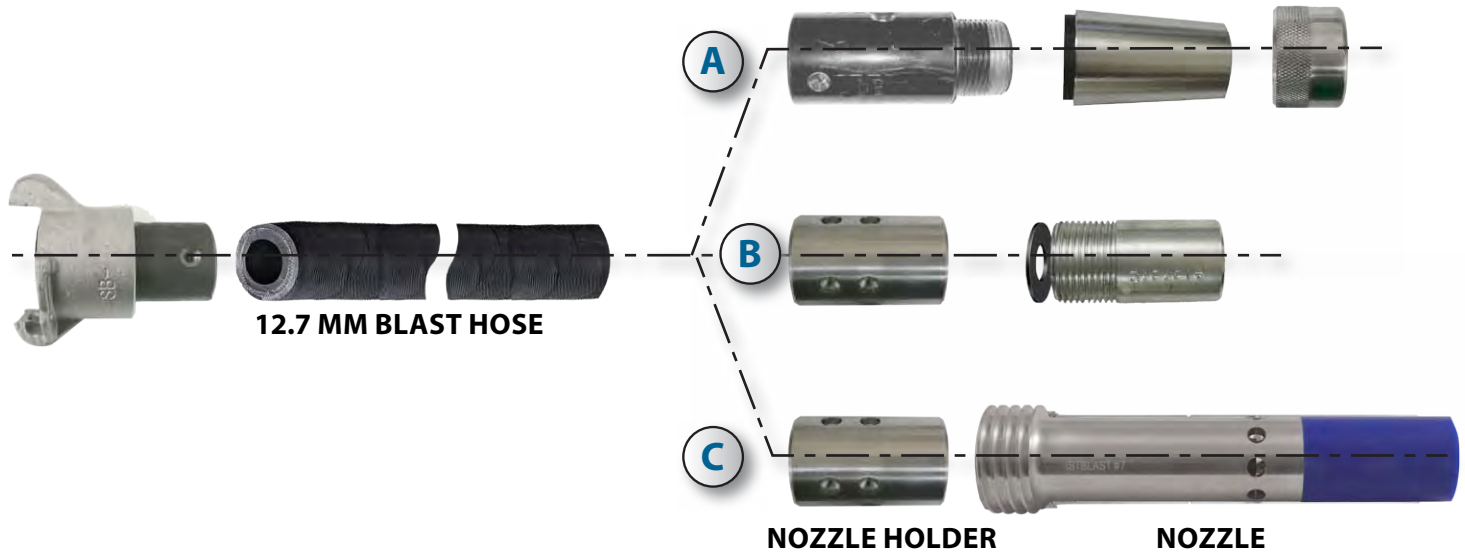
<sup>0</sup> Optimal pressure

<sup>1</sup> psi: Pressure at nozzle in pounds per square inch

## NOZZLES SELECTION (CONT'D)

### PRESSURE-TYPE CABINET

Pressure cabinets are equipped with a heavy-duty rubber ½” blast hose connected to abrasive regulator valve underneath pressure vessel with quick connect, Chicago coupling. The blast end of the hose can fit various high-quality nozzles to reach desirable output.



Conical with holder (A)	Threaded (B)	Material	Nozzle I.D. (mm)
DC1-F2	DC2-F2	TUNGSTEN CARBIDE	1/8"
BN2-F2	BN2-F2	BORON CARBIDE	
DC1-F3	DC2-F3	TUNGSTEN CARBIDE	3/16"
BN2-F3	BN2-F3	BORON CARBIDE	
DC1-F4	DC2-F4	TUNGSTEN CARBIDE	1/4"
BN2-F4	BN2-F4	BORON CARBIDE	

Venturi Nozzle Model (C)	Type	Material	Nozzle I.D.
DCV-4	LONG VENTURI	TUNGSTEN CARBIDE	1/8"
BCV4-4		BORON CARBIDE	
SCV-4	DOUBLE VENTURI	SILICON CARBIDE	3/16"
DCV-5	LONG VENTURI	TUNGSTEN CARBIDE	
BCV4-5		BORON CARBIDE	
DVI-3	DOUBLE VENTURI	SILICON CARBIDE	1/4"
DCV-6	LONG VENTURI	TUNGSTEN CARBIDE	
BCV4-6		BORON CARBIDE	
DVI-4	DOUBLE VENTURI	SILICON CARBIDE	

### AIR CONSUMPTION TABLE

Nozzle I.D.	psi <sup>1</sup>	30	40	50	60	70	80	90	100 <sup>0</sup>
1/8"	cfm <sup>2</sup>	8	10	11	13	15	17	19	20
	lb/h <sup>3</sup>	55	69	84	97	110	127	140	154
3/16"	cfm <sup>2</sup>	18	22	26	30	33	38	41	45
	lb/h <sup>3</sup>	130	160	170	192	220	243	268	297
1/4"	cfm <sup>2</sup>	34	41	47	54	61	68	74	81
	lb/h <sup>3</sup>	219	276	302	351	398	460	504	556
5/16"	cfm <sup>2</sup>	53	65	77	89	101	113	126	137
	lb/h <sup>3</sup>	410	495	526	601	680	756	832	910
3/8"	cfm <sup>2</sup>	76	91	108	126	143	161	173	196
	lb/h <sup>3</sup>	570	710	750	860	970	1080	1184	1296

#### LEGEND

<sup>0</sup> Optimal pressure

<sup>1</sup> psi: Pressure at nozzle in pounds per square inch

<sup>2</sup> cfm: Compressed air required in cubic feet per minute

<sup>3</sup> lb/h: Abrasive consumption in pounds per hour

## DUST COLLECTORS

### BAG-TYPE DUST COLLECTOR

DCM100 to 330 Bag-house dust collectors are equipped with a built-in head motor exhausting system on the clean side and without any contact with abrasive. They are designed for heavy-duty use and require minimal supervision and maintenance.



Inside the dust collector, a dry filter contains a set of cotton sating tubes that act as a filter for exhausting clean air flow from cabinet. Periodically, the clogged filters must be shaken to knock the dust from the insides of the tubes into a tray at the bottom of the dust collector. From time to time, the operator must empty the tray.

These dust collectors operate with a push-button bag shaker, or optional automatic shaker that activates systematically few seconds after blasting operation to free operator for other tasks. Optional vertical or horizontal mufflers can be added to lower the noise they produce.

SPECIFICATIONS	DCM100	DCM160	DCM230	DCM330
Filter area (sq. ft.)	100	160	230	330
Fan cfm motor	1/600	2/900	3/1.200	5/1.800
Weight (lb.)	400	450	525	700
Overall dim's (DxWxH)	28" x 28" x 103"	32" x 32" x 105"	38" x 38" x 113"	38" x 38" x 137"
Height with vertical muffler (H)	137"		146"	173"

### CARTRIDGE-TYPE DUST COLLECTOR

DCM600 to 1800 Cartridge-type dust collectors are the most efficient for maintaining better visibility inside the cabinet preventing dust from escaping into the work environment and contaminating surround machines and work surfaces. They are designed for high-volume applications, for manufacturing, automotive parts rebuilding, and coating removal.

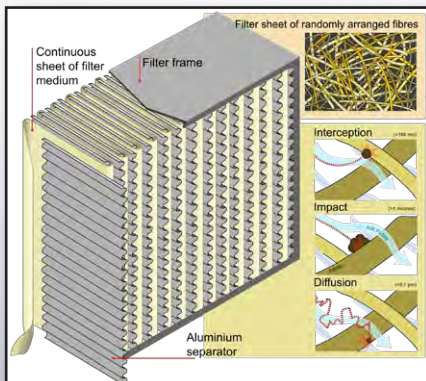


The fans can draw in air from the reclaimers from 600 to 1,800 cfm and comes with a built-in muffler: the higher the rating, the greater the number of cartridges. Dust and fine particles that pass through the collector are filtered, and only clean air is exhausted by the system.

The cartridges are cleaned by an automatic pulsing, without operator assistance. The system starts automatically when differential pressure sensors detect that the cartridges are filled or clogged to clean clogged pores. The pulsation system instantly blows compressed air through the cartridges forcing them to inflate in order to remove dust on the outer surface, letting it fall to the bottom of the storage barrel (optional). Cartridge dust collectors feature a built-in hopper to minimize dust-handling activity. HEPA filtration is available as an option.

SPECIFICATIONS	DCM 600	DCM 900	DCM 1200	DCM 1800
Filter area (sq. ft.)	630		1.260	
Fan cfm motor	1/600	2/900	3/1.200	5/1.800
Weight (lb.)	900	915	1.100	1.150
Overall dim's (D x W x H)	36" x 36" x 124"		55" x 37" x 137"	

### HEPA FILTER



Our standard reverse pulse cartridge dust collectors trap 99.7 percent of dust particles as small as 0.5 microns. A High Efficiency Particulate Air (HEPA) filter captures 99.97 percent of the remaining dust particles (down to 0.3 microns).

Our freestanding HEPA filter connects to any existing reverse-pulse dust collector.



## ABOUT THE COMPANY

### WHO WE ARE

IST is a leading manufacturer of equipment for the surface treatment industry and the solvent recycling industry. Our extensive line of equipment includes batch units and automated machines designed to achieve the highest manufacturing standards.

### MISSION

IST works tightly with their customers to transform industrial processes to improve their quality, productivity, and environmental footprint.

### OUR SERVICES

- Custom Design & Fabrication
- Installation & Startup
- Preventative Maintenance Program
- Private Labels
- Testing Lab
- 24/7 Technical Support

### INDUSTRIES WE SERVE

- Aerospace & Aviation
- Aluminium Smelters
- Automotive
- Construction & Civil Engineering
- Flexography (labelling) & Lithography
- Foundry & Forge
- General Manufacturing
- Military
- Power & Energy
- Rail & Mass Transit
- Shipyards
- Wood finishing

