



OPERATOR'S MANUAL

Safety, Operation & Service Information

DUST-COLLECT-R[®] Dust Collection System

Model: VS220

Form: GOM25101701US, Version 1.0, Original Instructions

- Do not discard this manual.
- Keep manual readily available for reference during operation or when servicing product.
- Before operation, read and comprehend operator manual content.
- **Customer Service:** 001 507 451 5510
- **Customer Service Telefax:** 001 507 451 5511
Note: There is no charge for Customer Service.
- **Internet Address:** <http://www.generalequip.com>
- **Email:** general@generalequip.com
- **Mailing Address:**
General Equipment Company, 620 Alexander Dr. S.W., P.O. Box 334, Owatonna, MN 55060, USA

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NOTICE TO OPERATORS

IF YOU CAN NOT READ OR DO NOT FULLY UNDERSTAND THE CONTENTS OF THIS MANUAL, PLEASE CONTACT THE FACTORY FOR PROPER ASSISTANCE BEFORE ATTEMPTING TO OPERATE THIS PRODUCT.

SI TU NO PUEDES LE'ER O NO COMPRENDES EL CONTENIDO DE ESTE MANUAL FAVOR DE PONERSE EN CONTACTO CON LA FABRICA PARA ASISTENCIA-APROPIA ANTES DE INTENTAR PARA OPERAR ESTE PRODUCTO.

SOLLTEN SIE DIESE GEBRAUCHSANWEISUNG NICHT LESEN KOENNEN ODER ES NICHT VOLLKOMMEN VERSTEHEN, WENDEN SIE SICH BITTE AN DEN HERSTELLER FUER RICHTIGE HILFE EHE SIE VERSUCHEN DIESES PRODUKT ZU OPERIEREN.

SI VOUS NE LISEZ OU NE COMPRENDRE ENTIEREMENT LES MATIERES DE CE MANUEL, S'IL VOUS PLAIT, CONTACTEZ L'USINE POUR L'ASSISTANCE APPROPRIEE AVANT D'UTILISER LE PRODUIT.

IMPORTANT:

- Do not allow anyone to operate DUST-COLLECT-R without first reading this Operator Manual and becoming familiar with DUST-COLLECT-R operation.
- Manufacturer of this DUST-COLLECT-R has gone to great extremes to provide owner(s) and/or operator(s) with the finest equipment available for its intended job function of collecting dust/debris in industrial and construction job applications. Yet, the possibility exists DUST-COLLECT-R can be utilized in and/or subjected to job applications not perceived and/or anticipated by manufacturer. Such misuse and/or misapplication of DUST-COLLECT-R can lead to possibility of serious damage, injury or even death.
- It is responsibility of owner(s) and/or operator(s) to determine DUST-COLLECT-R is utilized and/or operated within scope of its intended job function.
- It is responsibility of owner(s) and/or operator(s) to establish, monitor and constantly upgrade all safety programs and/or practices utilized in and for operation of DUST-COLLECT-R. Purpose of such programs is to provide for owner(s) and/or operator(s) safety. Operators must be instructed to recognize and avoid unsafe conditions associated with their work (29 CFR 1926.21 (b)(2)) and/or applicable updated revisions.

- It is responsibility of owner(s) and/or operator(s) to determine no modifications and/or alterations have been made to DUST-COLLECT-R. Modifications and/or alterations can lead to possibility of serious damage, injury or even death. It is responsibility of owner(s) and/or operator(s) to make this Operator Manual available for consultation during all phases of operation.
- Refer to OSHA 2207 and/or applicable updated revisions which contains all OSHA job safety and health rules and regulations (1926 and 1910) covering construction.

CAUTION

The concept of dust collection equipment has been successfully utilized for many years as a practical solution to many types of dust/debris collection job requirements. The basic concept is proven and well accepted within the associated marketplaces as an alternative method to manual labor.

Use of a DUST-COLLECT-R requires strenuous work activity when used in conjunction with other surface preparation equipment either moving or emptying dust/debris collected. This type of work activity can be considered to be greater in magnitude than that experienced with the use of many other types of both light construction and lawn and garden related equipment. This type of work activity should only be attempted by operators of adequate physical size and stature, mental awareness, and physical strength and condition.

The body parts most noticeably affected during the dust/debris collection process are the arms, hands, wrists, shoulders, lower back and legs. The dust/debris collection process can also produce excessive stress/strain directly to the back muscles, spinal vertebrae and many other body parts. Back related pain can be a side effect of the dust/debris collection process. An operator with a chronic back related problem or a history of back and/or other medically related problems should not attempt to utilize the DUST-COLLECT-R. Use of the DUST-COLLECT-R may only aggravate this and any other medically related problem.

Because of the diverse type of prevailing dust/debris collection conditions, operator experience levels and operator physical characteristics, no warranty, guarantee, representation and/or liability is made by the manufacturer as to the absolute correctness or sufficiency of any operational procedure, operational position and/or technique. There is no absolute guarantee that an operator of any given experience level, physical size and/or physical condition will be immune to the possibility of and/or probable physical side effects of the normal dust/debris collection process.

Each potential operator of the DUST-COLLECT-R must be made aware of and assume the operational and physical liability described and/or associated with the dust/debris collection process when utilizing the DUST-COLLECT-R. **Each potential operator not willing to assume the operational and physical liability described and/or associated with the dust/debris collection process should not operate the DUST-COLLECT-R.** Proper levels of operator experience, skill and common sense are essential for maximizing the safe and efficient operation of the DUST-COLLECT-R.

Record DUST-COLLECT-R model and serial numbers in spaces provided below.

Model Number: _____

Serial Number: _____

Date of Purchase: _____

Specifications and design are subject to change without notice or obligation. All specifications are general in nature and are not intended for specific application purposes. General Equipment Company reserves the right to make changes in design, engineering or specifications and to add improvements or discontinue manufacture at any time without notice or obligation. General Equipment Company and its agents accept no responsibility for variations which may be evident in actual products, specifications, pictures and descriptions contained in this publication.

OPERATOR INSTRUCTIONAL DATA SHEET

The following undersigned operators of DUST-COLLECT-R described and/or pertaining to this Operator Manual have received formal safety and operational information/instruction from undersigned owner(s)/instructor(s) in accordance to OSHA 29 CFR 1926.21 (b)(2) and/or applicable updated revisions pertaining to, but not necessarily limited to the:

1. READING, COMPREHENSION AND ACKNOWLEDGEMENT OF MATERIAL COMPRISING ENTIRE CONTENTS OF APPLICABLE OPERATOR MANUAL, APPLICABLE SAFETY AND OPERATIONAL INFORMATION VIDEO TAPE FOR DUST-COLLECT-R.
2. FORMALIZED OPERATOR SAFETY PROGRAM TO BE DEvised BY OWNER OF DUST-COLLECT-R IN CONJUNCTION WITH CONTENTS OF APPLICABLE OPERATOR MANUAL, APPLICABLE SAFETY AND APPLICABLE OPERATIONAL INFORMATION VIDEO TAPE FOR DUST-COLLECT-R.
3. OSHA RULES AND REGULATIONS RESEARCHED FOR AND/OR BY OWNER OF DUST-COLLECT-R AND DEEMED APPLICABLE TO SAFE AND PROPER USE AND/OR OPERATION OF DUST-COLLECT-R FOR ANY SPECIFIC JOB APPLICATION.
4. LOCAL LAWS, REGULATIONS AND CUSTOMS RESEARCHED FOR AND/OR BY OWNER OF DUST-COLLECT-R AND DEEMED APPLICABLE TO SAFE AND PROPER USE AND/OR OPERATION OF DUST-COLLECT-R FOR ANY SPECIFIC JOB APPLICATION.
5. FORMALIZED MAINTENANCE PROGRAM FOR DUST-COLLECT-R TO BE DEvised BY OWNER OF DUST-COLLECT-R IN ACCORDANCE WITH, BUT NOT NECESSARILY LIMITED TO, SPECIFICATIONS, GUIDELINES AND OPERATIONAL INFORMATION CONTAINED IN APPLICABLE OPERATOR MANUAL.
6. COMPREHENSIVE OPERATIONAL INSTRUCTIONS FOR CORRECT AND PROPER USE OF DUST-COLLECT-R AS PER CONTENTS OF APPLICABLE OPERATOR MANUAL AND APPLICABLE SAFETY AND OPERATIONAL INFORMATION VIDEO TAPE.

_____	Operator	_____	Owner/Instructor	_____	Date
_____	Operator	_____	Owner/Instructor	_____	Date
_____	Operator	_____	Owner/Instructor	_____	Date
_____	Operator	_____	Owner/Instructor	_____	Date
_____	Operator	_____	Owner/Instructor	_____	Date
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_____	Operator	_____	Owner/Instructor	_____	Date
_____	Operator	_____	Owner/Instructor	_____	Date

NOTE: INSERT COPIES OF THIS PAGE WITHIN OPERATOR'S MANUAL IF SPACE FOR ADDITIONAL OPERATORS IS REQUIRED.

1 INTRODUCTION

Congratulations on your decision to purchase a General Equipment light construction product. From our humble beginnings in 1955, it has been a continuing objective of General Equipment Company to manufacture equipment that delivers uncompromising value, service life and investment return. Because of this continuous commitment for excellence, many products bearing the General name actually set the standard by which competitive products are judged.

When you purchased this product, you also gained access to a team of dedicated, knowledgeable, support personnel that stand willing and ready to provide field support assistance. Our team of sales representatives and in-house factory personnel are available to ensure each General product delivers the intended performance and product safety you expect. Our personnel can readily answer your questions or concerns regarding proper applications, service requirements and warranty related problems.

If you have any questions or concerns about this product, please feel free to contact our Customer Service Department during normal business hours using the contact information located on the front cover of this manual. There is no charge for this service.

Sincerely,
The General Equipment Team

2 INTENDED USE

The DUST-COLLECT-R dust collection system is intended for use collecting dust/debris in dry, non-hazardous, non-flammable, non-explosive environments only for non-combustible dust/debris with an explosion limit value of >0.1 mg/m³. The DUST-COLLECT-R is not intended for use in wet applications and/or removal of liquids or any volatile, viscous, flammable, burning, smoking or explosive materials. The unit is designed for intermittent use; not more than 2 hours of continuous operation. The DUST-COLLECT-R is operated by one adult of proper operator experience/ skill/ common sense, height, weight, strength and physical condition. A second, auxiliary operator is allowed simultaneously when wand/other tool attachment is used.

3 TRAINING

Develop a comprehensive program for safe DUST-COLLECT-R operation by owner(s) and/or operator(s). Program will include, but is not limited to: instructional operation requirements, applicable OSHA requirements, local laws and regulations, job site safety plus DUST-COLLECT-R maintenance. Constantly examine and upgrade program to guarantee owner(s) and/or operator(s) safety. Each operator must be fully instructed regarding specifics of this safety program.

OPERATIONAL DISCLAIMER

The manufacturer of this DUST-COLLECT-R makes no warranty or guarantee it is merchantable and/or suitable for a specific job application and that it will have the power to remove dust/debris to a specific regulatory classification.

4 SAFETY SYMBOLS

SAFETY ALERT SYMBOL & SIGNAL WORDS

The safety alert "general warning" symbol indicates a potential personal injury hazard. A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to designate the degree or level of hazard seriousness. Other safety symbols may be used to represent the type of hazard in combination with "general warning" symbol, in highlighted boxes, or individually.

DANGER:

Indicates a hazard with a high level of risk which, if not voided, *will* result in death or serious injury.

WARNING:

Indicates a hazard with a medium level of risk which, if not avoided, *could* result in death or serious injury.

CAUTION:

Indicates a hazard with a low level of risk which, if not avoided, *could* result in minor or moderate injury.

The following safety alert symbols identify important safety messages in this manual. When you see these symbols, be alert to the possibility of personal injury and carefully read the message that follows.

SAFETY SYMBOLS & MEANINGS

Symbol	Meaning	Symbol	Meaning
	Action Required		General Warning
	Read Manual		Warning, Flammable Material
	Wear Ear Protection		Warning, Explosive Material
	Wear Eye Protection		Warning, Toxic Material
	Wear Protective Gloves		Warning, Electricity
	Wear Safety Shoes		Warning, Body Entrapment
	No Open Flame		Warning, Rotating Parts
	No Smoking		Warning, Hot Surface
	No Active Mobile Phone		Warning, Floor Level Obstacle
	No Food Or Drink		Warning, Drop Off
	No Trash Containers		Warning, Slippery Surface

5 SAFETY INSTRUCTIONS



WARNING

- These safety instructions provide guidelines to promote safety and efficiency with the DUST-COLLECT-R.
- No warranty, guarantee or representation is made by manufacturer as to absolute correctness or sufficiency of any information or statement.
- Safety instructions are intended to deal with common practices and conditions encountered in use of DUST-COLLECT-R and are not intended to be all inclusive.
- Not following instructions in this manual can result in property damage, personal injury and/or death.

BEFORE OPERATING



DANGER



- This product can expose you to chemicals including greases, lubrication oils, silica dusts and asbestos which are known to the State of California to cause cancer and carbon monoxide (if gasoline engine driven) which can cause birth defects of other reproductive harm. For more information: www.P65Warnings.ca.gov ..

1. BEFORE operating DUST-COLLECT-R, read this manual and view applicable Safety/Operational Video to familiarize each operator with correct operating procedures.
2. Visually inspect the DUST-COLLECT-R per MAINTENANCE INSTRUCTIONS STEPS 5 through 10 of this manual.
3. Determine the DUST-COLLECT-R is in original, factory configuration and has not been modified in any manner. If questions arise about possible modifications, contact the Customer Service Department BEFORE utilization. There is no charge for this service.
4. Always start and stop the DUST-COLLECT-R according to instructions to minimize possibility of unexpected or uncontrolled movement. Know how to stop unit in an emergency.

Noise

DUST-COLLECT-R, surface preparation equipment and dust/debris collection process creates exposure to high noise emission levels that can result in hearing loss or damage. Hearing protection is required while operating or when near operating equipment. Continuous and regular operators should have their hearing checked regularly.

Clothing

Clothing must be sturdy, snug fitting, but allow complete freedom of movement. Never wear loose fitting jackets, scarves, neckties, jewelry, flared or cuffed pants or anything that could become caught on controls or moving parts. Keep hair away from dust ports. Properly secure eyeglasses, hearing aid devices and other medical related devices. Wear long pants to protect legs. Protect hands and improve grip with heavy duty, nonslip gloves. Wear and properly lace sturdy boots with nonslip soles. Steel-toed safety shoes are mandatory. Wear approved safety hard hat where there is danger of head injuries and/or approved breathing mask where danger of airborne foreign particulate contamination is present.

Dust Control

Wear disposable/washable clothing on the jobsite. Shower (if possible) and change into clean clothing BEFORE leaving jobsite to prevent vehicle, home, and other works area contamination with crystalline silica dust or other contaminants such as lead. Properly clean all dust control equipment and equipment used in conjunction with before reuse in other applications/jobsites.

Flying Debris

Surface preparation process can result in flying debris. Eye protection and appropriate safety apparel is required when near or operating Blower. DO NOT operate unit with onlookers or animals close by.

BACK CARE & PROPER LIFTING PROCEDURES

Operators will be required to pull DUST-COLLECT-R plus move/lift a full hopper repetitively as demanded by specific job applications. When lifting, two people are required. Utilize proper lifting techniques to minimize fatigue and back-related injuries.

Back Anatomy

The human body is supported by the spinal column consisting of thirty bones called vertebrae, all linked and supported by a series of muscles. Pads called discs separate each vertebrae, acting as cushions to pressure from external forces. Spinal column is wrapped by nerve system with three sections that require being kept in natural alignment to prevent discomfort:

Cervical:	From base of neck to brain.
Thoracic:	From middle to lower back.
Lumbar:	From lower back to buttocks area.

Back Care Preventative Measures

Most occupational physicians agree on several "universal" preventative measures an operator should follow to help lower risk of back-related injuries:

1. Maintain proper body weight.
2. Eliminate/reduce use of tobacco. Smoking reduces oxygen supply and nutrients to discs cushioning vertebrae.
3. Develop a consistent exercise routine.
4. Maintain good posture while walking or sitting.
5. Watch how you twist/bend your body while digging to prevent injury. Twisting/bending incorrectly can exert too much pressure on discs and vertebrae.
6. Use firm footing, keep intended path clear before moving/lifting and/or carrying DUST-COLLECT-R and/or hopper.
7. Always use proper lifting techniques as described below.

PROPER LIFTING PROCEDURES

The following are guidelines for properly moving/lifting DUST-COLLECT-R hopper and are not intended to be all inclusive. Plan your path and make sure there are no obstructions or tripping hazards. Consider how you will set the load. The spinal column is a very sensitive mechanism. At any given time, improper lifting procedures can cause damage that can lead to injury.

1. Position feet a comfortable distance (shoulder width) apart to help provide necessary balance.
2. Tighten stomach muscles by pulling in your stomach. Keep back as straight as possible to keep spine, back muscles/ligaments in alignment.
3. Bend at hips and knees as much as possible.
4. Start lifting DUST-COLLECT-R by thrusting feet while lifting as much as possible with leg muscles. Use smooth movements.
5. Once DUST-COLLECT-R is lifted, keep it close as possible to the body. Avoid turning at waist. To turn, pivot entire body.
6. Keep shoulders, hips and feet pointed in same direction.
7. Use firm footing, keep intended path clear before carrying DUST-COLLECT-R.

TRANSPORTATION



1. When transporting DUST-COLLECT-R, coil and secure unit electrical cord around upper, rear handle. Remove accessory hose and/or wand from machine and store per INSTALLING & REMOVING ACCESSORY HOSE & WAND in MACHINE SET-UP section of this manual when in following operating conditions:
 - a) To and from jobsite.
 - b) Longer distances while being repositioned on jobsite.
 - c) Traversing up and down stairways.
 - d) Performing maintenance and/or repairs.
 - e) Lifting/lowering from transportation vehicle.
2. To reduce storage area and minimize damage, transport DUST-COLLECT-R in normal upright position.
 - a) Provide proper protection between DUST-COLLECT-R components and vehicle to prevent direct contact.
 - b) DO NOT drop unit or directly impact DUST-COLLECT-R to prevent damage.
3. All equipment must be secured in/on vehicles with suitable strapping or tie downs.
4. Personnel should not be transported in same compartment as equipment and fuel supplies. Consult applicable OSHA regulations for specific information.



CAUTION

- Improperly secured DUST-COLLECT-R and related accessories can fall from moving vehicle and result in property damage and/or personal injury.

DETERMINATION OF POTENTIAL SUBSURFACE HAZARDS IN PROPOSED JOBSITE LOCATION(S)



DUST-COLLECT-R housing and hose are constructed of non-metallic composite material, but do not guarantee operators will be properly insulated from contact with charged electrical cables. DUST-COLLECT-R and related accessories are not classified as insulated. DUST-COLLECT-R is not sealed or insulated. DO NOT operate DUST-COLLECT-R in an explosive atmosphere or near combustible materials. Refer to current OSHA rules and regulations.

WARNING

BEFORE attempting to ventilate and area, identify/mark all potential subsurface hazards in proposed ventilation locations(s). Potential subsurface hazards may include, but may not be limited to the following:

1. Buried debris, rotted timbers or wood planking.
2. Buried pressurized pipelines (e.g. natural gas, propane, etc.)
3. Buried electrical cables.
4. Water, flammable/combustible/toxic liquids, gases, vapors, dusts, fibers, or filings.

DETERMINATION OF POTENTIAL ABOVE SURFACE HAZARDS IN PROPOSED JOBSITE LOCATION(S)



Normal DUST-COLLECT-R use is on level ground. Avoid other surface conditions which can be dangerous. Special care must be exercised on slippery, and/or difficult/uneven surfaces. Watch for surface irregularities or drop offs to lower floor levels. Identify any objects that could puncture hose. Check for large, heavy debris that could be pulled into the hose and/or unit. Remove any trip/fall hazard BEFORE operating DUST-COLLECT-R. Check for such hazards as water, flammable/combustible/toxic liquids, gases, vapors, dusts fibers or filings.

OPERATIONAL HAZARDS



1. The dust collection process can produce sparks, dusts and other foreign particle contamination that can result in fire and/or explosion depending on existing jobsite conditions.
2. Dust, dirt and debris can contain asbestos and other chemicals that are known to cause physical harm and/or affect the environment.
3. Excessive water, and/or other conductive materials on work surface can result in electrocution of operator and/or other personnel.

Preventive Measures:

- Operator must maintain physical and mental alertness. Be prepared for unexpected dirt and/or debris coming in contact or entering hose and/or unit. DO NOT allow hose or intake dust ports to become blocked. Operator must be capable of sensing level of DUST-COLLECT-R control operator has.
- DO NOT operate DUST-COLLECT-R in areas where flammable or combustible liquids, gases, vapors, dust, fibers or filings may be present. DO NOT discharge flammable liquids or chemicals through DUST-COLLECT-R.
- DO NOT place DUST-COLLECT-R in standing water or operate when raining. DO NOT allow water inside hose, unit or motor. If motor/unit/hose becomes wet for any reason, dry thoroughly BEFORE operating. Remove water and/or conductive materials by industry-approved and/or accepted practice BEFORE operating DUST-COLLECT-R. Determine DUST-COLLECT-R is properly grounded and extension cords are free of cuts, abrasions and/or exposed cable strands.

6 MACHINE SPECIFICATIONS

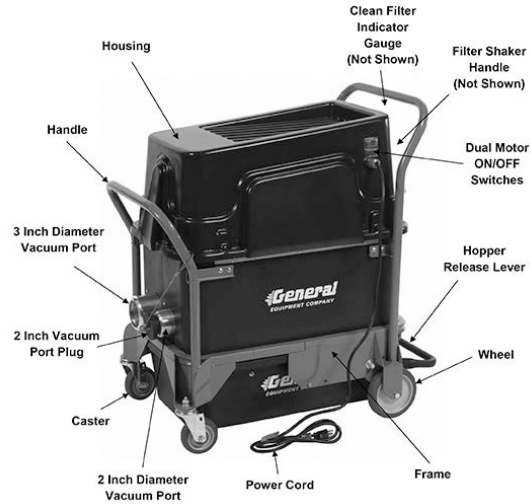


FIGURE 1

VS220 SPECIFICATIONS

HOUSING	High density polyethylene
FRAME	Welded steel
ELECTRIC MOTORS	2.6 peak HP (2 motors), 115 VAC, 60 HZ, single speed
POWER CORD	16-3 SJT X 25 ft. (8 M)
VOLUME FLOW	220 CFM (6.3 CMM)
WATER LIFT (suction)	110 inches (2794 mm)
PRE-FILTER	Geo-synthetic polyfelt. 99% efficient @ 0.5 microns
HEPA SECONDARY FILTER	PTFE pleated media, 99.7% efficient @ 0.3 microns
FILTER SIZE	18.3 square feet (1.7 square meters)
FILTER CLEANING	Clean filter indicator gauge plus manual filter shaker handle
WIDTH	19 inches (482.6 mm)
LENGTH	34.5 inches (876.3 mm)
HEIGHT	35.3 inches (896.6 mm)
DUST HOPPER CAPACITY	12.5 US Gallons (47.3 L)
WEIGHT	100 lbs (46 Kg)
OPERATING ENVIRONMENTS	Non-hazardous type locations.
REQUIRED NUMBER OF OPERATORS	1


7 STANDARD PRODUCT & ACCESSORIES

Refer to FIGURE 1 for overview description of standard components included in machine. Included in shipment for VS220 DUST-COLLECT-R systems should be the following:

- 1 each, Model VS220
- 1 each, 3 inch (76.2 mm) x 25 foot (7.62 M) hose assembly
- 1 each, operator manual
- 1 each, safety and operational DVD
- 1 each, final inspection form

ACCESSORIES

	Part #	Description	Weight (in lb)
	VS220-1100A	2 inch hose assembly	10.0
	VS220-1000A	3 inch hose assembly	17.0

	VS220-0250A	2 inch wand assembly	6.0
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8 MACHINE SET-UP



Open shipping carton immediately upon receipt. Remove DUST-COLLECT-R from carton. Visually inspect contents for freight damage and/or missing parts. If shipping damage is evident, contact delivering carrier immediately to arrange for an inspection of damage by their claims representative. DO NOT DESTROY OR DISCARD SHIPPING CARTON UNTIL INSTRUCTED BY AUTHORIZED REPRESENTATIVE OF CARRIER OR FACTORY. If missing parts are detected, notify your dealer who will assist you in obtaining them.

NOTE: If ordered with DUST-COLLECT-R, optional hose and wand can be shipped separately.

NOTE: DUST-COLLECT-R comes pre-assembled and ready to operate. As a precaution BEFORE operating:

1. Inspect all fasteners for looseness. Tighten as necessary.
2. Determine all components of DUST-COLLECT-R allow for proper function as stated in this operator manual.

INSTALLING & REMOVING ACCESSORY HOSE & WAND

1. Depress spring-loaded button on metal coupler at end of hose. FIGURE 2

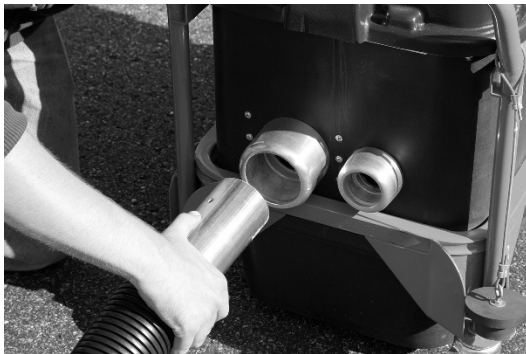


FIGURE 2

2. Insert metal coupler into dust port on front of DUST-COLLECT-R. Release button. If necessary, move coupler in and out until a positive "click" sound is heard. FIGURE 2
3. To connect opposite end of hose with grey coupler, simply press over dust port on surface preparation equipment being used until fully seated. FIGURE 3



FIGURE 3

4. To connect wand to 2 inch diameter hose follow STEPS 1 through 3 of INSTALLING & REMOVING HOSE & WAND section of this manual pressing grey coupler end of hose to wand end or other tools.
5. To remove hose, reverse STEPS 1 through 4 under INSTALLING & REMOVING ACCESSORY HOSE & WAND section in this manual.

NOTE: Airflow rates decrease as length of hose increases. Air flow rates will vary based on hose types and manufacturer.

9 OPERATING INSTRUCTIONS



IMPORTANT: DO NOT operate DUST-COLLECT-R until each operator completely comprehends contents in this manual.



CAUTION

- If DUST-COLLECT-R and/or an individual component/ accessory does not appear to function properly, STOP and DO NOT operate DUST-COLLECT-R until corrective action has been completed.
- Operation with improperly functioning machine, components/ accessories can result in property damage and/or personal injury.
- If you have any questions regarding proper operation of DUST-COLLECT-R, contact Customer Service Department for assistance BEFORE using. There is no charge for this service.

DUST-COLLECT-R SET-UP ON JOBSITE

1. Determine DUST-COLLECT-R ON/OFF switches are in OFF position and power cord is disconnected from power source.
2. Position DUST-COLLECT-R on level, secure surface to prevent shifting while in use. DUST-COLLECT-R should be on all 4 wheels and casters at all times. DO NOT operate with unit laying on its side, back or top.
3. Position DUST-COLLECT-R away from walls and obstructions and a minimum of 1.5 M (5 ft.) from manholes, ledges or drop offs.
4. Secure hopper to machine by positioning machine directly over hopper. Press hopper release lever down with foot until hopper is lifted off ground and locked in position. FIGURE 4



FIGURE 4

5. Install accessory hose and wand as necessary per procedures in INSTALLING & REMOVING ACCESSORY HOSE & WAND in MACHINE SET-UP section of this manual.
6. Connect DUST-COLLECT-R power cord to power source.
7. If additional extension cord is required, connect extension cord to DUST-COLLECT-R power cord then connect extension cord to power source.

WARNING

- If operating DUST-COLLECT-R in outside environment, use only extension cords marked "W-A" or "W".
- Such cords are rated for outside usage and reduce risk of electric shock.

WARNING

- All electrical wiring including extension cord gauge and/or length must be installed and/or approved in accordance with local electrical codes and practices.
- An improper wiring installation can result in property damage and/or personal injury.

WARNING

- For maximum protection against a fault, if used, always configure GFI to be plugged into power source receptacle.
- Configurations with GFI placed between DUST-COLLECT-R and power source will not provide maximum protection against potential fault.

DANGER

- DO NOT operate DUST-COLLECT-R without extension cords/GFI in proper operating condition. The GFI is intended as a safety device in event power source has a fault.
- Always assume electrical wiring on every jobsite can contain a fault.
- A fault can generate a dangerous operating configuration that can result in property damage and/or personal injury.

WARNING

- BEFORE use, inspect each extension cord and wiring device for proper structural integrity.
- DO NOT use cord with worn or cut outer jacket material or repaired with electrical tape.
- Use of cords with improper structural integrity can result in property damage and/or personal injury.

WARNING

- Keep power and extension cords free and clear of DUST-COLLECT-R and attached machines.
- In event extension cord becomes entangled about DUST-COLLECT-R, other machines and/or operators turn machine OFF immediately.
- Determine extension cords/GFI are in proper condition to continue operation.
- In event of damage, replace with factory approved component only and/or products meeting applicable National Electric Code and OSHA requirements.

WARNING

- DO NOT abuse the power cord. Never use power cord to move DUST-COLLECT-R or pull plug from receptacle. Damage to cord can result.
- Keep cord away from heat, oil, sharp edges (including accessory tool) or moving parts.
- A damaged cord increases the risk of an electric shock.

8. Turn DUST-COLLECT-R ON/OFF switches to ON position. Monitor airflow for any obstructions. FIGURE 5



FIGURE 5

NOTE: Depending on job application and number of operators, one or both motors can be turned on.

DANGER

- DUST-COLLECT-R is designed for no more than one primary operator plus one secondary operator when operating a 3 inch hose with machine attached and 2 inch hose with wand/tool attached simultaneously.
- Care must be taken to communicate and know at all times where each operator is to avoid confusion and loss of control, resulting in property damage and/or personal injury.

IMPORTANT: Motor will restart if power is lost and comes back on. If power is lost, turn DUST-COLLECT-R if ON/OFF switches to the OFF position to prevent unexpected start up. There is no automatic shut-off feature on the DUST-COLLECT-R.

9. Monitor clean filter gauge throughout operation. When gauge indicates filter cleaning is necessary (-60 to -100), manually oscillate filter shaker handle back and forth 3 to 6 times. FIGURE 6 & 7

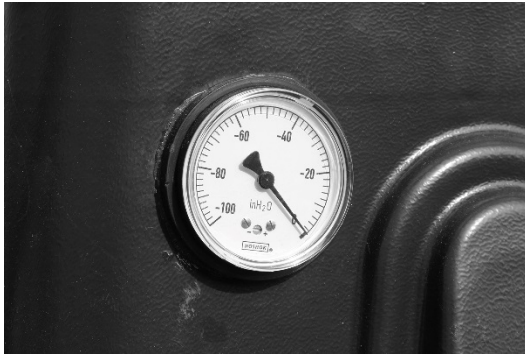


FIGURE 6



FIGURE 10



FIGURE 7

10. Turn ON/OFF switches to OFF position. Check hopper by lifting up hopper release lever with foot until hopper is released. When hopper is 75 percent full proceed to STEPS 11 through 14. FIGURES 8, 9 & 10



FIGURE 8



FIGURE 9

11. Insert hopper into heavy duty poly bag large enough to accommodate hopper, dust/debris and ability remove hopper without spilling content. Close bag tightly. FIGURE 11



FIGURE 11

NOTE: Bag types may vary. Bag closure for this step may be by use of hand, bag tie-off, or zipper style design.

12. With bag closed, flip hopper and bag over onto hopper top. Let dust settle. FIGURE 12



FIGURE 12

13. Open bag, lift hopper up to fully clear dust/debris pile and remove hopper from bag without spilling content. FIGURE 13



FIGURE 13

14. Seal bag and properly dispose of per OSHA and/or local regulations. FIGURE 14



FIGURE 14

STOPPING DUST-COLLECT-R



15. Turn DUST-COLLECT-R ON/OFF switches to OFF position between each use or when moving from one major section of work area to another.
16. Disconnect extension cord from power source. Never leave DUST-COLLECT-R connected to power source and unattended.
17. Disconnect extension cord from DUST-COLLECT-R.

WARNING

- Stop DUST-COLLECT-R when moving from one major section of work surface to another.
- DO NOT choose to save time (time required to restart machine), money (if DUST-COLLECT-R is being rented) or gain added convenience by electing to keep machine running between major sections.
- Never leave DUST-COLLECT-R running and unattended.
- Not doing so can result in property damage and/or personal injury.

18. BEFORE removing machine from work area, clean per STEP 6 and associated WARNING of MAINTENANCE INSTRUCTIONS in this manual. All other equipment used in conjunction with the DUST-COLLECT-R should be considered contaminated and cleaned per specific machine instructions.

10 MAINTENANCE INSTRUCTIONS



For routine maintenance, the following information should be followed at minimum once per week or 40 hours of use for maximum performance and return on investment unless otherwise indicated. Information is for reference only and is not intended to be all inclusive.

1. Use factory approved replacement parts/accessories only for maintenance and repair.

WARNING

- Operating DUST-COLLECT-R utilizing components not meeting minimum operational standards can result in property damage and/or personal injury.

2. All maintenance/repairs not described in this operator manual must be done by a dedicated service center following a specific service/repair manual.

DANGER

- Wear safety eyewear, respiratory protection, gloves and other safety apparel appropriate for the job application and/or job site environment.
- Improper safety procedures can result in property

3. STOP DUST-COLLECT-R BEFORE performing maintenance and service per STOPPING DUST-COLLECT-R in OPERATING INSTRUCTIONS section of this manual.
4. Remove accessory hose and wand per INSTALLING & REMOVING ACCESSORY HOSE & WAND in MACHINE SET-UP section of this manual.
5. Inspect for loose, broken, cracked or deformed parts. Inspect all fasteners, individual parts, operator controls and safety devices for proper function. Tighten fasteners as necessary. Replace any worn or damaged part or assembly.
6. Remove all loose material accumulations, dirt and grease on internal/external surfaces, dust ports and accessories to prevent safety hazards, poor performance and reduced service life. Use HEPA certified dust collection system to remove most accumulation then damp cloth with mild soap and water or vinyl cleaner/protectant or safety type solvent for final DUST-COLLECT-R cleaning. Dry thoroughly BEFORE operating.

IMPORTANT: Remove any heavy material build-up or clogs in pre-filter by hand only to prevent damage to filter.

WARNING

- Clean pre-filter after each application where hazardous materials/contaminants are present and being filtered such as crystalline silica dust, asbestos, or lead.
- Clean unit thoroughly (per IICRC S520, 10.11) after each job before removing from containment area to prevent cross contamination/spread of hazardous matter.
- DO NOT use pressure wash or high pressure air to clean.
- Dispose cleaning materials and post service parts per international and local regulations.
- Not following these procedures can result in personal injury to maintenance personnel and future operators of unit.

	<p>DANGER</p> <ul style="list-style-type: none"> Use safety type solvent. DO NOT use thinner, benzene, or other volatile solvents that will attack rubber/plastic components when cleaning DUST-COLLECT-R. Provide adequate ventilation. DO NOT smoke while using cleaning solvents. DO NOT use solvents with motors running or if it is hot. Allow ample time for motors to cool BEFORE using solvents. An ignition source in close proximity to hot motor can be the source of an explosion, resulting in property damage and/or personal injury.
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- Inspect DUST-COLLECT-R ON/OFF switches for proper function. If damaged or worn, replace.
- Inspect handles, frame and housing and are free of moisture, pitch, oil or grease and is not cracked or damaged. If full of dirt or pitch, clean. If cracked or damaged, replace.
- Inspect all safety and operation decals for proper condition. If any decal becomes damaged and/or unreadable, replace.
- Inspect hoses and wand for dirt and oil build up on inside and outside surfaces. Clean as necessary with mild soap and water for improved air flow/performance. Repair holes. If unrepairable, replace.
- Inspect pre-filter pleats for holes, tears or heavily worn areas. If damage is present filter must be replaced. At time of replacement, secondary HEPA filters should be inspected and replaced, if required, at that time.

IMPORTANT: DO NOT puncture secondary HEPA filter or attempt to clean to prevent dust dispersion when machine is placed back into operation.

REPLACING WORN/DAMAGED HOSE COUPLER

Tools Required:

- 1 each, safety glasses
- 1 each, flat-bladed screw driver

2 Inch Hose Parts Required:

- 1 each, PN VS220-1100-020, Coupler, Hose, Steel, 2D
- 1 each, PN VS220-1100-030, Coupler, Helix, Plastic, 2D
- 1 each, PN 56320000, Clamp, Hose, 2D

3 Inch Hose Parts Required:

- 1 each, PN VS220-1000-020, Coupler, Hose, Steel, 3D
- 1 each, PN VS220-1000-030, Coupler, Helix, Plastic, 3D
- 1 each, PN 56640000, Clamp, Hose, 2D

- To remove grey plastic coupler, firmly grasp hose in one hand and with free hand turn coupler counterclockwise until removed. Thread new coupler onto hose in clockwise direction until firmly seated.
- To remove metal coupler, use flat-bladed screwdriver to loosen hose clamp. Pull damaged coupler free of hose end. Insert new coupler into hose and fully tighten hose clamp.
- Return hose back to service.

11 TROUBLESHOOTING

NOTE: If troubleshooting information does not correct situation, all maintenance/repairs not described in this operator manual must be done by a dedicated service center following a specific service/repair manual.

UNIT WILL NOT START OR LOOSES POWER

Possible Cause	Correction
No power received from power source.	Consult qualified electrician for proper voltage and ampere output.
On/Off switches in OFF position.	Turn to ON position.
Motor loses power.	Check power source for correct voltage and amperage.
Improper extension cord connection (if applicable).	Determine all connections produce a closed circuit. Reduce length and/or increase cord wire size.
Circuit overloaded, panel circuit breaker tripped.	Unload circuit, reset circuit breaker.

High operating temperatures.	Disconnect machine from power source. Allow to cool. Determine hose, wands, dust ports and filter is clean of foreign material accumulations. Clean as necessary.
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UNIT RUNS, MAKES SCRAPING NOISE

Possible Cause	Correction
Severe impact to unit, impeller contacting motor housing.	Replace motor assembly.
Severe impact to housing, housing deformed.	Replace housing.

UNIT RUNS, VIBRATES EXCESSIVELY

Possible Cause	Correction
Severe impact to unit, bent motor shaft.	Replace motor assembly.
Impeller blade damaged.	Replace motor assembly.
Dirt build up on fan blade.	Clean fan blade.
Dust ports/hose blocked.	Clear debris from ports/hose.

UNIT RUNS BRIEFLY, SHUTS OFF ON OVERLOAD

Possible Cause	Correction
Motor bearings failing or internal motor electrical fault.	Replace motor assembly.
Hose, dust port or filter obstructed.	Remove obstruction/clean filter.
Excessive hose length.	Reduce hose length to recommended maximum.

MOTOR MAKES NOISE, FAN DOES NOT TURN

Possible Cause	Correction
Impeller jammed against motor housing.	Replace motor assembly.
Capacitor wire broken or loose, capacitor has failed.	Replace unit, non-serviceable item.
Motor housing damaged, presses against motor impeller.	Replace motor assembly.
Roll pin locking impeller to motor shaft is faulty.	Replace motor assembly.

DUST-COLLECT-R HAS POOR OR NO SUCTION

Possible Cause	Correction
Motor bushings worn.	Replace motor assembly.
Motor overheating.	Replace motor assembly.
Motor housing damaged, presses against motor impeller.	Replace motor assembly.
Hole in hose, wand or housing.	Repair hole. If not repairable, replace hose and or unit.
Hose clogged/blocked.	Clean hose.
Filter clogged.	Clean filter.
Defective housing seal.	Replace gasket.

DUST BLOWN FROM UNIT

Damaged filter system or unit is incorrectly assembled.	Replace filter or call customer service.
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12 STORAGE

LONG TERM STORAGE



Procedure for long term storage of DUST-COLLECT-R will protect it against effects of corrosion and damage. If DUST-COLLECT-R is not to be operated for a period of 30 days or more, proceed to store as follows:

- STOP DUST-COLLECT-R per STOPPING DUST-COLLECT-R in OPERATING INSTRUCTIONS section of this manual.
- Clean DUST-COLLECT-R hose and wand per MAINTENANCE INSTRUCTIONS section of this manual.
- Inspect all visible parts for wear, breakage or damage per MAINTENANCE INSTRUCTIONS section of this manual.
- Coil and secure unit electrical cord around upper, rear handle.

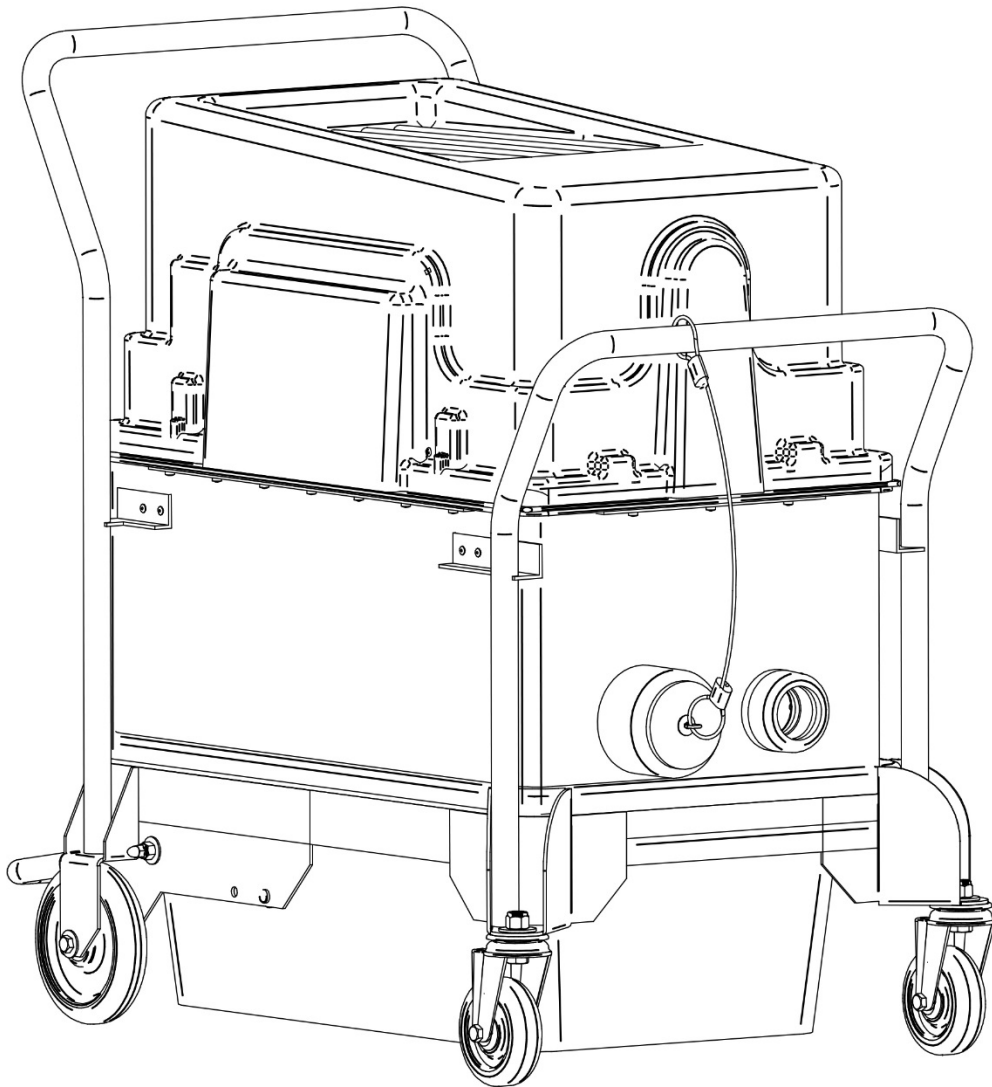
IMPORTANT: Store DUST-COLLECT-R inside only.

13 END OF LIFECYCLE

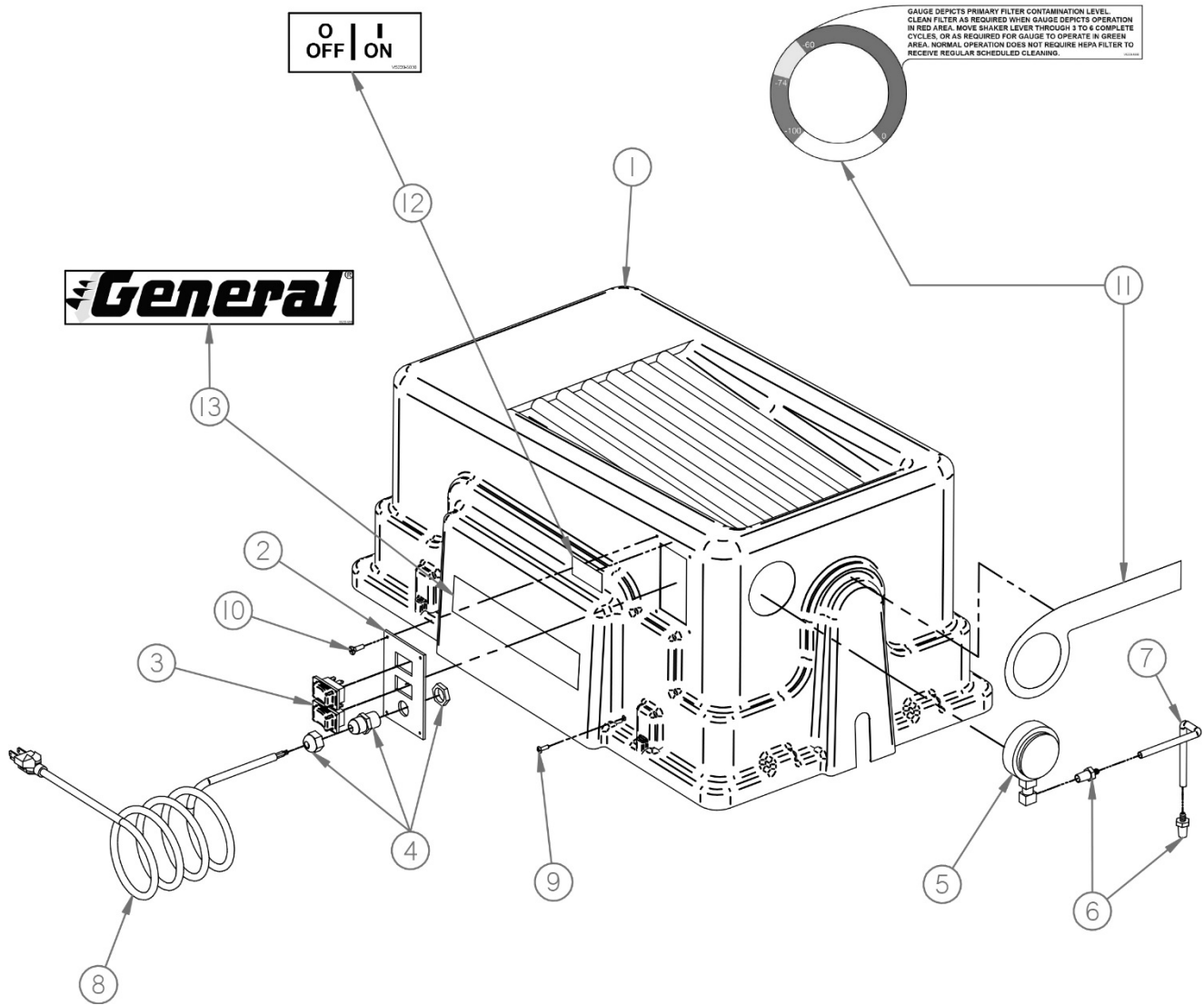


If the DUST-COLLECT-R comes to the end of its lifecycle, destruction of the DUST-COLLECT-R must be conducted according to international and local environmental regulations.

14 Replacement Parts VS220 DUST-COLLECT-R® System



Replacement Parts Diagram Motor Cover VS220 DUST-COLLECT-R®



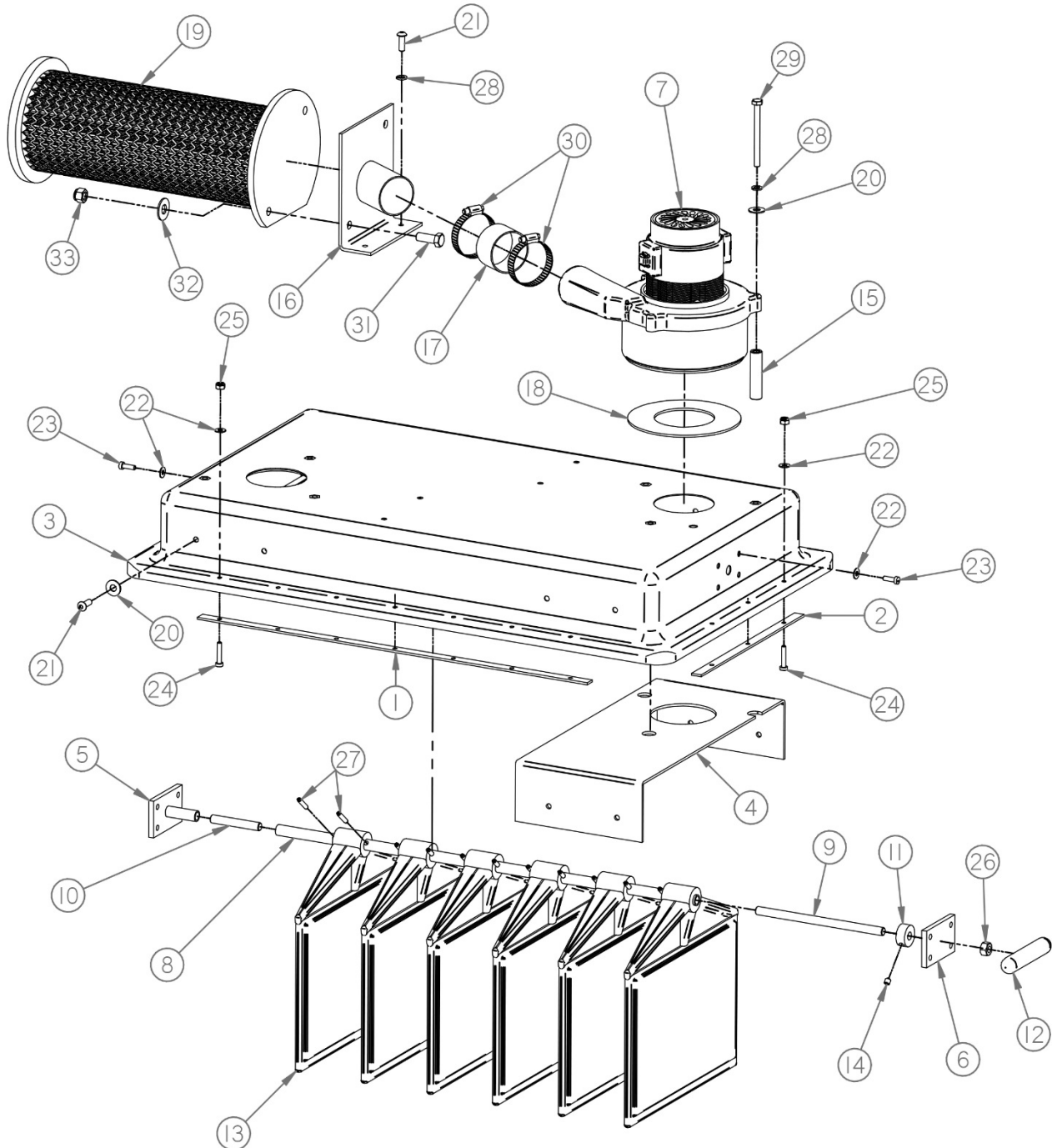
Replacement Parts Diagram

Motor Cover

VS220 DUST-COLLECT-R®

Reference Number	Part Number	Description	Quantity
1	VS220-0010	Cover, Motor, Electric	1
2	VS220-0150	Plate, Switch	1
3	VS220-0160	Switch, Motor, ON/OFF	2
4	EP8ACP-0120	Relief, Strain	1
5	VS220-0170	Gauge, Vacuum	1
6	VS220-0180	Fitting, Line, Vacuum	2
7	VS220-0220	Line, Vacuum	1
8	VS220-0230	Cord, Electrical	1
9	EP8ACP-0140	Screw, Self Tap, #7 X 5/8	4
10	38020401	FHMS, #8-32 X 1/2, ZY	4
11	VS220-5040	Decal, Gauge, Vacuum	1
12	VS220-5030	Decal, ON/OFF	1
13	GECD-5030	Decal, General, 1-7/8 X 9-1/2	2

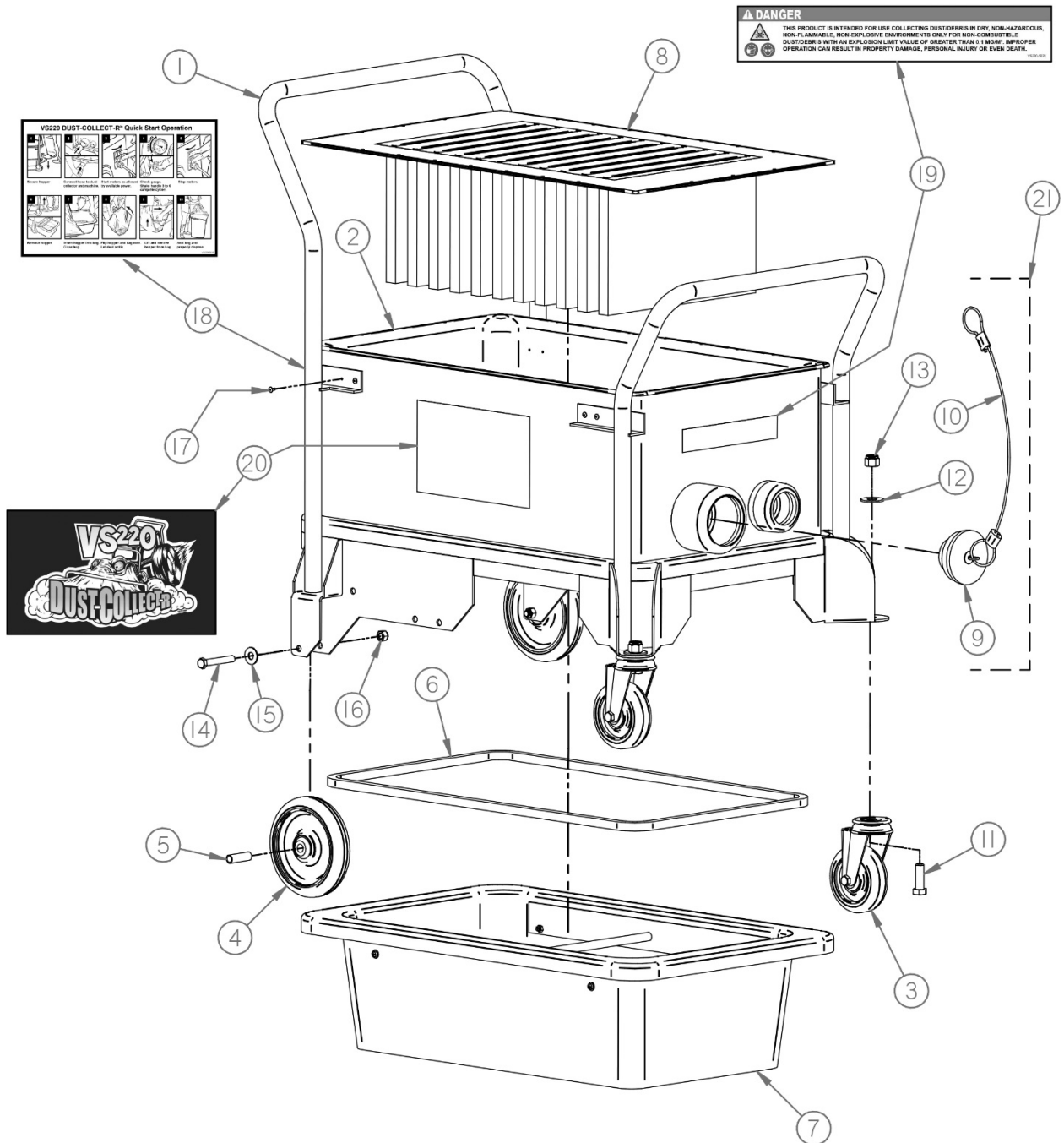
Replacement Parts Diagram Motor Housing VS220 DUST-COLLECT-R®



Replacement Parts Diagram Motor Housing VS220 DUST-COLLECT-R®

Reference Number	Part Number	Description	Quantity
1	VS220-0200	Bracket, Mounting, Cover	2
2	VS220-0210	Bracket, Mounting, Cover	2
3	VS220-0190	Housing, Mount, Motor	1
4	VS220-0280	Support, Mount, Motor	2
5	VS220-0290	Support, Tube, Shaker	1
6	VS220-0300	Support, Tube, Handle	1
7	VS220-0020	Motor, Electric	2
8	VS220-0310	Axle, Shaker	1
9	VS220-0320	Axle, Handle, Shaker	1
10	VS220-0330	Bolt, Modified	1
11	VS220-0340	Collar, Locking	1
12	VS220-0120	Handle, Bar, Shaker	1
13	VS220-0350	Element, Shaker	6
14	31040200	Screw, Set, 1/4-20 X 1/4, PF	1
15	VS220-0360	Spacer, Motor, Electric	6
16	VS220-0040	Bracket, Filter, HEPA	2
17	VS220-0140	Boot, Connecting	2
18	VS220-0130	Gasket, Foam	2
19	VS220-0030	Filter, HEPA	2
20	17040000	Washer, Flat, 1/4, ZY	14
21	55040600	BHSCS, 1/4-20 X 3/4, ZY	12
22	17030000	Washer, Flat, #10, ZY	28
23	37030501	PHRHMS, #10-32 X 5/8, ZY	8
24	37030801	PHRHMS, #10-32 X 1, ZY	20
25	53030001	Nut, Nylok, #10-32, ZY	20
26	18060000	Nut, Hex, 3/8-16, ZY	1
27	20030800	Pin, Roll, 3/16 X 1	11
28	16040000	Washer, Lock, 1/4, ZY	10
29	15042400	HHCS, 1/4-20 X 3, ZY	6
30	56320000	Clamp, Hose, 2D	4
31	15060800	HHCS, 3/8-16 X 1, ZY	4
32	17060000	Washer, Flat, 3/8, ZY	4
33	53060000	Nut, Nylok, 3/8-16, ZY	4

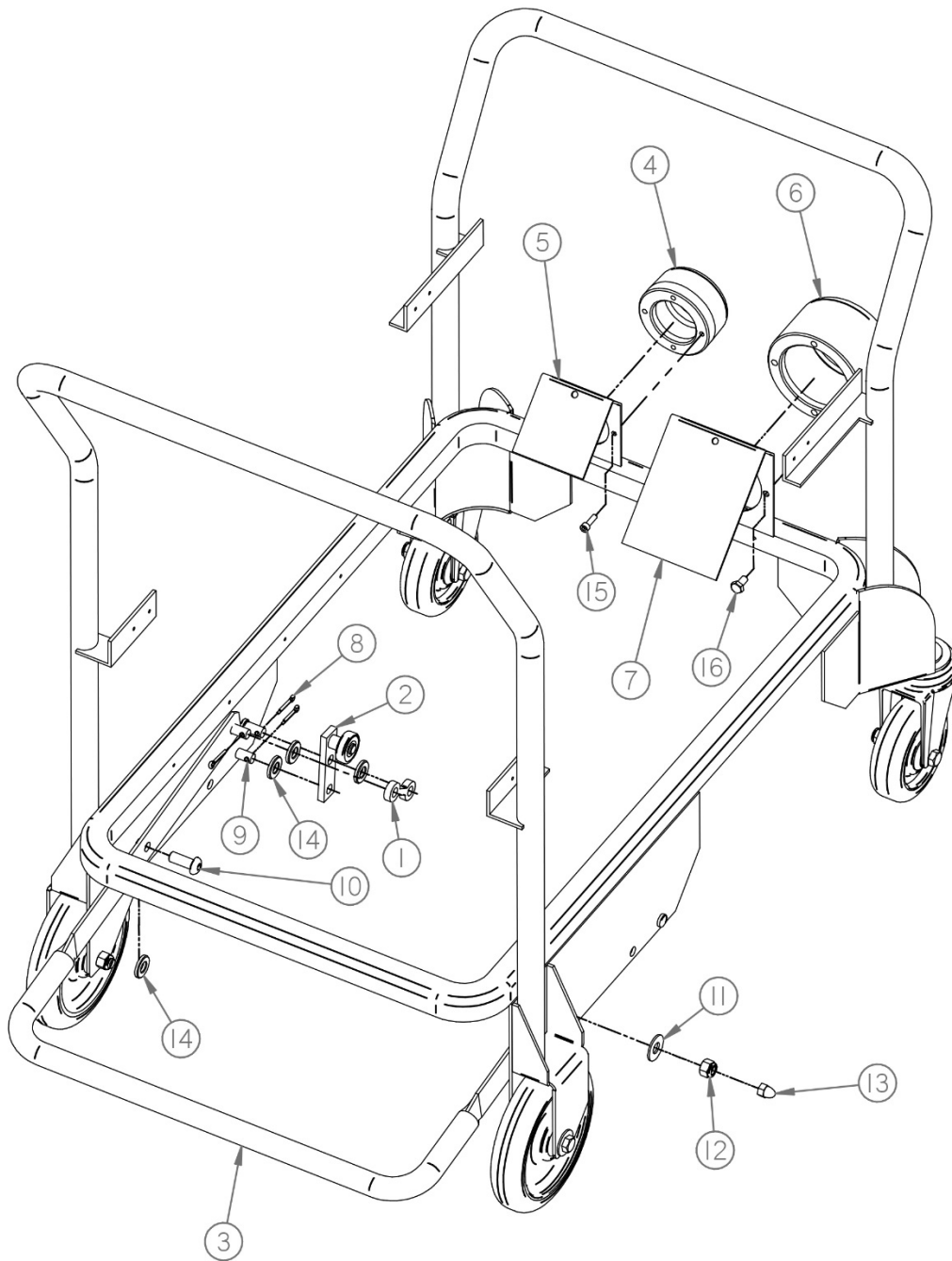
Replacement Parts Diagram Lower Housing VS220 DUST-COLLECT-R®



Replacement Parts Diagram Lower Housing VS220 DUST-COLLECT-R®

Reference Number	Part Number	Description	Quantity
1	VS220-0070	Weldment, Frame	1
2	VS220-0050	Housing, Filter	1
3	VS220-0090	Caster, Swivel	2
4	VS220-0100	Caster, Rigid	2
5	VS220-0100-010	Bushing, Caster, Rigid	2
6	VS220-0370	Gasket, Pan, Dust	1
7	VS220-0110A	Assembly, Pan, Dust	1
8	VS220-0060	Filter, Primary	1
9	VS220-0240-010	Cover, Inlet	1
10	VS220-0240-020	Lanyard, Inlet	1
11	15081200	HHCS, 1/2-13 X 1-1/2, ZY	2
12	17080000	Washer, Flat, 1/2, ZY	2
13	53080000	Nut, Nylock, 1/2-13, ZY	2
14	15062000	HHCS, 3/8-16 X 2-1/2, ZY	2
15	17060000	Washer, Flat, 3/8, ZY	2
16	53060000	Nut, Nylok, 3/8-16, ZY	2
17	46020200	Rivet, Pop, 1/8 X 1/4, SS	24
18	VS220-5010	Decal, Instruction, Vacuum	1
19	VS220-5020	Decal, Warning, Silica	1
20	VS220-5050	Decal, VS220	2
21	VS220-0240A	Assembly, Cover, Inlet, (Includes Ref. 9 & 10)	

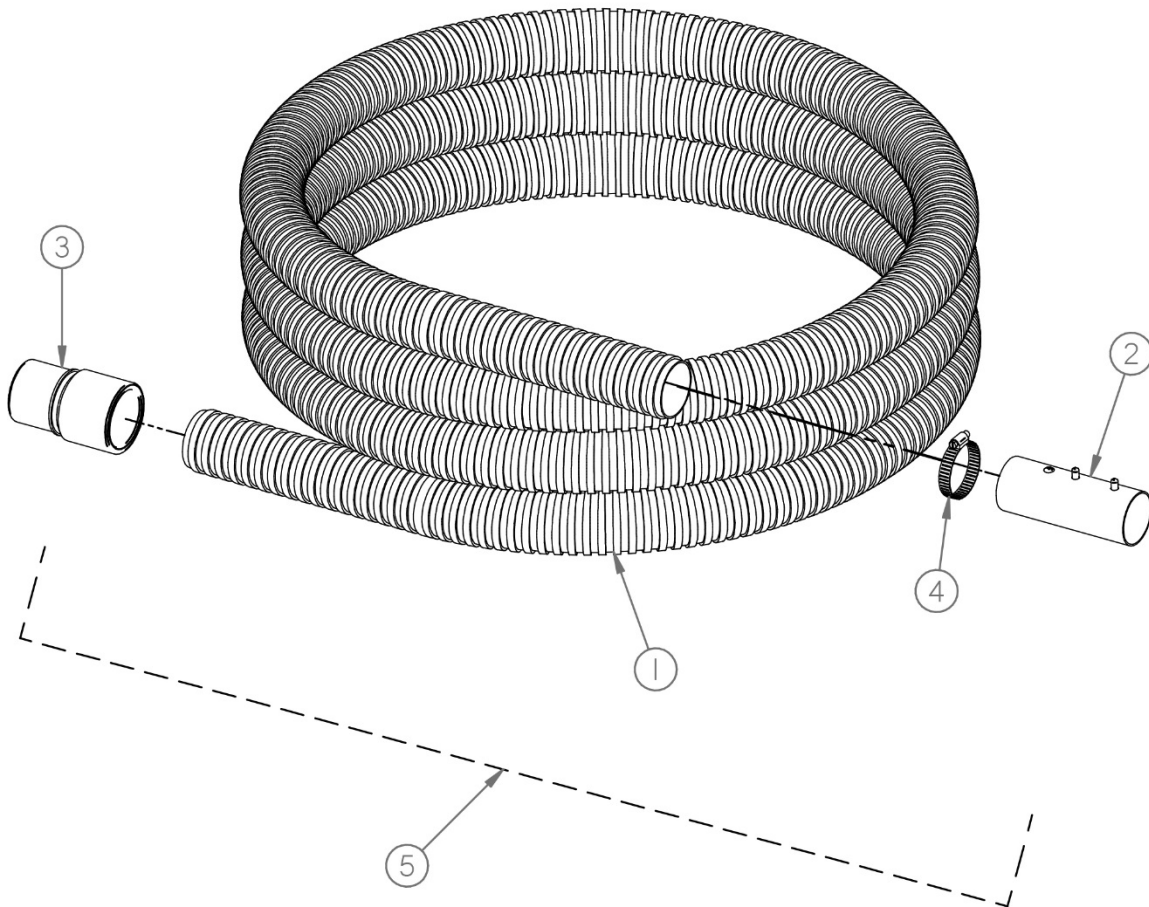
Replacement Parts Diagram Dust Pan Linkage VS220 DUST-COLLECT-R®



Replacement Parts Diagram Dust Pan Linkage VS220 DUST-COLLECT-R®

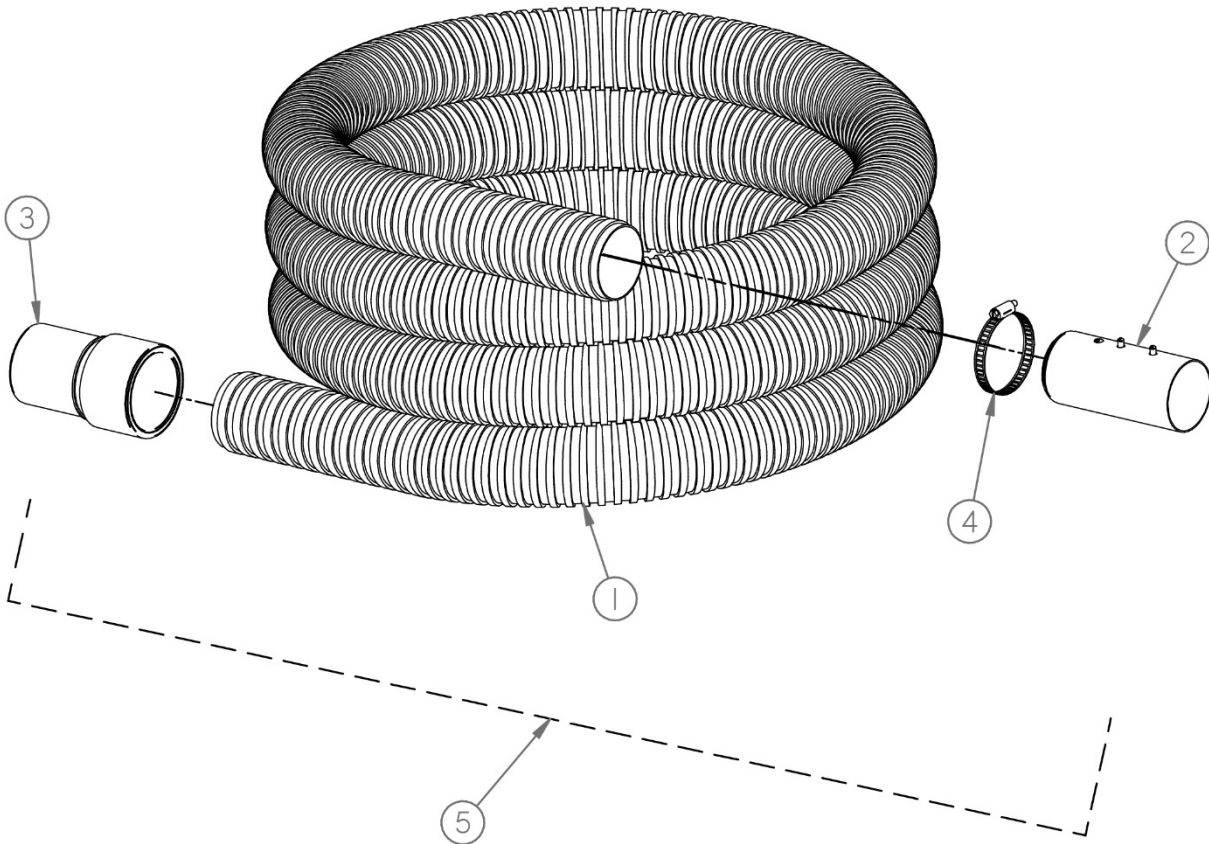
Reference Number	Part Number	Description	Quantity
1	VS220-0380	Arm, Linkage	2
2	VS220-0390	Assembly, Arm, Bearing	2
3	VS220-0080	Lever, Release, Pan, Dust	1
4	VS220-0410	Inlet, 2D	1
5	VS220-0420	Deflector, Inlet, 2D	1
6	VS220-0430	Inlet, 3D	1
7	VS220-0440	Deflector, Inlet, 3D	1
8	22020600	Pin, Cotter, 1/8 X 3/4	6
9	23060600	Pin, Clevis, 3/8 X 3/4, ZY	6
10	55060800	BHSCS, 3/8-16 X 1, ZY	2
11	17060000	Washer, Flat, 3/8, ZY	2
12	53060000	Nut, Nylok, 3/8-16, ZY	2
13	90060000	Nut, Acorn, 3/8-16, ZY	2
14	VS220-0400	Bushing, Linkage	8
15	60030500	SHCS, #10-24 X 5/8, ZY	4
16	15040400	HHCS, 1/4-20 X 1/2, ZY	4

Replacement Parts Diagram 2 Inch Hose Assembly VS220 DUST-COLLECT-R®



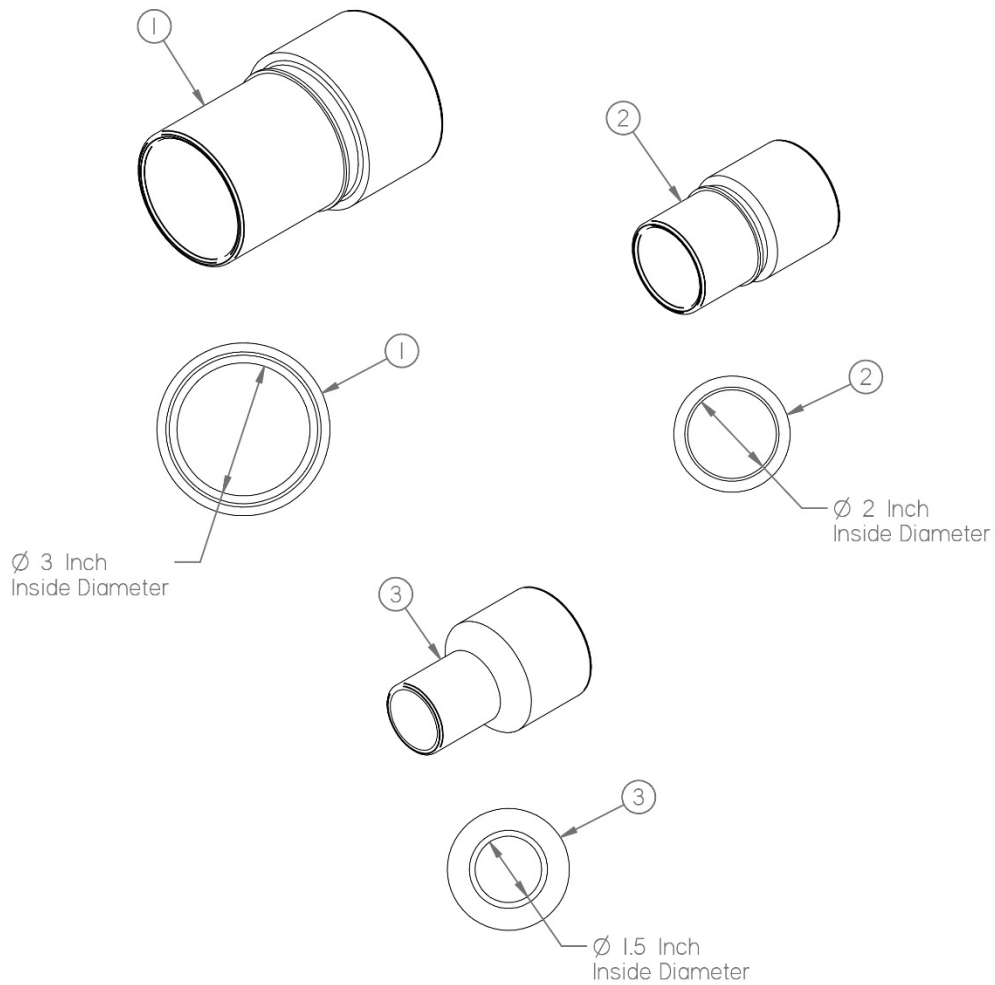
Reference Number	Part Number	Description	Quantity
1	VS220-1100-010	Hose, Helix, 2D, 300L	1
2	VS220-1100-020	Coupler, Hose, Steel, 2D	1
3	VS220-1100-030	Coupler, Helix, Plastic, 2D	1
4	56320000	Clamp, Hose, 2D	1
5	VS220-1100A	Assembly, Hose, 2D, 300L, (Includes Ref. 1, 2, 3 & 4)	1

Replacement Parts Diagram 3 Inch Hose Assembly VS220 DUST-COLLECT-R®



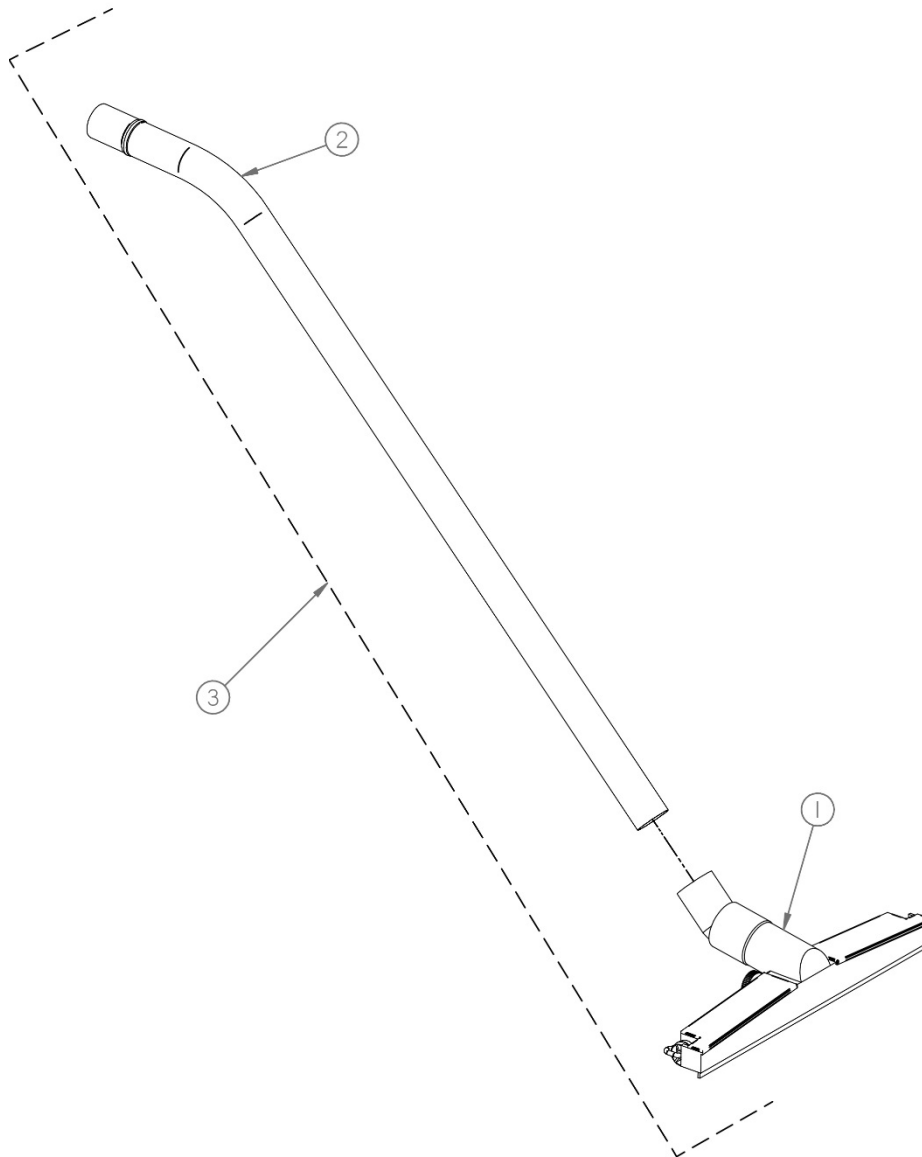
Reference Number	Part Number	Description	Quantity
1	VS220-1000-010	Hose, Helix, 3D, 300L	1
2	VS220-1000-020	Coupler, Hose, Steel, 3D	1
3	VS220-1000-030	Coupler, Helix, Plastic, 3D	1
4	56640000	Clamp, Hose, 4D	1
5	VS220-1000A	Assembly, Hose, 3D, 300L, (Includes Ref. 1, 2, 3 & 4)	1

Replacement Parts Diagram Hose Couplers & Reducers VS220 DUST-COLLECT-R®



Reference Number	Part Number	Description	Quantity
1	VS220-1000-030	Coupler, Helix, Plastic, 3D	1
2	VS220-1100-030	Coupler, Helix, Plastic, 2D	1
3	VS220-0260	Cuff, Reducer, 2D To 1.5D	1

Replacement Parts Diagram 2 Inch Dust Wand Assembly VS220 DUST-COLLECT-R®



Reference Number	Part Number	Description	Quantity
1	VS220-0250-010	Tool, Floor	1
2	VS220-0250-020	Wand	1
3	VS220-0250A	Assembly, Wand, Dust, 2D, (Includes Ref. 1 & 2)	