METALWORKING

INDUSTRIAL VACUUM SYSTEMS FOR METALWORKING AND MACHINE SHOP INDUSTRIES



TIGER-VAC.COM



RECHARGE YOUR MACHINE SUMP

Metal chips in the sump create an ideal breeding ground for bacteria. Increased levels of bacteria will breakdown the emulsion which lowers the pH of the fluid and therefore reduces overall fluid performance.

The chips in the sump take up valuable space that should be occupied by the metalworking fluid. Reduced sump levels due to the buildup of chips place additional strain on pumps and the ability of the fluid to provide essential cooling and wetting properties. Chips can contribute to reduced tool life, surface finish issues and skin irritation. Cleaning out the chips from the tank dramatically improves the performance of metalworking fluids. Removing chips and cleaning dirty surface areas on machine tools will provide extended sump life. Using a high-quality machine cleaner shortens the process and removes insoluble soap residues along with removing residue and build up in the coolant lines of the machine tool. To properly manage your coolant, your cleanout should include running a cleaner throughout the machine to dislodge sludge and remove biological residues.

The cleaning process is an essential first step in the practice of coolant management, ensuring your coolant has a fair chance at giving maximum performance with minimal problems.



Following a proper preventative maintenance program will result in lower fluid costs, enhanced tool life and improved operator acceptance. If you have any questions, please contact your Tiger-Vac® representative for more information.

TIGER-VAC.COM



SINGLE PHASE

DETACHABLE RECOVERY TANK

STAINLESS STEEL 304 FILTER CHAMBER and RECOVERY TANK

MFS MANUAL FILTER SHAKER

PLANET 200-2008

VOLTAGE	120 V
HERTZ	60 Hz
WATTAGE	2400 W
POWER	3.2 HP
AMPERAGE	15.8 A
AIR FLOW	270 CFM
VAC. PRESSURE	71.5 in. H2O
PLUG TYPE	20 Amps
SUCTION INLET	70 mm
DRY RECOVERY	16 or 26 gal.
SOUND LEVEL	70 dB(A)

POWER AND FLEXIBILITY

- · Very powerful machine capable of working with large diameter suction hoses - 70 mm
- · Sight glass installed on Recovery Tank

21 ft2 FILTER SURFACE AREA

21 ft2 +10.8 ft2 PLEATED FILTER + HEPA FILTER

28 in. FRONT MOUNTED FLOOR TOOL

FOR LARGER SURFACE AREAS





HEPA FILTER 99.97% EFFICIENCY AT 0.3 MICRON

ORDINARY LOCATIONS

CLEANING MACHINES FOR UNCLASSIFIED (GENERAL PURPOSE) A ALL THE ELECTRICAL COMPONENTS ARE CERTIFIED BY AN NRTL SUCH AS UL, CSA OR ETL

21 ft2 +10.8 ft2 FILTER SURFACE PLEATED FILTER + HEPA FILTER

UP UPSTREAM FILTER CARTRIDGE FOR FINE DUST



VOLTAGE

HERTZ



460 V

TEFG REGENERATIVE BLOWER WITH TEFC INDUCTION MOTOR



STAINLESS STEEL 304 FILTER CHAMBER and RECOVERY TANK



HEPA FILTER 99.97% EFFICIENCY AT 0.3 MICRON

WATTAGE 4600 W AMPERAGE AIR FLOW 294 CFM VAC. PRESSURE 155 in. H₂O

208-230 V

60 Hz

110 in H₂O VRV SETTING SUCTION INLET 70 mm DRY RECOVERY 26 gal.

575 V

Plane



SINGLE PHASE
2-STAGE
HEAVY DUTY
BYPASS TYPE

TC TILT CART FOR EASY EMPTYING

72 dB(a)

GS1/78L OIL

VOLTAGE	120 V
HERTZ	60 Hz
WATTAGE	1200 W
POWER	1.5 HP
AMPERAGE	10 A
AIR FLOW	111 CFM
VAC. PRESSURE	120 in. H20
PLUG TYPE	15 Amps
SUCTION INLET	60 mm
RECOVERY CAPACITY	20.5 gal.
SIEVE BASKET CAPACITY	8 gal.

POWERFUL AND COMPACT

- Designed for the recovery of metal chips and shavings mixed with coolant. Can be used for both aqueous and synthetic based coolants
- The float valve cuts-off the vacuum when the container is full
- There are two filters installed upstream from the motor: a polyester filter cartridge (fastened underneath the powerhead) and a mesh filter (installed on the float assembly)
- The 60 mm suction inlet allows for the recovery of both liquids and solids at the same time
- Metal chips and shavings are collected in the removable sieve basket made of stainless steel. The chips/shavings are separated from the coolant as they pass through the sieve basket
- A drain valve is installed on the recovery tank for easy emptying of recovered liquids
- Oil resistant suction hose and a variety of optional accessories are available

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BALL VALVE

Turn the Handle to operate the 1.5 in. Ball Valve to switch from Suction to Pump Out Mode

AIR SUPPLY VALVE

ON / OFF

Open the 3/8 in. Air Supply Valve to turn the unit On or Off

SINGLE VENTURI

POWER AND EFFICIENCY

Tiger-Vac Venturi uses shop air to create a powerful suction operating with 0.25 in. or 0.375 in Air Line

SUCTION INLET

1.5 in. MALE CAMLOCK

The suction inlet and the pump out outlet are located on the side of the drum to allow for easy

occess to the recovery bag.

Other sump vacuums on the market have the recovery bag connected under the lid making it very difficult to lift the lid when the bag is full. On the Tiger-Vac Sump Cleaner, the lid can be easily removed with ready access to the recovery bag.

SUCTION INLET AND PUMP OUT OUTLET HAVE LEAK PROOF CAMLOCK CONNECTIONS

DUST CAP CAMLOCK

RECOVERY BAG

POLYESTER FILTER BAG Filtration efficiency of 1 micron

SUMP VACUUM

Vacuum up used industrial coolant, chips and sludge from machine sumps or tanks

THE BEST SOLUTION FOR CLEANING OUT MACHINE SUMPS, PARTS WASHERS, TANKS AND STORAGE CONTAINERS



PNEUMATIC

HD • HEAVY DUTY • NO MOVING PARTS • CONTINUOUS DUTY

72 dB(a)

AV1-55

55 GAL. SUMP VACUUM

INPUT AIR VOLUME	35 CFM
INPUT AIR PRESSURE	80 PSI
POWER	10-15 HP
AIR LINE SIZE DIAM.	0.375 in.
AIR FLOW	85 CFM
VAC. PRESSURE	135 in. H2O
SUCTION INLET	1.5 in. Camlock

POWERFUL AND EASY TO HANDLE

- Easily pump the filtered liquid back out allowing you to recycle coolant
- · For non-flammable liquids
- Safe; no electricity (does not generate any heat)
- Very quiet with a built-in silencer, below 72 dB(a)
- · High level floater cuts off the suction when the unit is full to prevent overflow

ACCESSORIES

- 1.5 in. x 10 ft. Crushproof Suction/Discharge Hose
- 1.5 in. x 24 in. aluminum bulk pick-up Wand

EXHAUST SILENCER PRESSURE RELIEF VALVE

AIR SUPPLY VALVE

Air Supply Valve to turn the unit On or Off

COMPRESSED AIR INLET

0.25 in. Hi Flow Male Quick Disconnect with 0.375 in. M-NPT thread

DESIGNED TO MEET THE DIVERSE NEEDS OF THE METALWORKING, AND MACHINE SHOP INDUSTRIES

Liquids / Fluids

The Liquids / Fluids will typically be coolants and lubricants such as cutting oils. Emulsion will form when there is a mixture of two or more liquids that are normally immiscible. The solids to be recovered will typically be a combination of small debris, metal chips, to the cleanup of lathes and cutting and grinding machines.

Coolants

For vacuuming coolants and chips away from a machining center, our specialized vacuums are equipped with chip baskets to preserve the integrity of the coolant and permit recovered fluids to be pumped back into the system. These vacuums reduce the accumulation of chips and fines in the sump and keep workers safer by cutting down on bacterial and fungal growth.

Metal Chips

In wet cutting applications, the chip basket in the vacuum cleaner captures and separates chips from metalworking fluids. In dry cutting, our vacuums are used to remove debris from machining centers. Abrasion-resistant suction hoses are important when vacuuming chips.





Sludge and Swarf

Removal of sludge from sump pits and waterjet cutting tables is another common application for industrial vacuum cleaners in the metalworking industry. This sand-like semi-solid material forms when residual particulates and chips settle in the bottom of a sump. This sludge is an ideal breeding ground for harmful bacteria and fungus that endangers workers' health, shortens the life of metalworking fluids, interferes with machine function and can eventually plug fluid lines.

Filings, Shavings and Punchouts

Metallic filings or shavings removed by cutting or grinding tools should be cleaned with an industrial vacuum cleaner. The use of an abrasion resistant suction hose and appropriate accessories is very important for this application. Waste metal formed by punching holes in sheets can be collected using a continuous duty industrial vacuum cleaners.





SINGLE PHASE
DUAL MOTORS
2-STAGE HEAVY DUTY
BYPASS TYPE

1.3ft2 FILTER SURFACE AREA

DVS EASY OIL DISCHARGE VALVE SYSTE

100L

ELECTRIC PUMP FLOW RATE 100L/MIN.

HOGOIL PUMP

OIL and METAL CHIP SEPARATION

VOLTAGE	120 V
HERTZ	60 Hz
WATTAGE	2040 W
POWER	2.7 HP
AMPERAGE	15.2 A
AIR FLOW	200 CFM
VAC. PRESSURE	90 in. H2O
PLUG TYPE	20 Amps
SUCTION INLET	2 in.
DRY RECOVERY	8 gal.
LIQUID RECOVERY	24 gal.

OIL AND METAL CHIP SEPARATION

- Compact size allows it to be quickly moved near and around machinery, to facilitate machinery maintenance and to minimize down time.
- This versatile model is designed for the recovery of metal chips and shavings mixed with oil.
- Can be used for both aqueous and synthetic based coolants.
- Designed to recover liquids and solids at the same time.
 Metal chips and shavings are collected in the removable sieve basket. Liquid is recovered in the lower portion of the recovery tank.
- The Electronic Float Valve automatically stops the vacuum when the container is full.
- The Hogoil Pump is equipped with a built-in electric pump that allows recovered liquids to be pumped back into the machinery. The mesh filter protects the pump from very fine chips / shavings and it also cleans / filters the oil as it passes through the sieve basket allowing the recovered oil to be re-used
- Equipped with 3 independent switches (one switch for each motor, and a separate switch for the electric pump)

ORDINARY LOCATIONS



CLEANING MACHINES FOR UNCLASSIFIED (GENERAL PURPOSE) AREAS ALL THE ELECTRICAL COMPONENTS ARE CERTIFIED BY AN NRTL SUCH AS UL, CSA OR ETL



RECOVERY OF LARGE QUANTITIES OF METAL CHIPS MIXED WITH SOME OIL/COOLANT

Tiger-Vac® offers several SDOH models which are ideal for the recovery of chips mixed with liquids. These systems are also ideal for larger metalworking jobs, such as highspeed milling of aircraft wings, where fluid must be removed from cavities in order to take

> precision measurements. The metal chips are separated from the oil inside the hopper. The metal chips are recovered in the upper part of the hopper and the oil is deposited at the bottom of the hopper. There is a metal screen that separates the upper part of the hopper from the lower part of the hopper. The oil is emptied using the drain valve.

4D-300L (SDOH)

SELF-DUMPING OVERTURNING HOPPER

HERTZ	60 Hz
WATTAGE	2040 or 2400 W
POWER	2.7 or 3.2 HP
AMPERAGE	15.2 or 21 A
AIR FLOW	200 or 220 CFM
VAC. PRESSURE	90 or 107 in. H2O
SUCTION INLET	90 mm
RECOVERY TANK	52 gal.



SDOH SELF-DUMPING OVERTURNING HOPPER

DUAL BYPASS /
DUAL SPEED
LONG LIFE MOTORS



APPLICABLE REQUIREMENTS :



METAL CHIPS RECOVERY

- Hopper internal volume is 52 gal. (200L). A screen inside the hopper separates the upper part from the lower part. It can recover 26 gal. (100L) of metal chips and 26 gal. (100L) of oil/coolant
- The metal chips are separated from the oil inside the hopper (the metal chips are recovered in the upper part of the hopper and the oil is deposited at the bottom of the hopper). The screen can be removed and 52 gal. (200L) of chips can be recovered

SINGLE VENTURI

TWIN

VENTURI

CS-300L (SDOH)

SELF-DUMPING OVERTURNING HOPPER

AIR LINE SIZE	0.5 or 0.75 in.
INPUT AIR VOLUME	45 or 100 CFM
POWER	15 or 30 HP
INPUT AIR PRESSURE	80 or 100 PSI
AIR FLOW	120 or 195 CFM
VAC. PRESSURE	170 or 230 in. H20
RECOVERY TANK	52 gal.





3 STAGE MOTOR ASSEMBLY GENERATING 146 in. WATER LIFT

SUMP CLEANER

50 GAL. SUMP CLEANER

VOLTAGE	120 V
HERTZ	60 Hz
WATTAGE	1550 W
POWER	2 HP
AMPERAGE	14 A
AIR FLOW	102.5 CFM
VAC. PRESSURE	146 in. H2O
PLUG TYPE	20 Amps
SUCTION INLET	2 in.
RECOVERY CAPACITY	50 gal.
CHIP BASKET CAPACITY	12 gal.

SUMP CLEANER AND FLUID RECYCLING SYSTEM

Tiger-Vac

- Thoroughly removes the coolant, sludge, and chips from the sump
- Filters the sludge and separates the chips from the coolant
- Quickly returns the filtered coolant to the sump, or transports the coolant to waste treatment for disposal or to a recycling system
- Suction rates up to 85 GPM while being able to pick up chips, sludge and grinding swarf, etc.
- Discharge Pressure of 5 PSI for discharge rates of up to 40 GPM on water-based fluids
- Chip basket with poly filter sleeve with a recovery capacity of 1.6 cubic foot (0.45 cubic meter)



ORDINARY LOCATIONS

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SINGLE VENTURI

DETACHABLE RECOVERY

STAINLESS STEEL 304 FILTER CHAMBER and RECOVERY TANK

SS-IT (85L) EX (CFE)

IMMERSION SEPARATOR · WATER

VENTURI DIAM.	5 mm
INPUT AIR VOLUME	45 CFM
INPUT AIR PRESSURE	80 PSI
POWER	15 HP
AIR LINE SIZE DIAM.	0.5 in.
AIR LINE SIZE DIAM. AIR FLOW	0.5 in. 120 CFM

IMMERSION TECHNOLOGY

Recovery and **Inertization** of Conductive and Explosive Dust, such as Aluminum, Magnesium, Zirconium and other commercial alloys

- · Certified Explosion Proof/Dust Ignition Proof
- Meets the requirements for a Liquid Precipitation Collector for metal dusts as outlined in NFPA 484
- Recovery capacity of 22 lb (10 kg) of dust into 7.9 gal. (30L) of water



Air **AIR SUPPLY** HOSE ASSEMBLY

STATIC DISSIPATIVE AND CONDUCTIVE 0.5 in. x 50 ft. WITH MALE NPT (BRASS) ON BOTH ENDS



SAFE FROM ELECTROSTATIC DISCHARGES



LCIE 03 ATEX 6310 X



99.995% EFFICIENCY AT 0.3 MICRON

10 chms

DIVISION 1



CLASS I - GROUPS A, B, C, D CLASS II - GROUPS E, F, G HAZARDOUS LOCATIONS AS DEFINED IN THE NATIONAL ELECTRICAL CODE (NFPA 70)







GUARANTEED FOR THE SAFE RECOVERY OF COMBUSTIBLE / CONDUCTIVE DUSTS

RECOVERY OF METAL DUST

In addition to NRTL certification for use in Class II, Group E Hazardous Locations, the recovery of metal dust may require a Dust Ignition Proof vacuum with additional safeguards. Certain metal dusts may have characteristics that require safeguards beyond those required for atmospheres containing the dusts of aluminum, magnesium, and their commercial alloys. For the recovery of metal dust in quantities greater than 5 lbs. (2.2 Kg), Tiger-Vac® recommends an immersion separator to neutralize the metal dust.

CD-IT (114L)

EX (CFE) HEPA

HYDROGEN SAFE IMMERSION SEPARATOR
DESIGNED TO BE USED
WITH MINERAL OIL
OR ANY OTHER
NEUTRALIZING LIQUID



EX DT (CFE) HEPA

IMMERSION SEPARATOR DESIGNED TO BE USED WITH WATER OR OIL



THREE PHASE

DETACHABLE RECOVERY TANK

304 STAINLESS STEEL 304 FILTER CHAMBER and RECOVERY TANK

MFS MANUAL FILTER SHAKER

CD-100L (DT) EX DRY RECOVERY

VOLTAGE	230 to 575 V
HERTZ	60 Hz
WATTAGE	3700 or 5550 W
POWER	5 or 7.5 HP
AMPERAGE	5 to 12 A
AIR FLOW	225 or 324 CFM
VAC. PRESSURE	155 in. H20
VRV SETTING	95 or 100 in. H ₂ 0

DIVISION 1

CLASS I - GROUP D
CLASS II - GROUP S F, G, T3C
DIVISION 1 - CLASS II - GROUP E (METAL DUST)
MOTOR AND SWITCH AVAILABLE
DIVISION 2
CLASS II - GROUP D
CLASS II - GROUP S F, G, T3C

IMMERSION SEPARATOR

True Cyclone Separator System

HEPA FILTER 99.995% EFFICIENCY AT 0.3 MICRON

located at the suction intake to enhance suction performance

PLEATED
MAIN FILTER
SURFACE AREA

21 ft2 HEPA/ULPA FILTER SURFACE AREA



2.5 in. SUCTION INLET





SAFE FROM ELECTROSTATIC DISCHARGES



GUARANTEED FOR THE SAFE RECOVERY OF COMBUSTIBLE / CONDUCTIVE DUSTS





Ex h IIC T6 Gb Ex h IIIC T85°C Db IECEX LCI 17.0076 X





DETACHABLE RECOVERY TANK

304 STAINLESS STEEL 304 FILTER CHAMBER and RECOVERY TANK

MFS MANUAL FILTER SHAKER





HEPA FILTER 99.995% EFFICIENCY AT 0.3 MICRON





Div.1

SS-20 (DT) RE HEPA

DITT TIEGOVETT	
VENTURI DIAM.	6 mm
AIR LINE SIZE DIAM.	0.5 in.
POWER	15 HP
INPUT AIR VOLUME	45 CFM
INPUT AIR PRESSURE	80 PSI
VAC. PRESSURE	180 in. H20
RECOVERY TANK	6.6 gal.



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