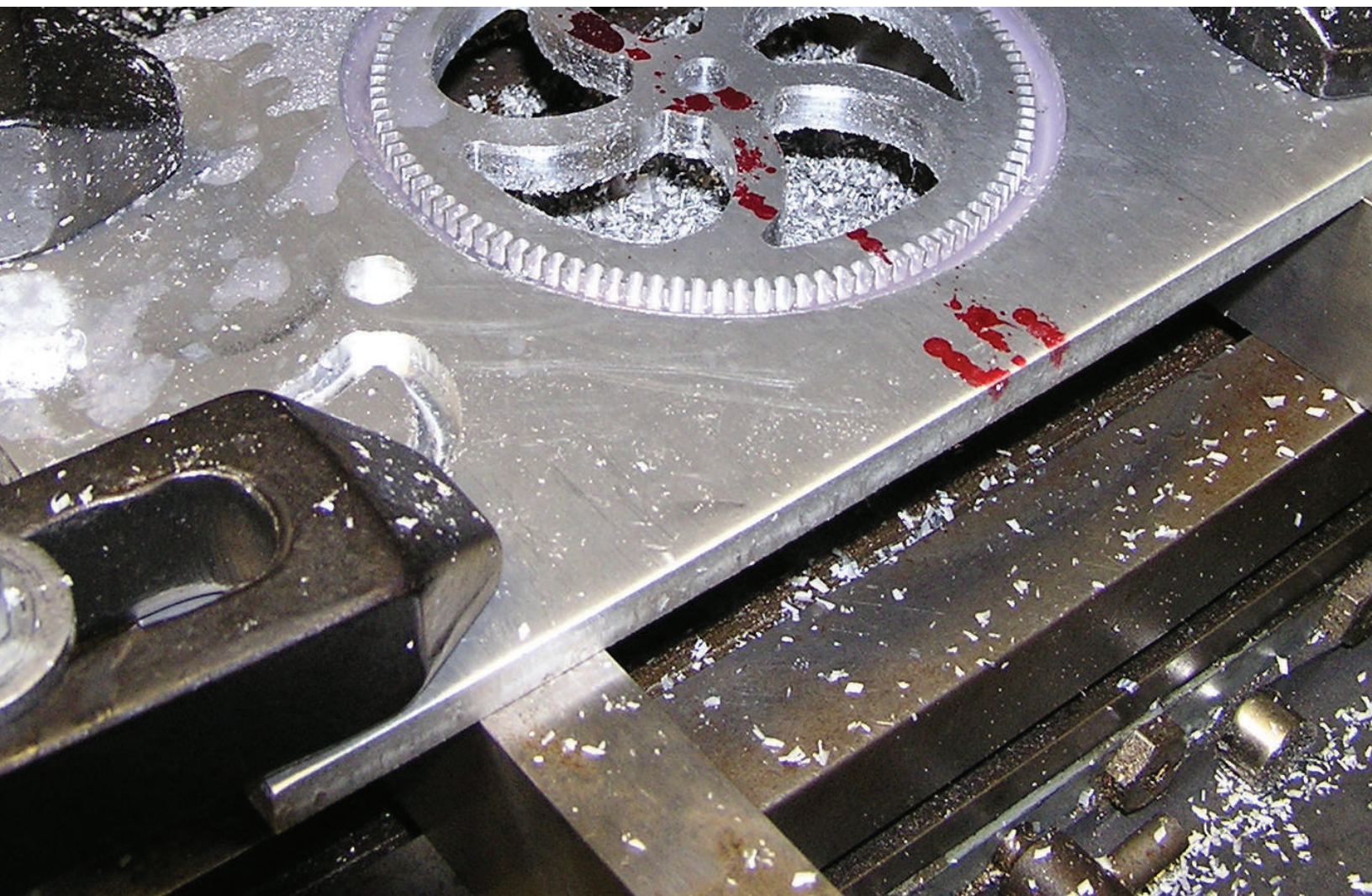




INDUSTRIAL VACUUM CLEANERS FOR

# METALWORKING

AND MACHINE SHOP INDUSTRIES



**Tiger-Vac**<sup>®</sup> **POWERFUL VACUUMS**  
*...The name to vacuum with* **PROVEN SOLUTIONS!**



# Tiger-Vac® offers a complete line of industrial vacuum cleaners designed to meet the diverse needs of the metalworking, and machine shop industries.

Choosing the right industrial vacuum for your machine shop depends on the type of the metalworking center and on the material to be recovered. The material to be recovered will most often will be a combination of liquids and solids.

## 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. Typical material encountered includes dust, sludge, lubricants, fiber, abrasives materials, grindings, turnings, punchouts, metal chips and slag.

## 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.

According to tool manufacturers, dirty machine coolant can reduce tool life by as much as 10 percent.

## Metallic Filings or Shavings

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.

## Punchouts

Waste metal formed by punching holes in sheets can be collected using industrial vacuum cleaners. A continuous duty vacuum with large airflow and high vacuum is required to continuously suck the punches from trays or pickup points.





**HOGOIL PUMP**  
SINGLE PHASE • DUAL MOTORS

**OMS** OIL & METAL CHIP SEPARATION

**EP** ELECTRIC PUMP 100L/min.

**EDVS** EASY OIL DISCHARGE VALVE SYSTEM

**127 lbs.** VACUUM ONLY

POWERHEAD	Electric	HERTZ	60 Hz	AMPERAGE	15.2 amps.	SOUND LEVEL	75 d(B)A	FILTER SURFACE AREA	1.3 ft <sup>2</sup>
VOLTAGE	120 V	PHASE	Single	AIR FLOW	200 CFM	PLUG TYPE	20 amps.	RECOVERY TANK	Dry (8 Gal.)
WATTAGE	2040 W	POWER	2.7 HP	VAC. PRESSURE	90 in. H <sub>2</sub> O	SUCTION INLET	2 in.	RECOVERY CAPACITY	Wet (24 Gal.)



# Hogoil Pump and Hogoil Standard

## CHOOSING THE RIGHT VACUUM CLEANER

The HOGOIL's compact size allows it to be quickly moved near and around machinery, to facilitate machinery maintenance and to minimize down time.

These versatile models are designed for the recovery of metal chips and shavings mixed with oil. *Can be used for both aqueous and synthetic based coolants.*

**The HOGOIL models can recover both 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 model 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.



### METAL CHIPS AND SHAVINGS

Metal chips and shavings are separated and collected in the sieve basket. Liquid is recovered in the lower portion of the Recovery Tank.



STRAINER BASKET



POLYPROPYLENE MESH FILTER



The HOGOIL PUMP is also equipped with a polypropylene mesh filter (300 micron) which is used in conjunction with the sieve basket. 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



HOGOIL PUMP  
ORDINARY LOCATIONS



HOGOIL STANDARD  
ORDINARY LOCATIONS



**4D-300L (SDOH) SERIES**  
METAL CHIPS AND COOLANT

**DUAL** DUAL BYPASS / DUAL SPEED  
LONG LIFE MOTORS

**SDOH** SELF-DUMPING  
OVERTURNING HOPPER

## SDOH Models with Self-Dumping Overturning Hopper

### WHY CHOOSING THE RIGHT VACUUM MATTERS

Tiger-Vac® offers several models with SDOH Self Dumping Overturning Hoppers 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.

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



#### **SDOH SELF-DUMPING OVERTURNING HOPPER**

The recovered metal chips are easily emptied using a forklift to lift and dump the contents of the hopper. There is no manual lifting required. The manually operated dumping mechanism is easy to use.



**ELECTRIC**  
4D-300L SDOH  
with Dual Motor



**AIR OPERATED  
PNEUMATIC**  
CS-300L SDOH  
with Single or Twin Venturi



**PLANET 200S**  
DRY RECOVERY

**DT** DETACHABLE  
TANK

**MFS** MANUAL  
FILTER SHAKER

**30 ft.** CORD  
LENGTH



# General Purpose Industrial Vacuums Every shop needs one !

## POWER AND FLEXIBILITY

- Very powerful machine capable of working with large diameter suction hoses up to 70mm.
- **3 Motors:** can be used individually or simultaneously.
- Ideal for machine shops for general clean-up.
- **Heavy Duty Construction** • filter chamber and recovery tank made of Stainless Steel Type 304.

- Detachable Recovery Tank for easy disposal of recovered materials.
- Sight glass installed on Recovery Tank.



## THE IMPORTANCE OF GOOD HOUSEKEEPING

Cleaning and organization must be done regularly, not just at the end of the shift. Integrating housekeeping into jobs can help ensure this is done.

- clean up during the shift.
- day-to-day cleanup.
- waste disposal.
- removal of unused materials.
- inspection to ensure cleanup is complete.

Do not forget out-of-the-way places such as shelves, remote areas, pits, overheads and boiler rooms that would otherwise be overlooked.

**TEFC** TOTALLY ENCLOSED  
FAN COOLED

**DT** DETACHABLE  
TANK

**MFS** MANUAL  
FILTER SHAKER

**6 HP**

**THREE  
PHASE**

Industrial Vacuum Cleaner for Continuous Duty.

- Very powerful machine capable of working with large diameter suction hoses up to 70mm.
- Regenerative blower with TEFC induction motor rated for Continuous Duty.
- **Heavy Duty Construction** • filter chamber and recovery tank made of stainless steel Type 304.
- Detachable Recovery Tank for easy disposal of recovered materials.
- Sight glass installed on recovery tank.



Continuous  
Duty **24-7**

**305 lbs.** VACUUM  
ONLY

PLANET 740S  
ORDINARY LOCATIONS





## SS-IT (85L) EX (CFE) HEPA

EXPLOSION PROOF / DUST IGNITION PROOF

Recovery Capacity of 22 lbs. (10 kg) of Dust into 7.9 Gal. (30 L) of water.

**IS** IMMERSION SEPARATOR

**CFE** COALESCING FILTER ELEMENT

POWERHEAD	Pneumatic	INPUT AIR PRESSURE	80 PSI	MIN. COMPRESSOR	15 HP	SUCTION INLET	2 in.
VENTURI	Single	AIR FLOW	120 CFM	AIR LINE SIZE (Diam.)	½ in.	CART TYPE	Detachable Tank
VENTURI (Diam.)	5 mm	VAC. PRESSURE	120 in. H <sub>2</sub> O	INPUT AIR VOLUME	45 CFM	WEIGHT	207 lbs.

# Immersion Separator **WET MIX**

WATER OR OIL

**DESIGNED FOR THE RECOVERY AND INERTIZATION OF CONDUCTIVE AND EXPLOSIVE DUST, SUCH AS ALUMINUM, MAGNESIUM, ZIRCONIUM, AND OTHER COMMERCIAL ALLOYS, INTO A LIQUID IMMERSION BATH**

- **Legally Certified Explosion Proof / Dust Ignition Proof.**
- Precipitating Dust - complies with NFPA 484 method.
- Less than 10 Ohms of resistivity.
- Coalescing Filter Element for moisture removal.
- HEPA Filter Efficiency of 99.995% on 0.3 μ. Tested: IEST-RP-CC001, H14 by MPPS method as per EN 1822 and OSHA compliant. All HEPA Vacuum Cleaners are Aerosol Leak Tested before leaving our facility.
- Recovery capacity of 22 lbs. (10 Kg) of Dust into 7.9 Gal. (30 L) of water (no oil).
- Stainless Steel body (type 304), and Heavy Duty powder coated cart.
- Liquid Level Indicator.
- **PNEUMATIC** (Air operated).

DIVISION 1, CLASS I, GROUPS A, B, C, D  
 DIVISION 1, CLASS II, GROUPS E, F, G  
 HAZARDOUS LOCATIONS AS DEFINED  
 IN THE NATIONAL ELECTRICAL CODE  
 (NFPA 70)



CE II 2 GD  
 Ex h IIC T6 Gb  
 Ex h IIIC T85°C Db  
 LCIE 03 ATEX 6310 X



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



**GUARANTEED FOR THE SAFE RECOVERY OF COMBUSTIBLE / CONDUCTIVE DUSTS**



ELECTROSTATIC DISCHARGE SAFE



### MATERIAL GROUPS ( DUST )

#### CLASS II, GROUP E

Atmospheres containing combustible metal dusts, including aluminum, magnesium, and their commercial alloys, or other combustible dusts whose particle size, abrasiveness, and conductivity present similar hazards in the use of electrical equipment.

#### CLASS II, GROUP F

Atmospheres containing combustible carbonaceous dusts such as coal, carbon black, charcoal, and coke dusts.

#### CLASS II, GROUP G

Atmospheres containing combustible dusts not included in Group E or Group F, including flour, grain, wood, plastic, and chemicals.

### IMPORTANT NOTE FOR VACUUM CLEANERS INTENDED FOR THE 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 (wet mix) separator to neutralize the metal dust.



CD-IT (114L) EX (CFE) HEPA  
 DIVISION 1 - GROUPS D, E, F, G, T3C  
 DIVISION 2 - GROUPS D, F, G, T3C



EXP1-10 (IT-40L) EX DT (CFE) HEPA  
 DIVISION 1 - GROUPS D, E, F, G, T3C



# Dry

DRY RECOVERY

## CD-100L (DT) EX (MFS)

MANUAL FILTER SHAKER SYSTEM

**TEFC** EXPLOSION PROOF /  
DUST IGNITION PROOF MOTOR

**DT** DETACHABLE  
TANK

Continuous  
**Duty 24-7**


POWERHEAD	Electric	WATTAGE	5550 W	AIR FLOW	324 CFM	SOUND LEVEL	77 dB(A)	RECOVERY TANK	Dry (26.3 Gal.)
VOLTAGE	460 V	POWER	7.5 HP	VAC. PRESSURE	155 in. H <sub>2</sub> O	SUCTION INLET	2.5 in.	FILTER SURFACE AREA	HEPA/ULPA 42 ft <sup>2</sup>
HERTZ	60 Hz	AMPERAGE	8.6 amps.	VRV SETTING	95 in. H <sub>2</sub> O	PHASE	Three	FILTER SURFACE AREA	Main Filter 21 ft <sup>2</sup>

## Explosion Proof / Dust Ignition Proof

TRUE CYCLONE SEPARATOR SYSTEM LOCATED AT THE SUCTION INTAKE TO ENHANCE SUCTION PERFORMANCE

- **Legally Certified Explosion Proof / Dust Ignition Proof.**
- HEPA Filter Efficiency of 99.995% on 0.3 μ. Tested: IEST-RP-CC001, H14 by MPPS method as per EN 1822 and OSHA compliant. All HEPA Vacuum Cleaners are Aerosol Leak Tested before leaving our facility.
- Manual Filter Shaker system.
- Ideal for General Cleaning and for Process Integration.
- Stainless Steel body (type 304) and Heavy Duty powder coated cart.
- Static Dissipative Polyliner and clip available for the easy and safe disposal of recovered materials.
- Complete Static Dissipative toolkit included.
- Motor and switch for use in presence of Conductive Metal Dusts available.

**North-America:** Class II, Group E | **Europe:** Dust group IIIC


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


 Ex d IIB T4 Gb  
 Ex t IIIC T135°C Db IP65  
**IECEx LCI 10.0040 X**  
 CERTIFIED FOR PROVIDING  
 AN EQUIPMENT PROTECTION LEVEL  
 OF EPL Db AND EPL Gb


**GUARANTEED FOR  
 THE SAFE RECOVERY  
 OF COMBUSTIBLE /  
 CONDUCTIVE DUSTS**


**ELECTROSTATIC  
 DISCHARGE  
 SAFE**

### CLASS II, DIVISION 1

Class II, Division 1 Location is a location:

- Combustible Dust is in the air under normal operating conditions in quantities sufficient to produce explosive or ignitable mixtures.
- Where mechanical failure or abnormal operation of machinery or equipment might cause such explosive or ignitable mixtures to be produced, and might also provide a source of ignition through simultaneous failure of electrical equipment, through operation of protection devices, or from other causes.
- In which Group E combustible (metal) dusts may be present in quantities sufficient to be hazardous. Dusts containing magnesium or aluminum are particularly hazardous, and the use of extreme precaution is necessary to avoid ignition and explosion.

### CLASS II, DIVISION 2

Combustible Dust due to abnormal operations may be present in the air in quantities sufficient to:

- Produce explosive or ignitable mixtures.
- Combustible dust accumulations are present but are normally insufficient to interfere with the normal operation of electrical equipment or other apparatus, but could as a result of infrequent malfunctioning of handling or processing equipment become suspended in the air.
- Combustible dust accumulations on, in, or in the vicinity of the electrical equipment could be sufficient to interfere with the safe dissipation of heat from electrical equipment, or could be ignitable by abnormal operation or failure of electrical equipment.



SS-20 (DT) RE HEPA (MFS)  
DIVISION 1 • GROUPS A, B, C, D  
DIVISION 1 • GROUPS E, F, G

EXP1-20L (DT) RE HEPA (MFS)  
DIVISION 1 • GROUPS D, E, F, G, T3C

**Tiger-Vac®** **POWERFUL VACUUMS**  
*...The name to vacuum with* **PROVEN SOLUTIONS!**

**tiger-vac.com**



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Tiger-Vac inc.  
 11 SW 12th Ave. #112  
 Dania, FL 33004  
 USA

T. (954) 925-3625  
 F. (954) 925-3626  
 E. sales@tiger-vac.com

Tiger-Vac International Inc.  
 2020 Dagenais Blvd. West  
 Laval, QC H7L 5W2  
 Canada

T. (450) 625-0099  
 F. (450) 625-3388  
 E. sales@tiger-vac.com

Tiger-Vac Europa S.r.L.  
 Via Marie Curie 17  
 Ozzano Emilia, BO 40064  
 Italy

T. (39) 051 79.53.52  
 F. (39) 051 4695077  
 E. info@tiger-vac.it

