

The Most Versatile, Effective, and Economical Patented Oil Skimming System Available

Skim Anywhere

Variaxe Variaxe

1st US. Patent # US 9,248,388 B1
2nd US. Patent # US 9,849,410 B1
3rd US. Patent / allowance granted

Real Coolant Solutions

Real Coolant Solutions

Semi-Modular
Never Overflows
Superior Media
Fully Portable
Easy Lift Off
Easy Transport
Easy View Contents
Use on Top of Sump
Use Beside Sump
Horizontal Reach
Vertical Reach
No Chip Buildup



Illustration 1: shown with pivot extension option

**Not just an alternative, but a better and
more cost effective way, to skim oil.**

Cell: 612-747-0877

 **REAL**
COOLANT SOLUTIONS, INC.

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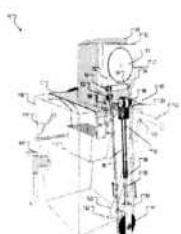
REAL SOLUTIONS FOR MACHINE TOOL COOLANT MANAGEMENT

1st US Patent Awarded



US009248388B1

| | | | |
|---|--|--|--|
| (12) United States Patent Jensen | | (10) Patent No.: US 9,248,388 B1 (45) Date of Patent: Feb. 2, 2016 | |
| (54) SKIMMING APPARATUS | | 4,089,784 A * 5/1978 Ineri et al. 210 526 4,274,957 A * 6/1981 Koller 210 526 5,082,953 A * 11/1991 Lewis 210 526 5,164,683 A 11/1992 Albrecht 210 540 5,645,733 A * 7/1997 Hobson 210 540 5,928,520 A * 7/1999 Haeussler 210 540 5,989,422 A 11/1999 Hobson 210 540 6,261,451 B1 7/2001 Genesino 210 540 6,616,835 B2 9/2003 Jensen 210 526 6,887,387 B2 5/2005 Hobson 210 526 6,962,659 B2 11/2005 Rhein et al. 210 526 7,296,094 B2 * 11/2007 Kuyumcu 210 526 7,431,166 B2 10/2008 Divolant 210 526 7,651,001 B2 1/2010 Divolant 210 542 2011 0399630 A1 * 12/2011 Dorman 210 742 | |
| (71) Applicant: Jonathan Allen Jensen, Princeton, MN (US) | | (21) Appl. No.: 14/034,155 | |
| (72) Inventor: Jonathan Allen Jensen, Princeton, MN (US) | | (22) Filed: Sep. 23, 2013 | |
| (73) Assignee: ISM&M, Inc., Princeton, MN (US) | | (51) Int. Cl. | |
| (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 253 days. | | B01D 17/02 (2006.01) B01D 33/04 (2006.01) F16H 7/02 (2006.01) B01D 17/02 (2006.01) F16H 15/10 (2006.01) | |
| (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 253 days. | | (52) U.S. Cl. | |
| (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 253 days. | | CPC B01D 33/04 (2013.01); B01D 17/0214 (2013.01); E02B 15/104 (2013.01); F16H 7/02 (2013.01) | |
| (58) Field of Classification Search | | OTHER PUBLICATIONS | |
| CPC B01D 17/0202 ; B01D 17/0214 ; F02B 15/104 | | Zebra Sideswinder® Tube Skimmer, Sideswinder™ Tube Oil Skimmer—Mechanical Oil Skimmer Separates Oil from Coolant, Sep. 13, 2013, 2 pages (www.zebrasimmers.com/skimmer_products/tube_oil_skimmer.html) | |
| USPC 210/242.3 ; 242.4 ; 526 ; 540 ; 925 ; 924 ; 210/776 | | Zebra Sideswinder® Tube Oil Skimmer for Metalworking Machine Sumps, Sep. 13, 2013, 2 pages (www.zebrasimmers.com/video/tube_skimmer_video.html) | |
| See application file for complete search history. | | Oil Skimmers, Inc. (OSI) Environmental, Model SH Compact Oil Skimmer, Sep. 13, 2013, 5 pages (www.osiskim.com/model-sh-compact-oil-skimmer) | |
| (56) References Cited | | Oil Skimmers, Inc. (OSI) Environmental, Model 6V Bell Oil Skimmer, Sep. 13, 2013, 6 pages (www.osiskim.com/model-6v-bell-oil-skimmer) | |
| U.S. PATENT DOCUMENTS | | Abutaki Oil Skimmers, Coolant Skimmers & Accessories, Trump Oil Skimmers Abutaki Corporation, Sep. 13, 2013, 6 pages (www.abutaki.com/coolant_skimmers.html#TubeTanks) | |
| 3,508,663 A * 4/1970 Bull | | * cited by examiner | |
| 3,617,552 A 11/1971 Wall et al | | Primary Examiner—Christopher Upton | |
| 3,643,804 A * 2/1972 Shapton | | (74) Attorney, Agent, or Firm—Fish & Richardson P.C. | |
| 3,695,451 A 10/1972 Schmidt et al. | | (57) ABSTRACT | |
| | | A skimming apparatus with a pivot arm and a drive follower on the pivot arm that guides a belt to facilitate precise placement of the belt for efficient skimming. | |
| | | 19 Claims, 9 Drawing Sheets | |

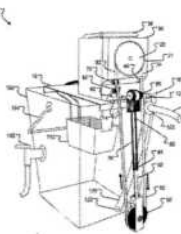


2nd US Patent Awarded



US009849410B1

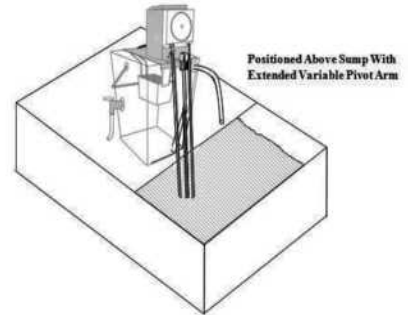
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|---|--|---|--|
| (12) United States Patent Jensen | | (10) Patent No.: US 9,849,410 B1 (45) Date of Patent: *Dec. 26, 2017 | |
| (54) SKIMMING APPARATUS | | USPC 210/242.3 ; 242.4 ; 526 ; 540 ; 776 ; 925 ; 210/924 ; 15/104.04 | |
| (71) Applicant: ISM&M, Inc., Princeton, MN (US) | | See application file for complete search history. | |
| (72) Inventor: Jonathan Allen Jensen, Princeton, MN (US) | | (56) References Cited | |
| (73) Assignee: ISM&M, Inc., Princeton, MN (US) | | U.S. PATENT DOCUMENTS | |
| (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 29 days. | | 6,540,965 A * 7/2000 Franko B01D 21/02 | |
| This patent is subject to a terminal disclaimer. | | 7,822,665 A * 2/1995 Shaler B01D 17/0208 | |
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| | | 2,845,511 A * 6/1956 Babcock A47L 13/46 | |
| (21) Appl. No.: 15/016,274 | | 3,508,663 A 4/1970 Bull | |
| (22) Filed: Jan. 29, 2016 | | 3,617,552 A 11/1971 Wall | |
| | | 3,643,804 A 2/1972 Shapton | |
| | | 3,695,451 A 10/1972 Schmidt | |
| | | 4,089,784 A 5/1978 Ineri | |
| | | 4,268,396 A * 5/1981 Lowe B01D 17/0214 | |
| | | 4,274,957 A 6/1981 Koller 210/776 | |
| | | (Continued) | |
| Related U.S. Application Data | | OTHER PUBLICATIONS | |
| (63) Continuation of application No. 14/034,155, filed on Sep. 23, 2013, now Pat. No. 9,248,388. | | Zebra Sideswinder® Tube Skimmer, Sideswinder™ Tube Oil Skimmer—Mechanical Oil Skimmer Separates Oil from Coolant, Sep. 13, 2013, 2 pages (www.zebrasimmers.com/skimmer_products/tube_oil_skimmer.html) | |
| (51) Int. Cl. | | (Continued) | |
| B01D 17/02 (2006.01) | | Primary Examiner—Christopher Upton | |
| C02F 1/40 (2006.01) | | (74) Attorney, Agent, or Firm—Fish & Richardson P.C. | |
| B01D 33/04 (2006.01) | | (57) ABSTRACT | |
| B01D 21/00 (2006.01) | | A skimming apparatus with a pivot arm and a drive follower on the pivot arm that guides a belt to facilitate precise placement of the belt for efficient skimming. | |
| B01D 21/24 (2006.01) | | 12 Claims, 9 Drawing Sheets | |
| B01D 33/46 (2006.01) | | | |
| B01D 17/02 (2006.01) | | | |
| U.S. Cl. | | | |
| CPC B01D 33/04 (2013.01); B01D 17/0214 (2013.01); B01D 21/0012 (2013.01); B01D 21/243 (2013.01); B01D 33/46 (2013.01); C02F 1/40 (2013.01) | | | |
| (58) Field of Classification Search | | | |
| CPC B01D 17/0202 ; B01D 17/0214 ; C02F 1/40 ; E02B 15/104 ; B083 9/023 | | | |



Variaxe Application Guide

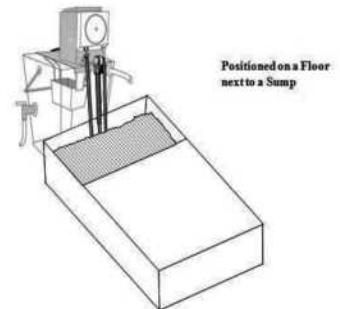
1. Sump Top

When top access is available and desirable (shown with pivot extension option)



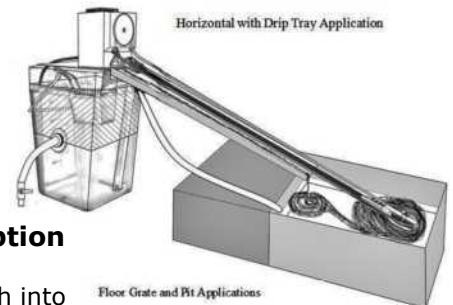
2. Sump Side on Floor

Most common application (shown with pivot extension option)

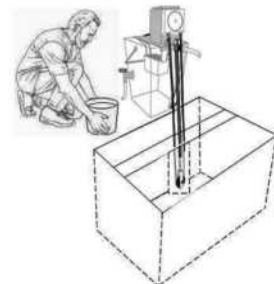


3. Pivot Extension Option

For extended variable reach into difficult areas

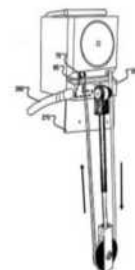


Floor Grate and Pit Applications

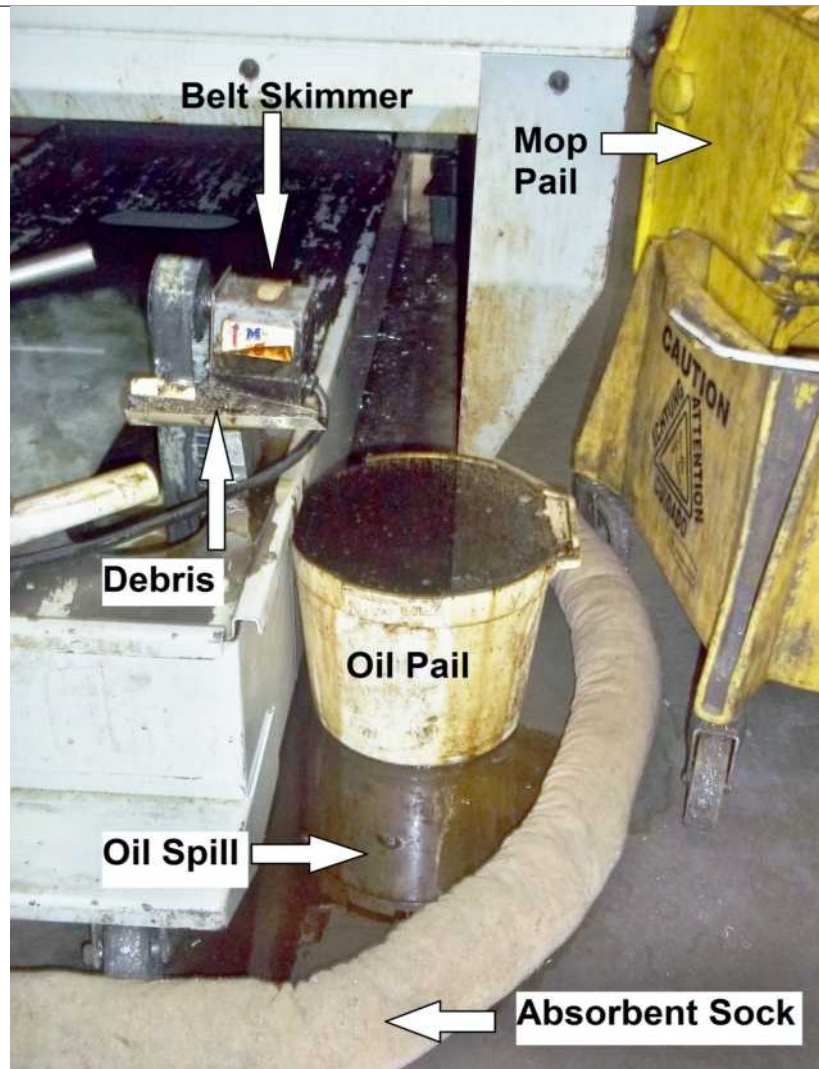


4. Clamp On Version

for sump side attachment and low clearance applications when Variclean pail can't be used (shown with pivot extension option)



-- The Problem? -- The Pail Runneth Over..



Some of the Costs Related to the Overflow Problem

- Labor to Mop & Handle Absorbents
- Disposal Cost of Absorbents
- Disposal Cost of Waste Water & Coolant From Oil Pail & Mop Pail
- Time Ordering and Payables for Absorbent Socks, Pads & Rags
- Fines Build Up on Skimmer Ramp & Take Time to Remove
- Other Duties Not Performed While Dealing With This Problem

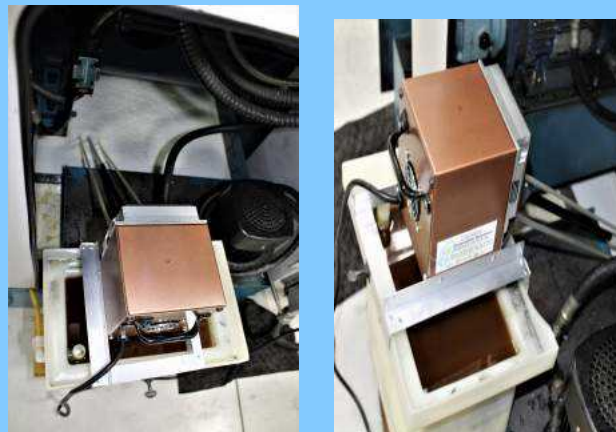
The Solution? The Variaxe Skimming System

Variaxe Skimmer Application Gallery

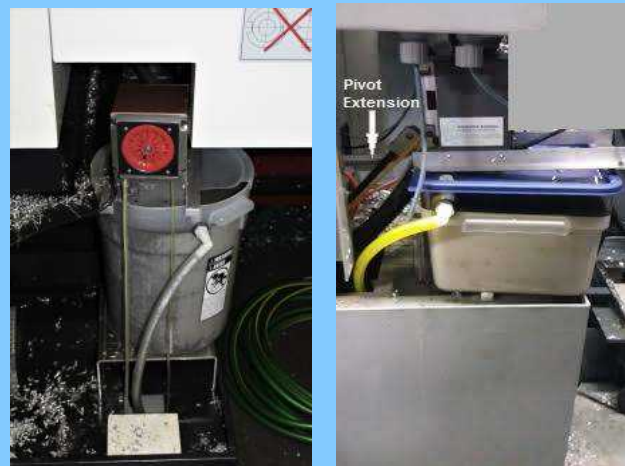
Sump Top Applications



Pivot Extension Option Example



1. Sump Top App. 2. Half Pail With Pivot Ext.



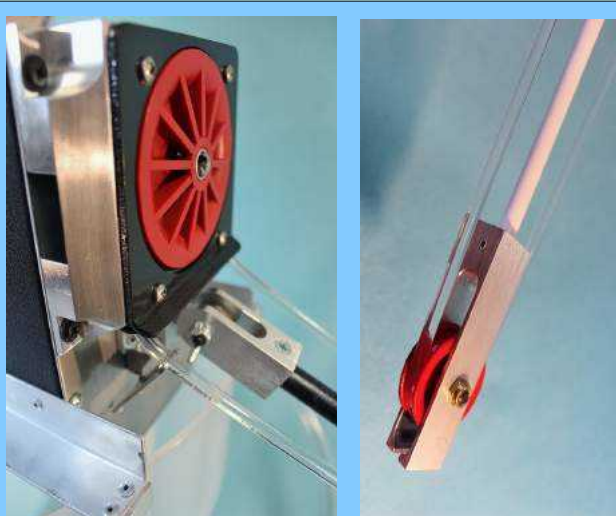
Sump Side on Floor, Most Common App.



Pivot Extension Option Example



View of Scrapers and Pivot Extension Components



Multi-Applications

VariAxe

Skim Oil, Chips, & Fines

VariAxe Skimmer and VariClean Pail Combo

The **VariAxe Pail Top Combo** can fit on top or beside a sump, beside a chip conveyor, on recycling tanks or 55-gallon drums, even in enclosed machines through small access holes. **The Applications Are Almost Unlimited!**



Product Specifications, Skimmer and Pail

- Dimensions: 12" D x 9" W x 21" H
- Tube Speed: 2.25" per second
- Reach: Standard 12" & 22" / many custom reaches available upon request.
- Oil Removal: Up to 2 quarts per hour
- Required Opening: 1" x 3"
- Electrical: 115v, 60 Hz, 46 watt, 1.1 Amp, fan cooled continuous duty motor with overload protection
- Maximum Temperature: 110° F
- Shipping Weight: 13 lbs

Cell: 612-747-0877



COOLANT SOLUTIONS, INC.

Benefits

VariAxe saves money by extending the life of the coolant and helps control bacteria and fungus by removing their food sources. A cleaner coolant environment can also improve tool life, skin conditions for operators, eliminate foul odors and reduce clean outs. **VariAxe** picks up oil, chips and fines and drops them into the **VariClean Pail** to gravity separate tramp oils, chips and fines from coolant, and returns coolant to the sump without oil overflowing onto the shop floor. This allows for savings on the costly use and disposal of absorbent products. It will also help reduce downtime and the need to frequently clean sumps.

Features

• Lift off Skimmer, Carry off Pail;

With the semi clear pail, it is easy to see full separation of the fluids. When it is full of oil, lift off skimmer, carry off the pail. Any five gallon pail will work, but we recommend **VariClean** and all of it's benefits.

• Dual action scrapers pick up chips and fines with the oil;

The contaminates from metals and plastics are picked up with the round belting of **VariAxe**. These contaminates adhere to the oil, that has an ionic attraction to the belting, and draws these contaminates into the **VariClean Pail**.

• Portable unit with belting that fits almost anywhere;

With an opening of 1"x 3", the **VariAxe** belting can get into the most difficult spaces. The entire unit can be easily picked up and moved to another machine. Tube lengths can be custom fit for many different applications.

• Pulls less coolant than other skimmers;

The smaller surface of the belting is very effective for removing oil, chips and fines while pulling very little coolant compared to wheel or belt skimmers.

• Due to the portability, OSHA allow extension cords;

The Variaxe can be moved to address sumps with dual compartments, or be transported to other machines where extension cords are needed.

• Single large diameter drive wheel;

The wheel has a very large contact area, which maximizes drive and eliminates belt slippage, denting or deformation.

• Fan cooled heavy-duty gear motor;

The brass gears in the overload protected motor provide long lasting performance and reliability.

• On / Off power switch with 10' NEMA cord;

Allows easy on / off with an extended 10' cord reach.

• Separate Skimmer and Pail handles for easy transport

• One-year warranty on Skimmer and components

Real Coolant Solutions

Real Coolant Solutions

REAL SOLUTIONS FOR MACHINE TOOL COOLANT MANAGEMENT

1st U.S. Patent # US 9,248,388 B1 * 2nd US Patent # U.S. 9,949,410 B1

VariAxe Oil Skimmer

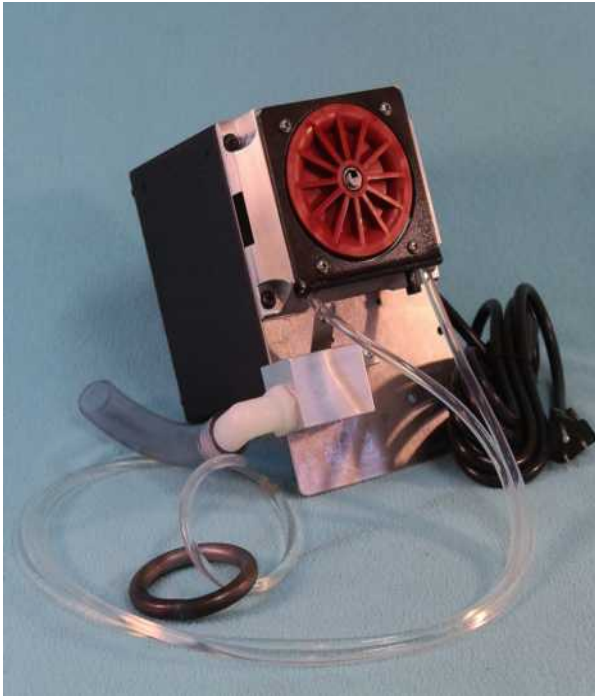
Use as a Portable! **VariAxe Oil Skimmer** *Skim Oil Anywhere!*

Clamp on Version

The Most Versatile and Effective Oil Skimmer Available!

Can use 3/4" tubing, or PVC pipe to ramp oil out of low overhead and hard to reach areas.

Pivot extension option can be used



Product Specifications

- Dimensions: 5.5" D x 5" W x 6" H (tab 2.5" D)
- Tube Speed: 2.25" per second
- Reach: 8", 12", 18", 24" standard (custom lengths available)
- Oil Removal: Up to 2 quarts per hour
- Minimum Required Opening: 1" x 3"
- Electrical: 115v, 60 Hz, 46 watt, 1.1 Amp, fan cooled continuous duty motor with overload protection
- Maximum Temperature: 110° F
- Shipping Weight: 7 lbs

Cell: 612-747-0877



COOLANT SOLUTIONS, INC.

Benefits

VariAxe justifies "return on investment" by extending the life of the coolant, improving tool life, and reducing wastes. **VariAxe** helps control bacteria by removing their food source, improving coolant performance while protecting operators skin and eliminating foul odors.

Features

• Can fit almost anywhere;

With an opening of only 1"x 3" and custom reach belting, **VariAxe** is the most versatile, and effective skimmer on the market. We can skim up to 10 foot deep.

• High efficiency compared to conventional skimmers;

With dual action scrapers and the high strength elastomeric round belting is very effective for attracting oil while skimming very little coolant proportionate to a disc or belt skimmer. This is important when considering cost of absorbents and their disposal if waste overflows the catch pail.

• Maximum drive motor, no slip drive wheel;

The large radius drive wheel's, profiled surface assures a constant drive. For performance longevity, the motor's "pull load" rating, is more than actual pull required.

• Steel housing, SS mount tab polypropylene parts

All materials have excellent chemical resistance will last for many years.

• On/off switch & 10' Nema power cord;

The power switch allows the skimmer to be easily turned off when not needed. The Nema power cord is 10' long.

• Fan cooled heavy-duty gear motor;

The brass gears in the overload protected motor provide long lasting performance and reliability.

• Belt lengths and materials for custom jobs;

Our high strength elastomeric belting provides long service life. We make custom reach when needed. We can also use high temp version that can withstand up to 450 degrees F.

• Clamp for easy mounting, and drilled for screw mounts

• Innovative dual scraper design

• Tote handle for easy transport

• Quick belt change face plate

• One-year limited warranty

Components subject to change for purpose of optimization or availability

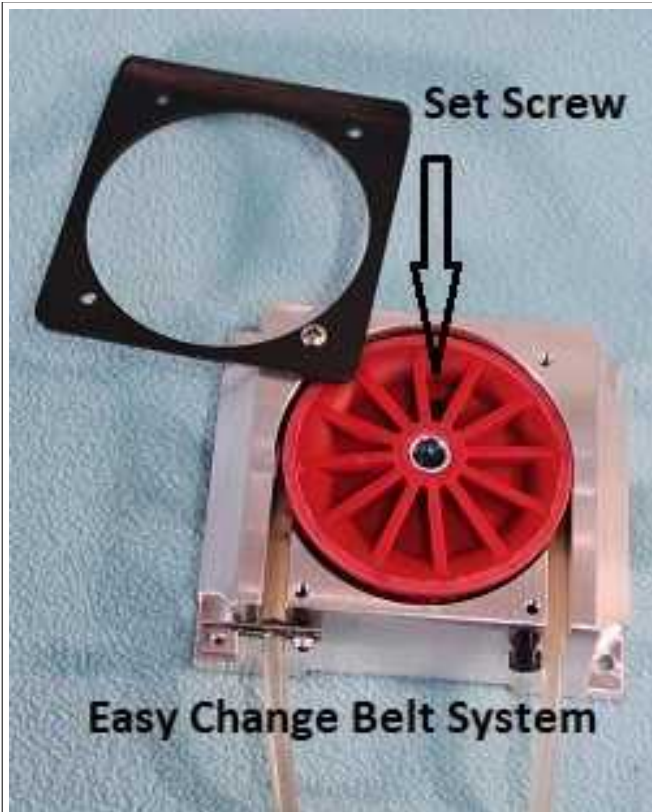
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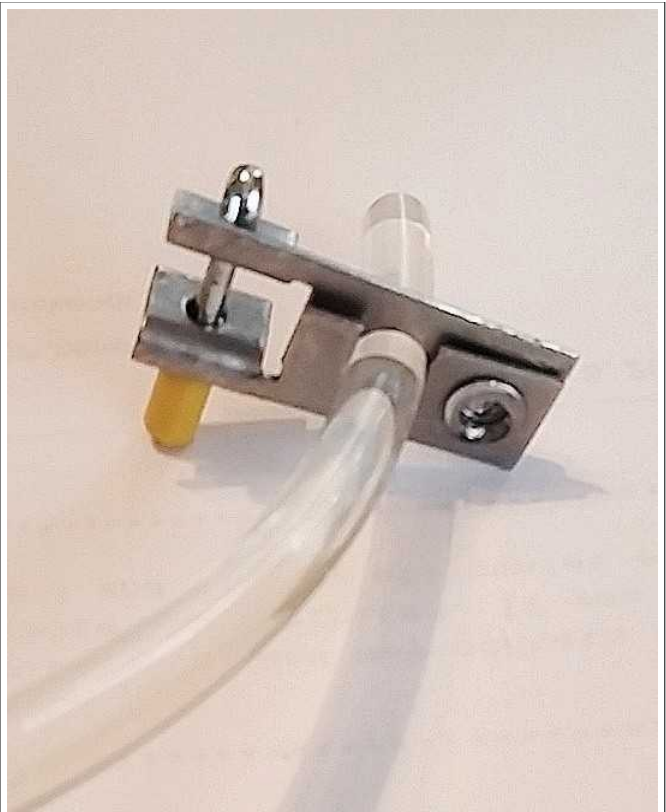
Real Coolant Solutions

Real Coolant Solutions

Variaxe Easy Change Belt and Scissor Scraper Features

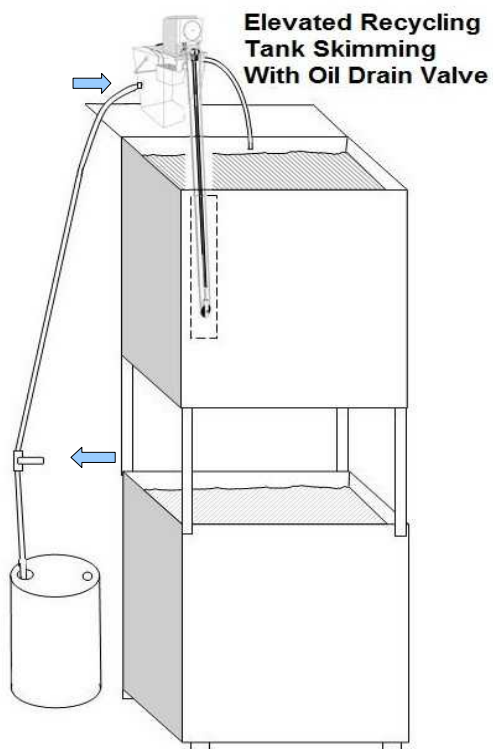


4 Phillips screws, 1 set screw, 1 black plastic pin



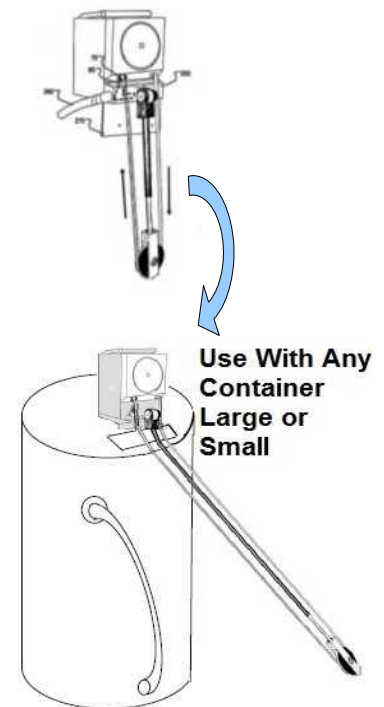
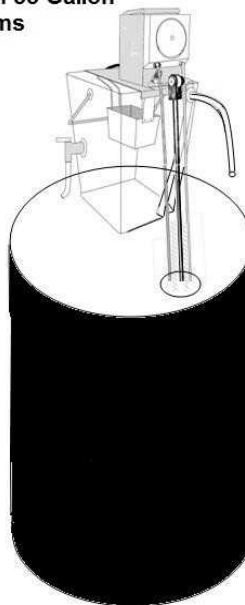
Scissor Scraper / spring tensional auto scraper

Just some more examples of Variaxe applications



Elevated Recycling Tank Skimming With Oil Drain Valve

Skim 55 Gallon Drums



Use With Any Container Large or Small

New Patented Variaxe Skimming System

Comparison to Conventional, Metal Working Fluid, Oil Skimmers

| Types of Skimmers | Variaxe Round Belt Skimmer | Flat Belt Skimmer | Disc Skimmer |
|---|---|--|---|
| <u>Media Surface Comparison</u> | <u>.785" Belt Circumference</u> | <u>1" Belt Width</u> | <u>12" Disc Diameter</u> |
| |  |  |  |
| Can Reach Into Multiple Smaller Oil Access Points | Yes | Limited | Very Limited |
| Fully Portable System (OSHA Allows Extension Cords) | Yes | Limited | Limited |
| Stops Overflow on Floor | Yes | No | No |
| Gravity Decant Separation Pail | Yes | No | No |
| Economical Extended Reach Options | Yes | Limited | Very Limited |
| Fluids, Chips & Fines Fall Away Into Pail | Yes | Fluids Only Debris Builds Up | Fluids Only Debris Builds Up |
| Clear Pail Shows When Oil is Ready for Disposal | Yes | No | No |
| Use on Sumps, Tanks, Drums, Floor Grates & More Apps. | Yes | Limited | Very Limited |
| Pivotal Extension Option for Precision Vertical / Horizontal Placement | Yes | No | No |
| Staged Scrapers for better Fluid, Chip & Fine Removal | Yes | No | No |
| Residual Quart Per Hour SAE 30 @ 65 F. Coolant / Oil Ratio Same Oil / Less Coolant | Approx. qt. per hr. 2 qt. Oil x ¼ Coolant | Approx. qt. per hr. 2 qt. Oil x ½ Coolant | Approx. qt. per hr. 2 qt. Oil x 2 Coolant |

1st U.S. Patent # US 9,248,388 B1 * 2nd U.S. Patent # US 9,849,410 B1

ISM&M, Inc. * 31307 144th Street * Princeton, MN 55371 * Phone; 763-856-5020 * Fax; 763-856-8411

Website; www.ism-m.com * Displacement Video Link; <https://www.youtube.com/watch?v=CFmc9fmzZ3M>

Variaxe Skimmer System *vs* Tube Skimmer System

| Types of Skimmers | Variaxe Round Belt Skimmer | Tube Type Skimmer |
|---|--|--|
| <u>Media Surface Comparison</u> | <u>.785" Belt Circumference</u> | <u>.588" Tube Circumference</u> |
| <p>1st U.S. Patent # US 9,248,388 B1 2nd US Patent # US 9,849,410 B1</p> <p>ISM&M, Inc. * 31307 144th Street * Princeton, MN 55371 * Phone; 763-856-5020 * Fax; 763-856-8411</p> <p>Website; www.ism-m.com</p> <p>Email: the.coolant.guy@gmail.com</p> |  |  |
| Belting Size vs Tube Size | <p>1/4"</p> <p>Average 2 quarts per hour SAE 30 @ 65 F coolant / oil</p> | <p>3/16"</p> <p>Average 1.5 quarts per hour SAE 30 @ 65 F coolant / oil</p> |
| Drive Wheel Diameter | <p>3 1/4"</p> <p>More surface for positive pull and longevity</p> | <p>1 3/4"</p> <p>Wears more quickly losing efficiency</p> |
| Oil / Coolant Separation System | <p>Gravity Decant Separator Pail</p> <p>Multiple benefits as detailed on info flier \$50.00</p> | <p>Uses A "Diverter" Instead</p> <p>Little benefit, still overflows on floor \$99.00</p> |
| Scraper System | <p>1 static, 1 tensional, 1 directional direct drop</p> <p>More efficiently scrapes fluids, chips and fines that drop directly in the pail out without buildup</p> | <p>1 scraper with drain ramp</p> <p>Less efficient scraping of fluids chips and fines that build up on ramp</p> |
| Belt / Tube Change System | <p>Slotted Face Plate System</p> <p>Only purchase belt of desired length, easy user install to replace belt at \$49.00</p> | <p>Cartridge System</p> <p>Components wear faster so cartridge is offered at \$131.00 for user install</p> |
| Capabilities of Reach | <p>Variable Pivotal Extension Option</p> <p>Made to reach lengths up to 10' long. Swivels horizontally and vertically in variable axes</p> | <p>Hangs Down Vertically Only</p> <p>Can be offered in extended length to for a vertical undirected reach only</p> |
| Round Belt / Tube Properties | <p>Round Belting</p> <p>Superior oil attracting media</p> <p>Weld surface and strength of elastomer is also superior to tubing in, performance, service and wear longevity</p> | <p>Tubing</p> <p>Basic oil attraction media</p> <p>Less surface of the weld can lead to failure. Thin walled tubing wears faster</p> |
| Factory Service | Available if needed | No longer available |
| Standard Warranty | 1 year on Oil Skimmer | 1 year on Oil Skimmer |

Variaxe Item Descriptions, Part Numbers and Price List

| | | | |
|---|--|--------------|--|
|  | Variaxe Pail Bracket Sump Side Skimmer (Most common application) | VXS-PB-SS | |
|  | Variaxe Pail Bracket Sump Top Skimmer (9" longer reach belt) | VXS-PB-ST | |
|  | Pivot Extension Option (can be added to all versions) (23" Standard Reach) | VXS-EXT | |
|  | Variaxe Clamp on Skimmer (Sump Side Clamping with 3/4" hose barb and hose) | VXS-CO | |
|  | VariClean Pail (Highly Recommended for Pail Bracket Skimmers) | VXS-5 | |
|  | Chip Basket Strainer Option | VXS-Strainer | |
|  | Drain Spigot Pail Option | VXS-Spigot | |
|  | Timer Option | VXS-Timer | |



Set Up Instructions, Warnings and Warranty

- **Open the box** and remove Skimmer, components and packing from the pail.
- **Take out 1/2" tube** with hose barb, and thread it into the T fitting near the top of the pail
- **Add coolant to the pail** so it is about 1/2 full. This will help counter weight the pail.
- **Put the lid** onto the pail, so the lid **opening** is on the same side as the 1/2" feedback tube.
- **Set the skimmer** on top of the pail so the front of skimmer faces same side as the 1/2" feedback tube and lid opening.
- **Tighten the thumb screw** onto the back of the pail and lid while holding down on the angle support until snug. The front channels on the angle support should seat against the front of the pail.
- **For a Sump Side App.** Set the pail up to the sump and drop the belting into the sump. Make sure the 1/2" feedback tube is returning to the sump. **For a Sump Top App.**, Set the pail on top of the sump and drop the belting into an opening into the sump. Make sure the 1/2" tube is hanging back into the sump for coolant return. This assures when the oil gets to the feedback point, it will not overflow on the floor but return to the sump.
- **Plug in skimmer** into timer if used. Plug in the timer to an outlet. Refer to instructions on setting the timer. We recommend that the skimmer be set to run four to eight hours per day. It usually only takes a hour or two in most conditions, depending on the machine. This will increase motor life if used in timed intervals, versus running continuously.
- **Turn on switch** on the back of the skimmer, making sure the clear belting is resting in the scraper "oil director fork" and hanging into the sump. You should be skimming tramp oil.

(Pivot extension option set up instructions are available with purchase of that version)

Warnings

- Do not lift the skimmer by the handle while still attached to the pail.
- For skimming oil from water based liquid surfaces only
- Do not immerse skimmer into any liquid
- Shield motor from spray or liquid exposure
- Do not use in an explosive or flammable environment
- Per NEC regulations, a ground fault interrupt must be installed or used as the power source

Warranty

- All parts and labor are warranted for a period of one year
- Exposure of liquid to motor will void all warranties

Replacement Parts and Service

- Under normal conditions using a timer, Variaxe can last for five years or more before service
- The most common replacement is the Belting, Drive Wheel or Scraper due to abrasion to these components. Motor life varies due to environment. Cleaning dust and using a WD 40 lubricating spray at motor armature bi-annually can extend life of the motor.
- ISM&M, Inc., may provide upon evaluation, in house service for repairs. The Variaxe Skimmer can be shipped prepaid to our location for inspection and quotation of repairs. The product return shipping can be billed via customer account, or added to invoice upon return shipment.

Thank you for your purchase. If you have any questions, or require product support please contact. 612-747-0877 or email request to the.coolant.guy@gmail.com. Shipping address: 31307 144th Street, Princeton MN, 55371

1. High Quality Coolant

**Quality, Efficiency,
Economy.**

A Turn Key Coolant Management Program and Process for Small to Medium Sized Metal Working Companies.

The heart of this program is a high quality, reasonable priced coolant.

The components of this system is inexpensive, yet high quality equipment with a simple process.

The entire program can be offered as a package, or components can be added and implemented as needed.

Return on investment can be realized in a very short time.



8. Emulsion Splitting Disposal Tank System

Pass / Fail Coolant Testing



7. Portable Sump Cleaner, Filtration and Recycling System



2. Refractometer used in every step of the process



3. Coolant Drum Mixer / Proportioning Blender



4. Clean Coolant Premix Transport Tank



6. Portable Coalescer for Tramp Oil Removal and Filtration of a 24-7 Production CNC



5. Portable Oil Skimmer for Daily Maintenance