

Oil Skimmer Belt Selection

BELT LENGTH IS THE MEASURED DISTANCE BETWEEN THE MOUNTING POINT OF THE SKIMMER UNIT TO THE SURFACE OF THE WATER AT ITS LOWEST POINT, THEN ADD 24".

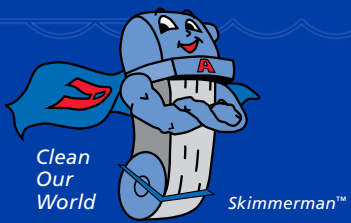
BELT LENGTH IS THE MEASURED DISTANCE BETWEEN THE MOUNTING POINT OF THE SKIMMER UNIT TO THE CENTERLINE OF THE TAIL PULLEY, THEN ADD 24".



Your informational guide to selecting oil skimmer **belts**, **tubes**, and **discs**.

AIBANAKI OIL SKIMMERS

The world leader in oil skimming technologies.



WATER AT ITS LOWEST POINT

6.43 [163mm]

CENTERLINE OF TAIL PULLEY

Belt Types

Choosing an oil skimmer best suited for your application will maximize oil removal while minimizing capital outlay and oil skimming operation costs.

Oil Skimmer Belt and Tube

Length: Removal capacity is not affected by length. Choose a length that assures submersion or contact with the liquid at its lowest level, allows easy mounting of the oil skimmer where oil discharge is convenient, and has good access for routine service. Abanaki's ability to supply oil skimmers with long belts, and to lift skimmed oil well over 100 feet with no loss in capacity or efficiency, is important to many users.

Disk Diameter: The disk must always be penetrating the fluid. Size the diameter accordingly.

Abanaki offers six different belt materials: CR Steel, Elastomer, Poly, XP-Poly, HT-Poly, and LFO Fuzzy-Poly. Each belt is constructed to suit applications based on temperature, pH, particles in the liquid, and its effectiveness for light oils.

Belt performance and durability depends on the nature of the liquid, its chemical composition, temperature, etc. For instance, high temperature increases a belt's sensitivity to pH levels. To make sure the belt oil skimmer performs satisfactorily in your application, Abanaki offers **free samples** of belt material for test purposes.

■ Corrosion Resistant Steel Belt Series

After years of research and testing, this has become the material of choice. The CR steel belt is made from a specially formulated stainless steel alloy that is high in chrome, low in molybdenum, and low in carbon. The CR belt stands up to high temperatures and harsh chemicals. With belts operating continuously for 10 years in some cases, applications for this belt are almost limitless. The only limitations on its use are certain combinations of temperature, pH levels, and type of solutions.

■ Elastomeric Belt Series

Our specially formulated elastomer is more attractive to oil and repellent to water than competitive products. It is an extremely durable material, able to withstand rough handling during installation and maintenance. The elastomer belt is ideal in applications where abrasive particles are present or when physical abuse of the belt is likely. The single material belt will not delaminate and is designed for continuous operation. The ideal temperature range when using this material is between 50°F (10°C) and 140°F (60°C). Elastomer is also UV sensitive, so prolonged exposure to the sun should be avoided.

■ Poly-Belt

A polyester mono-filament with polyurethane liner, this material is available for demanding applications such as turbulent solutions or explosive atmospheres. An ideal application for the poly-belt is oil remediation using existing monitoring wells. It is also recommended for excessive long distances to pull heavy oils with no stretching. The poly-belt has an operating temperature range between 14°F(-10°C) and 170°F(77°C) continuous. The poly-belt is also effective for picking up certain types of floating emulsified oils.

■ Poly-XP, Poly-HT

A NBR (textured pattern, blue) coated polyamide fabric, 1.25mm thick. Temperature range -4° (-20°C) to 140°F (60°C) continuous, -22°F (-30°C) to 212°F (100°C) intermittent. This belt has a high strength preset nylon core with superior resistance to flexing fatigue. This belt is resistant to fats, oils, grease, gasoline, and many other chemicals & solvents. Not resistant to Phenol, Cresol, and concentrated acids. The Poly-XP belt material can be used in applications where temperatures range between 14°F (-10°C) and 212°F (100°C) without stretching. It can also withstand harsh chemical environments such as those found in the plating industry.

■ LFO "Fuzzy" Poly

The Patent Pending LFO Polymer belt is specifically designed for high volume recovery of light to medium weight oils. The pickup fibers are .18" cut length with a density of 18 denier. They are mounted on a woven polymer backing at an angle of 45° in the direction of belt travel. Gasoline, diesel, jet fuels, etc. are recovered quickly and efficiently. Expected recovery can be increased by as much as factor of 95 from our other belts (SAE30 oil tested at a factor of 3). The belt is designed for 33°F (0.5°C) to 160°F (71°C) with pH levels of 3 to 11. Reinforced to prevent stretching, this belt has tremendous surface area with only minimal change to the footprint of our more "standard" belts.

+150°F (66°C)	pH down to 3 pH up to 13	Can operate in the presence of grit, fine, and other suspended particles
✓	✓	✓
✗	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓ (down to 3) ✗ (up to 11)	✓

Belt Ordering Information

Oil Grabbers®: (Model 8², Model 4, Model MB, Grease Grabber)

- The belt length is determined by the distance between the centers of the 2 pulleys. This is the center to center length. It is determined by measuring the distance from the mounting plane to the liquid at its lowest level, and adding 24" (60 cm). See Belt Length Layout Drawing for each model.
- Oil Grabber® belts can be ordered in any size between 2 and 100 ft, in increments of 6 in.
- For pricing, contact an Abanaki sales representative.

Portables: (Tote-It®, PetroXtractor®)

- The length is determined by the distance between the centers of the 2 pulleys. The center to center length is determined by measuring the distance from the mounting plane to the liquid at its lowest level, and adding 12" (30 cm). See "Belt Length Layout Drawing" for each model.
- Tote-It® belts can be ordered in any size between 1'6" and 5 ft, rounded off to the nearest 6 in increment.
- PetroXtractor® belts can be ordered in any size up to 100 ft, typically in increments of 6 in.
- For pricing, contact an Abanaki sales representative.

Mighty-Mini® SST

- The belt length is determined by measuring the distance from the mounting plane to the bottom of the tail pulley. Lengths available are 6", 12", 18", and 24".

EconoMini™

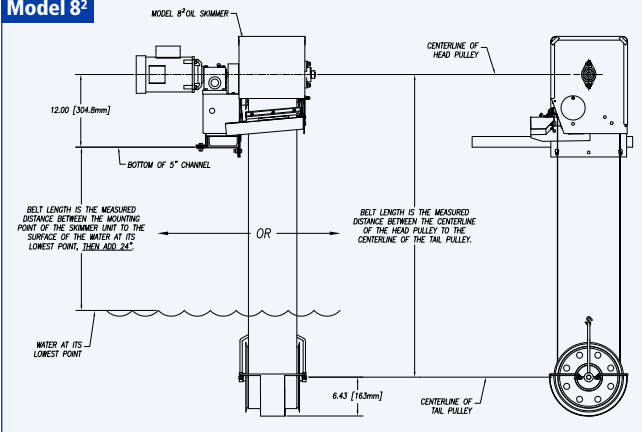
- Measure from the mounting point, mounting surface, to the bottom of the pulley with the belt on the unit.
- 8, 12, 18, and 24" lengths available.

* Steel belts should be handled with extra care! Nicks and creases substantially reduce the belt life.

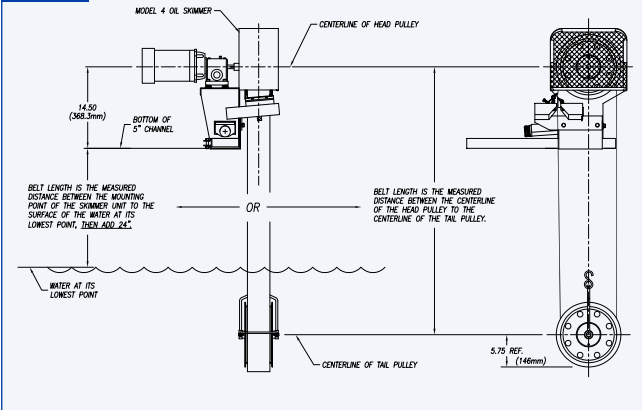
* Abanaki products should only be used with approved Abanaki belts and wiper blades.

Belt Length Layout Drawings

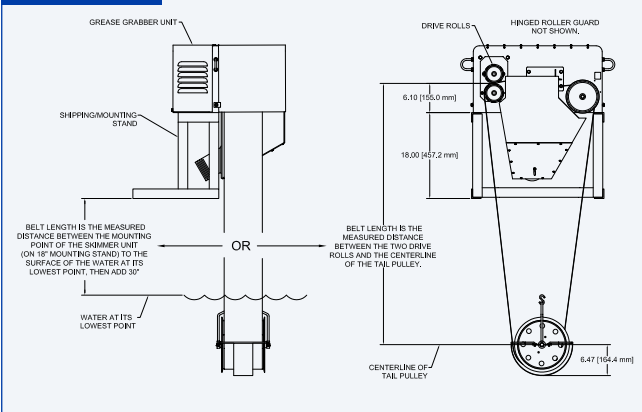
Model 8²



Model 4



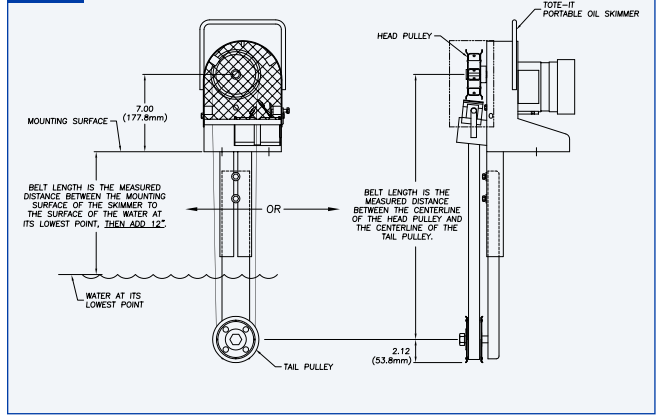
Grease Grabber



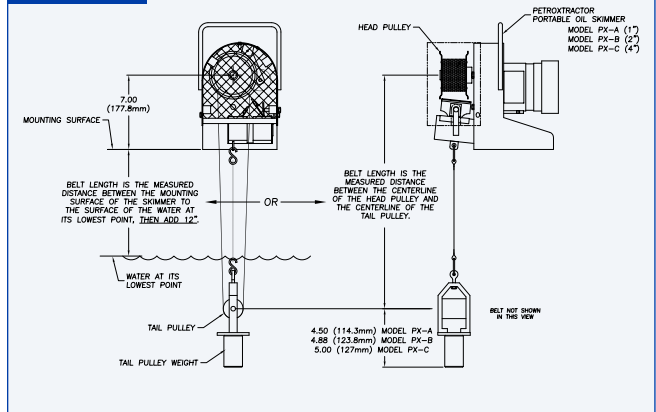
When Is It Time To Replace Your Belt?

- Fraying/Tearing at edges of the belt
- Belt no longer turns but the head pulley still turns
- Oil recovery seems less than usual

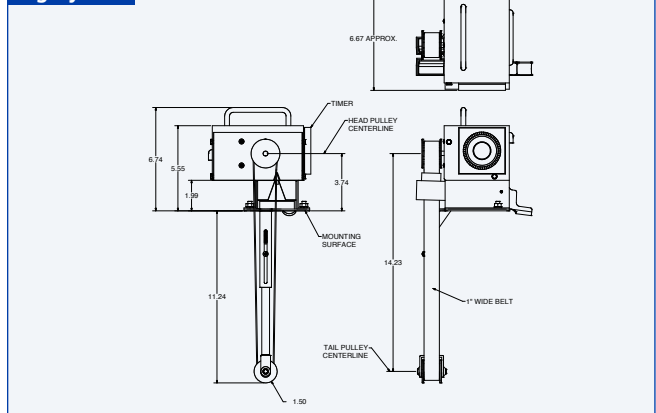
Tote-It



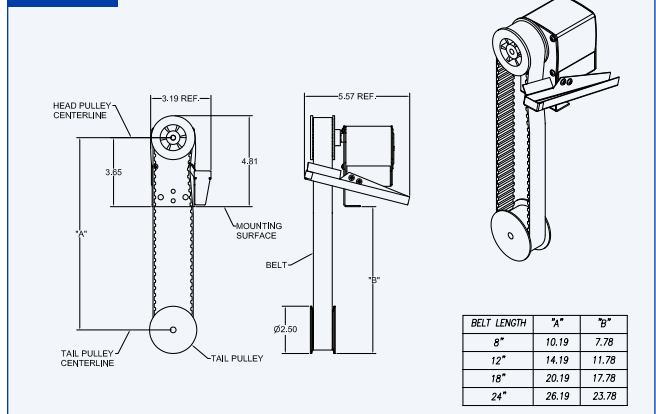
PetroExtractor



Mighty Mini



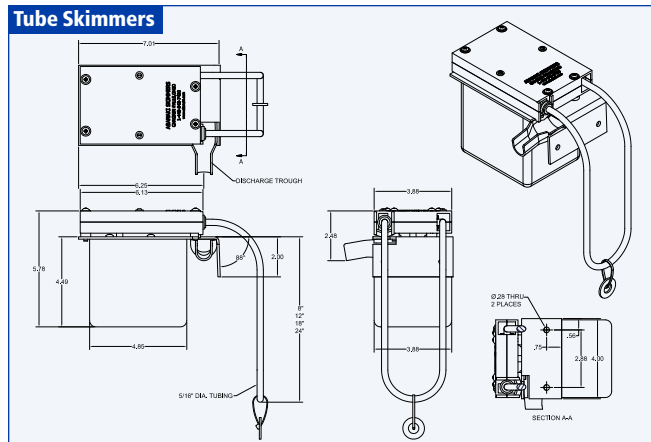
EconoMini



Oil Skimming Tubes & Discs

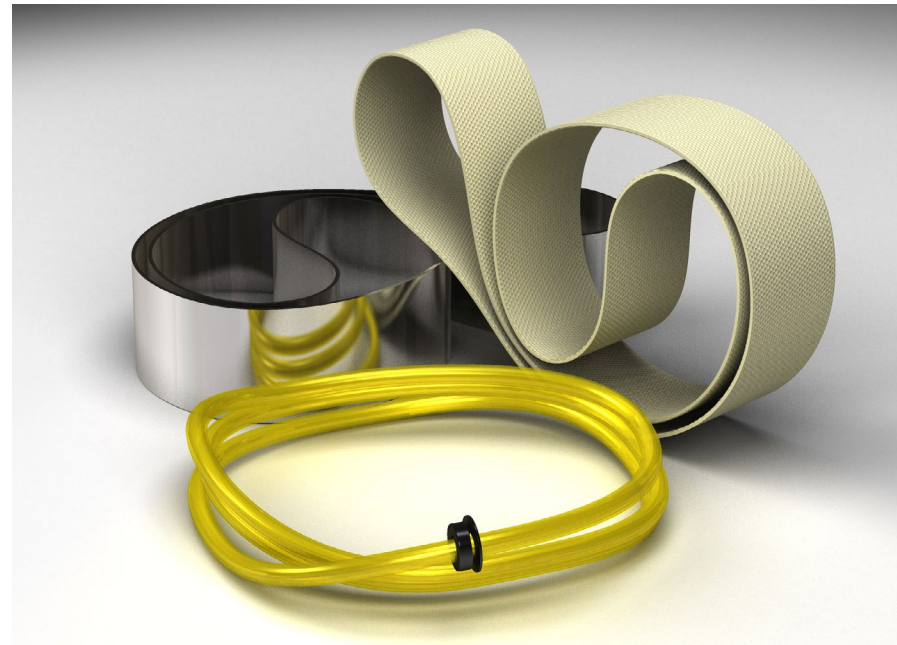
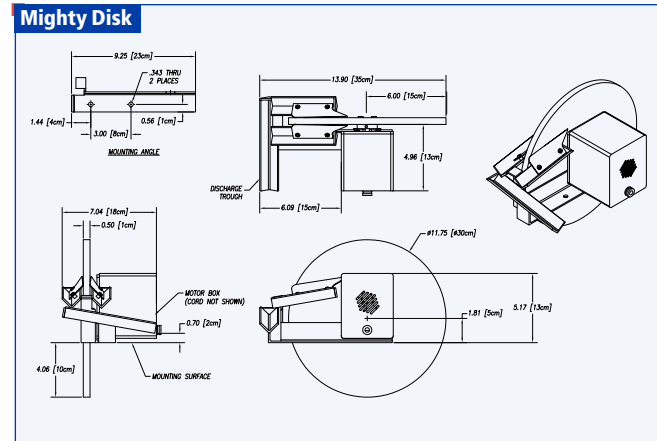
Tube Skimmers: (Oil Viper, TubeTastic!™)

- **For the Tubetastic!™** – The length is determined by its reach into the tank from the mounting point of the skimmer (ex: an 8" tube will reach 8" into the tank).
- **For the Oil Viper** – An end to end length is determined by taking the distance between the mounting point of the skimmer and the water level at its lowest level times 2 and add 10 feet. (ex: if the distance between the mounting point and the water level is 10', then $10' \times 2 = 20' + 10' = 30'$ end to end).
- Nitrile or Ceramic wiper blade options to better suit varying applications.



Disc Skimmers: (Mighty Disk™, Cool Disk)

- 12" disk gives a 4" reach.
- 18" disk gives a 6" reach.
- 24" disk gives an 8" reach.



Specifying Wiper Blade Material

Wiper blades are offered in 5 different materials to suit a variety of operating conditions. The standard material is Nitrile, which is appropriate for 95% of all applications. One of the optional materials, CRV, is recommended for particularly harsh conditions.

See chart below to determine which wiper blades would best suit your application.

Property	Nitrile	CRV	Ceramic	Stainless Steel	Hybrid
Min. recommended temp °F (°C)	-25 (-32)	-20 (-29)	All Temps	All Temps	-40 (-40)
Max. recommended temp °F (°C)	+240 (+116)	+400 (+204)	All Temps	All Temps	+14- (+60)
Hardness (durometer)	A40-95	A70-80	N/A	N/A	N/A
Resistance to:					
Tearing	Good	Fair-Poor	N/A	N/A	Excellent
Abrasion	Excellent-Good	Good	Excellent	Excellent	Excellent
Oxidation	Good	Outstanding	Excellent	Excellent	Excellent
Aliphatic hydrocarbons	Excellent	Excellent	Excellent	Excellent	Excellent
Aromatic hydrocarbons	Good	Excellent	Excellent	Excellent	Excellent
Oxygenated alcohols	Good	Excellent	Excellent	Excellent	Not Tested
Diluted or Concentrated acids	Good	Excellent-Good	Excellent	Excellent	Excellent

* Both Nitrile and CRV wiper blades have excellent resistance to heat aging.

* CRV is recommended for outdoor use (Nitrile is sensitive to UV rays)

(All data is sourced from Perry's Chemical Engineer's Handbook, 6th edition)



USA: 17387 Munn Road • Chagrin Falls, OH 44023
(440) 543-7400 • FAX: (440) 543-7404

UK: Avon Business Centre • Woodland Way • Bristol BS15 1AW
0117 9616679 • FAX: 0177 9616687



122220

www.abanaki.com