



Zebra® Muscle™ Coalescer Selection Guide

APPLICATIONS

- Coolant, wash, or wastewater below 100°F
- When low maintenance is preferred
- Sumps that run 12 hours or less per day
- Sumps with consistent rancidity issues
- Centralized coolant tanks
- Storage or decant tanks



Muscle Coalescer Body Selection

The first step in selecting the proper Muscle Coalescer is to choose the body style which will best suit your application:

	DELUXE W/ FILTER	DELUXE	PLUS
COOLANT TYPE	ANY TYPE	WATER-SOLUBLE OILS SEMI-SYNTHETICS	FULL SYNTHETICS
MATERIALS MACHINED	CAST IRON ALUMINUM MAGNESIUM AISI/SAE STEEL	BRASS LEAD COPPER ULTRA ALLOYS STAINLESS STEEL	BRASS LEAD COPPER ULTRA ALLOYS STAINLESS STEEL
MACHINING PROCESS	GRINDING POLISHING SAWING	CBN GRINDING MILLING TURNING	CBN GRINDING MILLING TURNING

Oil Separation Considerations

The Muscle has a hold time of 15 minutes, and with its coalescing media, will be able to separate tramp oil which naturally gravity separates in 20 minutes or less. To determine the amount of tramp oil that will naturally gravity separate in 20 minutes, you will need to take a miniature separation test for each sump.

Using a clean, clear plastic pop bottle, for instance, dunk it in from the top of the sump to the bottom for a cross section of the solution. Cap the bottle off and shake it vigorously for 10-15 seconds. Then let it stand to naturally reject the tramp oil while timing the process. Whatever tramp oil separated in 20 minutes will be the amount that the Muscle will be able to remove from that sump.

Add on high-pressure coolant delivery systems cause tramp oils to deeply emulsify into the base coolant because of the pressurization of the solution. During the separation test, you may see mostly a separated inverse layer, somewhat like a milkshake. This may be the only separation, yet this layer is still best removed. If using a coalescer, it is recommended to run the coalescer only when the machine pumps are not operating, whenever possible, for the best effectiveness.

To note, as coolant ages, and the more base oil there is in your coolant, tramp oils will take a longer time to gravity separate. You may find that older sumps take longer for the oils to separate. However, if you were to use the coalescer from the first day of a recharge, it will remove the tramp oil effectively.

Pump Considerations

The standard electric centrifugal pump will also be placed in the sump, and measures 3.5 x 4.0 x 3". However, if there is no room for it, then it may be placed outside of the sump, below the fluid level, and connected with fluid tight connectors through the sump wall.

The Muscle, with the standard pump, has its limitations in regards to it being utilized to service multiple sumps. Since the pump is not designed to handle excessive air intake, it will perform better and last longer if it is kept primed with fluid during re-installations between machines. We recommend using it for no more than 3-5 machine sumps. For use on more than 5 sumps, it is best to upgrade to a diaphragm pump, which is then mounted to the top of the Muscle barrel.

Choose between the air-powered or electric diaphragm pump, which will need to be ordered as a separate line item.

Below ground applications requiring more than a 4' lift can also be handled with a diaphragm pump.

Filter Bag Considerations

The DELUXE w/FILTER model ships with (5) 100 filter bags. 5 and 50µ bags are also available- just note them on the order.

Drum Dolly Considerations

The DELUXE and DELUXE w/FILTER models ship with a drum dolly. If this dolly is not needed, please note this on the order, and we will bill the unit less the dolly. The PLUS model does not have a drum dolly, but it may be ordered as a separate line item, if needed.

Muscle Coalescer Intake Attachment Selection

The second step is to select the appropriate tramp oil intake attachment. Choose one that will fit in the sump, is appropriate for the depth and surface area of the tank, and its level fluctuation. Keep in mind the attachment should be placed in the location where the oil normally collects due to sump turbulence. For baffled sumps, it is possible to incorporate two attachments using a Y-fitting off the intake port of the pump.

Other considerations include chip screening. The chip screen will prevent hoses and fittings from blocking if there are large floating chips, such as in aluminum turning applications.

	HAMMERHEAD™	SUMPSTER™	FLOATING SUMPSTER™
DIMENSIONS (LWH)	4.5 x 3.25 x 1.75"	5 x 4.25 x 4.625"	13 x 11 x 7"
TANK DEPTH	2-14"	2-15"	2-xx"
LEVEL FLUCTUATION	0-12" drop	0-3" drop	0-48" drop (w/standard pump)
SURFACE AREA (LW)	8' x 8' max	12' x 12' max	20' x 20' max
CHIP SCREEN	NO	YES	YES
NOTATION	ENCOURAGES FOAM	MAY BE INSTALLED W/O STAND	PUMP RIDES W/FRAME GOOD FOR BELOW GROUND SUMPS

Hose Length Considerations

The oil intake hose and the clean coolant discharge hose are both standard at 4' length. These lengths can be customized if necessary for the installation.

Determine where the intake attachment/pump assembly will be installed, then measure from the pump to where the barrel will be placed. If this is a below-ground tank, then you also need to measure from the barrel inlet fitting to the lowest liquid level to determine the intake hose length needed. This hose can be customized to 15'. Additional feet over 4 will be charged per foot and will need to be ordered as a separate line item.

Now determine where the clean coolant return hose will be installed. It is best to place this end as far away from the intake as possible, directing the flow of surface oil to the intake attachment. This hose can be customized to 8'. Additional feet over 4 will be charged per foot and will need to be ordered as a separate line item.

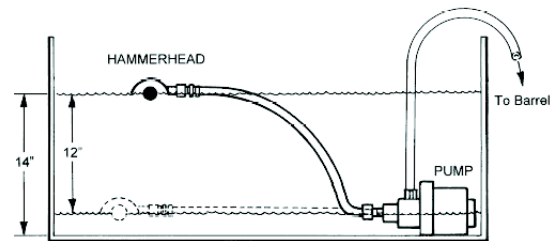


Figure 1, HAMMERHEAD

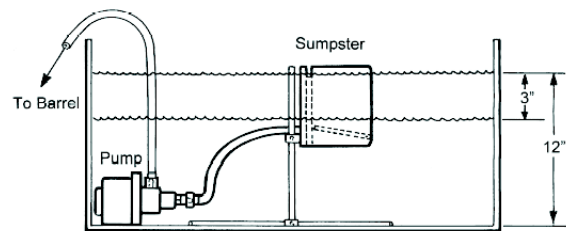


Figure 2, SUMPSTER

QUESTIONS

Please contact us for further assistance:

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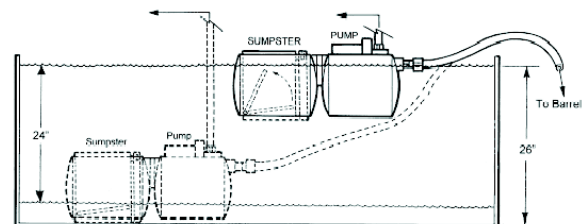


Figure 3, FLOATING SUMPSTER