

OIL PAN FEATURE GUIDE

BY CANTON RACING PRODUCTS
YOU KNOW YOU NEED A BETTER OIL PAN.
WHAT DO YOU NEED?

SUMP CONFIGURATION

All pans come in 4 possible configurations. Front sump, mid sump, rear sump & full length. Most situations require front or rear with mid sumps being incredibly rare with the exception of being common in Mopar applications. Full length pans are commonly used in boats but can be used in any application without cross member clearance issues.



Rear Sump



Mid Sump



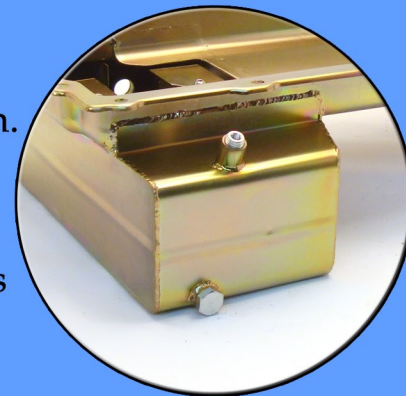
Front Sump



Full Length

CAPACITY

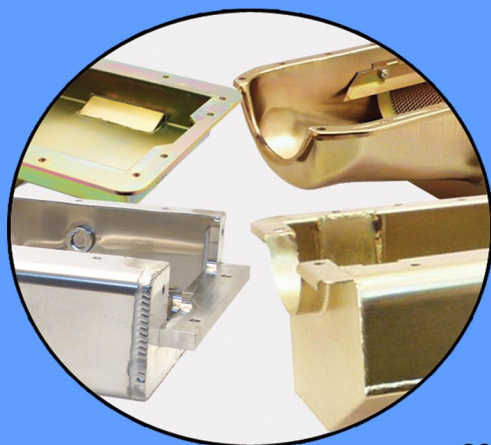
Capacity is a very important part of an oil pan's design. The oil level balance required in an engine is a crucial aspect of getting the maximum performance out of an engine. Capacity is typically increased with oil pan kick outs. Headers cross members & steering racks can commonly cause fitment issues however.



MATERIAL

In most cases an oil pan is built from a stock core. The core material will dictate if the pan is steel or aluminum. This is the most effective way to build an oil pan.

If a stock core is not available then a sealing surface will need to be fabricated. In situations where the rail is flat a rail can be laser cut out of either steel or aluminum. Rounded seals can be done in both steel and aluminum. In the case of rounded seals, billet aluminum can be machined and paired with a fabricated rail. Steel seals can be fabricated with the pan rails.

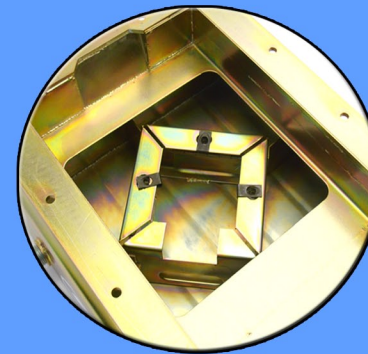


OIL CONTROL FEATURES

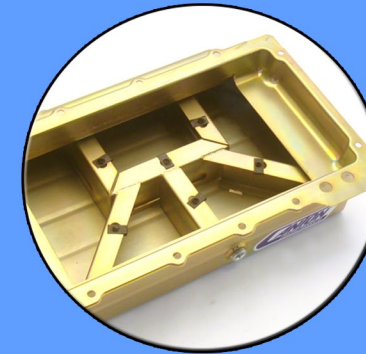
TRAP DOORS & PICKUP LOCATION

Trap doors are a great oil control feature that allows oil to get to the pickup but not away from the pickup. A proper trap door set up is designed around a pickup location for the specific type of racing being done. A road race application will have a centralized pickup and should have a diamond shape trap door set up. A circle track set up will have the pickup located in the passenger side rear of the oil pan with trap doors designed to allow oil to only go that way.

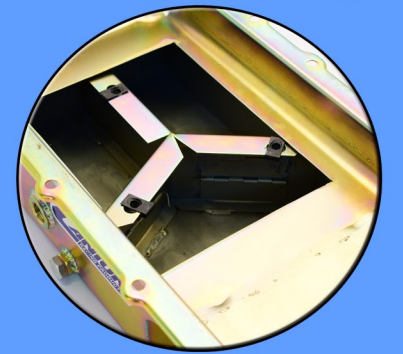
Road Race



Circle Track



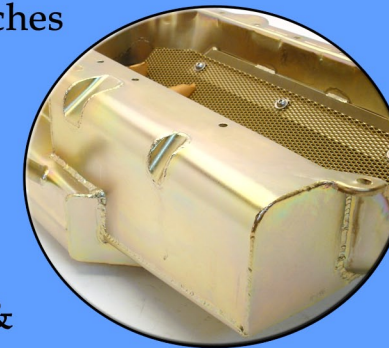
Drag Racing



WINDAGE REDUCTION

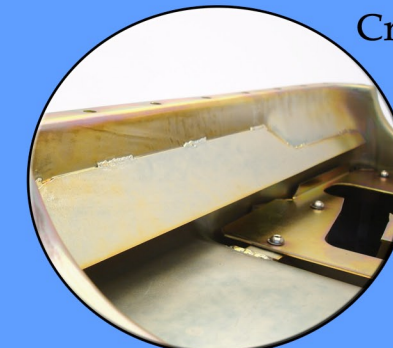
Power Pouch

A power pouch catches oil coming off the crank in order to free up the rotating assembly. A power pouch executed properly can free up horsepower by reducing windage & drag on the crank.



Crank Scraper

Crank scrapers provide the same advantages of a power pouch but on a smaller scale. However, they are simpler in design as well as requirements.



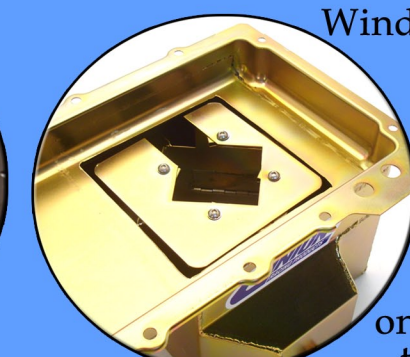
Windage Tray

Windage trays allow the oil to reach the sump without being affected by the turbulent air being created by the rotating assembly and the pistons.



Windage/ Anti-Slosh Baffle

Windage/ Anti-Slosh baffles serve to both reduce windage and control oil slosh in high G situations. This can be paired with trap doors or used exclusively depending on the level of oil control that you are attempting to achieve.



If you want to talk more call us at
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