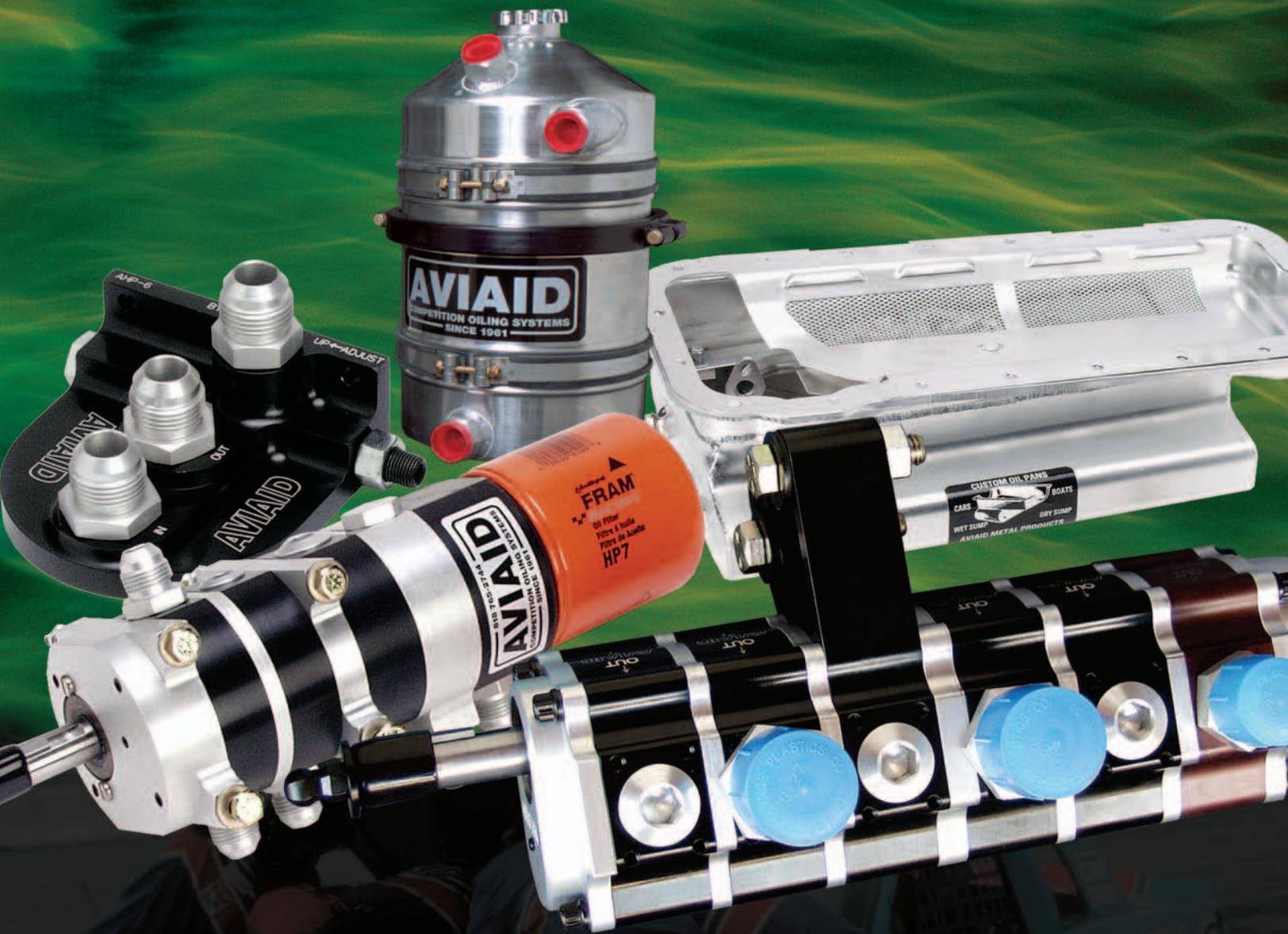


AVIAID

COMPETITION OILING SYSTEMS

SINCE 1961



WET & DRY SUMP PUMPS • OIL PANS • REGULATORS • TANKS • LINE SYSTEMS • DRIVE SYSTEMS

The AVIAID STORY...

A Short History

In 1955 Tom Davis began modifying oil pans for boat engines, starting with his own. By 1961 Aviaid Metal Products grew into a commercial sheet metal business, providing products for aircraft, commercial electronics and, of course, racing engines. In 1968 the continuous escalation of performance in motorsports pushed Tom to develop the first dry sump oiling system for general application in American Motorsports. This first 3 stage belt drive pump for a small block Chevy coupled with an Aviaid 2 pickup dry sump pan, developed quickly.

And the firsts kept coming. Soon 4, 5 & 6 stage pumps started emerging from the shop. A cast iron pressure section was developed to minimize the effect of temperature on pump volume. A reverse rotation regulator and a hex on the drive end allowed the pump to be driven off the cam, often with a fuel pump attached to the end. By the time Tom died Aviaid pumps and pans had brought about a revolution in lubrication that had captured virtually every form of Motorsports.

The Oiling Problem

As vehicles are modified for motorsports, we seek to increase the output of the engine, and the acceleration of the vehicle. Lateral and longitudinal forces push oil around the floor of the pan and up the sides into the crank assembly. Moving parts in the engine create windage that keeps oil from settling in the pan. Poor internal oil circulation keeps oil from returning to the sump quickly. At the same time the pump has to pressurize the oil system to lubricate and cool bearings and bearing surfaces. The real problem is that the oil is not always there to be picked up.

The Wet Sump

Wet sump systems can be modified to ensure a supply of oil to the pump. In the oil pan baffles direct oil through gates in pickup boxes using those same vehicular forces to move the oil. Scrapers and windage screens scour oil out of the crankcase, directing it into the sump. Block modifications help oil return to the sump as quickly as possible. The internal pump can often cope with the increased demands of larger bearing clearances, higher RPM, higher horsepower levels and additional oiling tasks. When those limits are reached an external pump can be fitted to match engine requirements for greater volume and/or pressure.

The Dry Sump

In a dry sump system oil is positively removed to a remote sump by scavenge pumps. This allows the engine to be lowered to its absolute minimum installed height. The number of scavenge pumps is driven by the efficiency needed to maintain tank oil level for the application. The size of the scavenge can be increased to induce a crankcase vacuum. The pressure section can be tailored to any volume and/or pressure requirement. These parts can be packaged anywhere on the engine where a drive can reach the pump.

The AVIAID SYSTEMS



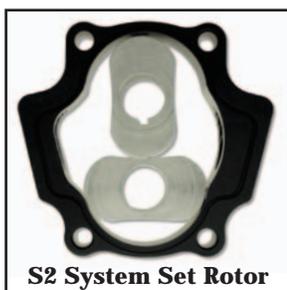
S1 System Set

The S1 system uses a 9 tooth gearset within the most compact housing available today. Clearances are set for petroleum and most synthetic oils. Moderate vacuum levels are achievable. 7 housing widths including cast iron for pressure, over 40 mountings, belt, hex, spline or blade drive, and numerous accessory drives make this the most versatile system available.



S2 System Set Gear

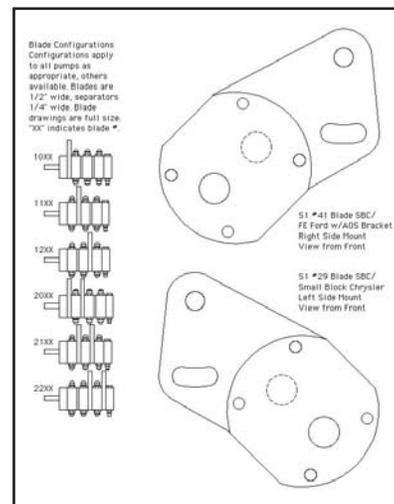
The S2 system uses a lubricant coated enlarged 7 tooth gearset in a compact alloy housing featuring angled inlet & outlet ports. Reduced clearances and cast iron pressure sections afford precise control of all petroleum and synthetic oils. 5 housing widths accommodate 7 different gear sections for maximum flexibility, the 1" cast iron pressure housing having available .800" and .600" gears with captive spacers. Features are optimized for large multistage pumps. All pumps incorporate intermediate shaft bearings & supports. Mountings are designed for extreme rigidity. Pumps use twin blade or monolithic body mounts. A KSE pattern cam drive mount is available. A twin lobe rotor section is available for certain applications, although high teen and low 20's vacuum numbers are available with properly configured gear section pumps. Pressure sections can be positioned front or rear, with a front integral regulator available. An air/oil separator is optional on request.



S2 System Set Rotor

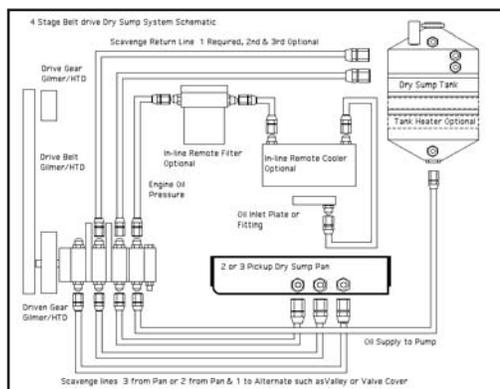
Modularity is the key to system flexibility. All

blades & mounts can be printed off the web in full scale to use for mount fitting and selection. Additional feature components are typically insertable in most configurations. All pumps are built to order from finished on the shelf components. After configuring the pump the balance of the system can be derived based on the application and the budget. System schematics can be printed off the web to assist in complete systems development. AVIAID has teamed with various suppliers to enhance our own stamped steel pans with fabricated and cast aluminum pans built to our specifications. Our tank offerings, manufactured by Patterson, range from 1-1/2 to 5 gallon capacity,



#29 Blade Drawing

with configurations designed for each particular application based on experience. Drives, lines, hose ends, adapters and fittings are available to complete any system design. Various universal mountings allow quick adaptation of these technologies to virtually any engine, installation or application. Tech resources are being added to the website on a regular basis, and we stand ready to help at any time. AVIAID has the ready capability to provide the solutions to the most troublesome problems today.



4 Stage Belt Drive System Schematic

THE SERIES 1 COMPETITION OIL P



12800-0178

The Series 1 Competition oil pump is a general-purpose design engineered for a broad spectrum of lubrication requirements. Clearances are set to provide consistent & reliable performance in most competition applications with most general specification petroleum based and synthetic based oils. Moderate vacuum levels are attainable with properly configured pumps. It is a modular design offering seven pump segment widths with more than 35 different mounting options. Section sizes are 0.600", 0.840", 1.000", 1.250", 1.500", 1.750" & 2.000". Aluminum is the standard housing material. The 3 largest sections are available in cast iron for pressure sections. All pump bodies use an O-ring seal.

Mountings include blade, cam drive and motor plate. Standard blade configurations offer 2 blades for stable mounting. Any variation is available. These are indicated on all blade spec sheets. Drawings can be printed off the web. Drive shafts are precision ground chromoly alloy with 3/16" belt drive keyway, 3/8", 7/16" or 1/2" hex, or 1/4" tang drive. Spline drive is available on request. Idler shafts are precision ground heat-treated chromoly alloy. Studs are precision ground stainless and use alloy fasteners for positive and consistent retention and assembly. The drive shaft runs in sealed precision roller bearings, the idler shaft is fixed in the pump. Standard gears are leadalloy, with bronze idler optional in low lubricity environments. Specialty intermediate plates are available for specific applications, such as double seal plates for positive segment separation, and intermediate bearing plates for additional shaft support when necessary.

An integral regulator is standard. Remote regulators are available with a non-regulator pump end. A 3/8" hex drive is available at the back end of the pump for driving accessories such as fuel pumps and/or power steering pumps. All pumps are built from off-the-shelf finished components. Certain standard configurations are available for same

day or next day shipment, depending on conditions.

Most custom configurations are generally available for shipment within 3 days.

Rebuild kits are available for all pumps, as well as complete rebuild and repair services. Parts retrofit to all



30555

30551

30550



existing Series 1 pumps manufactured over the last 35 years. And standard rotation pumps up to 1" pressure sections are available with rear-mounted oil filter.

Single stage external wet sump pumps are available in capacities ranging from 4 GPM (gallons per minute) to 20 GPM. These pumps are available with any blade or mount listed in the current catalogue, in any configuration of direction of flow or rotation

A special version of external wet sump pump is available for extreme high volume applications such as aluminum big blocks or diesel engines for pulling or drag racing. These pumps combine 2 of our larger standard pump sections into a single stage pump. This method requires 2 pickups and offers flow volumes up to 40 GPM. Currently installed pumps work at operating pressures up to 275-300 PSI.

2 stage pumps offer solutions to 2 different problem. As an external wet sump pump a scavenge section can scavenge the top end of a Chevy, or the cylinder head of a Chrysler. As a dry sump pump it can do duty for an AA/Fuel Harley Davidson.

All pumps with multiple scavenge sections have crossported scavenge outlet ports unless ordered otherwise. This allows return line connections from any or all scavenge outlet ports. 3 stage dry sump pumps are available in any combination of available stage sizes with scavenge sections up to 2". The 2 scavenge sections are connected to the pan.

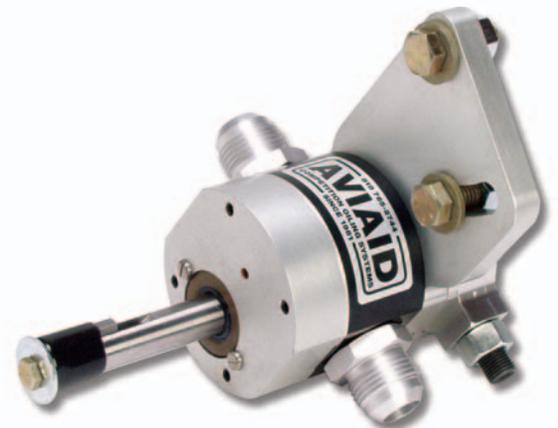
4 stage pumps offer 3 pan connections or 2 pan connections and one for a valley scavenge.



14220-2022



13220-2134



11201-1134



13000-1276

CAM DRIVE, TRACTOR PUMPS



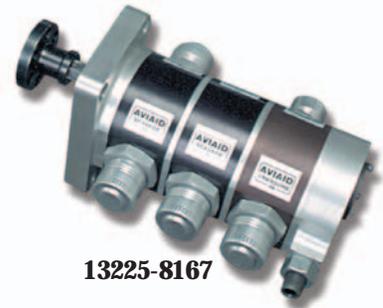
12445-7172



13225-7265



11405-7065



13225-8167

Cam Drive Mounts

Cam drive mounts are differentiated from a belt drive mount in that they provide a register to center the drive shaft on the cam or accessory drive spud. Currently Aviaid can provide cam and accessory drive mounts for all Arias, AR Ford, Donovan, JFK, Keith Black, KSE and RCD drives. These mounts are the front body of the pump, not an adapter plate. This provides an integrated, accurate mount. We have several universal cam drive mounts with registers. These have been used on applications such as experimental airplane engines and unlimited hydroplane V-drive boxes. These pumps are available with hex, tang or spline engagements to specification.

All the flexibility of our modular S1 pump system is available on any cam drive mount in the catalogue.

Tractor Pumps

Aviaid has developed a series of pumps specifically for the diesel & alcohol tractor pulling market. The demands of these engines for oiling are well beyond the capacities of standard pumps. The primary pump configuration is an external wet sump pump. Engine oil pressure sections deliver the 30 to 40 GPM oil volume at the 120-275 PSI these engines require. The base pump is a 2 section single stage external wet sump pump with an integral direct pressure regulator. 2 inlet ports and pickups allow for the inlet volume required. Outlet lines can feed a manifold for distributed engine oil feed. For extreme pressures over 200 PSI an intermediate shaft bearing support section is incorporated to insure shaft stability.

The 2nd configuration adds a turbo-charger or diesel fuel supply section and an intermediate shaft bearing support section to the pump. A triple seal fluid separator section provides positive system separation. A bronze idler gear eliminates the potential for galling when used with low lubricity diesel fuel. The turbo supply pump includes an integral pressure regulator. The diesel fuel supply version is supplied with a non-regulator pump end and a remote pressure regulator assembly to maintain a cool fuel supply to the injection pump.

The 3rd configuration adds both a diesel fuel supply and turbo oil section to the engine oil section in one integrated pump assembly. Triple seal sections insure proper separation of engine from diesel from turbo oil. An intermediate shaft bearing support section stabilizes drive and idler shafts in this triple pressure pump. Both fuel and turbo oil sections incorporate a bronze idler gear to prevent galling. Integral pressure regulators are used on engine and turbo oil supply sections. A remote pressure regulator assembly is supplied for the center mounted diesel fuel supply section.

These pumps are typically supplied with the #66 motor plate mount with its integral slotted mounting holes. Pumps can be supplied with any mounting blade or mount from the Aviaid catalogue. Standard or reverse engine rotation is available. And a full complement of fittings is available to fit any particular installation.



73311-1566

REMOTE REGULATORS



Adjustable remote regulators relocate the pressure regulation function to a more convenient location. While a convenience for a dry sump, this can be a valuable addition to an internal wet sump pump.

Remote regulators bypass oil through an external port when pressure building on the outlet side lifts a piston enough to open the bypass orifice. By changing the way oil is bypassed system dynamics change. A standard regulator bypasses oil from the outlet side of the pump back to the inlet side, reusing the bypassed oil. Engine oil demand is relatively fixed. Assume a small block Chevy demands 6 gpm. If the pump puts out 10 gpm, and the engine takes 6 gpm, 4 gpm must be relieved. The pump is going to pump 10 gpm. The pan and pickup only need to deliver the 6 gpm required by the engine. The pickup must flow 6 gpm & the oil pan must deliver 6 gpm to the pickup.

With a remote regulator the entire system moves 10 gpm. The bypassed oil no longer makes up part of the demand of the pump. The pickup and the oil pan must both deliver 10 gpm to the pump. This is a 66% increase in flow. In a wet sump a restrictive pickup or a poor pan design will result in cavitation & starvation. Too much velocity in a system also means wasted power.

A 2nd issue is that any time oil crosses an orifice it aerates and heats. In a standard pump this heated and aerated oil is recirculated directly back into the oil inlet stream. A remote regulator bypasses the oil back to the pan or the dry sump tank. This allows bypassed oil to release entrapped air and to cool. The oil stream to the pump is cooler and 'cleaner', less entrapped air.

Excessive bypass can be eliminated by correctly sizing the pressure section. In a wet sump one can go to the standard volume pump instead of the typical high volume pump. In a dry sump install a smaller pressure gear and housing set. AVIAID offers pressure sections down to 0.600", flowing about 4 gpm. Careful matching of the pressure curve to the rpm range of the engine can produce an installation with a 10-15% safety margin, minimizing bypassed oil. Reducing that volume recovers the marginal horsepower required to pump the bypassed oil. Oil stays cooler and denser, producing a cleaner oil stream. All this is lost if the engine fails for lack of sufficient oil supply. So the best advice is to leave tinkering with oil pressure and supply to well developed and carefully engineered systems.

AVIAID offers adjustable remote regulators that duplicate the characteristics of our integral pump regulators used and developed for over 40 years. They are available in 3 styles. Each incorporates a through passage that is incorporated into the pressure line, and a bypass port that must be routed to an open area of the engine or dry sump tank.

The primary remote regulator is a stand-alone block mountable virtually anywhere. The second style is a regulator incorporated into a remote filter mount, available for either a HP-4 or HP-6 style filter. The third style is a sandwich-type regulator that mounts directly in the oil filter boss of most Chevrolet products.



40112

THE SERIES 2, 4, 5 AND 6 STAGE

S2 multi-stage pumps are designed to extract the maximum scavenge and pressure control per inch and dollar investment of any external dry sump pump system. All critical dimensions and specifications are incorporated to the highest practical degree for extreme accuracy in construction and performance.

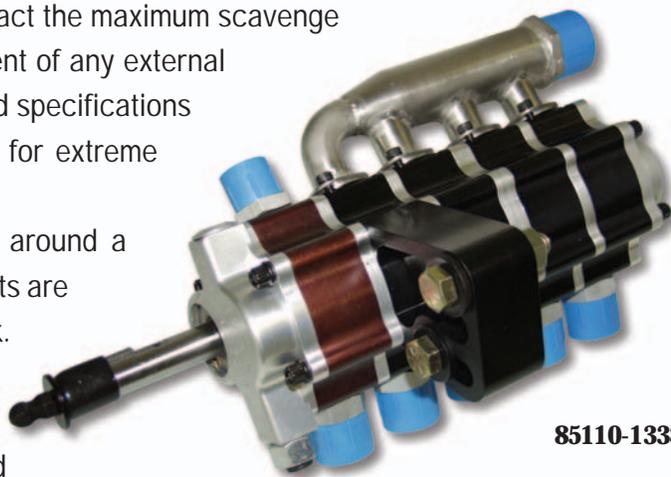
The core of the S2 system is developed around a unique gear and chamber design. All aluminum parts are machined from certified aircraft alloy billet stock.

Within the context of an envelope that conforms to all dimensional sanctioning body rules, pump segment displacement is maximized. Inlet and outlet ports are angled 28 degrees to facilitate hose connections by directing outlet ports away from steering shafts and cylinder heads while orienting inlet ports away from oil pans and towards hose connection points.

All parts then receive a Mil-spec Type 1 anodize. Gears are cut from a dead soft steel alloy. Available section sizes are 1.000", 1.250", 1.500", 1.750" & 2.000". Cast iron pressure sections are available in 1.000", 1.250" & 1.500". A 0.600" or 0.800" gearset can be installed in the 1.000" cast iron section using captive spacers, allowing unobstructed flow through the fittings. All scavenge section gears are coated with a baked-on lubricant film for reduced parasitic horsepower losses due to friction, and for improved gear to gear and gear to housing sealing. For certain applications a twin lobe Rootes-type impeller section is available.

Drive and idler shafts are cut, machined and ground from certified heat-treated aircraft alloy chromoly steel. Idler shafts receive additional heat treating to insure material incompatibility with the idler gears. The pump is assembled using ground and heat-treated hollow stainless steel dowels. These dowels offer significantly more load-bearing area than dowel pins. All bearings are 10,000 rpm rated. All pumps incorporate an intermediate bearing on the drive shaft and a close tolerance support for the idler shaft.

The S2 system offers 3 mount types. The first mounting technology is the traditional 2-blade mount. Mounting blades include 4 for Small Block Chevy, 2 for Big Block Chevy, 1 for Bert/Brinn bellhousing and 1 for Elliot 3 bolt Small Block Ford. This system offers the greatest flexibility.



85110-1338



44220-2131



PUMPS

The 2nd mounting technology is a KSE cam mount for most small block sprint car applications. Shaft engagement can be with either 7/16th or 1/2 inch hex. All features available in belt drive pumps are available in this cam drive version, including fuel pump drive.

The 3rd mounting technology is the mono-body mount. This mount incorporates either a 1-1/4" or a 1-1/2" pump body. The mount can be positioned at most body positions in the pump. Machined from a solid piece of certified aircraft billet aluminum alloy, excess material is removed to both lighten the part and increase the structural rigidity of the part by significantly increasing part wall area.

Mounts are full body width, creating the most rigid possible mount. And all mounts incorporate Grade 8 7/16th mounting hardware. Shoulder washers are available to allow the use of 3/8" hardware if desired.

Pressure sections use cast iron as standard, increasing oil pressure consistency through all temperature ranges. Optional pressure section configurations include a 45-degree outlet aluminum 1-1/4" housing available for Trans Am applications. Pressure sections can be positioned at either end of the pump. Pressure sections use a smaller 9-tooth gear for smoother, more controlled flow and delivery.

Pressure regulation is available integral or remote. Pump end integral regulators are available for any rotation or pump orientation. Additional regulation is now available for certain pressure front applications. This includes left and right side belt mounts, and KSE cam mount configurations. Remote regulator applications can utilize a stand-alone remote regulator block, a regulator mechanism built into an HP-4 type oil filter remote mount, or a regulator mechanism built into an HP-6 type oil filter remote mount.

4 stage configurations can be built for 2 to the pan, 1 to the valley or 3 to the pan installations. 5 stage configurations typically go 3 to the pan, 1 to the valley, or 4 to the pan. 6 stage pumps are built for separated sump installations that require a valley scavenge also for completely isolated top and bottom end engines.

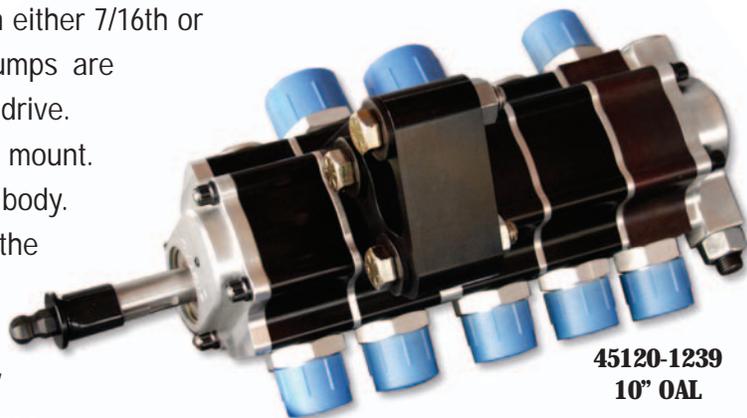
Application-specific configurations currently include 6 stage

Nextel Cup @ 10-3/4" OAL, Craftsman Truck and

Busch Grand National @ 10", Trans-Am with 45° pressure

outlet port for right side mount, and front pressure 5 or 6 stage for mid-

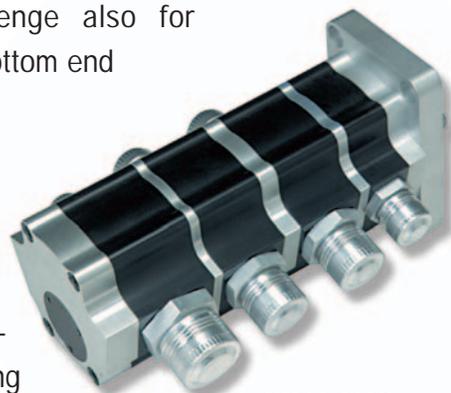
engine prototype installation. Configurations for drag racing and truck pulling are developed as required.



45120-1239
10" OAL



46110-1336
10-3/4" OAL



24216-8137

TANKS

The primary purpose of the dry sump tank is to hold the oil supply of the engine ready for the pressure section of the oil pump to use as it pressurizes the engine. That's the easy part.

Patterson Enterprises fabricates AVIAID's tanks and tank accessories for us. Patterson is one of the few hard core racing component manufacturers that date back as far as AVIAID. These tanks are built up from spun aluminum cans, 6" or 9" in diameter, and assembled for each individual application.

The tank receives the scavenged oil from the outlet of the scavenge sections of the pump. This oil 'spits' into the tank through the inlet fitting. The first thing it has to do is land. The round spun aluminum inner surface is the first surface the oil sees as it enters the tank. The fitting through which it enters has a splitter to orient and control the stream. The curved inner surface softens the landing of the oil on the inside of the tank.

The oil rolls off the sidewall of the tank onto the top baffle, allows the oil to flow out on this shelf in a thin sheet, promoting the release of air trapped in the oil. It flows around the edges of this shelf and it falls into the pool of oil. In this vertical column the oil can sit and 'rest', waiting to be pulled out and cycled through the engine. A 2nd baffle helps stabilize the oil against the forces of inertia acting on it through the motions of the vehicle. At the bottom of the tank it is pulled into the pickup box and out through the outlet fitting.

A large portion of the volume that enters the tank is air, far exceeding the volume of oil being pulled out by the oil pump. The tank must be vented. Lowering atmospheric pressure in the crankcase has increased in importance. The ability of the tank to handle this airflow has become more critical. A 3" central core in the tank provides a path for the air out of the tank. This cylinder extends from the bottom to the top of the tank. Perforations through the wall of the cylinder in the lower portion of the tank force air to travel down and then back up through the inside of this core to the vent outlets at the top. On the way to the top of the inner core, the air passes another baffle.

At the top the real key is to slow the velocity of the air down. Running the output of a large scale 5 or a 6 stage pump straight out of a -12 vent line is an invitation to pull all the loose oil around the outlet with the air stream. We use 2 quick 90° turns along with 2 changes in diameter to help the air stream shed any additional oil, and then vent it out of the tank.

Once out of the tank there are 2 options. In certain applications a small filter element can be fitted to the top of the vent outlet fitting. This makes for a neat compact package on the 9" tanks. On the 6" tanks, and for applications that require venting removed from the tank, or for applications where vehicle motion is extremely violent, a remote breather canister is required. Our canister incorporates 2 -12 inlet fittings. This allows 2 connections where desired, such as to an engine valve cover and the tank. Inside the canister the airstream makes several changes of direction and passes through a fibrous element before being released to the atmosphere.



50025



50030



50220

VINTAGE & SPECIALITY OIL PANS

AVIAID wet sump pans were the standard on many early performance engines, including the Cobras of Carroll Shelby and Ford's small block GT-40s, as well as McLaren and Lola cars and most Corvettes and Camaros. Production continues on these OEM pans for vintage cars as well as pans AVIAID developed for high performance and racing vehicles. All components are CNC produced, all buckets gas welded, all internals TIG welded. All are full road race pans and include custom pickups. To complete the vintage package we offer the original Traco oil accessories, including Chevy In & Out and remote filter mounts.



427 Cobra FE Road Race Pan w/ separate sandwiched windage tray (FE only) 427 FE 6" deep front, 4-1/2" deep rear 9qt pn 55410
460 BBF 7-1/2" deep 9qt pn 55435

TRACO REMOTE FILTER MOUNT AND ADAPTER



40103

40104



1964-1970 Mustang road race pan. Available for 4-bolt rear main cap block and/or girdle on request
7-1/2" deep 6 qt 302 pn 55320 351 pn 55325
8/1-2" deep 8qt 302 pn 55324 351 pn 55326
9-1/2" deep 9.5qt 302 pn 55335 351 pn 55336

Early Mustang



Dual Sump

1980-1993 late model Mustang road race pan. Available for 4-bolt rear main cap block and/or girdle on request
8-1/2" deep, 6 qt. 302 pn 55300 351 pn 55310



289 Cobra Road Race

289 Cobra Road Race pan
6-1/2" 302 Daytona Coupe pn
6-1/2" 351W Daytona Coupe pn
6-1/2" 302 GT-40 pn 55360
6-1/2" 351W GT-40
7-1/2" 289 Cobra pn 55355
7-1/2" 351W Cobra pn 55356

Pantera



De Tomaso Pantera 351 Cleveland 9qt pn 55365
De Tomaso Pantera 351 Windsor 9qt pn 55368
De Tomaso Mangusta 302 9qt pn 55366

Sunbeam Tiger road race pan. Available for 4-bolt rear main cap block and/or girdle on request
7-1/2" deep 8qt 302 pn 55370



Tiger



GT-350

1964-1970 Mustang
7-1/2" deep 6qt GT-350 "R" Model pan pn 55350



Bud Moore

Pans Not Displayed

C1/2/3 SBC Corvette	7-1/4"	pn 55120	8"	pn 55122
C1/2/3 BBC Corvette	7-1/4"	pn 55240		
1967-69 SBC Camaro	7-1/4"	pn 55110	8"	pn 55112
AMC AMX/Javelin	8" deep	External Pickup		pn 55700

RACING OIL PANS

AVIAID fabricates numerous basic dry sump pans to complement our pump products and provide one stop sourcing for complete dry sump systems. We start with new stamped steel pan cores. For small block and big block Chevy engines these are dedicated dry sump cores, typically with stroker notches formed in during the stamping process. The result is a virtually indestructible part. For Ford applications we begin with new wet sump cores and modify these for the application.



56412 427 FE 3 Pickup dry sump pan for original Cobra type chassis. Pump mounting bracket and damper sleeve drive pulley also shown.



52310/52320 SBF 302/351 2 or 3 pickup dry sump pan. Available to fit 4 bolt rear main cap.



52100 SBC 2 or 3 pickup dry sump pan. 1 pc stamped steel core. 52201 BBC 3 pickup dry sump pan. 1 pc stamped steel core. (not shown)



52130 SBC All Pro dropped rear 2 or 3 pickup steel dry sump pan w/ below the rail kickout

Depending on applications these pans have 2 or 3 pickups installed. All AVIAID pans feature screened pickups. We feel it in our best interests to protect our pumps as best as possible. All welding on the pan core itself is with gas. This provides an annealing effect as the part is welded, virtually eliminating cracking. All internal parts are typically TIG welded. All other components are brazed.



52210 BBC 3 pickup left side outlet dry sump pan for left side mount installation.

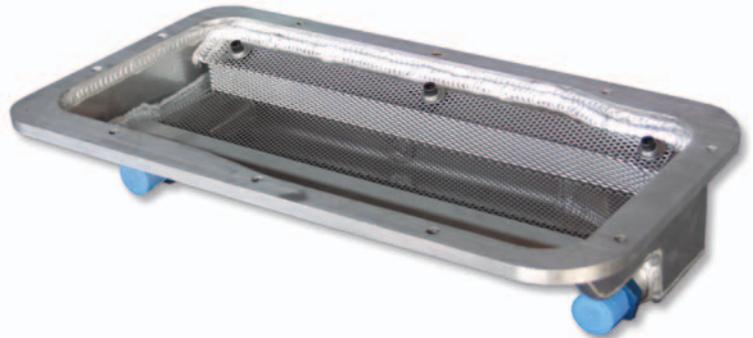


52400 460 BBF 3 pickup right side outlet dry sump pan.

For more involved applications or those where a stock core is not available or suitable, we work with various suppliers to provide fabricated aluminum or cast aluminum dry sump pans built to our specifications. This allows us to work with partners to provide oiling systems solutions beyond what can be accomplished with stock cores. For our fabricated aluminum pans we work with Billet Fabrication of Simi Valley, CA. For our cast aluminum pans we work with Armstrong Racing Engines of Orangevale, CA.



61003 LS1 4 pickup cast aluminum dry sump pan 4-1/2" deep (shown)
 61004 LS1 4 pickup cast aluminum dry sump pan 3" deep w/ 4 non-structural mount points front and rear
 61002 LS1 2 or 3 pickup cast aluminum dry sump pan for Corvette/F-body chassis.



54101 Honda V-Tec fabricated aluminum 2 pickup dry sump pan

Our only goal is to provide the most appropriate and cost effective solution for each and every customer's lubrication requirements.

FITTINGS, ADAPTERS & ACCESSORIES

The last part of the dry sump puzzle is connecting all the pieces. For this AVIAID offers a complete selection of fittings and adapters to connect tank to pan to pump to engine and back again. All fittings are made for our systems. Fittings and adapters feature a generous radius for best possible flow characteristics. Angled fittings are available in a variety of port and line configurations, allowing connections in the most awkward of places. Stainless steel manifolds are available fabricated to order for each particular installation. Line filters, pan filter fittings, and a variety of remote mount filter options are available. We work with other suppliers to fill in the gaps in our offerings to insure that we can always provide the answer to our customer's questions.

PUMP PORT ADAPTERS



STRAIGHT



45°



90°

REMOTE FILTER MOUNTS



13/16-16 HP-4

1-1/2-12 HP-6

1-1/2-16 Wix 57007R

Traco HP-4 Left or Right In

REMOTE OIL FILTER AND COOLER ADAPTERS

Specify Fittings, -10 or -12



SBC/BBC Remote Filter Adapter

SBC/BBC Remote Cooler Adapter

Traco Remote Filter Adapter

Inboard Gasket Remote Filter Swivel Adapter (a) (b)

Outboard Gasket Remote Filter Swivel Adapter (a) (b)

(a) specify -10 or -12 fitting size

(b) specify 3/4-16, 13/16-16, 18mm or 22mm thread

LINE FILTERS



40019 FILTER INLINE 08 FTG

40020 FILTER INLINE 10 FTG

40021 FILTER INLINE 12 FTG

40022 FILTER INLINE 16 FTG

40023 FILTER INLINE 12X90D

PUMP DRIVES



Big Block Chevy



Small Block Chevy



1" Mandrel Drive Gears L100 12 thru 27

1" Mandrel Drive Gears 8mm 14 thru 33

5/8" Shaft Driven Gears L100 26 thru 36

5/8" Shaft Driven Gears 8mm 28 thru 44

BBC ATI Bolt on 1" Mandrel Aluminum

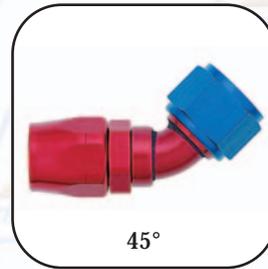
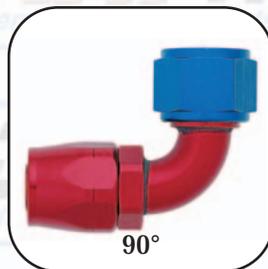
SBC Thru bolt 1" Mandrel Steel

Standard Blower Flange 1" Mandrel Steel

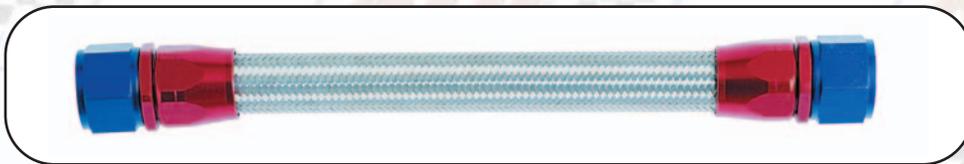
XRP LINES AND FITTINGS

AVIAID stocks a full complement of hose and fittings in our effort to provide a complete lubrication solution for each application. Matching the pump, its mount and fittings with the proper selection of hose and hose ends is the final step in fitting these external systems in today's ever tighter engine compartments. Whether it be stainless braided hose, push-lock rubber hose or teflon lined hose, all possible options are available to insure a safe, efficient and functional solution. AVIAID offers selection from a single piece to complete systems packages, with complete exchange privileges on unassembled parts. Our only goal is to complete the system.

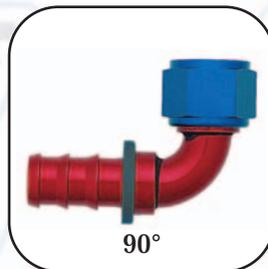
PERFORMANCE NON-SWIVEL AND SWIVEL ALUMINUM HOSE ENDS



STAINLESS STEEL BRAIDED CPE HOSE



PUSH-ON HOSE ENDS



Other angles available: 30°, 60°, 150°

XRP PUSH-ON HOSE





SINCE 1961
AVIAID
COMPETITION OIL SYSTEMS
10041 Canoga Avenue, Chatsworth, CA 91311-3004
www.aviaid.com

ORDERING INFORMATION

AVIAID Phone lines are open from 8am to 5pm Monday thru Friday (Pacific Standard Time). Specialists are on hand to assist you with technical information and ordering. Voice mail is available 24hrs/day.

ORDERING

voice 1.818.998.8991 fax 1.818.998.8993

e-mail: aviaid@aol.com

AVIAID accepts MasterCard, Visa, American Express, and Discover Cards or can ship C.O.D.

RETURN GOODS AUTHORIZATION

If it is necessary to return items purchased from Aviaid, the return must be made within 30 days of the purchase date. Prior to returning the item, a return goods authorization number (RGA#) must be obtained from Aviaid. To obtain an RGA#, you can call the Aviaid sales department. You must have the original invoice number and be the original purchaser of the item. Our sales staff will assist you in determining this information. The item must be returned freight prepaid. In the event a wrong item was shipped by Aviaid, a call tag will be sent by Aviaid to pick up the part. Under no circumstances will replacement parts be sent prior to receiving the returned part. If replacement parts are needed prior to Aviaid receiving the returned parts, the replacements parts will be charged for and a refund will be issued by Aviaid at the time the returned parts are received.