



OIL PUMPS • FILTERS • CLUTCHES • ROCKER ARMS

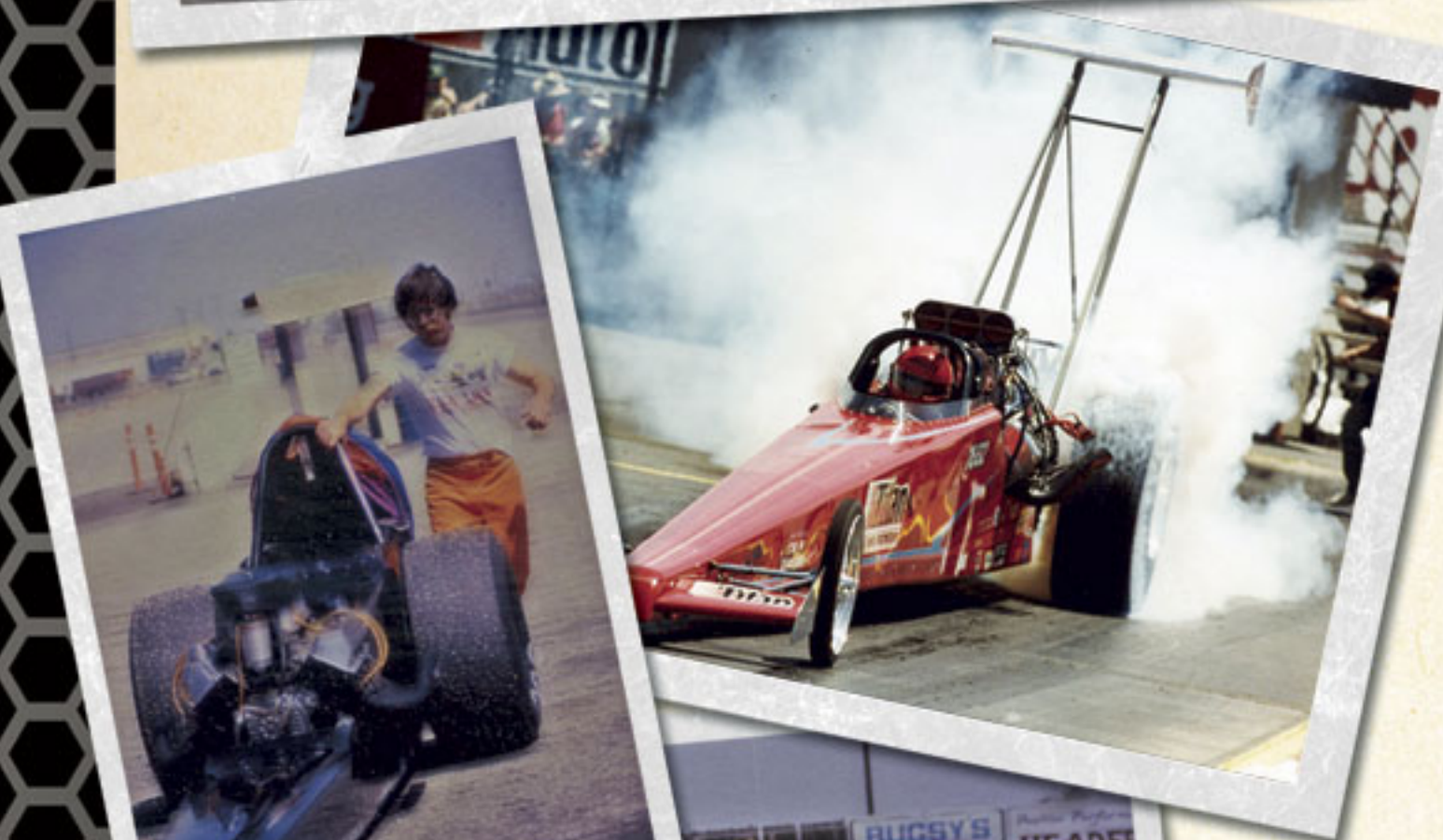
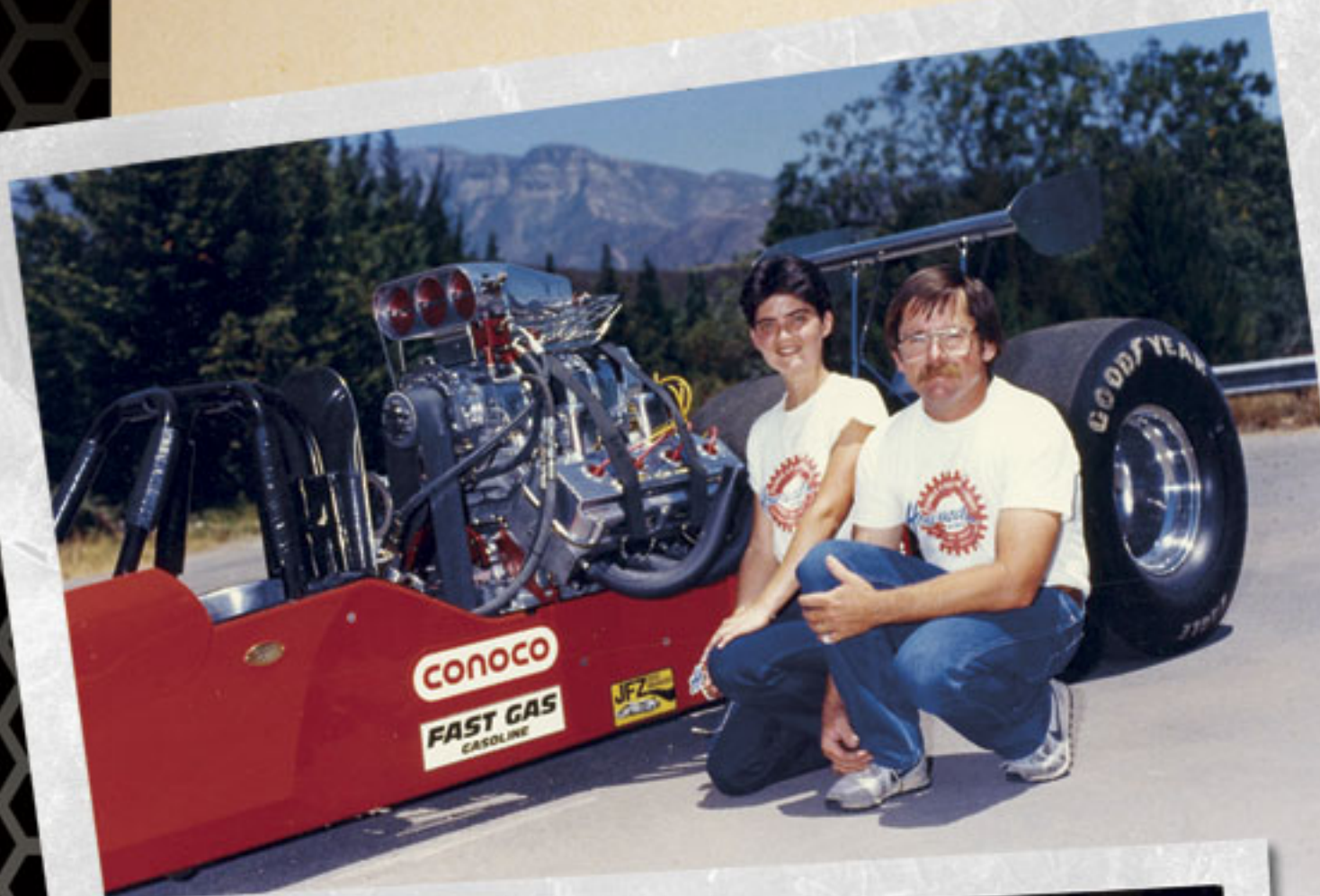


PROUDLY MADE IN OJAI, CALIFORNIA U.S.A.

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W W W . T I T A N S P E E D . C O M



Titan
SPEED ENGINEERING



All Titan products are **100% Made in the U.S.A.**
Machining is done in-house at
Titan's Ojai, California facility with **Solar Power.**



Titan Speed Engineering is family owned and operated, we have been manufacturing racing parts for over twenty years. Our involvement in drag racing began in the 1960's and prompted us to start making performance parts for our own cars. Seeing the needs of fellow racers for similar parts Titan evolved into a full time business. We now supply quality racing parts to almost every type of motorsports throughout the world.

Through our constant involvement with racers, our Titan engineers and craftsmen have always been at the forefront of technology. Incorporating lessons learned through direct feedback at the races and in the pits, to continuously improve our products. We are dedicated to providing the racer with the best possible equipment to help them perform better and faster than the competition. Our exclusive use of materials made in the U.S.A., and in-house manufacturing processes produce the most precise and durable products on the market.

Being racers ourselves we recognize the importance of providing an excellent customer relationship. Supporting our products with a vast background of information that can only be developed through years of experience working side by side with racers. Honesty and integrity are essential in establishing the trust our customers and suppliers expect. Titan's success is critical to these relationships, being able to understand, anticipate and meet your needs for the highest quality products and services.

We are constantly working on new products and services to meet your needs. Unlike some other companies who work in a vacuum, we work with other notable speed product manufacturers to develop equipment that works together, so you get the right product and the right fit for your application. We don't copy what everyone else is doing, we strive to provide a better solution to give our customers a competitive edge. The proof of our success, and products, can be found on the most competitive cars, boats and pullers in motorsports today. We look forward to meeting and exceeding your needs in the future.



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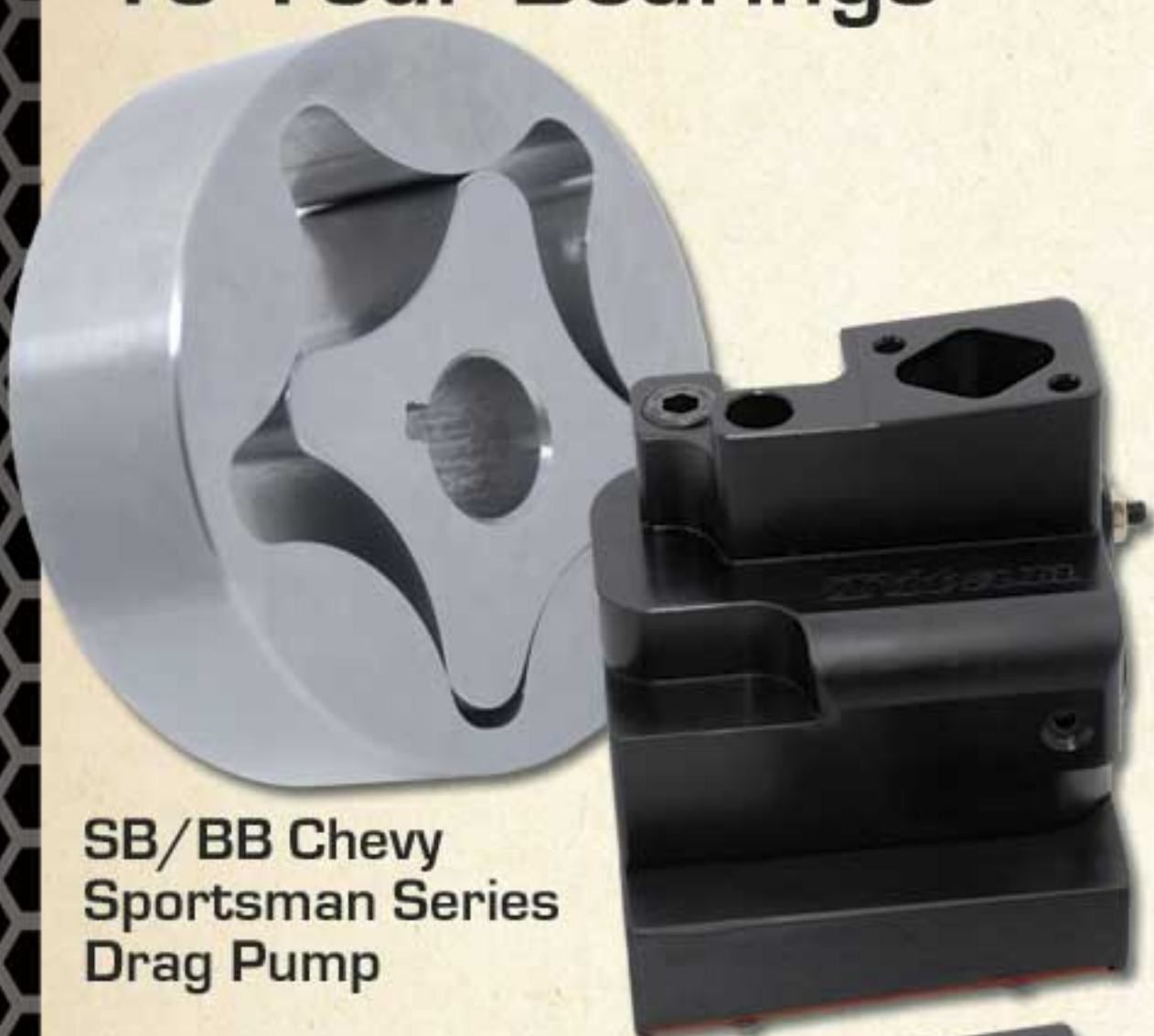


THE ULTIMATE RACING SYSTEM



Crankshaft Insurance:

The Best Thing That Ever Happened To Your Bearings



**SB/BB Chevy
Sportsman Series
Drag Pump**

**Little Dipper
Option Available**



**Titan's Adjustable Pressure
Balance Relief Assembly
with 4 spring options**



**SB/BB Chevy
Sportsman Series
Oval Track Pump**



From drag strips to circle tracks to road courses and dry lakes, successful racing teams are winning with the best kept secret in motorsports: Titan's gerotor driven oil pumps for wet or dry sump applications.

While it's true that Titan oil pumps initially gained fame for lubricating Top Fuel Dragsters and AA/Funny Cars, we now offer dual feed oil pumps for every racing engine and budget.

Our billet aluminum, Professional series wet sump pumps provide "crankshaft insurance" to all types of pro cars, from fuel dragsters and doorslammers to sprinters and road racers. Why settle for the obsolete, passenger car technology of spur gears? Why suffer the extra expense, frontal weight, hassle and leaks of dry sump tank and lines? Now, you can simply bolt in a quality wet-sump system and forget about it?

The finest dry sump pump ever designed for late Hemi type oiling systems is also manufactured by Titan. Ideally suited to Funny Cars, Pro Modifieds and other full bodied vehicles with limited ground clearance, this two stage design has gradually evolved during more than a decade of development by Chuck and Del Worsham, two of Titan's oldest customers. If this oil pump wasn't the best thing that's ever happened to the Worsham's main bearings, you know that they wouldn't be running it exclusively on all of their fuel Funny Cars!

With the advent of our economical Sportsman pump for GM and Ford engines, even the lowest-buck racer finally has an alternative to cavitating stock type pumps and their failure prone external pickups. (Spur gear oil pumps were designed for passenger cars and that's exactly where they belong!) Professional and Sportsman wet sump models share our proven gerotor pumping system. Titan's high volume, anti-cavitation design is super smooth to 12,000 plus rpm! A unique combination of modular designs, interchangeable housings and gear sizes enable us to provide virtually any volume desired. Either one or two pumping segments are available in professional models, depending on the volume of oil required. Most Pro pumps include a large, integral pickup with more than 13 square inches of screen area. (The exceptions are late Chryslers and other remote pickup applications.) Every pump is black hard anodized, and all Titan pumps are fully rebuildable too!

All Titan models utilize a unique, adjustable pressure relief that allows you to select virtually any pressure setting from 50 psi to more than 100 psi. (Higher spring rates are available for even more pressure, where warranted). Our technicians individually bench test all pumps for volume and pressure. We preset the pressure of your pump to suit your specific application.

Titan's wet sump pumps bolt right into the stock oil pump locations of popular GM, Ford and Chrysler V8s, including early and late Hemis. All pumps are packaged complete with Grade8 [or higher] mounting hardware. GM models include a large, integral pickup assembly that cannot crack or fall off. Correct length drive shafts are provided for all applications. Titan's tool steel shafts combine super strong, 5/16 inch hex lower drive with a stock style upper drive.

If you want to improve on the weak tang drive in your GM/Chevy, Titan Speed has come up with a premium distributor drive gear (patent pending). It has a 5/16 hex broached in the bottom, so you have to remove the "tiny tang" from the bottom of your distributor. They are available in either stock diameter (.491) or after market diameter (.500). These gears are made in the U.S.A. from an aerospace brass alloy. Hex drive shafts are also available in any length. The GM Hex-Hex Drive is available as an option with our Professional and Sportsman Series Pumps.

Some pans may require modifications to accept Titan's larger than stock pump housings. The size of our pump bodies is dictated by the gerotor pumping segments, which are larger in diameter than the GM type spur gears found inside our competitors' smaller housings. First time customers typically order a brand new aluminum pan that's custom built to accommodate our oil pump. Jeff Johnston's Billet Fabrication has designed an entire line of aluminum pans around wet-sump Titan pumps. Both one and two piece models are available, with or without exclusive Baffle Balls.

Boasting billet rails and seal sections as standard equipment, these precision built oil pans are available directly from Billet Fabrication for any racing or street engine, chassis design and sump style. Check out www.billetfab.com for more information.

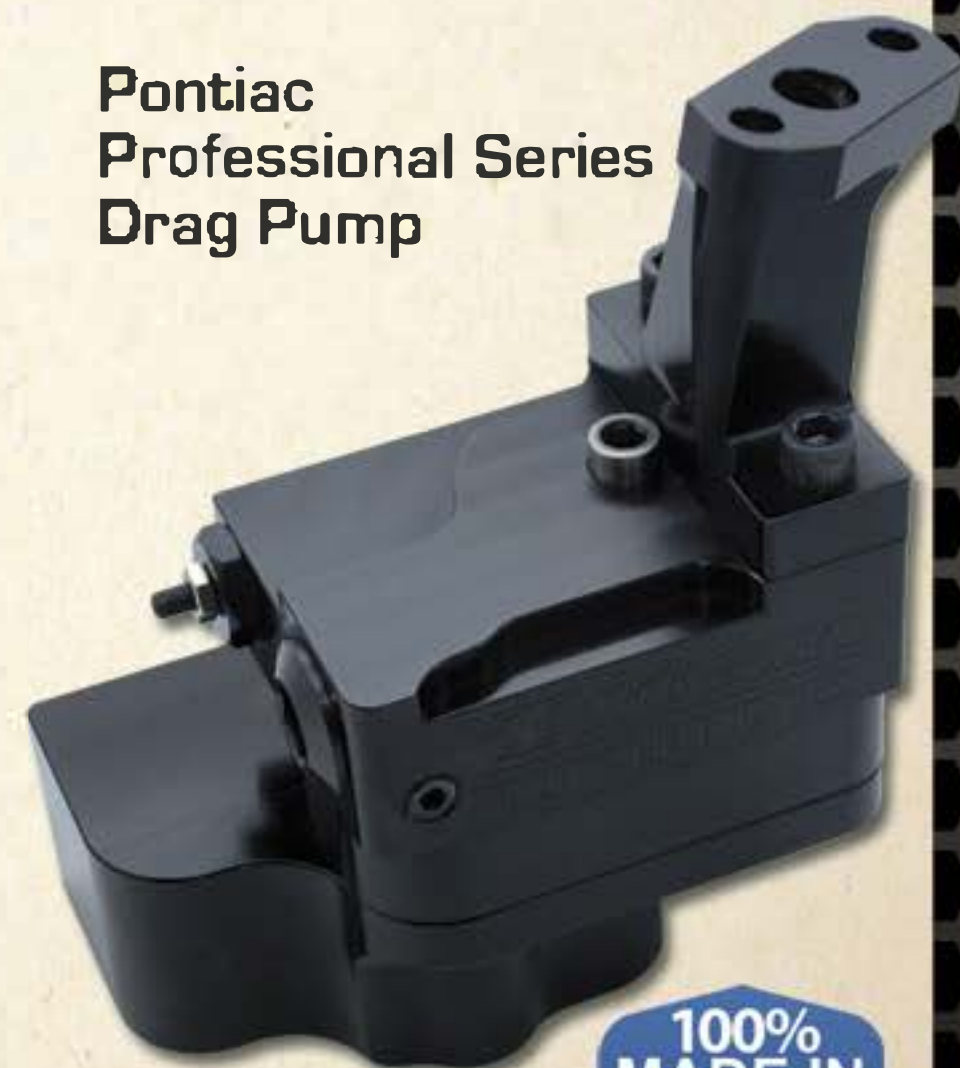
**SB/BB Chevy
Professional Series
Oval Track Pump**



**SB/BB Chevy
Professional Series
Drag Pump**



**Pontiac
Professional Series
Drag Pump**



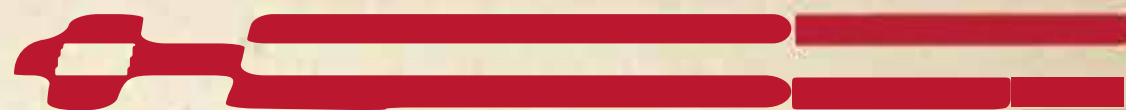
**Chrysler
426/440
Professional Series
Drag Pump**



**Titan's GM
Hex Distributor
Gear Drive**

THE ULTIMATE RACING SYSTEM

GM PRO SERIES OIL PUMPS



The world's finest wet-sump oil pumps! Titan's unique, modular design enables our engineers to meet your exact requirements for volume and sump type by combining the correct cap, pickup and 300-M-tool Steel driveshaft with one or two gerotors. Now offered for all popular V8s, these 7075-T6-billet models feature roller bearings on both the shaft and thrust. Pro pumps are pressure adjustable and fully rebuildable. Options include brass drive gears, bypasses, fittings, remote pickups and super high volume outputs. Please call or email for complete technical details.



SB/BB CHEVY DRAG PRO

Standard Volumes Small .875 • Large 1.100
Option Volumes 1.750 • 1.975

PICK UP DEPTHS

Drag/Road Race (measured on thick end)

Deep	2.00"
Deep Short	1.70"
Medium	1.45"
Short	1.00"

Pickup Screen - Full (For thick oil - ie top fuel)

There are 16 depths available plus the "big dipper" option.
Up to 2 inches can be added with the big dipper option.
The big dipper plate can be machined for custom heights.

REMOTE Cap with fittings is used for remote pickup
(Drag Boat - flywheel forward V Drive)



OLDSMOBILE DRAG PRO

Standard Volumes Small .875 • Large 1.100
Option Volumes 1.750 • 1.975 • 2.200

Pump depths can be adjusted or spaced as needed.

REMOTE Cap with fittings is used for remote pickup
(Drag Boat - flywheel forward V Drive)



PONTIAC DRAG PRO

Standard Volumes Small .875 • Large 1.100
Option Volumes 1.750 • 1.975 • 2.200

Pump depths can be adjusted or spaced as needed.

REMOTE Cap with fittings is used for remote pickup
(Drag Boat - flywheel forward V Drive)





CADILLAC DRAG PRO

Standard Volumes Small .875 • Large 1.100
Option Volumes 1.750 • 1.975 • 2.200

This pump fits the Cadillac 472 and 500. Optional plumbing sizes available.



SB/BB CHEVY OVAL TRACK PRO

Standard Volumes Small .875 • Large 1.100
Option Volumes 1.750 • 1.975

PICK UP DEPTHS

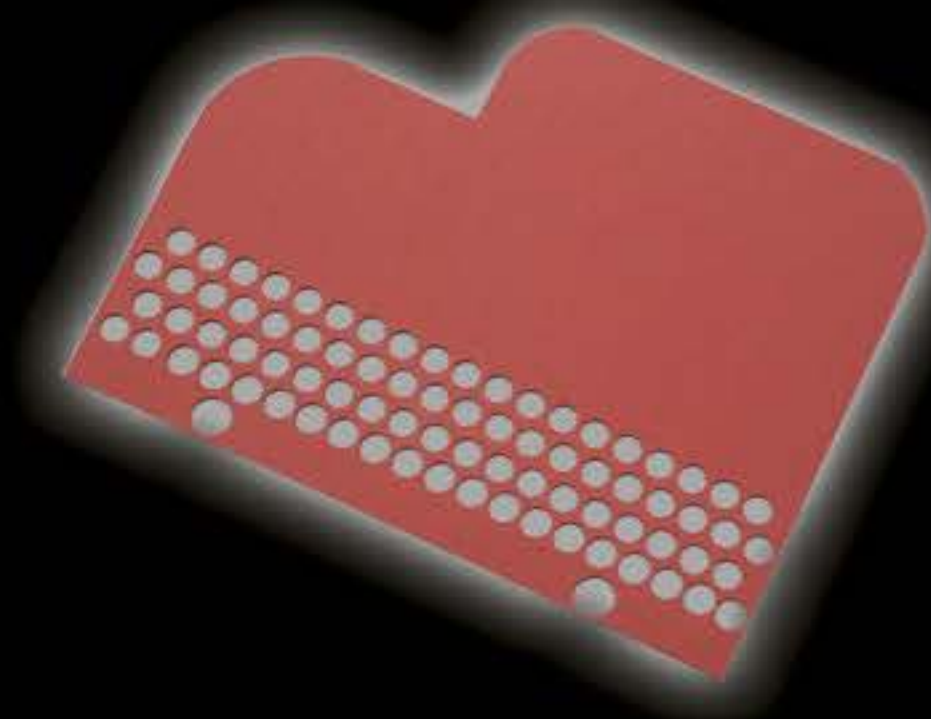
Deep	1.50"
Medium Deep	1.25"
Short	1.00"
Extra Short	.75"

There are 16 depths available plus the "big dippper" option

Fitting sold seperately. All Pro pumps have needle axial bearings, needle thrust and main shaft seal. Professional pumps come standard with hex drive distributor gear. Available with stock .491 bore or after maket .500 Bore ie - M.S.D. Pumps can be shipped with a standard tang type upper end. Mounting harware included.

TITAN'S ONE PIECE PICKUP SCREEN

Our one piece screen, made from air craft grade billet aluminum produces a higher flow rate than earlier models. Applications include drag racing and road racing. This screen fits several models including SB/BB Chevy, Small Block Chysler and Pontiac pumps.



Our billet aluminum, Professional series wet sump pumps provide "crankshaft insurance" to all types of pro cars, from fuel dragsters and doorslammers to sprinters, road racers and pullers.

CHRYSLER PRO SERIES OIL PUMPS

CHRYSLER 340/392 DRAG PRO

Hemi: 331 - 354 - 392

Small Block: 273 - 318 - 340 - 360

Standard Volumes Small .875 • Large 1.100

Optional Volumes 1.750 • 1.975 • 2.200

PICK UP DEPTHS

Drag/Road Race (measured on thick end)

Deep 1.875"

Medium 1.50"

Short 1.00"

There are 15 depths available.

Pickup Screen - Full (For thick oil - ie top fuel)

REMOTE Cap with fittings is used for remote pickup
(Drag Boat - flywheel forward V Drive)

CHRYSLER 426/440 DRAG PRO

Hemi: 426

Small Block: 383 - 400 - 413 - 440

Standard Volumes Small .875 • Large 1.100

Optional Volumes 1.750 • 1.975 • 2.200

Internal manifold assists in equalizing flow distribution
to both lower and upper kidneys.

Fittings sold separately. All Pro pumps have needle axial bearings,
needle thrust and main shaft seal. Armco 18 bronze gear with a
4340 tool steel drive shaft available. Mounting hardware included.

Titan designs every wet sump pump
to bolt into the stock location in the
block and even supplies the Grade-8
hardware to do the job.



CHRYSLER 426/440 DRY SUMP DRAG PUMP

Standard Volumes: Small .875 • Large 1.100
Option Volumes: 1.750 • 1.975 • 2.200

Available in several volumes for both pressure and scavenge pumps. All are dual feed.

The ultimate pump for late model Hemi style oiling systems, Titan's Dry Sump can be mounted on the stock position or accessory driven.

This dual stage Pro model is ideal for funny cars, pro mods, top sportsman cars and other applications with limited ground clearance. Moreover, its outward facing pressure relief provides critical chassis clearance.

Exclusive dual feed at both ends stops cavitation, pumps that do not cavitate are more efficient at every rpm. Needle bearings in all positions fully support both pumping segments. Thanks to invaluable field input from Chuck and Del Worsham, Titan's Dry Sump System has continually evolved since first appearing on nitro burning dragsters and funny cars more than a decade ago.

While it's true that Titan oil pumps initially gained fame for lubricating Top Fuel Dragsters and AA/Funny Cars, we now offer dual feed oil pumps for every racing engine and budget.



Mark Rebilas Photo

FORD PRO SERIES OIL PUMPS



Ford Drag Pro
FE Front Sump

FORD DRAG PRO

302 • 351 Windsor • 351 Cleveland • 385 • 460 • FE

Standard Volumes Small .875 • Large 1.100
Optional Volumes 1.750 • 1.975

FRONT SUMP STYLE CAPS
are available in many depths,
we make both angled and
straight caps with several
mount spacers to fit different
engine families and oil pan
depths.

FORD DRAG PRO MOUNTS

351 Cleveland

385 (429 & 460)

351 Windsor

302 (221,260,289)

FE (332, 352, 360, 390, 406,
427, 427 SOHC, & 428)

REMOTE CAP for rear pump
(fabricated) pickup
Fittings sold seperately

All Pro pumps have needle axial bearings, needle thrust and
main shaft seal. Mounting hardware included. Fitting sold seperately.



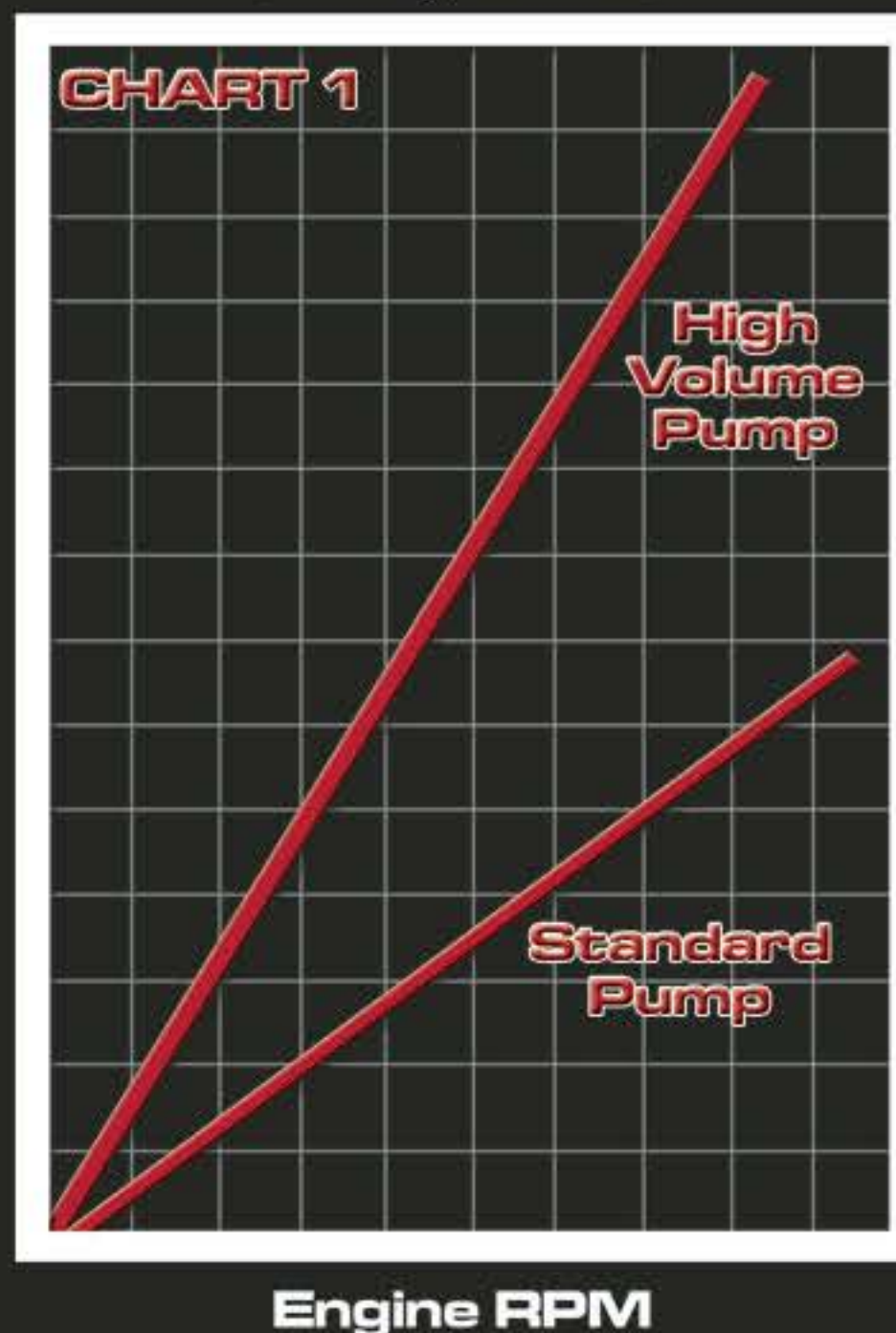
Ford Drag Pro
460 Remote

PRESSURE AND VOLUME

A positive displacement oil-pump (including all spur gear and gerotor designs) pushes the same amount of fluid with each revolution of its input shaft. Theoretically, if the speed of the pump is doubled, twice as much oil is pumped. However, this principle applies only up to that point at which cavitation starts.

Cavitation occurs when the pump tries to suck the oil faster than it can enter the pump, and a higher vacuum is created, causing more gas bubbles to form. Simplistically put, if you double the pressure on a bubble its volume gets cut roughly in half. Double the pressure again and the bubble shrinks by half. At some point, the bubble implodes at the speed of sound and returns to a liquid state. This implosion sends off a small, but violent shock wave that takes away a little bit of any metal that is around it. This is what we call cavitation. The same principle is constructively applied to sonic cleaning. Conventional wet sump pumps will live with it until all of a sudden, the cavitation intensifies to a point that the pump housing just breaks apart.

Oil Volume vs. Engine Speed
(unregulated)



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BELT DRIVEN PRO SERIES OIL PUMPS



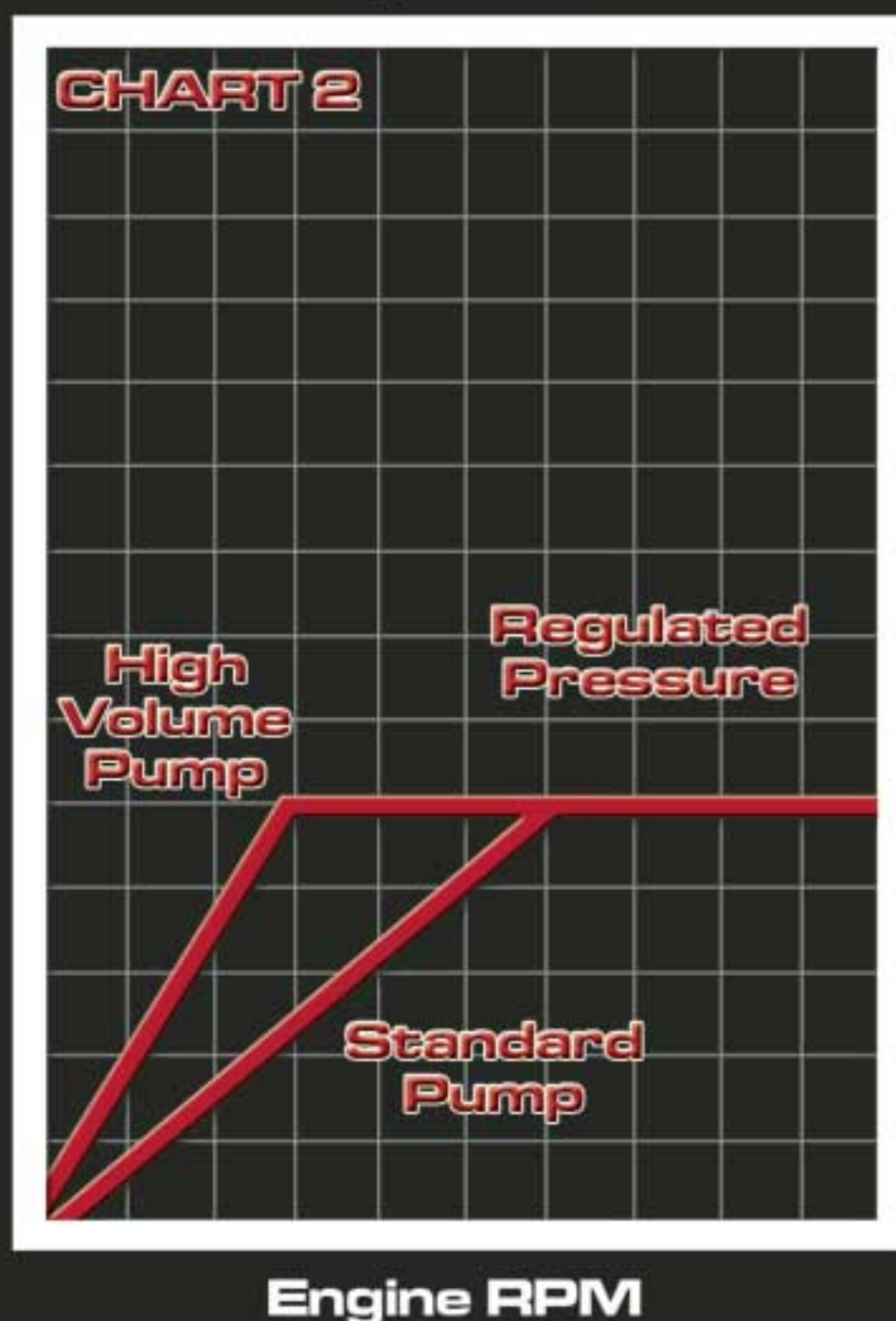
TITAN PRO BELT DRIVE

Standard Volumes: Small .875 • Large 1.100
Option Volumes: 1.750 • 1.975 • 2.200

Various volumes, multiple stages and drive through models available. All Pro pumps have needle axial bearings, needle thrust and main shaft seal. Pumps are aircraft grade 7055-T7 billet, with a 4340 tool steel drive shaft.



Oil Volume vs. Engine Speed
(regulated)



A high-volume pump doesn't necessarily deliver a higher volume of oil to the engine. Each oil pump's built-in pressure regulator maintains oil pressure at or below a set cut off point (Chart 2). Volume (flow) and pressure are related: You can't pump a higher volume of oil through any given engine without increasing the pressure at which you pump it. Since your pump's output pressure is regulated, the same amount of oil will be pushed through the engine no matter how big a pump you have. Flow is a function both of pressure and the engine through which the oil is moving. The pressure increases with engine speed until the pressure regulator kicks in and recirculates all the excess oil within the pump.

An effective racing oil pump will get the volume up quickly as the engine initially accelerates (Chart 2), then prevent cavitation at higher rpm. Each Titan model is specifically engineered to rush a large volume of oil to the main bearings, then to prevent cavitation all the way to 12,000 rpm plus.

CRANK INSURANCE FOR EVERY RACER'S BUDGET

Racing is expensive, no doubt about it; however, allowing room in your engine building budget for an oiling system you can trust is paramount. Over the course of our racing career, we came to value it as both an investment and insurance, crank shaft insurance.

Titan is well into its third decade of making oil pumps that allow pullers and drag, oval, marine, land-speed and road racers finish and win. Our Professional series is well known in the pro pits, and the newer Sportsman line up is intended for you grass roots racers. Titan's GM and Ford Sportsman exhibit the same design features as our all billet pro pumps. These dual feed, gerotor style pumps ensure high volume, won't break like stock design pumps, are fully rebuildable, and adjust for pressure. Compared to a dry-sump system, these sportsman oilers deliver considerable savings in weight, system complexity and cost.

Titan's modular designs enable us, and you, to satisfy individual applications by swapping pickups and/or pump mounts. Ten different pickups (six for drag racing; four for oval tracks) make the GM Sportsman compatible with most popular pan depths. Our Ford Sportsman housing accepts five mount designs. By machining a different billet mount for each Ford engine family, the same pump can be fitted to virtually any rear-sump V8: 260 - 289 - 208 Windsor; 351-W; 351- Cleveland; FE; 429 - 460 ("385" series). Grade-8 mounting hardware is always provided. For additional peace of mind, most models include a tool-steel driveshaft of the correct length for your specific application.

What really sets our pump design apart from all competition in its price range is Titan's approach to getting oil into and out of the pump body with the least restriction and a maximum reduction of the vapor entrainment that causes engine destroying cavitation. If your first few engines had stock design oil pumps, you may already be painfully aware of how such single feed pumps can shear off above the pumping portion of the housing, and/or crack the pickup tube.



Interchangeable pick up caps enable Chevy engine builders to tailor a GM Drag or Oval Sportsman pump to popular oil pan depths. Six different GM cap heights are offered for Drag Pumps and four more fit the Oval Sportsman.

Our Sportsman's dual inlets provide suction at both the upper and lower portions of the pumping section, rather than just one. These ports are large enough (-12 AN fittings) to allow a big volume of oil from being compressed and forced back into a liquid state. We're not talking about bubbles or vaporized oil, but rather tiny pockets of fuel, water and other combustion byproducts that become vaporized under the heat of a high rpm engine in action. When high pressure forces these bubbles back into a liquid state, minute shock waves are created. These shocks can destroy metal, and have a cumulative effect in creating dangerous harmonics in the engine.

While it's true that a stock-type pump may handle high rpm once, twice or even 50 times, when continually asked to do what it isn't designed for, it will eventually fail, once weakened enough by cavitation. Our staffers have seen it happen right in front of them on our "oil pump dyno" flow bench. It's as if the pump encounters severe tire shake; you want to get back from the bench, because oil is going to fly everywhere!

All Titan pumps are internally bypasses, so the volume in and volume out are virtually the same, unlike externally bypassed pumps, which generally see a high differential pressure that speeds the oil flow at



the intake side to a level way more than needed, causing those vapor bubbles to shear into the entry fluid. Another benefit to our internal bypassing is that less horsepower is required to turn our pump at 9,000 rpm than an external bypass pump, so the Sportsman is more efficient. Racers running Titan pumps invariably report that oil pressure is steady and smooth from 2,500 to 12,000 plus rpm.

Both the GM and Ford Sportsman pumps are offered in standard or "Shorty" models. A 1.100 inch thick gerotor is the heart of the standard, 1100 series Sportsman, whose theoretical flow volume is 33 gpm (at 8,000 engine rpm, with the bypass blocked). Because the Shorty's smaller housing contains an .875 inch gerotor, we refer to this as the 875 series. A Shorty pump flows less volume, but incurs lower drag, resulting in significant horsepower gains. It's also .225 inch shorter than a standard housing, making the Shorty ideal for applications with restrictive pan clearance and/or ground clearance.

Should your race car, off road truck or boat have some unusual needs, just let us know. We can custom build a Pro series Big Dipper that flows up to 67- gpm and fits oil pans as deep as 10.5 inches.

A great oil pump is critical to an engine's oiling system, but it doesn't stand alone. Like our Pro pumps, Sportsman series housing feature large, dual inlet AN fittings. GM Drag and Oval Sportsman models utilize an integral pickup; Ford applications require a custom pickup assembly. The best investment for Fords is rigid metal tubing with smooth bends, ending in a large, screened pickup at the rear of the pan. We have worked closely with Jeff Johnston's Billet Fabrication to develop pickups and oil pans that complement our free flowing pumps. The rigid, large diameter tubes have mandrel bends, are spot welded to each other at several points, and mount at the pickup end to the fourth main cap. The pickup intake area for drag racing applications is usually 12 to 15 square inches, which eliminates restriction at this end. Billet Fabrication builds its pickups to clear the internal dams in its pans, and typically positions them 1/4 to 3/4 inch off the floor. The Sportsman series brings the cost of crank insurance down around \$400 for Chevy and Ford racers who recognize the proven benefits of Titan's superior engineering, but haven't had the budget for a billet Pro pump. Please call for exact pricing.



Among Titan's fastest growing markets is oval racing; sprint car competition, in particular. Titan has responded with several models specifically designed to maintain oil volume and pressure in the corners. The Chevy Oval Sportsman is offered with four different pickups, assuring compatibility with popular pan depths.



GM and Ford Sportsman pumps are available in 875 and 1100 series models. Their .225 inch difference is overall housing height is determined by gerotor thickness. All Sportsman pumps come standard with a needle thrust bearing in the cap.



GM SPORTSMAN SERIES OIL PUMPS

Titan's affordable Sportsman pumps bolt into the stock locations of all popular GM and Ford V8s. Now both the Pro and Sportsman series pumps not only share the gerotor pumping segment, pressure adjuster and dual feed design, they now share housings which are made with premium mil spec hard coated aircraft grade 7055-T7. A tool steel drive and Grade-8 mounting hardware are provided, along with detailed directions and adjustment tips. Optional "shorty" models reduce drag and increase pan to ground clearance by .225 inch.

Designed specifically for SB/BB GM drag racers, the Chevy Sportsman Drag pump comes complete with your choice of six cap heights, one of which is correct for your preferred oil pan depth. For GM circle track racers, the Chevy Sportsman Oval pump features an offset pick up designed to maintain adequate pick up designed to maintain adequate oil volume in corners. Ford engines and racers of all types are covered by the Ford Sportsman and its selection of five CNC machined, billet aluminum mounts. Please call for complete technical information.



SB/BB CHEVY DRAG SPORTSMAN

Standard Volumes Small .875 • Large 1.100

PICK UP DEPTHS - There are 12 depths available
Drag/Road Race (measured on thick end)

Deep	2.125"	Medium Short	1.25"
Deep Short	1.812"	Short	1.00"
Medium Deep	1.56"	Extra Short	.750"

Pickup Screen - Full (For thick oil - ie top fuel)



OLDSMOBILE DRAG SPORTSMAN

Standard Volumes Small .875 • Large 1.100

REMOTE Cap with fittings is used for remote pickup
(Drag Boat - flywheel forward V Drive)



PONTIAC DRAG SPORTSMAN

Standard Volumes Small .875 • Large 1.100

REMOTE Cap with fittings is used for remote pickup
(Drag Boat - flywheel forward V Drive)



SB/BB CHEVY OVAL SPORTSMAN

Standard Volumes Small .875 • Large 1.100

PICK UP DEPTHS - There are 8 depths available

Deep	1.50"	Medium	1.00"
Deep Short	1.25"	Short	.750"

Drive shafts available for standard cam and raised cam applications.

All Sportsman pumps have needle thrust bearings. Chevy Sportsman pumps come standard with a tang hex drive available in several lengths. Optional Hex Hex drive system available. Mounting hardware included.



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FORD SPORTSMAN SERIES OIL PUMPS



FORD DRAG SPORTSMAN

302 • 351 Windsor • 351 Cleveland • 385 • 460 • FE

Standard Volumes Small .875 • Large 1.100

REMOTE CAP STYLE ONLY - fittings sold separately

Both Professional & Sportsman Series pumps are made with premium mil spec hard coated aircraft grade 7055-T7. Sportsman pumps have high nodulary pumping segment with a 4130 alloy steel shaft. Mounting hardware and 4340 intermediate driveshaft is included.

Adjustable Pressure Relief - 2 die springs available

Blue 40-90 psi

Red 80-120psi

FORD DRAG SPORTSMAN MOUNTS



All Sportsman pumps have needle axial bearings. Sportsman pumps come standard with an intermediate driveshaft and mounting hardware included. Fitting sold separately.

351 Cleveland

385 (429 & 460)

351 Windsor

302 (221,260,289)

FE (332, 352, 360, 390, 406, 427, 427 SOHC, & 428)

OIL PUMP PARTS

Every component of any Titan oil pump can usually be repaired or replaced, except in cases of extreme abuse resulting from severe engine damage. We stock everything, and will make every effort to rush you what you need, in any quantity. The most common replacement parts are listed here, along with optional accessories that will help you make the most of your Titan oiling system.



AN FITTINGS



PRESSURE RELIEF VALVE

BRONZE GEARS



GM



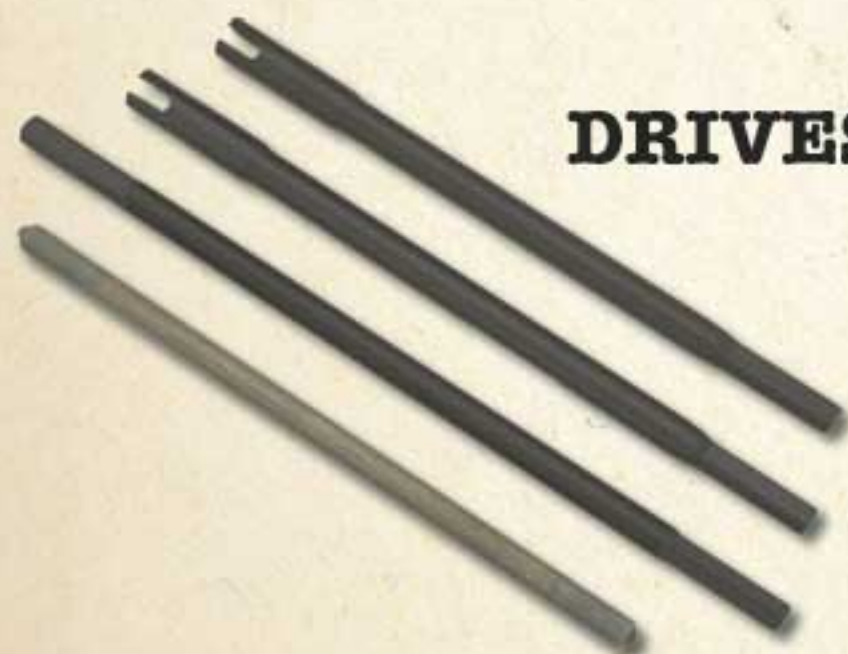
FORD



CHRYSLER



REMOTE RELIEF VALVE



DRIVESHAFTS

TITAN LABYRINTH FILTER

This filter can withstand huge amounts of abuse and keep on flowing. It has been designed strictly from the racers perspective. It's easy to disassemble and clean for between rounds maintenance, making it ideal for any performance engine. It can be used with oil or fuel simply by changing the mesh screen size, multiple mounting points make it suitable for almost any location. The labyrinth design provides huge flow capacities and can withstand an enormous amount of pressure differential, no more crushed filters resulting in loss of pressure, your filter should save your engine not be it's cause of destruction. It's unique design has an inherent quiescent sediment chamber that can withstand large amounts of contamination, but keep on flowing filtered fluid with very little pressure drop. The filters performance is derived from the use of dual four inch diameter mesh screens that offer over 25 square inches of screen area. This filter is practically indestructible, tested to over 650 PSI! The Labyrinth is constructed from the finest materials available including billet 7055-T7 anodized housings, stainless steel mesh screens, premium grade fasteners and o-rings. Make your next filter choice the most durable best performing filter ever, the Titan Labyrinth! Patent Pending.

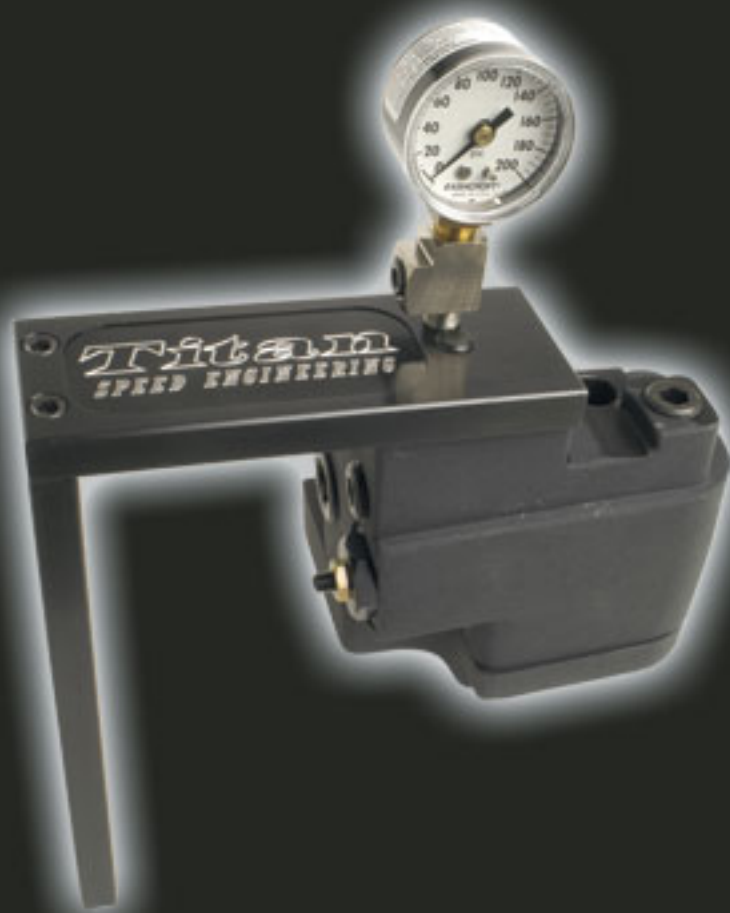


- Can be used as a fuel or oil filter
- Easy to disassemble and clean
- Multiple mounting points
- Huge flow capacities
- Large sediment trap
- Multiple outlet ports

All units come complete and ready to run including all AN fittings and hardware



PRESSURE TESTER FOR GM OIL PUMPS



Titan offers an inexpensive, portable version of the test fixture that our assembly shop uses to bench-test bypass pressure in new and rebuilt Titan oil pumps for GM engines. Now, all you need is a pan of oil to check and set the pressure of any Titan GM Professional or Sportsman oil pump. We supply everything else, including the gauge.

One end of our pump test tool mounts to your oil pump; the other is clamped into a bench vise. Simply lower your pump into a pan of oil, then utilize our drive spud to spin the pump clockwise with a 3/8 or 1/2 inch drill motor. We've provided a 1/8 inch NPT plug that is loosened to bleed out air.

Once the pump picks up pressure, just watch the gauge as you set bypass pressure by rotating Titan's 1/4-28 set screw either clockwise (to increase pressure) or counterclockwise (to decrease).

With the addition of common washers or other spacers, this same fixture can also be used to check the pressure of any wet sump oil pump for Chevy type V8s. Detailed directions are provided.



LIGHTER, STRONGER & EASIER TO ADJUST

Our clutch division actually predates the formal creation of Titan Speed Engineering. What began as Sanders Clutches, a line of pedal clutches for nitro racers and blown alcohol teams, is now a Titan brand preferred by all types of serious racers.

During two decades of development, invaluable input from loyal customers enabled our engineers to perfect the original glide clutch design. Consequently, what began in the 60's as the first effective fuel dragster clutch has evolved into an ideal system for contemporary nitro, alcohol and gas burning race cars.

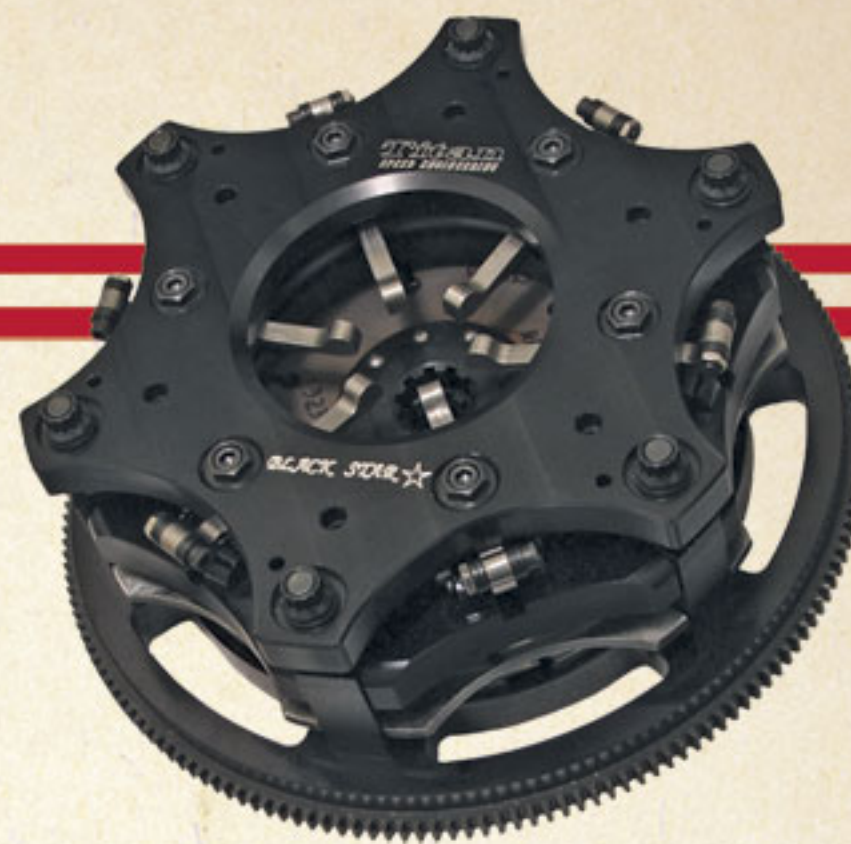
SFI approved Titan Black Star clutches now appear in supercharged, unblown and nitrous assisted drag cars of all kinds, plus truck and tractor pullers. Tested to 15,000 rpm, Titan's user friendly clutch design gives serious racers the ultimate combination of strength, light weight, rigidity and adjustability.

Your Black Star clutch is literally custom built for your specific one, two, three or four disc application. Our engineers even take the time to create customized instructions for setting up your clutch, plus detailed tuning tips. We start you off with a safe, soft setup intended to get your particular race car down the track without burning up parts! We tell you how to gradually adjust the clutch to optimize your engine combination. Expert advise is always available by phone, we maintain complete records of everything that you've purchased.

The Black Star is available in 8 inch or 10 inch sizes made from aluminum, steel or titanium. Complete with aluminum flywheel, our two disc models weigh 36 to 38 pounds, as much as 10 pounds less than conventional designs. Three disc assemblies weigh 47 to 51 pounds. Innovative options include needle bearings on the main pivot pin and an exclusive heat shield, coated with space age material that adds both friction and heat shielding. Please call for technical details.

Titan's Black Star SFI approved pedal and glide clutches are instantly recognizable by the shape of our drive stands. Sometimes, it's better to be square.

Why did we persist in developing a clutch style that other companies either abandoned or overlooked altogether? Because Titan's exclusive design is



inherently more adjustable than conventional clutches, plus dramatically lighter. Because we race, we share your endless quest to remove every unnecessary ounce of weight, particularly rotating weight. However, other manufacturers have chosen to add mass and pounds to make their clutches meet the ever increasing horsepower demands of their customers. That is why some of their two disc assemblies now weigh nearly 50 pounds. A comparable Titan Black Star assembly weighs as little as 36 pounds, complete. Why carry all those extra pounds down the track, plus force your crankshaft to rotate one-third more mass?

The simple secret is our square drive stand, which permits less deflection and far less floater warpage than round stands. Only square stands provide so much contact area with the floater and drive ring, without binding the floater, even under the extreme clutch heat produced by a nitro burning A/fuel dragster (Which can prevent conventional clutches from disengaging). That's where comparisons to the original glide clutch begin and end.

Manufacturers of the 1960's and 70's could only dream of the exotic materials and precision manufacturing available to Titan engineers today. The replaceable facings on our flywheels and drive rings are made from a special steel. Friction diameter is a full 8 or 10 inches depending on model. All components are CNC machined, using aircraft grade materials through out. Unlike the inferior 2024 or 6061 alloy found in some competitive clutches, all aluminum used in Titan's Black Star clutches is premium 7055-T7, hard coated and heat shielded. All fasteners and levers are U.S.A. tool steel. Every part is made in America. Each clutch is carefully assembled in our facility, by experienced racers.

Standard models fit Chrysler, Ford, Chevrolet and other GM crankshaft flanges. Additionally, we pride ourselves on designing and building the one off custom clutches that our competitors cannot or will not supply.

8 INCH BLACK STAR CLUTCH

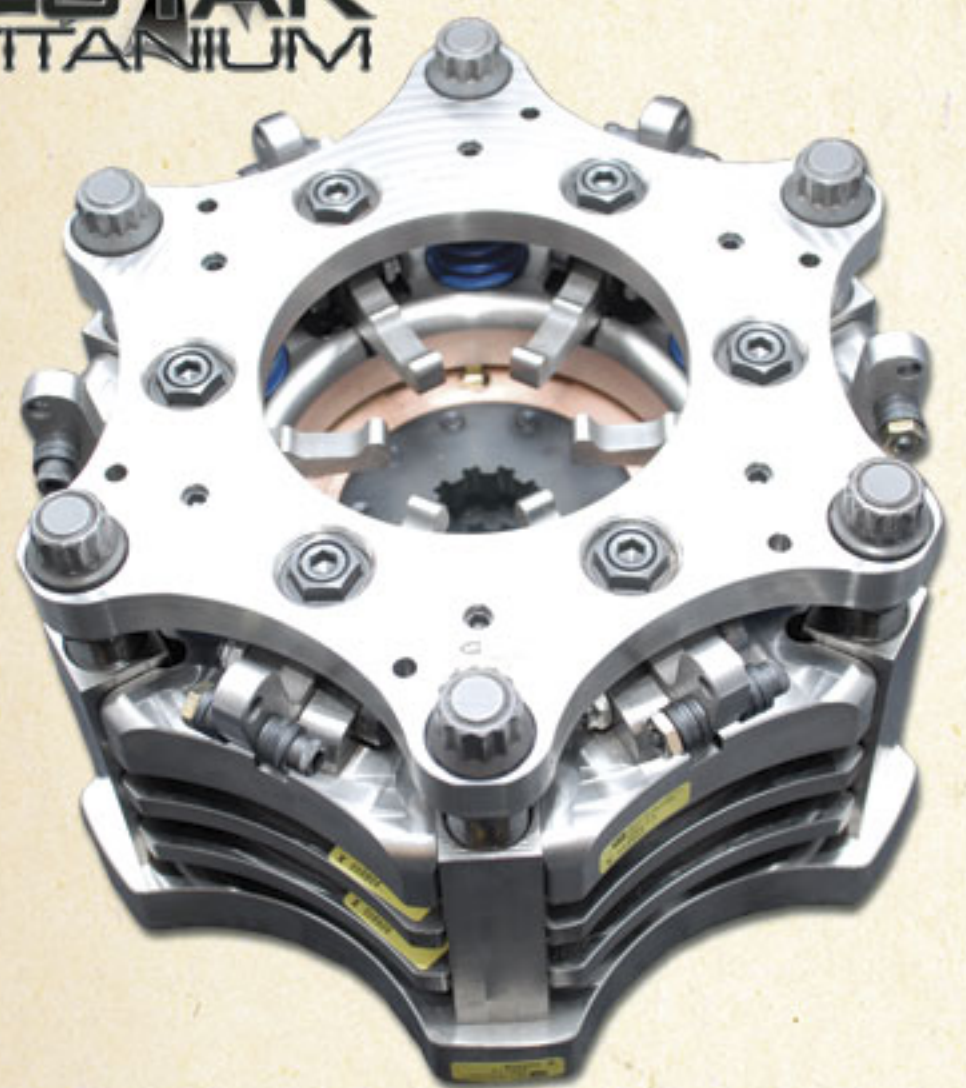
Titan Black Star clutch customers enjoy the industry's best replacement parts service. Because we actually manufacture what we sell, we're able to maintain inventories of everything you need, and ship it as quickly as you need it, to wherever you happen to be. Quality is always assured, because Titan components are precision-machined by our craftsmen, using the finest American made materials.

**BLACK
STAR**



**NOW
AVAILABLE**

**SILVER
STAR
TITANIUM**



That's right, 8 inches. The all new 8 inch multi disk clutch from Titan Speed Engineering is destined to have a major impact on the motorsports world. The new design typically reduces clutch wear and therefore saves on costly disk replacement.

- Available in Pedal or Glide
- Made from aircraft grade 7055-T7 material
- Hard coated and heat treated
- 3/4 inch thick cover for maximum rigidity
- All new shoe assembly with more heatsink mass and pocketed for new die springs
- All U.S.A. tool steel levers with several lever options available
- Special alloy floaters and new 1/4 inch thick segmented bolt in flywheel and shoe liners.
- Smaller diameter results in reduction of rotating mass which allows for faster acceleration
- Easy adjustment and unlimited range: adjustable ring height, lever height, counter weights and spring force
- SFI approved
- Flywheels available: Chrysler, GM/Chevy, SB/BB Ford, Ford Pinto, Mazda, Toyota 2JZ, Lexus 1UZ, Honda/Acura

This Black Star clutch has a broad range of high horsepower applications and it's light weight and size will give you that extra advantage you need to win. If you're looking for an alternative to that expensive and troublesome power glide, this clutch is for you. Titan has taken clutch technology to the next level, why mess with 60's technology when Titan offers all the best in design and materials in one package.

All clutches are shipped with spare pins, bushings, counter weights and come with premium ARP hardware.

STANDS



**STAND
ADJUSTERS**



**FLYWHEEL
BOLTS**



**CLUTCH
ADJUSTMENT
TOOL KIT**

LEVERS



HUBS



10 INCH BLACK STAR CLUTCH



- Available in Pedal or Glide
- Made from aircraft grade 7055-T7 material
- Hard coated and heat treated
- $\frac{3}{4}$ inch thick cover for maximum rigidity
- All new shoe assembly with more heatsink mass and pocketed for new die springs
- All U.S.A. tool steel levers with several lever options available
- Special alloy floaters and new $\frac{1}{4}$ inch thick segmented bolt in flywheel and shoe liners
- Easy adjustment and unlimited range: adjustable ring height, lever height, counter weights and spring force
- SFI approved
- Flywheels available: Chrysler, GM/Chevy, Early Pontiac, Buick, SB/BB Ford, Mazda Rotary

We stock several friction materials along with hub and spline sizes. All clutches are shipped with spare pins, bushings, counter weights and come with premium ARP hardware.



THE DIE SPRING ADVANTAGE

Die springs can apply force to the clutch pack to a much higher rpm range than conventional round wire springs.



Round Wire Spring



Die Spring

70% Less Deflection

**ALL NEW
BOLT IN
HUBS**



**SHOE ASSEMBLY
WITH HEAT SHIELD**



**BRONZE
FLOATERS**



UNLEASH YOUR HEMI'S HORSES

If you've ever watched nostalgia drag racers or Toyota road racers remove a Hemi valve cover, you've probably seen Titan's colorfully anodized rocker arms. Lightweight and strong, these billet aluminum, roller tip rockers deliver free horsepower by both decreasing the friction and increasing the ratios in Chrysler style V8s, Toyota four cylinders, and the 8.3L Arias/Fontana Hemi.

Our billet aluminum, 1.5:1 Toyota rocker arms fit the four cylinder, 1.6 liter 2TC and 3TC Hemi engines preferred by leading Toyota drag, road and oval racers worldwide. Allen head adjusters are included. Mandatory matching push rods are available at an additional cost. With no other changes, bolting on these rockers and push rod has slashed quarter mile et's by a full half second. Circle track cars and road racing Toyotas have enjoyed comparable improvements in lap times, plus significant extensions of valve train component life.

Complete Titan rocker arm assemblies are available for Chrysler's 354/392 early Hemi, the Donovan 417, the 8.3L Arias Fontana, the forged aluminum CE engine and most after market cylinder heads, including the latest billet heads. Titan Roller Rockers enable the intake ratio, which varies with push rod length, to be set as high as 1.7:1. Exhaust ratio remains identical to that of a stock are CNC-machined from 7075 T651 aluminum, then anodized. Standard Titan rocker systems bolt into the stock location, directly replacing stock type rocker assembly. We also custom build Hemi rocker systems for special applications.

Our exclusive, allen head adjuster screws bring precedented ease of adjustment to Chrysler and Toyota valvetrains. Titan's toolsteel, 3/8 inch



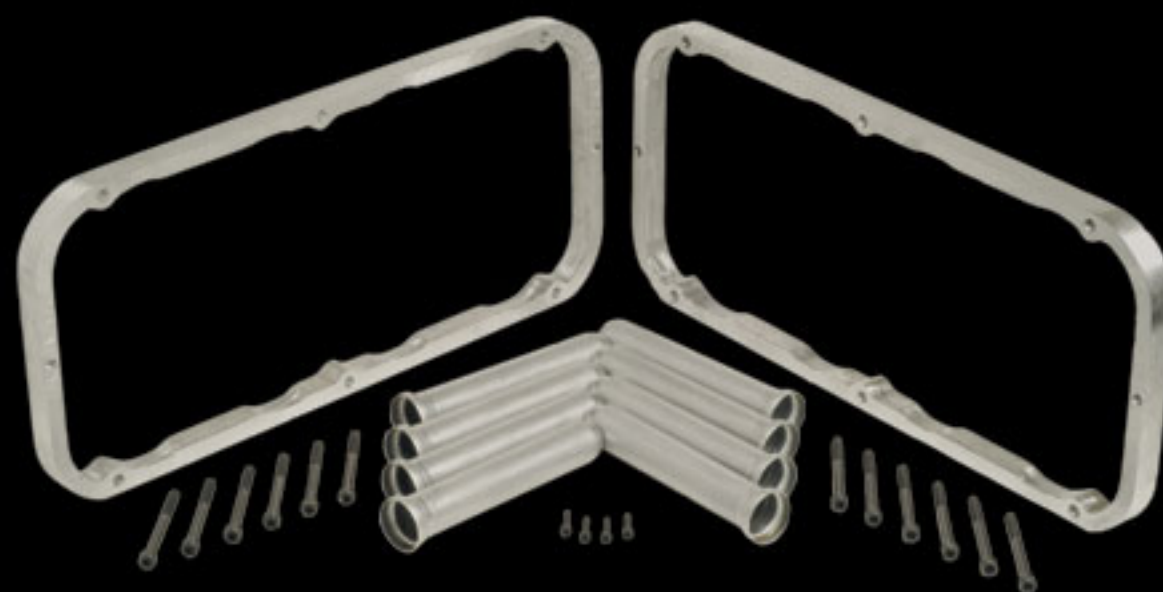
diameter, fine thread adjusters feature 5/16 inch, heat treated balls and either 12 point (V8) or 6 point (L4) lock nuts. The standard Model RAAS-100 is 1.150 inches long, and can be used with most types of 3/8 inch, fine thread, adjustable rocker arms. Along with a long model, 1.300 inches and an extra long measures 1.460 inches.

Hemi V8 assemblies include rockers, stands, shafts and allen head adjusters for two cylinder heads. Not included are the valve cover spacers necessary to ensure adequate clearance between Titan's high ratio rocker arms and some older valve covers. Most types of newer valve covers are made tall enough to clear these popular rocker arms, without spacers. Older design valve covers typically require use of Titan's optional spacer kit, which includes everything necessary to install any popular valve cover: a pair of 1 inch tall aluminum spacers with relief for all valve cover bolts, extended spark plug tubes and all hardware.

All components for these Toyota rocker arms and complete V8 rocker systems are also available individually. Because we actually manufacture what we sell, Titan is able to maintain inventories of these rockers and replacement parts, for prompt shipment to our customers worldwide.

TITAN'S VALVE COVER SPACER KIT

Titan's valve cover spacer kit includes everything necessary to install any popular valve cover: a pair of aluminum spacers, extended spark plug tubes and hardware.



TECH LINE 805-525-8660 | FAX 805-933-1028 | TITANSPEED.COM

BILLET ROLLER ROCKERS

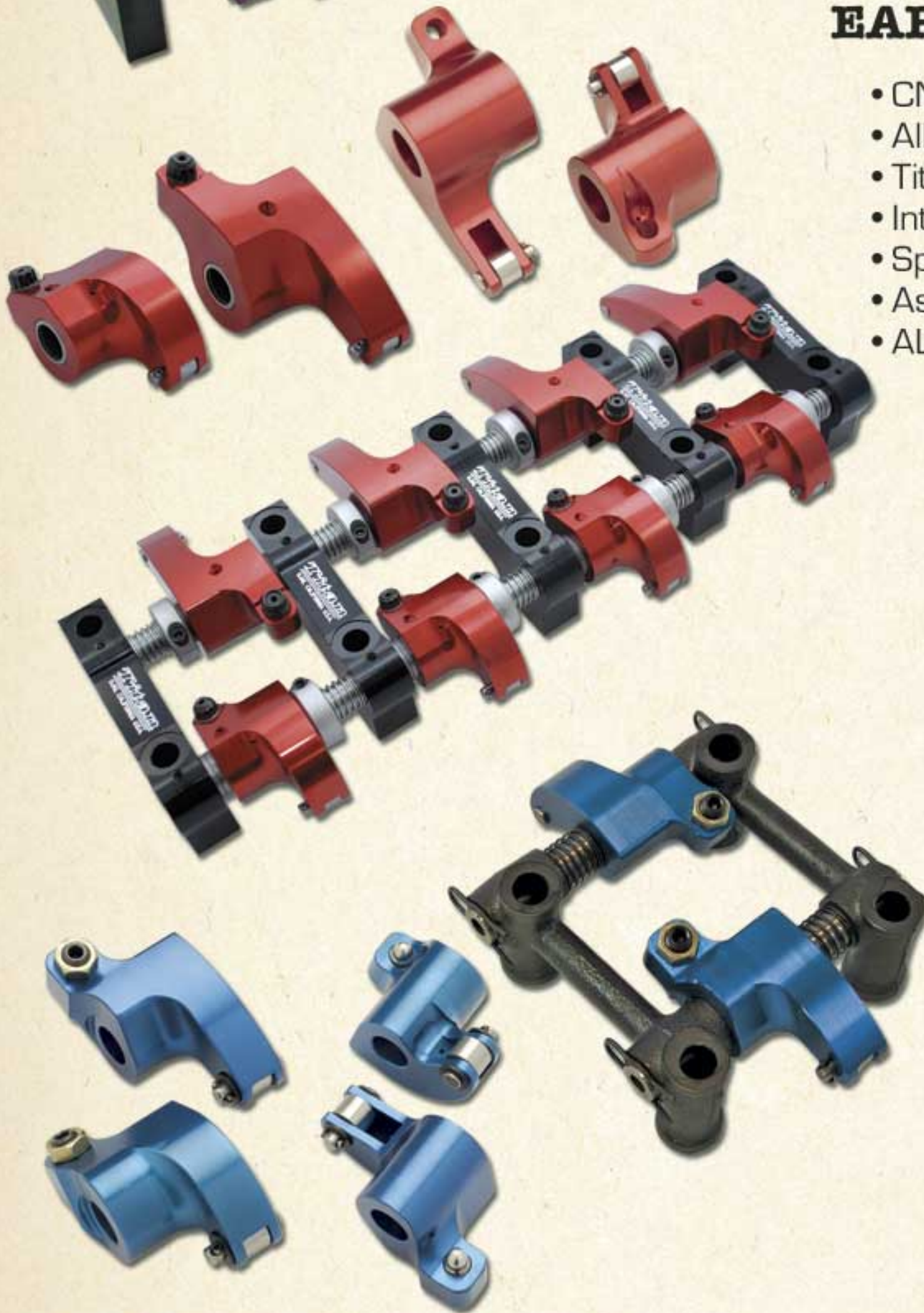


8.3L ARIAS FONTANA ROCKERS

- CNC machined 7055-T7 aluminum
- Allen head adjusters - ball or cup available
- Titan's exclusive High Rate at low lift Technology
- Intake as high as: 1.65:1 and exhaust 1.5:1
- Spray oil system ensures bearing, ball and cup lubrication
- Assemblies include: rockers, stands, shafts and adjusters

EARLY CHRYSLER ROCKERS

- CNC Machined 7055-T7 aluminum
- Allen head adjusters - ball or cup available
- Titan's exclusive High Rate at low lift Technology
- Intake as high as: 1.65:1 and exhaust is stock ratio
- Spray oil system available
- Assemblies include: rockers, stands, shafts and adjusters
- ALSO AVAILABLE: New Redesigned High Ratio Rockers



1.6L TOYOTA ROCKERS

- CNC Machined 7055-T7 aluminum
- Allen head adjusters - ball or cup available
- Titan's exclusive High Rate at low lift Technology
- Intake as high as: 1.5:1 and exhaust is 1.5:1
- Assemblies include: rockers only, made to install on stock stands and shafts

BALL/CUP ALLEN HEAD ADJUSTERS



Our exclusive, allen-head rolled thread adjuster screws bring unprecedented ease of adjustment of Rocker Arms! These new adjusters are now available in three lengths of Ball lubricating type as well as a 5/16 Cup adjuster with a lubricating hole.

The ball type adjusters are now available in 1.150, 1.300 & 1.450 overall lengths, with the cup type being offered in a 1.280 length. Titan's premium grade alloy steel, 3/8-inch-diameter, fine-thread adjusters feature 5/16-inch, heat-treated balls or cup available with or without either 12-point or 6-point lock nuts.

OTHER PRODUCTS



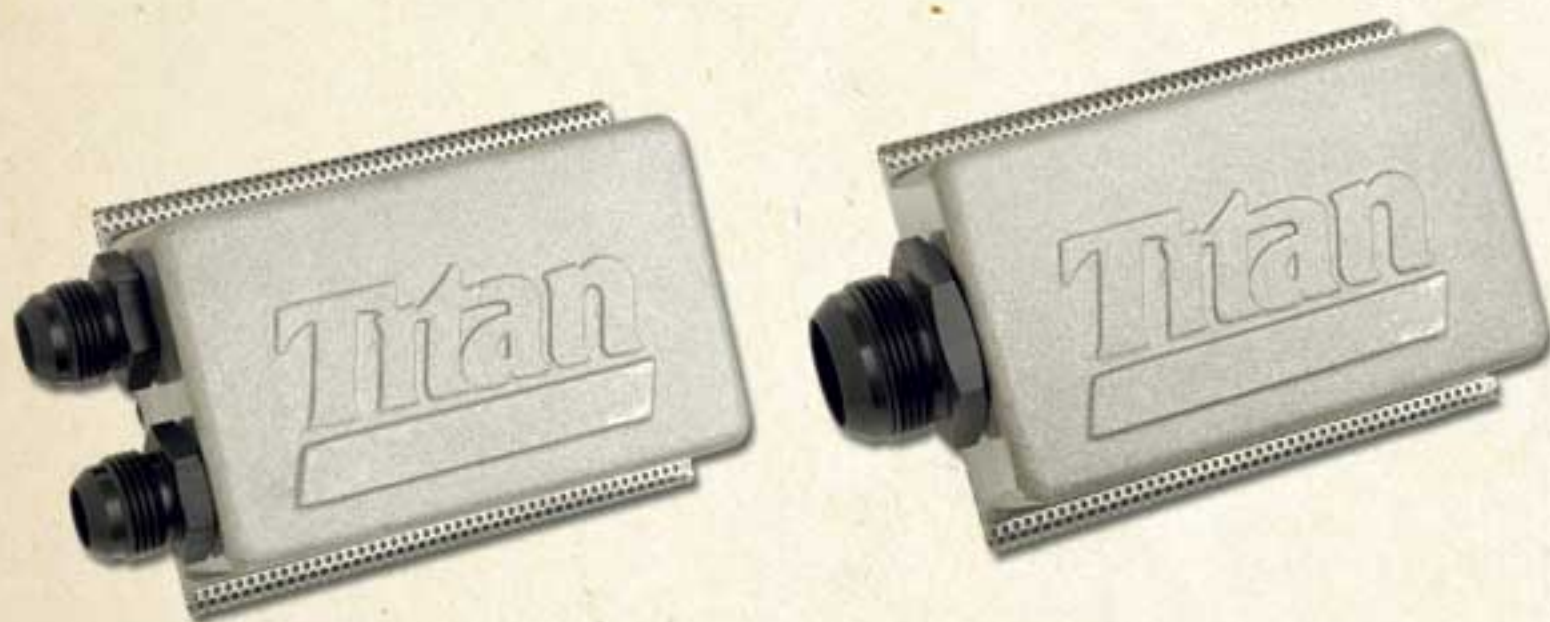
BILLET IDLER PULLEYS

Titan's exclusive idler pulley actually extends the life of blower belts and drives. Its crowned surface keeps your belt in the exact center of the pulley. Moreover, by positioning our dual row, high speed bearings closer to the fastening point of the bracket, Titan has reduced deflection by as much as 50%. CNC machined from aircraft quality aluminum billet, idler pulleys are available for three popular belt widths: 2-7/8", 3-3/8", 3-3/4".



VAPOR VENT PLATES

Titan's simple, inexpensive solution to slow drainback of oil from your engine's valley area to its wet sump. Venting the gaseous vapors in the crankcase equalizes pressure between the top and bottom of the engine, thereby reducing the crankshaft pressure that inhibits drainback. The problem is particularly acute in belt drive applications, which virtually eliminate the normal vapor ventilation allowed by stock type front covers. Our anodized plate mounts in the stock fuel pump location, without modification, using the bolts supplied. All you do is run a hose (not supplied) from the -16 or -20 AN fitting (optional) to your valve cover. Available for SB/BB Chevy, Ford (302, 351-W, FE, 460).



REMOTE OIL PICK UPS

Titan's exclusive pickup designs provide more than 15 sq. in. of screen area. Made from aircraft grade 356-T6 aluminum, the unique shape helps break up vortices, minimizing sucking gases. The screen's maximum hole to area ratio traps all but the smallest pieces of debris. Available in many combinations. Oil pan magnets available.

TITAN T-SHIRTS AND HATS

Our white t-shirts are printed both sides and available in M through XXL - 100% cotton. Our embroidered logo hats come in black and are one size fits all.



ORDERING INFORMATION

OPERATING HOURS
8:00 a.m. to 5:00 p.m. PT
Monday-Friday

Tech Line: 805-525-8660
Orders: 800-308-4826
24 Hour Fax: 805-933-1028

Email: info@titanspeed.com
www.titanspeed.com

MAIL ORDERS & C.O.D. ORDERS



Please have your credit card number, expiration date, and credit card billing address ready when ordering. In order to protect you and us from credit card fraud, your order must be shipped to the credit card billing address. All freight charges will be added to your shipment.

MAIL ORDERS & C.O.D. ORDERS require your name, address, phone number and "ship to" address. All Collect-On-Delivery (COD) orders will be sent cashier's check or money order only. We accept company checks only upon authorization by our office prior to shipment.

FOREIGN ORDERS must be fully prepaid (including freight), in U.S. funds.

SHIPPING is via UPS Ground, unless another method is requested and approved when you place an order.

RETURNS will not be accepted after 30 days from date of invoice. We must be notified of the customer's intention to return the part, and the reason for return, before it is shipped back to us. Titan will only accept a return on a part that has not been modified; is still in the original package; and is in like-new condition. All returned parts are subject to a 25% restocking fee. If, upon examination, all parts returned and found to be in like-new condition, either a credit or a refund (according to the customer's preference) will be issued for the balance of the price that was paid, not including the original shipping charges. All shipping charges on returns must be prepaid; we will not accept C.O.D. shipments. **No returns are accepted on any special order parts** (i.e. any part that had been ordered with any option that is not standard, clutches and special order pumps included)

DEPOSITS on special orders are non-refundable (i.e. any part that had been ordered with any option that is not standard, clutches and special order pumps included)

FREIGHT CLAIMS for damage, shortage or loss must be made immediately with the carrier. You must note any substantial damage to a package upon receipt of the shipment with the carrier. You may reorder any missing or damaged pieces from Titan. We will send you an invoice for the reordered parts, and you can use the invoice as proof to the carrier of replacement costs. Unfortunately, we cannot make these freight claims for you. However, we will provide any assistance possible to help your recovery efforts.

If anything is missing from your shipment, contact us immediately. You must check each package as soon as you receive it; any missing component must be reported within 20 days of receipt of the product. Claims made after 20 days will not be honored.

WARRANTIES

There are no warranties, either expressed or implied. Neither the seller nor manufacturer will be liable for any loss, damage or injury, either direct or indirect, arising from the use or inability to determine the appropriate use of any Titan product. Before any attempt at installation, everything should be completely reviewed to determine the suitability of the product for its intended use. We reserve the right to change specifications without notice. Further, Titan makes NO GUARANTEE in reference to any specific class legality if any component. **ALL PRODUCTS ARE INTENDED FOR RACING AND OFF-ROAD USE, AND MAY NOT BE LEGALLY USED ON THE HIGHWAY.** The products offered for sale in this catalog are true race car components.

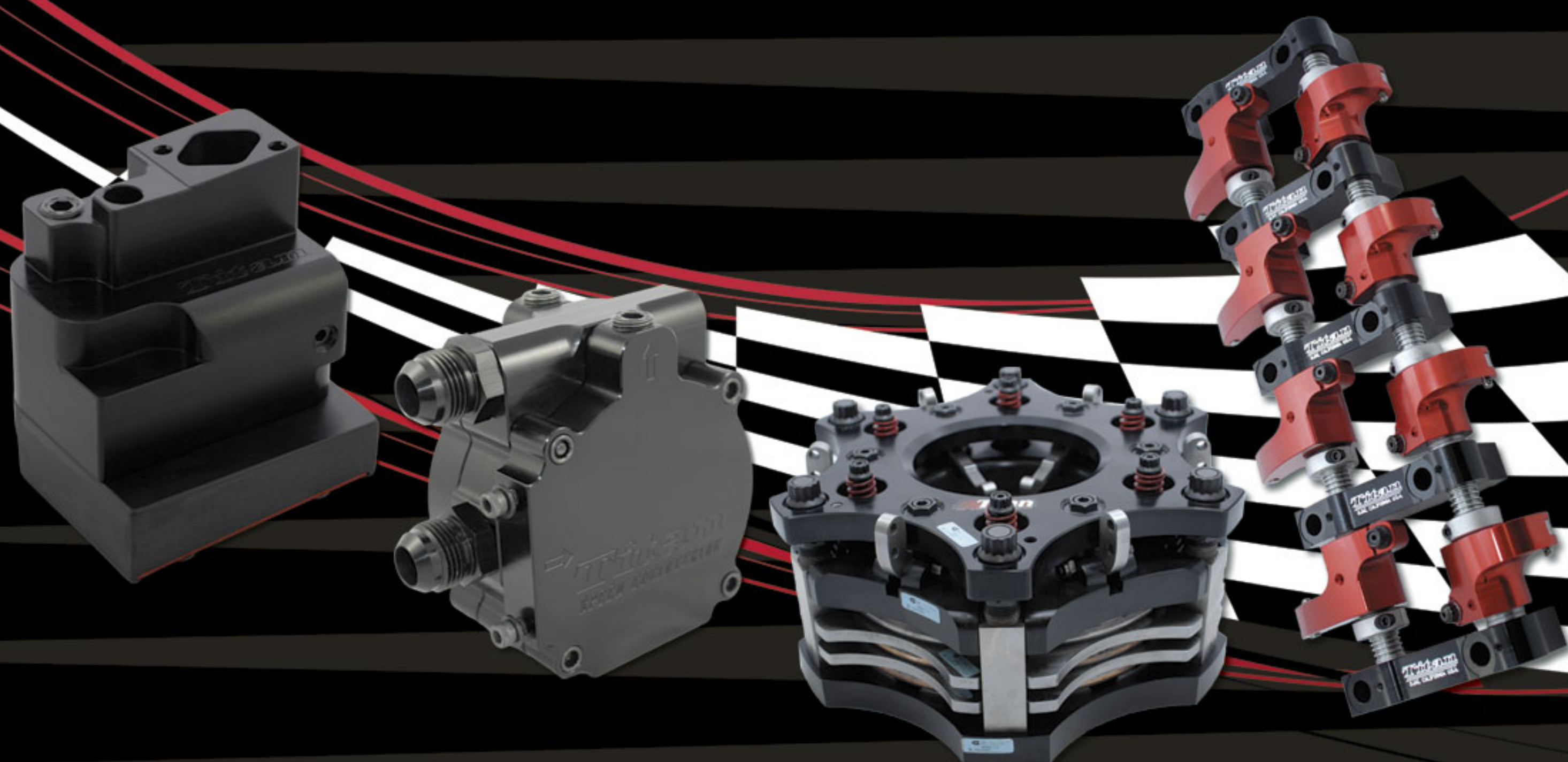
Prices & designs are subject to change without notice.

Titan Speed Engineering's products are often copied, but never duplicated. For our unprecedented quality please make sure you choose a Titan product for your application.

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W W W . T I T A N S P E E D . C O M