



TECHNICAL GUIDE
TVS2650 SUPERCHARGER
SMALL BLOCK FORD



June 2024

Important Information

Installing the supercharger indicates your acceptance of the responsibility and liability associated with the fitment and use of this product. Please ensure the owner and drivers of the supercharged vehicle are aware of their responsibilities and liabilities as indicated below.

Thank you for purchasing this supercharger which has been designed and made with pride. The owner and drivers of the enhanced vehicle must be aware that fitment of a supercharger may affect:

- The vehicle's factory warranty.
- Insurance cover and associated liabilities.
- Compatibility with emission and roadworthy certification.
- The validity of a driver's license for a supercharged vehicle.
- The handling & braking capability of the vehicle due to increased engine power & torque characteristics.
- The longevity of the engine.
- The vehicle will need to use premium unleaded fuel only (98 RON).

It is the owner's/driver's responsibility to accept any consequences and liabilities of using the supercharger and any subsequent effect it may have. Harrop Engineering shall not be liable and shall be 'Held Harmless' for any direct and/or indirect/consequential losses, costs, damages, expenses, injuries or liabilities whatsoever incurred by the owner/driver of the vehicle or other parties arising from this supercharger, its installation and/or its operation. It is recommended that vehicles have completed 1,500 km and have been driven, serviced and maintained in accordance with the vehicle manufacturer's handbook before fitting a supercharger. An engine should be deemed reliable and have delivered all reasonable expectations in line with the vehicle manufacturer's specifications prior to fitting a supercharger.

Warranty

This supercharger is covered by a limited warranty on components and workmanship for a period of 36 months from the date of purchase, subject to the following:

- Installation must be completed by a qualified motor mechanic or technician who has undertaken appropriate training in fitting Harrop superchargers.
- The supercharger has not been modified or "overdriven" by fitting alternative drive pulleys.
- The supercharged vehicle has been tuned by an appropriately qualified and experienced technician.
- The supercharged vehicle has been driven in accordance with the conditions specified by the vehicle manufacturer's normal use of operation, driving care and vehicle service program.
- The supercharged vehicle has not been used for competitive racing.

No warranty shall apply where Harrop have determined improper fitment or handling, misuse in operation, neglect, or accident damage. Engine modifications made prior to or in conjunction with the supercharger fitment may invalidate the Harrop limited warranty. Any warranty claims must be made immediately & directly in writing to Harrop Engineering so that a determination can be made promptly. Involvement of a third party or an attempt to repair a perceived/actual fault may invalidate the warranty. To the extent of the law, the determination on any warranty claim & associated costs will be at the sole discretion of Harrop Engineering.

By installing the supercharger you acknowledge that all conditions pertaining to this supercharger and its operation have been read, understood and accepted

For 65 years Harrop Engineering has been at the forefront of designing, developing and manufacturing precision performance components. Today our innovative and logical approach is applied to low volume automotive OEMs and the performance aftermarket through a dedicated team of 65 staff. Core performance products include Superchargers, Engine Components, Brakes, Differentials and we are also the exclusive Australian Distributor for Forgeline Motorsport Wheels.

Harrop are also the preferred supplier of Eaton Supercharger and Traction Control technology including dual branded product designed and manufactured in-house. There are currently over 4,000 components in our portfolio and this is growing daily as we continually develop more Harrop Performance Products.

Our high profile car manufacturing customers have included Holden, HSV, FPV, Ford, Roush, Toyota, TRD and Lotus.

We also supply to race teams from categories including F1, NASCAR and V8 Supercars and an extensive range of drag, circuit and off-road competitors. Just as importantly, a large portion of our customers are performance enthusiasts and weekend warriors who are highly passionate about their ride.

Please take a moment to review the following pages and learn why Harrop is the first choice in Superchargers.

Thank you for choosing Harrop and enjoy your Harrop Enhanced ride.

- Team **HARROP**



Important Requirements to note:

This Harrop Supercharger Engine Kit **will only suit:**

- Small Block Ford with an 8.2" (289-302 Windsor) OR 9.5" (351 Windsor) deck height. 9.5" deck height engines require an adaptor (see page 15)
- WINDSOR style cylinder heads
- Early style Timing Cover
- Early style Water Pump with LH inlet
- ATI Balancer

NOTE:

ANY OTHER CONFIGURATIONS, DECK HEIGHTS, AND ACCESSORIES NOT MENTIONED ABOVE HAVE NOT BEEN TESTED AND/OR NOT CURRENTLY SUPPORTED.

Overview:

Harrop TVS2650 Supercharger Engine kit for a Small Block Ford (8.2"Deck Height)

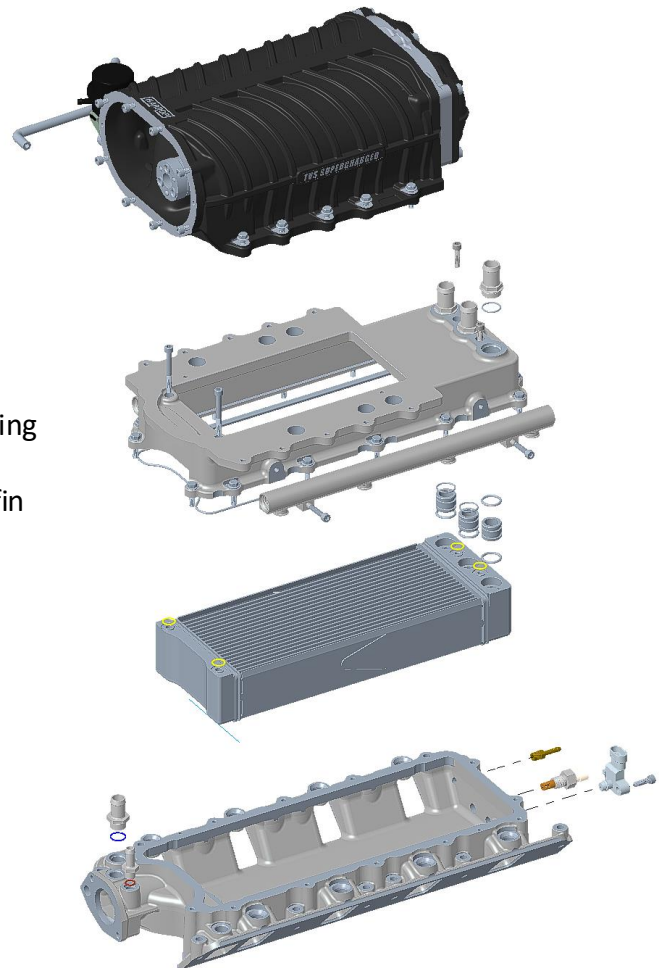
Part number: 99-AMFD15765 **Description:** MANIFOLD ASM TVS2650 SBF 8.2 DECK

8PK FRONT DRIVE (Refer to Page 10)

Part number: 65-B-5.0L-WRAPTOR-AC **Description:** B-5.0L-WRAPTOR-AC-HARROP

10PK HD DRIVE (Refer to Page 11)

Part number: 99-AKIT15780 **Description:** KIT 10PK FRONT DRIVE SBF



Technical Specifications:

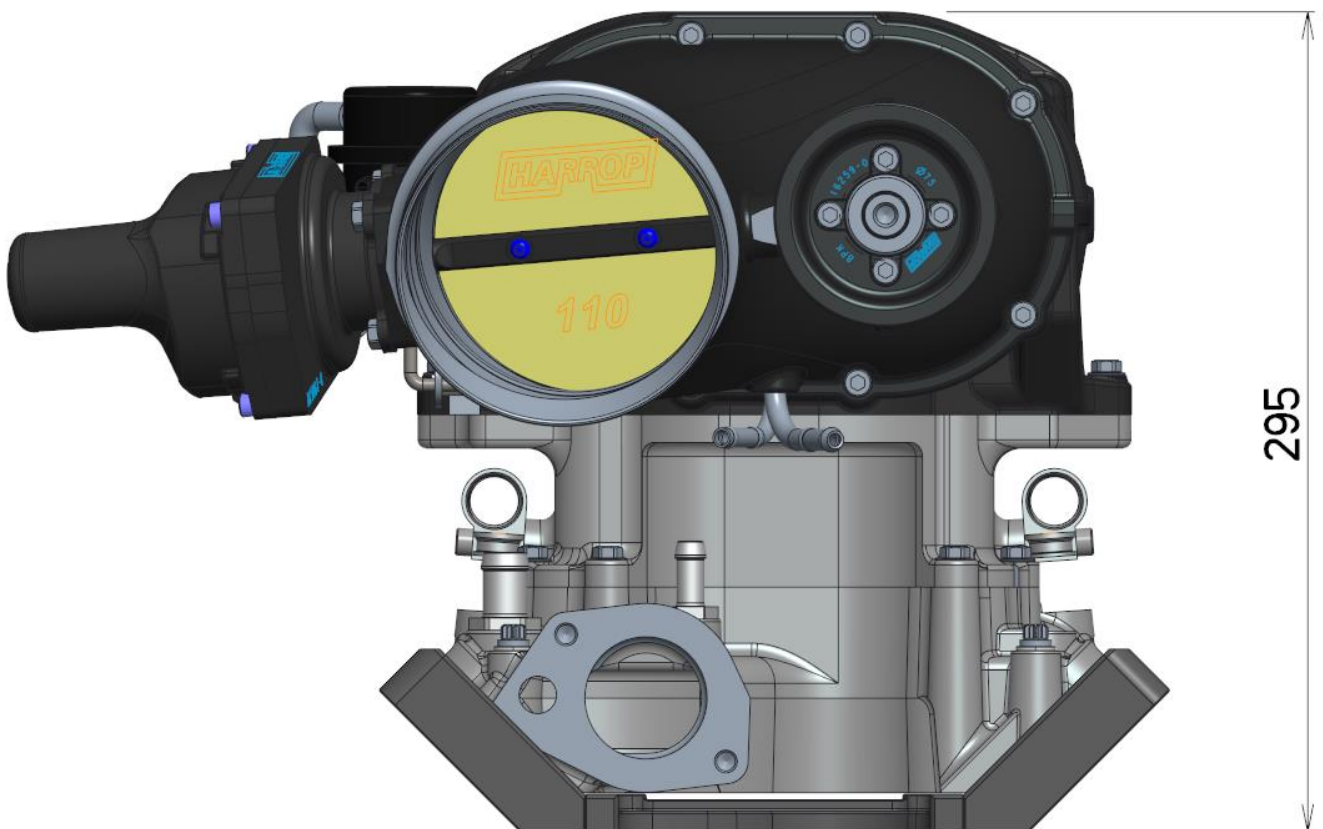
- Eaton TVS2650 supercharger technology
- Integrated Supercharger Bypass system which relieves boost under light load conditions, reducing drive loss and improving fuel economy.
- In manifold charge air intercooler: High density fin at 61mm thick.
- 17mm water in / out intercooler lines.
- Intake Air Temperature (IAT) Sensor (25037388).
- 2.7 Bar MAP Sensor (GM12592525).
- Fuel Rails to suit EV14 Compact injectors *(with -8 AN threads each end).*

9.5" DECK HEIGHT ADAPTOR

To run the Harrop TVS2650 Small Block Ford supercharger on an engine with a 9.5" deck height (351 Windsor), The Harrop adaptor plate kit (99-AKIT16582) must be used in conjunction with the 99-AMFD15765 manifold assembly



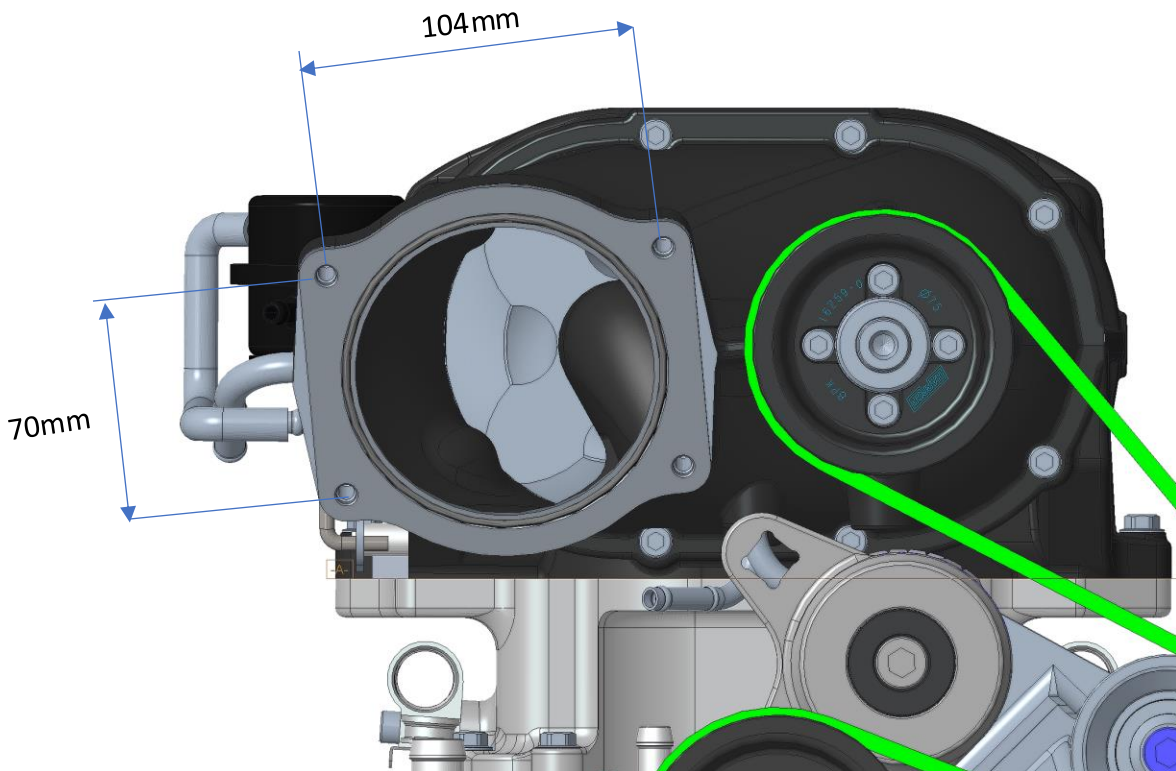
HARROP TVS2650 WITH 9.5" DECK HEIGHT ADAPTOR HEIGHT



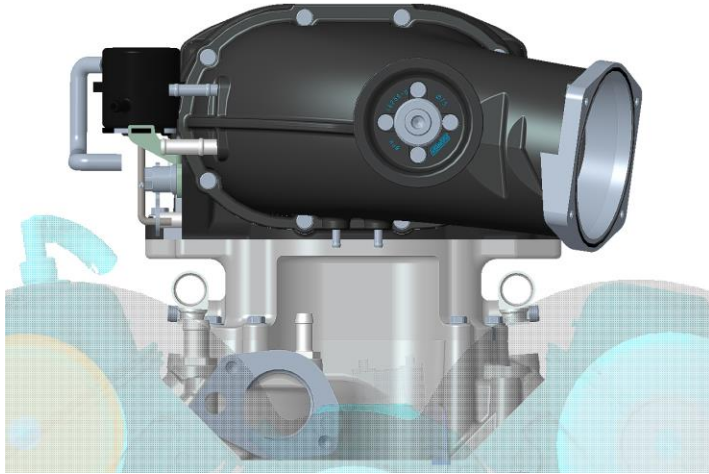
FDI INLET COVER OPTIONS, SUPERCHARGED – SBF

| FRONT INLET COVER BIAS | 8PK FRONT DRIVE | 10PK HD DRIVE |
|--|-----------------|---------------|
| 99-ACVR13169 110 FWD ETC <i>(LS3 throttle body motor)</i> | | |
| 99-ACVR14983 110 FWD CABLE | | |
| 99-ACVR14324 LH BIAS | ** | ** |
| 99-ACVR14234 RH BIAS | ** | ** |
| 99-ACVR13167 FWD INLET | ** | ** |

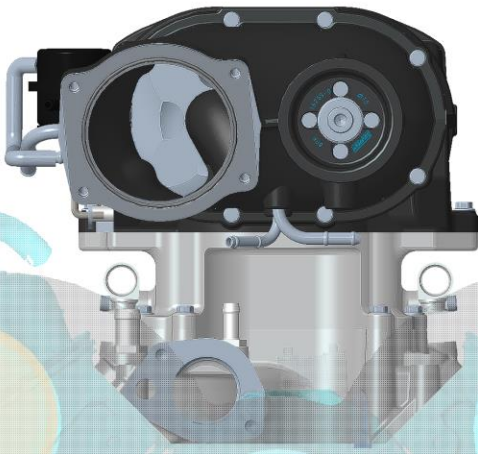
** 104mm x 70mm 4 HOLE THROTTLE BODY MOUNT (TO SUIT LS STYLE ETC OR CABLE)



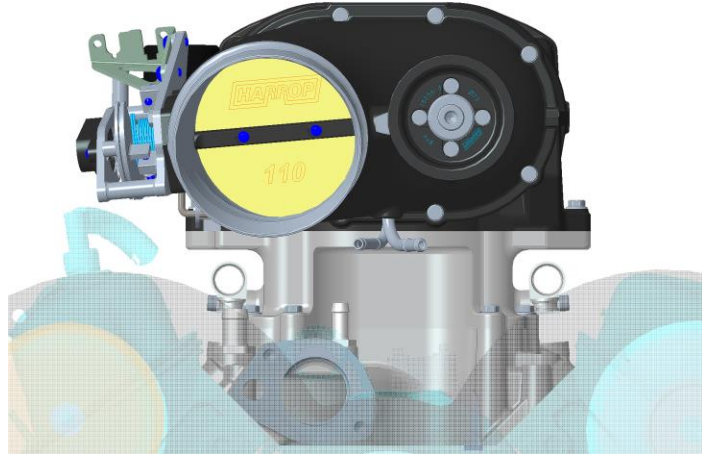
8PK FRONT DRIVE - FDFI INLET COVER OPTIONS



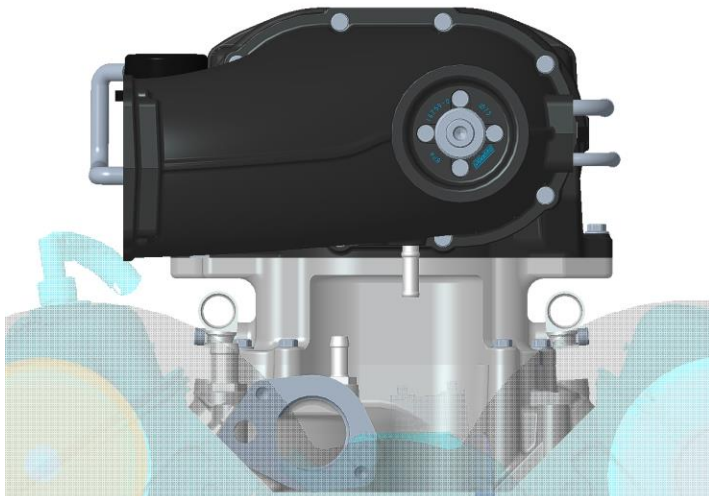
LEFT BIAS
(99-ACVR14324)



FWD BIAS
(99-ACVR-13167)

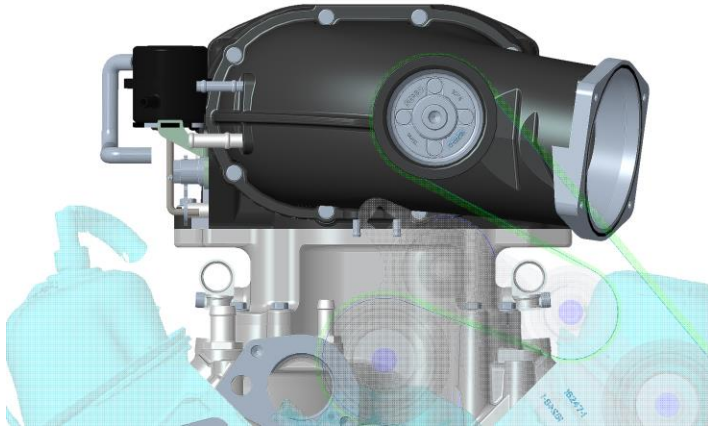


110 FWD BIAS
(99-ACVR14983 CBL)
(99-ACVR13169 ETC)

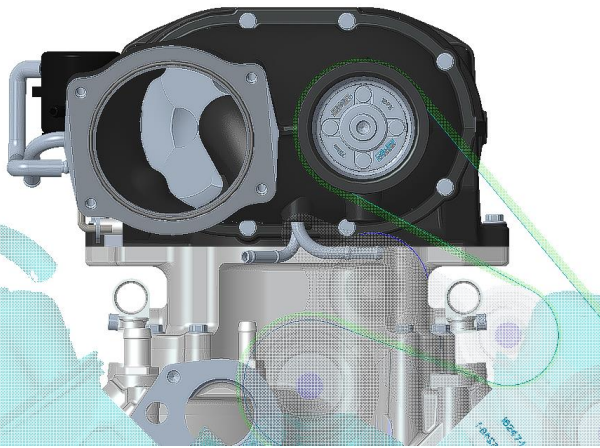


RIGHT BIAS
(99-ACVR14234)

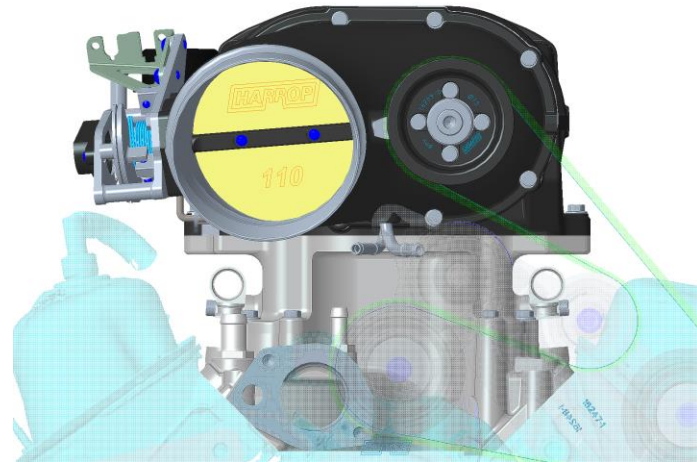
10PK HD DRIVE - FDFI INLET COVER OPTIONS



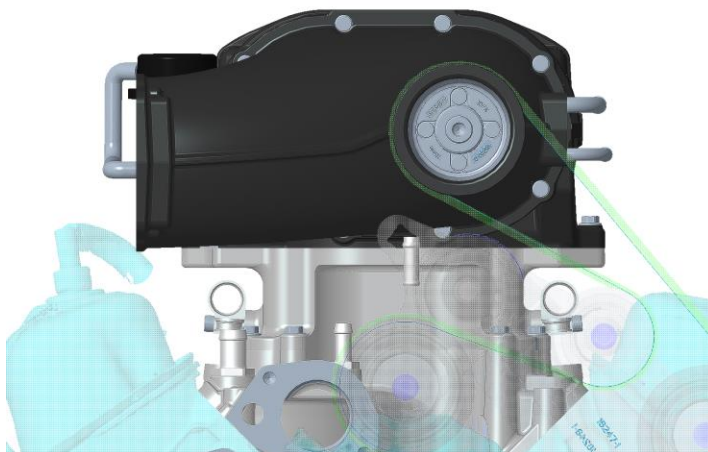
LEFT BIAS
(99-ACVR14324)



FWD BIAS
(99-ACVR-13167)



110 FWD BIAS
(99-ACVR14983 CBL)
(99-ACVR13169 ETC)



RIGHT BIAS
(99-ACVR14234)

DRIVE SYSTEMS AVAILABLE



8PK FRONT DRIVE
(CVF all inclusive Wraptor 8 track Supercharger Serpentine System)
 Refer www.cvfracing.com



10PK HD DRIVE

DRIVE SYSTEM SUPPORTED ACCESSORIES

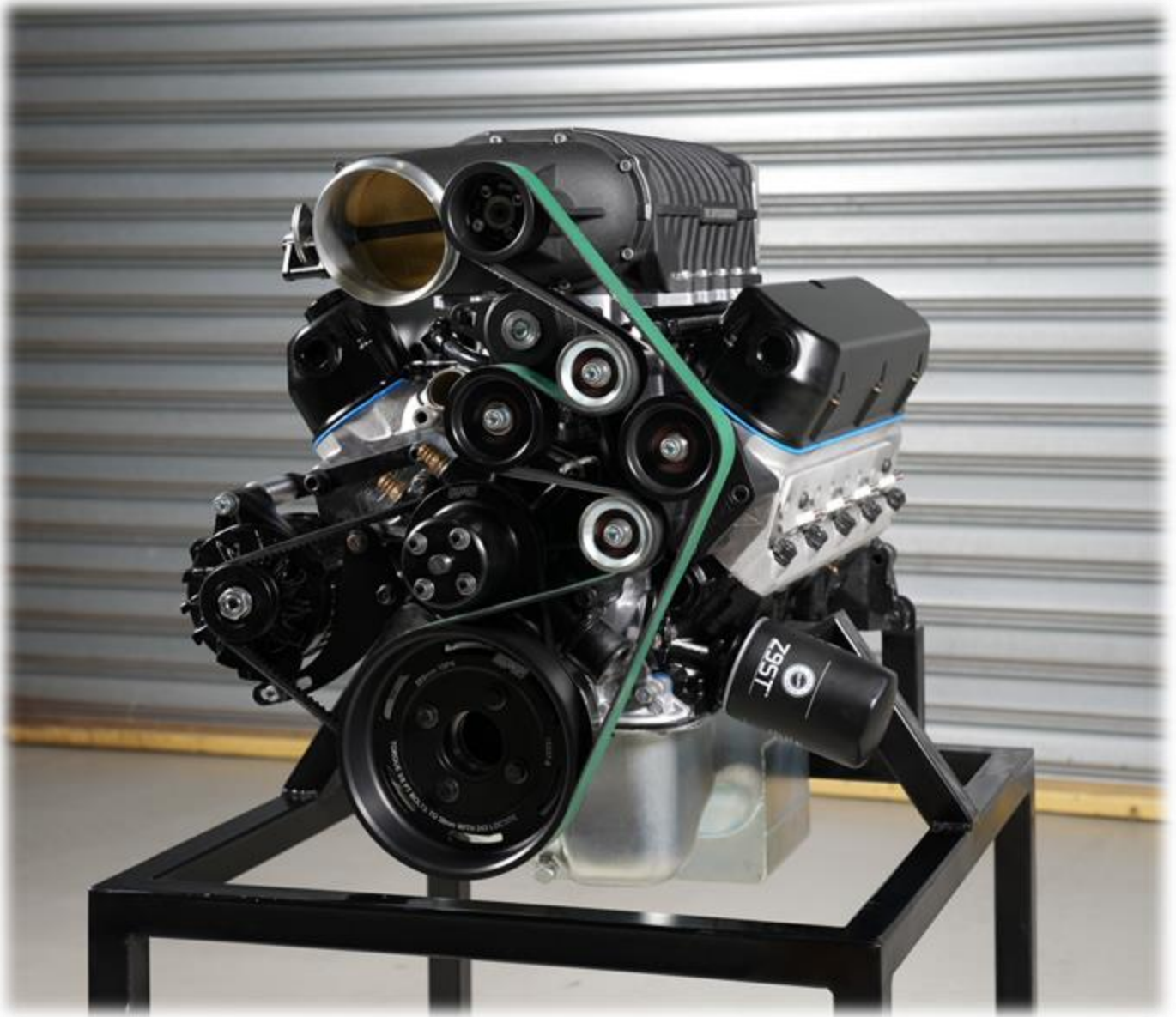
| | 8PK FRONT DRIVE | 10PK HD DRIVE |
|------------------|-----------------------------------|---------------|
| Air Conditioning | Green | Red |
| Power Steering | Green | Red |
| Alternator | Green | Green |
| Water Pump | Green | Green |
| Power (<900hp) | REFER PERFORMANCE TABLE (page 29) | |
| Power (>900hp) | REFER PERFORMANCE TABLE (page 29) | |



8PK FRONT DRIVE:

- 8PK dia 160mm Crank Pulley
- Premium 8PK Belt
- CVF all inclusive *Wraptor 8 Track* Supercharger Serpentine System features
Water Pump - High Flow Aluminium Reverse direction, 5.7" tall, 5/8" pilot, Driver (LH Inlet), and modified mounting boss.
Alternator - 140 Amp GM CS130 Style 1 wire with 6-12 O'clock mounting and 6.6" bolt spacing.
Power Steering Pump - GM Type II pump.
Compressor - Peanut Style (7B10) AC Compressor with 8 Rib Clutch.
HD Tensioner
All Pulleys, Idlers, and mounting hardware and instructions.

Note: Customer sourced ATI Balancer and Trigger Wheel Assembly – refer pages 21/22.



10PK HD DRIVE:

- 10PK dia 205mm Crank Pulley Assembly
(crank pulley, v-pulley adapter, and fasteners)
- 10PK Tensioner Bracket Assembly
- Alternator mounting bracket kit to suit a 140 Amp GM CS130 Alternator with 6-12 O'clock mounting and 6.6" bolt spacing (bracket kit optional)
- Mechanical Water Pump V-Pulley to suit Driver (LH Inlet) 5.7" tall Water Pump (optional)
- 10pk belt
- V-Belt (optional)

Note: Customer sourced Alternator, ATI Balancer and Trigger Wheel Assembly – refer pages 21/22/23.

8PK SUPERCHARGER PULLEY:-

| PULLEY P/No. | DESCRIPTION |
|----------------|--|
| 99-PLY16257-GT | Pulley, Supercharger, 8PK, Ø65.0 OD, 22.3 Offset |
| 99-PLY16258-GT | Pulley, Supercharger, 8PK, Ø70.0 OD, 22.3 Offset |
| 99-PLY16259-GT | Pulley, Supercharger, 8PK, Ø75.0 OD, 22.3 Offset |
| 99-PLY16245 | Pulley, Crank, 8PK, Ø160, CVF SBF |

8PK PULLEYS and BELT 8.2" DECK HEIGHT:-

| SUPERCHARGER PULLEY DIAMETER | CRANK PULLEY DIAMETER | BELT P/No. | SUPERCHARGER SPEED |
|------------------------------|-----------------------|------------|--------------------|
| 65 | 160 | 65-8PK2533 | 15300 RPM |
| 70 | 160 | 65-8PK2540 | 14200 RPM |
| 75 | 160 | 65-8PK2554 | 13300 RPM |

8PK PULLEYS and BELT 9.5" DECK HEIGHT:-

| SUPERCHARGER PULLEY DIAMETER | CRANK PULLEY DIAMETER | BELT P/No. | SUPERCHARGER SPEED |
|------------------------------|-----------------------|------------|--------------------|
| 65 | 160 | 65-8PK2605 | 15300 RPM |
| 70 | 160 | 65-8PK2605 | 14200 RPM |
| 75 | 160 | 65-8PK2623 | 13300 RPM |

Max crank speed 6200rpm, Max Supercharger Speed 18000rpm(*red cells indicate s/c warranty void*)

10PK SUPERCHARGER PULLEY:-

| PULLEY P/No. | DESCRIPTION |
|----------------|---|
| 99-PLY16249-GT | Pulley, Supercharger, 10PK, Ø65.0 OD, 18.3 Offset |
| 99-PLY16250-GT | Pulley, Supercharger, 10PK, Ø70.0 OD, 18.3 Offset |
| 99-PLY16251-GT | Pulley, Supercharger, 10PK, Ø75.0 OD, 18.3 Offset |
| 99-PLY16252-GT | Pulley, Supercharger, 10PK, Ø80.0 OD, 18.3 Offset |
| 99-PLY16253-GT | Pulley, Supercharger, 10PK, Ø85.0 OD, 18.3 Offset |

10PK CRANK PULLEY:-

| PULLEY P/No. | DESCRIPTION |
|--------------|-------------------------|
| 99-PLY16615 | Pulley, 10PK, Ø160 4x90 |
| 99-PLY16237 | Pulley, 10PK, Ø205 4x90 |
| 99-PLY16238 | Pulley, 10PK, Ø245 4x90 |

10PK PULLEYS and BELT 8.2" DECK HEIGHT:-

| SUPERCHARGER PULLEY DIAMETER | CRANK PULLEY DIAMETER | 10PK BELT P/No. | SUPERCHARGER SPEED |
|------------------------------|-----------------------|-----------------|--------------------|
| 65 | 160 | 65-10PK1875 | 15250 RPM |
| 70 | 160 | 65-10PK1885 | 14170 RPM |
| 75 | 160 | 65-10PK1893 | 13220 RPM |
| 80 | 160 | 65-10PK1902 | 12400 RPM |
| 85 | 160 | 65-10PK1910 | 11650 RPM |

| SUPERCHARGER PULLEY DIAMETER | CRANK PULLEY DIAMETER | 10PK BELT P/No. | SUPERCHARGER SPEED |
|------------------------------|-----------------------|-----------------|--------------------|
| 65 | 205 | 65-10PK1962 | 19550 RPM |
| 70 | 205 | 65-10PK1962 | 18150 RPM |
| 75 | 205 | 65-10PK1976 | 16950 RPM |
| 80 | 205 | 65-10PK2018 | 15900 RPM |
| 85 | 205 | 65-10PK2018 | 14950 RPM |

| SUPERCHARGER PULLEY DIAMETER | CRANK PULLEY DIAMETER | 10PK BELT P/No. | SUPERCHARGER SPEED |
|------------------------------|-----------------------|-----------------|--------------------|
| 65 | 245 | 65-10PK2055 | 23400 RPM |
| 70 | 245 | 65-10PK2055 | 21700 RPM |
| 75 | 245 | 65-10PK2058 | 20250 RPM |
| 80 | 245 | 65-10PK2058 | 19000 RPM |
| 85 | 245 | 65-10PK2058 | 17870 RPM |

| ALTERNATOR PULLEY DIAMETER | WATER PUMP PULLEY DIAMETER | V-BELT LENGTH * | V-BELT P/No(s). |
|----------------------------|----------------------------|-----------------|-----------------|
| 65 | 118 | 985 | 11A0985 |
| 65 | N/A | 825 | 11A0825 |

| PULLEY P/No. | DESCRIPTION |
|--------------|-------------------------------|
| 99-PLY16239 | Pulley, V-Belt Water Pump SBF |

Supercharger speed calculated at engine speed of 6200 RPM

Max supercharger speed 18000 RPM (*red cells indicate supercharger warranty void*)

*With optional Harrop alternator mounting kit and CUSTOMER SUPPLIED GM CS130 alternator

10PK PULLEYS and BELT 9.5" DECK HEIGHT:-

| SUPERCHARGER PULLEY DIAMETER | CRANK PULLEY DIAMETER | 10PK BELT P/No. | SUPERCHARGER SPEED |
|------------------------------|-----------------------|-----------------|--------------------|
| 65 | 160 | 65-10PK2004 | 15250 RPM |
| 70 | 160 | 65-10PK2004 | 14170 RPM |
| 75 | 160 | 65-10PK2004 | 13220 RPM |
| 80 | 160 | 65-10PK2010 | 12400 RPM |
| 85 | 160 | 65-10PK2010 | 11650 RPM |

| SUPERCHARGER PULLEY DIAMETER | CRANK PULLEY DIAMETER | 10PK BELT P/No. | SUPERCHARGER SPEED |
|------------------------------|-----------------------|-----------------|--------------------|
| 65 | 205 | 65-10PK2069 | 19550 RPM |
| 70 | 205 | 65-10PK2075 | 18150 RPM |
| 75 | 205 | 65-10PK2088 | 16950 RPM |
| 80 | 205 | 65-10PK2088 | 15900 RPM |
| 85 | 205 | 65-10PK2109 | 14950 RPM |

| SUPERCHARGER PULLEY DIAMETER | CRANK PULLEY DIAMETER | 10PK BELT P/No. | SUPERCHARGER SPEED |
|------------------------------|-----------------------|-----------------|--------------------|
| 65 | 245 | 65-10PK2162 | 23400 RPM |
| 70 | 245 | 65-10PK2162 | 21700 RPM |
| 75 | 245 | 65-10PK2162 | 20250 RPM |
| 80 | 245 | 65-10PK2167 | 19000 RPM |
| 85 | 245 | 65-10PK2186 | 17870 RPM |

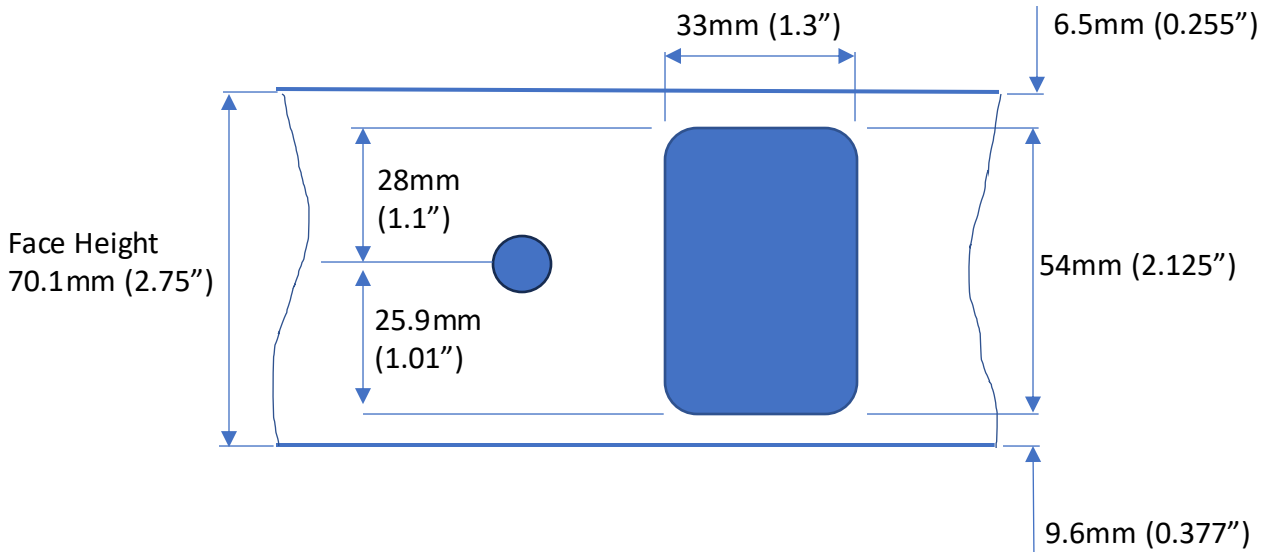
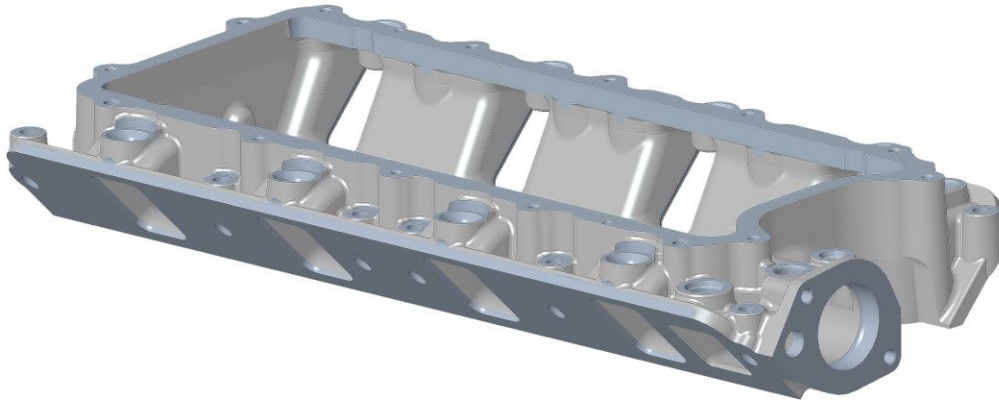
| ALTERNATOR PULLEY DIAMETER | WATER PUMP PULLEY DIAMETER | V-BELT LENGTH * | V-BELT P/No(s). |
|----------------------------|----------------------------|-----------------|-----------------|
| 65 | 118 | 985 | 11A0985 |
| 65 | N/A | 825 | 11A0825 |

Supercharger speed calculated at engine speed of 6200 RPM

Max supercharger speed 18000 RPM (red cells indicate supercharger warranty void)

*With optional Harrop alternator mounting kit and CUSTOMER SUPPLIED GM CS130 alternator

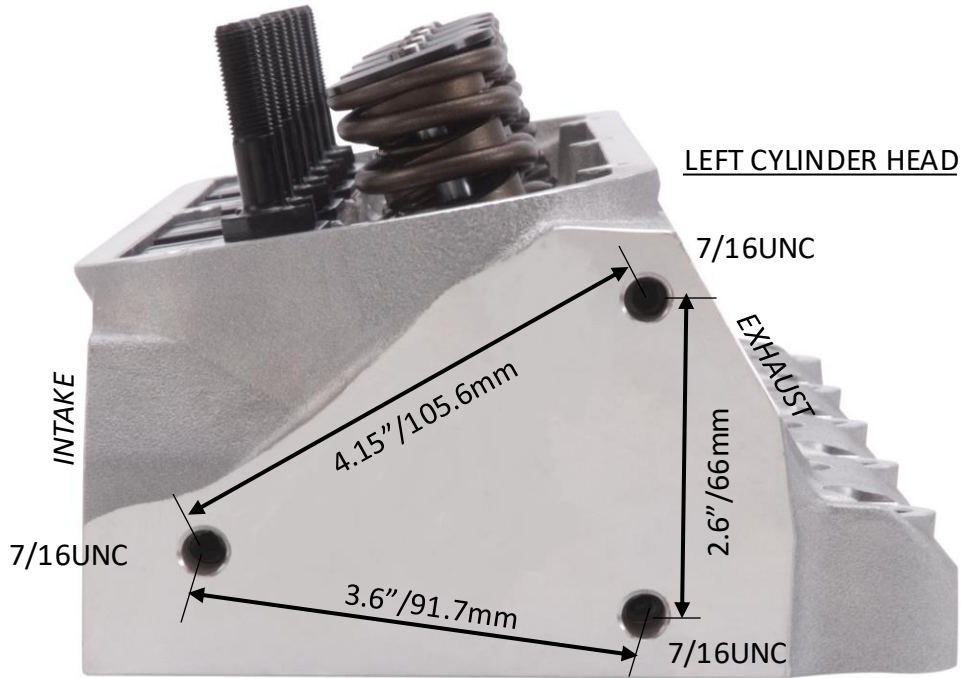
INTAKE PORT SPECIFICATIONS



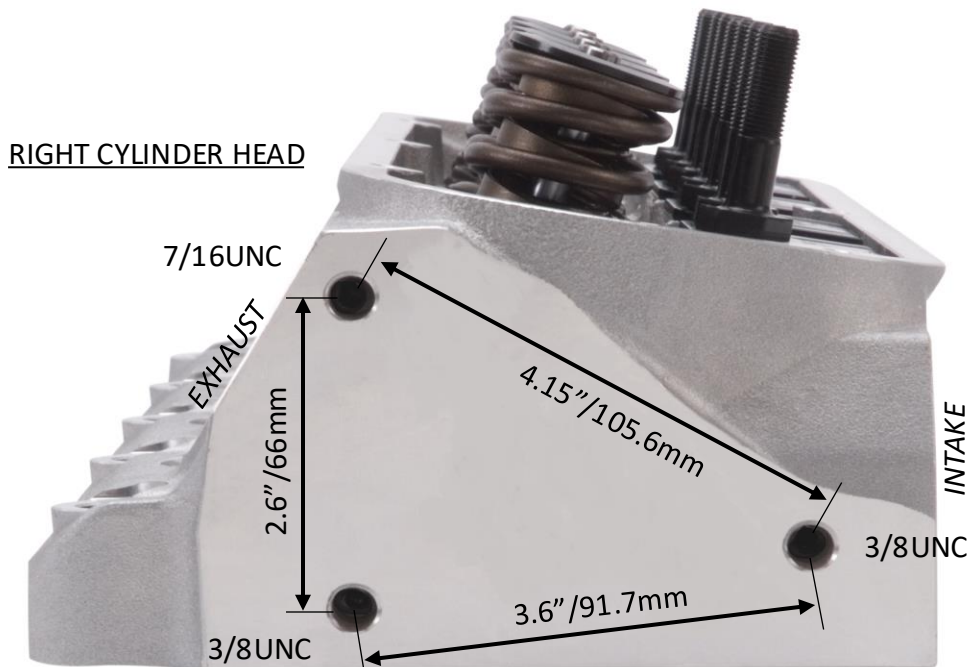
Harrop SBF Supercharger Lower Manifold port size to suit an 8.2" deck height Small Block Ford engine.

CYLINDER HEAD ACCESSORY BOLT PATTERN

MOUNTING REQUIREMENT FOR 10PK HD DRIVE TENSIONER BRACKET ASSEMBLY



MOUNTING REQUIREMENT FOR 10PK HD DRIVE OPTIONAL ALTERNATOR BRACKET



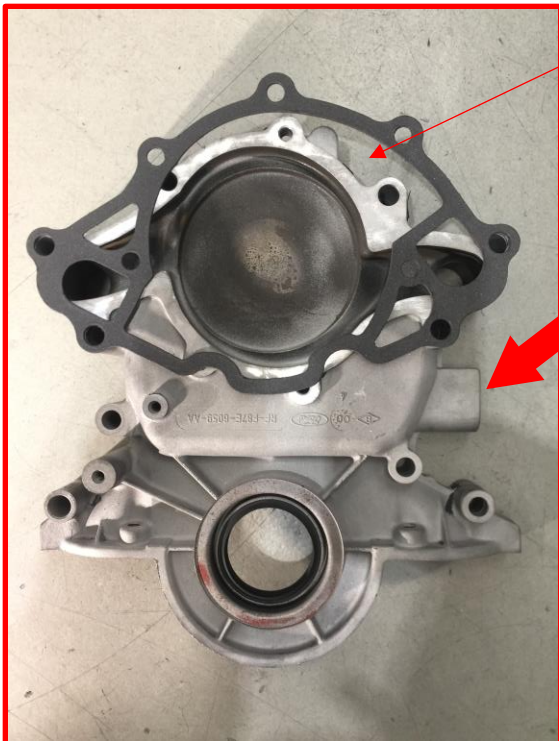
WATER PUMP AND TIMING COVER – AS TESTED



8PK Front Drive
 Early Style Water Pump (CVF supplied)
 5.7" tall, reverse rotation, 5/8" pilot,
 Driver Inlet
 (Use with Early Model Mechanical Fuel Pump
 Timing Cover, or Dorman 635-100)

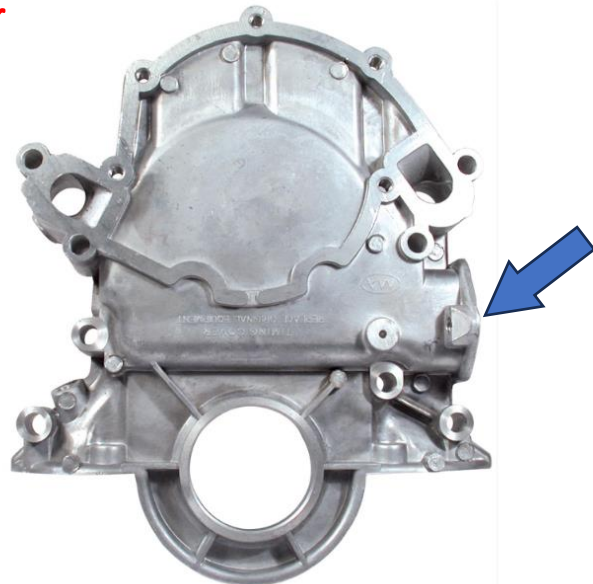


10PK HD Drive
 Early Style Water Pump (GMB) - SBF
 5.7" tall, 5/8" pilot, Driver Inlet
 (Use with Early Model Mechanical Fuel Pump Timing
 Cover, or Dorman 635-107)



Late model "EFI style" Front Timing Cover
 (1994-1995 Mustang)

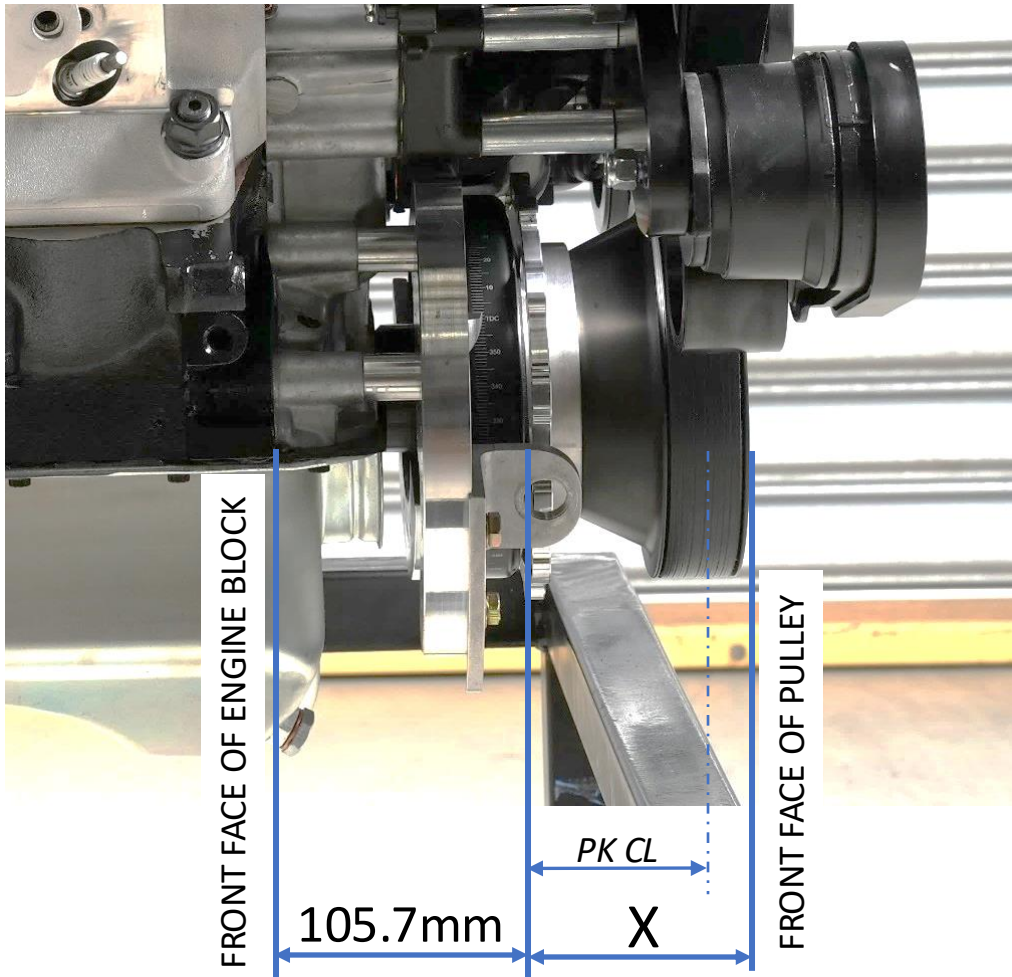
**The above Water
 Pumps DO NOT
 FIT this late
 model EFI style
 front timing
 cover**



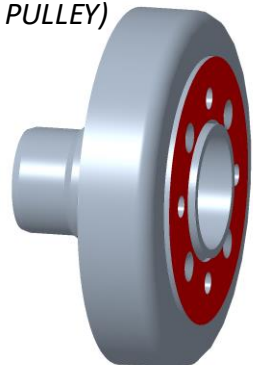
Early model "mechanical fuel pump style" Front Timing
 Cover (as tested with 8PK and 10PK)

DORMAN Timing Cover
 10PK HD Drive - Ref P/No 635-107
 8PK Front Drive - Ref P/No 635-100

POSITION OF CRANK DAMPER MOUNT FACE



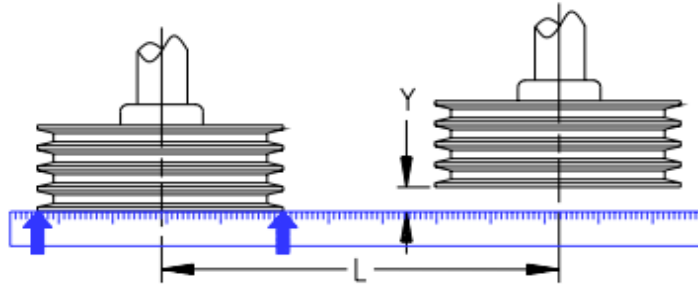
- **105.7mm** - FRONT FACE OF ENGINE BLOCK TO FRONT OF CRANK DAMPER (MOUNT FACE)
- **PK CL** – CRANK DAMPER MOUNT FACE TO CENTRE OF BELT (ie. CENTRELINE OF PULLEY)
 8PK BELT = 69.8mm
 10PK BELT = 65.8mm
- **V-PLY CL** – CRANK DAMPER MOUNT FACE TO CENTRE OF V-BELT (ie. CENTRELINE OF PULLEY)
 10PK HD Drive V-BELT = 32.3mm
- **X** - CRANK DAMPER MOUNT FACE TO FRONT FACE OF PULLEY
 8PK BELT = **87.2mm**
 10PK BELT = **86.9mm**



*Some machining maybe required to achieve belt/pulley alignment across the entire drive system.
 Note:- The 8pk crank pulley, and the 10pk v-belt adapter have sufficient material thickness for machining, to accommodate a 10mm (max) thick “sandwich style” trigger wheel.*

PULLEY ALIGNMENT:-

Some shimming/machining maybe required to achieve belt/pulley alignment across the entire drive system.

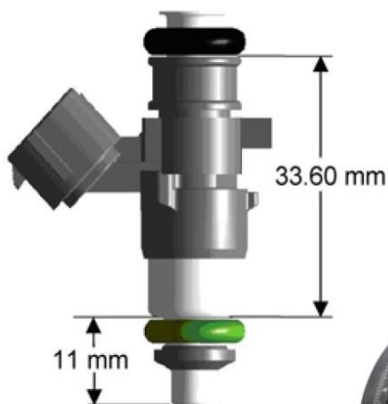


| 8PK PULLEY TO PULLEY L (mm) | MAXIMUM ALLOWABLE MIS-ALIGNMENT DISTANCE Y (mm) |
|-----------------------------------|---|
| ALTERNATOR TO P/S PUMP L=130mm | 0.6mm |
| | |

NOTE:- The CVF Idler pulleys have a decorative cap which “closes in” the 8PK belt. These idler pulleys must be aligned to eliminate any belt shredding.

| 10PK RIBBED PULLEY TO RIBBED PULLEY L (mm) | MAXIMUM ALLOWABLE MIS-ALIGNMENT DISTANCE Y (mm) |
|--|---|
| SUPERCHARGER TO TENSIONER BRACKET L=238mm | 1.0mm |
| TENSIONER BRACKET TO CRANK L=313mm | 1.3mm |

ADDITIONAL PARTS REQUIRED:

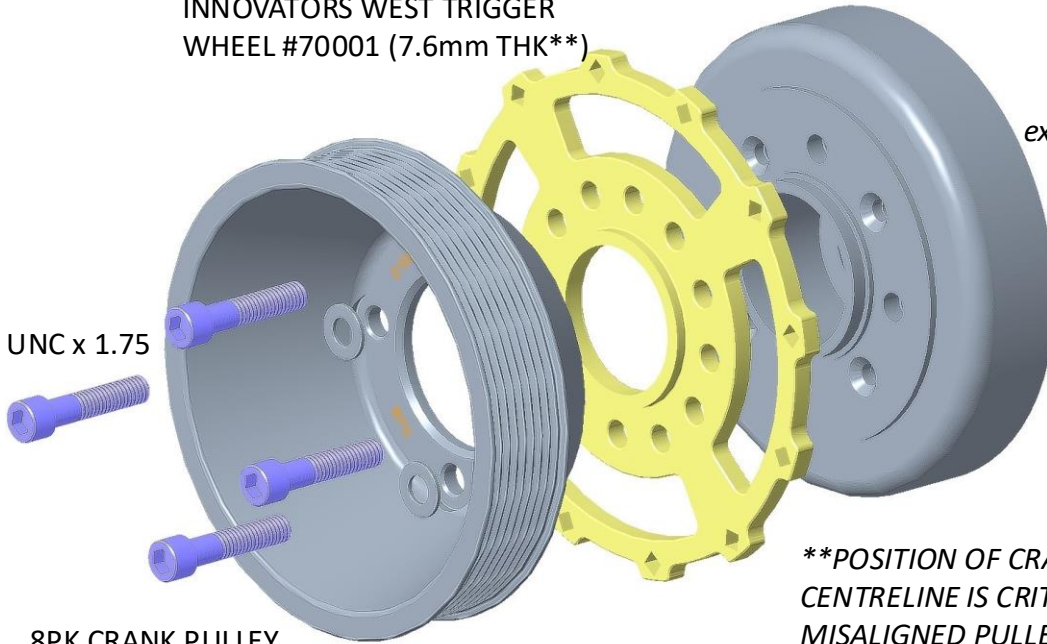


| Harrop to supply (option) | Customer to supply |
|---|---|
| DW-GM Injector (USCAR) set/8-65lb/hr -680cc # 65-16U-00-0065-8 DW-GM Injector (USCAR) set/8-90lb/hr -945cc # 65-16U-00-0090-8 DW-GM Injector (Jetronic) set/8-115lb/hr -1200cc # 65-16MX-22-1200-8 | EV14 Compact Fuel Injector (33.6mm across O-ring shoulders) x 8 req'd |
| | LS Style throttle body (104mm x 70mm 4 Hole Mount) - <i>if not using the 110mm integrated front cover Throttle Body</i> |
| | ATI Balancer (externally balanced #918900) ATI Balancer (internally balanced #918920) |
| | CAM Sync Sensor (MSD #85221), and retaining clamp |
| | Crank Trigger Assembly – RIGHT side location STD (Innovators West #7001) |
| Generic Intercooler Kit A12953 (Intercooler size 560mm x 305mm x 40mm) | Intercooler, pump, reservoir bottle, hoses and clamps |
| | Gaskets for Intake manifold and thermostat housing |
| 99-PLY16239 V-Pulley (use with mechanical water pump) – <u>10PK HD Drive only</u> | |
| Bracket Asm Alternator Mount HD #A16351 (<i>to suit a v-belt GM CS130 140amp Alternator with 6-12 oclock mtg and 6"bolt spacing – NOT SUPPLIED</i>) – <u>10PK HD Drive only</u> | Alternator (v-belt), and modified alternator mount – <u>10PK HD Drive only</u> |

INNOVATORS WEST TRIGGER
WHEEL #70001 (7.6mm THK**)

ATI BALANCER
(#918900)
externally balanced

SH 3/8 UNC x 1.75



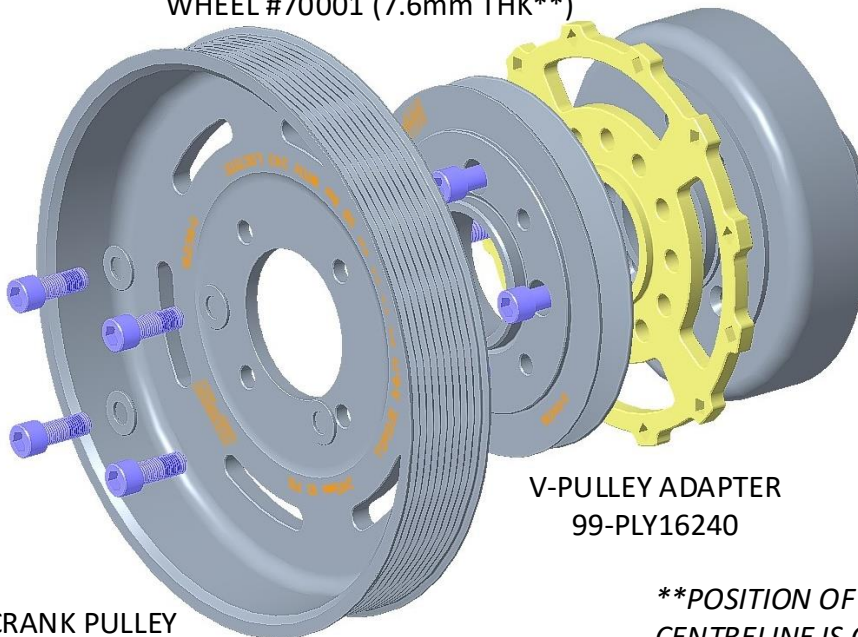
8PK CRANK PULLEY
99-PLY16245

****POSITION OF CRANK PULLEY BELT
CENTRELINE IS CRITICAL TO AVOID
MISALIGNED PULLEYS**

8PK FRONT DRIVE CRANK PULLEY ASSEMBLY

INNOVATORS WEST TRIGGER
WHEEL #70001 (7.6mm THK**)

ATI BALANCER
(#918900)
externally balanced

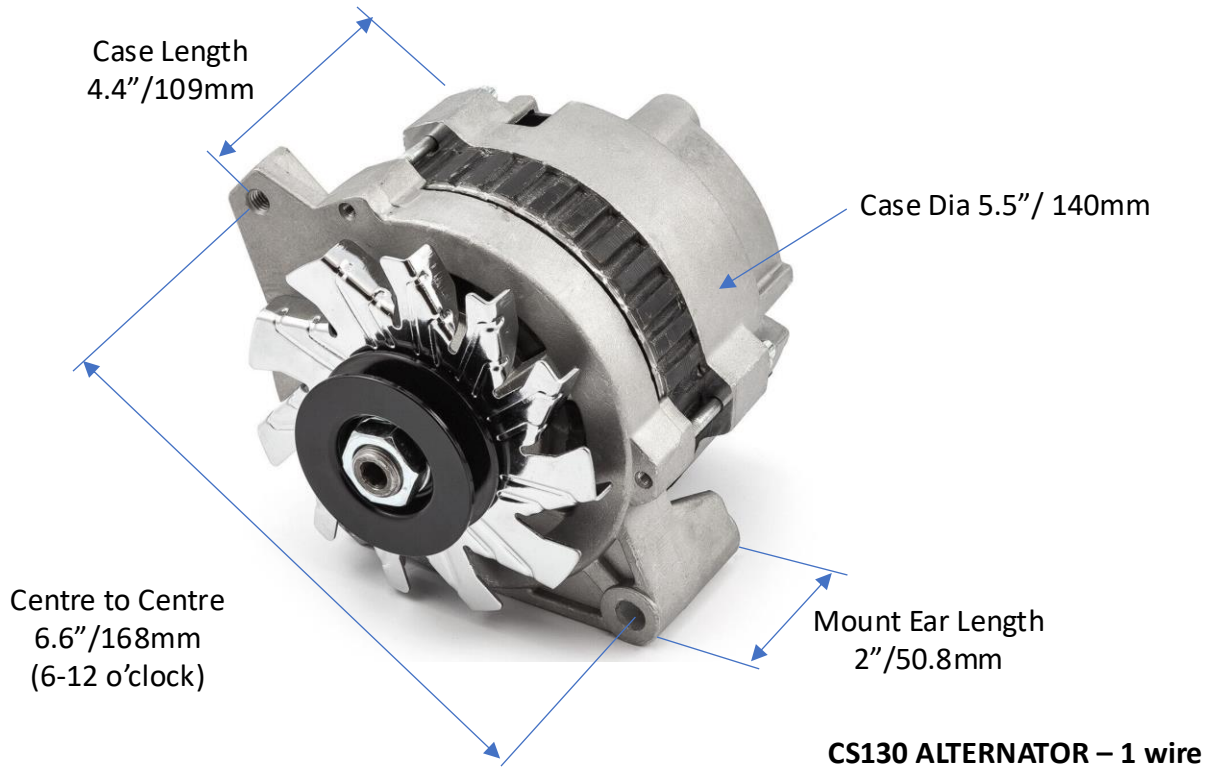


10PK CRANK PULLEY
99-PLY16237

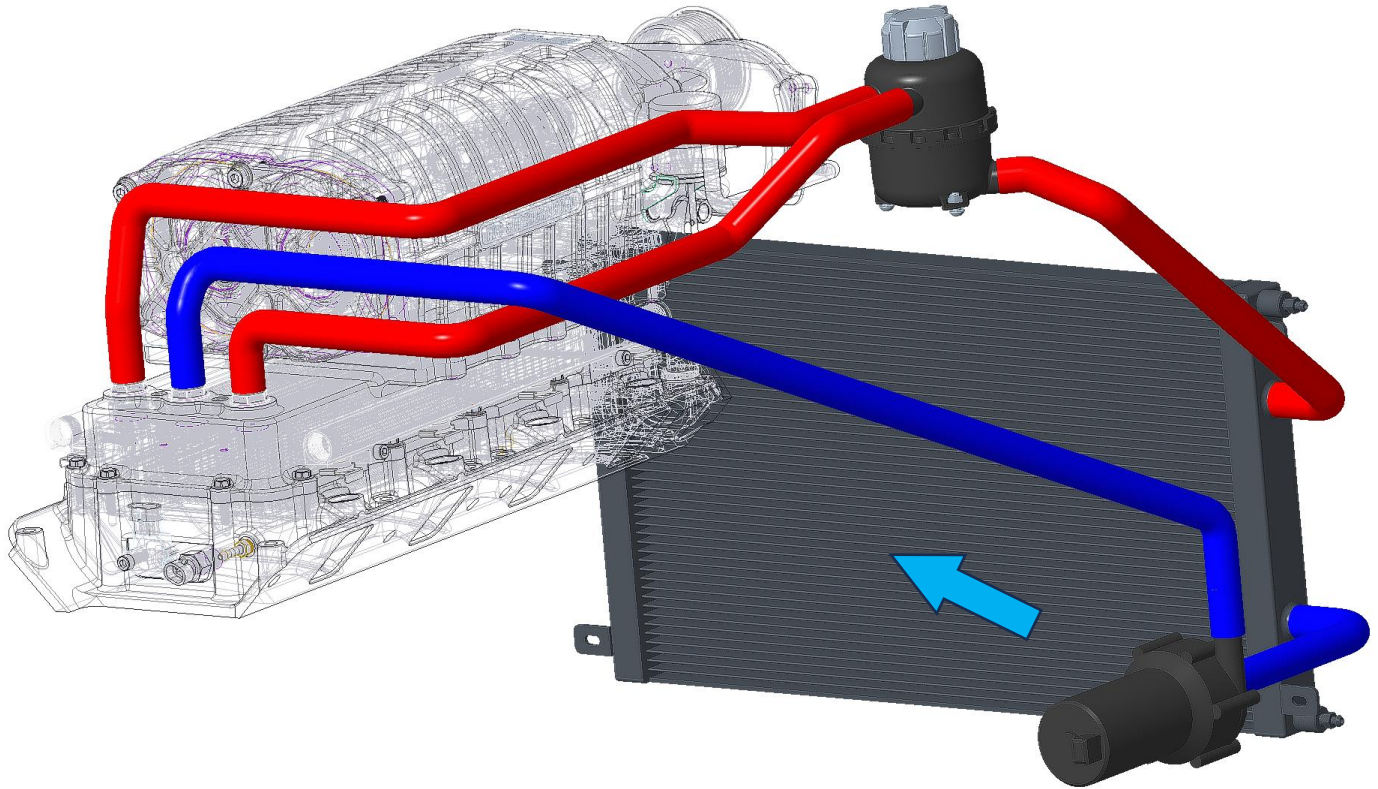
V-PULLEY ADAPTER
99-PLY16240

****POSITION OF CRANK PULLEY BELT
CENTRELINE IS CRITICAL TO AVOID
MISALIGNED PULLEYS**

10PK HD DRIVE CRANK PULLEY ASSEMBLY



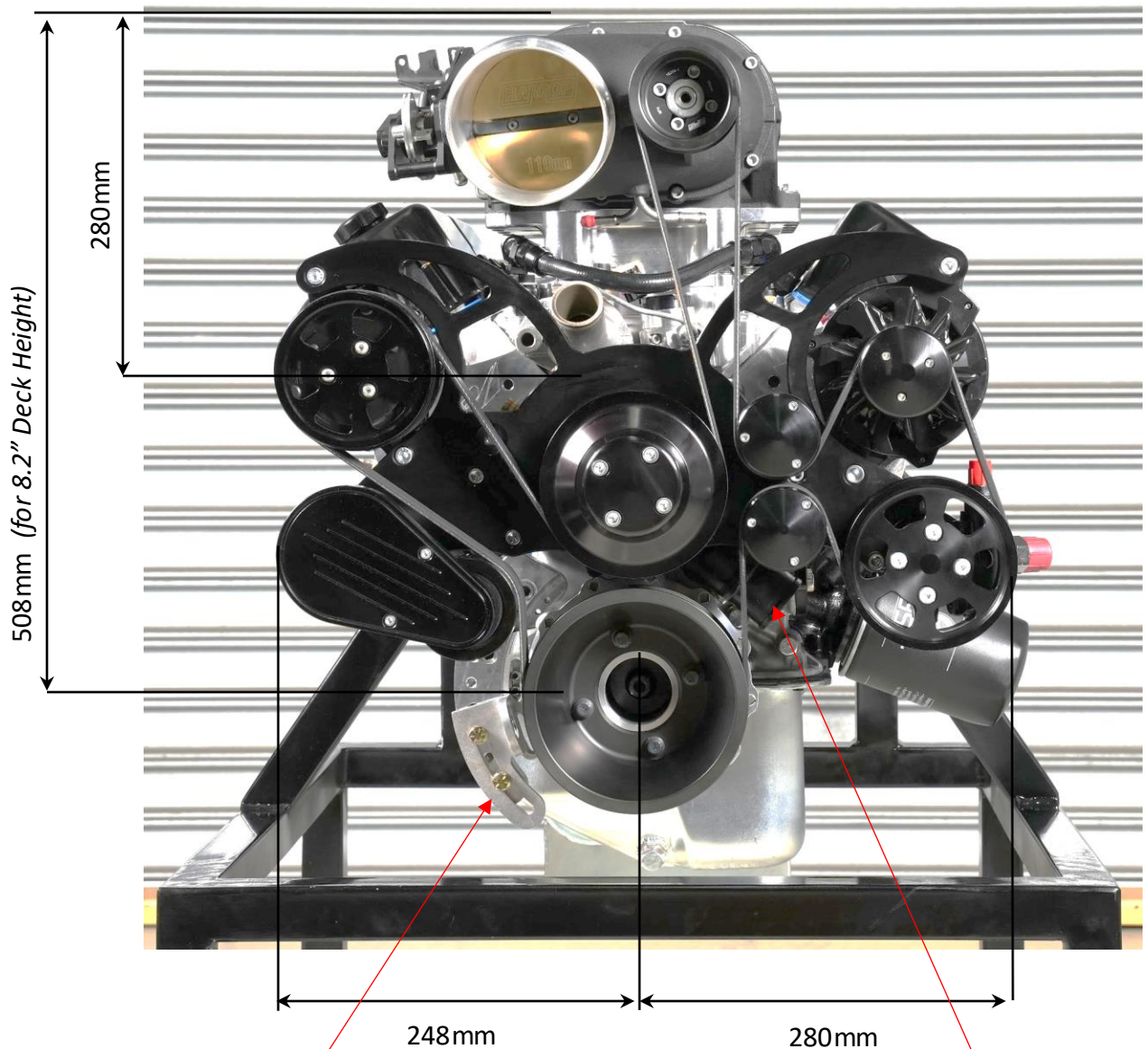
GENERIC INTERCOOLER ROUTING



Engine kit does not include reservoir, radiator, pump or hoses

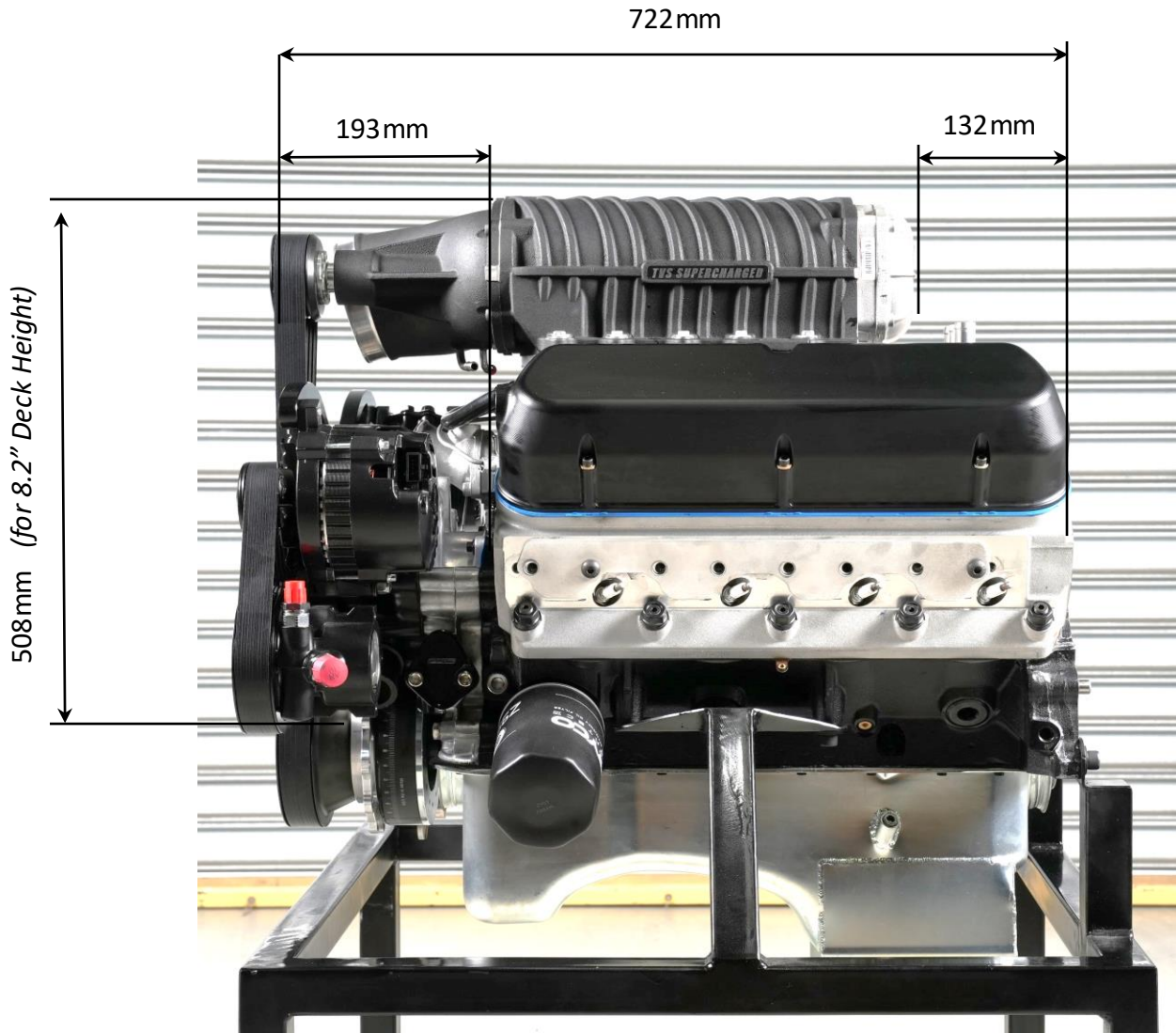
- Illustration is a generic coolant circuit diagram.
- Blue arrow indicates flow direction
- Intercooler reservoir must be mounted at the highest point in the circuit
- Intercooler pump must be mounted lower than the intercooler reservoir
- Intercooler system must be filled with a 1:1 mix of GM6277M coolant concentrate and distilled or deionised water
- Optional:- *KIT-INSTALLATION, INTERCOOLING, GENERIC, FDFI, SUPERCHARGER – A12953*

8PK FRONT DRIVE



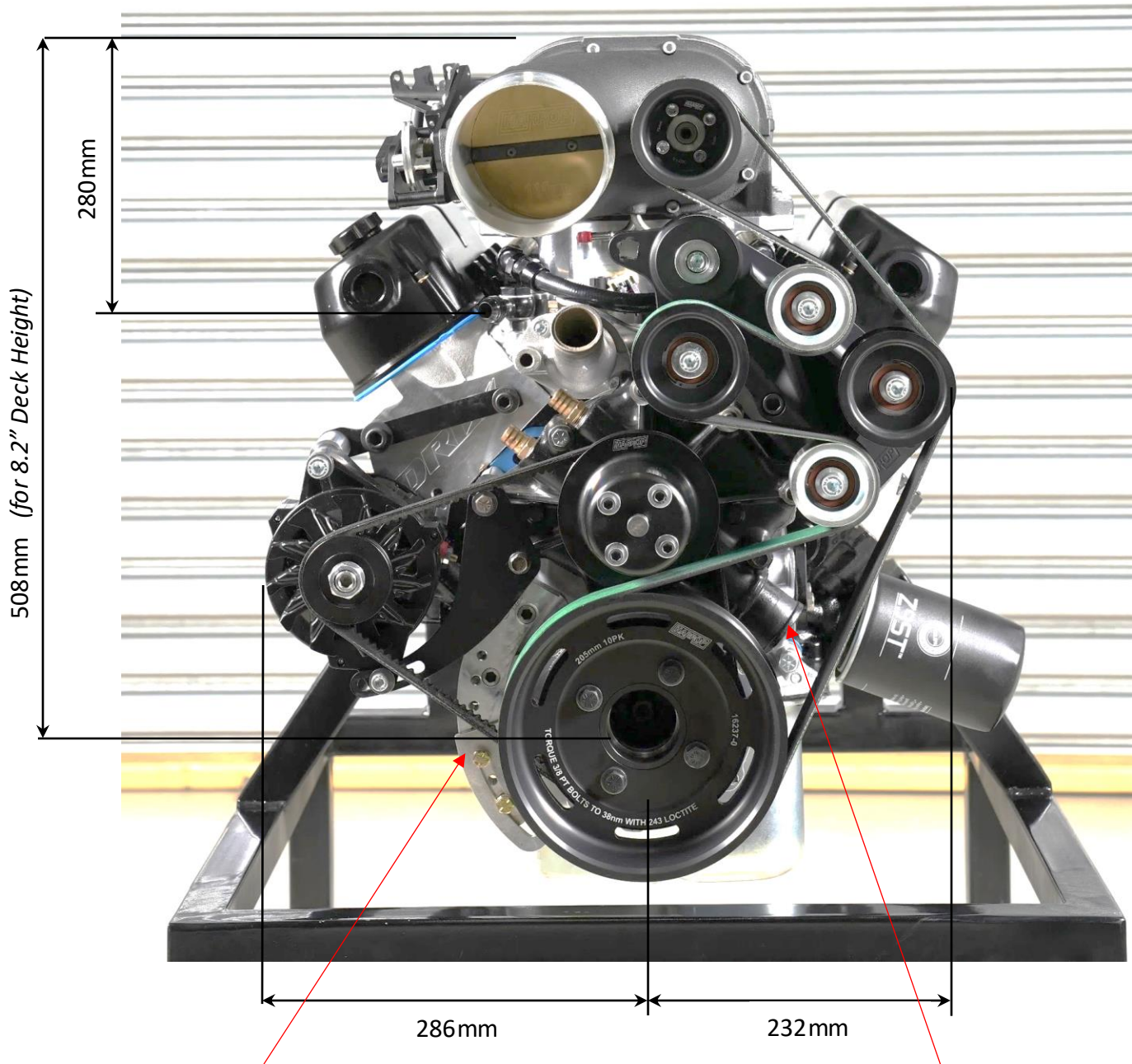
508mm C/L OF CRANK TO TOP OF S/C
280mm TOP OF BLOCK TO TOP OF S/C
248mm C/L OF CRANK TO OUTSIDE OF HD TENSIONER
280mm C/L OF CRANK TO OUTSIDE OF POWER STEERING PUMP

8PK FRONT DRIVE



- 508mm C/L OF CRANK TO TOP OF S/C
- 193mm FRONT FACE OF BLOCK TO FRONT FACE OF S/C PULLEY
- 132mm REAR FACE OF BLOCK TO REAR FACE OF S/C
- 722mm REAR FACE OF BLOCK TO FRONT FACE OF S/C PULLEY

10PK HD DRIVE

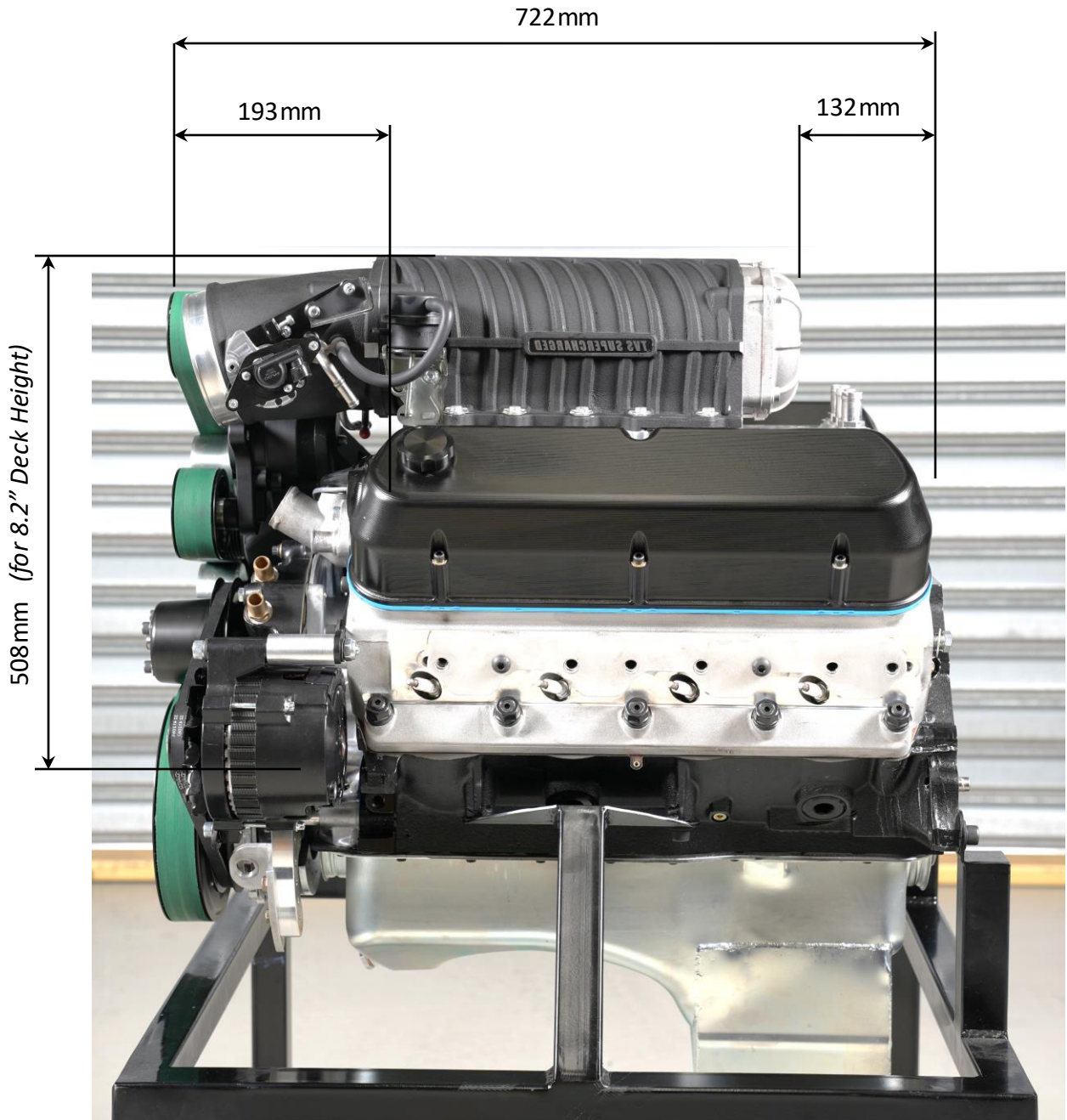


CRANK TRIGGER ASM

LEFT HAND SIDE
LOWER WATER PUMP
INLET
(DRIVER)

- 508mm C/L OF CRANK TO TOP OF S/C
- 280mm TOP OF BLOCK TO TOP OF S/C
- 286mm C/L OF CRANK TO OUTSIDE OF ALTERNATOR AT MAX TRAVEL
- 232mm C/L OF CRANK TO OUTSIDE OF PULLEY

10PK HD DRIVE



- 508mm C/L OF CRANK TO TOP OF S/C
- 193mm FRONT FACE OF BLOCK TO FRONT FACE OF S/C PULLEY
- 132mm REAR FACE OF BLOCK TO REAR FACE OF S/C
- 722mm REAR FACE OF BLOCK TO FRONT FACE OF S/C PULLEY

Performance Table: SBF and Harrop TVS2650

| ENGINE | COMPONENTS | POWER CORRECTION | POWER HP | TORQUE ft lbs | BOOST | SC PULLEY DIAMETER | FUEL |
|---|---|-------------------|----------|---------------|----------|--------------------|-------------------|
| Ford 363ci 8.2"Windsor Boss 302 Block DRP Cylinder Heads Hydraulic Roller Cam Roller Rockers Performance Valve Springs Performance Pushrods | Naturally Aspirated Dual Plane Carby Intake | SAE 2004 | 442 hp | 396 ft lbs | - | - | 98 RON |
| Above combination | Harrop TVS2650 Supercharger Kit 110mm Throttle Body Harrop 160mm Crank Pulley 8rib front drive system with A/C & P/S | SAE 2004 | 812 hp | 633 ft lbs | 14 PSI | 75MM | 98 RON |
| Above combination | Above combination with E85 | Above combination | 878 hp | 688 ft lbs | 14 PSI | 75MM | E85 |
| Above combination | Harrop TVS2650 Supercharger 110mm Throttle Body 10rib HD Drive System ALT Only 205mm Crank Pulley | Above combination | 922 hp | 756 ft lbs | 18.4 PSI | 85MM | Above combination |
| Above combination | Above combination with alt size s/c pulley | Above combination | 978 hp | 803 ft lbs | 20.3 PSI | 80MM | Above combination |
| Above combination | Above combination with alt size s/c pulley | Above combination | 1007 hp | 839 ft lbs | 22.7 PSI | 75MM | Above combination |

The above Performance figures were obtained from a SuperFlow Engine Dyno

To watch the Harrop TVS2650 Supercharger Engine kit on the Small Block Ford, click the link below

<https://www.youtube.com/watch?v=HW7L86FGQB0&pp=ygUKaGFycm9wIHNIzg%3D%3D>

FAQs:

Will this kit fit my 351 Cleveland?

This Harrop Supercharger Engine Kit has been installed, tested and verified, on a Small Block Ford engines with 8.2" deck heights and 9.5" deck heights i.e., 289-302-351 Windsor engine block with Windsor style cylinder heads.

The CVF 8pk Drive kit supplied suits a Windsor water pump and timing case covers listed on page 18.

Will this kit fit my 302W Ford Falcon?

This Harrop Supercharger Engine Kit was installed, tested and verified, on an 8.2" deck height Small Block Ford with early style mechanical timing case cover, and early style water pump. Refer to tech guide above for dimensions and timing cover details.

I'm using a different trigger wheel to the one shown?

Machining of the 10pk v-pulley adapter, or 8pk crank pulley maybe required to suit a max 10mm thick trigger wheel. Alternatively, a spacer (not supplied) maybe required to maintain the dimension shown in the above Tech Guide.

Can I use an original style distributor?

No, it will not fit. Harrop suggest a Cam Sync Sensor. Check with your engine builder and tuner.

The Crank Trigger doesn't fit onto the crank damper?

Using an alternate damper and trigger wheel to those specified in the Tech Guide may require machining.

Can I use my existing Crank Damper?

No. Use ATI BALANCER, and I-W TRIGGER WHEEL. Refer tech guide.

My belt jumps off?

Check belt length, and tensioner travel. Check all pulley alignment (using a laser, or long straight edge...refer pulley alignment chart).

The belt squeals, and, or I'm losing power?

Ensure all pulleys and belt are aligned, clean and free of contaminants. Check tensioner functionality. A shorter belt maybe required.

Can I use my mechanical fan?

This has not been tested or verified, and is up to the customer.

Is there a smaller Supercharger available?

Yes, the TVS2300. The top of the housing is 9mm lower, 12mm shorter at the rear, and has the same mounting and pulley locations as the TVS2650.

FAQs:

8PK DRIVE:-

Is a larger alternator available?

A 300amp is available – refer CVF web site.

I want to use my current power steering pump.

Refer CVF web site (GM pump bolts to main bracket, Hydroboost and Saginaw Pumps require a CVF mount kit).

The CVF supplied water pump doesn't fit my timing cover

This water pump only fits the early type timing chain cover with mechanical fuel pump mount (or Dorman 635-100 Cover). Refer Tech Guide page 18.

Can I use an electric water pump for the 8PK Drive option?

No.

10PK HD DRIVE:

I'm using a different alternator to the one listed on page 8 of the Tech Guide?

The alternator tested was a 140 Amp GM CS130 Alternator with 6-12 O'clock mounting and 6.6" bolt spacing mounted to a Harrop Bracket Assembly Alternator Mount HD #A16351.

The 10PK HD Drive has a unique v-belt offset. You will need to work out your own mounting strategy and v-belt length depending on your desired alternator type and position, if not using the above tested components.

Can I use my stock alternator bracket?

Your bracket will require modifications to achieve the desired unique v-belt position. See above.

Can I use an electric water pump for the 10PK HD Drive option?

This has not been tested or verified, and is up to the customer

IMPORTANT: Maintain clearance to the 10PK belt tensioner thru its travel. An alternate length v-belt for the alternator is required.

Will the 10PK HD Drive suit a "late model" EFI timing cover?

This has not been tested or verified, and is up to the customer. Refer Tech Guide page 18.