



BIGGER & BETTER!

22 more pages of race parts goodness!

- Expanded starter section
 - More products than ever
- Tons of new accessories
 - *Turn the page and dig in!*



Over 30 Years and Still Family Crafted here in the U.S.A.



To our valued current and future customers,

Our hope in producing this catalog is primarily to give you a sense of what parts we produce and how they can help you, as an automotive enthusiast, solve some of the problems and challenges that certainly arise with every custom build. In addition to that, though, we also hope that our pride of craftsmanship and our commitment to quality shine through as you read these pages. Ours is a story of living the American dream, of faith, of family and of commitment to a common goal. That goal is to provide you with value whenever you purchase a product with the Meziere name on it. Our pumps, starters, flexplates and myriad of ancillary parts come with our pledge that those products are produced to the highest standards in the industry and you can rest assured that we are ever at work to continue improving them. Nothing pleases us more than knowing we have helped our customers to be successful. We hope that we have earned your trust and that you will allow us to be a part of your next project.

- Meziere Team

CHEVROLET											
Model	Elect. / Mech.	Flow Rate	Attribute	Part #	Page	Options	Inlet Required?	Suggested Inlet	Suggested Outlet	O-All Length	Weight (Lbs.)
Big Block	Electric	35		WP100	31	HD 42	Yes	WP1175	WN0022D	6.78	5.8
	Electric	35	Reservoir Electric	WP200	31	HD 42	Yes	WP1016	WN0912	6.78	9.5
	Electric	55		WP300	32	Ported	Included	Welded 1.75"	WN0022D	7.28	7.4
	Mechanical		Vee Belt	WP400	33	Ported	Included	Welded 1.75"	WN0022D	5.75	5.4
	Mechanical		Serpentine	WPR400	33	Ported	Included	Welded 1.75"	WN0022D	5.75	5.5
	Mechanical		Serpentine	WPR403	34		Included	1.75" Included	WN0022D	6.25	7.6
Small Block	Electric	35		WP101	31	HD 42	Yes	WP1175	WN0022D	6.78	5.5
	Electric	35	Reservoir Electric	WP201	31	HD 42	Yes	WP1016	WN0912	6.78	9.2
	Electric	55		WP301	32	Ported	Included	Welded 1.75"	WN0022D	7.28	7.0
	Mechanical		Vee Belt	WP401	33	Ported	Included	Welded 1.75"	WN0022D	5.66	5.4
	Mechanical		Serpentine	WPR401	33	Ported	Included	Welded 1.75"	WN0022D	5.80	5.5
	Mechanical		Vee Belt	WP402	34		Included	1.75" Included	WN0022D	6.25	6.8
	Mechanical		Serpentine	WPR402	34		Included	1.75" Included	WN0022D	6.25	6.8

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GENERAL MOTORS											
Model	Elect. / Mech.	Flow Rate	Attribute	Part #	Page	Options	Inlet Required?	Suggested Inlet	Suggested Outlet	Overall Length	Weight
LT1 / LT-4	Electric	43		WP118	35	HD 55				3.0 / 3.5	3.6
LS-X Various	Electric	35		WP119	36	HD 42	Yes	WP1175	1.25" Included	6.80	7.0
LS-X Various	Electric	55	Street	WP319	37		Yes	WN0019	1.25" Included	7.80	14.9
LS-X 2010 Camaro-Manual	Electric	55	Street	WP329	37		Yes	Stock LS3	1.25" Included	8.15	18.20
LS-3 Corvette (2010-2013)	Electric	55	Street	WP330	37		Yes	Stock LS3	1.25" Included	7.65	18.20
LS-X 2010 Camaro-Auto	Electric	55	Street	WP331	37		Yes	Stock LS3	1.25" Included	9.25	18.30
COPO Camaro Supercharged	Electric	55	Street	WP332	37		Yes	Stock LS3	1.25" Included	8.00	18.20
LS-X Various	Electric	55		WP333	36		1.75" Included		1.50" Included	7.10	10.35
Gen V LT	Electric	55		WP334	36		1.75" Included		1.50" Included	8.93	12.00
LS-X Various	Mechanical		Serpentine	WP419	38		Yes	Stock LS1	1.50" Included	5.45	11.6
Gen V LT	Mechanical		Serpentine	WP434	38		Yes	Stock LS1	1.50" Included	7.95	13.9
GM3800	Electric	35		WP140	35	HD 42				3.50	4.1
BUICK / OLDSMOBILE / PONTIAC											
Model	Elect. / Mech.	Flow Rate	Attribute	Part #	Page	Options	Inlet Required?	Suggested Inlet	Suggested Outlet	Overall Length	Weight
Buick SB	Electric	35		WP125	39	HD 42	Yes	WP1150		5.78	7.0
Buick (400,435,455)	Electric	35		WP126	39	HD 42				4.00	5.7
Oldsmobile	Electric	35		WP135	39	HD 42	Yes	WP2175		6.10	5.8
Pontiac	Electric	35		WP103	35	HD 42				3.78	5.9
FORD											
Model	Elect. / Mech.	Flow Rate	Type	Part #	Page	Options	Inlet Required?	Suggested Inlet	Suggested Outlet	Overall Length	Weight
Big Block (390,429,460)	Electric	35		WP108	40	HD 42	Yes	WP1175	WN0013	6.10	5.8
	Electric	35	Reservoir	WP208	40	HD 42	Yes	WP1016	WN0812	6.10	8.2
	Electric	55		WP308	40		Yes	WN0033	WN0013	6.60	7.4
Big Block FE	Electric	35		WP170	40	HD 42	Yes	WP2175		7.43	6.6
Small Block (Winds,Clev,M)	Electric	35		WP111	41	HD 42	Yes	WP2175	WN0023	6.30	5.6
	Electric	55		WP311	43		1.75" Included		WN0023	5.55	8.6
	Electric	55	Street	WP312	43		1.75" Included		WN0023	6.30	10.2
	Mechanical		Vee Belt	WP411	42		1.75" Included		WN0023	6.25	8.0
	Mechanical		Serpentine	WPR411	42		1.75" Included		WN0023	6.25	8.0
Small Block 94-95 (Short)	Electric	35		WP173	42	HD 42	Yes	WP2175		6.10	5.6
	Electric	55		WP373	43		1.75" Included			4.51	5.3
Modular	Electric	55	Street	WP374	43		1.75" Included			4.75	6.9
	Electric	55		WP345	44					3.50	5.0
	Electric	55	Street	WP346	44					3.75	6.9
	Electric	55	Small Pulley	WP347	44					3.75	6.7
	Electric	55	HD Pulley	WP349	44					5.00	7.1
MOPAR											
Model	Elect. / Mech.	Flow Rate	Type	Part #	Page	Options	Inlet Required?	Suggested Inlet	Suggested Outlet	Overall Length	Weight
Big Block B, RB, Hemi	Electric	35		WP106	45	HD 42	Yes	WP1175	WN0029	6.80	7.1

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MOPAR (CONTINUED)											
Model	Elect. / Mech.	Flow Rate	Type	Part #	Page	Options	Inlet Required?	Suggested Inlet	Suggested Outlet	Overall Length	Weight
Big Block B, RB, Hemi (continued)	Electric	35	Reservoir	WP206	45	HD 42	Yes	WP1016	WP12012	6.80	9.5
	Electric	55		WP306	46		Yes	WN0033	WN0029	7.25	8.8
	Electric	55	Reverse Flow	WP307	46		Yes	WN0033	WP12012 (X2)	7.25	8.1
Small Block Late Model SB Hemi	Electric	42	Insert Type	WP105	45	HD 45			WN0029	3.50	3.6
	Electric	35		WP114	46	HD 42	Yes	WP1175	WN0029 / 30	6.10	5.7
	Electric	55		WP314	46		Yes	WN0033		6.60	7.2
REMOTE MOUNT											
Model	Elect. / Mech.	Flow Rate	Type	Part #	Page	Options	Inlet Required?	Suggested Inlet	Suggested Outlet	Overall Length	Weight
Remote Bulkhead	Electric	35		WP116	48	HD 42	Yes	WP1175	WP12012 (X2)	5.00	5.4
Remote Bulkhead	Electric	55		WP316	48		Yes	WN0033	WP12012 (X2)	5.50	6.3
Remote Inline	Electric	20	Mini	WP136	48		Yes	WP12012	WP12012	7.25	5.2
Remote Inline	Electric	20	Mini Dual Out	WP137	48		Yes	WP12012	WP12012 (X2)	7.25	5.3
Remote Inline	Electric	55	Single Out	WP336	49		Yes	WN0033	WN0033	5.20	6.2
Remote Inline	Electric	55	Dual Out	WP337	49		Yes	WN0033	WP16016/E16	5.20	6.2
Radiator Mount	Electric	55	Single Out	WP361	52		Supplied		WN0033	5.20	5.9
Radiator Mount	Electric	55	Dual Out	WP362	52		Supplied		WP16016/E16	5.20	5.9
Remote	Mechanical		Vee Belt	WP430	51		Yes	WN0033	WP12012 (X2)	5.55	3.5
Remote	Mechanical		Serpentine	WPR430	51		Yes	WN0033	WP12012 (X2)	5.55	3.5
Remote	Mechanical		Vee Belt	WP431	51			WN0033		6.30	7.7
Remote	Mechanical		Serpentine	WP432	51			WN0033		6.30	7.7
HONDA / ACURA											
Model	Elect. / Mech.	Flow Rate	Type	Part #	Page	Options	Inlet Required?	Suggested Inlet	Suggested Outlet	Overall Length	Weight
B-Series 1.6-1.7 Type R 1.8	Electric	20		WPK50022	47		Included		Included		8.6
B-Series 1.8-2.1	Electric	20		WPK50019	47		Included		Included		8.6
H-Series 2.2-2.3	Electric	20		WPK50026	47		Included		Included		8.6
TOYOTA											
Model	Elect. / Mech.	Flow Rate	Type	Part #	Page	Options	Inlet Required?	Suggested Inlet	Suggested Outlet	Overall Length	Weight
93-98 Supra Turbo	Electric	35	Street	WP520	47					4.25	5.6
	Electric	55	No Pulley	WP521	47					4.75	4.1

Water Pump Ordering Instructions

Colors & Finishes

Most water pumps and accessories can be ordered in one of five finishes. Just insert the corresponding letter (R for Red) in the part number. (See example)

R=Red, **B**=Blue, **S**=Black, **U**=Polished, **C**=Chrome, **N**=Natural or clear anodize.

All pumps (except five part numbers) are fully polished to a show finish before anodizing. Any parts ordered as polished will be bare aluminum. Chrome parts are available but may require up to 3-4 weeks for delivery from the time of the order.

Example: WP100RHD would be a Water Pump, 100 series, Red color with Heavy Duty option.

Motor Options

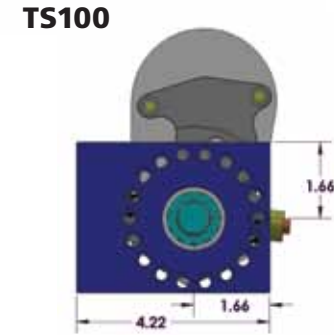
Electric pumps may be ordered with a Heavy Duty option. This provides more power and RPM, increasing flow and pressure. The Heavy Duty "HD" option is recommended for street cars and other continuous duty applications (where High Flow model pumps are not available). This option also adds 1 lb. to the total weight, adds 1/2" to the length of the pumps, and 2 amps to current draw.

HD=Heavy Duty.

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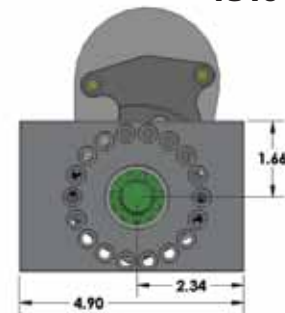
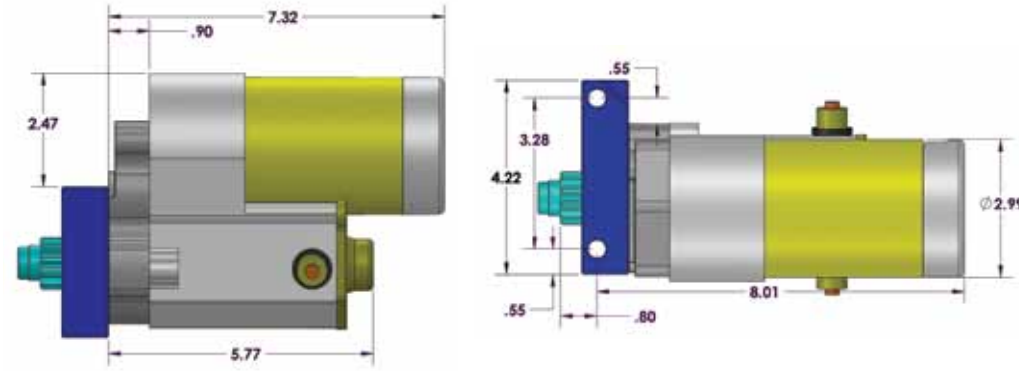
Comparing 100 Series through 500 Series Starters

Starter Series	TS100	TS200	TS300	TS400	TS500
Main Attributes & Selling Points	Good power using mostly OEM Parts	Compact, Good Power, Upgraded drive and pinion.	Slim, Excellent power, Upgraded drivetrain	Best parts throughout, Upgraded main shaft, all-billet drivetrain	Same as TS400 but less offset, slimmer for more frame or exhaust clearance
Power in KiloWatts @ 12 Volts	2.0	1.4	1.7	2.2	2.2
Power in HP @ 12 Volts	2.68	1.88	2.28	2.95	2.95
Reduction Ratio	2.85:1	6.0:1	5.0:1	3.42:1	3.42:1
Weight (approx)	11.8	7.5	9.8	12.9	12.8
Upgraded Mainshaft?	No	No	Yes	Yes	Yes
Billet Drivetrain?	No	No	No	Yes	Yes
Billet Gear Housing?	No	No	Yes	Yes	Yes
Upgraded Drive?	No	Yes	Yes	Yes	Yes
Billet Pinion Gear?	No	Yes	Yes	Yes	Yes
Bearing Supported Pinion?	No	Yes	Yes	Yes	Yes
24V Solenoid Available?	No	No	No	Yes	Yes
Clocking Options	360° each 10°	360° each 30°	9 Positions	360° each 10°	360° each 10°
Price Point 1-5 Scale	2	3	4	4	4



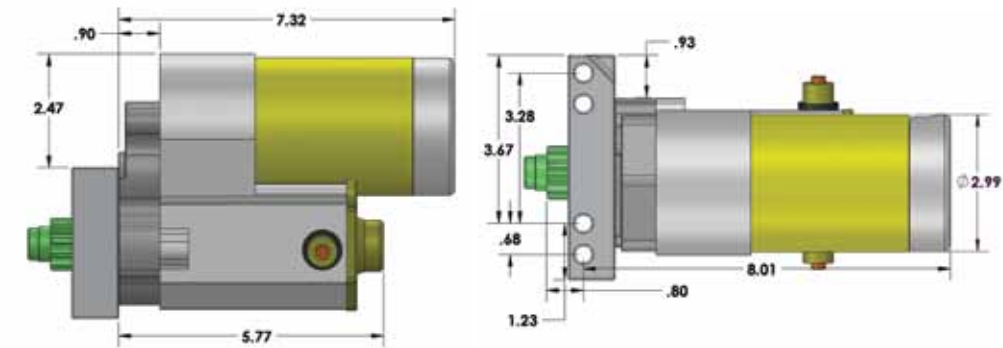
TS100 Specifications

For Make: Chevrolet	Platform Series: 100	Pitch: 12
Intended Ring Gear Match: 168 Tooth		Weight: 11.75 lbs

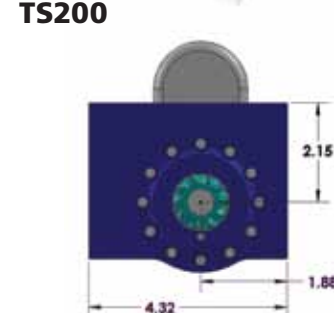


TS101 Specifications

For Make: Chevrolet	Platform Series: 100	Pitch: 12
Intended Ring Gear Match: 153 Tooth		Weight: 11.90 lbs

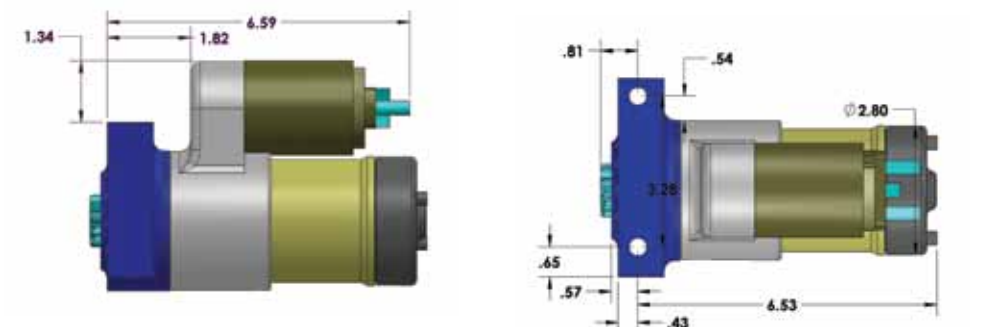


NEW!

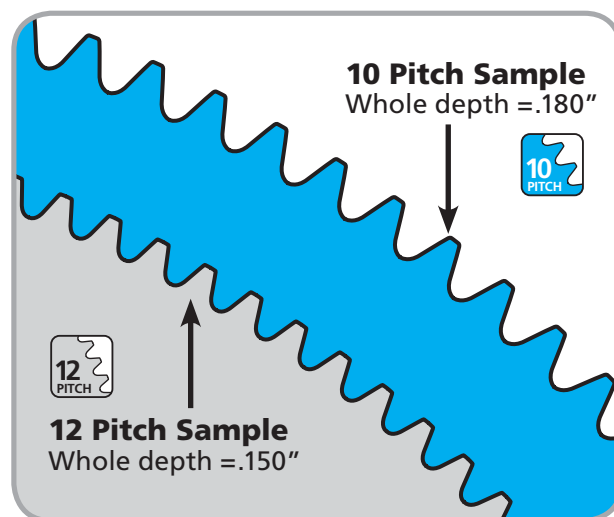


TS200 Specifications

For Make: Chevrolet	Platform Series: 200	Pitch: 12
Intended Ring Gear Match: 168 Tooth		Weight: 7.55 lbs



The racing world is where ideas are tested and stronger parts prevail. Sometimes this means a departure from established standards. This is the case with our line of Ten Pitch flexplates for Ford and Chevrolet. These factories decided long ago that a twelve pitch gear form was fine for their OEM applications and they absolutely were. However, with ever increasing displacement engines being built and compression ratios being increased, we have found the Chrysler ten pitch profile to be more appropriate. The graphic demonstrates the larger profile which assists in a couple of ways. We have found the overall tooth strength to be better and the larger dimension actually assists in getting the pinion to engage the ring gear. These benefits are widely acknowledged and our ten pitch plates have become increasingly popular.



Starters

Chevrolet 12 Pitch

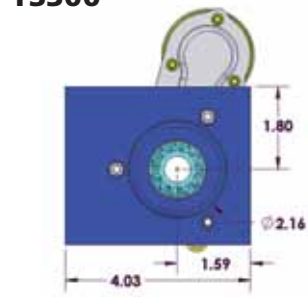
Starters

Chevrolet 12 Pitch

Chevy 300

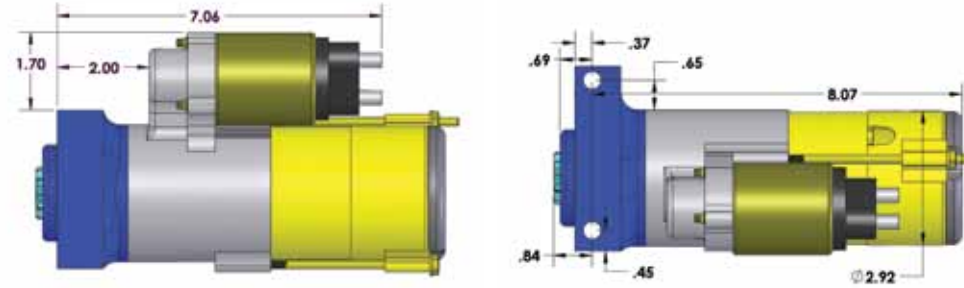


TS300

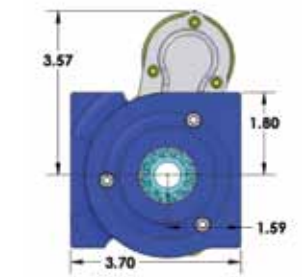


TS300 Specifications

For Make: Chevrolet	Platform Series: 300	Pitch: 12
Intended Ring Gear Match: 168 Tooth		Weight: 9.85 lbs

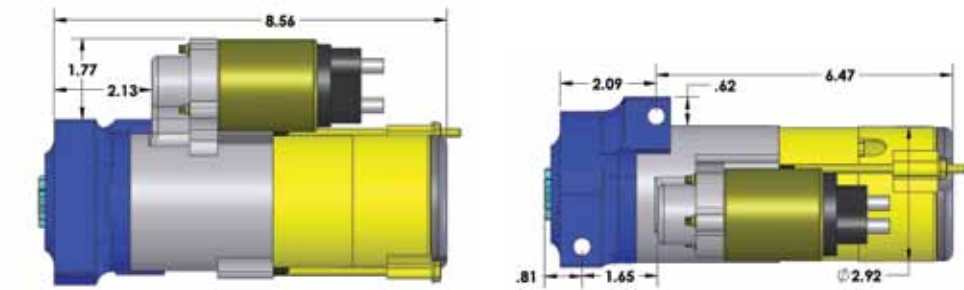


TS301

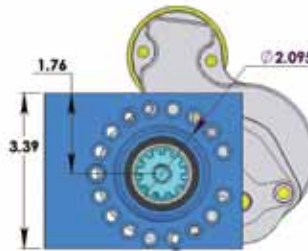


TS301 Specifications

For Make: Chevrolet - with staggered pattern	Platform Series: 300	Pitch: 12
Intended Ring Gear Match: 168 Tooth		Weight: 9.90 lbs

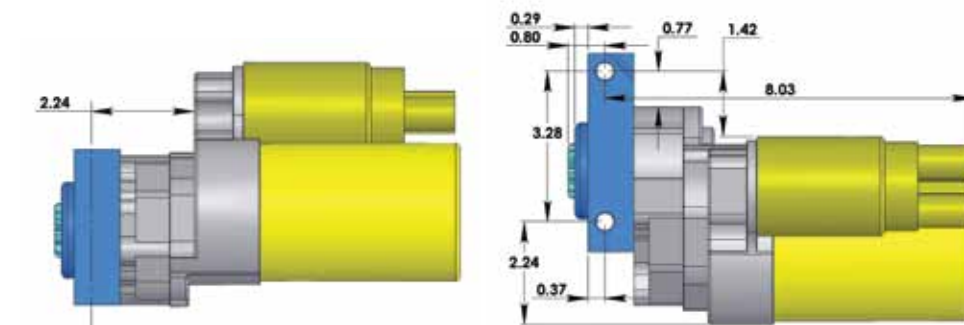


TS400

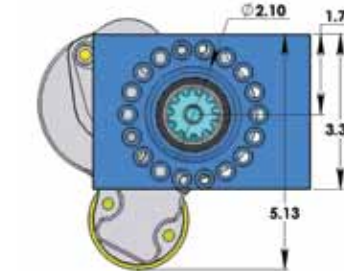


TS400 Specifications

For Make: Chevrolet	Platform Series: 400	Pitch: 12
Intended Ring Gear Match: 168 Tooth		Weight: 12.90 lbs
Options: 24V activation solenoid available - TS40024		

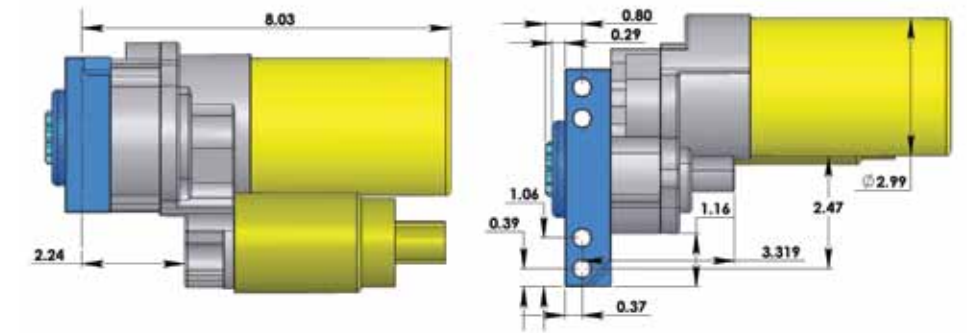


TS400DSD

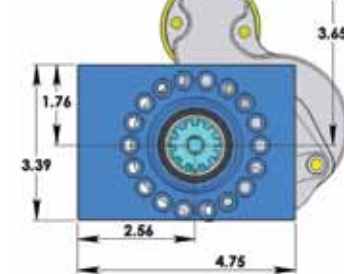


TS400DSD Specifications

For Make: Chevrolet	Platform Series: 400	Pitch: 12
Intended Ring Gear Match: 168 or 153 Tooth		Weight: 13.05 lbs
Precautions: Bolts to the driver's (non-standard) side of the engine block.		

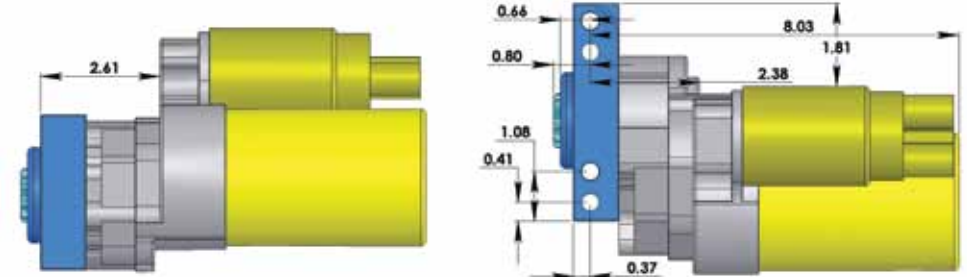


TS400DP



TS400DP Specifications

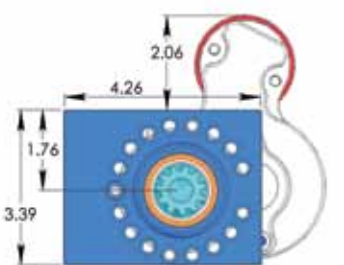
For Make: Chevrolet	Platform Series: 400	Pitch: 12
Intended Ring Gear Match: 168 or 153 Tooth		Weight: 13.00 lbs
Options: 24V activation solenoid available - TS400DP24		



Chevy 400

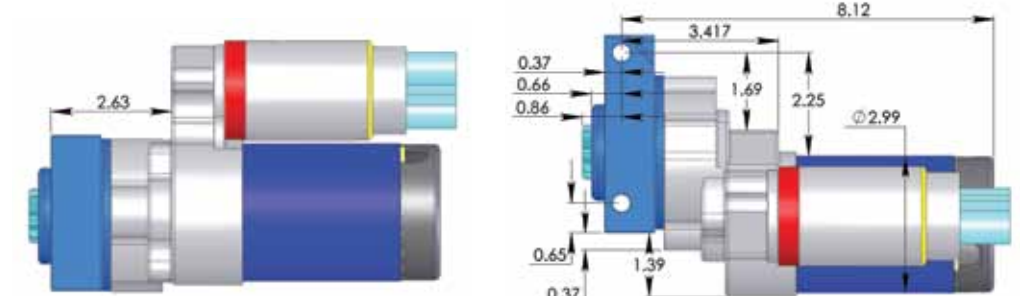


TS500



TS500 Specifications

For Make: Chevrolet	Platform Series: 500	Pitch: 12
Intended Ring Gear Match: 168 Tooth		Weight: 12.70 lbs

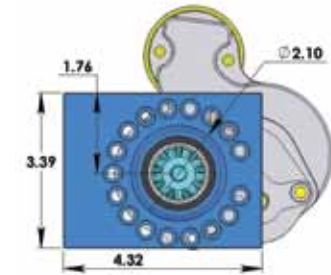


Chevy 400 cont'd

Chevy 500

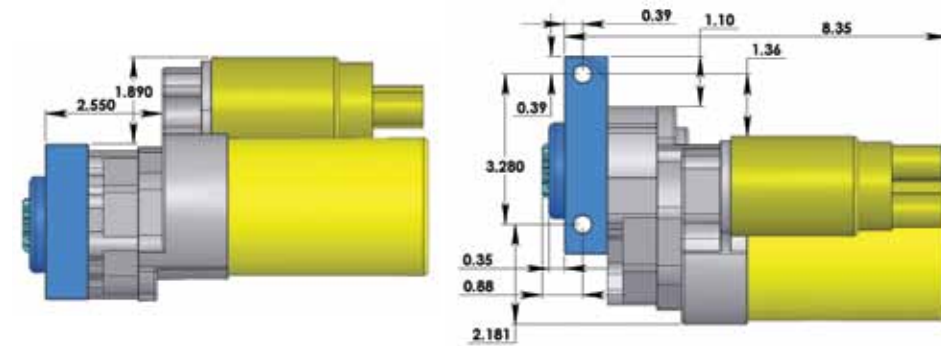


TST400

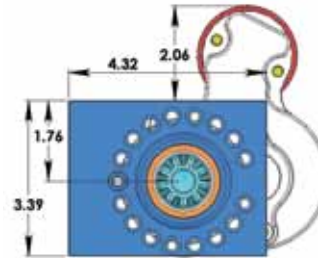


TST400 Specifications

For Make: Chevrolet	Platform Series: 400	Pitch: 10
Intended Ring Gear Match: 139 Tooth	Weight: 12.90 lbs	
Options: 24V activation solenoid available - TST40024		

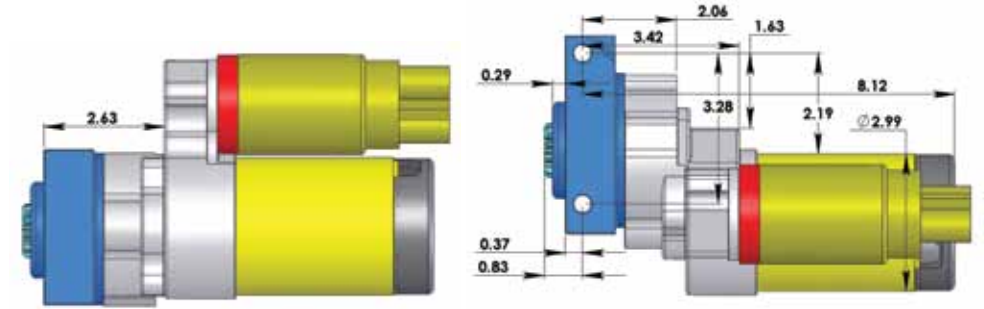


TST500

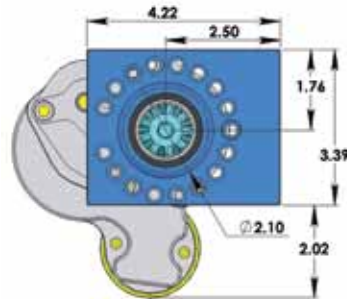


TST500 Specifications

For Make: Chevrolet	Platform Series: 500	Pitch: 10
Intended Ring Gear Match: 139 Tooth	Weight: 12.70 lbs	

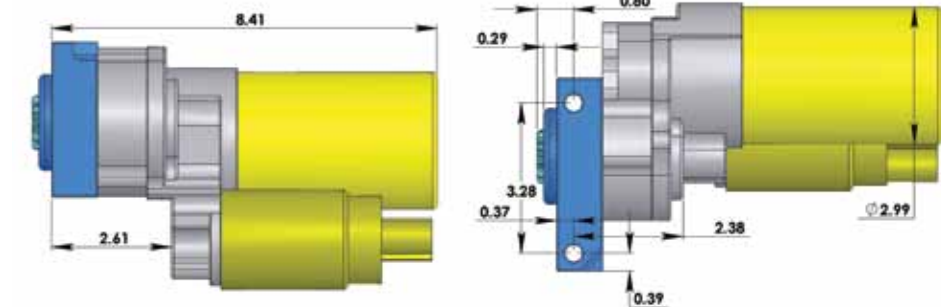


TST400DS

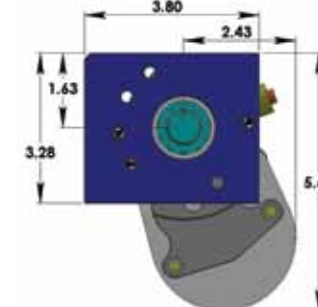


TST400DS Specifications

For Make: Chevrolet	Platform Series: 400	Pitch: 10
Intended Ring Gear Match: 139 Tooth	Weight: 12.90 lbs	
Options: 24V activation solenoid available - TST400DS24		
Precautions: Bolts to the driver's (non-standard) side of the engine block.		

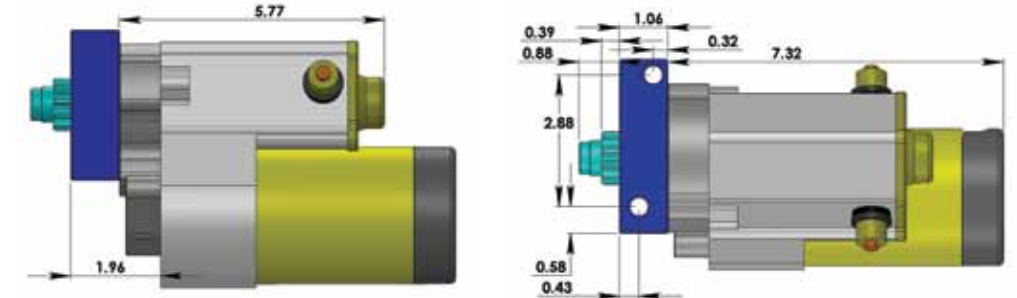


TS119

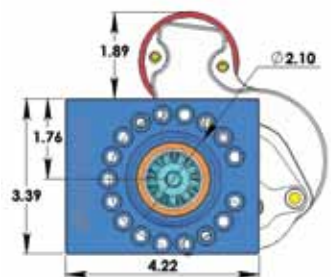


TS119 Specifications

For Make: GM LS Engines	Platform Series: 100	Pitch: 12
Intended Ring Gear Match: 168 Tooth	Weight: 11.75 lbs	

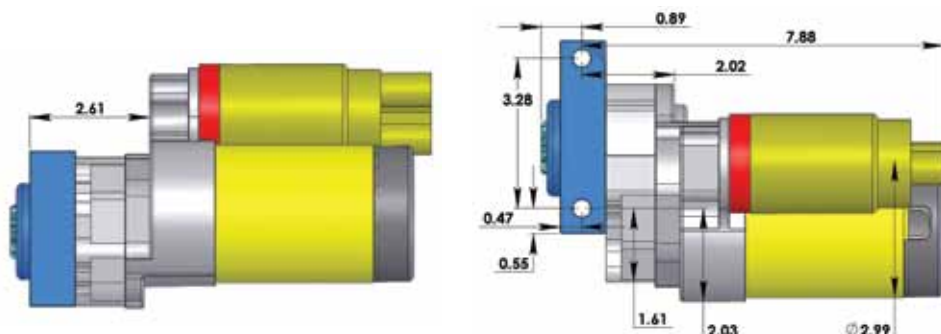


TSS027

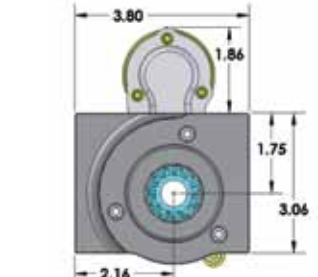


TSS027 Specifications

For Make: Chevrolet	Platform Series: 400	Pitch: 10
Intended Ring Gear Match: 136 Tooth	Weight: 12.90 lbs	
Options: 24V activation solenoid available - TSS027-24		

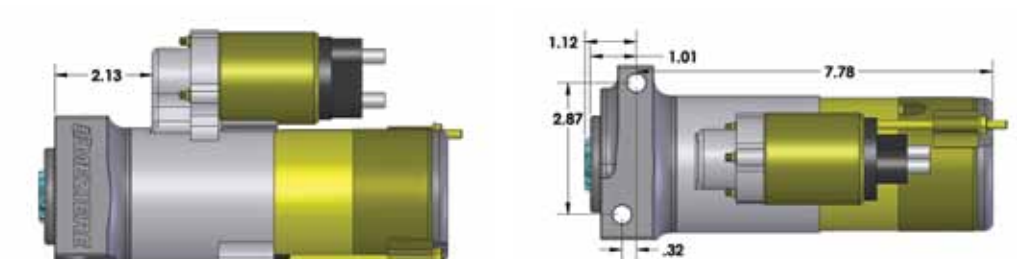


TS319



TS319 Specifications

For Make: GM LS Engines	Platform Series: 300	Pitch: 12
Intended Ring Gear Match: 168 Tooth	Weight: 9.70 lbs	



Starters

Pontiac and Ford 12 Pitch

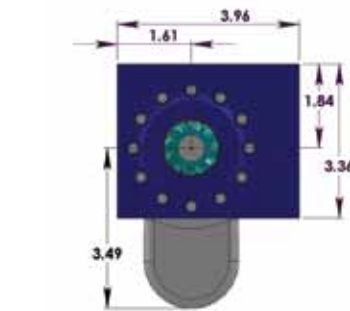
Starters

Ford 12 Pitch and 10 Pitch

Pontiac

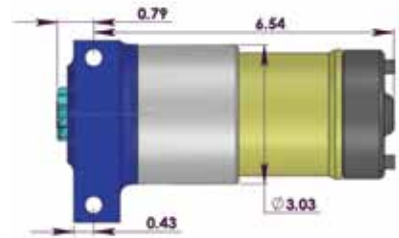
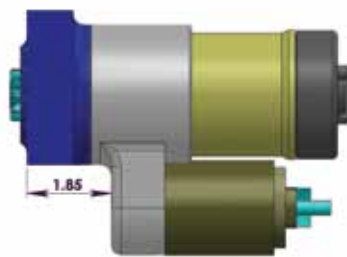


TS203

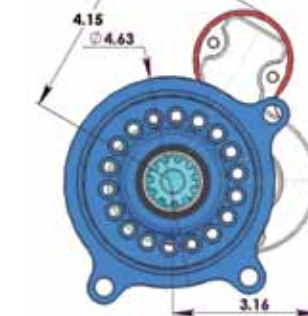


TS203 Specifications

For Make: Pontiac	Platform Series: 200	Pitch: 12
Intended Ring Gear Match: 166 Tooth		Weight: 7.55 lbs

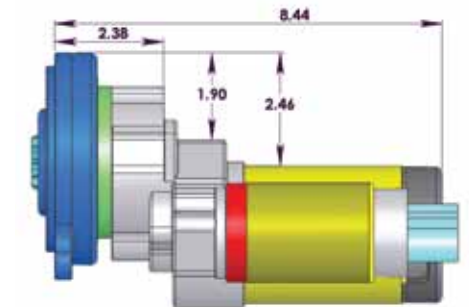
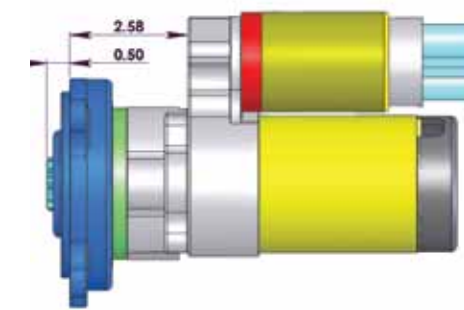


TSS069



TSS069 Specifications

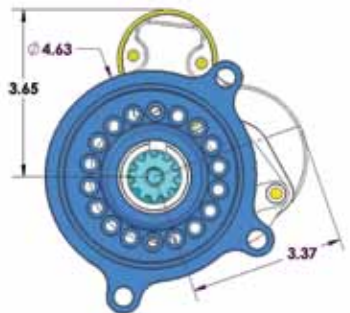
For Make: Ford	Platform Series: 500	Pitch: 12
Intended Ring Gear Match: 164 or 157 Tooth		Weight: 13.05 lbs
Design Feature: Eccentric nose for radial align adjustment		



Ford 400

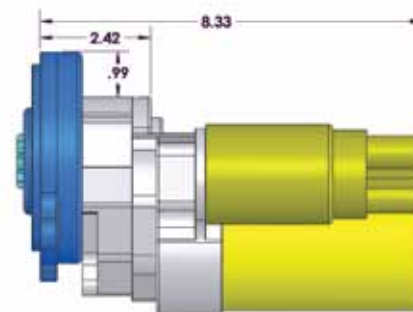
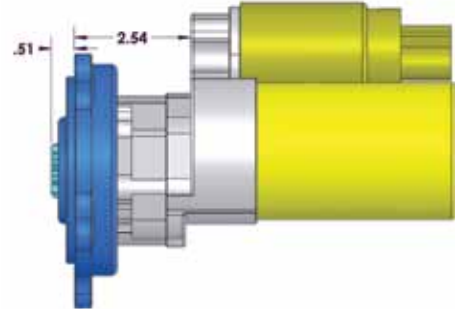


TS408

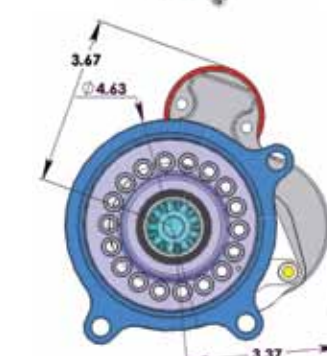


TS408 Specifications

For Make: Ford	Platform Series: 400	Pitch: 12
Intended Ring Gear Match: 164 or 157 Tooth		Weight: 13.10 lbs

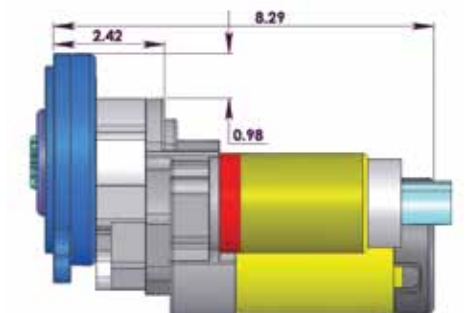
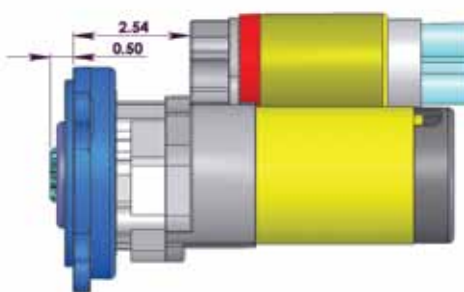


TST409



TST409 Specifications

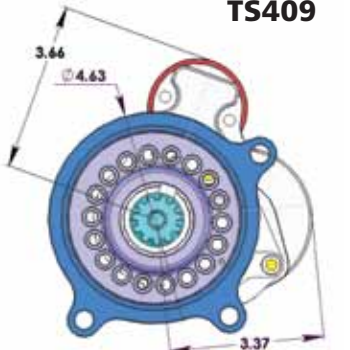
For Make: Ford	Platform Series: 400	Pitch: 10
Intended Ring Gear Match: 140 Tooth		Weight: 13.15 lbs
Design Feature: Eccentric nose for radial align adjustment		



12

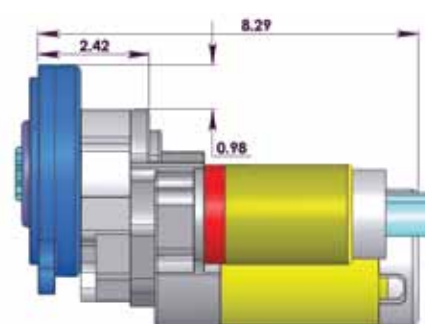
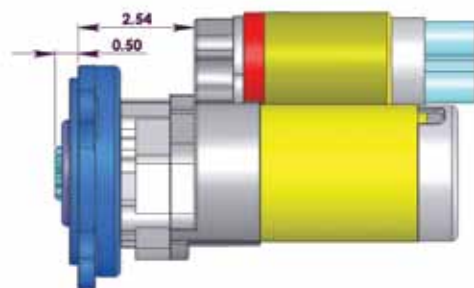


TS409



TS409 Specifications

For Make: Ford	Platform Series: 400	Pitch: 12
Intended Ring Gear Match: 164 or 157 Tooth		Weight: 13.15 lbs
Design Feature: Eccentric nose for radial align adjustment		



Starters are produced with world class manufacturing and assembly. 100% quality tested at our facility in Escondido, California.

Ford 500

Ford 400

13

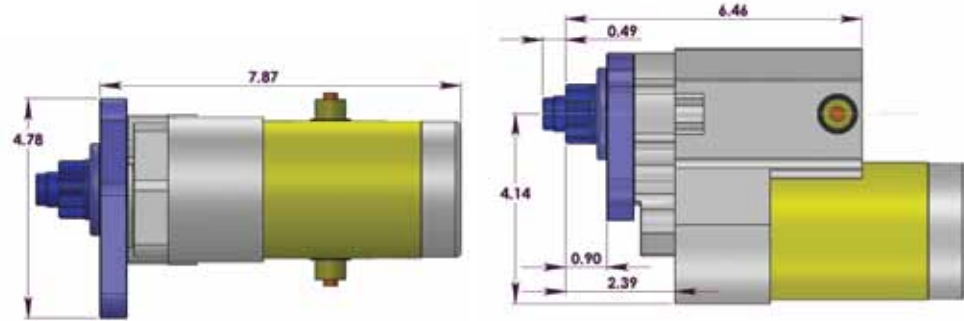
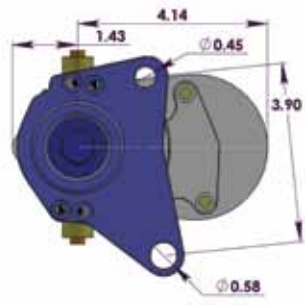


TS106 Specifications

For Make: Mopar	Platform Series: 100	Pitch: 10
Intended Ring Gear Match: 130 Tooth	Weight: 11.25 lbs	



TS106

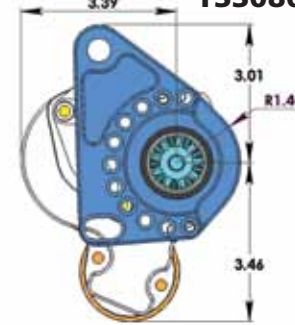


TSS080 Specifications

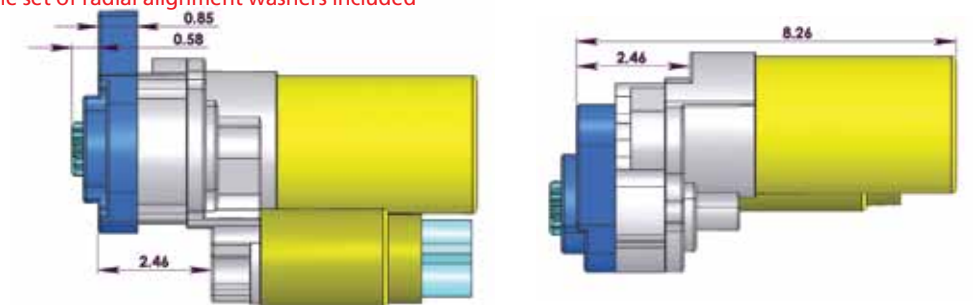
For Make: Mopar	Platform Series: 400	Pitch: 10
Intended Ring Gear Match: 130, 136 or 139 Tooth	Weight: 12.85 lbs	
Precautions: Midplate mounted, non-standard pinion location .325" closer than TS406H		



TSS080



One set of radial alignment washers included

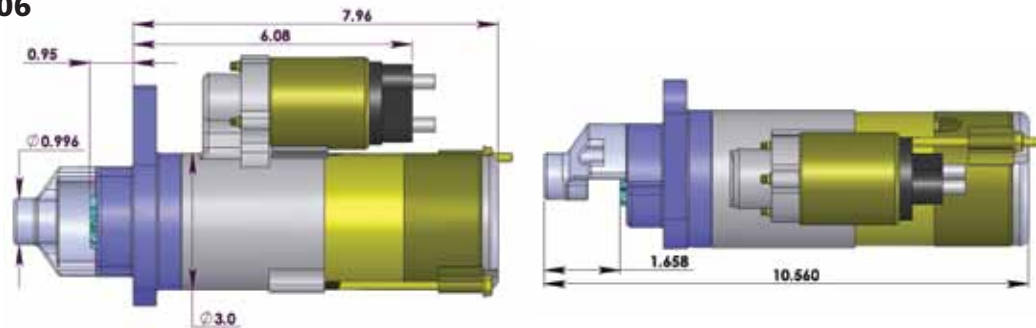
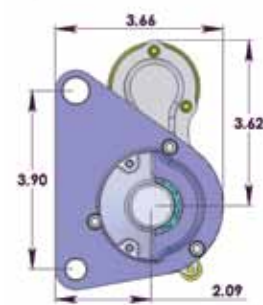


TS306 Specifications

For Make: Mopar	Platform Series: 300	Pitch: 10
Intended Ring Gear Match: 130 Tooth	Weight: 9.50 lbs	



TS306

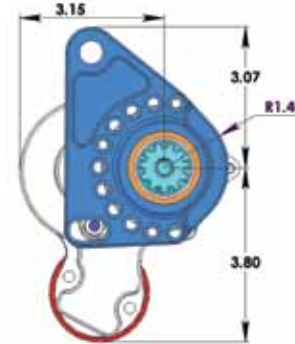


TST506H Specifications

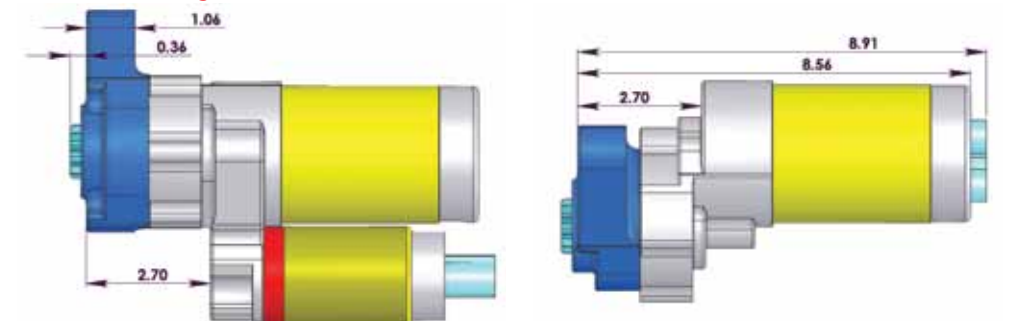
For Make: Mopar	Platform Series: 500	Pitch: 10
Intended Ring Gear Match: 139 or 136 Tooth	Weight: 12.50 lbs	
Options: 24V activation solenoid available - TST506H24		
Precautions: Midplate mounted, non-standard pinion location		



TST506H



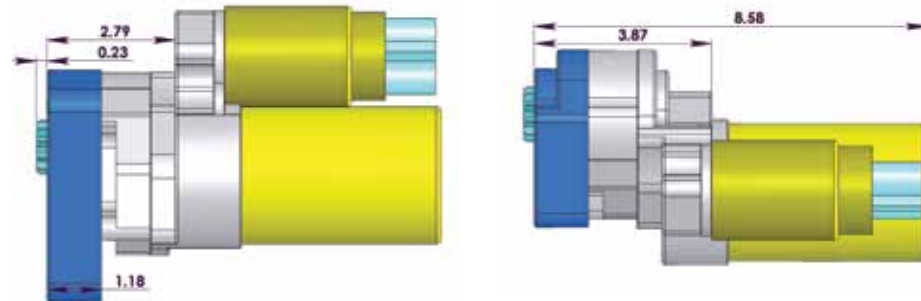
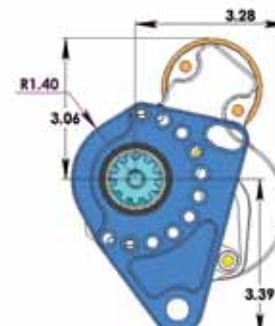
One set of radial alignment washers included



TST406H Specifications

For Make: Mopar	Platform Series: 400	Pitch: 10
Intended Ring Gear Match: 130, 136 or 139 Tooth	Weight: 12.90 lbs	
Options: 24V activation solenoid available - TST406H24		
Precautions: Midplate mounted, non-standard pinion location		

One set of radial alignment washers included

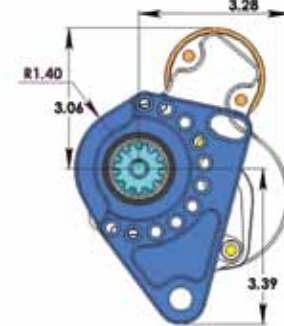


TSS081 Specifications

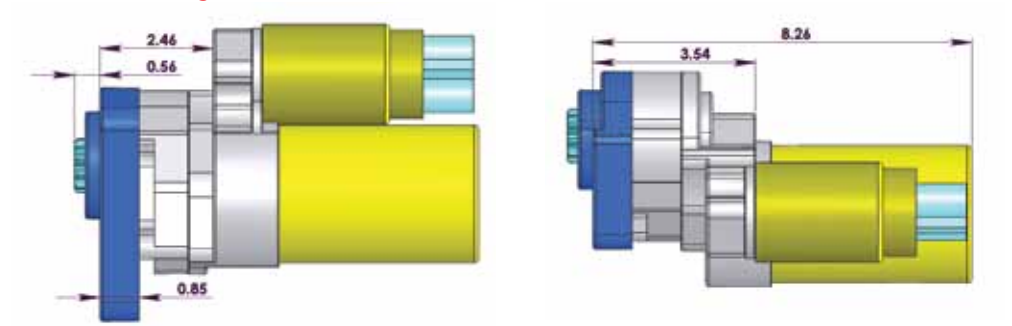
For Make: Mopar	Platform Series: 400	Pitch: 12
Intended Ring Gear Match: 168 or 166 Tooth	Weight: 12.85 lbs	
Precautions: Midplate mounted, non-standard pinion location .325" closer than TS406H		



TSS081



One set of radial alignment washers included

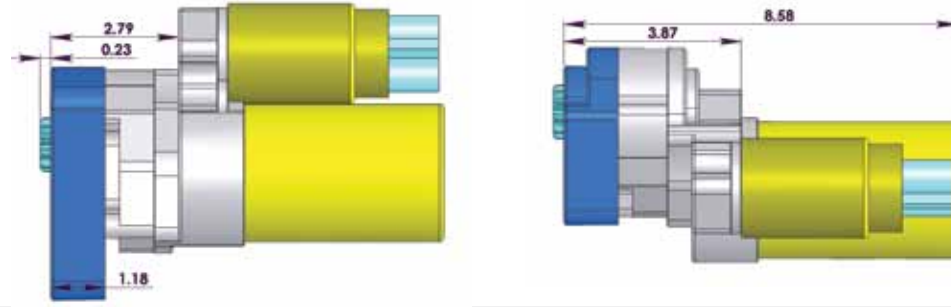




TS406H Specifications

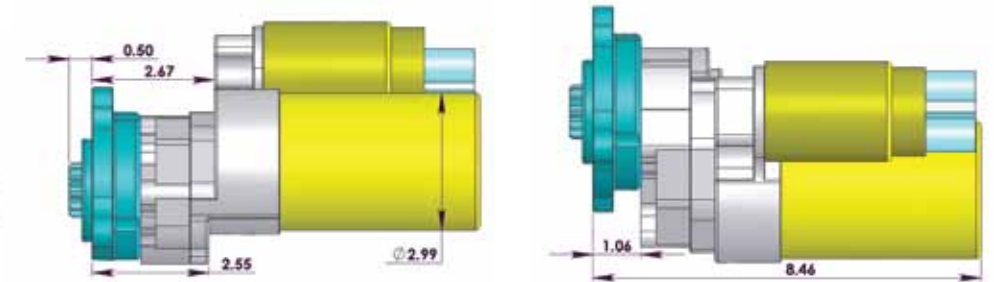
For Make: Mopar	Platform Series: 400	Pitch: 12
Intended Ring Gear Match: 168 or 166 Tooth		Weight: 12.90 lbs
Options: 24V activation solenoid available - TS406H24		
Precautions: Midplate mounted, non-standard pinion location		

One set of radial alignment washers included



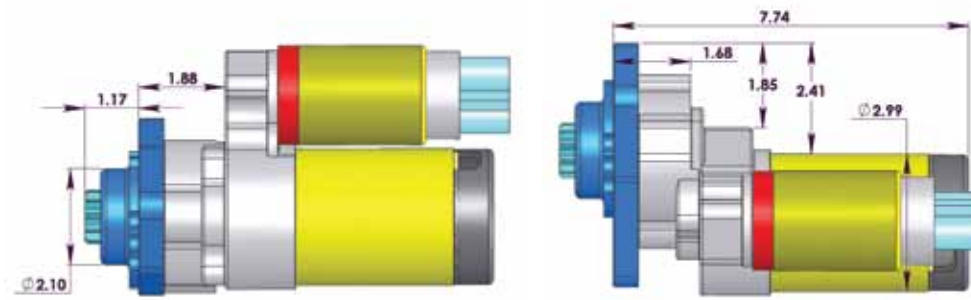
TSS088 Specifications

Make: Ford Midplate Mount Spare	Platform Series: 400	Pitch: 12
Intended Ring Gear Match: 164 Tooth		Weight: 12.90 lbs
Precautions: Midplate Mount works with Kit MSP0091. See page 68		



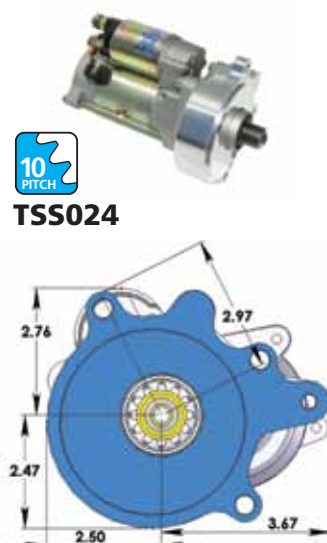
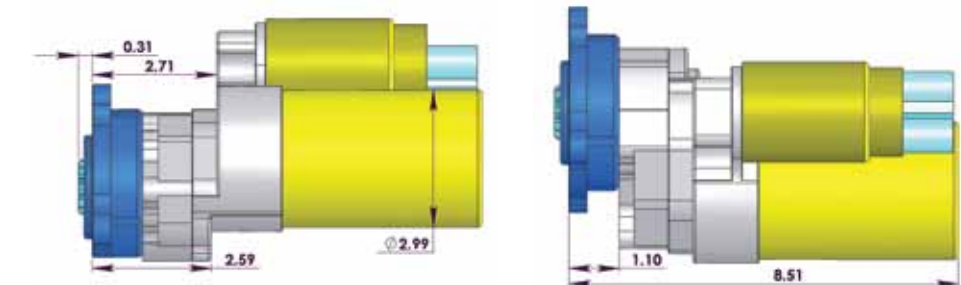
TS586 Specifications

For Make: VW / Porsche / Off Road Buggy	Platform Series: 500	Pitch: 12
Intended Ring Gear Match: 168 Tooth		Weight: 12.25 lbs



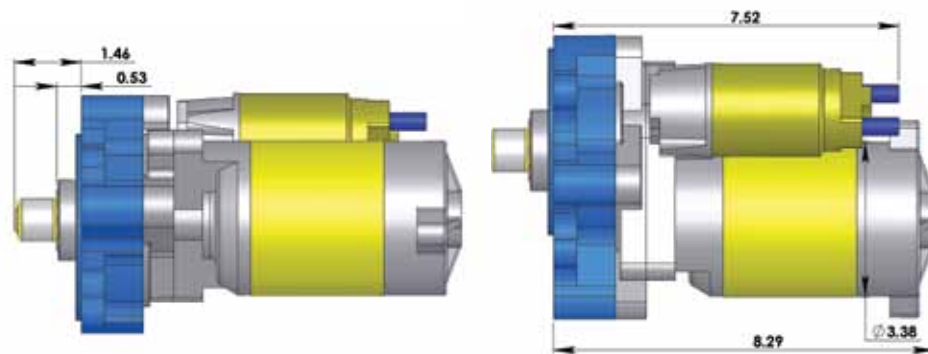
TSS025 Specifications

For Make: Midplate Mount Spare	Platform Series: 400	Pitch: 12
Intended Ring Gear Match: 168 Tooth		Weight: 12.90 lbs
Precautions: Midplate Mount works with Kit MSP0091. See page 68		



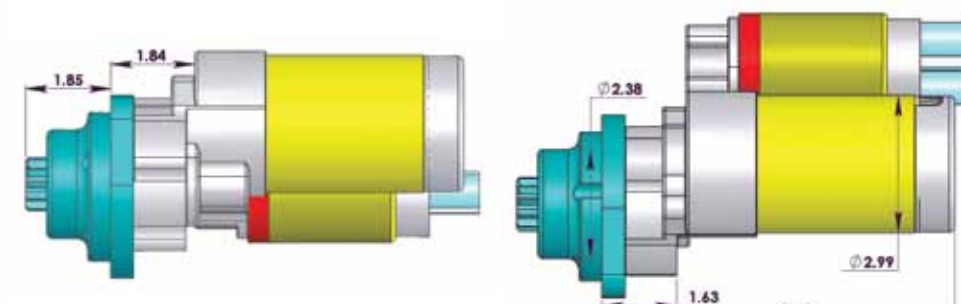
TSS024 Specifications

For Make: DTS Dyno	Platform Series: 600	Pitch: 10
Intended Ring Gear Match: 139 Tooth		Weight: 13.95 lbs
Precautions: Custom 10 pitch ring gear FPG007		



TSS033 Specifications

For Make: Mercury Marine Rear Mount	Platform Series: 500	Pitch: 12
Intended Ring Gear Match: 168 Tooth		Weight: 12.70 lbs
Precautions: Check pinion location carefully. Marine applications vary. Call with questions.		





Changeovers and Upgrades If you already own a 400 series starter and want to switch it to a different application, these kits may be very useful to you. The kit includes a nose block and the correct drive and pinion assembly. **Other changeovers are possible such as switching to a 136 tooth ring gear from 168 or 139. Give us a call. If we can help save you money, we will!**

Part #	Description
TS450	Chevy 400 series 12 pitch to 10 pitch
TS451	Chevy 400 series 10 pitch to 12 pitch



Starter Drives

Part #	Description
SS139	400 series replacement drive 12 pitch 11 tooth
SS140	400 series replacement drive 10 pitch 9 tooth



Solenoids

Part #	Description
SS037	Fits 400 or 500 series starters 12 / 16 volt
SS193	Fits 400 or 500 series starters 24 volt
SS276	Kit to switch a starter from 12 to 24 volts



Shim Kits

Part #	Description
SS224	.030 thick shims, set of 2 for Chevy
SS078	.060 thick shim for Chevy
SS044	.160 thick shim for Chevy
SS017	.030 thick shim for Chevy



Bolts

Part #	Description
SS043	Starter install kit, two 3/8" bolts, 2 washers, .030 shim



Super-fine stranded cable with a tin coating moves the voltage in the most efficient manner. Weight conscious racers can rest assured this is the right solution.

Cable Type	Lbs./Ft.	5' Part #	20' Part #	100' Part #
1/0 Blk	.436	PW5A0S	PW0A0S	PW1A0S
1/0 Red	.436	PW5A0R	PW0A0R	PW1A0R
4 Gauge Red	.177	PW504R	PW004R	PW104R
10 Gauge Red	.045	PW510R	PW010R	PW110R



Starter main supply cable

Relay Kit Fits most starters and chassis wiring. The kit makes it easy to guarantee 50 plus amps to the solenoid for trouble free starts. The key is the correct solenoid switch and the Meziere 10 gauge "super fine strand" wire.



Bearings

Part #	Description
SS116	Nose bearing 400 series starter
SS117	Intermediate bearing 400 series starter
SS115	Rear support bearing 400 series starter



We also offer terminal ends and shrink tubing to help you take care of the final starting system details.

Ring Terminal Size	Wire	Part #
1/4"	10 Gauge	PWA021
5/16"	10 Gauge	PWA022
5/16"	4 Gauge	PWA023
3/8"	4 Gauge	PWA024
1/2"	4 Gauge	PWA025
5/16"	1/0 Gauge	PWA026
3/8"	1/0 Gauge	PWA027
1/2"	1/0 Gauge	PWA028

Shrink Tube Description

Red Shrink Tube 2" section for 1/0 terminal
Black Shrink Tube 2" section for 1/0 terminal



Master disconnect switch for peace of mind.

- Double Pole (two positions: off-on)
- Rating: 6-36V DC
- Large studs: 125A continuous - 1000A intermittent, 15 second ON, 5 minute OFF
- Small studs: 20A continuous
- Terminals: Two 3/8" copper studs, two 10-32 studs
- Mounting stem: Brass 3/4" - 16 thread, 17/32" long, fits panel through 1/4" thick
- Case: Plated steel with indexing/alignment pin
- Sealing: O-ring seal in operating shaft

Charging Lugs

Meet our new brass charging lugs for taper fit receptacles. The contour design is easy to clamp to. Every trailer should have some spare charging lugs on hand!

Description	Part #
Charging Lugs	MSP0108



Meziere True Billet Flexplates are clearly the superior choice for quality and precision. Machined to exacting tolerances from 4340 round bar, our proprietary manufacturing process ensures the strongest gear tooth, least runout and the best longevity on the market. All of our flexplates are certified to SFI spec 29.2

	FP300 (Fig. 1)	FPT300 Ten Pitch (Fig. 1)
Application	Chevy - Large	Chevy - Large
Dimension A	14.12	14.12
Dimension B	.450	.450
Dimension C	.170	.170
Dimension D	2.49	2.49
Tooth Count	168	139
Pitch	12	10
Total Weight	6.3 lbs.	6.3 lbs.
Counter Bal. Wt.	Neutral	Neutral
Converter Pattern	3 on 10.75 and 3 on 11.5	3 on 10.75 and 3 on 11.5
Suggested Bolt Kit	FPH437625	FPH437625

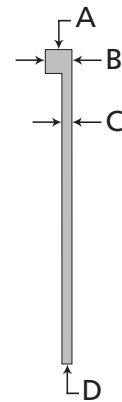


Fig. 1



	FP301 (Fig. 1)	FPS006 (Fig. 1)	FPS008 (Fig. 1)
Application	Chevy - Small	Chevy - Large	Chevy - Large
Dimension A	12.83	14.12	14.12
Dimension B	.450	.450	.450
Dimension C	.170	.170	.170
Dimension D	2.49	2.49	2.49
Tooth Count	153	168	168
Pitch	12	12	12
Total Weight	5.65 lbs.	6.4 lbs.	6.4 lbs.
Counter Bal. Wt.	Neutral	Neutral	Neutral
Converter Pattern	3 on 10.75	6 on 10.75	6 on 11.50
Suggested Bolt Kit	FPH437625	FPH437625	FPH437625



	FPS031 (Fig. 1)	FPS034 (Fig. 1)	FPS094 (Fig. 1)
Application	Chevy - Small	Chevy - Large	Chevy - Large
Dimension A	12.83	14.12	14.12
Dimension B	.450	.450	.450
Dimension C	.190	.185	.180
Dimension D	2.49	2.49	2.49
Tooth Count	153	168	168
Pitch	12	12	12
Total Weight	7.4 lbs.	8.7 lbs.	6.9 lbs.
Counter Bal. Wt.	Neutral	Neutral	Neutral
Converter Pattern	3 on 10.75	6 on 10.75 3 on 10.75 3 on 11.50	Split pattern 7/16 Split pattern 1/2
Suggested Bolt Kit	FPH437625	FPH437625	FPH500875
Notes:	Solid Plate	Solid Plate	1/2 Crank bolts

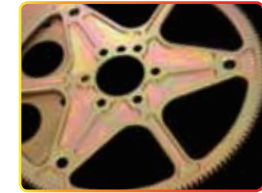


NOTE: Always check for bolt clearance during assembly.



Low Inertia *May not be suitable for extreme applications. Call to discuss your specific application.*

	FPS037 (Fig. 1)	FPS057 (Fig. 1)	FPS059 (Fig. 1)
Application	Chevy - Large	Chevy - Large	Chevy - Small
Dimension A	14.12	14.12	12.83
Dimension B	.450	.450	.450
Dimension C	.270	.270	.270
Dimension D	2.49	2.49	2.49
Tooth Count	168	139	153
Pitch	12	10	12
Total Weight	5.3 lbs.	5.3 lbs.	5.0 lbs.
Counter Bal. Wt.	Neutral	Neutral	Neutral
Converter Pattern	3 on 10.75	3 on 10.75	3 on 10.75
Suggested Bolt Kit	FPH437875	FPH437875	FPH437875



	FPS125 (Fig. 1)	FPS139 (Fig. 1)
Application	Chevy - Large	Ford - SB
Dimension A	14.12	14.21
Dimension B	.450	.38
Dimension C	.270	.270
Dimension D	2.49	1.75
Tooth Count	168	164
Pitch	12	12
Total Weight	5.3 lbs.	5.7 lbs.
Counter Bal. Wt.	Neutral	Neutral
Converter Pattern	3 on 10.75 and 3 on 9.75	3 on 10.75 and 3 on 9.75
Suggested Bolt Kit	FPH437875	FPH437875



	FP303 (Fig. 1)	FP335 (Fig. 1)
Application	Pontiac	Oldsmobile
Dimension A	13.96	13.89
Dimension B	.380	.450
Dimension C	.200	.170
Dimension D	2.91	2.55
Tooth Count	166	166
Pitch	12	12
Total Weight	6.3 lbs.	6.7 lbs.
Counter Bal. Wt.	Neutral	Neutral
Converter Pattern	3 on 10.75 and 3 on 11.5	3 on 10.75 and 3 on 11.5
Suggested Bolt Kit	FPH500500	FPH437625

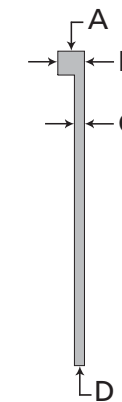


Fig. 1



FP319 (Fig. 2)

Application	GM LS-1
Dimension A	14.12
Dimension B	.450
Dimension C	.160
Dimension D	2.075
Dimension E	.585
Tooth Count	168
Pitch	12
Total Weight	6.95 lbs.
Counter Bal. Wt.	Neutral
Converter Pattern	Stk 3 hole w/slot 3 on 10.75 3 on 11.50
Suggested Bolt Kit	FPHM111.5

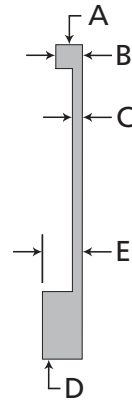


Fig. 2

FP340A (Fig. 3)

Application	GM 3800
Dimension A	11.90
Dimension B	.450
Dimension C	.170
Dimension D	1.266
Dimension E	.690
Tooth Count	142
Pitch	12
Total Weight	5.28 lbs.
Counter Bal. Wt.	Stk 3800
Converter Pattern	stock OEM
Suggested Bolt Kit	n/a

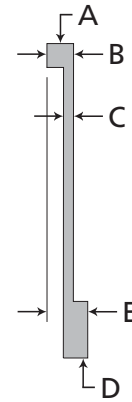


Fig. 3

	FP5085 (Fig. 2)	FP5086 (Fig. 3)	FP5099 (Fig. 2)
Application	GM LS-1	GM LS-1	GM LS-1
Dimension A	14.12	14.12	14.12
Dimension B	.450	.450	.450
Dimension C	.180	.180	.180
Dimension D	2.075	2.075	2.075
Dimension E	.585	.585	.585
Tooth Count	168	168	168
Pitch	12	12	12
Total Weight	9.38 lbs.	8.93 lbs.	9.54 lbs.
Counter Bal. Wt.	Neutral	Neutral	Neutral
Converter Pattern	6 on 11.5 12 on 10.75	3 on 11.5 6 on 10.75	6 on 10.75 3 on 10.75 3 on 11.50
Suggested Bolt Kit	FPHM111.5	FPHM111.5	FPHM111.5 (2 Req'd)
Notes			8 bolt crank

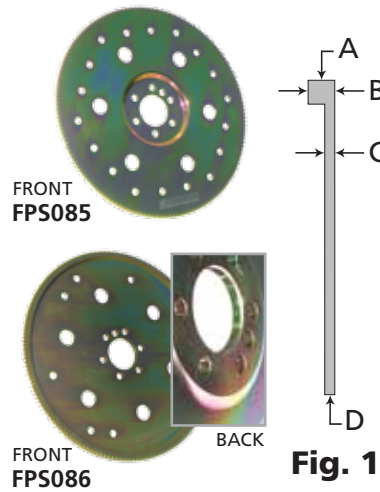


Fig. 1



Built for the Most Extreme Conditions

	FP5020	FP5022*	FP5027 Ten Pitch	FP5041	FP5042 Ten Pitch	FP5048 Ten Pitch
Application	Hemi - 8 bolt	Hemi - 8 bolt	Hemi - 8 bolt	Chevy - Large	Chevy - Large	Hemi - 8 bolt
Dimension A	14.12	13.00	14.12	14.12	14.12	13.2
Dimension B	.450	—	.450	.450	.450	.450
Dimension C	.300	.270	.300	.270	.270	.270
Dimension D	1.70	1.70	1.70	2.49	2.49	1.70
Dimension E	.500	.500	.500	n/a	n/a	.630
Tooth Count	168	—	139	168	139	130
Pitch	12	—	10	12	10	10
Total Weight	11.25	10.44	11.25	9.6	9.6	10.5
Counter Bal. Wt.	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
Converter Pattern	6 on 10.75 3 on 11.50 3 on 10.75	6 on 10.75 3 on 11.50 3 on 10.75	6 on 10.75 3 on 11.50 3 on 10.75	3 on 10.75 3 on 11.50 6 on 10.75	3 on 10.75 3 on 11.50	3 on 10.75 3 on 11.50
Suggested Bolt Kit	FPH500100	FPH500100	FPH500100	FPH437875	FPH437875	FPH500100

(*no ring gear)

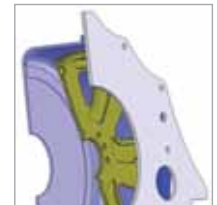
(Longer)

(Longer)

Note: Pro Hemi Mod plates now feature a brass bushing for the converter pilot

PRO MOD SOLUTIONS

Recent rule changes have presented significant challenges to Pro Mod racers. Fitting a large diameter flexplate inside of a standard, lined bellhousing simply does not work. Fortunately, Meziere Enterprises has teamed up with industry partners to solve this difficult issue. We now offer a new line of flexplates designed specifically for Pro Mod Vehicles with an adjusted outside diameter and tooth count. Our 136 tooth plates fit inside of lined bellhousings, incorporate "ten pitch" gear technology and when coupled with the appropriate Meziere starter can solve these difficult space and safety problems. All plates are certified SFI 29.2.



Mopar flexplates made with an integral ring gear (not stock configuration).

	FP30606 (Fig. 1)	FP30608 (Fig. 1)	FP306168 (Fig. 1)	FP306139 (Fig. 1)	FP5058 (Fig. 2)
Application	Mopar - 6 hole	Mopar - 8 hole	Mopar*	Mopar*	Late Model Hemi
Dimension A	13.2	13.2	14.12	14.12	13.2
Dimension B	.390	.390	.430	.430	.40
Dimension C	.180	.180	.180	.180	.190
Dimension D	2.16	2.16	1.70	1.70	2.16
Dimension E	n/a	n/a	n/a	n/a	.765
Tooth Count	130	130	168	139	130
Pitch	10	10	12	10	10
Total Weight	6.4 lbs.	6.40 lbs.	8.36 lbs.	8.36 lbs.	7.51 lbs.
Counter Bal. Wt.	Neutral	Neutral	Neutral	Neutral	Neutral
Converter Pattern	3 on 10.75	3 on 10.75	3 on 10.75 and 3 on 11.5	3 on 10.75 and 3 on 11.5	3 on 11.5
Suggested Bolt Kit	Included	Included	FPH500100**	FPH500100**	n/a
Wedge Style Centering Hub	Included	Included	n/a	n/a	n/a
Bushing included					

*Has an 8 bolt crank pattern designed to fit Mopar Hemi engines. It will not fit the wedge type crank pattern
**Note: Adapters available for various Hemi cranks. Bolts may require additional length.

	FP5091	FP5092	FP5096	FP5129	FP5145	FP5148
Application	Chevy - Custom	Chevy - Custom	Hemi - 8 Bolt	Ford	Chevy	Hemi
Dimension A	13.83	13.83	13.83	13.83	13.83	13.83
Dimension B	.450	.450	.450	.450	.450	.450
Dimension C	.27	.27	.27	.25	.27	.27
Dimension D	2.49	2.49	1.70	2.50	2.49	1.70
Tooth Count	136	136	136	136	136	136
Pitch	10	10	10	10	10	10
Total Weight	7.9 lbs.	7.9 lbs.	9.73 lbs.	9.16 lbs.	7.82 lbs.	7.9 lbs.
Counter Bal. Wt.	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
Converter Pattern	6 on 10.75	6 on 10.75	6 on 10.75	3 on 10.75 3 on 11.50 4 on 11.38	6 on 10.75	3 on 10.75 3 on 11.50
Suggested Bolt Kit	FPH500875	FPH437875	FPH500100	FPH437875	FPH437875	FPH437875
Notes	1/2" ø crank bolts	7/16" ø crank bolts			1/2" ø crank bolts (8)	

	FP311 (Fig. 3)	FPS036 (Fig. 1)	FPS149 (Fig. 1)
Application	SB Ford	SB Ford	SB Ford
Dimension A	13.30	14.24	14.12
Dimension B	.375	.380	.380
Dimension C	.180	.185	.180
Dimension D	1.753	1.753	2.07
Dimension E	.790	n/a	n/a
Tooth Count	157	164	168
Pitch	12	12	12
Total Weight	5.9 lbs.	8.5 lbs.	8.5 lbs.
Counter Bal. Wt.	Neutral	Neutral	Neutral
Converter Pattern	4 on 10.5 and 3 on 10.75	6 on 10.75 and 6 on 11.5 and 4 on 11.4	6 on 10.75 and 6 on 11.50
Suggested Bolt Kit	FPH437625	FPH437625	FPH437625

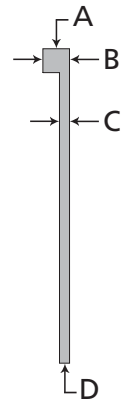


Fig. 1

	FP312 (Fig. 4)	FP346 (Fig. 4)
Application	SB Ford	Modular 4.6 and 5.8 with 8 bolt crankshaft
Dimension A	14.24	14.24
Dimension B	.375	.375
Dimension C	.180	.180
Dimension D	1.753	1.753
Dimension E	.875	.875
Tooth Count	164	164
Pitch	12	12
Total Weight	7.26 lbs.	7.26
Counter Bal. Wt.	Neutral	Neutral
Converter Pattern	3 on 10.75 and 3 on 11.5 4 on 10.5 and 4 on 11.38	3 on 10.75 and 3 on 11.5 4 on 10.5 and 4 on 11.38
Suggested Bolt Kit	FPH437625	FPHM101.0

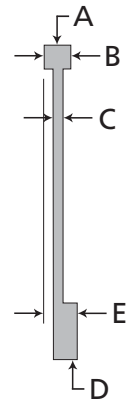


Fig. 4

	FP308 (Fig. 2)	FPT308 Ten Pitch (Fig. 2)	FPS108 (Fig. 3)
Application	BB Ford	BB Ford	BB Ford FE
Dimension A	14.21	14.21	15.53
Dimension B	.450	.450	.320
Dimension C	.165	.165	.12
Dimension D	2.502	2.502	2.502
Dimension E	.370	.370	.480
Tooth Count	164	140	184
Pitch	12	10	12
Total Weight	6.94 lbs.	6.94 lbs.	10.32 lbs.
Counter Bal. Wt.	Neutral	Neutral	Neutral
Converter Pattern	3 on 10.75 and 3 on 11.5 4 on 11.38	3 on 10.75 and 3 on 11.5 4 on 11.38	4 on 11.38
Suggested Bolt Kit	FPH437625	FPH437625	FPH437625

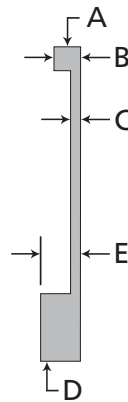


Fig. 2

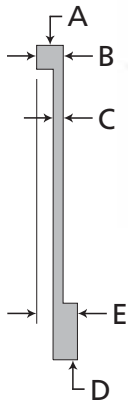


Fig. 3



FPA1001

One for the Tool Box! Because we race, and get what it takes, we have produced the best flex plate turning tool on the market. The slim design lets you grab the gear teeth straight, even if you have a mid-motor plate. A combination of hardened steel and alloy steel materials boasts "no compromise" and a polished surface finish is protected by black oxide coating. Positive pulling is finally a reality!



TSF112



TSF110

Make the wholesale switch!

Whether you are beginning a new build or solving problems with older components you can get the combo, get a complete and solid system in place, and save some money in the process.

Application	Starter #	Flexplate #	Combo #
Chevrolet 12 pitch	TS300	FP300	TSF113
Chevrolet 12 pitch	TS400	FP300	TSF112
Chevrolet 10 pitch	TST400	FPT300	TSF110

FPH437625



Race proven to be the very best. Sold with Loctite® thread locker.

Part #	Package Qty	Thread Type	Thread Length	Unthreaded Length
FPH437625	6	7/16-20	.625"	<.1"
FPH437875	6	7/16-20	.875"	.23"
FPH500700	6	1/2-20	.700"	.15"
FPH500875	6	1/2-20	.875"	.23"
FPH500875-8	8	1/2-20	.875"	.23"
FPH500100	8	1/2-20	1.00"	.48"
FPHM101.0	8v	10mm x 1.0	20mm	<2.5mm
FPHM111.5	6	11mm x 1.5	22mm	3.5mm

FPA437125



Make the final connection with confidence. These converter bolt kits will take the abuse your engine gives out and will outlast any other bolt.

Converter bolt set specs.	Part #
7/16" diameter x 1.25" long	FPA437125
1/2" diameter x 1.5" long	FPA500150

FPS437187



FPS437125

Achieve the proper clearance	Bolt size	Thickness	Part #
with these precision spacers. Choose the exact thickness to put your clearance in range.	7/16"	.125"	FPS437125
	7/16"	.187"	FPS437187
	7/16"	.250"	FPS437250
	1/2"	.125"	FPS500125
	1/2"	.187"	FPS500187
	1/2"	.250"	FPS500250

Water Pump Buyer's Guide

Water Pump Features

100 Series

100 Series pumps generate 35 gallons per minute or more of water flow. This series continues to expand and now covers applications from AMC to ROVER. Most pumps use a 1" NPT port to direct water into the pump via one of the inlet adapters. These adapters are available in rubber hose and many AN sizes. Extended inlets, extensions, and angle adapters are also available.



200 Series

200 Series are currently available for Big Block Chevy and Ford, Small Block Chevy, Mopar B/ RB and HEMI engines. This line is a new and innovative design with an integrated expansion tank to remedy the problems associated with low and horizontally mounted radiators. Everyone that has installed this pump is amazed at how simple the cooling system becomes.



300 Series

300 Series pumps are the highest flowing electric water pumps on the market. Most people use these on high performance street cars. Although the appearance of these models are similar to the 100 series pumps, internally everything is larger. Inlet inside diameters are 1 3/8" or 1 1/2". The impeller and pump cavity allow for greater volume of water. The Heavy Duty motors provide increased torque and RPM. The resulting flow rate of 55 GPM is enough to cool anything from a 600+ HP circle track car to a 2200 HP PRO MOD. We strongly recommend this series for supercharged, nitrous-oxide and high performance street engines. Applications now include radiator mount and three remote versions.



400 Series

400 Series belt driven pumps are show quality outside and race bred inside. They are available for Big Block Chevy and Small Block Chevy (standard and reverse rotation). These pumps are all-billet construction. The appearance and unmatched low speed flow numbers make them popular with the street rod crowd. The high RPM performance is capable of cooling any race engine.



500 Series

500 Series pumps and radiator drop in kits are designed for specific import engines and/or cars. WPK part numbers are kits that convert the application from a belt driven, block mounted factory water pump to a remote electric. We have found that using the radiator as a platform for our popular WP136 pump has allowed hundreds of new sport compact car applications an easy way to plumb an electric water pump.



Performance
The design of the CNC machined impeller is the key to the performance of our pumps.



Longevity
One piece carbon-ceramic seal offers a life expectancy of 10,000 hours.



Corrosion Resistant
Corrosion can cause premature failure in the electrical portion of a pump. To combat this we supply a weather tight connector with our electric water pumps.



Durability
Epoxy coated motor windings protect against failure caused by harmonic vibration.



No Interference
A radio frequency suppression circuit incorporated into the motor brush card reduces "RF" interference.



Relay Kit
Using a relay when wiring your electric water pump can save you from overloading existing wires and supply the pump with ample power. This kit is designed for Ford modular installations with wires cut to length but can be used for any of our electric pumps.

Application	Part #
Electrical Relay	WIK346

Colors & Finishes
Most water pumps and accessories can be ordered in one of five finishes. Just insert the corresponding letter (R for Red) in the part number. (See example)
R=Red, **B**=Blue, **S**=Black, **U**=Polished, **C**=Chrome, **N**=Natural or clear anodize.

All pumps (except five part numbers) are fully polished to a show finish before anodizing. Any parts ordered as polished will be bare aluminum. Chrome parts are available but may require up to 3-4 weeks for delivery from the time of the order.

Motor Options
Electric pumps may be ordered with a Heavy Duty option. This provides more power and RPM, increasing flow and pressure. The Heavy Duty "HD" option is recommended for street cars and other continuous duty applications (where High Flow model pumps are not available). This option also adds 1 lb. to the total weight, add 1/2" to the length of the pumps, and 2 amps to current draw. **HD**=Heavy Duty.

Example: WP100RHD would be a **Water Pump, 100 series, Red color with Heavy Duty option.**

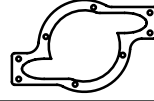












Electric Pump Features



Relay Kit

Build-A-Part #

Water Pump Gaskets & O-rings

Water Pump Gaskets & O-rings

Part #	Gasket Description	Reference Diagram
UNIVERSAL		
WPG001	Front Plate Gasket	
CHEVROLET		
WPG100	Big Block Chevy Flange (pair)	
WPG101	Small Block Chevy Flange (pair)	
GENERAL MOTORS		
WPG103	Pontiac Front Cover	
WPG1031	Pontiac Flanges (pair)	
WPG135	Oldsmobile Flange (pair)	
WPG119	LS-X (pair)	
WPG319	WP319 resealing kit	
CHRYSLER / MOPAR		
WPG106	Big Block Mopar (pair)	
WPG114	Small Block Mopar Flange (pair)	
WPG115	Small Block Mopar Back Plate	
FORD		
WPG108	Big Block Ford Flange (pair)	
WPG111	Small Block Ford Traditional (pair)	

FORD (continued)		
WPG170	FE Ford Flange (pair)	
WPG173	Small Block Ford Flange '94-'95 style (pair)	

Part #	O-Ring Description	O-Ring Number(s)
Water Pump O-Rings		
WPG801	200 Series Tank O-Ring	-157
WPG802	Transmission Pan O-Ring	custom
WPG908	Heater Port Fitting O-Ring	-908
WPG803	WP103 Pontiac Sleeve O-Rings (2 pcs)	-212 x2
WPG804	WP125 Buick O-Ring Kit (4 pcs)	-239, -215, -214, -205
WPG805	WP311/312 Front Plate O-Ring	-048
WPG806	Honda Idler Plate 19/22T O-Ring	-240
WPG807	Honda Idler Plate 26T O-Ring	-247
WPG808	Nissan Block Off Plate O-Ring	-156
WPG809	WP361/362 O-Ring Kit (2 pcs)	-160, -233
WPG810	WP336/337 O-Ring	-160
WPG811	WP136 Base O-Ring	-230
WPG812	WP137 O-Ring Kit (3 pcs)	-230, -155, -123
WPG813	WP430 O-Ring Kit	-236
Fitting O-Rings		
WPG920	WN Series Fitting O-Ring	-222
WPG916	#16AN Fitting O-Ring	-916
WPG911	#12AN Fitting O-Ring	-911
WPG910	#10AN Fitting O-Ring	-910
WPG908	#08AN Fitting O-Ring	-908
Waterneck O-Rings		
WPG814	WN0019 LS-X	-228
WPG820	WN0020 Swivel Kit (3 pcs)	-228, -222 x2
WPG814	WN0021 / WN0022	-228
WPG815	WN0023 Ford Small Block	-908, -230
WPG814	WN0029 Big Block Mopar	-228
WPG816	WN0030 Small Block Mopar	-140
WPG814	WN0039 LS-X	-228
WPG814	WN0812, WN0816	-228
WPG814	WN0912, WN0916	-228

Water Pump Gaskets & O-rings

Water Pumps • Chevrolet 100 & 200 Series

O-rings

Waterneck O-Rings (continued)		
WPG814	WN0028 Spacer	-228
WPG814	WN1028 Spacer	-228
WPG814	WN1912	-228
WPG814	WN1916	-228
Block Adapter O-rings		
WPG817	BBC WP80 (pair)	-223
WPG817	BBC WP8012AN (pair)	-223
WPG817	BBC WP8016AN (pair)	-223
WPG818	SBC WP8112AN (pair)	-216
WPG818	SBC WP8116AN (pair)	-216
WPG819	DRCE WP8612AN (pair)	-220
WPG819	DRCE WP8616AN (pair)	-220
Miscellaneous O-rings		
WPG802	O-Ring for Powerglide Water Cooled Transmission Pan	Custom

Center-section

Reliability is how we made our name. Although uncommon, failures do occur. The design that makes them so dependable also makes them non-field serviceable, so it is a good idea to keep a spare pump or center-section on hand. This replacement unit is not just a motor, it comes complete from end cap to impeller and includes wiring harness, gasket and hardware. 18 of the 21 100-200 series pumps utilize the WP150 center section. Spare gaskets can be ordered as well. The part number for most gaskets is 'WPG' then the pump number.

Comes Complete!
Installs in Minutes!



Specify color and options when ordering.



BB Buick specific

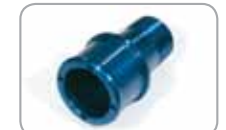


Recommended for Sport, Drag Cars and Mild Street Cars. All 100, and 200 Series pumps for Chevys are machined with enough back spacing to clear cam belt drives and are compatible with most roots blower drives.

Passenger side inlet port standard.

**35 GPM Standard
42 GPM Heavy Duty**

For more technical information please see our Water Pump Buyer's Guide on page 26.



1" NPT inlet required.
See page 58.



Application	Pump Model	Color	Additional Option	Weight (standard)	Weight (HD)	Depth (standard)	Depth (HD)
BBC 396-572	WP100	R,B,S,U,G	HD	5.8 lbs.	6.8 lbs.	6.780"	7.280"
SBC 4.3 V6, 262-400	WP101	R,B,S,U,G	HD	5.5 lbs.	6.5 lbs.	6.780"	7.280"
BBC Lightweight	WPL100	S	HD	5.2 lbs.	6.2 lbs.	6.780"	7.280"



Fill it and forget it. The 200 Series pumps are the only viable method to properly fill a cooling system when filling through the radiator is not an option. Fill necks trap air leaving room for coolant to rapidly expand and overheat. The built-in expansion tank separates the air and provides coolant free from air and the cavitation it creates. Eliminate air and problems with the WP200. You will run cooler or your money back.

**35 GPM Standard
42 GPM Heavy Duty**



Application	Pump Model	Color	Additional Option	Weight (standard)	Weight (HD)	Depth (standard)	Depth (HD)
BBC 396-572	WP200	R,B,S,U,G	HD	8.5 lbs.	9.5 lbs.	6.780"	7.280"
SBC 4.3 V6, 262-400	WP201	R,B,S,U,G	HD	8.2 lbs.	9.2 lbs.	6.780"	7.280"

R=Red, B=Blue, S=Black, U=Polished, G=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example **WP100RHD** would be a **Water Pump, 100 series, Red color with Heavy Duty option.** See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.

100 Series

200 Series

Water Pumps • Chevrolet 300 Series

Water Pumps • Chevrolet 400 Series Street Performance Mechanicals



High Flow Pumps are the choice of NHRA Pro Stock champions Greg Anderson and Jason Line to keep cool in the heat of battle. The Meziere 300 series pumps changed the rules about using electric pumps on high horsepower street engines, nitrous motors, or super/turbo charged cars. Delivering 55 gallons per minute of flow, the 300 series pumps offer great cooling solutions to high horsepower vehicles. Higher flow rates reduce the chance of detonation.

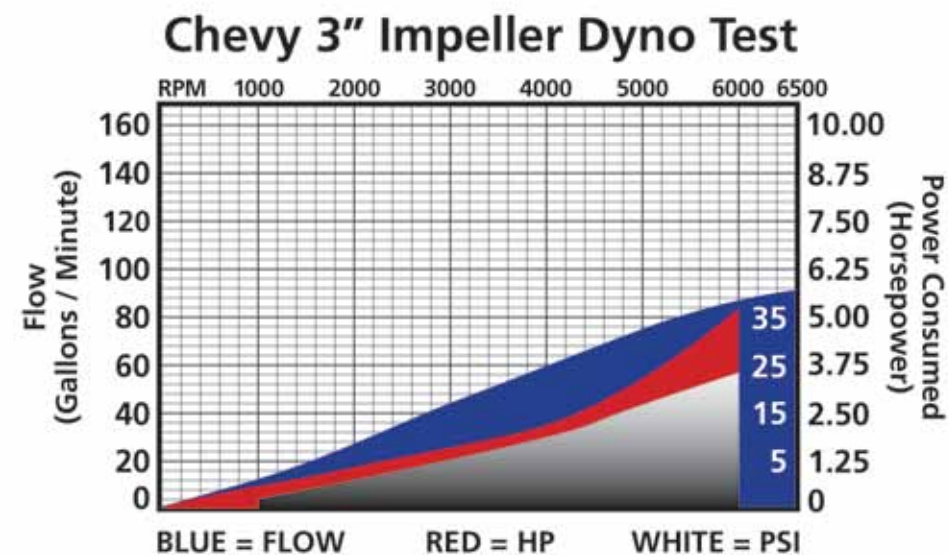
55 GPM Standard



High performance meets street practicability. We now offer our High Flow 55 GPM pumps for Chevrolet engines with a heater or bypass port. Fittings are available for a wide variety of hose connections. There's no need to freeze this winter...hook up the heater and go cruise!

Ported option available in all colors.

Application	Pump Model	Color	Ported Option	Weight (standard)	Depth (standard)
BBC 396-572	WP300	R,B,S,U,G	P (ported)	7.4 lbs.	7.280"
SBC 4.3 V6, 262-400	WP301	R,B,S,U,G	P (ported)	7.0 lbs.	7.280"



SINGLE GROOVE PULLEY WP420
Available color: U

Our pulleys have a 6.5" diameter and a unique style with 5 large windows.



DOUBLE GROOVE PULLEY WP421
Available color: U

Application	Pump Model	Impeller Diameter	Color	Additional Option	Weight (standard)	Block to Hub
BBC 396-572	WP400	3"	S,U,G	P (ported)	5.4 lbs.	5.75"
SBC 4.3 V6, 262-400	WP401	3"	S,U,G	P (ported)	5.4 lbs.	5.66"



SERPENTINE PULLEY WP422 Dia:5.9" Available color: U

Application	Pump Model	Impeller Diameter	Color	Additional Option	Weight (standard)	Block to Hub
BBC 396-572	WPR400	3"	S,U,G	P (ported)	5.5 lbs.	5.75"
SBC 4.3 V6, 262-400	WPR401	3"	S,U,G	P (ported)	5.5 lbs.	5.80"

The "R" in the prefix of these part numbers indicates reverse rotation making it compatible with most serpentine belt applications.

Take on both engine cooling and transmission cooling

with our new line of Trans Pan ready pumps. Each model has been ported specifically to take the challenge out of connecting to our heat exchanging transmission pan. All that is left to do is make the two connecting hoses and your transmission temperatures will be stabilized by your cooling system.



See page 68 for trans pan info.



Application	Pump Model	Color	Options
Chevy BBC Standard	WT100	R,B,S,U,G	HD
Chevy BBC Reservoir	WP200	R,B,S,U,G	HD
Chevy BBC High Flow	WT300	R,B,S,U,G	

R=Red, B=Blue, S=Black, U=Polished, G=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example **WP100RHD** would be a Water Pump, 100 series, Red color with Heavy Duty option. See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.

Water Pumps • Chevrolet

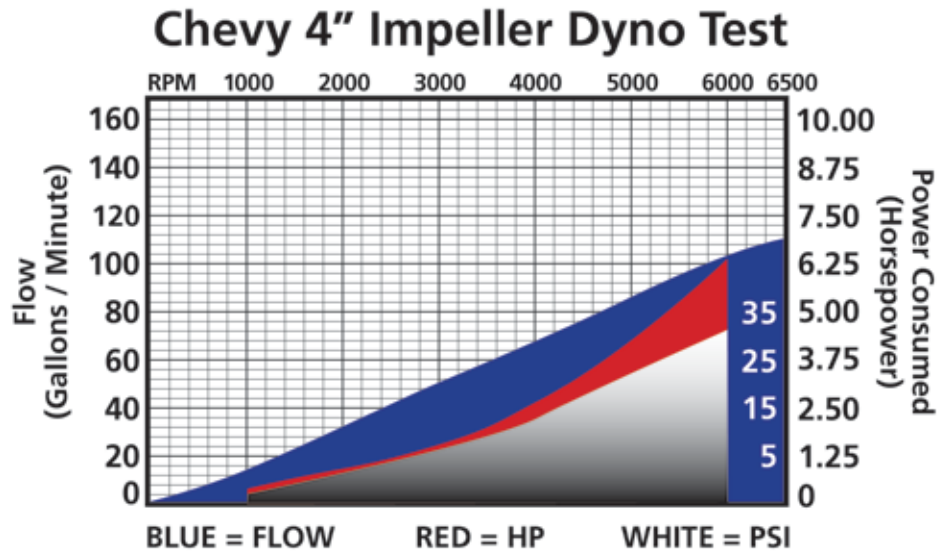
400 Series Full Race Mechanicals & Fittings

Water Pumps • GM & Pontiac

100 Series Electric

New mechanical options now available for big and small block Chevy. Our design team produced a highly effective street pump, but we didn't stop there. We now offer a full race, 4" impeller mechanical pump and its performance rivals the most renowned race pumps on the market. Both low and high pressure ports are available for auxiliary plumbing. Expect the very best in performance and durability.

- 3/4" Roller bearing
- CNC machined impeller
- Carbon ceramic seal
- Triple bolt pattern flange
- Stainless steel hardware



Wiggins inlet available. Please see page 58.



Application	Pump Model	Impeller Diameter	Color	Weight (standard)	Block to Hub
SBC 4.3 V6, 262-400	WP402	4"	N	6.8 lbs.	5.75"
SBC 4.3 V6, 262-400	WPR402	4"	N	6.8 lbs.	5.75"
BBC 369-572	WPR403	4"	N	6.8 lbs.	5.75"

The "R" in the prefix of these part numbers indicates reverse rotation making it compatible with most serpentine belt applications.



Heater & Bypass

If your pump was ordered with the ported option ('P' added to the part number) Find the available connection fittings from the list below.

Description	Fitting #	Color
5/8" Hose Barb	WPM58	R,B,S,U,☉,N
3/4" Hose Barb	WPM34	R,B,S,U,☉,N
-08AN	WPM08	R,B,S,U,☉
-10AN	WPM10	R,B,S,U,☉
-12AN	WPM12	R,B,S,U

R=Red, B=Blue, S=Black, U=Polished, ☉=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example **WP100RHD** would be a **Water Pump**, **100** series, **Red** color with **Heavy Duty** option. See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.



The LT-1 water pump has proven our reliability with customers logging 50,000 to 60,000 miles on their daily drivers. For many, the economical price and longevity make it a logical choice over the factory replacement. Along with the horsepower savings, the relocated seal drain eliminates the possibility of a pump leak causing optispark failure. The need for the heavy and expensive factory timing chain is also eliminated. Some F-bodies may require trimming of the fan shroud. **No inlet required.**

- **Frees over 10 rear wheel HP**
- **43 GPM Standard or 55 GPM Heavy Duty**

If a replacement gasket is needed, please use GM part #10128329

Application	Pump Model	Additional Option	Weight (standard)	Weight (HD)	Depth (standard)	Depth (HD)
All LT-1 vehicles	'93-'97	WP118	HD	3.6 lbs.	4.6 lbs.	3.000" / 3.500"



The performance enthusiasts driving and racing the powerful GM 3800 demanded better cooling. Meziere brings the solution. Not only do drivers enjoy better cooling and less parasitic loss (more horsepower), the WP140 has a clean billet look for a custom engine compartment. *WP140 fits GM 3800 engines 1997-2006.*

- Compact and lightweight
- Three custom finishes
- No modification required

35 GPM Standard
42 GPM Heavy Duty

Installation requires a 4" shorter belt, '97-'98 use Gates K060895, for 99-later use Gates K060875.

Application	Pump Model	Color	Additional Option	Weight (standard)	Weight (HD)	Depth (standard)	Depth (HD)
3800-V6	WP140	R,B,S,U,☉	HD	4.1 lbs.	5.1 lbs.	3.8" / 4.3"	

Word spreads fast among Pontiac racers regarding this pump. Walking through the pits at any national or divisional race, it is hard to find a Pontiac motor without our pump. Installation can be performed between rounds. After removing the water port sleeves, just clean the ports and gasket surface and the pump will bolt right up. **No inlet required.**

35 GPM Standard
42 GPM Heavy Duty

*1962 to '68 engines must use '69 & later 11 bolt timing cover (GM part #527291), vibration damper and pulleys.

Countersunk bolts and stock thickness body make it compatible with engine plates.

Application	Pump Model	Color	Additional Option	Weight (standard)	Weight (HD)	Depth (standard)	Depth (HD)
301 - 455	'69*-'81	WP103	R,B,S,U,☉	HD	5.9 lbs.	6.9 lbs.	3.776" / 4.276"

R=Red, B=Blue, S=Black, U=Polished, ☉=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example **WP100RHD** would be a **Water Pump**, **100** series, **Red** color with **Heavy Duty** option. See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.



LT-1

GM 3800

Pontiac

Full Race Mechanicals

Heater / Bypass



WP119B

WP1125 1 1/4" outlet fitting included.



1" NPT inlet required. See page 58.



WPMTEMP
Optional fitting to provide a driver's side temperature port

Our LS-X pump, originally designed for Stock and Super Stock racers, this pump can also be found on street rods, dune buggies and modified street cars. This pump is not designed to accommodate factory accessories (i.e. P/S, ALT, A/C).

35 GPM Standard or 42 GPM Heavy Duty • Driver or Passenger side inlet ports

Application	Pump Model	Color	Additional Option	Weight (standard)	Weight (HD)	Depth (standard)	Depth (HD)
Generic LS fitment	WP119	R,B,S,U,G	HD	7 lbs.	8 lbs.	6.700"	7.200"

NEW!



WP333

LS Extreme Duty!

We bring you the solution for LS based, extreme duty engine cooling. The new 55 GPM pump is a great solution for high compression, high horsepower applications where superchargers, turbos or nitrous systems are employed. These pumps are the highest flowing electric pumps available and come with a two year warranty.

Application	Pump Model	Color	Weight	Depth
Generic LS fitment	WP333	N,S	10.35 lbs.	7.00"
Late Model LT	WP334	N,S	12.00 lbs.	8.93"



WP319B

Our street version for the LS engine boasts 55 GPM flow rate and ease of installation. Accommodates the factory accessory belt. Proven to free up more than 11 rear wheel horsepower in most applications.

Accessorize with waterneck #WN0019 on page 42.

Replacement center section part number is WP359

WP319 Application	Engine	Pump Model	Color	Weight	Depth
Corvette	1997 - 2004	WP319	R,B,S,U,G,N	14.9 lbs.	7.8"
Corvette	2005 - 2007	WP319	R,B,S,U,G,N	14.9 lbs.	7.8"
Corvette	2007 - 2010	WP319	R,B,S,U,G,N	14.9 lbs.	7.8"
Camaro	1998 - 2002	WP319	R,B,S,U,G,N	14.9 lbs.	7.8"
Firebird Trans Am	1998 - 2002	WP319	R,B,S,U,G,N	14.9 lbs.	7.8"
Pontiac GTO	2004	WP319	R,B,S,U,G,N	14.9 lbs.	7.8"
Pontiac GTO	2005 - 2006	WP319	R,B,S,U,G,N	14.9 lbs.	7.8"
Cadillac CTS	2004 - 2005	WP319	R,B,S,U,G,N	14.9 lbs.	7.8"
Cadillac CTS	2006 - 2007	WP319	R,B,S,U,G,N	14.9 lbs.	7.8"

Application list based on internet research - please verify outlet location before ordering.

Fitting available for AN line connection. See page 60 for details.

The new Corvette / Camaro pump is here!

This completely new design has been one of the most requested pumps in recent memory. Our engineers went to work to provide our brand of solid quality water pump solutions to the proud owners of the new Chevrolet muscle cars, and the result is one of the best performing pumps we have ever developed!

Replacement center section part number is WP359

Fitting available for AN line connection. See page 60 for details.



WP332



back



WP329

Application	Engine	Pump Model	Color	Depth
Camaro-manual trans	2010 - 2013	WP329	Clear Ano	8.15"
Corvette	2010 - 2013	WP330	Clear Ano	7.65"
Camaro-auto trans	2010-2013	WP331	Clear Ano	9.25"
COPO Camaro - Supercharged*		WP332	Clear Ano	7.65"

*Will not fit LSA or LS9 Supercharged applications.

R=Red, B=Blue, S=Black, U=Polished, G=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example WP100RHD would be a Water Pump, 100 series, Red color with Heavy Duty option. See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.

Water Pumps • GM LS-X Mechanical

The 400 series belt driven pumps are show quality outside and race bred inside. These pumps are all-billet construction and are designed with top end performance and longevity in mind. Top end figures match the best racing pumps on the market and off idle flow is 5 to 7 GPM higher than any competitor. It has already proven to be a great success in many forms of racing including off and on-road endurance.

This mechanical water pump for GM LSx engines boasts higher flow with a 4 inch impeller. It is for standard rotation, serpentine style applications.

- Suitable for all street or racing applications.
- Large Chevrolet bearing and seal pack provide excellent reliability.
- Show quality machined finish.
- All stainless steel hardware included.
- All-billet body and impeller provide tight clearances for excellent flow characteristics.
- Low pressure ports for heater and bypass connections.



WP419



WN1019

See page 61 for details

Application	Pump Model	Color*	Weight	Depth
LS-X engines 1997 - 2013	WP419N	N	11.6 lbs.	5.95"

Application list based on internet research - please verify outlet location before ordering.
*WP419 available in Satin finish only - other color options do not apply.



WP434



Spacers included

Application	Pump Model	Color	Weight	Depth
Late Model LT	WP434	N	13.9 lbs.	7.95"

R=Red, B=Blue, S=Black, U=Polished, G=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example **WP100RHD** would be a **Water Pump**, **100** series, **Red** color with **Heavy Duty** option. See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.

Water Pumps • Buick & Olds 100 Series Electric

As you can see this pump covers from '61 Olds Starfire to a '02 Range Rover. It has proven its performance dealing with the extreme horsepower of a Duttweiler Turbo V-6 as well as being tough enough for the extreme sand cars of the desert southwest.

35 GPM Standard
42 GPM Heavy Duty

1" NPT inlet required. See page 58.



WP125U

Application	Pump Model	Color	Additional Option	Weight (standard)	Weight (HD)	Depth (standard)	Depth (HD)	
Buick V6 169-274	'61-'89	WP125	R,B,S,U,G	HD	7.8 lbs.	8.8 lbs.	5.784"	6.284"
Buick V8 215-350	'61-'74	WP125	R,B,S,U,G	HD	7.8 lbs.	8.8 lbs.	5.784"	6.284"
Jeep V6 255		WP125	R,B,S,U,G	HD	7.8 lbs.	8.8 lbs.	5.784"	6.284"
Olds V8 215	'61 & '63	WP125	R,B,S,U,G	HD	7.8 lbs.	8.8 lbs.	5.784"	6.284"
Rover 3.5-4.6	'64-up	WP125	R,B,S,U,G	HD	7.8 lbs.	8.8 lbs.	5.784"	6.284"

The big block Buick's factory timing cover forced us to do things a little different in the design of this pump. The end result gives you all the features of the 100 series pump and clearance for non-A/C V-belt routing. **No inlet required.**

35 GPM Standard
42 GPM Heavy Duty

Pump center-section is unique to this model; use part # WP156.



WP126

Application	Pump Model	Color	Additional Option	Weight (standard)	Weight (HD)	Depth (standard)	Depth (HD)	
400/430/455	'67-'76	WP126	R,B,S,U,G	HD	5.7 lbs.	6.7 lbs.	4.000"	4.500"



WP135

Coverage for Oldsmobile V-8's is easy. All Big Block, Small Block, Corporate, and Diesel engines after 1965 share the same water pump. The pump bolts to the factory timing plate with hardware and gaskets provided.

35 GPM Standard
42 GPM Heavy Duty

*Passenger side inlet only. Not compatible with 1964 330cid. driver side inlet radiator.

WP2175 Recommended. See page 59.

Application	Pump Model	Color	Additional Option	Weight (standard)	Weight (HD)	Depth (standard)	Depth (HD)	
260-455	'64*-'86	WP135	R,B,S,U,G	HD	5.8 lbs.	6.8 lbs.	6.100"	6.600"

R=Red, B=Blue, S=Black, U=Polished, G=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example **WP100RHD** would be a **Water Pump**, **100** series, **Red** color with **Heavy Duty** option. See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.

Water Pumps • Ford Big Block

Water Pumps • Ford 100 Series Small Block

BB Ford



WP108B

This pump is used on everything from home built 429ci powered street rods to Jon Kasse 812ci. IHRA Pro Stock engines. The back plate is available for stock front cover installations but may not be necessary for some racing blocks and newer motor plates. Compatible with belt drives.



1" NPT inlet required. See page 58.



WP109S

Application	Model #	Color	Additional Options	Weight (standard)	Weight (HD or 16)	Depth (standard)	Depth (HD or 16)
429-460 Back plate .19 thick	WP108 WP109	R,B,S,U,G R,B,S,U,G	HD Complete your pump with this back plate!	5.9 lbs.	6.9 lbs.	6.100"	6.600"

FE Ford



WP170

Never to leave the odd man out, our "FE" pump completes the Ford family of V-8's.

Drivers side inlet only.
35 GPM Standard or GPM Heavy Duty 42

Inlet WP2175 recommended. See page 59.



Application	Model #	Color	Additional Options	Weight (standard)	Weight (HD or 16)	Depth (standard)	Depth (HD or 16)
427 F.E. 352, 390, 406, 427, 428	WP170	R,B,S,U,G	HD	5.9 lbs.	6.9 lbs.	7.430"	8.100"

BB Ford



WP208

By popular demand, we present the reservoir pump for Big Block Ford. The reservoir pump for Big Block Ford is perfect for low mounted and out of the way radiator placements.

35 GPM Standard or GPM Heavy Duty 42

1" NPT inlet required. See page 58.



WP109S

Application	Model #	Color	Additional Options	Weight (standard)	Weight (HD or 16)	Depth (standard)	Depth (HD or 16)
429-460 Back plate .19 thick	WP208 WP109	R,B,S,U,G R,B,S,U,G	HD Complete your pump with this back plate!	8.2 lbs.	9.2 lbs.	6.100"	6.600"

300 Series



WP308

This pump is an Hi-Flow version of our popular Big Block Ford pump. The output of 55 GPM will cool anything from street rods to 812ci. IHRA Pro Stock engines. The back plate is available for stock front cover installations but may not be necessary for some racing blocks and newer motor plates. **Different fitting required for this pump. See 'WN' series on page 56.**
55 GPM Standard



WP109S

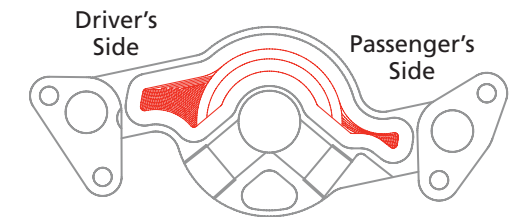
Application	Model #	Color	Weight (standard)	Depth (standard)
429-460 Back plate .19 thick	WP308 WP109	R,B,S,U,G R,B,S,U,G	7.4 lbs.	6.600"

Complete your pump with this back plate!



WP111S

WP111 is the most common pump body for small block Ford engines. It will bolt up to front covers from the very early 1964 style through 1993 and slightly beyond. It has been used as the heart of many cooling systems and can be coupled with one of several different back plates to complete your system right.



Note: Carefully compare this graphic with the graphic found on the next page to confirm which part number pump will mate correctly to your front cover.



1" NPT inlet required. See page 58.



BACK

Application	Pump Model	Color	Additional Option	Weight (standard)	Weight (HD)	Depth (standard)	Depth (HD)
SB Ford	WP111	R,B,S,U,G	HD	5.6 lbs.	6.6 lbs.	6.300"	6.800"

For the correct back plate

carefully check the chart below. We offer a variety of plates to mate with the WP111 pump. One of these back plates is used to cover the center chamber in a stock type front cover. The back plate will not be used if you are using a modern belt cam drive system. Choosing correctly will ensure easy installation.



WP112U



WP113B



WP123R

Application	Plate Model	Color	Thickness
221-289 early	WP112	R,B,S,U,G	.19"
Traditional 289 / 5.0	WP113	R,B,S,U,G	.19"
Cleveland	WP123	R,B,S,U,G	.19"

R=Red, B=Blue, S=Black, U=Polished, G=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example **WP100RHD** would be a **Water Pump, 100 series, Red color with Heavy Duty option.** See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.

Small Block Ford

Water Pumps • Ford & AMC

Electric and Mechanical for Small Block

Water Pumps • Ford

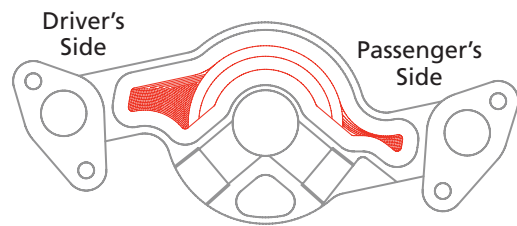
Small Block Ford High Flow and AMC

WP173 is the right choice if you have a later model front cover on your 5.0 or 351 engine. This is known as the 1994-1995 design and is also shared by Ford Motorsport front covers. In addition, this has been the design chosen universally for front covers purchased with belt cam drive systems.

35 GPM Standard
42 GPM Heavy Duty



WP173



WP174



Note: Carefully compare this graphic with the graphic found on the previous page to confirm which part number pump will mate correctly to your front cover.

If you are using a stock style front cover you will need the back plate to complete the system. If you have an aftermarket cam belt drive system, you will not need the back plate. This pump is suitable for all known belt drive systems including Danny-B, Yates, Jesel and Race Master.

Application	Pump Model	Color	Additional Option	Weight (standard)	Weight (HD)	Depth (standard)	Depth (HD)
'94-'95 Short SB Ford	WP173	R,B,S,U,☉	HD	5.6 lbs.	6.6 lbs.	6.100"	6.600"
Back plate .19 thick	WP174	R,B,S,U,☉	Complete your pump with this back plate!				



WP312

These pumps share the feature of 55 GPM flow. The WP312 has a freewheeling idler pulley making this pump fully street ready and a 5.0 lover's dream come true. The WP311 has all the same features without the pulley making it perfect for racing applications. **55 GPM Standard**

- Heater & bypass fittings included
- Driver & passenger side inlet ports

*Will not fit "short water pump" timing covers; '92 & up T-Bird, Cougar, Explorer, all '94 & '95 Mustangs, and early Lightning F-150's.



WP311



1 3/4" inlet fitting included

Application	Pump Model	Color	Weight (standard)	Depth (standard)
289*-351W, 5.0-5.8 to '93*	WP311 (No pulley)	R,B,S,U,☉	8.6 lbs.	6.00"
289*-351W, 5.0-5.8 to '93*	WP312 (pulley dia 4.48")	R,B,S,U,☉	10.2 lbs.	6.78"



WP374

373 & 374
Pumps designed and built for daily street use with provisions for the serpentine accessory drive belt.

1 3/4" inlet fitting included



WP373



Application	Pump Model	Color	Weight (standard)	Depth (standard)
SBF '94-'95, SBF '91-'95 (short)	WP373 (No pulley)	R,B,S,U,☉	5.3 lbs.	4.510"
SBF '94-'95, SBF '91-'95 (short)	WP374 (pulley dia 4.48")	R,B,S,U,☉	6.9 lbs.	4.750"



WP111



WP127



1" NPT inlet required. See page 58.

Treat your 360-401 AMC to an electric water pump. Save 11 rear wheel horsepower and get better low speed coolant flow.

35 GPM Standard
42 GPM Heavy Duty

Application	Pump Model	Color	Additional Option	Weight (standard)	Weight (HD)	Depth (standard)	Depth (HD)
AMC 360-401	WP111	R,B,S,U,☉	HD	5.6 lbs.	6.6 lbs.	6.300"	6.800"
Back Plate	WP127	R,B,S,U,☉	This plate is mandatory for all AMC electric pump conversions				

R=Red, B=Blue, S=Black, U=Polished, ☉=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example **WP100RHD** would be a **Water Pump**, **100** series, **Red** color with **Heavy Duty** option. See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.



WP411

Off road racing demands

more performance from a cooling system than any other form of motorsport. The WP411 was born from the need desert racers have to out flow other racing pumps in all RPM ranges. The WP411 does exactly that; more flow at low speeds and nearly double at high RPM.



Application	Pump Model	Color	Weight	Depth
Traditional Ford	WP411	Clear Ano	4.2 lbs.	6.25"
5.0 front cover (79-93 style)	WPR411 (reverse rotation)	Clear Ano	4.2 lbs.	6.25"

R=Red, B=Blue, S=Black, U=Polished, ☉=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example **WP100RHD** would be a **Water Pump**, **100** series, **Red** color with **Heavy Duty** option. See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.

Water Pumps • Ford Modular

Specifically for street driven and fully equipped race cars. Installation is nearly identical to the factory pump and can be completed in 2-3 hours. Aftermarket underdrive pulley sets may require a shorter serpentine belt.



WP345



WP346



WP347



WP346

55 GPM Standard
 • Frees over 11 rear wheel HP
 • Cooler running in traffic



WP348



WP349

Cobra Note: 2003-2004 Cobra engines will not accept our Modular pumps. There will be clearance issues.

Application	Pump Model	Color	Weight (standard)	Depth (standard)	Pulley (diameter)
Ford Modular w/o idler pulley	WP345	S,Ⓞ	5.0 lbs.	3.500"	N/A
Ford Modular w/stock size pulley	WP346	S	6.9 lbs.	3.750"	5.100"
Ford Modular w/undersized pulley for blower drive clearance	WP347	S	6.9 lbs.	3.750"	4.700"
Ford Modular w/oversized pulley for aftermarket drive systems.	WP348	S	6.9 lbs.	3.750"	5.500"
Ford Modular super duty	WP349	S	9.3 lbs.	5.000"	5.100"

Elegant solutions for the new Ford 5.0

Ford's new "Coyote" engine has really been an exciting addition to the list of high tech powerplants. We offer 5 pumps to finish off the job of building one of these performance newcomers. From normally aspirated with no accessories to a variety of supercharged options, we have been hard at work to make sure you can keep it cool!



WP342S

Application	Pump Model	Color	Weight (standard)	Depth (standard)	Pulley (diameter)
Ford Coyote no pulley	WP341	S	7.3 lbs.	5.200"	N/A
Ford Coyote w/stock size pulley	WP342	S	9.1 lbs.	5.540"	5.5"
Ford Coyote KBell reduced pulley	WP343	S	9.0 lbs.	5.540"	4.8"
Ford Coyote Supercharged Cobra Jet	WP340	S	9.1 lbs.	5.540"	4.8"

R=Red, B=Blue, S=Black, U=Polished, Ⓞ=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example **WP100RHD** would be a **Water Pump**, **100** series, **Red** color with **Heavy Duty** option. See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.

Water Pumps • Mopar 100 & 200 Series Big Block



WP105



WP106

Built as a low cost alternative to our WP106. The WP105 uses the stock Mopar water pump housing. This pump looks good and flows over 35 GPM. **Relocation of factory brackets may be required. Street engines over 450 HP use HD pumps.**

- Fits factory housing
- Installs in minutes
- Uses factory gaskets
- Street or strip

42 GPM Standard
45 GPM Heavy Duty

Application	Pump Model	Color	Additional Options	Weight (standard)	Weight (HD or 16)	Depth (standard)	Depth (HD or 16)
B/RB/Hemi 350-440	WP105	S,Ⓞ	HD	3.6 lbs.	4.6 lbs.	2.700"	3.200"

Tossing out your bulky factory water pump and switching to a Meziere pump will save space, horsepower, and remove about 10 lbs. from the front of your engine. See page 40 for AN line connection.

- Driver & passenger side inlet ports
- Temperature gauge adapters included
- Street or strip
- Plugs for both Driver and passenger sides
- Driver's side adapter for standard mechanical temp sender
- Adapter for 3/8 NPT electric sender



WP106

1" NPT inlet required. See page 58.



WPMTEMP Optional fitting to provide a driver's side temperature port

35 GPM Standard
42 GPM Heavy Duty

Application	Pump Model	Color	Additional Options	Weight (standard)	Weight (HD or 16)	Depth (standard)	Depth (HD or 16)
B/RB/Hemi 350-440	WP106	R,B,S,U,Ⓞ	HD	5.7 lbs.	6.7 lbs.	6.8"	7.3"

Developed to cure problems associated with low mounted or horizontal radiators, the 200 series pumps have a built-in expansion tank that serves as a fill point and air separator. Returning the pressure cap to the suction side of the system allows you to fill your dragster with the pump running and maintains the level by purging accumulated air before any water escapes. With a head of water above a self priming pump cavity, this design eliminates air locking and cavitation. See page 40 for AN line connection.



WP206



1" NPT inlet fitting required. See page 58.



-12 O-ring outlet adapter required. See page 60.

- Fills easily with the pump running
 - Self priming and no cavitation
 - Driver & passenger side inlet ports
 - Temperature gauge adapters included
- 35 GPM Standard**
42 GPM Heavy Duty

Application	Pump Model	Color	Additional Options	Weight (standard)	Weight (HD or 16)	Depth (standard)	Depth (HD or 16)
B/RB/Hemi 350-440	WP206	R,B,S,U,Ⓞ	HD	9.5 lbs.	10.5 lbs.	6.800"	7.300"

R=Red, B=Blue, S=Black, U=Polished, Ⓞ=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example **WP100RHD** would be a **Water Pump**, **100** series, **Red** color with **Heavy Duty** option. See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.

Water Pumps • Mopar

Big Block and Small Block

Water Pumps • Imports

Honda & Toyota

These high flow pumps keep extreme Mopars cool, a big hit with the high compression and supercharged crowd. We are proud to offer a true 55 GPM pump in the traditional Mopar configuration as well as a purpose built reverse flow 55 GPM pump. **Different fitting required for this pump. See 'WN' series on page 56.**



WP306B



WPMTEMP
Optional fitting to provide a driver's side temperature port



WP307R

See page 60 for AN line connection.

WP306 includes:

- Plugs for both driver and passenger sides
- Driver's side adapter for standard mechanical temp sender
- Adapter for 3/8 NPT electric sender

Application	Pump Model	Color	Weight	Depth	Flow Direction	Outlet Configuration
BB Mopar B/RB & Hemi	WP306	R,B,S,U,G	8.8 lbs.	7.25"	Standard	Std. Mopar
BB Mopar B/RB & Hemi	WP307	R,B,S,U,G	8.1 lbs	7.25"	Reverse	2X -12AN



WP114

This pump is at home making passes on the strip at Pomona or cruising the strip on Woodward Ave.

- Driver & passenger side inlet ports

Back plate will not fit late model cars with Magnum engines.



1" NPT Inlet required. See page 58.



WP115S

Application	Model #	Color	Additional Options	Weight (standard)	Weight (HD or 16)	Depth (standard)	Depth (HD or 16)
3.9 V-6 A273-360	WP114	R,B,S,U,G	HD	5.7 lbs.	6.7 lbs.	6.100"	6.600"
Back plate	WP115	R,B,S,U,G	SB Mopar Early				
Back plate	WP117	R,B,S,U,G	SB Mopar '91 - up				

The best solution for the new Mopar Hemi engine is the Meziere high flow pump. Step up the cooling system to world class performance and enjoy all of the benefits as well as the stunning good looks provided by our exceptional design team. Sold separately the back plate utilizes the factory molded gasket and provides excellent sealing. The inlet of the pump requires our WN style fittings found on Page 56.



WP315

1 1/2" fitting included



WP314

1 3/4" fitting included

Application	Model #	Back Plate	Color	Combined Weight	Combined Depth
5.7 and 6.1 Late Model Hemi	WP314	WP315	S,U	10.7 lbs.	6.75"

R=Red, B=Blue, S=Black, U=Polished, G=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example **WP100RHD** would be a **Water Pump**, **100** series, **Red** color with **Heavy Duty** option. See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.



Kit

Kit includes 2 fittings for 1 1/4" diameter hose

These kits replace the OEM timing belt driven water pump with an idler pulley and block off plate. The pumping is performed by a remote pump spliced into the lower radiator hose. A bracket is supplied to mount the pump to the transaxle.

Installation of the idler plate is identical to shop manual instructions for water pump replacement. The job requires advanced knowledge to complete. **20 GPM Standard**

Kit Includes:

- Pump - WP136
- Idler plate w/ O-ring
- Toggle switch and crimp connectors
- Pump mounting bracket
- Hose adapter fittings



19T



22T



26T

Our idler

assemblies are used as a block off for the factory mechanical water pump and to maintain timing belt tension.

The idlers shown above are for reference. 19T is in kit WPK50019, 22T in kit WPK50022 & 26T in kit WPK50026.

Note: The supplied bracket is designed for applications with manual transmissions. No bracket available for automatic transmission.

Application	Kit Model	Weight (standard)
1.6/1.7/1.8 Type R	WPK50022	8.6 lbs.
1.8/2.0/2.1	WPK50019	8.6 lbs.
2.2/2.3	WPK50026	8.6 lbs.

The Toyota Supra model is one of our Bolt-On electric water pumps. The idler pulley allows the use of the factory or aftermarket accessories. Installation is nearly identical to that of the factory water pump and advanced technical knowledge is necessary. The mechanically driven fan is eliminated and requires an electric fan be installed.

- Hard anodized finish
- Quick cool-down
- Frees over 10 horse power
- Improves low speed cooling
- Low amp draw

Factory gasket and hardware required
Requires minor modification of the timing cover

Note: for 2JZ-GE engines some modifications may be necessary

Application	Pump Model	Weight (standard)	Depth (standard)
'93-'98 Supra Turbo (2JZ)	WP520	5.6 lbs.	4.250"
'93-'98 Supra Turbo (2JZ - No Pulley)	WP521	4.1 lbs.	4.120"



WP521



35 GPM Standard



WP520

Remote Water Pumps

Mini Inline & Bulkhead

Remote Water Pumps

Hi-Flow Inline

Mini Inline



20 GPM Single or Dual Outlet

WP136

Designed for sport compacts, small engine applications and water to air intercoolers. The new dual outlet is well suited for alcohol powered drag cars. Many customers use it to replace existing inline pumps for increased reliability and performance. The pump may be small, but the quality and reliability is just what you have come to expect from Meziere.

Fittings shown are not included. See page 60.



-12 O-ring fittings



WP137

360° INLET



A pair of -12 O-ring boss outlet fittings required. See page 60.

Pump Model	Weight (standard)	Height (standard)
WP136	6.3 lbs.	7.250"
WP137	6.4 lbs.	7.250"

Our original remote makes a very clean installation when mounted to the back side of a V-8 motor plate. All the plumbing faces forward, with a single 1" NPT inlet and two -12 O-ring boss outlets. No water manifold is required. It also sits nicely into a fender well or out-of-the-way spot to provide more clearance in front of your engine. One 1" NPT inlet and two -12 outlets required. See pages 59-60. Mounting bracket included.

35 GPM Standard or 42 GPM Heavy Duty



WP116

The high flow version of our bulkhead mount remote pump combines the same mounting features with a larger impeller and ports. This pump moves 55 gallons per minute. The inlet connection is -20AN and requires one of our WN style fittings. The two exit ports accept -12AN fittings. See pages 56-60 for fitting options. Mounting bracket included.

55 GPM Heavy Duty



WP316



Pump Model	Color	Additional Options	Weight (standard)	Weight (HD or 16)	Depth (standard)	Depth (HD or 16)
WP116	R,B,S,U,☉	HD	5.4 lbs.	6.4 lbs.	5.000"	5.500"
WP316	R,B,S,U,☉		6.3 lbs.	n/a	5.500"	n/a

R=Red, B=Blue, S=Black, U=Polished, ☉=Chrome, N=Natural or clear anodize. HD=Heavy Duty. When ordering please choose part #, color, and any options you prefer. For example **WP100RHD** would be a **Water Pump**, **100** series, **Red** color with **Heavy Duty** option. See our 'Water Pump Buyer's Guide' on pages 26-27 for more details.

Hi-Flow Inline



WP336

"WN" style fittings are used for the inlet and the outlet.

Fittings shown are not included. See page 56-60.

- Smooth hose or AN line in and out
- Can be spliced into lower radiator hose

Our most versatile pump design to date, combining an inline configuration with a 55 GPM flow rate and interchangeable fittings. Inlet and outlet ports are O-ring boss AN thread.

55 GPM Standard



Rear mount tab shown for WP336 and WP337.

- 1.300 ID. inlet available
- Dual -16 outlet ports



WP337

"A pair of "WP16" fittings are required for outlet adapters.

Application	Pump Model	Weight (standard)	Depth (standard)	Inlet Port	Outlet Port
Single outlet	WP336	6.2 lbs.	5.200"	WN Style	WN Style
Dual outlet	WP337	6.2 lbs.	5.200"	WN Style	2X-16AN



WP365



WP366

Our new design allows you the option of adding a true thermostat circuit to assist the warm-up cycle. This has proven a great benefit for engines with aluminum blocks. These engines tend to be built with tighter clearances which require engine heat to avoid excessive wear. The pump can be configured with a wide variety of hose choices by selecting the appropriate fittings for inlet, outlet and bypass.

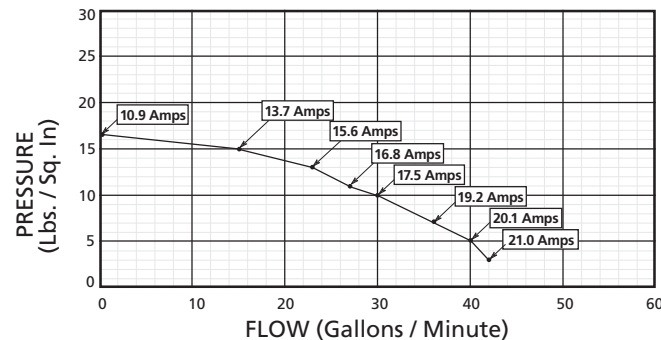
Pump Model	Color	Weight (standard)	Depth (standard)
WP365 (Single out)	S	7.5 lbs.	8.3" (w/o fittings)
WP366 (Double out)	S	7.5 lbs.	8.3" (w/o fittings)

w / Thermostat

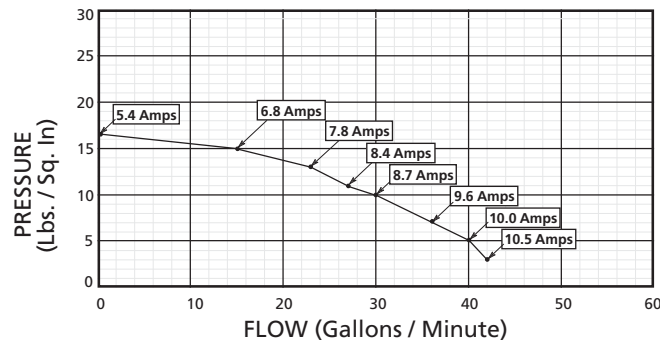
Our brushless 700 series intercooler pumps boast all-billet construction inside and out, and that's just the beginning. The high RPM brushless motor is extremely reliable and capable of higher flow rates and pressures than any of its competitors. In addition, take a look at these specs:

- Rated at 250 watts continuous duty, 400 watts peak power.
- Variable speed control capable. CAN capable models also available.
- Corrosion and water resistant. Alloy aluminum construction with anodized finish.
- Universal mount provision.
- Easily adaptable for varying hose configurations.
- Fittings available for hose and AN connections.
- Expected life exceeds 10,000 hours
- Designed for ethylene glycol / water coolant systems
- Sealed for operation in harsh environments
- Internal thermal protection
- Operating range: -40F to 230F

12V models handle a range of 10-20V
PUMP FLOW VS. PRESSURE @ 14VOLTS & 3200 RPM



24V models handle a range of 20-30V
PUMP FLOW VS. PRESSURE @ 28VOLTS & 3200 RPM



WP724
Brushless 12 volt electric pump for intercooler systems. Bulkhead remote design with both ports on the same side of the pump.

- 12 volt DC input (24 volt available as WP725)
- Compact design. 4.4" x 5.4" x 6.4"



WP726
Brushless 12 volt electric pump for intercooler systems. Inline remote design with ports opposed.

- 12 volt DC input (24 volt available as WP727)
- Compact design. 4.4" x 5.95" x 6.4"



WP728
Brushless 12 volt electric pump for intercooler systems. Tank mount design with exit port away from the tank.

- 12 volt DC input (24 volt available as WP729)
- Compact design. 4.4" x 5.4" x 6.13"

WP725
Brushless 24 volt electric pump for intercooler systems. Bulkhead remote design with both ports on the same side of the pump.

- 24 volt DC input (12 volt available as WP724)
- Compact design. 4.4" x 5.4" x 6.4"

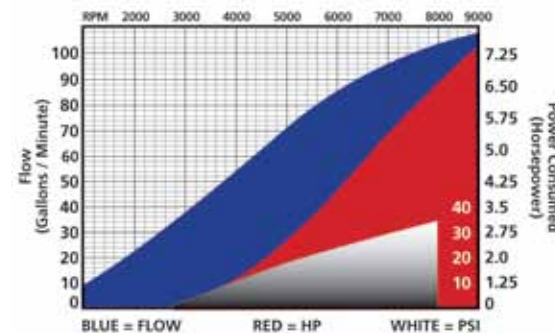
WP727
Brushless 24 volt electric pump for intercooler systems. Inline remote design with ports opposed.

- 24 volt DC input (12 volt available as WP726)
- Compact design. 4.4" x 5.95" x 6.4"

WP729
Brushless 24 volt electric pump for intercooler systems. Tank mount design with exit port away from the tank.

- 24 volt DC input (12 volt available as WP728)
- Compact design. 4.4" x 5.4" x 6.13"

WP430 and WPR430 Performance



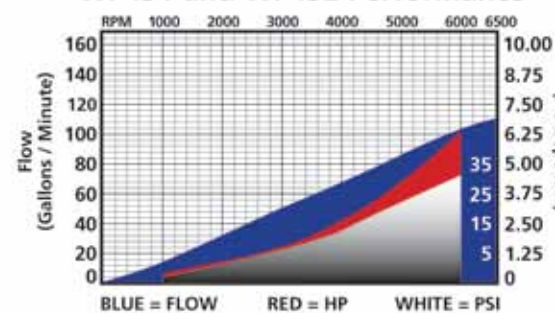
Where high pressure and flow of a mechanical pump is necessary, this problem solver mounts and drives like a dry sump oil pump. This configuration can reduce the overall length of an engine package. These pumps have been utilized in a wide range of vehicles including 24 hour endurance racers, street rods, Bonneville racers and V-8 motorcycles.

- All O-ring seals
- Variable inlet / outlet positioning in 45° increments
- 5/8" Keyed shaft

WP430 - Standard Rotation pump
WPR430 - Reverse Rotation pump

"WN" style fittings and 2 -12AN outlet fittings required. See page 56-60.

WP431 and WP432 Performance



This pump uses the 4" impeller found in our ultra successful off road pumps for engines such as the small block Ford. It has been used for land speed as well as for off road custom vehicles to deliver elevated block pressure and flow performance necessary for high demand engines. Call us with your challenging application and let us help out!

- High performance bearing and seal
- Flanged pulley mount for common drive systems
- Single in, double out configuration
- Accepts our "WN" series fittings

WP431 - Standard Rotation pump
WP432 - Reverse Rotation pump

"WN" style fittings for the inlet and outlets required. See page 56.

Standard, V-Belt rotation compared to Serpentine, Reverse rotation.



Standard V-Belt Rotation

VS



Serpentine Reverse Rotation

Remote Water Pumps

Radiator Mount and Thermostatic

Radiators

Racing and Street

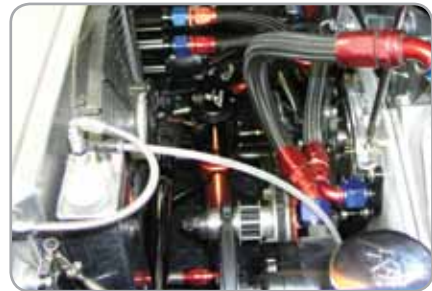
Dragster



WP139

Top Dragster Compact Cooling System Meziere Enterprises is proud to present our clean and compact, all-in-one cooling system for rear engine dragsters. It is designed to fit neatly behind the driver's seat. With one bolt-in unit you get an electric pump, expansion tank, recovery tank, and fill point. All you will need to do is plumb a #12 line from your radiator and a #12 supply to your engine. It is finished with black anodize and is backed by our 2 year warranty.

Application	Pump Model	Weight	Dimensions
Dragster	WP139	7.6 lbs.	16"H x 4.5"W x 6.7"D



Radiator mounted pump in action

Our aluminum radiators are built to the highest quality standards and have excellent heat dissipation characteristics. Our "off the shelf" standard part numbers cover a wide variety of racing and street performance applications.

- High quality furnace brazed cores
- Fan & shroud included (except Sportsman*)
- Interchangeable O-ring boss fittings
- Sacrificial anode (optional)



WC0110



WC012016



single return 1.25"
WC0310
(pump sold separately)



WC0210



dual #12 return
WC0311

Application	Pump Model	Weight (standard)	Dimensions
Scirocco	WC0110	12 lbs.	25"Wx13"Hx6"D
Sportsman (w/ fan & shroud)	WC012016	13 lbs.	25"Wx16"Hx6"D
Pro Stock single return	WC0310	12.5 lbs.	22"Wx14"Hx6"D
Pro Stock dual return	WC0311	12.5 lbs.	22"Wx14"Hx6"D
Dragster radiator	WC0210	13.2 lbs.	17.5"Wx22"Hx6"D

Radiator Mounted



WP361



WP362

Save even more space by mounting the pump directly into the radiator.

- Compact design
- Single or Dual outlet ports
- Can be fabricated into most aluminum radiators



WP3613



Helpful fittings available! See page 56-60 for our line of fittings to make your plumbing super clean.

Application	Pump Model	Flow Rate	Weight (standard)	Depth (standard)
Single outlet	WP161	20 GPM	6.4 lbs.	4.200"
Single outlet	WP361	55 GPM	6.2 lbs.	5.200"
Dual outlet	WP362	55 GPM	6.2 lbs.	5.200"

Radiators

Adapters

Waterneck



RFA125, RFA150, RFA175



RFA20AN

These adapters can help convert a radiator that is configured for our radiator mounted pump back to a conventional arrangement.

Application	Part #
1.25" Hose	RFA125
1.50" Hose	RFA150
1.75" Hose	RFA175
2.00" Female fitting	RF20AN

(WN style thread - fittings on page 56)

Weld-in Waterneck

The filler neck is one of the most critical machined parts in the cooling system. Our weld-in filler neck is the highest quality available for upgrading an existing radiator or fabricating a new radiator. The sealing surfaces are machined with 5° tapers for a positive seal.

Application	Housing #
Standard	WN0012
Flush Mount	WN0012W



WN0012 & WN0012W

Radiator Accessories

Adapters and Thermostats

Accessories & Fittings

Thermostats and WN Style

NEW!

SafeCap has been designed to address one issue that has plagued racers for decades. Standard caps often suffer damage that can result in the cap coming off at the most inopportune times. This new cap features a set of ramp rollers for smooth and secure fitment. The billet cap offers excellent integrity, fit and finish. The locking shell and clip ensure a failsafe, secure radiator cap that will easily withstand the rigors of motorsports.

- 100% Tested at assembly
- Available in 7, 16 and 25 Lb. Rates
- Available in 3 finishes
- Patent Pending



Natural



Black



Nickel



SAE Style			
Finish	7 lb	16 lb	25 lb
Natural	WCC303	WCC300	WCC306
Black	WCC304	WCC301	WCC307
Nickel	WCC305	WCC302	WCC308

GOZA Style	
Finish	16 lb
Natural	WCC309
Black	WCC310
Nickel	WCC311



GOZA Style Shell



LOGO



FIRE & DICE



FLAG



V8



RACING



FLAMES

Billet Radiator caps

add a little class to any cooling system. Features an easy grip profile to assist when installing or removing the cap.

Style	Description	Part #	Color
Logo	7 lb. cap	WCC00107	Chrome
Logo	16 lb. cap	WCC00116	Chrome
Racing	16 lb. cap	WCC00216	Chrome
Flames	16 lb. cap	WCC00316	Chrome
Fire & Dice	16 lb. cap	WCC00416	Chrome
Flag	16 lb. cap	WCC00516	Chrome
V8	16 lb. cap	WCC00616	Chrome

Inline thermostat housings can be a real problem solver. We offer a full line of components to get a thermostat into your upper radiator hose. Assembled length is 4" overall.



Part #	Description
WN0051	WN to 1 1/4"
WN0052	WN to 1 1/2"
WN0055	WN to 1 1/4" quick disconnect
WN0056	WN to 1 1/2" quick disconnect
WN0057	WN to 1 3/4" quick disconnect
WN0061	Weld-in to 1 1/4"
WN0062	Weld-in to 1 1/2"
WN0071	1 1/4" to 1 1/4"
WN0072	1 1/2" to 1 1/2"
WN0073	1 1/2" to 1 1/4"
WN0075	1" to 1"

Step 1:
Select the primary hookup.
-WN connection
-1 1/4" hose
-1 1/2" hose
Weld-in connection

Step 2:
Select the secondary hookup.
-1 1/4" hose
-1 1/2" hose

Step 3:
Select the thermostat rating.
-160 Degrees
-185 Degrees
-195 Degrees

Part # (cont.)	Description	Part # (cont.)	Description
WN0070160	160 Degree Tstat	WN0070180	180 Degree Tstat
WN0070170	170 Degree Tstat	WN0070195	195 Degree Tstat

NEW!

Increase flow and gain better control for your cooling systems.

The impetus for this specialty designed housing was provided by the extreme demands of desert racing. Thermostats, crucial to engine temperature regulation, need to respond quickly and effectively to changing race conditions. This is especially important considering the complex engine management systems employed and the unpredictable results created by these electronics when certain heat parameters are not met.

By incorporating tandem thermostats installed on the high pressure side of the system, this innovative design helps to stabilize temperatures through the entire range of conditions. It also serves as a failsafe in case a thermostat sticks. It is lightweight, includes a set of mounting holes and clearly marked for flow direction.



Part #	Description
WN0053	Dual Thermostat Housing

Inline Thermostats

Dual Thermostat Housing

WN Style fittings -20AN fittings used for thermostat housings and some 300 Series pumps.

Smooth Hose



Fits Hose Ø	Fitting Model	Projection Distance
3/4"	WN0034	1.9"
1"	WN0035	1.9"
1 1/4"	WN0031	2.05"
1 1/2"	WN0032	2.05"
1 3/4"	WN0033	2.05"

AN



Fits AN Size	Fitting Model	Projection Distance
-10	WN0042	1.15"
-12	WN0043	1.25"
-16	WN0040	1.37"
-20	WN0041	1.37"
-24	WN0044	1.37"

Extended



Application	Fitting Model	Projection Distance
1 3/4" Hose	WN2033	3.6"
2 1/4" Extension	WN2000	2.22"

WN Style fitting colors: When ordering please choose fitting model number then add the letter of the color you want that fitting to be: R=Red, B=Blue, S=Black, U=Polished, Ⓒ=Chrome. For example **WN0031R** would be a **WN0031** fitting in **Red**.



WN2090

When the space available simply will not allow a straight fitting you can still get the job done with our 90 degree outlet. It has a male WN thread on one side and a female o-ring thread on the other. It also comes with three shims of varying thickness to allow proper clocking.

Fitting Model
WN2090



WP1045B

This 45 degree adapter will help when the damper or ignition parts interfere with the normal outlet position. Thread size is one inch pipe male and female.

Fitting Model **Overall Length**
WP1045 **2.70"**



WP10F12

Inlet to make secondary low pressure connections simple. This adapter has a 1" NPT thread on one end and a -12AN female thread in the other. All colors available.

Fitting Model **Overall Length**
WP10F12 **2.20"**



Low Pressure Side Port for any of our WN style connections. Most commonly used to provide a low pressure port for heater plumbing. Has three -8AN side ports 120 degrees apart and is shipped with two plugs. Connection port sold separately.

Fitting Model
WN0047

Adapter colors: When ordering please choose fitting model number then add the letter of the color you want that fitting to be: R=Red, B=Blue, S=Black, U=Polished, Ⓒ=Chrome. For example **WP1125R** would be a **WP1125** fitting in **Red**.



The **WPP0088 fitting** will fit several, but not all of our mechanical pumps with 4" impeller. List of compatible pumps is the WP402, WPR402 and the WPR403.



WPP0088



WP16WE16S

WP16W16S

These are intended to go with the WP337 and WP362 pumps much like the standard and extended AN fittings WP16016 and WP16E16

Extended



Fits Hose Ø	Fitting Model	Overall Length
1 1/4"	WP2125	4.13"
1 3/4"	WP2175	4.13"
2" Extension	WP1000	3.25"



Spanner Wrench

An easy way to install your fittings.

Part #
WPA010

Standard 1" NPT pump fittings for use with most of our 100 Series pumps.

Smooth Hose



Fits Hose Ø	Fitting Model	Overall Length
1 1/4"	WP1125	3.13"
1 1/4"	WP1125STUB	1.99"
1 1/2"	WP1150	3.13"
1 3/4"	WP1175	3.13"



'STUB'

NPT fitting colors: When ordering please choose fitting model number then add the letter of the color you want that fitting to be: R=Red, B=Blue, S=Black, U=Polished, G=Chrome. For example WP1125R would be a WP1125 fitting in Red.

AN



Fits AN Size	Fitting Model	Overall Length
-12	WP1012	3.13"
-16	WP1016	3.13"
-20	WP1020	3.13"

AN adapter fittings for LS pumps. If you have one of our LS style pumps but want to go with AN plumbing, these fittings will help you make the top hose connection.

Part #	Connection Type
WPLS11716	-16AN
WPLS11720	-20AN
WPP0243	WN Fitting

Compatible pumps: WP319 and WP333. We also have a new outlet adaptor for these pumps WPP0243 (available in Black only)



WA Fittings: These adapters allow you to make a clean transition from braided steel to slip-on hose. Commonly used to connect AN hose fittings to stock style radiators without fabrication.



AN Side	Hose Side	1 1/4"	1 1/2"	1 3/4"
-12	WA12125	WA12150	WA12175	
-16	WA16125	WA16150	WA16175	

Fittings AN and Plugs

Thermostat Housings Chevy, Mopar and Ford

-16AN pump fittings used for WP337, radiator mount WP362 and radiator outlets.

*-16AN are available in Blue or Black. Just add 'B' (for blue) or 'S' (for black) at the end of the part number. For example: WP16100B

Smooth Hose



Application	Fitting Model
1"	WP16100*
1 1/4"	WP16125*

AN



Application	Fitting Model
-12	WP16012*
-16	WP16016*

EXTENDED



Application	Fitting Model
-12	WP16E12*
-16	WP16E16*

-12AN pump fittings used for WP136, WP116, WP316 and port adapters.

*-12AN are available in Blue or Black. Just add 'B' (for blue) or 'S' (for black) at the end of the part number. For example: WP12100B

Smooth Hose



App.	Fitting Model
1"	WP12100*
1 1/4"	WP12125*
1 1/2"	WP12150*
1 3/4"	WP12175*

Barbed Hose



App.	Fitting Model
5/8"	WP12058*
3/4"	WP12034*

AN



App.	Fitting Model
-08	WP12008*
-10	WP12010*
-12	WP12012*
-16	WP12016*

-08AN pump fittings used for expansion tanks, Chevy mechanical and some 300 Series pumps.

Barbed Hose



Application	Fitting Model
5/8"	WPM58
3/4"	WPM34

AN



Application	Fitting Model
-06	WPM06
-08	WPM08
-10	WPM10
-12	WPM12

-08AN fitting and plug colors:

When ordering please choose fitting or plug model number then add the letter of the color you want that fitting to be: R=Red, B=Blue, S=Black, U=Polished, G=Chrome. For example **WPM58R** would be a **WPM58** fitting in **Red**.

Application	Fitting Model
1/16" NPT	XRP-993201
1/8" NPT	XRP-993202
1/4" NPT	XRP-993203
3/8" NPT	XRP-993204
1/2" NPT	XRP-993205
3/4" NPT	XRP-993206
1" NPT*	WP1001*

*WP1001 is available in colors (Red, Blue, Black, Polished & Chrome).

Custom AN Plugs



Application	Fitting Model
-20	WN0045
-16	WP1600
-08	WPM900

NPT plugs



WN0021DR

Low profile & clean

is the perfect way to top off the manifold outlet on your Chevy engine. They complement and match your Meziere water pump.

- O-ring seal base
- Accepts thermostats
- Right or left outlets

Application	Housing #	Color	Height
1 1/4" Dr. Side	WN0021D	R,B,S,U,G	2.40"
1 1/4" Ps. Side	WN0021P	R,B,S,U,G	2.40"
1 1/2" Dr. Side	WN0022D	R,B,S,U,G	2.45"
1 1/2" Ps. Side	WN0022P	R,B,S,U,G	2.45"



WN0019B

For the LS-1

engine we offer two solutions, this is the billet alternative for the stock inlet housing. See below for our "straight out" design. Outlet size is 1.5"

Application	Housing #	Color	Height
GM LS-1	WN0019	R,B,S,U,G	2.70"



WN0020R

Swivel Neck

A versatile solution for upper radiator hose connections, this neck swivels 360 degrees yet seals securely and will accept a variety of "WN" fittings.

- Double O-ring swivel
- O-ring seal base
- Accepts thermostats

Application	Housing #	Color	Height
Chevy or BB Mopar	WN0020	R,B,S,U,G	3.45"

Fittings are required. See page 56.



WN0039S

WN0039

This is our "straight out" design to simplify some aftermarket applications. For our billet solution see above. **Will not work with factory OEM style thermostat.**

Application	Housing #	Color
GM LS-1	WN0039	R,B,S,U,G

Fittings are required. See page 56.



WN1022R

360° swivel design!

Swivels 360 degrees for easy hose alignment. Integral 1.5" outlet hose connection. O-ring seal, no gasket required.

Application	Housing #	Color	Height
SB & BB Chevy or BB Mopar	WN1022	R,B,S,U	2.80"



WN1019N

Made specifically to assist the installation of our mechanical WP419 pump for LS engines. Provides proper retention of the OEM style thermostat and accepts any of our WN style fittings to connect your lower hose.

Application	Housing #
GM LS-X	WN1019



WN0023

SB Ford Waterneck

This billet neck provides for the stock bypass hose and will accept a thermostat. A plug is also supplied for eliminating the bypass.

Application	Housing #	Color	Height
SB	WN0023	R,B,S,U,G	2.50"



WN1122B

360°swivel with side ports provides a quick and clean connection for auxiliary lines. Swivels 360° for easy hose alignment. Side ports #6AN o-ring boss both sides. Outlet size is 1.5"

Application	Housing #	Color	Height
SB & BB Chevy or BB Mopar	WN1122	R,B,S,U,G	2.80"

-16AN

-12AN

-08AN

Plugs

Thermostat Housings

Manifold Connections

Chevy, Mopar and Ford

Block Adapters / Spacers

Chevy, Mopar and Ford



WN0912R

AN Style manifold plates provide a simple connection for your braided hose.

Application	Housing #	Connection	Color
Chevy or BB Mopar	WN0912	-12AN	R,B,S,U,Ⓞ
Chevy or BB Mopar	WN0916	-16AN	R,B,S,U,Ⓞ
BB Ford	WN0812	-12AN	R,B,S,U,Ⓞ
BB Ford	WN0816	-16AN	R,B,S,U,Ⓞ



WN1912B

Complex connections made easy! This manifold plate features a #12AN upper hose connection and has two #6AN side ports necessary for auxiliary plumbing.

Application	Housing #	Color
Chevy or BB Mopar	WN1912	R,B,S,U



WN1916R

Higher flow applications can make use of this plate featuring #16AN upper hose connection and has two #6AN side ports.

Application	Housing #	Color
Chevy or BB Mopar	WN1916	R,B,S,U,Ⓞ



WN0029R

Mopar Style Accepts WN fittings from -10 thru -24 or from 1 1/4" to 1 3/4" Fittings are not included. Works with factory thermostat. See page 56.

Application	Housing #	Color
BBM	WN0029	R,B,S,U,Ⓞ
SBM	WN0030	R,B,S,U,Ⓞ



WN0007U

Manifold plate options. We also offer simple thermostat housing plates, blockoffs and NPT ported plates.

Application	Housing #	Color
Chevy or BB Mopar	WN0007	R,B,S,U,Ⓞ



WN0008R

Blockoff Cap with 3/4" NPT Internal thread. Fittings not included.

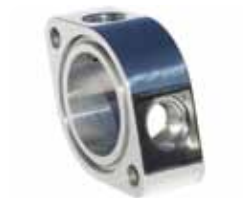
Application	Housing #	Color
Chevy or BB Mopar	WN0008	R,B,S,U,Ⓞ



WN0028B

Waterneck Spacer will fit under any Chevy or BB Mopar neck. It is 1" thick with two side ports which are tapped 3/8" NPT.

Description	Housing #	Color
Spacer with 2 3/8" NPT side ports	WN0028	R,B,S,U,Ⓞ



WN1028U

Waterneck Spacer same as our waterneck spacer to the left, but this one has two -8AN o-ring side ports.

Application	Housing #	Color
Spacer with 2 -8AN o-ring side ports	WN1028	R,B,S,U,Ⓞ

Female threaded block adapters

to complete systems that are using our radiator mounted or remote mounted pumps. They are sold in pairs, one each of driver and passenger side plates where applicable. Hardware included where applicable.



WP81R



WP84B

Application	Adapter Model	Color	Internal Thread Type	Recommended Fitting
Big Block Chevy	WP80	R,B,S,U,Ⓞ	3/4" NPT	WP6112 (2x)
Small Block Chevy	WP81	R,B,S,U,Ⓞ	3/4" NPT	WP6112 (2x)
DRCE - Olds Pro Stock	WP86	S,U	3/4" NPT	WP6112 (2x)
GM LS-1	WP89	U,Ⓞ	-12AN	WP12012 (4x)
Big Block Mopar	WP84	R,B,S,U,Ⓞ	-12AN	WP12012 (4x)

Male AN block plates

are the perfect way to make the connection to the front of the engine when using a remote or radiator mounted pump. They are sold in pairs and are delivered to you with the required O-rings and hardware.



WP8016ANR



WP8016ANS

Application	Adapter Model	Color	External Thread Type
Big Block Chevy	WP8012AN	R,B,S,U,Ⓞ	-12AN Male
Big Block Chevy	WP8016AN	R,B,S,U,Ⓞ	-16AN Male
Small Block Chevy	WP8112AN	R,B,S,U,Ⓞ	-12AN Male
Small Block Chevy	WP8116AN	R,B,S,U,Ⓞ	-16AN Male
DRCE - Olds Pro Stock	WP8612AN	R,B,S,U,Ⓞ	-12AN Male
DRCE - Olds Pro Stock	WP8616AN	R,B,S,U,Ⓞ	-16AN Male
Hemi	WP8716AN	S,U	-16AN Male

Late model Hemi adapters

allow you to connect a remote mounted pump. Five components are necessary and are sold individually. To complete the engine connection you'll need a back plate (pictured), pair of block adapters (pictured), WN Style fitting for the upper connection (see page 56) and two #16AN fittings (see page 60) for the lower connections.



WP315S



WP8716AN

Application	Description	Part#	Color	Hose Connection Thread Type
Late Model Hemi	Back Plate	WP315	R,B,S,U,Ⓞ	WN Style
Late Model Hemi	Block Adapters	WP8716AN	R,B,S,U,Ⓞ	-16AN



WPS111B



WPS173U

Our Ford spacers are CNC machined to provide a perfect seal surface. Use in belt drive applications to clear the cam bolt and drive belt. **Items sold per pair.**

Application	Model #	Color	Thickness	O-ring
BB Ford	WPS108-.50	R,B,S,U,Ⓞ	.5"	1 side
SB Ford 5.0 & Windsor	WPS111	R,B,S,U,Ⓞ	.9"	none
SB Ford '94-'95 & Belt Drive	WPS173	R,B,S,U,Ⓞ	.9"	1 side

R=Red, B=Blue, S=Black, U=Polished, Ⓞ=Chrome. When ordering please choose part # then color. For example **WN0014R** would be a **WN0014** housing in **Red**.

Block Adapters

Pump Spacers

Block Adapters / Spacers

Chevy, Mopar and Ford

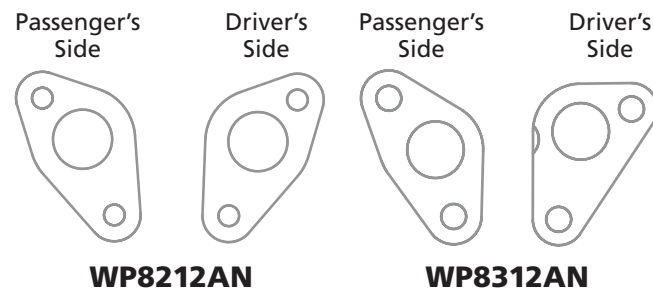
Cooling Accessories

Spacers and Manifolds

Our Ford adapters and Water Necks round out the accessories needed to keep your cooling system functional and beautiful. **Items sold per pair.**



Application	Adapter #	Color	Thread
Traditional 289 / 5.0 / Windsor	WP83	R,B,S,U,G	3/4" internal
Traditional 289 / 5.0 / Windsor	WP8312AN	R,B,S,U,G	-12AN external
'94-'95 Short Style	WP8212AN	R,B,S,U,G	-12AN external
'94-'95 Short Style	WP8216AN	R,B,S,U,G	-16AN external
BB Ford	WP8812AN	R,B,S,U,G	-12AN external
BB Ford	WP8816AN	R,B,S,U,G	-16AN external



Ordering your part in a specific color: When ordering please choose plate or adapter model number then add the letter of the color you want that part to be: R=Red, B=Blue, S=Black, U=Polished, G=Chrome. For example **WP83R** would be a **WP83** adapter in **Red**.

"Yates / Jessel / Danny B and similar belt drives require the late model '94-'95 spacers or block adapters."

Chevy spacers



Application	Model #	Color	Thickness	O-ring
BB Chevy	WPS100	R,B,S,U,G	.9"	2 sides
BB Chevy	WPS100-.500	R,B,S,U,G	.5"	none
BB Chevy	WPS100-1.500	R,B,S,U,G	1.5"	2 sides
BB Chevy	WPS100-1.750	R,B,S,U,G	1.75"	2 sides
SB Chevy	WPS101	R,B,S,U,G	.9"	none
SB Chevy	WPS101-.500	R,B,S,U,G	.5"	none
SB Chevy	WPS101-1.500	R,B,S,U,G	1.5"	none

Mopar spacers



Application	Model #	Color	Thickness	O-ring
SB Mopar	WPS114	R,B,S,U,G	2.25"	none
BB Mopar	WPS106	R,B,S,U,G	.9"	none

GM spacers



Application	Model #	Color	Thickness	O-ring
DRCE	WPS110	R,B,S,U,G	.9"	2 sides
DRCE	WPS110-.500	R,B,S,U,G	.5"	2 sides
DRCE	WPS110-1.500	R,B,S,U,G	1.5"	2 sides

LS spacers



Application	Model #	Color	Thickness	O-ring
LS1 thru LS9	WPS119-1.75	U,S	1.75"	none
LS1 thru LS9	WPS119-.465	U,S	0.465"	none



Swivel Block Adapters. If you have an engine bay with tight quarters, here's a great way to get the water to the engine ports and keep the lines tight to the block. These two-piece adapters not only look great, they swivel 360 degrees, have a double o-ring seal and are anodized for a great finish. Mounting hardware is also included. You can use any of our -12AN o-ring fittings found on page 60 to finish the connections.

Application	Part Number	Color	Height	Block seal type
Big Block Chevy	WP8092S	S	2.3"	-130 o-ring (included)
LSx	WP8992S	S	2.3"	Gasket (included)

R=Red, B=Blue, S=Black, U=Polished, G=Chrome. When ordering please choose part # then color. For example **WP8312ANB** would be a **WP8312AN** adapter in **Blue**.



Y-manifold Another problem solver we offer is our O-ring boss port Y-manifold. This part accepts fittings to connect AN lines from -08 to -20 or hose from 5/8" to 1 3/4". Part is available with or without #6 ports on the back.

There are 2 ports to accept -12AN O-ring fittings and one port to accept a WN style fitting.

Manifold #	Color
WAM12AN	R,B,S,U
WAM12ANP	R,B,S,U

Use "WN" style fittings and -12 "WP" fittings. See page 56-60.



Manifold #	Color
WAM10020	R,B,S,U

Water manifold

This clean billet manifold gets a single source distributed to both banks of your Big Block Chevy. The mating surface is grooved for a positive o-ring seal and it is designed to accept -20AN fittings. Available in chrome or polished finish.

A highly effective and lightweight solution for connecting four input sources to one outlet source is this four into one water manifold. They are aluminum, CNC machined and ready to connect in a variety of configurations.

Part #	Description	Inlet	Outlet
WAM401	4 to 1 adapter	-12AN	1.5" hose
WAM402	4 to 1 adapter	3/4 Wiggins	1.5" hose



WAM401



WR100R

Recovery Tank

Reduce aeration and maintain pressure. Designed to catch overflow liquid and purge air out of your system during heat cycles.

- 1/8" NPT ports
- O-Ring seal cap



WE100

Expansion Tank

The most effective method to complete your cooling system that requires a remote fill and expansion area. Ensures leak-free operation. Accepts any standard radiator cap.

- -08 O-ring boss outlet
- 2 - 1/4" NPT inlets
- CNC waterneck

Capacity	Housing #	Color	Dimensions
22 oz.	WR100	R,B,S,U,G	10"H x 2"W x 3"D

For more tank information see page 81.

Capacity	Housing #	Color	Dimensions
22 oz.	WE100	R,B,S,U,G	10"H x 2"W x 3"D



MSP0010

This fuel pump blockoff will

prove itself a reliable solution. A clean and effective solution, this plate incorporates an o-ring groove designed to "grip" the o-ring and comes with stainless fasteners.

Description	Part #
Fits Chevrolet blocks	MSP0010

One more item to make your engine project easier to complete, this mount is made to bolt to traditional big block Chevrolet heads and mount you ignition coil. They come in black with clear anodized spacers and hardware.

Part #	Fits Coil#	Fits Cylinder Head
MSP0038	8261	BB Chevy
MSP0039	8201	BB Chevy



MSP0038

MSP0039

The uses are numerous for our new line of compact, yet powerful positive displacement priming pumps. We have two versions to offer. One is our On Board version, intended to remain with the vehicle and to be hard wired as an on-demand priming or auxiliary pump. The other is our Hand Held version featuring 18 Volt standard cordless tool power and mobile design for quick connect and trigger activation.



Benefits include:

- Can provide up to 25 PSI of pressure
- Car mounted version for on-demand convenience.
- Remote version for weight-conscious users.

Features include:

- 12 Volt DC motor rated at 70 Watts
- Robust Viton® seal design
- Gerotor pump head design for quiet, smooth operation.
- Inlet filtration incorporated.
- 06AN connections both inlet and outlet

Typical applications include:

- Pre-lube for gear sets
- Pre-lube for engines before startup
- Low pressure assistance for engines
- Post-lube for turbos
- Supplemental gearbox fluid circulation

Compatible with most:

- Engine oils
- ATF
- Light hydraulic oils

Part #	Description
PD100	Oil priming pump, on board
PD101	Oil priming pump, remote



WTO100

Transmission Overflow Tank

Our unique design offers all of the best options for a clean and effective transmission overflow tank. Each end has two 1/8NPT ports for hose connection, venting and drain. The 3" diameter body can be easily mounted by using a standard bottle clamp or by using the supplied bracket. The versatile and lightweight bracket is designed to fit on any of the four transmission pan rails (back, front or sides). This gem weights in at a trim 1.25 lbs.

Tank #	Color	Capacity	Weight
WTO100	S,G	25 oz.	1.25lbs



Transmission Cooling Billet Heat Exchange System

Motor Plates Front Mount

Revolutionary cooling for your Transmission

Our next step in product development has been to address the problem of excessive transmission heat. By applying what we have learned by our extensive knowledge of cooling systems, we have created a new method of cooling transmission fluid as well as preheating it to a suitable level before each run. This new deep transmission pan for powerglide transmissions acts as a fluid temperature stabilizer and offers more consistent temperature for more consistent runs. Our testing data shows that the warmup cycle of the engine raised the transmission to within 15 degrees of engine temperature. That is, when exiting the staging lanes with an engine temperature of 165°F, the observed transmission temperature was 150°F. Likewise, on the cooldown cycle our data showed that the transmission fluid would drop temperature within 10 degrees of the engine. That is, the observed engine temperature at the end of the run was 205°F and the transmission was 215°F. The transmission quickly dropped to within 5 degrees of engine temp and followed the coolant temp all the way to 150°F.

- Fully Machined Pan Rail
- Fully Machined Heat Exchange
- Billet 6061 Aluminum



WTP310



-6 AN inlet / outlet on pan



O-ring groove in fully machined pan rail



WP155



Close-up of pressure port

Transmission-ready Water Pumps

Application	Pump Model	Color	Options
Chevy BBC Standard	WT100	R,B,S,U,Ⓞ	HD
Chevy BBC Reservoir	WP200	R,B,S,U,Ⓞ	HD
Chevy BBC High Flow	WT300	R,B,S,U,Ⓞ	

Description

Powerglide Trans Pan with Heat Transfer Passage
Water pump center section with high pressure port
Water pump center section with high pressure port
Replacement o-ring seal

Part

WTP310
WP155
WP355
WPG300

Additional information

Comes with filter spacer
To connect trans pan fits most 100 series pumps
To connect trans pan fits most 300 series pumps
Pan rail o-ring



WT300

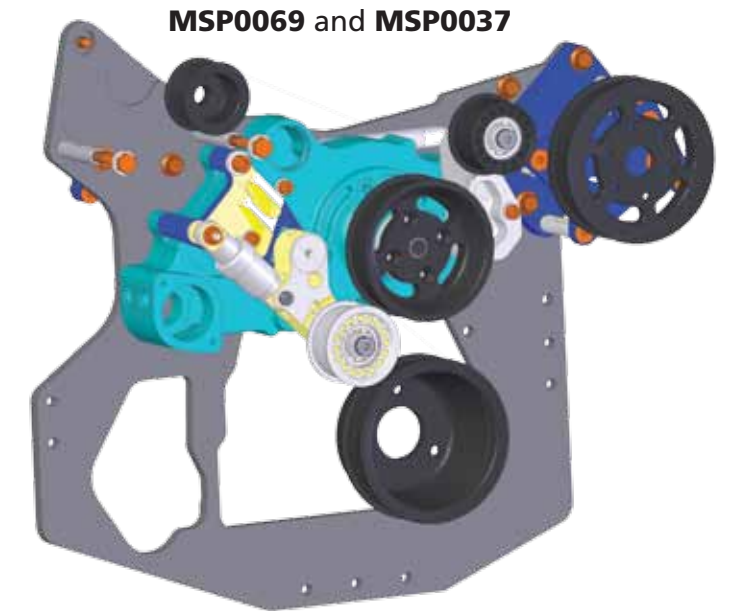
Off-Road LS Front Plate Kit

This is a clean and complete way to mount the front of your LS project and incorporate the best performance products available. The kit includes a high volume, high pressure WP419 mechanical water pump and has all the brackets and hardware to get you started in the right direction. Add your Howe® power steering pump and Mitsubishi alternator part #A3TG1581*. The kit also has a provision for the Dailey® external oil pump.

MSP0037 - Front Motor Plate .50" Thick

MSP0069 Accessory Kit Includes:

- WP419MNP Mechanical Water Pump
- MSP0043 Pulley
- MSP0076 Power Steering Mount Assembly
- MSP0021 Howe Bracket, Front
- MSP0022 Howe Bracket, Rear
- MSP0023 Howe Bracket Standoff (4)
- Also includes hardware
- MSP0093 Alternator Mount Assembly
- MSP0046 Alternator Stand Off (2)
- Also includes hardware
- MSP0070 Complete Plate Hardware Kit
- MSP0025 Front Plate Support
- MSP0043 Passenger side Head Brace
- WPO-123 O-Ring -123
- WPO-125 O-Ring -125
- Also includes hardware
- MSP0072 Fixed Idler Assembly
- MSP0047 Fixed Idler Bracket
- MSP0094 Idler Pulley, Modified
- Also includes hardware
- MSP0073 Tensioner Assembly
- MSP0002 Tensioner Swing Arm
- MSP0015 Idler Bushing
- MSP0016 Idler Fixed Bushing
- MSP0017 Tensioner Arm Stud
- MSP0049 Tensioner Lock Plate
- MSP0071 Tensioner Shock
- MSP0028 Shock Tensioner Stud
- MSP0013 Tensioner Fixed Bracket
- MSP0032 Tensioner Pulley Assembly
- Also includes hardware
- MSP0075 Pulley Set
- MSP0019 Crank Pulley
- MSP0001 Alternator Pulley
- MSP0030 Power Steering Pulley



MSP0069 and MSP0037



MSP0037



WP419MNP



MSP0073



MSP0075



MSP0072

* Fits 2005-2006 Pontiac GTO 6.0L
Produces 240 amps

Mid Plate and Weld-in Cap & Bung and AN

Weld-in and Clamps AN & NPT and Bottle and Tube

Mid Mount Motor Plate

Assemblies

Female AN

Male AN

NPT

Bottle Clamps

Off Road Mid Plates

This is just one more creation to come out of our love for all types of motorsports. These midplates have been employed in the construction of several off-road project vehicles. The racey design has several features you will want when battling the challenges of the desert or the short course, including a mount provision for a spare starter. The main mounting holes are bushed with a cone feature for easy alignment and excellent strength. Hardware sold separately

Features:

- .75" thick 6061 aluminum plate.
- CNC milled and lightened.
- .50" thick between engine and transmission.
- Stainless inserts pressed into the plate at frame mount holes for greater strength and durability.
- Conical shaped frame and motor plate inserts ease assembly alignment and increase rigidity
- Removable plate provides access to torque converter bolts
- Secondary starter mount provision. (See page 17 for starter options)

Part Number	Description
MSP0063	Midplate, Chevy engine to Chevy transmission
MSP0091	Midplate, SB Ford engine to Chevy transmission
MSP0064	Midplate Cone
MSP0065	Midplate Washer
MSP0066	Weld-in Inserts for Frame



These Male AN adapters are machined to register easily and seal perfectly. The high quality finish makes welding easy.

Size	Thread Size	Aluminum	Steel	Stainless Steel
-06	9/16" - 18	WF06MA	WF06MS	WF06MN
-08	3/4" - 16	WF08MA	WF08MS	WF08MN
-10	7/8" - 14	WF10MA	WF10MS	WF10MN
-12	1 1/16" - 12	WF12MA	WF12MS	WF12MN
-16	1 5/16" - 12	WF16MA	n/a	n/a
-20	1 5/8" - 12	WF20MA	n/a	n/a
-24	1 7/8" - 12	WF24MA	n/a	n/a



NPT fittings continue to expand our line, and we now offer these bungs for NPT weld in bosses. These parts are cut from billet for superior integrity.

Size	Aluminum	Steel	Stainless Steel
1/8"	WF18PFA	n/a	n/a
1/4"	WF14PFA	n/a	n/a
3/8"	WF38PFA	WF38PFS	WF38PFN
1/2"	WF12PFA	WF12PFS	n/a
3/4"	WF34PFA	WF34PFS	WF34PFN
1"	WF10PFA	WF10PFS	n/a
1 1/2"	WF112PFA	n/a	n/a



Cap and Bung assemblies are sold as shown with an aluminum cap and your choice of steel or aluminum bung. These assemblies are commonly used on valve covers, oil pans, differentials, and fuel tanks.

Size	Aluminum	Steel	Stainless Steel	Thread
1.75"	PN6550	PN6551	PN6552	1.312" - 12
2.5"	PN6500	PN6501	n/a	2.500" - 16
2.5" Pro	PN6700	PN6701	n/a	2.250" - 6
2.5" Pro	PN6710	PN6711	n/a	2.250" - 6
2.5" Pro	PN6720	PN6721	n/a	2.250" - 6
2.5" Pro	PN6730	PN6731	n/a	2.250" - 6



Big Bad Billet Bottle Clamps

We are proud to introduce a line of bottle clamps for use across a wide variety of racing applications. It is a full line of billet aluminum clamps designed so beautifully and efficiently they will satisfy the most demanding customers. We offer clamps for bottles ranging from 2" to 5.25" in diameter. If you require a simple and clean way to affix the clamp to a bar we offer bar clamp accessory packages for a variety of bar diameters as well.

Part #	Description
BC0100	Tube clamp set - 1.00 tube, cap, clamp and hardware
BC0125	Tube clamp set - 1.25 tube, cap, clamp and hardware
BC0137	Tube clamp set - 1.37 tube, cap, clamp and hardware
BC0150	Tube clamp set - 1.50 tube, cap, clamp and hardware
BC0162	Tube clamp set - 1.62 tube, cap, clamp and hardware
BC3200	Bottle Clamp - 2.00 diameter with hardware
BC3300	Bottle Clamp - 3.00 diameter with hardware
BC3400	Bottle Clamp - 4.00 diameter with hardware
BC3437	Bottle Clamp - 4.37 diameter with hardware
BC3450	Bottle Clamp - 4.50 diameter with hardware
BC3525	Bottle Clamp - 5.25 diameter with hardware

NEW!



Bottle Clamps



Tube Clamps



These Female AN are the next evolution of our bungs for SAE O-ring boss. Features include a low profile and a thick weld land to reduce warp. They offer a more positive seal than pipe thread.

Size	Thread Size	Aluminum	Steel	Stainless Steel
-06	9/16" - 18	WF06FA	WF06FS	WF06FN
-08	3/4" - 16	WF08FA	WF08FS	WF08FN
-10	7/8" - 14	WF10FA	WF10FS	WF10FN
-12	1 1/16" - 12	WF12FA	WF12FS	WF12FN
-16	1 5/16" - 12	WF16FA	n/a	n/a
-20	1 5/8" - 12	WF20FA	n/a	n/a
-32	2 1/2" - 12	WF32FA	n/a	n/a

Fabrication Assistance

Ends, Adapters, Bushings & Clevises

Fabrication Assistance

Clevises and Safety Washers

Housing Ends

Our Housing Ends are made from premium tubing, unlike many on the market that are cast or flame cut from plate steel. Precision CNC machining from top quality material provides the best fit and allows for hotter, stronger welds resulting in a safer, more reliable finished product.

Application	Part #
Olds/Pontiac	HE10
Olds/Pontiac (tapped & scalloped)	HE50
Large Ford	HE20
Large Ford (symmetrical)	HE60
Small Ford	HE30
Mopar	HE40



Rack & Pinion

Designed for Mustang II and Pinto style non-power rack and pinion steering boxes. Part # RP01 will slide over a 3/4" shaft and the part # RP02 slips into 3/4" I.D. tubing. Made from 4130 alloy.

Application	Part #
26 spline 3/4" I.D.	RP01
26 spline 3/4" O.D.	RP02



4130 alloy

Mis-alignment Bushings

Our line of chassis components now includes mis-alignment bushings made from 4130 alloy steel. They provide a safer means of mounting a spherical rod end with a high angle of incidence.

HEIM Size	Bolt Size	Part #
5/8"	1/2"	MB6250
3/4"	1/2"	MB7550
3/4"	5/8"	MB7562
7/8"	5/8"	MB8762
1"	3/4"	MB1075



Contour Clevises



Application	Tube Size	Bolt Size	Slot Width	Part #
Inline	1 1/4"	3/8"	3/4"	CC123775I
Perpendicular	1 1/4"	3/8"	3/4"	CC123775P
Inline	1 1/2"	3/8"	3/4"	CC153775I
Perpendicular	1 1/2"	3/8"	3/4"	CC153775P
Inline	1 5/8"	3/8"	3/4"	CC163775I
Perpendicular	1 5/8"	3/8"	3/4"	CC163775P

Inline and Perpendicular

Weld-in Clevises

	3/16" Bolt	1/4" Bolt	5/16" Bolt	3/8" Bolt		1/2" Bolt
Slot Width	1/8"		3/16"		1/4"	5/16"
5/16 x .058	CE51					
3/8 x .058	CE38					
1/2 x .058		CE12				
5/8 x .058			CE58			
3/4 x .058			CE34	CE35		
	7/8 x .058			CE78		
	1 x .058			CE10	CE11	CE15
		1-1/8 x .058		CE17	CE14	
		1-1/8 x .083			CE13	
			1-1/4 x .058		CE16	
			1-1/2 x .120			CE21



Our line of 4130 alloy **weld-in clevises** are another useful machined product for the professional or amateur fabricator. They are available for a variety of tube sizes, wall thicknesses and cross bolt sizes. They are finished with the quality and care that is a part of every one of our products. Typical applications include: wheelie bars, wing struts or supports, seat mounts, battery mounts, parachute mounts, and many other mounting needs.

Threaded Clevises



Left Hand	Right Hand	Thread Size	Bolt Size	Slot Size	
TC1032L	TC1032	10-32	3/16	1/8	303 Stainless
TC1428L	TC1428	1/4-28	3/16	1/8	
TC3824L	TC3824	3/8-24	5/16	3/16	4130 Alloy
TC1220L	TC1220	1/2-20	3/8	1/4	

• zinc plated (zinc plating on 3/8 and 1/2 only) • rolled threads

Our large **threaded clevises** are made durable with 4130 alloy. We roll the threads for a stronger and better fit. The small clevises are made from stainless steel with a rounded slot base for additional strength. These parts make fabrication easy.

Safety Washers



Bolt Size	Alloy	Stainless	Aluminum
#10	SW10A	SW10S	SW10L
1/4	SW14A	SW14S	SW14L
5/16	SW51A	SW51S	SW51L
3/8	SW38A	SW38S	SW38L
7/16	SW71A	SW71S	SW71L
1/2	SW12A	SW12S	SW12L
5/8	SW58A	SW58S	SW58L
3/4	SW34A	SW34S	SW34L

These **safety washers** are mandated by some sanctioning bodies such as SCCA and SCTA to retain spherical rod ends in the event of a failure. Although designed as a safety measure, the added range of motion they provide makes them ideal for many applications like linkages or bump steer adjusters.

Fabrication Assistance

4130 Alloy Threaded Tube Ends

Fabrication Assistance

Chassis Tabs

Threaded Tube Ends

Tube Size	Thread Size											
	10-32	1/4-28	5/16-24	3/8-24	7/16-20	1/2-20	5/8-18	3/4-16	7/8-14	1"-12	1"-14	1-1/4"-12
3/8 x .058	RE1009AAA											
1/2 x .058		RE1010AA	RE1010A									
5/8 x .058			RE1011A	RE1011B								
3/4 x .058			RE1012A	RE1012B	RE1012C							
3/4 x .065			RE1013A	RE1013B	RE1013C							
7/8 x .058				RE1014B	RE1014C	RE1014D						
7/8 x .065				RE1015B	RE1015C	RE1015D						
7/8 x .083				RE1016B	RE1016C	RE1016D						
1" x .058				RE1017B	RE1017C	RE1017D	RE1017E					
1" x .065				RE1018B	RE1018C	RE1018D	RE1018E					
1" x .083				RE1019B	RE1019C	RE1019D	RE1019E					
1" x .095				RE1020B	RE1020C	RE1020D	RE1020E					
1-1/8 x .058						RE1125D	RE1125E	RE1125F (RT ONLY)				
1-1/8 x .065						RE1126D	RE1126E					
1-1/8 x .083						RE1021D	RE1021E	RE1021F				
1-1/8 x .095						RE1022D	RE1022E	RE1022F				
1-1/4 x .058						RE1124D*	RE1124E*	RE1124F*				
1-1/4 x .065						RE1023 (RT ONLY)	RE1023E*	RE1023F*				
1-1/4 x .083												
1-1/4 x .095						RE1024D*	RE1024E*	RE1024F*				
1-1/4 x .120						RE1025D*	RE1025E*	RE1025F*				
1-3/8 x .095							RE1026E*	RE1026F*	RE1026G*			
1-3/8 x .120								RE1028F*	RE1028G*			
1-1/2 x .065						RE1032E*						
1-1/2 x .120								RE1030F*	RE1030G*	RE1030H*	RE1030H14 (RT ONLY)	
1-5/8 x .083								RE1034F*	RE1034G*			
1-5/8 x .120								RE1035F*	RE1035G*			
1-3/4 x .120								RE1036F*		RE1036H*		RE1036J*



Our Threaded Tube Ends have been the choice of the nation's top chassis builders for years. The strength, consistency, and finish quality are unmatched.

(*) Indicates hex on left hand threaded parts.
 = Right Only

IMPORTANT! For left hand threads add an 'L' to the end of the part number. (Example: RE1017DL)



Shown in use with front A-arm suspension.



Shown in use with 4 link rear suspension.

Bent Tabs

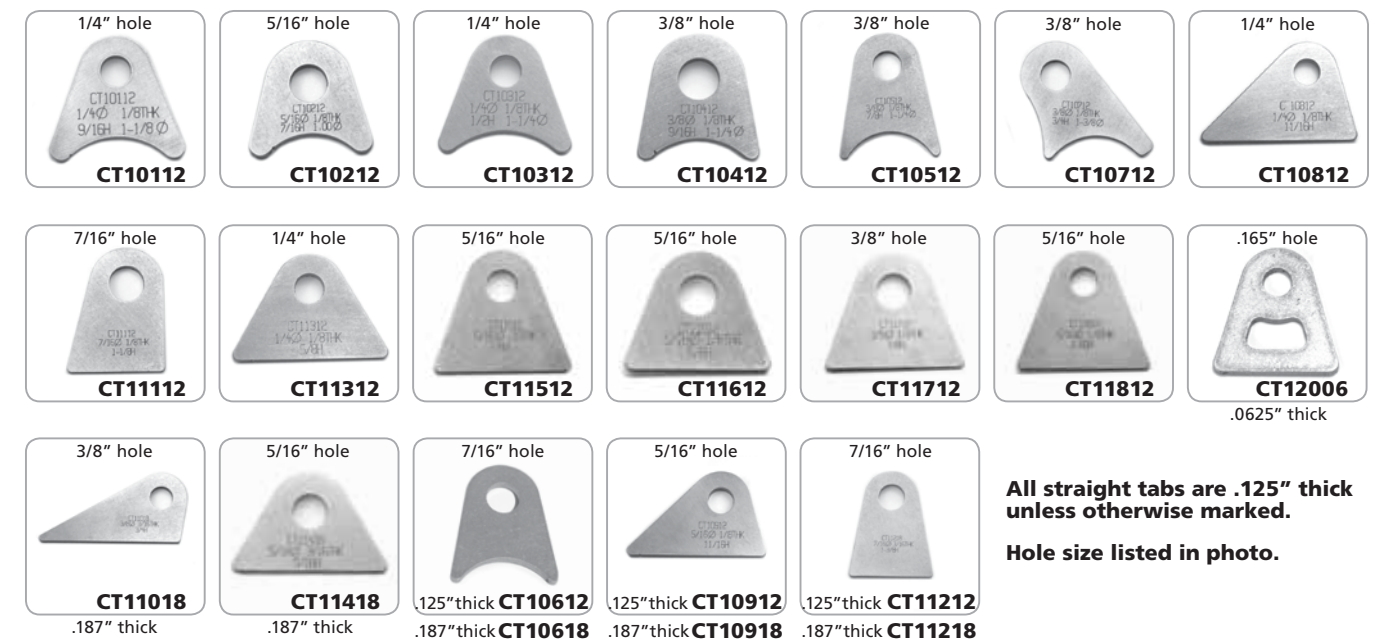
Chassis builders note: If you have a need for a particular tab for your application please call us. Our manufacturing is done in-house and we can respond quickly to your needs.

Bent tabs provide a stronger platform to build from. The integral gusset provides extra stability. **All bent tabs are .125" thick.**



Made from 4130 and cut not "punched" to size. This makes these tabs stronger and perfect every time.

Flat Tabs



All straight tabs are .125" thick unless otherwise marked.
Hole size listed in photo.

Remote Pump Mount



WP85

This bracket is designed to mount any of our electric remote pumps. It is 4130 material and is .090 thick with two bent flanges for better strength and rigidity.

Part #
WP85

T-shirts and Hoodies

Meziere logo on left chest and custom graphic on back.



Door Cars

	T-shirts (black)	Hoodies
Size	Part #	Part #
XXXL	RA738	n/a
XXL	RA737	RA837
XL	RA736	RA836
LG	RA735	RA835
MED	RA734	RA834
SML	RA733	n/a



Components

	T-shirts (black)	T-shirts (grey)	Hoodies
Size	Part #	Part #	Part #
XXXL	RA708	RA714	n/a
XXL	RA707	RA713	RA817
XL	RA706	RA712	RA816
LG	RA705	RA711	RA815
MED	RA704	RA710	RA814
SML	RA703	RA709	n/a



Dragsters

	T-shirts (black)	Hoodies
Size	Part #	Part #
XXXL	RA728	n/a
XXL	RA727	RA827
XL	RA726	RA826
LG	RA725	RA825
MED	RA724	RA824
SML	RA723	n/a



Part #
RA800

High end headwear! Whether you're at Pomona or Bonneville this will keep the sun off your noggin in style.

Cooling System Principles

All the best aftermarket parts used the wrong way can be less effective than the factory system. In the search for cooling knowledge, it is found that the topic of cooling systems is left out of most books on automotive high-performance. The next few paragraphs will give you a better understanding of how to properly design a cooling system for your vehicle. The following information comes from well known engine builders and our personal experience.

Engine Tune

Engine tune can be one of the greatest factors in water and oil temperature. A lean mixture (air/fuel) and/or retarded timing situation will make heat quickly. Lean mixtures burn hot causing detonation and pre-ignition. Retarded timing makes the engine labor to compress the air/fuel mixture. The engine fires well after TDC at a reduced compression ratio. Exhaust valve timing or exhaust restriction will hold heat in the engine raising water temperature. These conditions also affect oil temperature through the cylinder heads and pistons.

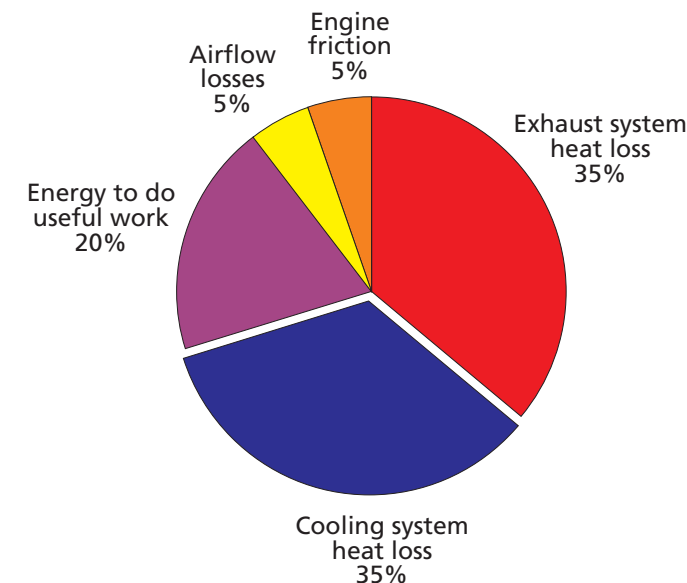
The Big Five

With the engine tune problems eliminated it comes down to five major factors. They are:

1. Heat production (BTUs / HP)
2. Radiator Capacity (heat dissipation)
3. Air Flow
4. Water Flow
5. Pump & System Pressure

BTUs

Using a little science and math you can convert your horsepower to BTUs (heat). A horsepower/min. is equal to 42.44 BTU. One third of that heat goes into the water and must be dissipated by the radiator. When calculating radiator capacity you only need to consider the horsepower you're using continuously, not the amount your engine is capable of producing. For example, a 500 hp stock car will need much more cooling capacity than a 850 hp dragster. The stock car's engine RPM will cycle above and below peak horsepower twice a lap, heat soaking the cooling system with 180,000 BTU in a ten-minute event. The dragster, in one round, might idle less than ten minutes and make an 8 second run at a 750 horsepower average. Running 10 seconds at full throttle the dragster would release about 6,000 BTU. In the case of the dragster, the system must be adequate enough to prevent detonation under power and maintain temperature at idle.



Heat Dissipation

Radiator capacity, in this case, refers to the amount of heat it can dissipate; not the amount of coolant it holds. Due to the various designs and materials used in radiators today, you cannot judge them on size alone. In the past, all radiators were made from copper and brass. Copper was the obvious choice for the cooling fins because of its superior heat dissipation. The problem was that the solder used to join the two materials reduced the amount of heat that could be transferred to the copper. In the last ten or fifteen years aluminum has become the material of choice for racing and original equipment radiators. The major design changes have been the switch from 1/2 - 3/4 inch wide tubes to 1" - 1 1/2" wide tubes and the use of double pass tanks. The wider tubes have more surface area and therefore more heat dissipation. Dual pass designs force the water to travel the length of the radiator twice, increasing the amount of temperature drop capable for a given size, unfortunately the restriction is much more than doubled. Surface area is king when it comes to radiators. Doubling the square inch of your radiator will double the heat dissipation, whereas doubling the thickness is less effective and restricts air flow.

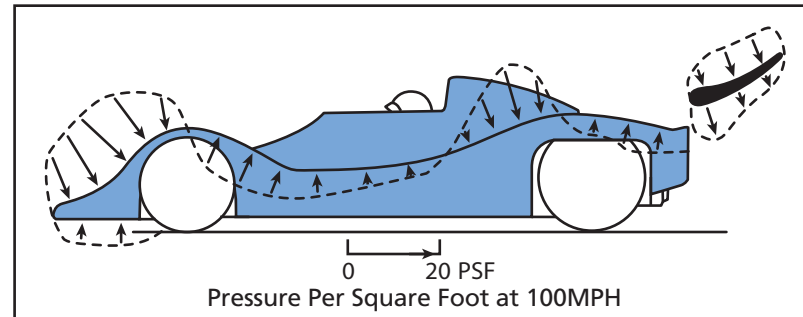
Heat Dissipation (cont.)

Other factors that play a role in radiator design are fin count per inch and configuration such as down flow (top tank) or cross flow (side tanks). Inlet and outlet size also play a major role.

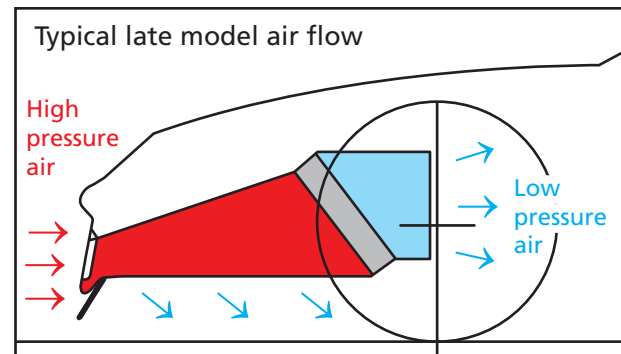
Coolants will vary in heat transfer characteristics. Straight water is accepted as the most efficient coolant. A trade-off is usually made with glycol-based products to increase the boiling point, lubricate the pump seal, reduce corrosion, and prevent freezing. Some sanctioning bodies do not allow glycol-based coolants because of obvious track clean-up problems. In these cases, use an anti-corrosion / seal conditioner additive available from any auto parts store. Many new coolants and additives are available. We suggest you do some research because many have merit, but some are more marketing than science.

Air Flow

Air flow is the most critical factor in water to air radiated systems. Nothing affects a radiator's efficiency more than air flow. The speed of a vehicle is normally considered when choosing a radiator. Winston Cup teams use different radiators for different situations (full size radiators for short tracks and smaller radiators for super speedways). Maintaining adequate air flow at various speeds is critical and more complex than you might think. First, the radiator must be supplied with fresh air. **The grill opening or air inlet can make all the difference.** Ideally it should be facing squarely into the wind. Looking at the illustration you can see the closer to perpendicular to the ground a surface is, the higher the pressure or down-force. Due to the reduced frontal area of late model vehicles, the valance area becomes the only surface with enough air pressure to provide adequate air flow. Scoops, bills, deflectors and recessed screens can be used to improve less than ideal surfaces. **The size of an opening should be proportional to the vehicle speed.** A Winston Cup car running laps at 180 MPH will run cool with less than a 6" x 6" opening. A short track late model with half the HP, the same body and an average speed of 90 MPH will require about a 6" x 24" opening.



Continuous duty race cars (stock car, sports cars, rally, etc.) should have a well-designed air box to feed the radiator. The air box needs to be tightly sealed to force all the inducted air through the radiator. This also keeps the incoming air from mixing with air already heated by the engine. To maintain velocity, the air box should slowly graduate from the inlet to the size of the radiator, avoiding bottle necks and the floor should be level or slope up to the radiator.



The fan is the next consideration. **At speeds under 30 MPH, electric fans are most effective** because they operate independent of engine RPM supplying maximum air flow at low vehicle speed when you need it the most. **Above 35 MPH (with a good grill opening and/or air box) fans are not necessary** and in most cases more air will pass through an electric fan when turned off. Most electric fans have an integral shroud to maximize efficiency, but without being incorporated into a shroud covering the entire radiator core, they will only pull air through the area directly in front of the blade circle. A minimum 1" gap between the core and the shroud is necessary for proper air flow. **In some cases trap doors must be used to relieve back pressure** (see next paragraph). Engine driven fans also must be properly shrouded to be effective. This means tightly sealed to the radiator with half the fan blade into the opening of the shroud. The fan should have no more than 1" clearance to the shroud (15" fan /17" opening). Some stock type engine driven fans can reach blade stall at high RPM. This means it becomes like a wall stopping air from passing through it.

Air Flow (cont.)

The radiator transfers heat to air as it passes through the core. For proper function, the air stream must be under high pressure at the front side of the radiator and lower pressure behind. This pressure differential drives the fresh air past the fins. If air pressure builds up in the fan shroud or the engine compartment and the difference in pressure is decreased, air flow across the radiator can stall. Therefore, thoughtful planning should be done to consider both "at rest" and "at speed" conditions and how fresh air can be presented to the radiator effectively in both situations. In a case where an electric fan has been installed with a shroud that covers the entire radiator core, rubber or mechanical trap doors can be incorporated. These automatically close when "at rest" to seal the shroud and move the most air by preventing bypass. They also open when "at speed" allowing more air flow and preventing the shroud from damming air. The engine compartment must also be able to maintain a pressure differential as the vehicle speed increases. Auto makers will use an air dam to increase the air pressure at the radiator inlet and block air from passing under the car, creating a low pressure or ground effect. Many owners of lowered cars have found out the hard way just how effective this technique is after removing the factory air dam and running into unexpected problems.

Water Flow

Many times water flow is the last aspect of the cooling system to be addressed. Ironically, it is also where the majority of problems lie. This is our focus at Meziere. The typical stock water pump has excessive clearance and straight impeller blades, usually open front and back. At low rpm this produces little flow and is responsible for cars overheating in traffic. At high rpm this design will cause cavitation and aeration. Circle track racers crutch this high rpm condition with under-drive pulleys only to find the engine overheats during caution laps. A common misconception comes from this under-drive solution. Many people believe they have fixed their overheating problem by slowing the water flow, when in fact it was reducing the cavitation by slowing the pump that provided the solution. In engine driven situations the only remedy is a quality racing pump with tight clearances and a swept blade closed impeller. Where rules and conditions permit, electric water pumps can be a solution with multiple benefits. The constant speed of an electric pump eliminates high and low RPM problems. The bonus is that you can run the pump when the engine is shut off. Never run your engine without the water pump on because hot spots can form in the cylinder head before your temperature gauge begins to register. Mated with a good electric fan you can easily regulate water temperature for consistency and rapidly cool the engine between rounds after shutdown.

Pump and System Pressure

The most widely known cooling system fact is: For every pound of pressure in a closed system the boiling point is increased three degrees. For example a 16 lb. cap can increase your boil-over point to 260°F ($16 \times 3 = 48 + 212 = 260$). You may be thinking, "I'd never run over 210°F water temp so what is the benefit?" Although your gauge reads 190°F hot spots around the combustion chamber can be well over boiling temp (212°F @ sea level). A poorly sealed system, low pressure cap or low water level can allow a runaway boil over. The lack of pressure allows boiling to start prematurely. Gasses produced by this boiling pushes water out and aerates the coolant compounding the situation. Water is diverted around these steam pockets leading to more serious problems; surface distortion, metal fatigue and cracks. Once this process begins, it will not stop while the engine is under a load. Water flow, temp and pressure all work to manage this boiling at hot spots which can produce steam pockets that insulate the metal from the coolant.

The higher the pressure produced by the water pump, the less chance of the steam pockets. The same boiling point law is in effect here. Racing pumps can generate pressure in the water jacket in excess of 30 psi to control hot spots and reduce detonation or pre-ignition.

Recommended Operating Temperatures

There are a few different theories on coolant temperature and most have their place. Cold water (under 170°F) and hot oil (230°F) make power. Most drag racers live by this. Internal clearances, tuning, and other factors play the biggest role in where you make the most power. In most other forms of racing and street applications, the engine is under power for minutes or hours rather than a few seconds. In this case, higher temperatures in the range of 190°F to 210°F are ideal. Many factors determine this temperature; block and head castings, metal properties, proper combustion and machined clearances. Either inherently or by design small block Chevrolet engines prefer 190°F to 210°F. Most early domestic V8s are right in that neighborhood.

Cooling System

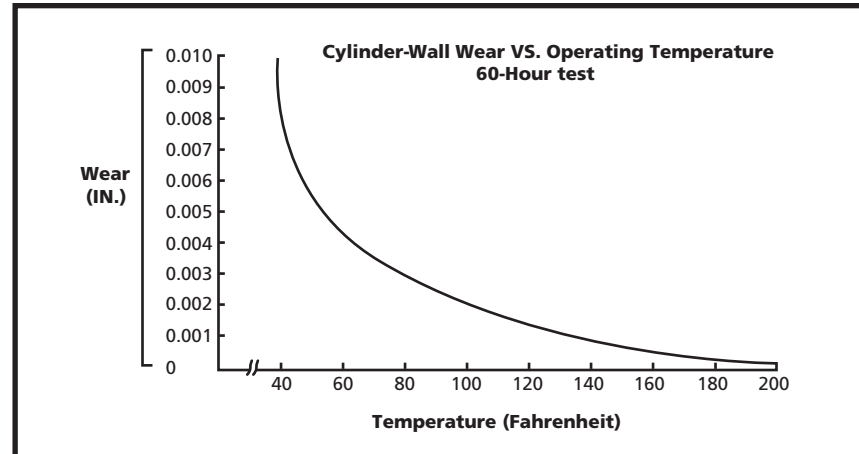
Cooling System Principles (continued)

Cooling System

Cooling System Principles (continued)

Recommended Operating Temperatures

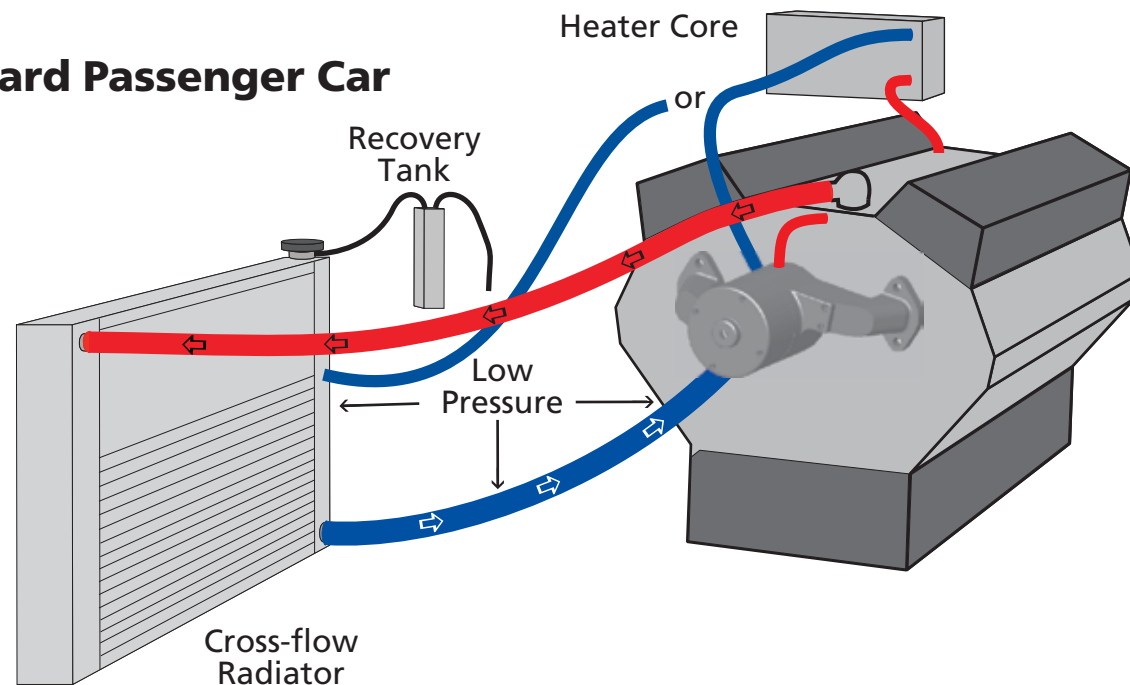
Fuels react to engine temperature and combustion pressure. Low octane gasoline burns more completely at higher temperatures, so manufacturers design late model engines to operate up to 210°F for reduced emissions. Alcohol has a narrow window for proper combustion. Many tuners recommend a water temperature above 195°F to avoid fuel washing the cylinders from an incomplete burn and below 205°F where the combustion byproduct can leave harmful deposits. The internal clearances such as piston to wall and ring gap are set for a predetermined operating temperature by the engine builder. The chart below illustrates the excessive wear that occurs with coolant temperatures below 180°F.



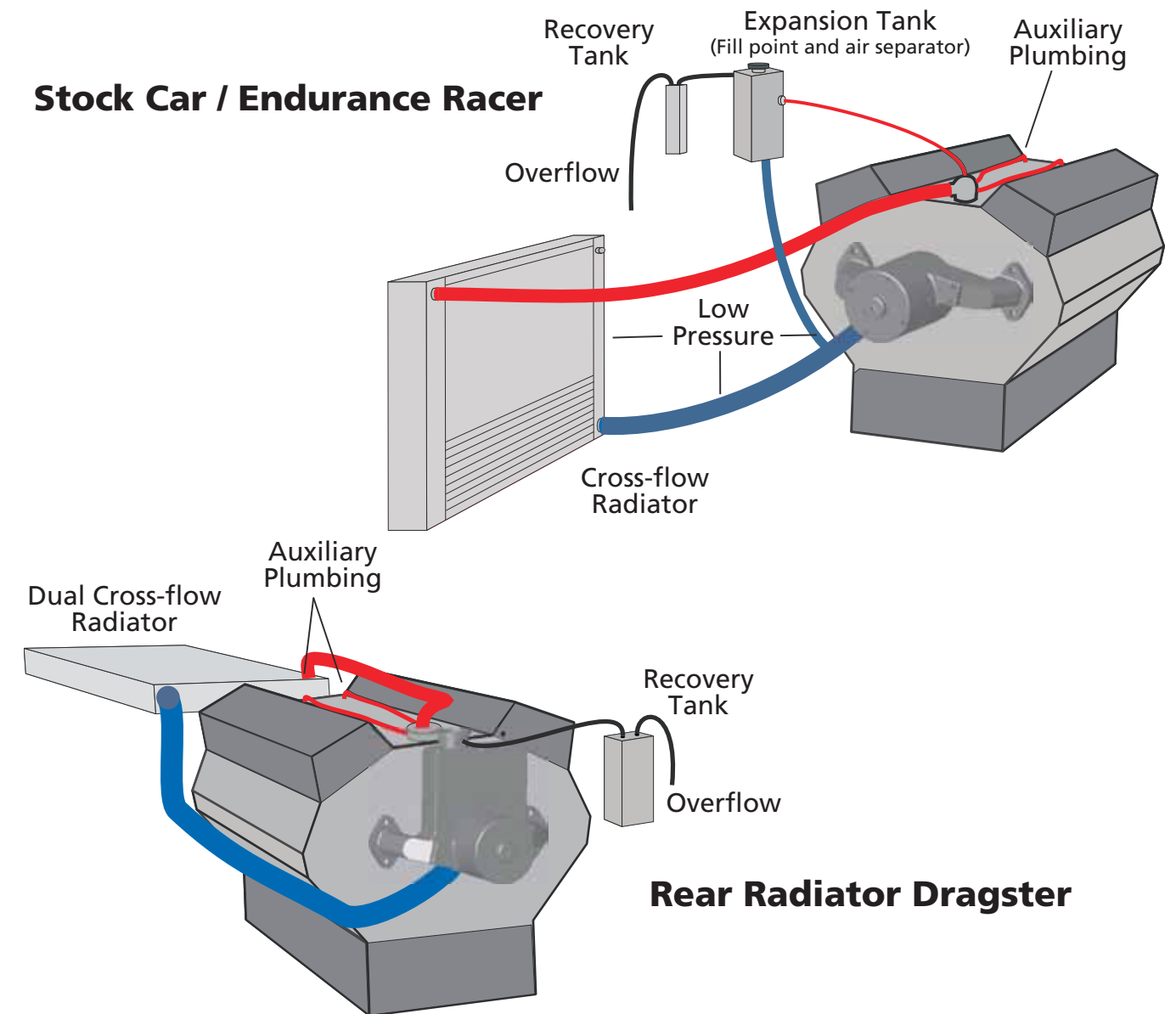
Regular and Irregular System Configurations

The following illustrations are examples of the correct way to plumb typical automotive and racing cooling systems.

Standard Passenger Car



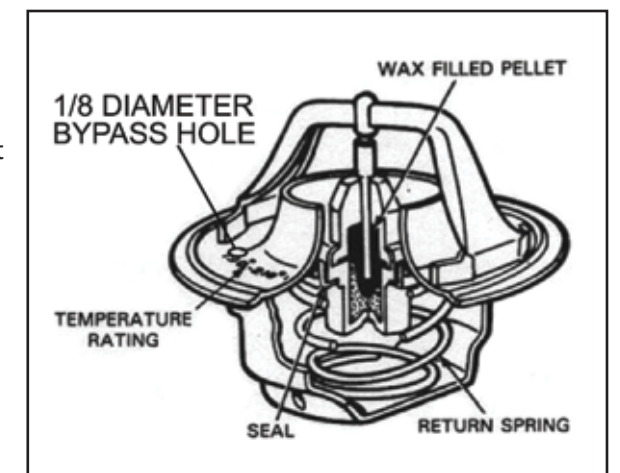
Stock Car / Endurance Racer



Rear Radiator Dragster

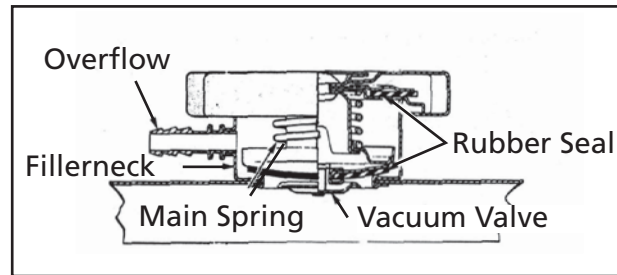
Thermostat

A thermostat's primary purpose is to quickly bring the engine up to operating temperature (see section entitled *Recommended Operating Temperatures*). With the exception of drag racing, a thermostat is recommended for most applications. Most racers avoid thermostats, seeing them as another part to fail. Their benefits far outweigh their stigma. In our opinion, the Robertshaw high flow thermostat, the Stant Superstat, or the highly reliable Cloristat used in the Volvo 4 cylinder engines (fits Chevy V8's) is your best choice. The Robertshaw thermostat (available from Mr. Gasket) offers the least amount of restriction when fully open which is desirable with electric pumps. When the cooling system is not equipped with a bypass system, we suggest drilling two small holes in the thermostat's outer ring.



Pressure Cap

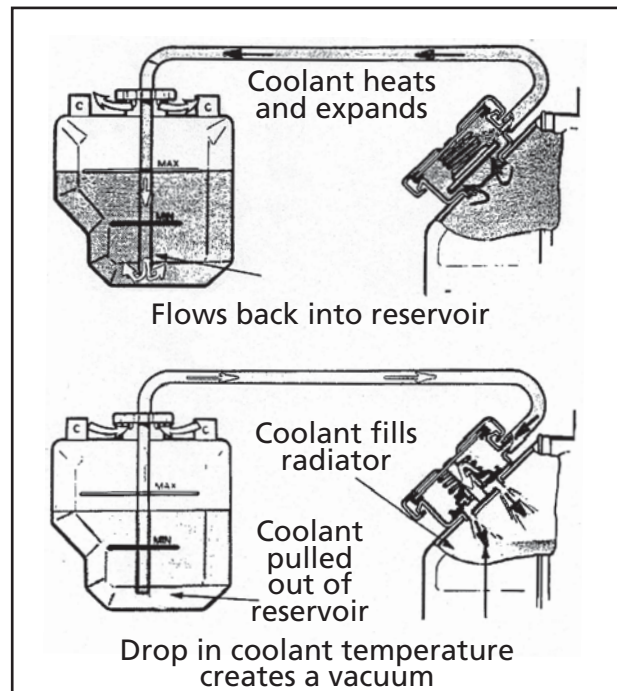
As mentioned previously, the more pressure you can hold in a closed system, the higher your boiling point. Run the highest pressure cap your system can handle. The weakest link is typically the radiator or hoses. The radiator manufacturer should be able to suggest the appropriate cap pressure. Check the cap periodically to make sure it is maintaining the advertised pressure. The rubber seal on the cap may harden and form an impression from the seat in the filler neck. A new cap should be used whenever the filler neck or radiator is replaced.



One commonly overlooked component is the water neck/filler neck. Most are cast or formed metal. If the pressure cap seat is defective, distorted or poorly designed you will lose water while the engine is running. This situation acts like a bad head gasket. You will notice the engine gets hot faster every round or hot lap session. You wouldn't be the first or the last person fooled into thinking an engine problem was the cause for water pushing through the cap. Lack of pressure on the system builds heat faster and the quick boil-over is pushing all the water out.

Recovery System

Keeping the system full reduces aeration and maintains pressure. As the temperature increases the water expands and pressure builds. If the system is completely full the expansion pressure will exceed the cap pressure and overflow into the recovery tank. If your pressure cap is properly located on the low pressure side of the system, air is pushed out first. When the system cools a vacuum is created. The radiator cap is equipped with a valve that opens under negative pressure and it will draw coolant back into the system. The tube that extends to the bottom of the recovery tank transfers the coolant back to the radiator. Mount the tank as close as possible to the pressure cap. The line should be short and level, reducing restriction and the effect of gravity. If the recovery tank is kept 1/3 full (with the engine cold) every heat cycle will automatically purge more air out of the system. The opposite is true without a recovery system. With every heat cycle water will be pushed out, leaving more air space. This air space can be compressed lowering the boiling point.



Catch Can

What is normally referred to as a catch can should not be confused with a recovery tank. A catch can does not facilitate the action of returning the fluid to the system as it cools. Most sanctioning bodies require a one pint or larger catch can to contain water overflow from the cooling system. The function is to keep coolant off the track and either a recovery tank or a catch can will accomplish this. The only benefit to a catch can is to determine how bad your over heating condition is based on the amount of coolant you drain from it.

Expansion Tank

An expansion tank is sometimes referred to as a surge tank, header tank or air separator. The tank has two main functions. It is used as a fill point when the top of your radiator is lower than the engine's water outlet. As the name infers, it can be used to deal with the expanding volume of water when a recovery system is not utilized. The bottom of the tank is plumbed to the low pressure (suction) side of the cooling system (after the radiator core and before the pump impeller). The smaller fitting on the upper portion of the tank is plumbed to the high points on the engine and radiator to remove trapped air and aerated water. This reservoir located high and out of the main flow of water allows air to separate out of the water making your cooling system more efficient.

Correct Motor Rotation

All of our electric pumps turn clockwise (as viewed from the front) except for LT-1, Modular, and Toyota Supra. The pump will flow a fraction of its potential when spun backwards. Remove the inspection plug in the motor end cap and you will see the 5/32" hex in the end of the motor shaft. Give the pump momentary power and observe the rotation as it comes to a stop. Switch the positive and ground wires if you need to reverse the electric motor.



No Rotation

Check the fuse and replace if blown. Inspect the wiring from the power source to pump. Check the ground for possible faults. Check to see if the electric motor moves freely by removing the inspection plug and turning the shaft with a 5/32" hex wrench before testing pump operation. Turning the shaft back and forth with the hex wrench may dislodge any foreign objects jamming the impeller without disassembling the pump. Failure to install a fuse inline on the positive lead may result in motor failure in a jammed impeller situation.

Electrical Faults

Start from the pump ground. It should be free of paint, dirt and corrosion. The ground must also have a good path back to the battery; i.e. block to frame, frame to battery and block or frame to body. A chromoly chassis has poor conductivity and should not be used as a ground path. Inspect wiring for shorts. Check all the connections, especially crimp terminals. Tug on crimp connections and look for signs of overheating. Resistance at crimp connections can be reduced by adding a small amount of solder. This technique will increase reliability and reduce power consumption. Use a test light or jumper lead to check for an open circuit or switch.

No Flow- Air Locked

If the rotation is correct and you still have no water flow, the pump may be air locked. This occurs most frequently when the cooling system has been drained and refilled. Occasionally by raising the drivers side of the car, or squeezing the lower hose you can purge enough air to allow the pump to prime. There are a few ways you can modify the pump to rectify this problem if it continues to reoccur. Please call us 8 a.m. to 5 p.m. Pacific Time for more information.

Starter System Principles

Custom Order Form Flexplate

Starter System Principles

When you make the decision to use aftermarket parts in your starting system you have moved away from the mass produced "loose tolerance" parts. What this means is; you now will need to take more of the responsibility in making sure the flexplate or flywheel and the starter drive engage correctly. These factors include both the ability of the starter to stay engaged without moving and the starter's ability to stay disengaged under the high G forces experienced during acceleration. Many factors can contribute to early starter or flexplate failure. We will outline some of the pitfalls that racers have come across.

Engine Tune

Assuming that you have carefully and correctly mounted your starter and flexplate you can still have problems with the engine not turning over well. Engine tune can be one of the greatest factors in early starting system failures. Most race engines run timing advanced in the 35-42 degrees BTDC range. With this much advance, combined with the high compression ratios of typical race engines, it is common to see the engine "kick back" against the starter when the engine fires well before TDC. Most racing ignition systems have a start retard system that will reduce the ignition timing during engine cranking. If the system is not set correctly you may experience costly starting problems. You can check the timing with a timing light while cranking the engine to verify that your start retard system is working properly.

Starter Engagement/Condition:

These checks can be made after the flexplate has been installed on the engine, but before the transmission has been installed. Before making any clearance checks, inspect the starter gear to make sure it is not worn, broken, or sloppy. Repair or replace as necessary.

Radial Clearance:

Physically engage the starter gear into the ring gear to observe engagement. You should be able to grab the gear with pliers and pull it out. The gear should be able to engage fully without interference and have some slight (.025" max) gear lash. This is an important step. Too much gear lash will put excessive load on the gear teeth. Too little lash will cause the starter gear to hang up in the ring gear after engine start. Add starter-to-block shims to increase lash. Decrease starter-to-block shims to decrease lash. If no shims are present and the lash is too great, special machining may need to be done to the starter mounting block. Do whatever is necessary to achieve proper clearance!

Axial Clearance:

With the starter gear retracted out of the flexplate there should be .06"-.140" clearance. This clearance is necessary to keep the starter gear from engaging under G-loads, but should not be so much that the gear can not reach full engagement during starting.

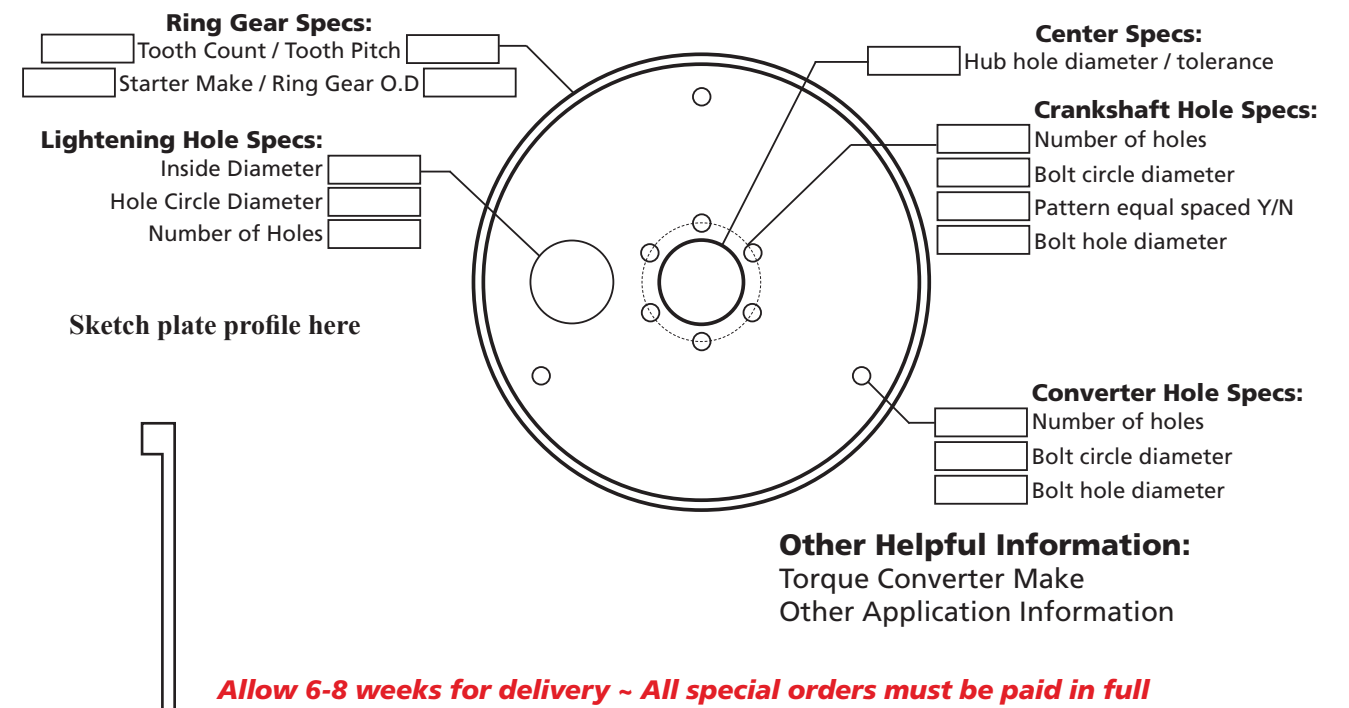
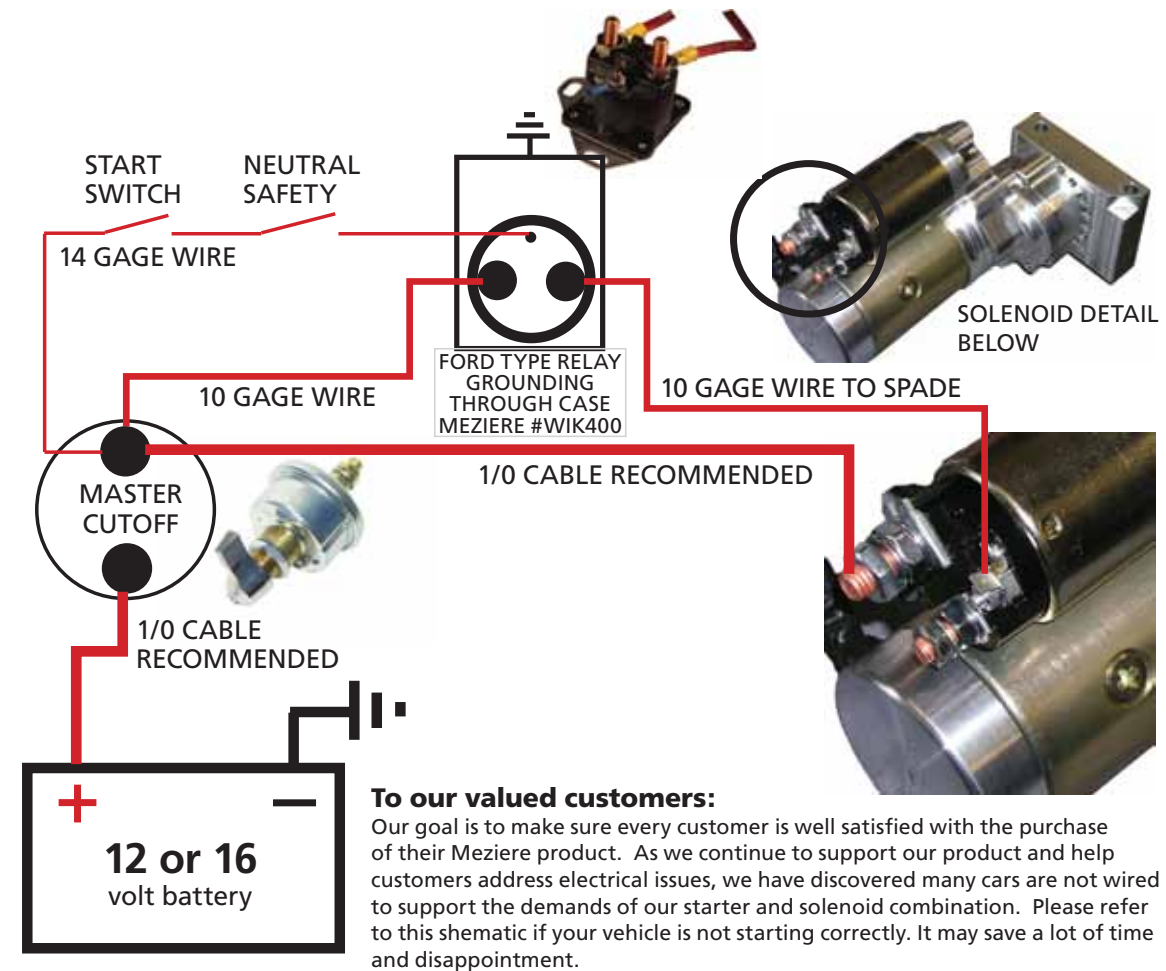
Starter Electrical Circuit:

Your starter can not perform to its potential if it does not get proper voltage and current. By performing a quick check, you can make sure your starter wiring is correct. To safely perform this test, take measures to prevent the engine from starting (ex. Disconnect coil wire). Measure voltage at the vehicle battery while cranking. Next measure voltage at the starter terminal while cranking. The voltage at the starter should be within 1/2 volt of the reading at the battery. At any time the voltage at the starter should not be less than 9.0VDC. If an excessive voltage drop exists, measure voltages at each connection in the system and repair the system as necessary. An under-voltaged starter can cause excessive load on the starter as well as over-load to the starter gear and ring gear.

Mechanical Conditions:

For the best results with your starter and /or flexplate installation, here are a few things to consider. When removing your old flexplate, inspect fasteners which may have been damaged or loose. Also look for any cracks, metal transfer, or abnormal ring gear wear which may suggest other problems. Inspect torque converter pads for flatness and check the back of the crank shaft and the starter mounting surface for metal transfer as well. All of these mating surfaces need to be completely flat for proper contact. If these surfaces are not flat, dress them with a file. Uneven mounting surfaces will cause misalignment and instability that cannot be corrected by shims or any other means. The goal is to allow your starter to enter the driven teeth at a 90 degree angle and maintain its position as it is driving the ring gear.

Please keep the safety of yourself and those around you in mind first.
Use jack stands and proper lifting equipment while working under your vehicle.



Recommended Wiring

Flexplate Order Form