

PRO/RACE PERFORMANCE PRODUCTS
Harmonic Dampers

The ultimate damper at an affordable price



PRO RACE®

**The Ultimate SFI
Spec 18.1 Harmonic
Damper. Spin tested to 18,000 rpm.**



PRO SPORT

**The Best Value SFI Spec
18.1 Harmonic Damper.**



PRO STREET®

**The Superior Nodular
Iron OE Style Harmonic Damper.**



**GRAHAM WITHERS - 1970**

**Graham Withers.
From Drag Racing Champion
to Business Success.**

**Graham Withers - President of
PRO/RACE Performance Products.**

Graham Withers was Australia's Premier Drag Racing Champion from the 1960's and 1970's. During his racing career Graham broke outright every speed and elapsed time record at every drag racing strip across Australia, and was Australian Champion on three occasions in a race car that he himself built.

After retiring from the sport, Graham embarked on a successful business career, he developed one of the first SFI Spec. harmonic dampers in the late 1980's. These products have proven their durability and quality.

He has also held the position of International Advisor representing the Society of Automotive Engineers (USA and Australia).



PRO/RACE Performance Products

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PRO/RACE "ALL STEEL" Harmonic Dampers manufactured in Australia by Cyco Systems Corporation Pty. Ltd.

PRO/RACE Harmonic Dampers are protected by U.S. Patent #4962677

The manufacturing procedures and technical specifications of PRO/RACE Harmonic Dampers are subject to change without notification.

PRO/RACE Features:

- "ALL STEEL" construction
- Exceeds SFI Spec. 18.1 - Spin tested to 18,000RPM
- Specially formulated bonded* elastomer
- 100% CNC machined.
- Billet steel inertial ring and hub
- Splined inertia ring and hub
- 60° of engraved timing marks (40° on SB Ford models)
- Easily installed - Instructions included

* Bonding on "Race" models only.



Cutaway shows internal splines which provide for twice the contact area, eliminating any possible movement of the outer ring. Outside diameter of the inner hub is splined as is the inner diameter of the outer ring. Elastomer is vulcanized to the splined areas on Race units. This forms a very positive bond between the elastomer and the steel with twice the contact. Note splines on hub and ring.

The PRO/RACE Damper

The PRO/RACE "ALL STEEL" Harmonic Dampers are designed and manufactured for racing and high performance street applications and are available for a wide range of engines.

The PRO/RACE Damper is a direct replacement for the cast iron stock damper which is no longer permitted by most racing sanctioning bodies due to the danger of fracture and high speed disintegration or separation of the inertia ring from the hub. This problem is eliminated with a PRO/RACE Damper. The PRO/RACE "ALL STEEL" Harmonic Damper is also a must for all belt driven supercharger applications due to the additional torque loads on the damper hub and keyway which results in failure in many blower installations with a stock damper. PRO/RACE now offers specific models for supercharged small block (#74265) and big block Chevy (#74267) engines. These special dampers include dual keyways and also feature six tapped holes to accept most blower pulleys. The SB Ford (#74269) version is internally balanced and features 3/4 pulley bolt pattern and extra 1/4" keyway.

"RACE" vs "STREET"

ALL STEEL Dampers PRO/RACE offers two styles of dampers for small and big block Chevys; a Race model and a Street model. The difference is that on the Race model the elastomer is bonded to the steel hub and ring. This bonding is particularly valuable on applications where sustained high speed is present such as marine or circle track applications. The Street models are suitable for moderate performance applications on engines making approximately 350 to 400 hp. The special splines (see cutaway photo) enhance the bonding between the elastomer and the inner hub and outer ring which helps prevent any outer ring radial movement, a common problem on OEM stock factory dampers. If you would like to use a Street style damper on a 400 small block simply combine our #64262 Street small block damper with our #65266 Counterweight and you will have the proper combination for that engine.



Lightweight Models

We offer one SB Chevy and two Ford dampers with aluminium hubs. Also our #73265 is "All Steel" with a lightened inertia ring which reduces the weight of the damper by nearly 3.5 pounds. See Application Chart for all weights.

Extremely High Quality Standards

PRO/RACE Dampers are manufactured to extremely high quality standards that are constantly monitored and checked at every step of the manufacturing process.

Our quality levels in bore tolerance and the finish of the machined surfaces, in particular the critical oil seal area, far exceed OE standards and those of competitive models. Sixty degrees (60°) of computer generated timing marks (40° on Ford units) are accurately laser engraved. PRO/RACE Harmonic Dampers also feature engraved timing marks at 0°, 90°, 180°, and 270° (except Ford models).

Once assembly of the damper is complete, the entire damper is highly polished and then treated with a clear protective coating providing an extremely attractive appearance. Our instruction sheets make installation a snap. Our Dampers are designed for a direct replacement of the stock damper, spacer kits are included where required for accessory pulley alignment. The dampers will accept most crank trigger wheels.

Removable Counterweights

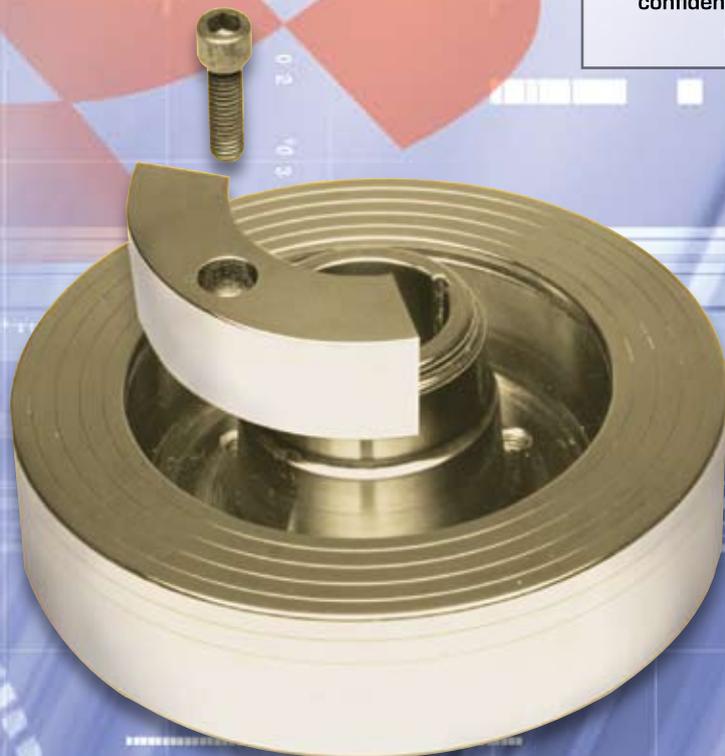
Harmonic dampers are supplied in two styles; those for internally balanced engines and those for externally balanced engines. Externally balanced engines have a counterweight bolted into the hub of the damper. The advantage of having a removable counterweight in the hub eliminates the possibility of having the counterweight mass move from its position.

The PRO/RACE Damper for internally and externally balanced small block and big block Chevys and for small block Chryslers is identical except for the counterweight. This means, for example, if you have a PRO/RACE Damper for a 400 small block Chevy you can remove the counterweight and the damper will work perfectly for a 350 Chevy. Conversely, if you have a 350 Damper and want to use it on a 400 you can now purchase the proper PRO/RACE counterweight and bolt it into your 350 damper and it is now a 400 damper.

All SB Ford dampers are externally balanced with a counterweight. This counterweight can be removed for use on internally balanced engines.

Extremely Low Warranty Rate

PRO/RACE Harmonic Dampers are so well made that we proudly claim the lowest warranty rate for any high performance harmonic damper made. You can buy a PRO/RACE damper with the utmost confidence that it will provide many, many years of reliable, trouble-free performance.



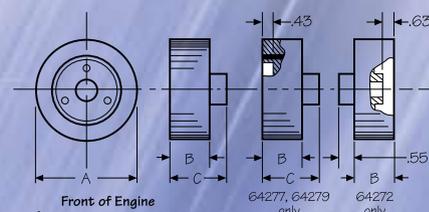


Exceeds SFI Specification #18.1

This specification is enforced by most racing sanctioning bodies to assure that the dampers conform to specified standards. While the SFI test is quite stringent and requires the damper to be spin tested at a speed of 12,000 rpm for a period of one hour, the PRO/RACE Damper has been tested at a speed of 18,000 rpm, substantially exceeding SFI requirements.

PRO/RACE "ALL STEEL" SFI-Spec. Harmonic Dampers		Style	Type	Wgt.	A	B	C
64262	Chevrolet V8 - 283-350	Street	Int.	10.37	6.61	1.54	2.38
64263	Chevrolet V8 - 396-427	Street	Int.	13.21	7.01	1.73	2.68
64264	Chevrolet V8 - 454	Street	Ext.	14.53	7.01	1.73	2.68
64265	Chevrolet V8 - 283-350	Race	Int.	10.37	6.61	1.54	2.38
64266	Chevrolet V8 - 400	Race	Ext.	11.56	6.61	1.54	2.38
64267	Chevrolet V8 - 396-427	Race	Int.	13.21	7.01	1.73	2.68
64268	Chevrolet V8 - 454	Race	Ext.	14.53	7.01	1.73	2.68
64269	Ford V8 - 289-351 Except late 5.0L (28 in.oz.)	Race	Ext.	11.80	6.61	1.54	3.00
64270	Ford V8 - 5.0L - 1981 & later only (50 in.oz.)	Race	Ext.	12.10	6.61	1.54	3.00
64271	Ford 4.6L 2V/4V V8 '96 & later - Race	Race	Int.	10.25	6.61	1.54	2.17
64272	Ford V8 - 429-460	Race	Int./Ext.	10.25	6.61	1.54	2.20
64275	Pontiac V8 - '61-'79**	Race	Int.	9.83	6.61	1.38	3.00
64276	Oldsmobile 350-403-455	Race	Ext.	11.14	6.61	1.54	3.00
64277	Chrysler V8 - 273-360	Race	Int.	11.34	7.01	1.54	2.81
64278	Chrysler V8 - 318-360	Race	Ext.	12.26	7.01	1.54	2.81
64279	Chrysler V8 - 383-440 Including Hemi***	Race	Int.	11.03	7.01	1.54	2.22
64296	Jaguar 6 cyl., 3.4, 3.8 & 4.2L engines****	Race	Int.	10.66	6.61	1.54	1.78
65266	Counterweight for Chevrolet V8 - 400*	-	-	1.19	N/A	N/A	N/A
65268	Counterweight for Chevrolet V8 - 454*	-	-	1.32	N/A	N/A	N/A
65269	Counterweight for Ford SB V8 28.4 in.oz.	-	-	1.13	N/A	N/A	N/A
65270	Counterweight for Ford SB V8 50 in.oz.	-	-	1.39	N/A	N/A	N/A
65278	Counterweight for Chrysler V8 - 360	-	-	0.92	N/A	N/A	N/A
70265	Same as 64265 w/aluminium hub	Race Only	Int. Only	8.44	6.61	1.54	2.38
70269	Same as 64269 w/aluminium hub	Race Only	Int. Only	8.31	6.61	1.54	3.00
70272	Same as 64272 w/aluminium hub	Race Only	Int. Only	8.39	6.61	1.54	2.20
73265	Same as 64265 w/light inertia ring	Race	Int.	6.97	6.61	1.54	2.38
74265	Same as 64265 for supercharger use	Race	Int.	10.37	6.61	1.54	2.38
74267	Same as 64267 for supercharger use	Race	Int.	13.21	7.01	1.73	2.68
74269	Ford V8 - Int Bal for supercharger use	Race	Int.	10.70	6.61	1.54	3.00

* Counterweights will fit Street, Race and Supercharger models.
CAUTION: PRO/STREET or PRO/SPORT counterweights are not interchangeable with PRO/RACE Counterweights.
 ** To fit '61-'68 requires '69 model timing chain cover, water pump, etc.
 *** Fits Chrysler 440 forged crank, 361-383 "B" engine forged cranks ('62-'70), and 413-426. Also fits Race and Street 426 Hemi with slight TDC adjustment as detailed in instructions supplied with damper. Will not fit 392 Hemi. Contact P.A.W. at 818-678-3000 for a harmonic damper designed specifically for the 331-354-392 Hemi.
 **** Damper does not include V-pulley groove for XJ6 1968 and later.
Weights are in pounds, dimensions are in inches



PRO/SPORT Harmonic Dampers feature :

- Meets SFI Spec. #18.1
- Spin tested to 12,500 rpm
- Fully machined from high quality carbon steel
- Retained outer inertia ring
- 60° of permanently engraved timing marks (40° on SB Ford models)
- Pressure bonded elastomer
- Accurately balanced
- Removable counterweights on externally balanced models

#18.1 requirements! Spin tested to 12,500 rpm for one hour to comply with SFI Spec. #18.1, so when your racing needs require SFI certification, the PRO/SPORT Harmonic Damper is ready for the track.

Machined to exacting tolerances and assembled using pressure bonded elastomer technology of tried and proven design for optimum damping performance! The outer inertia ring is retained by a robust retention plate secured by 6 high tensile bolts to ensure maximum safety of the product. Extremely accurate and easy to read permanently engraved timing marks make engine timing easy, and 90° marks simplify valve timing operations (except SB Ford models).



What is Bonded elastomer?

Unlike many other SFI dampers which are not bonded, the PRO/SPORT range features a bonded elastomer! The elastomer is injected at high temperature and under extreme pressure and is cured against a specially prepared and chemically treated surface on the inside of the ring and outside of the hub. The result is a bond similar to that of a motor mount... which makes it almost impossible to separate the damper hub from ring! In fact during the manufacturing process EACH AND EVERY PRO/SPORT damper is subjected to elastomer bond test of 3000lbs separation force. If there is any sign of bond degradation then the damper is scrapped.

Removable Counterweights

All externally balanced Dampers feature accurately machined counterweights which bolt into the hub of the PRO/SPORT Damper. This not only provides extremely accurate engine balance due to the precision of the counterweight mass but also allows for easy conversion to neutral balance by unbolting the counterweight, should that ever be required.

Counterweights are available separately which enable internally balanced Dampers to be converted for use in their externally balanced variation, or vice versa e.g. a 400 Chevrolet counterweight can be bolted into the #34265 (350 Chevrolet Damper) which would make it suitable for 400 Chevrolet applications

(note the #34262 Chevrolet Damper is not drilled to accept a counterweight).

Ford SB V8 Dampers #34269 and #34270 are drilled to suit both 3



The PRO/SPORT Damper

Harmonic Dampers play a vital role to ensure longevity of engines and crankshafts, and are arguably the most important external component of an engine. Harmonic Dampers protect against harmful engine harmonic vibrations that can lead to valvetrain damage, rapid bearing and timing chain wear or ultimately crankshaft breakage. Why trust dampers from any other manufacturer, when PRO/SPORT Harmonic Dampers are engineered with more than 20 years of SFI damper manufacturing experience.

The PRO/SPORT range of Harmonic Dampers provides race quality performance dampers at near replacement part prices and are available for most popular V8 engines.

Designed as a direct replacement of your OE damper, the PRO/SPORT Harmonic Damper has many features which exceed OE requirements! Manufactured to the quality standards you have come to expect from a specialist Damper manufacturer, the new PRO/SPORT SFI Harmonic Dampers are produced from quality carbon steel, with mechanical properties exceeding the stringent SFI Spec.



or 4 bolt pulleys, come with a pulley alignment kit and have been engraved with 3 sets of 40° timing marks to accommodate most of the timing pointer locations which Ford has used over the years.

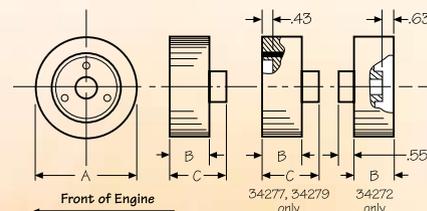
The Ford BB V8 Damper #34272 is drilled to suit both Chevrolet BB 3 bolt and Ford 4 bolt pulleys – note

that the Ford BB V8 damper is suitable for internally and externally balanced engines and does NOT require a counterweight, as the production OE spacer fitted to the crankshaft prior to damper installation is counterweighted to provide the correct engine imbalance.

PRO/SPORT dampers come attractively packaged, are highly polished and finished in a durable baked enamel finish to preserve the damper that looks as good as it performs!

PRO/SPORT SFI Harmonic Dampers				Dimensions (inches)		
Part No.	Application	Balance	Weight (lbs)	A	B	C
34260	GM LS1 Camaro & Firebird. LS2 GTO			7.52	2.31	3.70
34261	GM LS1, LS2 & LS6 Corvette			7.52	2.47	2.86
34262	Chevrolet V8 - 283-350 [#]	Int. only	10.15	6.61	1.52	2.38
34263	Chevrolet V8 - 396-427	Int.	12.79	7.01	1.73	2.68
34264	Chevrolet V8 - 454	Ext.	14.13	7.01	1.73	2.68
34265	Chevrolet V8 - 283-350	Int.	10.14	6.61	1.52	2.38
34266	Chevrolet V8 - 400	Ext.	11.29	6.61	1.52	2.38
34269	Ford V8 - 289-351 Except late 5.0L	Ext. (28.4in.oz.)	11.01	6.61	1.52	3.00
34270	Ford V8 - 5.0L - 1981 & later V8	Ext. (50in.oz.)	11.81	6.61	1.52	3.00
34271	Ford V8 - 4.6L 1996 & later	Int.	9.24	6.61	1.52	2.17
34272	Ford V8 - 429-460	Int./Ext.	9.96	6.61	1.52	2.19
34277	Chrysler V8 - 273-360	Int.	11.14	7.01	1.52	2.85
34278	Chrysler V8 - 318-360	Ext.	11.93	7.01	1.52	2.85
34279	Chrysler V8 - 383-440 (inc. HEMI)*	Int.	10.80	7.01	1.52	2.20
34303	Honda/Acura 4 cyl. B-Series Engines (20% underdrive)	Int.	3.66	4.53	1.13	1.41
34305	Ford Focus 2.0L Zetec Engine (13% underdrive)	Int.	3.89	4.53	1.09	1.52
35264	Counterweight for Chevrolet V8 - 454 (for 34263 or 34264)		1.32	N/A	N/A	N/A
35266	Counterweight for Chevrolet V8 - 400 (for 34265 or 34266 only)		1.10	N/A	N/A	N/A
35269	Counterweight for Ford SB V8 - 28.4in.oz (for 34269 or 34270)		1.13	N/A	N/A	N/A
35270	Counterweight for Ford SB V8 - 50in.oz (for 34269 or 34270)		1.91	N/A	N/A	N/A
35278	Counterweight for Chrysler V8 - 360 (for 34277 or 34278)		0.92	N/A	N/A	N/A
Under Drive Dampers & Pulley Kits (Refer to Page 10)			Weight (lbs)	A	B	C
32560	GM V8 25% Under Drive LS1 Camaro & Firebird. LS2 GTO	Damper only	11.07	6.14	2.53	3.88
32561	GM V8 25% Under Drive LS1, LS2 & LS6 Corvette	Damper only	11.76	6.75	2.83	3.03
32571	Ford 4.6L 25% Under Drive 1996-2006 2V, 3V & 4V	Damper only	7.71	6.14	2.00	2.52
42571	Ford 4.6L 25% Under Drive Kit 1996-2000 2V & 4V	Kit		Refer to Page 10		
42671	Ford 4.6L 25% Under Drive Kit 2001-2004 2V & 4V	Kit		Refer to Page 10		
42771	Ford 4.6L 25% Under Drive Kit 2005-2006 3V	Kit		Refer to Page 10		

CAUTION: PRO/SPORT Counterweights are not interchangeable with PRO/RACE or PRO/STREET Counterweights.
[#]34262 is NOT drilled to accept 400 Chev. counterweight #35266
 *Fits Chrysler 440 forged crank, 361-383 "B" engine forged cranks ('62-'70), and 413-426.
 Also fits Race and Street Hemi with slight TDC adjustment as detailed in instructions supplied. Will not fit 392 Hemi.



PRO/STREET Harmonic Dampers feature:

- Nodular Iron Construction - Most cast dampers are manufactured from gray iron castings. Nodular iron is over 30% stronger than gray iron.
- Bonded Elastomer - Outer ring and inner hub are bonded (vulcanized) to the elastomer. This minimizes the potential for the outer ring to move on the hub, losing true TDC position.
- Removable Counterweights - Externally balanced models feature bolt-in counterweights, making it easy to switch from an externally balanced engine to an internally balanced engine.
- Precision Balanced - Dampers are machined and precision balanced.
- 60° of permanent easy to read timing marks (40° on SB Ford models)

SB & BB Chevy and SB Ford (with counterweight) models shown.



About Nodular Iron

Nodular Iron, also referred to as ductile iron, is typically the material used for heavy duty or racing applications of cast iron products. It is approximately 30% stronger than gray iron. So it was only natural that when PRO/RACE developed the heavy duty OE replacement PRO/STREET dampers, high strength nodular iron was the material of choice.

Heavy Duty Applications

While PRO/STREET dampers are not intended for racing, the fact that they are cast of nodular iron, as opposed to ordinary gray iron, means that they are suitable for

higher rpms than most competitive models. (Note: The PRO/STREET Nodular Iron Harmonic Dampers are NOT SFI certified). However to prove the integrity of the PRO/STREET dampers, we had the SFI test lab run some spin tests. The PRO/STREET damper was subjected to 8,000rpm for one hour, and then 12,500rpm for 15 minutes with no sign of degradation! (note: this by no means suggests the PRO/STREET damper should be used in extreme applications - use PRO/RACE or PRO/SPORT for high performance applications).

Bonded elastomer

Unlike many OE dampers, or other replacement style dampers, the PRO/STREET range feature a bonded elastomer! The elastomer is injected at high temperature and under extreme pressure. In fact during the manufacturing process EACH AND EVERY PRO/STREET damper is subjected to elastomer bond test of 3000lbs (2000 lbs on 24262) separation force. If there is any sign of bond degradation then the damper is scrapped.

Many OEM dampers aren't bonded at all

Removable Counterweights

Harmonic dampers are supplied in two styles; those for internally balanced engines and those for externally balanced engines. Externally balanced engines have a counterweight bolted into the hub of the damper. The advantage of having a removable counterweight in the hub is that it eliminates the possibility of having the counterweight mass move from its position plus it provides an extremely accurate external balance mass.

The PRO/STREET Damper for internally and externally balanced small block and big block Chevys and for small block Chryslers is identical except for the counterweight. This means, for example, if you have a PRO/STREET Damper for a 400 small block Chevy you can remove the counterweight and the damper will work perfectly for a 350 Chevy. Conversely, if you have a 350 Damper and want to use it on a 400 you can now purchase the proper PRO/RACE counterweight and bolt it into your 350 damper and it is now a 400 damper.

All SB Ford dampers are externally balanced with a counterweight. This counterweight can be removed for use on internally balanced engines.

Machined to tolerances exceeding OEM specifications!

The PRO/STREET dampers have been machined to tolerances far exceeding those used by OEM's. Just take a look at the overall surface finish and oil seal and bore of the damper! Permanent rolled-in timing marks are very visible and will never fade or become less visible!

Specialty Polished Stainless Steel Models

This great looking damper should be classed as jewelry, it's fully show polished and 100% stainless steel. No chipping, peeling chrome, or any other cosmetic deficiencies. The ultimate SB Chevy damper. Part #23265 and #23266.



Brand Name You Can Trust

These dampers are from PRO/RACE Performance, a leading manufacturer of racing SFI Spec. dampers, so you know they are a high quality, yet affordable, damper for heavy duty street or replacement applications.

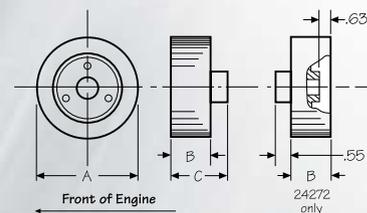
Note: Externally balanced models are supplied with the necessary counterweights. Counterweights are also sold separately.



PRO/STREET Bonded Nodular Iron Harmonic Dampers						Dimensions		
Part No.	Application	Style	Type	Wgt.	A	B	C	
23265	Chevrolet V8 - 283-350 Polished Stainless Steel	Street	Int.	10.25	8.00	1.47	2.33	
23266	Chevrolet V8 - 400 Polished Stainless Steel	Street	Ext.	10.81	8.00	1.47	2.33	
24262	Chevrolet V8 - 283-350	Street	Int.	8.60	6.75	1.32	2.33	
24263	Chevrolet V8 - 396-427	Street	Int.	13.50	8.00	1.93	2.66	
24264	Chevrolet V8 - 454	Street	Ext.	14.50	8.00	1.93	2.66	
24265	Chevrolet V8 - 283-350	Street	Int.	10.60	8.00	1.47	2.33	
24266	Chevrolet V8 - 400	Street	Ext.	11.40	8.00	1.47	2.33	
24269	Ford V8 - 289-351 Except late 5.0L (28 in.oz.)	Street	Ext.	9.80	6.40	1.65	3.00	
24270	Ford V8 - 5.0L - 1981 & later only (50 in.oz.)	Street	Ext.	10.60	6.40	1.65	3.00	
24272	Ford V8 - 429-460	Street	Ext.	9.25	6.61	1.54	2.20	
24277	Chrysler V8 - 273-360	Street	Int.	8.50	7.30	1.00	2.47	
24278	Chrysler V8 - 318-360	Street	Ext.	9.36	7.30	1.00	2.47	
24279	Chrysler V8 - 383-440 Including Hemi*	Street	Int.	8.00	7.30	.94	1.80	
25264	Counterweight for Chevrolet V8 - 454-502 - Fits 8" Cast BB Damper #24263 only.							
25266	Counterweight for Chevrolet V8 - 400 - Fits 8" Cast SB Damper #24265 or #24266 only.							
25269	Counterweight for Ford V8 - 28 in.oz. weight - Fits #24269 or #24270 Cast Damper only.							
25270	Counterweight for Ford V8 - 50 in.oz. weight - Fits #24270 or #24269 Cast Damper only.							
25278	Counterweight for Chrysler V8 -360 - Fits #24277 & #24278 Only.							

CAUTION: PRO/STREET Counterweights are not interchangeable with PRO/RACE or PRO/SPORT Counterweights.

* Fits Chrysler 440 forged crank, 361-383 "B" engine forged cranks ('62-'70), and 413-426. Also fits Race and Street 426 Hemi with slight TDC adjustment as detailed in instructions supplied with damper. Will not fit 392 Hemi. Contact P.A.W. at 818-678-3000 for a harmonic damper designed specifically for the 331-354-392 Hemi.



NEW!

PRO/SPORT Under Drive Dampers & Pulley Kits feature:

- 25% Underdrive
- SFI Spec. 18.1 Bonded Harmonic Damper
- High quality "All Steel" construction
- Robust outer ring retention design
- Spin tested to 12,500 rpm
- 60° precision engraved timing marks
- Clear baked paint finish



PRO/SPORT Under Drive Dampers

Accessory drive systems have been made more compact on Late Model V8 engines like the Ford 4.6L and the GM LS1 by machining serpentine belt grooves on the OD of the crankshaft damper. The crankshaft damper functions as a combination crank damper and crank pulley on these engines. Under drive dampers are smaller in diameter than stock production crank dampers which slows the speed of the accessories and reduces the HP required to drive them. Since performance and racing engine applications generally run at higher RPM, the water pump, alternator and power steering pump speeds can be reduced to save HP and still meet engine cooling, electrical and vehicle steering requirements.

The trick is to reduce the crank damper diameter without losing the torsion control capability required to prevent engine vibration and possible damage. The PRO/SPORT Under Drive dampers have been specially tuned to control crankshaft torsional vibration to stock production levels.

Dynamometer tests of the PRO/SPORT 25% under drive damper on a 2005 Mustang 4.6L 3V engine at Livernois Motorsports in Dearborn Heights, Michigan produced a 13 HP gain over a stock production damper.

Warning: Engine cooling and battery charging will be reduced and may not be adequate for city driving.

1996 - 2006 FORD MUSTANG 4.6L V8 ENGINES

- Available in Damper only or Damper & Pulley Kit configuration
- 25% Under Driven Poly-V groove design.
- All Steel Water Pump pulley is finished in black powder coat.
- Steel Alternator Pulley finished in black powder coat (where supplied).
- Kit contains new crank bolt, installation bolt & alternator bracker bolt.

GM LS1, LS2 & LS6 V8 ENGINES

- 25% Under Driven front Poly-V groove accessory drive.
- 22% Under Driven rear A/C Poly-V groove on 98-05 Camaro & Firebird & 04-06 GTO LS1 & LS2 models.
- 7% Under Driven rear A/C Poly-V groove on 97-06 LS1, LS2 & LS6 Corvette models.
- Keyway

Note: NEW OE crank bolt (GM Part# 12557840) and NEW belts are required when installing the dampers.



Under Drive Dampers & Pulley Kits

Part number	Application	Configuration		Weight	A	B	C
32560	GM V8 25% Under Drive LS1 Camaro & Firebird. LS2 GTO	Damper Only	Ref. Note #1	11.07	6.14	2.53	3.88
32561	GM V8 25% Under Drive LS1, LS2 & LS6 Corvette	Damper Only	Ref. Note #2	11.76	6.75	2.83	3.03
32571	Ford V8 4.6L 25% Under Drive 1996-2006 2V, 3V & 4V	Damper Only	Ref. Note #3	7.71	6.14	2.00	2.52
42571	Ford V8 4.6L 25% Under Drive Kit 1996-2000 2V & 4V	Kit	Ref. Note #4				
42671	Ford V8 4.6L 25% Under Drive Kit 2001-2004 2V & 4V	Kit	Ref. Note #5				
42771	Ford V8 4.6L 25% Under Drive Kit 2005-2006 3V	Kit	Ref. Note #6				

Note #1 This is a damper only, LS1 F-Bodies require 2 new belts, Gates #K060763 & #K040378. GTO requires 2 new belts Dayco #760K6 & #405K4. BELTS ARE NOT INCLUDED.

Note #2 This a damper only, but requires a new serpentine belt dayco #5060780. BELTS ARE NOT INCLUDED.

Note #3 This is a damper only, 1996 -2006 Ford 4.6L V8 2V, 3V & 4V.

Note #4 This Kit includes a Damper, a pulley for the long shaft water pump, alternator pulley, new crank bolt, alternator bracket bolt and an installation bolt. OE Belts to be used.

Note #5 This Kit includes a Damper, a pulley for the short shaft water pump, alternator pulley, new crank bolt, alternator bracket bolt and an installation bolt. OE Belts to be used.

Note #6 This Kit includes a Damper, a pulley for the short shaft water pump, new crank bolt, alternator bracket bolt and an installation bolt. OE Belts to be used.

Chevrolet SB and BB Engines

Timing Marks and Timing Tabs:

Both small and big block Chevys have had two different positions for TDC. PRO/RACE and PRO/SPORT dampers are designed to use the aftermarket bolt-on timing tab indicator. Because our SB damper is a different diameter than stock dampers, you may want to consider an aftermarket timing pointer. Please refer to the Tavia website (www.tavia.com) on line catalog for timing pointers

Counterweights:

400 small blocks and 454/502 big blocks are externally balanced engines. This means the damper has a counterweight attached to it to provide proper balance. The counterweight can be removed and the damper can be used on internally (neutral) balanced engines.

Balancing:

All our dampers are sold correctly balanced from our factory. If you have your engine or crank balanced, it is not necessary to rebalance the damper. If you are just making a straight swap from a stock damper to one of ours, as long as the factory balance of your original damper has not been changed, it will directly interchange.

Ford V-8 Engines

General Notes relating to Ford dampers:

All our SB Ford dampers use removable counterweights. If you are building a neutral balanced engine you may simply unbolt the counterweight and discard it.

#64269, #34269 & #24269 - These dampers are designed to be used with Ford engines requiring a 28.4 in.oz. damper imbalance. Each damper has a bolt pattern for both three bolt and four bolt pulleys.

Most early three bolt pulleys bolt directly to the damper and line up correctly. Four bolt pulleys of various types and styles are accommodated by the included sleeve and spacers. Note that the supplied pulley spacers are only suitable for accessory belt pulleys, not supercharger drives. Note that the #64269 damper has two sets of timing marks to work with the various timing positions from Ford. Ford used a third position on some early engines which is not accommodated by this damper. #34269 and #24269 dampers are marked with the three sets of timing marks used by Ford.

#64270, #34270 & #24270 - These dampers are designed for '81 and later 5.0 engines requiring a 50 in. oz. damper counterweight. Note that the stock damper is 6.38" in diameter while our damper models are 6.61" in diameter. As a result, there are some instances where the lower water pump bolt contacts the damper and some instances where the damper may contact the pump housing and/or timing chain cover. This is usually found on '95 covers. Spot facing the bolt pad on the water pump and some minor grinding will alleviate the interference. Each damper includes a sleeve and pulley spacers. See notes under #64269 for specifics.

#64272, #34272 - These dampers fit 429-460 engines which have used several different timing pointer locations. Most applications have the timing pointer at the "10 o'clock" position looking at the front of the engine. The PRO/RACE dampers have two keyways, a 1/4" and a 3/16". Using the 1/4" keyway will correctly position the damper on a production crank (or custom crank with the crankpost machined to production specs) so a "10 o'clock" pointer lines up correctly with 0° TDC on the damper. Use the 3/16" keyway with Ford Racing M6303-A600 & B600 crankshaft or a component of the M-6011-A600 & B600 short block kit. The "10 o'clock" timing pointer should align with 0° TDC on the harmonic damper.

Note: When using these dampers with a Ford M-6303-A600/B600 crank, use a Ford Racing spacer M-6359-B460 for internally balanced engines and for externally balanced engines the stock spacer (Ford Racing # M-6359-D460) will need to be machined for the pulleys to line up correctly. These dampers have the stock four bolt pulley pattern along with the big block Chevy three bolt pattern which permits the use of most crank trigger setups. Pulley alignment must be checked and adjusted by machining the crankshaft spacer if required.

Warning - Some cast iron water pumps have a casting lug which must be ground off to clear damper.

Pontiac V8 Engines

#64275 - Installation of this damper on '65-'68 engines requires the use of a timing

chain cover, water pump, pulleys, etc, from a '69 or later engine. These parts are available from wrecking yards or may be purchased from Year One at **1-800-932-7663** or www.yearone.com

Chrysler V8 Engines

#64277, #34277 & #24277 - These dampers are for internally balanced engines. They fit all 318 V8 standard and Magnum, all 273 and 340 engines with forged cranks. Does not suit '72-'73 cast crank engines.

#64278, #34278 & #24278 - These dampers are for externally balanced engines only with a cast crank (1971-1992). They will not work on a '93-'97 5.9 Magnum engine.

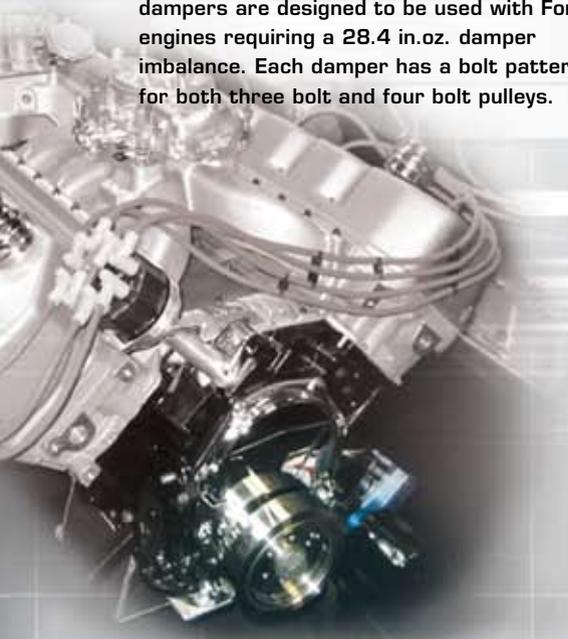
#64279, #34279 & #24279 - These dampers are for 383-440 internally balanced engines. They fit the 440 forged crank, 361-383 "B" and "RB" engine forged cranks ('62-'70), and 413-426W. Each damper has six bolt holes. These dampers cannot be used on a 400 cast crank engine or a 440 6-bbl (or 1970-71 4-bbl) with heavy rods. These dampers can be used on a 426 Hemi with slight TDC modification. Contact P.A.W. at 818-678-3000 for a specially designed damper for 331-354-392 Hemi.

Supercharger Dampers

#74265 - #74267 - #74269

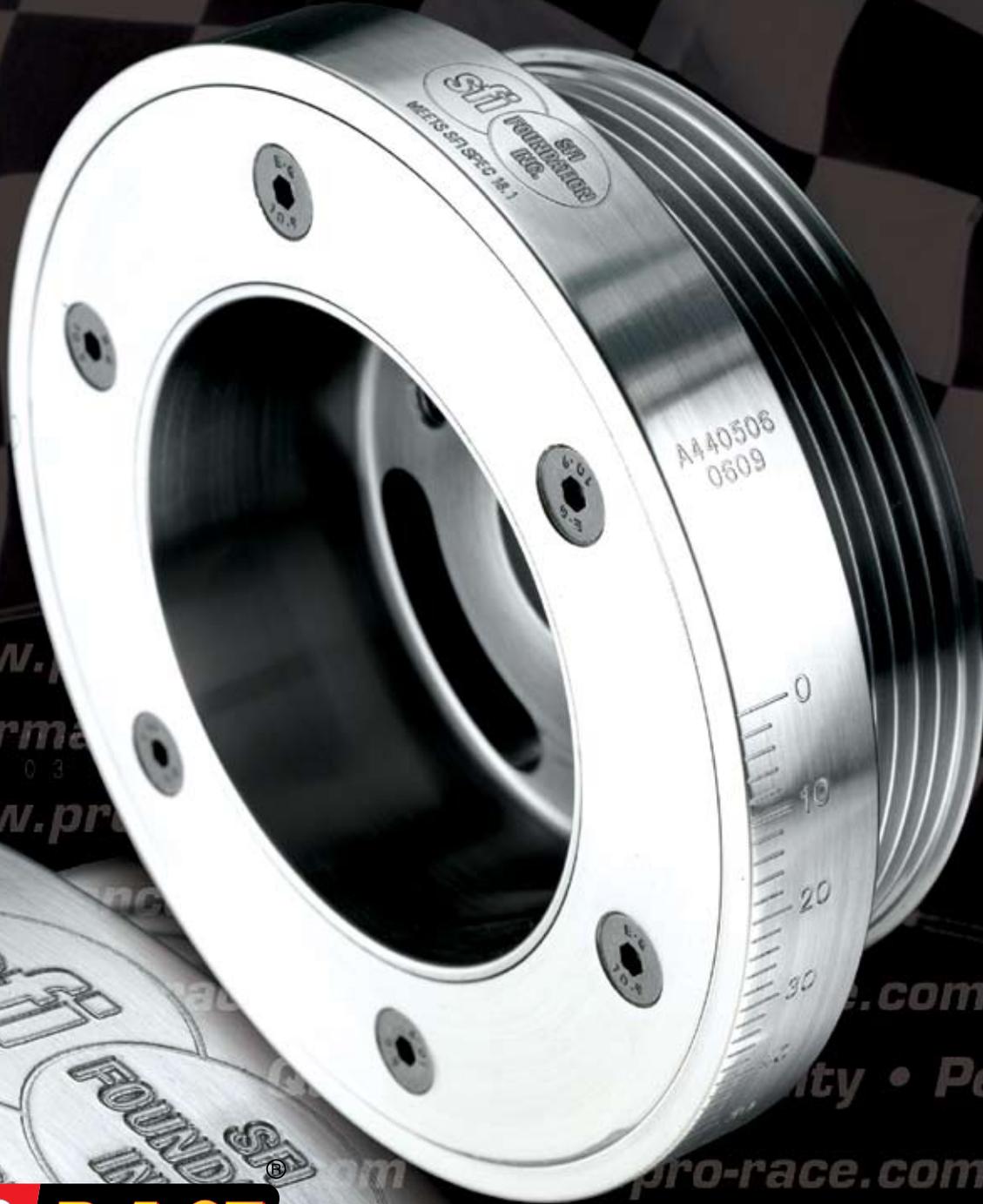
PRO/RACE makes a small block Chevy and SB Ford and a big block Chevy damper specifically for supercharger use. These dampers are neutral balance dampers but by adding our optional counterweights they can be used on an externally balanced engine. While this style of damper is typically used with blowers using Gilmer belt drives, they can be used with any type of supercharger drive. The Chevy dampers include a 6-bolt pattern (on a PCD of 2.782") that is consistent with most blower pulleys. The original three bolt pattern is also retained. The dampers have dual keyways, one is the stock 3/16" keyway with a 1/4" keyway 180° from the original stock keyway. The small block Chevy damper features larger wall thickness around the oil seal area for greater strength for the 1/4" keyway. This damper is supplied with a suitable Chicago Rawhide oil seal (CR #19215).

The SB Ford version is neutral balanced and is drilled for Ford 3/4 bolt pulleys. Use solid pulley spacers which can be found in the Ford Racing catalog. A larger diameter oil seal is supplied to accommodate the increased oil seal thickness (CR #20520).



PRO/RACE Harmonic Dampers

The ultimate damper at an affordable price



PRO RACE

www.pro-race.com

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PRO/RACE "ALL STEEL" Harmonic Dampers manufactured in Australia by Cyco Systems Corporation Pty. Ltd.

PRO/RACE Harmonic Dampers are protected by U.S. Patent #4962677

The manufacturing procedures and technical specifications of PRO/RACE Harmonic Dampers are subject to change without notification