

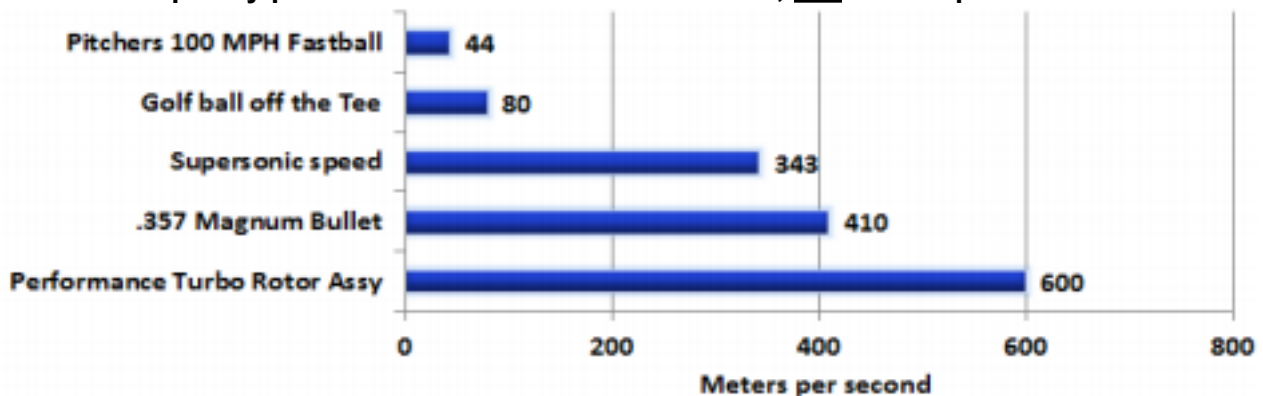
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**Subject Turbocharger Rated Speed**

Did you know that running a turbo beyond its rated speed will adversely affect its durability and create an unsafe environment for those driving, tuning, or in the vehicle's area of operation?

Another way of understanding the rotating energy of a modern turbocharger assembly is to compare it's speed to other high velocity items.

- Baseball pitcher throwing fastball, 44 meters per second
- Speed of a golf ball hit by professional golfer, 80 meters per second
- At sea level and 68° F an object becomes supersonic above 343 meters per second.
- Bullet fired from a .357 Magnum, 410 meters per second
- Contemporary performance turbo rotor assemblies, 600 meters per second!



600 meters per second is 1,350 miles per hour. ( Mach 1.7 )

Even the exotic materials of contemporary turbocharger components cannot withstand the forces exerted on them when pushed beyond rated speed. If the turbo's rated speed is exceeded, it is not a question of if the turbo will fail but of when.

Please protect yourself, your investment, and those around you!

For more instruction on estimating turbo speed using the BorgWarner Matchbot application tool please review Service Bulletin # S-02-17