



Tech Testing & TUV Approval

Each Performance Machine Wheel and Brake is designed and engineered to specific standards and thoroughly tested. Starting with computer simulated stress analysis, our engineers assess each design. We do not stop there, though, as we quantify our findings with data from physical testing in our sophisticated in-house test department. PM tests to strict world wide standards such as JASO and TUV.

Cornering Test

Performance Machine's physical testing begins with our cornering test where we reproduce the incredible stress created during cornering on a motorcycle. Each wheel design is subjected to this mechanical torture and then evaluated for damage. The wheel is tested at 2.25 times the maximum tire load for 1,000,000 cycles. If a wheel does not survive this test or any other test, it is scrapped and redesigned.



Radial Load Test

Next, the wheel is loaded on our giant Radial Load Tester which simulates a load on a tire/wheel assembly in a vertical riding condition at 2.25 times the maximum tire load for 100,000 cycles on a front wheel and 500,000 on a rear wheel. The wheel is spun up to speed during these cycles then checked for flaws before enduring the next physical test.



Torsional Load Test

The third test in the PM repertoire is the Torsion Load Tester which simulates what a wheel would endure if you were shifting at wide open throttle or hitting the brakes to the point of skidding for 100,000 cycles with the heaviest and most powerful production bike. Load sensitive rams cycle back and forth replicating real world style torture in an attempt to rip the hub out of the rim. Each wheel design is given this torture treatment before moving on to its final physical test.



Impact Test

The fourth physical test sends each PM wheel design to our massive Impact Testing unit which simulates the pot holes and road hazards that a wheel is subjected to in the real world. We wrap each wheel design with a tire and replicate a hard edged hit; the wheel must retain air pressure for a specified amount of time in order to pass. If a wheel passes this final test it lives to see another day and moves into production.

Brake
Test

Stock V-Twin motorcycles are coming out of the factory with more horsepower on tap than ever, rarely does it stay that way, though and the bulk of these bikes are upgraded with high performance pipes, cams, and carbs and other go fast parts. In an effort to increase performance riders overlook the very system designed to bring it to a stop. In-house dyno testing ensures that PM calipers maintain proper pressure, do not flex, provide superior stopping power, and all functioning parts hold up to daily use to bring your motorcycle to a stop in a safe distance.



Euro Compliant

As the industry leader in the motorcycle aftermarket, Performance Machine has been testing our wheels in-house using TUV standards for decades. TUV is the European standard for testing and although the Performance Machine La Palma, CA facility has received TUV certification from the testing entity, each wheel has to be tested by a European facility in order to be approved for street use throughout Europe. Each wheel design and size, ranging from stock replacement up to 23 x 3.5 and 18 x 8.5 undergoes rigorous tests for cornering, impact, torsion, and radial load before receiving TUV certification. TUV designs include Hooligan, Wrath, Gasser, Riviera, Element, Heathen, Torque, Luxe and Diesel wheel designs with matching discs and belt sprockets.

Hooligan



Wrath



Gasser



Riviera



Element



Heathen



Torque



Luxe



Revel



Virtue



Braking Parts



Braking Systems



Forward Controls



Phat Tail Kit

