

Link do produktu: <https://bizongarage.pl/rtmg-performance-dsg-dq250-upgraded-clutch-up-to-850-nm-p-137999.html>

## RTMG Performance DSG DQ250 Upgraded Clutch up to 850 Nm



Cena brutto	<b>7 199,99 zł</b>
Cena netto	<b>5 853,65 zł</b>
Numer katalogowy	<b>RTMG-901-0985</b>

### Opis produktu

RTMG Performance comes once again and introduces the new enhanced DSG DQ250 gearbox complete clutch kit based on genuine VW original clutch. The new reinforced clutch is available in Stage 1, Stage 2 and Stage 3 with a maximum torque of 850Nm, 1100 Nm and 1300Nm respectively. Stage 1 is available by adding +2 extra friction discs and +2 billet chromoly pressure plates. Stage 2 is available by adding +4 extra friction discs and +2 billet chromoly pressure plates. Stage 3 is available by adding +4 extra friction discs, +2 billet chromoly pressure plates, metallic thrust bearing, billet chromoly clutch cover with thermal processing on the spline hub. The RTMG clutch provides upgraded torque levels of up to 22% compared to the factory clutch for the Stage 1, up to 40% for the Stage 2 and up to 45% for Stage 3 clutch. Box pressure ratio to torque resistance is given. Stage Stock TCU TCU 16 bar TCU 18 bar Stage 1 600 Nm 700 Nm 850 Nm Stage 2 700 Nm 850 Nm 1100 Nm Stage 3 750 Nm 900 Nm 1300 Nm Presentation of Wet Multi-Disc Clutches Our team at RTMG Performance, after extensive research and development under the most challenging conditions of dragster racing, managed to solve all the development issues of the 02E DQ250 gearbox clutches. Initially, we tested all friction materials, most of which had a lower friction coefficient compared to the factory clutch. Some of these materials not only had a lower friction coefficient but also produced residues, which clogged or sometimes even damaged the solenoids. After two years of continuous testing at the Santa Pod track in England, we gathered invaluable insights in achieving one of the most challenging feats—setting the European record in the 0-400 meters (or quarter-mile) with a time of 7.8 seconds and an exit speed of 300 km/h using a 2.0L engine. How did we develop the clutch? The clutch struggled with the incredible launch control of our engine, which delivers close to 1,400 horsepower in a 2.0L TSI Golf 6. After approximately every 5 passes, we would remove the clutch and inspect the wear. We tested numerous friction materials until we finally selected the current material. The most critical point, however, was in the metal plates, which deformed as the car had to cover the first 18 meters as quickly as possible from a standstill, while at the same time ensuring the clutch did not overheat to avoid slipping at high speeds and under high turbo pressures. This led to extensive testing with many materials until we found a steel that had a high friction coefficient but was also highly resistant to high temperatures, as its crystalline structure prevented it from deforming as easily as other materials, including the factory parts. The material we use is thermally treated with tempering, which relieves stress and prevents deformation under the extremely high temperatures generated during the clutch's operation during the launch. The result was not only the time we achieved but also the track and European record for front-wheel-drive cars: 1.3006 seconds in the 0-18 meters. A few words about power transmission. Torque is generated by the engine and transferred through the drivetrain components: flywheel, clutch, gearbox, differential, axles, and ultimately to the wheels. What is the role of the clutch here? The clutch needs to transfer the engine's revolutions and torque to the gearbox during launch, where the engine goes from 5,000 RPM in launch control to turning the gearbox at 0 RPM. There are fixed and rotating components. In the clutch, the fixed components are the organic discs mounted with mechanisms on the clutch and connected to the gearbox, while the rotating components include the engine, flywheel, clutch basket, and the metal plates, which are integrated and floating on it. As the driver initiates the launch by releasing the brake while flooring the throttle, the gearbox control unit compresses a piston that pushes the metal plates, squeezing the organic discs. The friction generated between these components causes the fixed discs to rotate at the same speed as the rotating ones. To achieve this, several factors come into play, such as the friction coefficient, the surface area, the radius at which the friction materials are located relative to the axis, the cooling rate, and the heat dissipation, which is forced convection. We improved our results by: a) Increasing the friction surface area. b) Increasing the friction coefficient. All of this was achieved by increasing the number of metal and organic discs and installing a bronze bushing instead of a plastic one for the stage 3 setup, to prevent it from melting at high temperatures. Welcome to our team, welcome to the next generation of performance enhancement!