

Link do produktu: <https://bizongarage.pl/rtmg-performance-upgraded-clutch-pack-for-dsg-dq381-0dw-stock-clutches-stage-1-850nm-p-138006.html>



RTMG Performance Upgraded Clutch Pack for DSG DQ381 (0DW) Stock Clutches - Stage 1 - 850Nm

Cena brutto	4 465,99 zł
Cena netto	3 630,89 zł
Numer katalogowy	RTMG-901-0976

Opis produktu

RTMG Performance comes once again and introduces the new performance upgraded clutch pack for DSG DQ381 (0DW) stock clutches. The Stage 1 kit includes +2 extra friction discs. The RTMG Performance Upgrade Kit provides upgraded torque levels of up to 22% compared to the factory clutch for the Stage 1. Useful Information About Maximizing Torque Handling in DSG Gearboxes For DSG DQ381 gearboxes, torque transfer from the engine to the transmission occurs via a multi-plate clutch immersed in oil, hence referred to as a wet multi-plate clutch. However, it's not a single clutch but two separate clutches operating independently, controlled by a sophisticated system called mechatronics, which includes valves and sensors. The clutches are linked to two shafts: Shaft K1: Handles odd-numbered gears (1, 3, 5, 7). Shaft K2: Handles even-numbered gears (2, 4, 6). In neutral gear, the clutches do not transmit torque. When the driver selects first gear and releases the brake pedal, the mechatronics system progressively increases oil pressure on the first clutch (K1) to start the car. Similarly, when shifting to second gear, the system reduces the pressure on K1 and increases the pressure on the second clutch (K2), completing the shift in 400-1000 ms. The oil pressure ensures a smooth transition between gears. The Issue with Enhanced Engines and Torque Slip Under factory conditions, the gearbox operates with oil pressures between 10 and 12 bar, sufficient for standard torque loads. However, with upgraded engines producing higher torque, the oil pressure is not automatically increased to handle the extra load. This mismatch leads to clutch slip. What is clutch slip? When the engine is running at, for example, 6,000 RPM, but only 5,000 RPM is transmitted to the gearbox, this is slip. Since the clutch operates through friction, slip causes a significant increase in temperature between the friction materials, resulting in overheating, deformation, and ultimately failure. Even minor slip (2-4%), which the driver may not notice, can wear down the friction materials, clogging filters and valves in the mechatronics system. Over time, this leads to malfunctions and eventual system failure. Friction and Torque Transfer Friction is a force that resists motion between two surfaces in contact. There are two types of friction relevant to clutches: Static friction: Prevents movement when the clutch is engaged correctly (no slip). Sliding friction: Occurs when there is slippage, leading to undesirable outcomes. To prevent clutch slip: Increase contact surface area: Achieved by adding more friction and steel plates (+2 pieces). Enhance the coefficient of friction: Using steel plates with greater roughness improves grip. Boost oil pressure: For performance applications, raising the oil pressure to 18 bar via a gearbox management remap (mechatronics) is essential. Upgraded Clutches for Performance Enhanced clutches address the first two factors by providing a larger surface area and a higher coefficient of friction. Adjusting oil pressure ensures better torque management and durability under high loads. For remapping or further guidance on optimizing your DSG gearbox for your needs, feel free to contact our company. * Tolerance values : 1.7 - 2 mm ** Engineer is responsible to measure the tolerances, clutch pack not covered by warranty.