CASE STUDY

PROJECT DESCRIPTION: RACE MACHINE CENTER (HILLEGOM) INCREASE PERFORMANCE ON MINI COOPER WITH AR9100

Parties & Individuals:	Racers Machine Center Hillegom, Gerrit van Zijverden, Specialist Tuner and owner BLP International Hillegom, Rob van Hoorn, Project manager
Period:	June 2012 – Present
Situation:	The engine oil in a Mini Cooper race engine is also used to lubricate the transmission. This sets out challenging requirements and demands on the oil. To remain competitive, it is important to investigate every possible advantage as 1 - 2 additional horsepower can make all the difference. RMC Hillegom also experience temperature spikes in the oil.
Task:	Treat with Archoil AR9100 Nanoborate Oil treatment (friction modifier)
Action:	0.5 liters of Archoil AR9100 was added with 5 liters of MOTUL 300V Competition oil. Motul 300V is considered one of the best commercially available race oils, providing substantial protection and anti-wear. For the purpose of this test it was also chosen the demonstrate the advantages of AR9100 even when used with the very best oils available on the market. The AR9100 generates a chemical bond with metal surfaces. This provides tremendous wear resistance, extreme pressure protection and a friction coefficient of 0.0375.
Result:	**Noticeably reduced noise. Oil temperature dropped from> 105 º C to below 95 º C. Engine top speed increased by approximately 2%. Dyno testing revealed an improvement in power of> 2%. Lap times improved as a result.**

