



# How the reigning F1 World Champions embed competitive advantage using BSOL

## Customer needs

- The means to continuously improve car performance very rapidly from race to race throughout the F1 season
- Engineering which embeds reliability and safety, while not compromising car speed

## Customer solution

- British Standards Online (BSOL) provides online subscription access to the most complete collection of British, and adopted European and international standards available globally

## Customer benefits

- Greater reliability is embedded: across the 2009 season points scoring race finishes was 91.2% against 64.7% of the team's nearest rivals
- Ease of use means 'time-to-car' of upgrades is reduced
- Access to comprehensive standards information means overall team knowledge is expanded
- Confidence in fundamental engineering further accelerates R&D cycle

"The introduction of standards helped us, as Brawn GP, to win the F1 World Championship in 2009"

**Graeme Williams**  
CEng Team Leader Gearbox Design  
MERCEDES GP PETRONAS (formerly Brawn GP)

MERCEDES GP  
PETRONAS  
FORMULA ONE TEAM

## Background

MERCEDES GP PETRONAS manufactures and runs Formula One (F1) cars and is one of 12 teams competing in the FIA Constructors' F1 World Championship. With 450 people based in Brackley, Northamptonshire, it has been part-owned by car manufacturer Daimler AG since December 2009. In the 2009 season, the team (director-owned and operating as Brawn GP) won the F1 Constructors' World Championship and its then driver, Jenson Button, won the F1 Drivers' World Championship. In arguably the world's most competitive arena, MERCEDES GP PETRONAS aims to continuously improve its cars race by race in order to win.

## Why choose BSOL

MERCEDES GP PETRONAS finds that standards drive best practice into the design and construction of car components, and makes their use central to how the team operates. Standards are used to ensure that drawings, machined features and inspection tools to assess new components are correct. This builds in 'right first-time' and reduces the need to re-work components. Standards also provide the foundation of tried and tested knowledge which accelerates the innovation cycle. Graeme Williams, Gearbox Design Team Leader at MERCEDES GP PETRONAS, notes, "We can guarantee that as soon as we use a standard we get a certain quality, and that is vitally important. You will have solved that problem and you can immediately concentrate on the next one". For MERCEDES GP PETRONAS, the use of BSOL gives quick and easy access to standards in a



cost-effective way; its flexible modules give access to a tailor-made collection of standards which are needed; the standards are always available when, how and where required; and BSI is trusted as the best source of standards information.

## How BSOL is used

MERCEDES GP PETRONAS currently subscribes to five BSOL modules: Documentation (for drawing standards); Metrology; Screw threads and fasteners; Metal treatment and welding; and Aerospace components and fasteners. These cover everything that it needs.

## The benefits of using BSOL

MERCEDES GP PETRONAS finds BSOL easy to use, cost-effective and above all quick. Speed is hugely important because the 'time-to-car' of design innovations is key to maintaining the momentum of car upgrades. Williams explains, "Being able to design parts quickly is an important aspect of keeping a competitive advantage in F1. Any delay in searching for the correct information to complete a drawing can have a direct effect on track performance".

BSOL also gives MERCEDES GP PETRONAS visibility of all the relevant standards which

may be important to them, helping to expand the team's knowledge. Williams notes, "One advantage of the BSOL website is that you can discover things that you didn't know were available". BSOL also gives MERCEDES GP PETRONAS confidence in its engineering:

"The BSOL resource makes a big difference to the quality of our drawings and the integrity of the engineering. It helps us guarantee component quality without compromising time or innovation".

Finally, BSOL and standards contributed to notable reliability for the team in 2009. As Brawn GP, its cars finished in 32 out of 34 races (17 races with two cars) and scored points 31 times, while its nearest rival scored points only 22 times. This translates as 91.2% reliability against the 64.7% reliability of the team which came second. Williams calls this record "unprecedented" and adds, "The introduction of standards helped us, as Brawn GP, to win the Formula One World Championship in 2009".

Your business could benefit from British Standards Online (BSOL), just like Mercedes GP Petronas Formula One Team UK.

To find out more visit <http://shop.bsigroup.com/BSOL> or call +44 (0)20 8996 9001 for details.