

## BREMBO PRESENTS THE NEW BRAKING SYSTEM FOR THE 2021 WORLD SUPERBIKE CHAMPIONSHIP

*Thirty-fourth consecutive championship in the factory derivatives with over 750 rounds won by motorcycles equipped with Brembo braking systems*

As a supplier of the series' top teams since the first edition in 1988, **Brembo will supply an innovative braking system** to the main competing teams. **Of the 23 bikes** that will compete in the 2021 championship, **17** have chosen to rely on **Brembo braking systems** and **16** on **Marchesini wheels**.

Thanks to the experience accumulated by winning **33 World Superbike Championships**, during which the bikes with Brembo brakes have won **29 World Riders' Championships, 33 World Constructors' Championships and triumphed in 771 out of 833 rounds with the main protagonist teams**, the Bergamo based company confirms its progress in the World Superbike Championship with a newly designed monobloc aluminium caliper and an improved disc design.

The majority of the riders have decided again to choose the high performance, reliability and safety guaranteed by Brembo components that includes: **brake calipers, steel discs, pads, brake master cylinders and friction master cylinders**.

### New finned caliper

Characterized by a very similar design to the GP4, introduced already in MotoGP in the 2020 championship and today used by almost all the riders, **it's the new caliper dedicated to the World Superbike Championship**.

Brembo will supply a new monobloc caliper machined from a solid piece of aluminium, with radial attachment and four pistons, with a diameter of 34 mm. **The Z04 sintered pads** are designed to perfectly fit the new caliper geometry.

This caliper is distinguished by an **extreme design** - the presence of fins on the external body - presents elements of innovation with an **amplified caliper anti-drag system**. In detail, the caliper is characterized by a **system** that allows each rider to adjust the braking torque, meaning during the braking action, the rider **generates a force that is added to that of the hydraulic pressure of the brake fluid on the pistons**. In this way, with the same force on the rider's lever, **the braking torque is amplified**.

Thanks to a spring device **the anti-drag system reduces the residual torque to avoid contact between pads and discs in the absence of pressure in the system**. This avoids the formation of unwanted force to reduce drag and decrease rolling resistance that unintentionally slows down the bike.

### New vented steel disc

For the 2021 season Brembo engineers expect the teams to focus on the use of **two types of steel brake discs: 338.5-mm diameter discs for the most severe circuits and 336-mm diameter discs for the remaining tracks**. In addition, Brembo also makes available to the teams **the innovative steel vented disc**. The characteristic of this disc is precisely the ventilation which **aims to increase the heat exchange and therefore improve the cooling of the disc itself**. This is a solution designed ad hoc so that teams can use it on circuits that are expected to be very strict for the braking system such as Donington, Barcelona and Magny-Cours.

The adoption of a double diameter option combined with different thicknesses, four in all, will allow the teams and riders to have a wider choice of tune depending on the severity of the braking required at each circuit.

Brembo expects that at particularly **demanding circuits for the braking systems**, the riders will tend to favour the **thickest discs available**. In the remaining circuits, it's likely that the riders are oriented towards thinner discs, even if the assessment of the most suitable discs will be carried out with the long run on Friday. After each session Brembo engineers, working at the track in close contact with the teams, check discs, pads and caliper temperatures reached utilizing thermo-paints or with the sensors in contact with the braking system.

### Additional braking system components

In addition to the discs, calipers and pads, for which the research of increasingly performing friction materials knows no rest, Brembo supplies to the teams the **master cylinders** too. Brembo signals the increasing spread of the thumb master cylinder which allows the rider to activate the rear brake by pressing a special button on the left side of the handlebar, which helps to manage the delivery of the engine torque when exiting a turn under acceleration.

Currently, **more than 50 percent of the Superbike World Championship** riders use the thumb master cylinder.

In 2020 the teams can also use a variant of the classic thumb actuation, which is called a **push & pull pump**, that has a dual function and can be operated both by the thumb or index finger, depending on the rider's preference. The use of this pump with the index finger requires it to be mounted on the lever with a rotation of 180° compared to the use of the thumb. This increases the modulation and the grip on the lever during deceleration.

### Marchesini wheels

Finally, Brembo Group will be part of the Superbike World Championship also with the **Marchesini forged aluminium wheels** which are used by **the 70 percent** of the riders competing in the 2021 edition.

Specialized in the manufacturing of sophisticated forged magnesium and aluminium wheels, this brand is one of the most prestigious of the Brembo Group. The Marchesini wheels ensure weight savings to the motorcycles, favouring acceleration and handling especially when changing directions. This year riders will be choosing between **two options** in the World Superbike Championship, **5-spoke Y wheels or 7-spoke light wheels for the front and 7-spoke light wheels for the rear.**

### Brembo SpA

Brembo SpA is the world leader and acknowledged innovator of brake technology for automotive vehicles. Brembo supplies high performance brake systems for the most important manufacturers of cars, commercial vehicles and motorbikes worldwide, as well as clutches and other components for racing. Brembo is also a leader in the racing sector and has won more than 500 championships. Today the company operates in 15 countries on 3 continents, with 26 production and business sites, and a pool of over 11,000 employees, about 10% of whom are engineers and product specialists active in the R&D. 2020 turnover is € 2,208.6 million (12.31.2020). Brembo is the owner of the Brembo, Breco, AP, Bybre, and Marchesini, SBS Friction brands and operates through the AP Racing brand.

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