

## BREMBO BRAKES FOR ALL THE 2024 FORMULA 1 GRID

Stezzano (Italy), 26 February 2024 - Brembo confirms the leadership in the Formula One World Championship ahead of the 2024 season, which starts on 1-3 March with the Bahrain Grand Prix.

In Formula 1 since 1975 and with over 500 Grand Prix victories using their own braking systems, the company has developed new braking systems customized for each team and will supply most of the single-seaters with hydraulic (calipers, master cylinders and by-wire units) and friction components (carbon discs and pads).

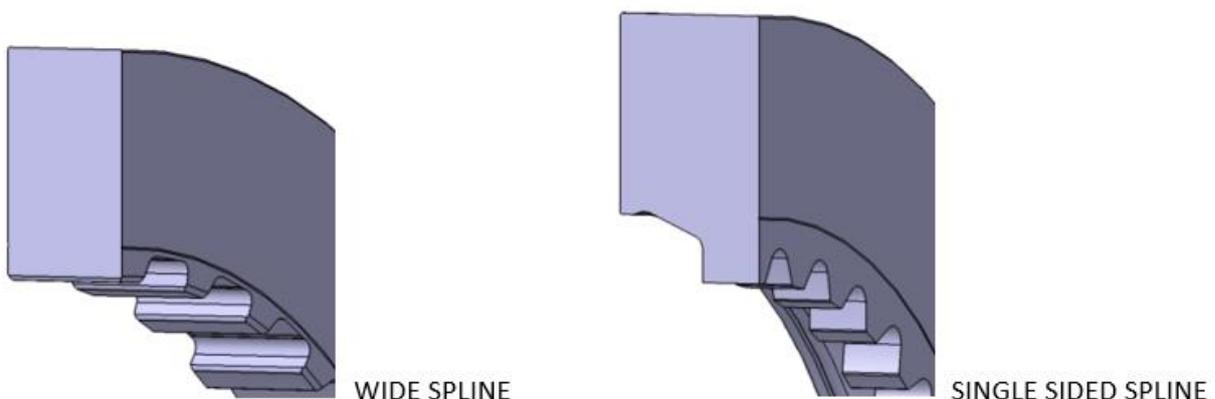
### A look at carbon discs

Over the past twenty years, Brembo has revolutionized **the concept of disc in Formula 1**. In the early 2000s, Brembo carbon discs had a thickness of 28mm with a maximum of 72 holes in a single row and a diameter that exceeded of 10mm. Today, the diameter has increased from 278mm to 328mm for the front axle carbon disc and from 266mm to 280mm for the rear one, with a thickness of 32mm and a number of holes between 1,000 and 1,100 at the front, while 900 holes at the rear in the most extreme setup in terms of cooling.

For the 2024 championship, the teams supplied by Brembo will use two different types of carbon discs: **"wide spline"** and **"single-sided spline"**. In the "wide spline" specification, the thickness of the friction ring - the part in contact with the bell - is equal to the thickness of the disc, while in the "single-sided spline" specification, the thickness of the friction ring is lower than the disc thickness.

This second solution may promote a different disc ventilation strategy and better wheel corner packaging but at the expense of optimal mechanical stress on the carbon, limiting the potential for ventilation punctures.

The choice between these solutions depends on the specific needs of each team based on the design of individual cars.



### Brembo Group calipers for all teams

In 2024, Brembo's comprehensive presence on the starting grid is confirmed: **the Brembo Group will once again supply its brake calipers to all 10 teams.**

Specifically, 9 teams will be equipped with Brembo calipers, while one team will be supplied with AP Racing calipers, a company based in Coventry and part of the Bergamo-based group.

Brembo will provide calipers with up to 6 pistons to all drivers on the grid, which is the maximum number set by the regulations, made of solid aluminum and nickel-plated.

### Pumps, BBW, and Clutches

Five teams will be supplied with **brake pumps from Brembo and AP Racing**, and four teams will install in their cars **by-wire units developed by Brembo.**

These units aim to manage rear braking, instantly varying the dissipative braking contribution based on regenerative input and ensuring the correct balance between the front and rear axles.

Eight teams, on the other hand, will mount **clutches manufactured by AP Racing.**

### Customization, telemetry and maintenance

Every Formula One car is set up differently. Brembo engineers worked with each team to define the optimal ratio between weight and stiffness of the new brake calipers. **Thanks to its long-standing expertise, Brembo has designed a brake caliper for each team that allowed them to reach the targeted ratio.** Some teams will prefer lighter but also less rigid calipers, while others will adopt stiffer but heavier solutions. It is a delicate balance that leads Brembo to develop dedicated solutions for each single-seater's braking system.

By using sensors in the wheel corners, teams will be able to know the temperature of the discs and calipers at all times. Based on the data collected, the teams' engineers will be able to support the driver in the optimal management of the single-seater's temperature and braking balance.

### About Brembo SpA

Brembo leads the world in the design and production of high-performance braking systems and components for top-flight manufacturers of cars, motorbikes and commercial vehicles. Founded in 1961 in Italy, Brembo has a long-standing reputation for providing innovative solutions for OEMs and aftermarket. Brembo also competes in the most challenging motorsport championships in the world and has won over 600 titles.

Guided by its strategic vision – “Turning Energy into Inspiration” – Brembo’s ambition is to help shape the future of mobility through cutting-edge, digital and sustainable solutions.

With over 15,000 people across 15 countries, 32 production and business sites, 9 R&D centers and with a turnover of € 3,629 million in 2022, Brembo is the trusted solution provider for everyone who demands the best driving experience.

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