

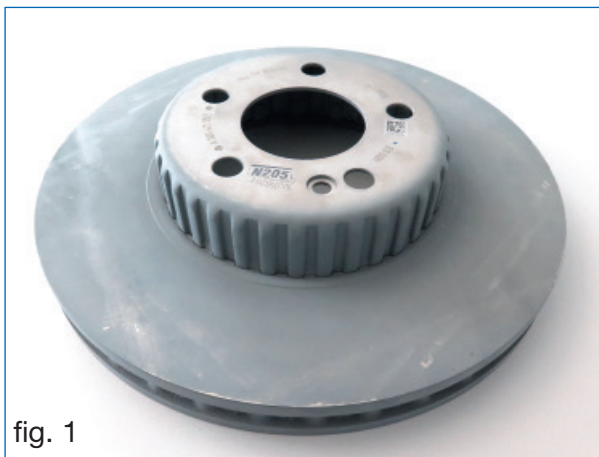
ATE brake discs (one-piece) for various Mercedes-Benz series (2013–)

Subject: Technical data

Vehicles: Mercedes-Benz Series

C-Class – W 205 Saloon (2014–) S-Class – W 222 Saloon (2013–) E-Class – W 213 Saloon (2016–)
C-Class – S 205 Estate (2014–) S-Class – C 217 Coupe (2014–) E-Class – S 213 Estate (2016–)
C-Class – C 205 Coupe (2015–) S-Class – A 217 Cabrio (2014–) GLC-Class X 253 (2015–)
C-Class – A 205 Cabrio (2016–)

The above-listed vehicle series and future series will have factory-fitted brake discs with special design features. A deep-drawn grooved disc chamber made of sheet steel is joined to the grey-iron friction ring by means of a crimp or seam (fig. 1). The disc chamber material is different from conventional brake discs and measures only a few millimetres in the area of the screw flange (fig. 2).



The vehicle manufacturer cites weight savings and thus a reduction of unsprung mass for more driving comfort as the main reason.

The ATE solution

With its vast experience in the area of brake disc design and production, ATE succeeded in producing a brake disc with similar dimensions and characteristics (fig. 3). The particular challenge is the low material thickness in the area of the screwed flange (fig. 4).



In the meantime and following extensive simulations, test stand runs and driving tests, ECE approval has been obtained. A particular highlight is that the brake disc is characterised by the same braking performance but can be placed on the market at a very attractive end customer price.

The market launch of the single-piece ATE brake discs for the above-listed MB series will be carried out gradually.

Advice for marketing and workshops

As the design of the two-piece OEM brake disc deviates from the single-piece original ATE MB brake disc, there may be queries from MB workshops, free workshops, or end customers during brake disc replacement regarding proper vehicle allocation and suitability.

In such cases, the following reasoning is to be applied:

1. The technical properties of the single-piece original ATE MB brake disc match those of the OEM brake disc.
2. Unrestricted use as replacement for the two-piece OEM brake disc is confirmed by the ECE certificate.

Installation information

A distinctive design feature of the single-piece original ATE MB brake disc is the reinforcement ring on the inner face of the screwed flange inside the brake disc chamber (fig. 5), which serves to further strengthen the extremely thin disc chamber wall. During brake disc installation, this ring engages in a corresponding ring groove on the rim side of the wheel hub (fig. 6 and 7).



Prior to mounting a new single-piece original ATE MB brake disc, make sure the ring groove of the wheel hub is properly cleaned with a suitable tool.

We recommend using ATE's special brake tools!
See tool catalogue: www.ate-info.de