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Technical Bulletin

Micro-V® XF belts – PJ profile

GATES REFERENCE : MAKE : MODEL : MOTOR : MOTOR CODE ::	**Micro-V XF belts – PJ profile** AUDI / SEAT / VOLKSWAGEN / MERCEDES MULTIPLE	

For many years the PJ profile was only used for industrial applications, especially in the “white goods” sector, as drive belts for washing machines and tumble dryers.

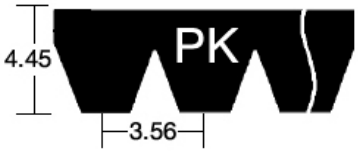
More recently, these small Micro-V belts were introduced in the automotive industry, where the main applications are ventilator (fan) drives.
Usually the basic engine configuration only has 1 fan, which is electrically driven (system installed on radiator) (Fig. 1).

Fig. 1: Electrically driven fan

Fig. 2: PJ belt

In case additional cooling is needed (cars with air conditioning, with a factory installed tow bar, for taxis, etc), a second fan is installed, in order to pull more cooling air through the radiator. This second fan is then often driven from the first by a 2 or 3 rib PJ belt.
Up to now only VAG and Mercedes are using this kind of belt.

The main difference between a PK and a PJ belt is the size of the rib profile: a PJ profile is quite a bit smaller than a PK profile, the rib width only being 2.34 mm compared to 3.56 mm, while the height is 3.6 mm compared to 4.45 mm.



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It is clear that a PJ belt cannot function under the same loads as a PK belt. But that is not required on these applications. A compact drive is what is needed in the restricted front-end compartment.
Apart from the normal wear, replacement is mainly needed after the bearing of one of the fans has failed, or after an accident (fans are very close to the front of the car).
On installation, belts have to be ‘pulled’ over the second fan pulley by force, as there is no adjustment on the drive.

For the different sizes available in our Micro-V XF programme, and for an overview of their applications, please see attached file.
More detailed application information can be found in our catalogues, and full logistics data are available from the AR Partner’s website.

