

Part Number Prefix Explanations

**MANN
FILTER**



MANN filters are identified by part numbers made up of letters and numbers. Product categories are differentiated by the letters prefix of the part number as listed below:

BF identifies MANN felt filter elements used in fuel filters for diesel engines fitted with series injection pumps. In the case of multi-stage filters (two fuel filters installed in series), the felt filter element in the first filter (relative to the direction of flow) is always used as a Pre-filter.

BFU stands for the environmentally-friendly, metal-free design of MANN felt filter elements for fuel filtration.

C represents several forms of MANN air filter elements containing pleated paper media. They are used in dry air cleaners as primary elements, sometimes as secondary elements and also as cabin filters in some applications.

CF are MANN secondary or safety filter elements with felt or synthetic non-woven media which, in addition to the MANN main elements, are fitted downstream in some dry air cleaners. They offer additional protection when servicing the primary element and/or if the primary element suffers damage.

CS are MANN air filter elements that have synthetic foam as the filter medium.

CU are MANN air filter elements for the vehicle's interior. They provide clean air and thereby protect the vehicle's occupants from dust, soot, smoke, pollen, spores and bacteria.

CUK are adsotop® air filter elements containing activated charcoal for the vehicle's interior. They ensure clean air and protect the vehicle's occupants from particles such as pollen, dust, soot, spores and bacteria, as well as harmful gases such as nitric oxide and ozone.

DI refers to MANN seals, O-rings or gaskets for oil and fuel filter housings.

H identifies MANN oil filter elements with pleated paper media.

a) for full flow oil filters

All of the oil that reaches the engine's lubricating surfaces is finely filtered by the full flow filter. The oil flows through the full flow filter element from the outer surface to the inner. The relatively large inner diameter is a characteristic and indicates that large quantities of oil flow through the main flow filter element.

b) for hydraulic filters

Hydraulic-filter elements are usually fitted in the return lines and filter the hydraulic oil before it returns to the reservoir. The flow is mostly from the inner surface to the outer. The outer metal sleeve with a densely perforated sleeve gives the element the necessary stability.

HU is the prefix for the environmentally-friendly, metal-free oil filter element evotop®. It is a further development of the H element and covers similar applications.

HD are MANN filter elements for MANN high-pressure filters (up to 400 bar) which are used in hydraulic systems.

LB describes MANN air-oil separator boxes which are used, for example, in oil-flooded screw compressors to filter out oil mist from the compressed air before it is supplied at working pressure to the compressed-air equipment.

LS describes matching MANN removal tools which fit the loosening facets on spin-on filters, e.g. grooves, corrugations and multiple facets. These allow tight and/or dirty spin-on oil filters to be smoothly and easily unscrewed. MANN removal tools also fit most of our competitors' filters and some housing oil filters.

MH are MANN filter inserts which are used for full flow oil filtration on motorcycles.

MW are MANN spin-on filters which are used for full flow oil filtration on motorcycles.

O-filter elements are MANN strainer disk filter inserts made of plastic. They are used in combined full flow/secondary flow oil filters as the full flow filter. The associated secondary flow inserts are PF types.

P are MANN filter elements

- a) with pleated paper for fine fuel filtering, used in diesel engines with series flow injection pumps.
- b) with rolled paper for fine fuel filtering, mostly used in diesel engines with distribution injection pumps. This type of filter also separates free water from the fuel, which prevents corrosion of sensitive parts of the injection system.
- c) with pleated paper for fine filtering in hydraulic steering applications (P 919/7).

PU refers to environmentally-friendly, metal-free design of MANN filter elements with pleated paper for fine fuel filtration.

PF describes:

- a) MANN fibre packed inserts for secondary flow oil filtration. Approximately 5 to 10% of the lubricating oil is diverted from the circulating oil into the secondary flow where it is finely filtered by the cotton fibres of the secondary flow filter media which absorbs ultra-fine contaminant together with a large quantity of dirt. A "PF" secondary flow filter element can be recognized by the full length metal outer sleeve with few perforations.
- b) MANN fiber-packed/pleated paper dual flow-filter elements for combined full flow/secondary flow oil filtration. 90 to 95% of the main flow is filtered by the pleated paper element. The remainder of the oil flow is finely filtered by the cotton fibres of the secondary flow segment. "PF" dual flow filter elements can be recognized by their partial metal sleeves with few perforations together with a pleated paper media segment.

PFU refers to the environmentally-friendly, metal-free design of MANN elements for secondary flow oil filtration.

TB are MANN air-drying boxes which dry and clean the compressed air in commercial vehicle air-brake installations.

W are MANN full flow oil filters. These filters, sometimes called "spin-ons", are easily and conveniently changed. Pleated paper is used as the filter medium. MANN replacement oil filters contain components such as by-pass and anti-drain valves specific to individual applications. The quantity and grade of filter media also corresponds to vehicle manufacturers service intervals.

WA are MANN replacement filters used for filtration and conditioning of the engine coolant in commercial vehicles.

WD are MANN replacement filters with pleated paper, designed for operating pressures of up to 25 bar. They are suitable for all lubricating oil circuits, but are preferred in hydraulic systems due to their higher pressure stability.

WDK are MANN replacement filters used for fuel filtration and are designed for higher operating pressures.

WH are MANN replacement filters which are used for oil filtration in the primary flow for hydraulic applications.

WK are MANN replacement filters for filtering fuel, which are available as

- a) spin-on filters with pleated or rolled paper, felt or mesh elements for diesel fuel.
- b) line filters with pleated or rolled paper elements for petrol lines on fuel injected engines.
- c) plastic or nylon bodied in-line filters with mesh or paper elements for fuel or water simply fitted between flexible fuel lines.

WP are MANN replacement spin-on filters for:

- a) oil filtration. Both the full flow and the secondary flow filter functions are integrated into this type of filter.
- b) secondary oil flow with pleated paper element. This type of filter sometimes has a throttling port in the outlet.

WU is an environmentally-friendly alternative to the replacement spin-on filter. It consists of a screw-on metal housing and a metal-free inner element. The retro-fitted screw-on aluminium and plastic housing replaces the original spin-on filter. At replacement time, only the environmentally-friendly evotop® oil filter element is replaced.

... KIT stands for products comprising a MANN filter element and a non-filter installation part, e.g. a frame.

... -2 is for products comprising more than one filter element in a single pack. The number following the dash shows the quantity of elements required for individual applications.

Gasket Variants

Filter inserts are supplied with or without seals and gaskets for the filter housing, depending on the application. Sometimes, different gaskets and seals are supplied with similar filter elements to be compatible with the filter housings of different vehicles. These filters are identified by letter suffix to the part number (example **P 917 x**). If the part number has no suffix, the filter is supplied without gaskets..

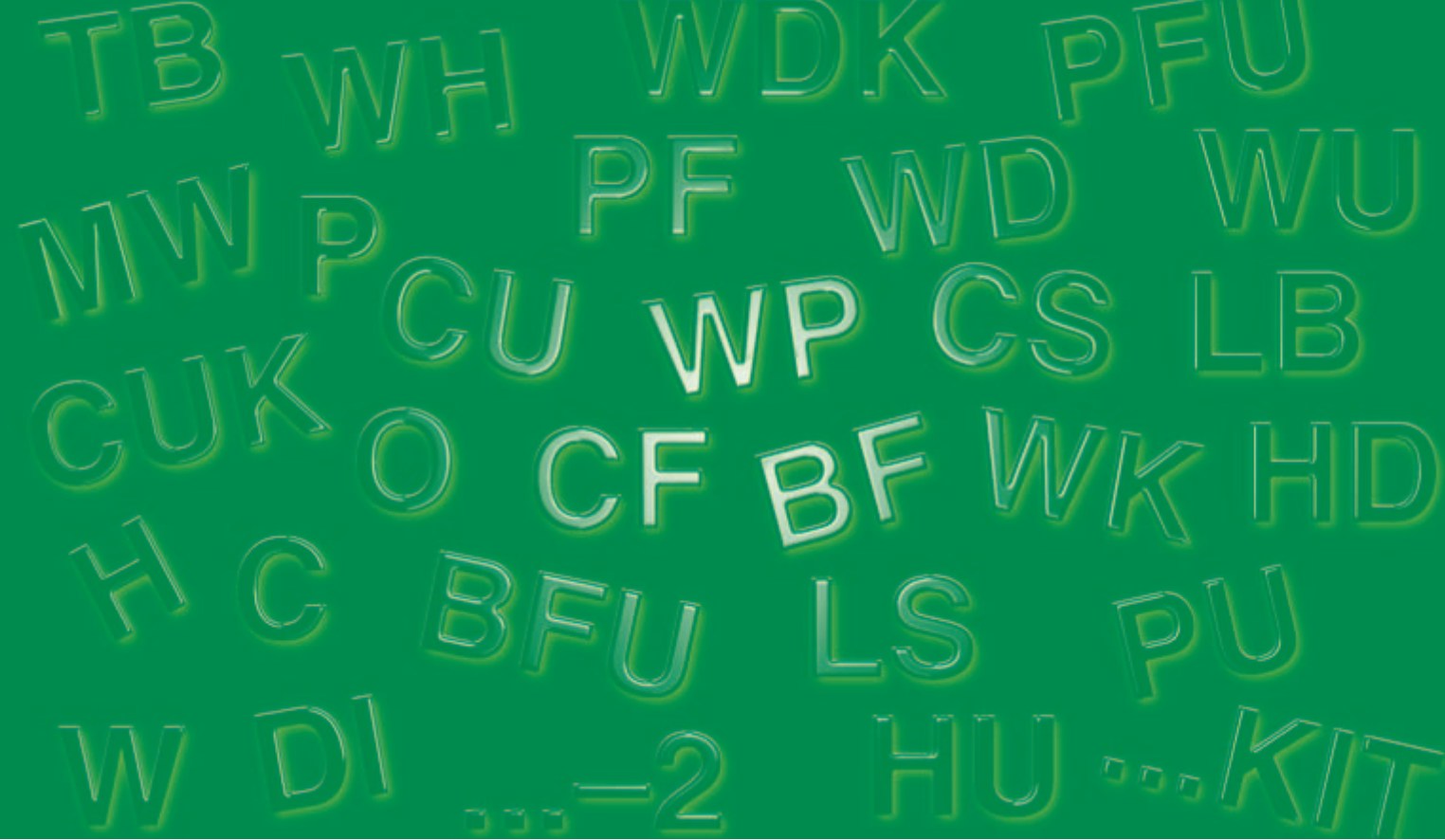
More information as below, regarding gaskets can be found in the MANN-FILTER catalogue.

- dimensions of corresponding gaskets,
- under which number they can be ordered separately,
- whether there are loose gaskets for certain filter inserts

IMPORTANT INFORMATION

Vehicle manufacturers and OE filter suppliers like MANN+HUMMEL calculate the efficiency and dirt holding capacity of each filter to suit individual engines and service intervals. Although some MANN filters may look identical, the component specifications could differ to suit OE requirements such as long life filter media for extended service intervals and the operating pressures of internal components.

Every MANN-FILTER is equipped with the correct components for individual applications. Please refer to the catalogue vehicle application listing to identify the correct MANN-FILTER.



MANN+HUMMEL GMBH

Automotive Aftermarket, 71631 Ludwigsburg, Germany
Customer Service Center

Tel. +49 (71 41) 98-28 80, Fax +49 (71 41) 98-25 58

e-mail: customer-service@mann-hummel.com, Internet: www.mann-filter.com