

KARL KLEIN-group – Made in Germany

# PROCESS Fans

Made  
completely  
in-house



20 kPa

15 kPa

10 kPa

5 kPa

1 kPa

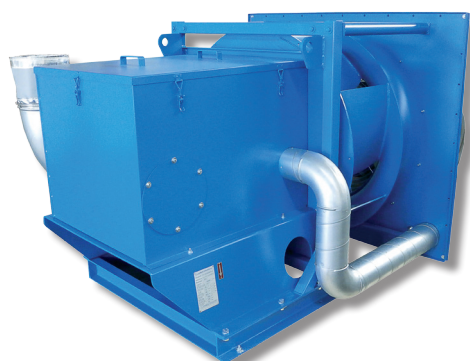


# Fan model CONFIGURATIONS



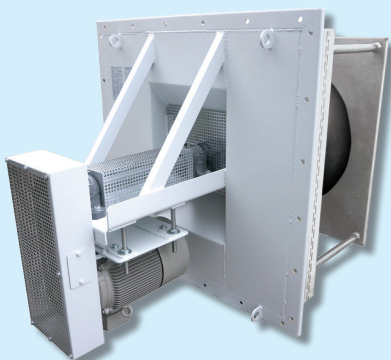
## HOUSING Fans

- . Direct drive
- . Clutch drive
- . Belt drive
- . Max. volume flow up to 450,000 m<sup>3</sup>/h
- . Max. pressure up to 25,000 Pa
- . Media temperatures up to:
  - max. 400 °C (direct drive)
  - max. 700 °C (belt and clutch drive)
- . Swing-out and roll-out designs
- . Gas-tight designs
- . Custom designs to customer-specification, e.g. with horizontal housing



## FREE-WHEELING Fans

- . Configured for equipment installation with motor in the airflow for use in air-conditioners, etc.
- . Configured as duct installed fan with motor outside of the airflow for painting lines – as roll-out version on request
- . Customer designs, e.g. for cheese dairies and malting plants
- . Backward curved high-performance impellers
- . Impeller diameter up to 2,000 mm
- . Custom configurations with galvanized or teflon-coated impellers



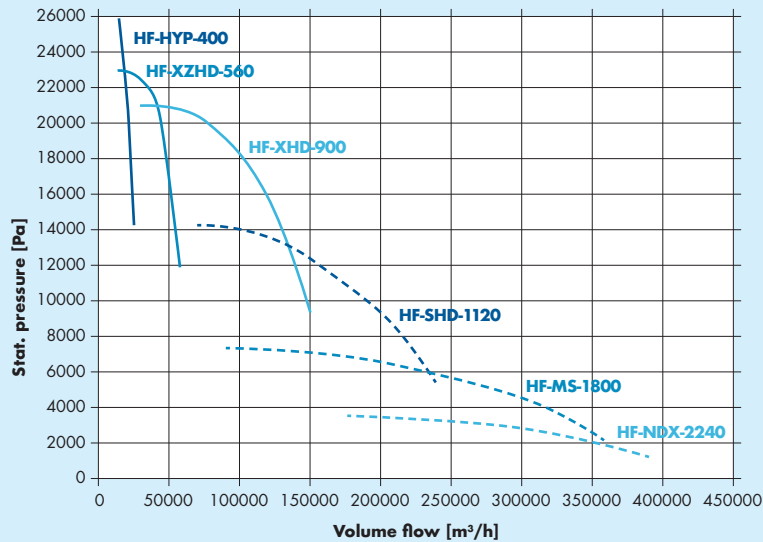
## INSERT Fans

- . Direct drive
- . Belt and clutch drive
- . With insulation box
- . Fold-out feature
- . Backward curved high-performance impellers
- . Impeller diameters up to 2,000mm.
- . Media temperatures up to:
  - max. 400°C (direct drive))
  - max. 700°C (belt and clutch drive)

# Made completely in-house **MADE IN GERMANY**

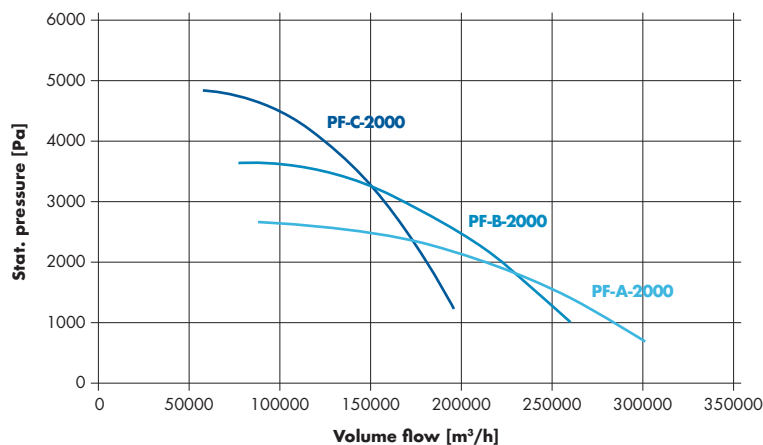
## Characteristic line overview

Housing fans  
Large type series



## Characteristic line overview

Free-wheeling fans  
Large type series



## KARL KLEIN Ventilatorenbau GmbH Branch office

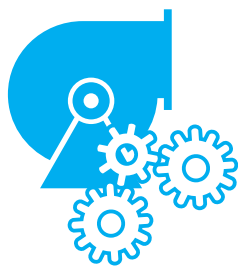
Obere Donitzschkau 1  
07607 Eisenberg  
Germany

Phone 0049 (0)711 369 06 - 0  
Fax 0049 (0)36691 8684 -12  
info@karl-klein.de  
www.karl-klein.de



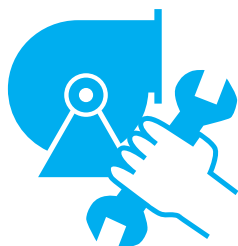


## Accessories



- . Compensators with baffle plate
- . Mating flange, transition elements
- . Vibration dampers: rubber dampers, spring isolators, etc.
- . Secondary noise protection measures such as
  - housing insulation
  - noise protection hoods
- . Pressure controller
- . Vibration monitor
- . Storage temperature monitor
- . Ring measurement line for integrated volume flow metering
- . Backstops
- . Brakes

## Fan service



- . On-site assembly and commissioning
- . Brand-independent repair, mobile balancing service, mobile bearing exchange
- . Energy-efficient overhaul of existing fans in consideration of existing installation dimension

## ATEX Fans



- . ATEX-rated fans for use in
  - **Zone 1 and Zone 2**  
for gas-rated category 2G or 3G
  - **Zone 21 and Zone 22**  
for dust-rated category 2D or 3D
- . Detailed information concerning explosion protection of fans can be found under the following link:  
**[www.karl-klein.de/technik/ex-schutz/](http://www.karl-klein.de/technik/ex-schutz/)**



## The company

- . Family owned and operated with three facilities in Germany and 150 employees
- . Headquarters in Aichwald with production of 800 – 1,000 fans per week
- . Impeller production in Crailsheim
- . **Production facility in Eisenberg/Thuringia with production of heavy-duty industrial fans**
- . World-wide sales of radial fans
- . A metal press-shop founded in 1950 was converted into a production facility for radial fans in 1965
- . We are driven by solutions to customer-specific requirements
- . We continuously expand our market position with innovative products

## Fan manufacturing expertise



- . Series or one-off production to customer specification
- . Standard products for niche applications
- . Customer-oriented CAD design-engineering
- . Development based on flow simulations (CFD) and impeller modeling (FEM)
- . Flexibility due to high vertical integration in our in-house, state-of-the-art sheetmetal processing centers
- . Impeller production with various materials (sheetmetal, stainless steel, aluminum, etc.)
- . Sophisticated balancing machinery
- . Fast response times
- . Short leadtimes for complex products
- . Consulting for all design issues related to fans

**Outstanding multi-sector customer relationships shape our actions and thinking.**

300.000 m³/h

250.000 m³/h

200.000 m³/h

150.000 m³/h

100.000 m³/h

50.000 m³/h



**KARL KLEIN**  
**Ventilatorenbau GmbH**  
Waldstraße 24  
73773 Aichwald-Aichschiess  
Germany

Phone 0049 (0)711 369 06 - 0  
Fax 0049 (0)711 369 06 - 50  
info@karl-klein.de  
www.karl-klein.de

