

Turbochargers

Turbo-
charger
power
systems

TCF



Making the most of optimized flow –
Delivering an impressive 20 % increase in
specific flow, the TCF radial turbocharger
offers a big potential to use smaller or less
turbochargers.

Benefits at a glance

Specifically designed to deliver highest
efficiencies, the TCF family is particularly
suitable for optimization at part load.

Everllence

Technical data

Turbine type	Radial
Max. permissible temperature	650 / 750 °C
Pressure ratio	up to 5.4
Suitable for Future fuels (Hydrogen, Ammonia and Methanol) as well as conventional fuels (HFO, MDO and gas)	

Supercharged engine output

Type	(kW)	Mass (kg)
TCF12	1,000	70
TCF14	1,400	120
TCF16	2,000	190
TCF18	2,700	320
TCF19	3,800	520
TCF20	5,200	830
TCF22	7,200	1,400

All weights and dimensions are for guidance (project-specific requirements can lead to deviating values).
More information available upon request. Last updated June 2023

General

Initial studies show that significantly improved fuel consumption figures are achievable with TCF turbochargers. In one study, with a TCF retrofit and engine optimization package, fuel consumption in the relevant operating range was reduced by 4.5%. TCF turbochargers can also help reduce engine emissions, for improved compliance with regulations such as EEXI (Energy Efficiency Existing Ship Index).

The TCF series is also designed for use as the low-pressure-stage turbocharger in two-stage applications, helping

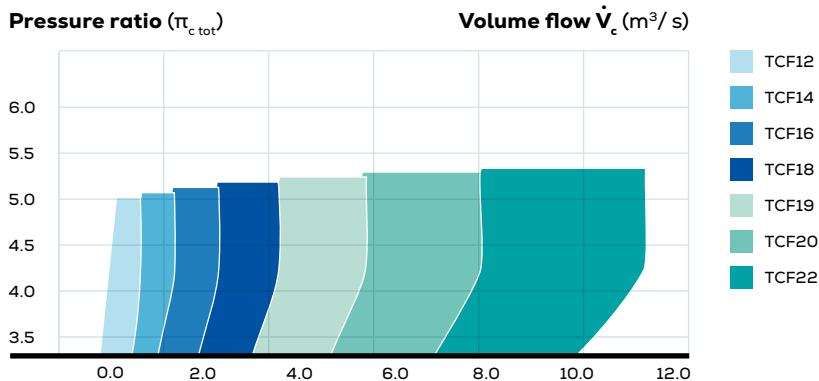
to reduce size or the number of turbochargers required and thereby create potential for cost savings.

Due to the outstanding part load performance the big TCF frame sizes in addition are heading for turbocharging the small bore 2-stroke applications.

TCF turbochargers are easy to retrofit thanks to the modular construction and standard connection dimensions, and can help reduce the cost of ownership, with long time-between-overhaul and a maintenance-friendly design.

Key Benefits

- 20 % increase in specific flow
- Potential to use smaller or less turbochargers: cost savings
- Highest efficiencies at part load
- Significant reductions in fuel consumption and emissions
- Significantly improved dynamic behavior: 25 % reduction in rotor moment of inertia
- Same standard connection dimensions as previous turbochargers



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