

MAN TCF

Turbochargers

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

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



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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	1,450	120
TCF16	2,000	190
TCF18	2,700	320
TCF19	3,800	520
TCF20	5,200	830
TCF22	7,200	1,400

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

The MAN 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.

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

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

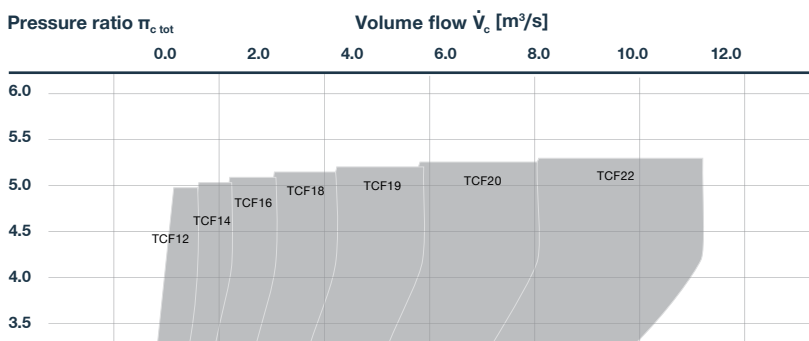
MAN TCF turbochargers are easy to retrofit thanks to the modular construction and standard connection dimensions, and can help reduce the cost of ownership, with long time-between-overhaul and a maintenance-friendly design.

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

Applications

- High-, medium- and low-speed engines
- Suitable for low-speed engines as well as LP-stage for two-stage turbocharging
- Conventional and future fuels
- Seven frame sizes to cover a wide range of power, marine, and off-road applications



MAN Energy Solutions

86224 Augsburg, Germany

P + 49 821 322-0

F + 49 821 322-3382

turbochargers@man-es.com

www.turbocharger.man-es.com