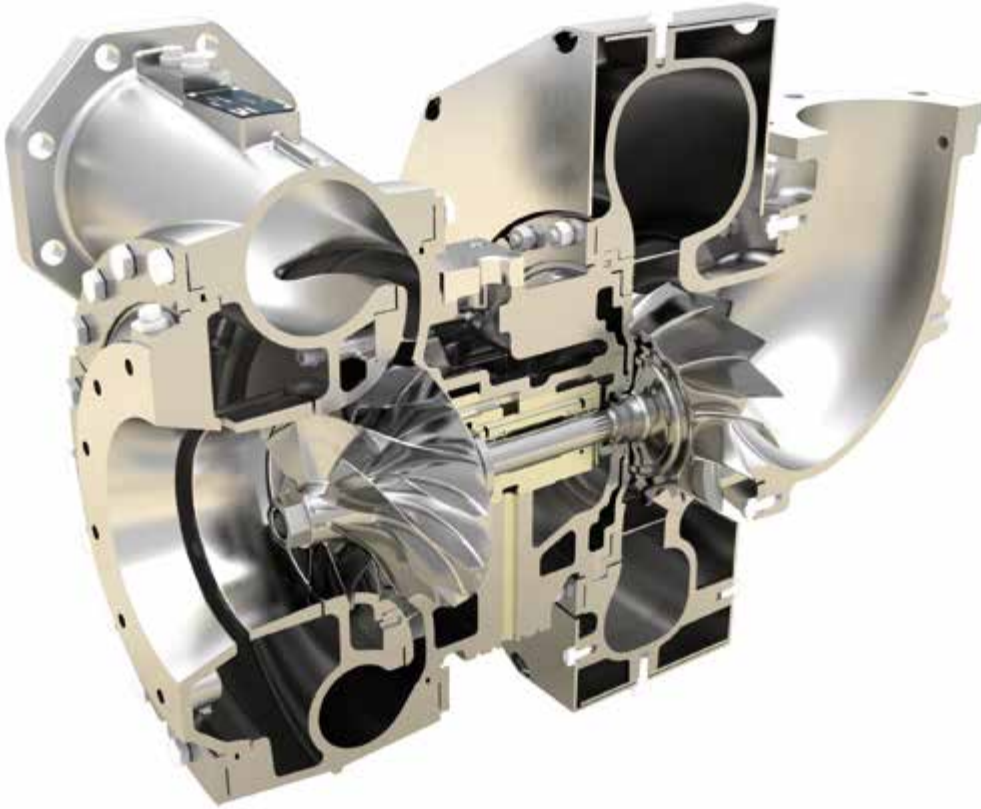


# TCX

## Exponential turbocharging



### New TCX turbocharger for two-stage turbocharging

By means of two-stage turbocharging the charge air pressure can be increased substantially. The result is higher power density and, in conjunction with Miller engine cycle, reduced exhaust emissions and lower fuel consumption. With the TCX series MAN Diesel & Turbo has developed a turbocharger especially suited for two-stage turbocharging of two- and four-stroke diesel and gas engines.

### Benefits

- Higher power density
- Higher charging efficiencies due to intercooling
- Pressure ratios up to 10.5 bar (two stages)
- Considerably lower fuel consumption
- Reduced exhaust emissions
- Compact two-stage unit with integrated intermediate- and charge air coolers feasible



MAN Diesel & Turbo

# TCX

## Exponential turbocharging

### Technical data

Turbine type	Mixed flow turbine
Max. permissible temperature	650°C
Pressure ratio (two stages)	up to 10.5
Suitable for HFO, MDO, Gas	

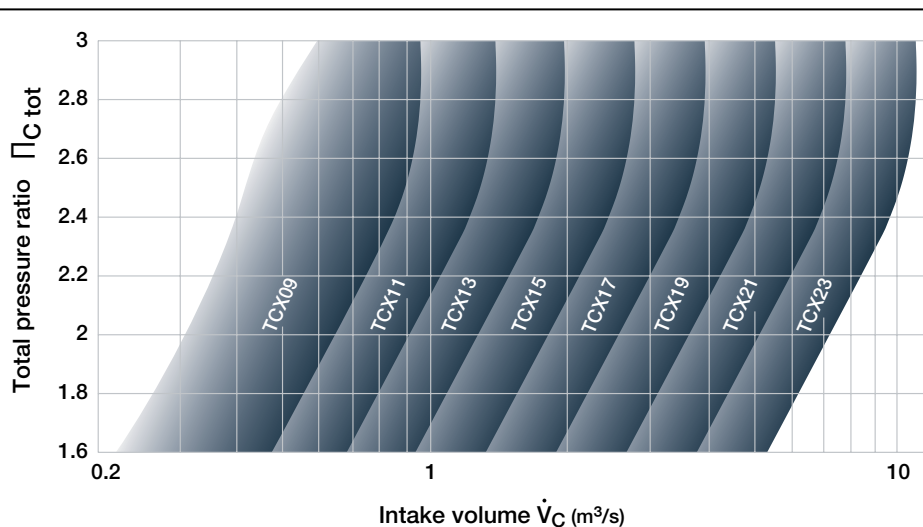
### TCX Turbocharger Programme

TC Type	Max. engine output* kW	Max. permissible speed rpm	Mass kg
TCX09	1,700	91,200	42
TCX11	3,000	68,400	101
TCX13	4,200	58,170	164
TCX15	6,000	48,660	280
TCX17	8,500	40,980	470
TCX19	11,900	34,550	785
TCX21	16,900	29,000	1,325
TCX23	23,900	24,390	2,230

\*I<sub>e</sub> = 6 kg/kWh; p<sub>HPCin</sub> = 3 bar; T<sub>HPCin</sub> = 45 °C

TCX turbochargers feature an extended compressor map width especially suited for highest efficiencies at low compressor pressure ratios per stage and for flexible air management (e.g. EGR).

### TCX Turbocharger Application Ranges



All data provided in this document is non-binding. This data serves informational purposes only and is especially not guaranteed in any way. Depending on the subsequent specific individual projects, the relevant data may be subject to changes and will be assessed and determined individually for each project. This will depend on the particular characteristics of each individual project, especially specific site and operational conditions. Copyright © MAN Diesel & Turbo. - D2366509EN - Printed in Germany. GKM-AUG-04130.5

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