

VOITH

Drive Efficiently
and Safely.

MAN PriTarder[®]



Voith Aquatarder PWR/ MAN PriTarder®

The MAN PriTarder® braking system is the ideal combination of pressure-regulated engine brake EVBec and Voith Aquatarder PWR.



MAN PriTarder®: (available from factory with code 208 EA)



Environmentally Friendly

Aquatarders PWR make a strong contribution to the environment (1):

- Up to 80 % less brake dust emissions, depending on use and topography
- PriTarders in combination with anticipatory driving offers fuel savings
- Reduction of CO₂ emissions

Cold Start Function

Activation with cold engine and vehicle at a standstill (2):

Activate the PriTarder (stage 6 or button), it heats up the cooling water. Benefits:

- Engine reaches operating temperature more quickly
- Driver's cab warms up faster
- Better visibility, no iced-up windshields
- Less fuel consumption

If the coolant reaches a temperature of 60 °C, the PriTarder automatically shuts back down.

Economy

The Aquatarder is an innovative and efficient primary braking system:

Active retarder utilization saves fuel and time

- Motivation for foresighted driving
- Amortization of retarder: usually within 1 - 2 years

Lower operating cost

- Maintenance-free, no oil changes or other adjustments
- No additional operating medium - the Aquatarder operates with the cooling agent of the engine (coolant mixture 50 % tap water and 50 % BASF Glysantin G 40)
- Service life of service brake is significantly extended
- Fewer workshop stops
- Driveline is protected
- Advantages when reselling the vehicle, residual value of Aquatarder up to EUR 1 500

Approximately 64 kg more payload due to weight advantage compared to oil retarder system (related to operational systems)

Higher transport speeds

Installation space for PTO or mounting parts is not restricted

Optimum application areas:

- Traction traffic
- Heavy distribution traffic
- Payload-optimized vehicles

Safety

More safety for the vehicle operator:

- High braking torque (approx. 2 400 Nm at 2 500 rpm at the crank shaft)
- High braking power even at low speeds (beneficial for distribution transport and traction)
- Lower- and medium-speed range is covered by the maximum possible braking power
- Safety reserves from cold service brake available at any time



Comfort

More comfort for the driver:

Comfortable operation by integration of the system in the MAN BrakeMatic®.

- Operation using brake pedal (pre-installed)
- Holding constant a speed set by the cruise control during downhill travel, Bremsomat function

The system is an optimal supplement to the MAN TipMatic® automatic shifting system.

The required switchbacks in braking mode occur automatically.

- Gentle braking operations
- Shortening of the cold start phase and fast temperature control
- Stress-free driving



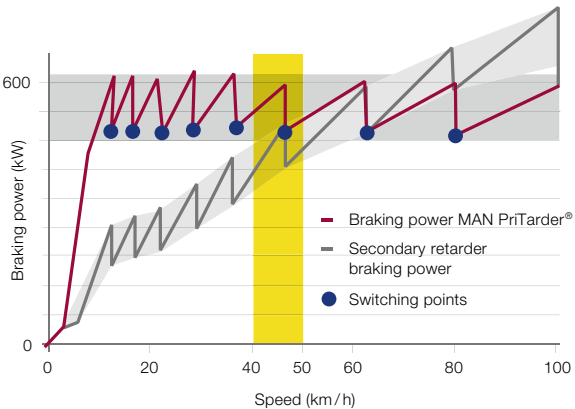
System Comparison

System comparison of wear-free permanent brakes:

Maximum braking power in the MAN PriTarder®:
Addition of the braking power levels of Aquatarder PWR and EVBec in vehicles with a D26 engine yields a maximum braking power of approx. 610 kW (EVBec 290 kW + Aquatarder PWR 320 kW).

Starting at approx. 55 km/h, the secondary retarder shows a slight advantage that is thermally short-term and available only for adaptive brakings.

Braking power MAN PriTarder®



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