

## SF 2000

### Bogies for heavy metro vehicles

The SF 2000 bogie is a further development of the bogie for railcar series 4020, in revenue service on the Austrian Federal Railways since the seventies.

This bogie ensures low wheel wear, even under poor track conditions. Careful design calculation on running characteristics lead to optimum suspension stages for high ride quality under all operating conditions.

The motor and trailer bogies are basically of identical design, except for the fact that the traction unit is additionally fitted in the motor bogie. This reduces the number of components required and simplifies spare part stock-keeping.

Primary suspension comprises laminated conical sleeve springs of metal rubber design, which are fitted between the axle box and the bogie frame.

The conical springs take over the function of axle guidance and primary suspension. Due to the special design, separate primary dampers are not required.

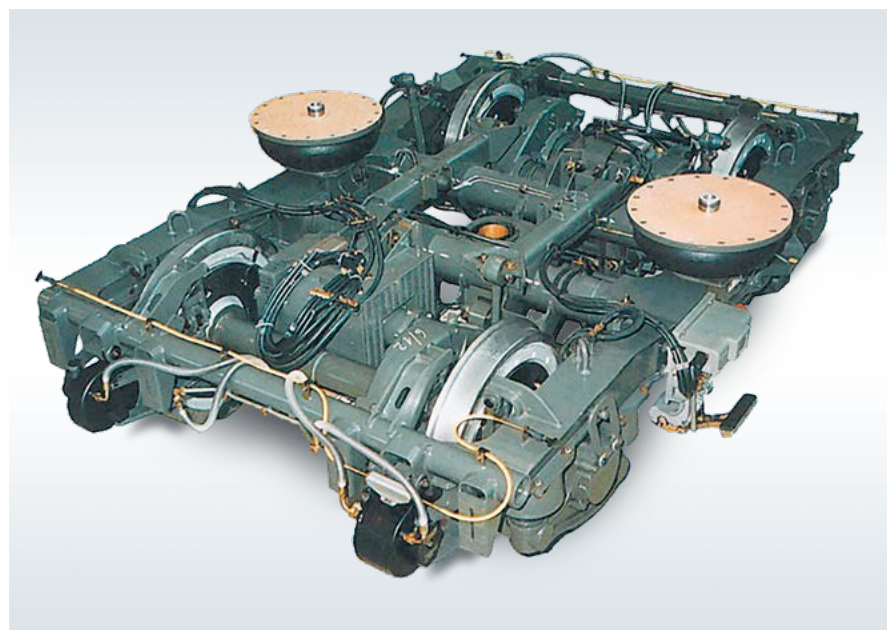
The low primary suspension stage gives an extremely flat, sturdy bogie frame with headbeam.

The wheelbase of 2300 mm gives optimum curving performance resulting in reduced wheel/rail wear and low space requirements beneath the vehicle. The levelling valve ensures that the same floor height can be maintained under varying load conditions.

The three phase motors are fixed on the bogie frame and are arranged laterally in the bogie. Torque transmission from the lateral traction motors caused by a partially suspended low noise spur gear per axle together with a spiral toothed coupling.

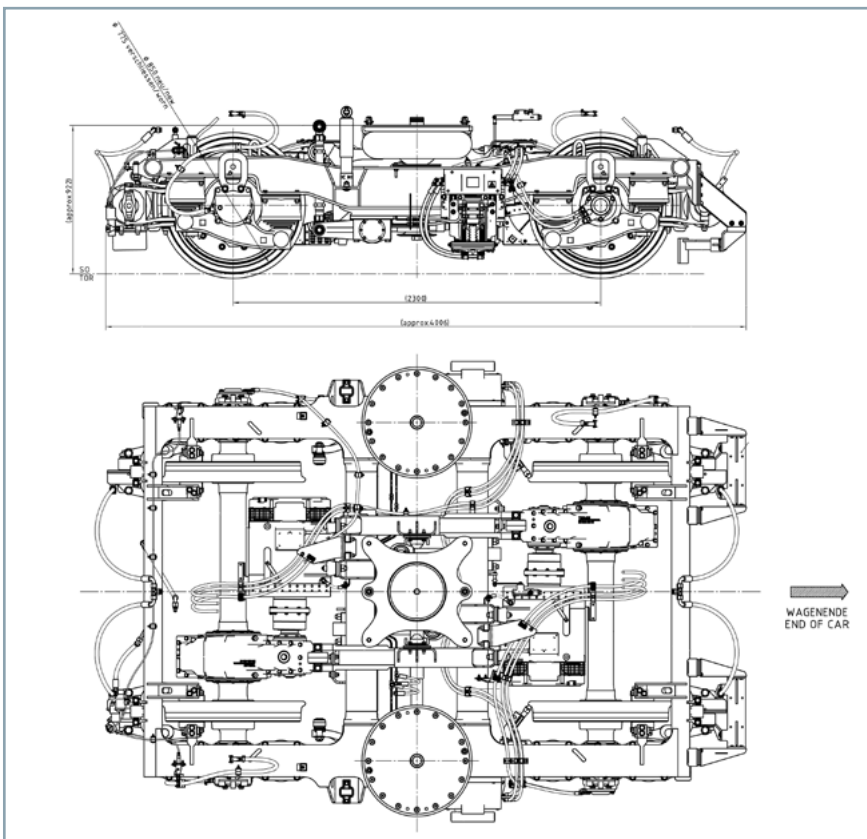
By separating the spiral toothed coupling, the axle and gear unit can be replaced without dismantling the traction motor.

The bogie is equipped with four wheel disc brakes, offering the advantage of low rolling noise. Brake units are arranged on the outside and allow easier access for maintenance work.



## Technical data

Bogie	SF 2000
Running speed	80 km/h
Axle load	16.2 t
Continuous power per wheelset	230 kW
Wheelbase	2300 mm
Track gauge	1435 mm
Wheel diameter net/worn	850/775 mm
Smallest radius of curvature in operation/depot in service/workshop	95/80 m
Bogie height	925 mm
Weight motor/trailer bogie	7.7/5.5 t



## References

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 BTS Bangkok  
 MRTA Bangkok



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The information given in this document contains general descriptions of technical possibilities which may not always be available in a particular case. The requested performance characteristics have therefore to be defined in the event of contract ward for the particular case in question.