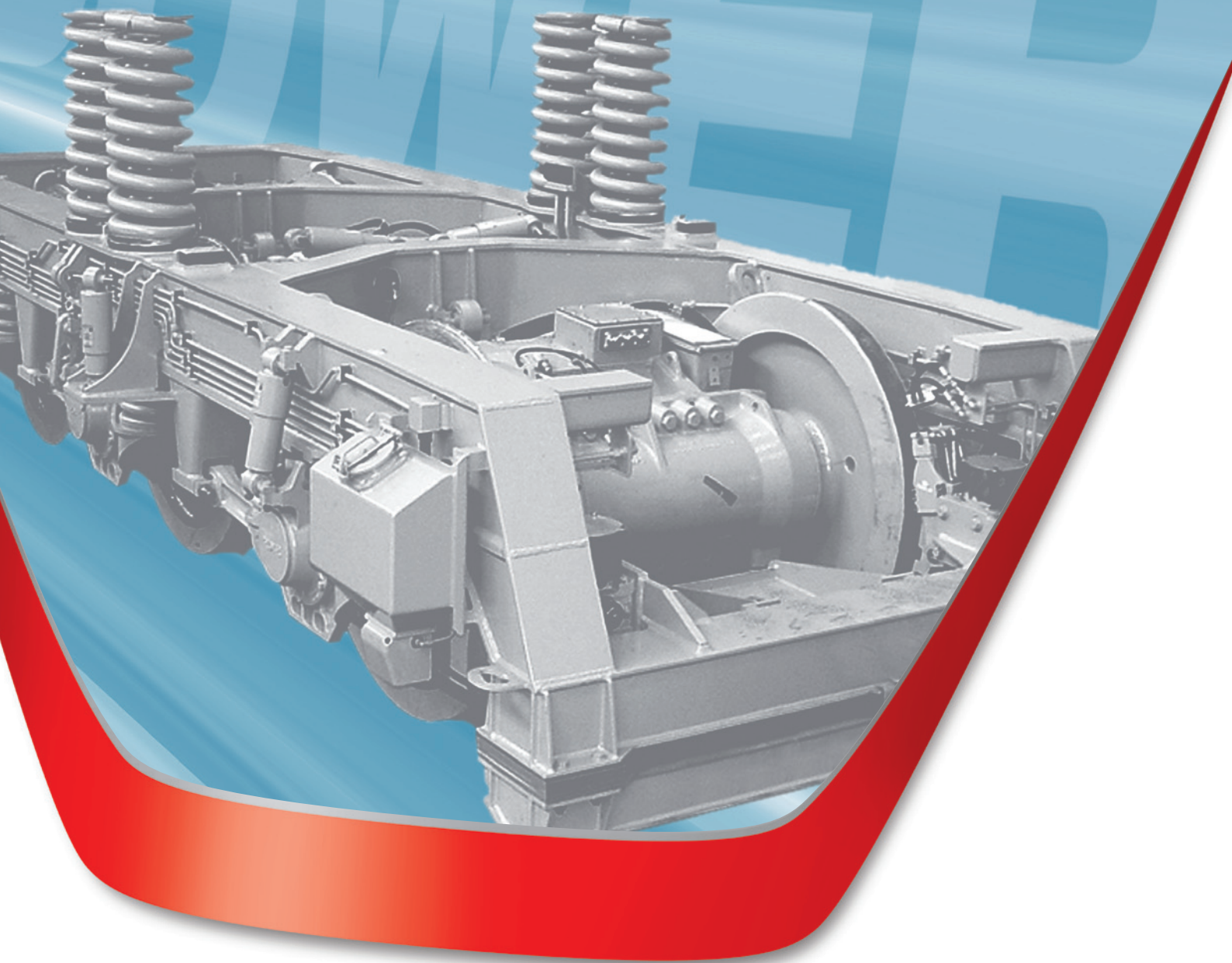


FLEXX Power Bogies

The Driving Force



Bogies

BOMBARDIER

« The Driving Force »



The **FLEXX Power bogie** portfolio serves the complete range of locomotives: from freight and heavy haul to passenger trains, as well as very high speed power heads.

Locomotives are the powerpacks of trains. The bogies have to be as robust and reliable as the locomotive that they support. Special attention is paid to the structural configuration of the bogie frames to enable problem free transmission of the locomotive's tractive forces and the loads exerted by the integrated traction equipment.

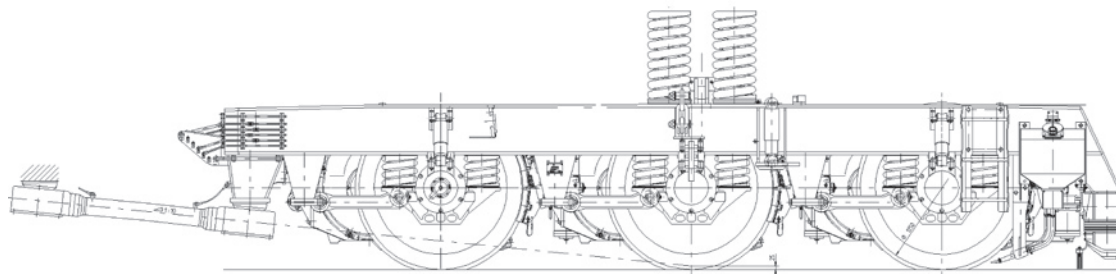
For high speed locomotives in particular, the innovative integration of traction motors and drive units within the bogie is a prerequisite for successful operation.

The **FLEXX Power bogie** design is characterised by:

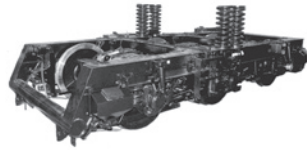
- Adaptable wheelset guidance
- Coil spring suspension
- Low level traction link
- Low weight frame.

The modular and highly proven design of the **FLEXX Power** family enables:

- Flexible configuration of primary suspension parameters depending on operational conditions
- Wear free guidance of the wheelsets
- Low wheel wear by excellent curving performance
- Easy exchange of the bogies due to simple bogie – car body connection
- Optimum transmission of traction forces between the bogie and car by low level traction road and reduced transfer.



FLEXX Power 120



FLEXX Power 140 / 200



FLEXX Power 350



Technical Features	FLEXX Power 120	FLEXX Power 140 / 200	FLEXX Power 350
Gauge	1,000 / 1,067 / 1,435 mm	1,435 mm	1,435 mm
Wheel base	2 x 1,850 mm	2,600 mm	2,650 mm
Wheel diameter	1,067 mm	1,250 mm	1,040 mm
Speed	80 - 120 km/h	140 - 200 km/h	330 km/h
Mass (trailer)	23.8 t	16 t	11,7 t
Axle load	22 - 30 t	21 t	17 t
Traction power	3 x 410 - 3 x 900 kW	2 x 1,400 kW	2 x 100 kW
Traction effort	259 - 300 kN	150 kN	100 kN
References	Blue Tiger locomotives IORE locomotives	TRAXX locomotives	AVE** S-102, ICE1**

FLEXX Power 120

Over 300 *FLEXX Power 120* bogies are in successful operation worldwide, for instance under Blue Tiger locomotives in Germany and in Pakistan. The *FLEXX Power 120* bogies provide highest operational reliability combined with optimal power transmission. The drive system consists of an axle-mounted drive.

The *FLEXX Power 120H* is a locomotive bogie dedicated for heavy freight haul. Designed for a speed of 80 km/h and a tractive effort of 300 kN per bogie, the *FLEXX Power 120 H* bogies are in service on iron ore trains between Kiruna and Narvik under harsh winter conditions north of the Arctic Circle.

FLEXX Power 140/200

The *FLEXX Power 140* and *FLEXX Power 200* are standard bogies for *BOMBARDIER* TRAXX** Locomotives and cover a speed range of 140 to 200 km/h.

Bogies of this family are running successfully throughout Europe, used by numerous operators (DB AG, SBB, BLS, SNCB, Angel Trains, Mitsui and others). Both bogie types are based on a modular concept.

The only difference lies in the drive system: the *FLEXX Power 140* is equipped with an axle-mounted drive system, whereas a fully frame suspended drive is used on the *FLEXX Power 200*.

FLEXX Power 250

Designed for high speed locomotives the *FLEXX Power 250* bogie is in operation under more than 260 locomotives in several countries in Europe and North America.

Distinctive feature of the *FLEXX Power 250* is the car body and bogie frame suspended drive system with integrated high performance disc brake system. This results in a low unsuspended mass and minimized track forces at high speed.

FLEXX Power 350

This bogie is characterised by its modern drive technology and consists of an axle-hung light weight gearbox and a laterally suspended motor. With twice the power of the *ICE3*** drive, a maximum speed of 369 km/h has been achieved.

The *FLEXX Power 350* provides excellent running characteristics at very high speed, combined with optimum operational reliability and a simple maintenance concept.

The *FLEXX Power 350* bogie is used for the power heads of the *AVE** S-102* high speed trains of RENFE, Spanish Railways. To date, over 200 bogies of this type have been ordered by RENFE.

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