



PANTHER KF51 – 130MM FGS

The Panther KF51 represents a radically new Main Battle Tank concept designed from the ground up to deliver maximum lethality, layered survivability, and seamless digital integration. Connected by an open NGVA data backbone, it enables next-generation operational capabilities, automation, and manned unmanned teaming.

UNRIVALLED LETHALITY

The PANTHER KF51 combines next-generation firepower, precision and rapid target engagement. The 130 mm Future Gun System is designed to reliably defeat modern MBTs at ranges of up to 4,000 m, with significantly increased effective engagement distances compared with legacy systems. The increased core engagement range enables the PANTHER to engage and defeat targets before legacy systems can reach their own effective engagement range – who shoots first and hits first wins the engagement. The autoloader provides 20 ready rounds, enables three rounds in ten seconds and supports rapid engagement of multiple targets. AI-supported Target Detection & Identification (ATD) further reduces engagement times and increases crew efficiency. The system is designed for both LOS and NLOS engagements, supported by a comprehensive ammunition portfolio and digitally prepared next-shot capability.

HIGHLY PROTECTED

The PANTHER KF51 combines passive, reactive and active protection in a layered survivability concept. Rheinmetall's Active Defence System (ADS) provides 360° protection and the capability to intercept incoming threats, including top-attack munitions and drones. The protection concept is complemented by a redesigned crew compartment, fire suppression and NBC protection. The fourth crew member – the Special Operator – provides additional operational capacity and enables the crew to exploit the full potential of the platform, including the employment and control of additional unmanned capabilities. The PANTHER is therefore designed not only to protect the crew, but to keep the entire manned-unmanned combat team effective in a highly dynamic battlefield environment.

FULLY DIGITISED

The PANTHER KF51 is designed as a fully digital, open and scalable platform and as the core of a networked manned-unmanned combat team. AI-enhanced sensor fusion, 360° situational awareness and human-machine teaming create a “transparent battlefield” by providing a comprehensive and continuously updated picture of the battlespace. The architecture enables the integration and coordinated employment of UAVs and UGVs, extending the crew's reach, sensing and effect capabilities beyond the vehicle itself. The fourth crew member/Special Operator plays a key role in managing these additional unmanned capabilities and allows the platform to employ different mission configurations without changing the core crew structure.

TECHNICAL DATA

Dimensions

Length	approx. 11,000 mm
Width	approx. 3,800 mm
Height	approx. 3,200 mm
Weight	approx. 65t

Armament

Main gun	130 mm L52 Future Gun System
Ammunition capacity	20 ready round in autoloader
Secondary armament	7,62 mm or 12,7 mm Coax

Optional additional armament

RCWS	7,62 mm or 12,7 mm Remote Control Weapon Station
MSSA	7,62 mm, 12,7 mm or 40 mm Main Sensor Sleeved Armament

Sensors and Fire control

Gunner sight	SEOSS sector gunner sight
Commander sight	SEOSS panoramic commander sight with optional MSSA
Fire control system	Digital fire control computer, video target tracker and meteorological sensor
Situational awareness	360° day/night situational awareness camera system
Additional sensors	360° acoustic awareness and shot detection system, laser warning receivers

Survivability

Ballistic protection	Strikeshield sensor based reactive protection, passive and bomblet protection
ATGM/RPG	Strikeshield sensor based active
Drone/Top attack	TAPS Top Attack Protection System
Smoke grenade launchers	Hemispheric ROSY 40 mm and MASKE 76 mm smoke obscurance system
CBRN	Full CBRN detection and protection system

Crew

Chassis crew	1 opt. 2 (Driver and Special Operator)
Turret crew	2 (Gunner and Commander)
HVAC	Full turret HVAC system

