

VL Pyörremyrsky



Le VL (Valtion Lentokonetehtä) Pyörremyrsky était un prototype de chasseur finlandais construit pendant la 2^e Guerre Mondiale à partir d'une commande du gouvernement de 1942. Il devait utiliser au maximum des matériaux disponibles localement et être utilisable dans les conditions difficiles des petits aérodromes de première ligne du pays. Il était donc majoritairement construit en bois avec un revêtement en contreplaqué, sauf la partie avant du fuselage qui était métallique. L'avion était motorisé par un Daimler-Benz DB605A de 1475 chevaux, soit un groupe propulseur comparable à celui des Messerschmitt 109 du début de la version G. L'armement était également similaire à celui du Bf109G6 ou des modèles ultérieurs, avec un canon MG151 de 20mm tirant à travers l'axe de l'hélice, et 2 mitrailleuses de 12,7mm sur le capot. Tout le nez de l'appareil rappelle d'ailleurs fortement le Bf109G, et l'avion possède également un indéniable air de famille avec le Fiat G55 conçu lui aussi autour du DB605. Commencé alors que la Finlande était encore alliée de l'Allemagne contre l'URSS pour tenter de reprendre les territoires perdus pendant la "Guerre d'Hiver" fin 1939, le développement de l'appareil fut stoppé au moment de l'armistice avec l'URSS en septembre 44. Il reprit pourtant début 1945, avec un moteur récupéré sur un des Bf109G équipant l'Ilmavoimat (armée finlandaise), maintenant dans le camp des Alliés, mais l'appareil ne fit son premier vol qu'en novembre. Contrairement à d'autres prototypes abandonnés pour cause de performances insuffisantes ou de problèmes insurmontables, le Pyörremyrsky montra de bonnes performances et à motorisation égale, grimpait mieux et virait mieux que le Bf109G6. Mais la Finlande possédait encore un stock suffisant de Messerschmitt et n'eut pas besoin d'un nouveau chasseur avant la fin de la guerre, et le projet fut abandonné. Contrairement à la majorité des prototypes qui furent ferrillés, le Pyörremyrsky est aujourd'hui conservé et visible au musée d'aviation de Finlande centrale, à Tikkakoski.

VL Pyörremyrsky :

- Moteur Daimler-Benz DB 605A-1
- 1495 Ch
- 620 Km/h
- 2 Mitrailleuses 12.7 mm LKK 42
- 3310 Kg en charge
- 11250 m de plafond pratique
- 1000 Km en distance franchissable
- 1 Pilote





Source : <http://les-avions-de-legende.e-monsite.com/pages/les-chasseurs/les-chasseurs-d-autres-nations/vl-pyorremysky.html>

Version anglaise Wikipédia

The **VL Pyörremyrsky** ("Hurricane")^[1] was a [Finnish](#) fighter, designed by DI [Torsti Verkkola](#) at the State Aircraft Factory ([Valtion lentokonetehtas](#)) for service with the [Finnish Air Force](#) in [World War II](#). The war ended before the type's first flight and only a prototype was built.

History

On 26 November 1942 the Finnish Air Force ordered two *Pyörremyrsky* prototypes to be built. The aircraft were to be ready by May 1944. One prototype was later cancelled and only one aircraft was ever built. The aircraft designation *VMT Pyörremyrsky* is also sometimes used, as the factory had been formed into the State Metal Factories ([Valtion Metallitehtaat](#)) during the construction of the aircraft. The Finnish Air Force airplane code letters PM gave the plane nickname *Puu-Mersu* (Wooden Messerschmitt), but the plane was an independent design. The use of wood in the construction of the aircraft was maximized due to the scarcity of metals. The goal was to create a fighter with similar flight qualities to the German [Messerschmitt Bf 109G](#). The engine and the propeller were taken from the Bf 109G. The [landing gear](#) was significantly widened and installed on the wing instead of fuselage in order to address one of the German fighter's most noteworthy shortcomings. This significantly eased ground control, as well as take off and landing, while slightly impeding top speed as a consequence of the thickening of the wings to accommodate landing gear hydraulics.^[2] The *Pyörremyrsky* prototype PM-1 made its first flight on 21 November 1945 at [Härmälä](#), piloted by Esko Halme.^[3] After 25 minutes of flying, a piece from the cowling fell off and Halme had to land when fumes from the engine started to enter the cockpit. The pilot was saved by his oxygen mask. The aircraft was to fly only three test flights in Tampere, the third time being a transfer flight to [Kuorevesi](#) on 16 January 1946. There it flew an additional 31 test flights, the total flight time being 27 hours by 1947. The aircraft was flown by eight pilots: Esko Halme, Lauri Hämäläinen, Erkki Itävuori, Osmo Kauppinen, Lasse Heikinaro, Martti Laitinen, Heikki Keso and Lauri Lautamäki. The last flight lasted only 20 minutes and was made by captain Osmo Kauppinen on 22 July 1947. The *Pyörremyrsky* design was considered quite successful. It could outclimb the Bf 109G-6 and it was very manoeuvrable. It was considered almost ready for mass production. Its only major problem with the design was found to be the low-quality glue used in the joints. The aircraft was still in the prototype stage when the war ended and this also meant that the funds allocated for the project decreased. The *Pyörremyrsky* prototype was grounded after only some 30 hours of flying and the programme terminated as no funds were available for the purchase of new aircraft for the Finnish Air Force and sufficient Bf 109Gs remained in service to equip the fighter force that was permitted under the [Armistice terms](#).^[3] The PM-1 was removed from FAF lists on 1 April 1953. The wing construction was later used in another Finnish aircraft, the all-metal [Valmet Vihuri](#) trainer. The PM-1 prototype can today be seen at the [Aviation Museum of Central Finland](#) in [Tikkakoski](#).

Specifications



Another view of the VL Pyörremyrsky (behind the pole, next to a Messerschmitt Bf 109) with a [Valmet Vihuri](#) in the foreground.

General characteristics

- **Crew:** 1
- **Length:** 9.13 m (29 ft 11 in)
- **Wingspan:** 10.38 m (34 ft 1 in)
- **Height:** 3.89 m (12 ft 9 in)
- **Wing area:** 19 m² (200 sq ft)
- **Airfoil:** root: [NACA 0019](#); tip: [NACA 23009](#)^[4]
- **Empty weight:** 2,619 kg (5,774 lb)
- **Max takeoff weight:** 3,310 kg (7,297 lb)
- **Powerplant:** 1 × [Daimler-Benz DB 605AC](#) V-12 inverted liquid-cooled piston engine, 1,100 kW (1,500 hp)
- **Propellers:** 3-bladed constant-speed propeller

Performance

- **Maximum speed:** 620 km/h (390 mph, 330 kn)
- **Service ceiling:** 11,250 m (36,910 ft)
- **Rate of climb:** 18.5 m/s (3,640 ft/min)
- **Wing loading:** 174 kg/m² (36 lb/sq ft)

Armament

- **Guns:**
 - 2 × 12.7 mm [LkK/42 machine guns](#) with 300 rpg (proposed but not fitted to prototype)
 - 1 × 20 mm mg [MG 151/20](#) with 200 rpg (proposed but not fitted to prototype)
- **Bombs:**
 - 4 × 50 kg bombs
 - 4 × 100 kg bombs

