

## PRESS RELEASE

### **Second notable news in a single year: We're presenting the PBS TJ150 jet engine intended mainly for unmanned vehicles of the world's lead aircraft manufacturers**

**October 1, 2018.**

**On the occasion of the International Engineering Fair in Brno, during the press conference on October 2, 2018, the new PBS TJ150 jet engine was presented to the wide professional public.**

*"The PBS TJ150 engine is our fifth jet engine type. After its market launch, we will widen our selection in the power categories from 200 to 1,500 Newtons of thrust. This complete engine line will allow us to reach a wider spectrum of customers which includes mainly manufacturers of UAVs also known as unmanned aerial vehicles whose products find use in many fields, including the defence industry," says Ing. Milan Macholán, the CEO of První brněnská strojírna Velká Bíteš, a.s. (hereinafter referred to as PBS Velká Bíteš), a member of the PBS GROUPS, a.s. engineering holding.*

PBS Velká Bíteš thus launches two types of jet engines to the market this year which is an unprecedented phenomenon in the aviation industry especially due to the complexity of the development, production and assembly processes and testing of the aircraft engines.

The first jet engine launched to the market in the first half of this year was the engine designated as PBS TJ80 with a maximum thrust of 900 Newtons. The specific feature of this engine is, among others, an absence of the oil system which dramatically reduces the weight and outer diameter of the engine and allows it to start in any position on the ground and in flight.



Currently the newest member of the family of jet engines, the PBS TJ150, mainly excels with its breath-taking thrust to weight ratio, and respectively its outer diameter which are the utmost significant parameters in this category of aircraft engines.

Another advantage of the engine is also its compact design, an integrated starter generator and the reliability during start under difficult climatic conditions including the possibility to start during flight at high speeds and high altitudes.

## Main parameter of the PBS TJ150 engine

Maximum thrust	1,500 N
Maximum speed	0.9 M
External diameter of the engine	272 mm
Engine weight	19.6 kg
Maximum altitude	10,000 m
Electrical power output	600 W / 28 V
Ambient temperature range	-50 °C to +45 °C
Fuel	JET A-1
An integrated electronic control system	

## PBS Velká Bíteš production – Aerospace Technology Division

- A complete line of jet engines PBS TJ23U, PBS TJ40, PBS TJ80, PBS TJ100 and PBS TJ150 in the power category of 200 - 1,500 N intended mainly as a powerplant of UAV
- Turboprop and turboshaft jet engines with a power output of 200 kW for the propulsion of unmanned vehicles, small aircraft and helicopters
- Auxiliary power units (APU) for the generation of pressurized air for starting the main engines and for supplying electrical power for aircraft and helicopters
- Environmental control systems for heating, cooling and ventilation of the cabin and cargo area of aeroplanes and helicopters
- Precision castings, precision machining and surface treatments
- Cryogenic products

## About PBS Velká Bíteš

- Sales approx. CZK 1.2 billion (2017)
- 730 employees (2017)
- Offices: CZ, USA, Russia, China

[První brněnská strojírna Velká Bíteš, a.s.](#) engages in the development, production and testing of turbine high-speed rotating machines for the aviation, power and transport industries. It is also a top European investment casting foundry, a supplier of galvanic surface treatments and high-precision machining. It offers products and services of top quality with high reliability and added value which take into account the needs and specifics of its individual customers.

PBS Velká Bíteš is a part of the PBS GROUP holding which can be proud of one of the world oldest engineering brands – První brněnská strojírna (PBS). It has been connected with innovation and quality for more than 200 years. This group also incorporates:

[PBS ENERGO, a.s.](#) – the development, production, supply and service of industrial steam turbines and gas expansion turbines

[PBS BRNO, a.s.](#) – a versatile supplier of power engineering equipment with a focus on industrial boilers

[PBS AEROSPACE, a.s.](#) – business activities in the field of the aviation industry and mainly on the American market

## For questions contact

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