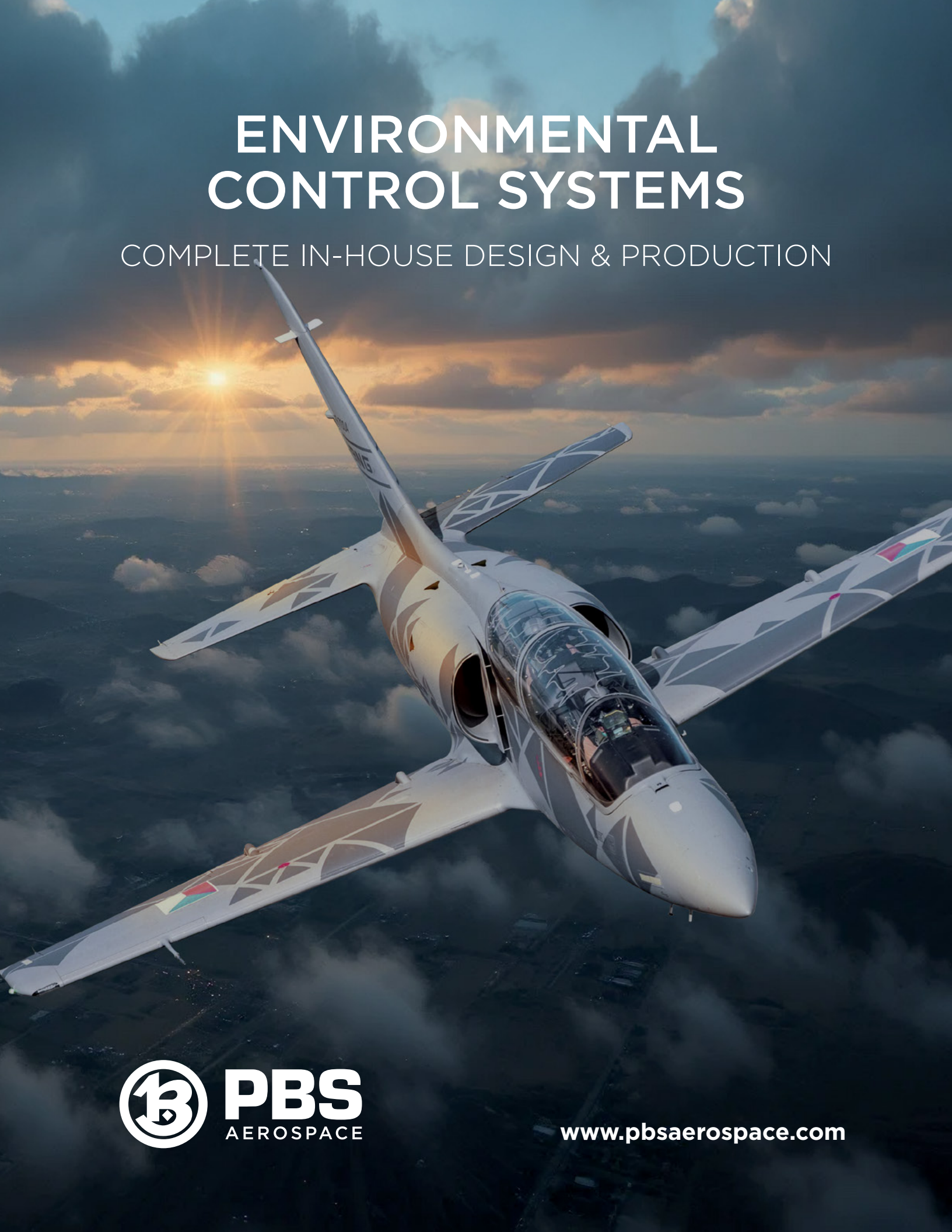

ENVIRONMENTAL
CONTROL SYSTEMS
COMPLETE IN-HOUSE DESIGN & PRODUCTION
PBS
AEROSPACE
www.pbsaerospace.com

About us

PBS GROUP is an international engineering company with over 200 years of heritage in precision manufacturing. We combine expertise across multiple industries through our subsidiaries, specializing in aerospace technology, precision casting, energy solutions, and cryogenic applications. Our comprehensive portfolio includes the development and manufacture of aircraft engines, auxiliary power units (APU), environmental control systems (ECS), and advanced cryogenic equipment.

One-Stop-Shop Company

We provide complete solutions through our extensive in-house capabilities. From initial design and R&D through to production and testing, we maintain control of 90% of our manufacturing processes. Our modern testing facilities, combined with customized solutions and flexible customer service, ensure comprehensive product lifecycle support. Through our subsidiaries, we offer integrated solutions that meet the highest standards of precision engineering and manufacturing excellence.

Main Features

Our ECS are specifically engineered to ensure a comfortable thermal environment in a variety of aircraft, including helicopters, jet trainers, large UAVs, light combat aircraft, and regional aircraft.

- ✓ Low electricity requirements
- ✓ Ecological operation – no coolant
- ✓ All-in-one solution combining heating, cooling, and ventilation functions
- ✓ Low weight
- ✓ Compact design
- ✓ Simple maintenance

Customer Support and Services

We offer a comprehensive range of customer support and services based on our extensive experience. Our technical support includes technician training programme, which can be held either at the PBS facility or at the customer's site.
We also provide detailed service and product documentation with regular updates, online technical support and on-site assistance to ensure seamless operation and customer satisfaction.

Why us?

Our excellence is validated through international certifications including ISO 9001, AS9100, ISO 14001, and Nadcap. We are proud that our turbojet engines rank among the world's finest in their category, while our APUs and ECS units serve thousands of aircraft globally. As a key player in both aerospace and cryogenic equipment, we deliver innovative solutions to leading manufacturers worldwide.

PBS GROUP

Where We Operate

Our business

- Aerospace
- Investment Casting
- Cryogenics
- Power Engineering
- Surface Treatments

Certification

EASA European Aviation Safety Agency · LRQA · Nadcap Administered by PRI

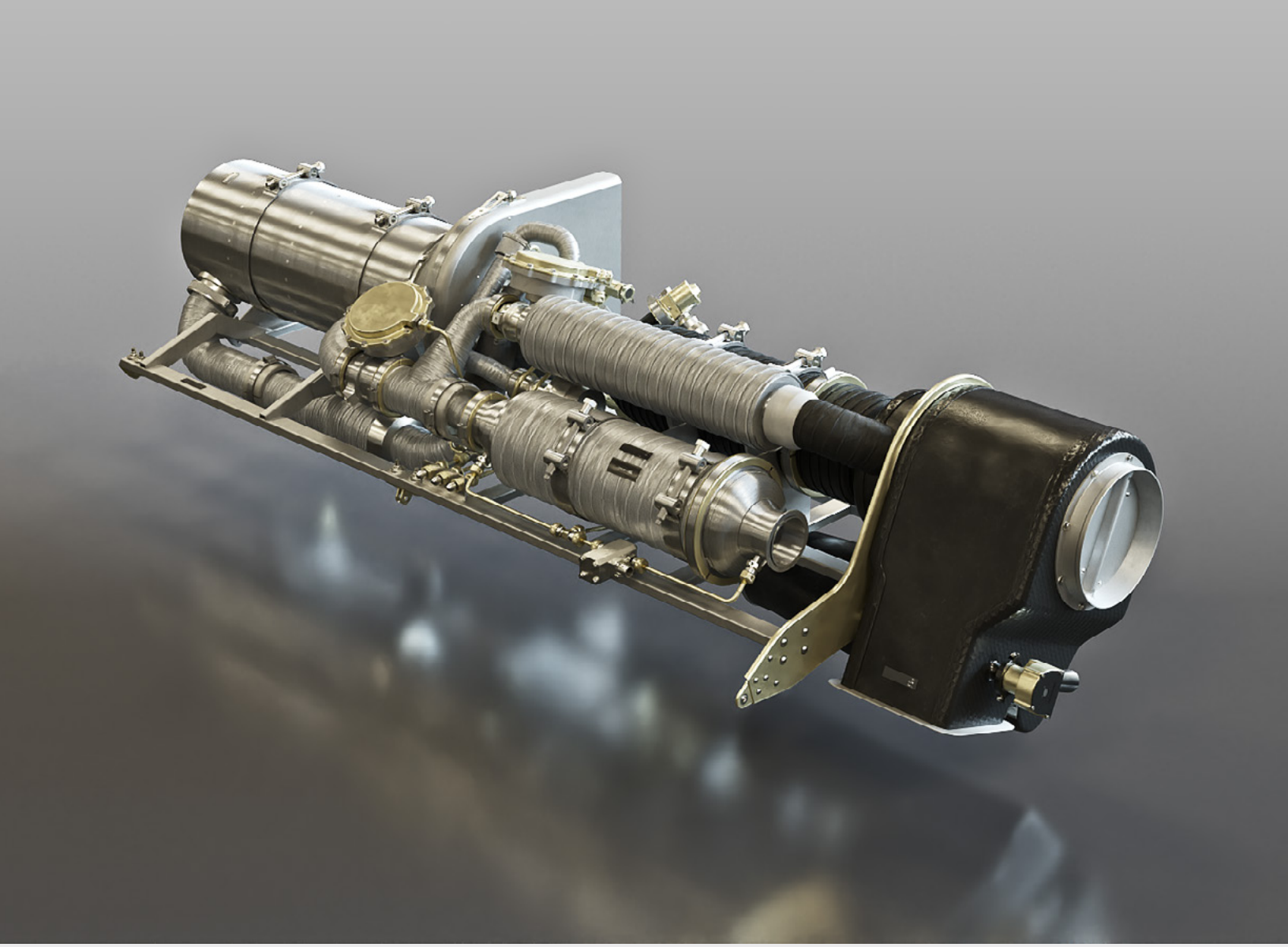
ECS Devices and Components

- ✓ Shut-Off, Regulation, Reduction, Safety, Non-return Valves
- ✓ Air and Thermostat Filters
- ✓ Turbocooling Units
- ✓ Electronic and Pneumatic Control Systems
- ✓ Pre-cooling Systems
- ✓ Low-pressure and High-pressure Water Separation
- ✓ Cockpit De-icing Systems
- ✓ Anti-G System Components
- ✓ Cabin Pressure Control Systems
- ✓ Other Separate ECS Devices

Complex Aircraft ECS Solutions

- ✓ Air Cycle Machines
- ✓ Air and Thermal Management System
- ✓ Cockpit De-icing System
- ✓ Anti-G System Components

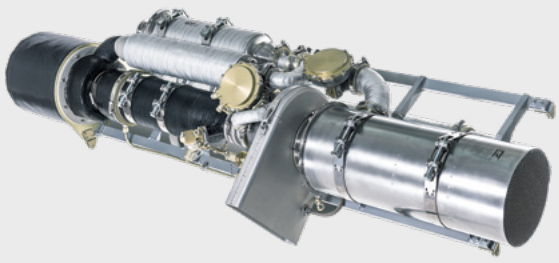
APPLICATIONS



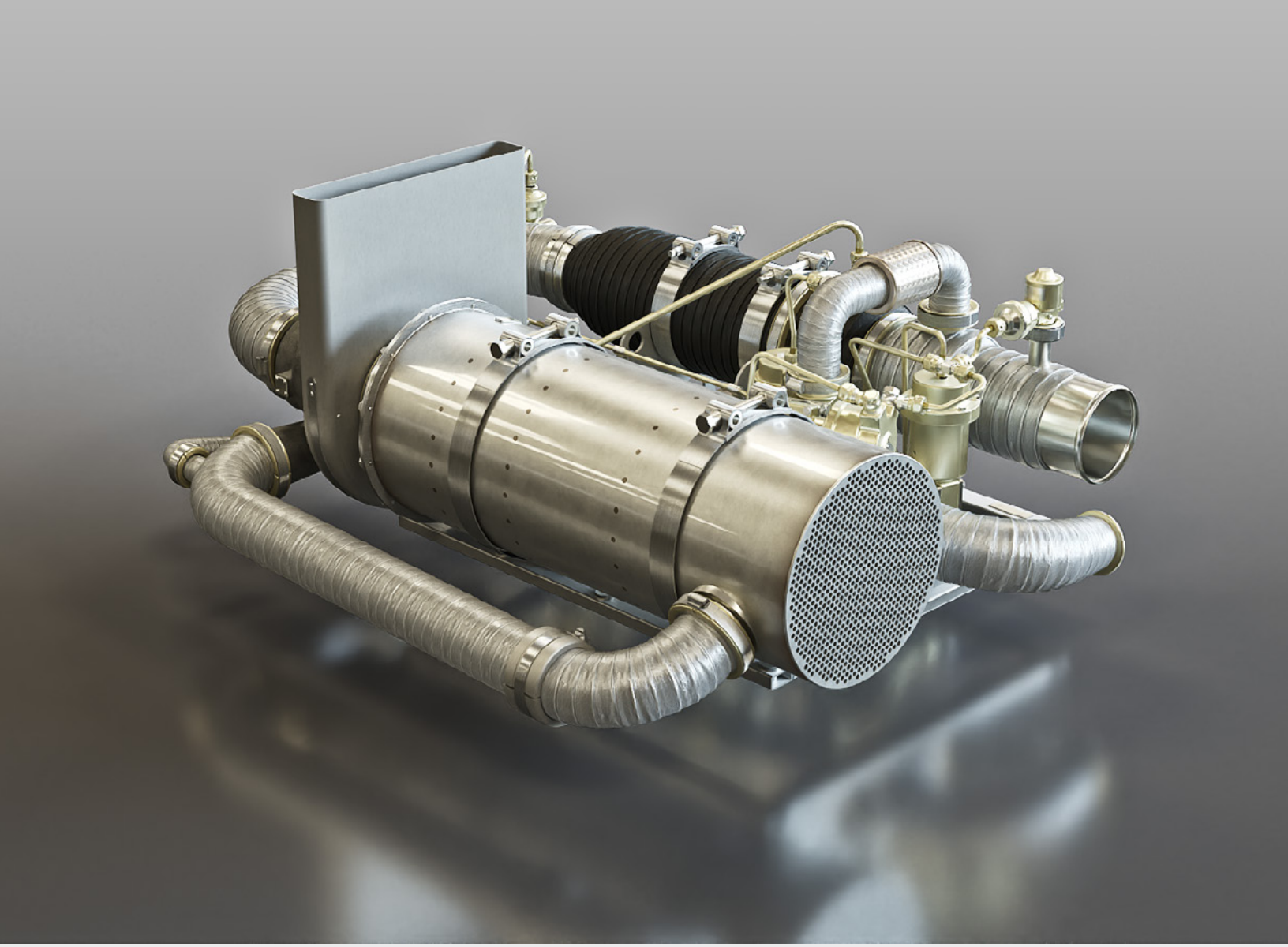
ECS-M1V

Technical parameters

PARAMETERS	METRIC	IMPERIAL
Airflow	1,500 kg/h	3,300 lb/h
Cooling capacity	10.8 kW	36,900 BTU/h
Heating capacity	62.0 kW	211,600 BTU/h
Dry weight	60.0 kg	132.3 lb
Max. operating altitude	6,000 m	19,700 ft

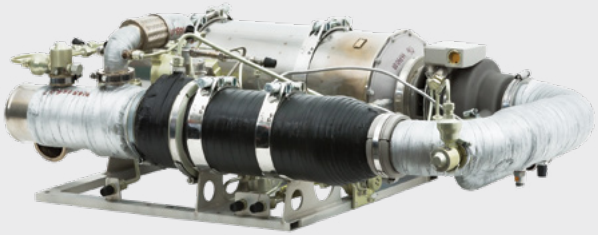


APPLICATIONS



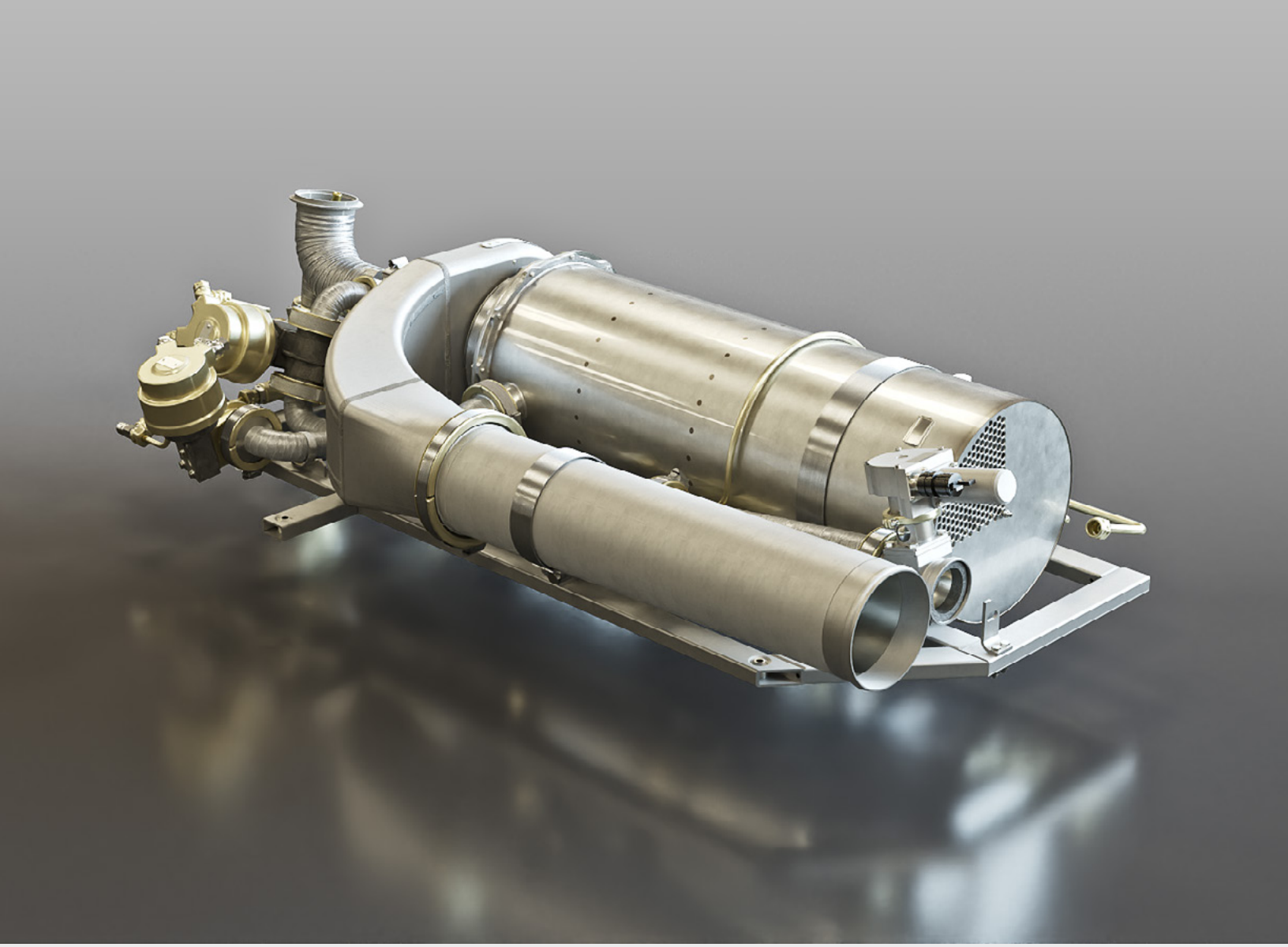
APPLICATIONS

ECS-Y12F



Technical parameters

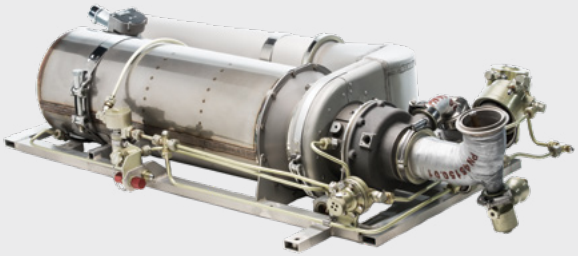
PARAMETERS	METRIC	IMPERIAL
Airflow	1,000 kg/h	2,200 lb/h
Cooling capacity	7.8 kW	26,700 BTU/h
Heating capacity	19.7 kW	67,200 BTU/h
Dry weight	41.0 kg	90.4 lb
Max. operating altitude	7,000 m	23,000 ft



ECS-K8

Technical parameters

PARAMETERS	METRIC	IMPERIAL
Airflow	540 kg/h	1,190 lb/h
Cooling capacity	3.3 kW	11,300 BTU/h
Heating capacity	16.8 kW	57,400 BTU/h
Dry weight	32.0 kg	70.5 lb
Max. operating altitude	11,000 m	36,000 ft



COMPONENTS

APPLICATIONS

ECS-L39NG

Technical parameters

PARAMETERS	METRIC	IMPERIAL
Airflow	530 kg/h	1,200 lb/h
Cooling capacity	3.3 kW	11,300 BTU/h
Heating capacity	16.8 kW	57,400 BTU/h
Dry weight	30.0 kg	66.1 lb
Max. operating altitude	11,000 m	36,000 ft

APU, ECS, AIRCRAFT GEARBOXES

L-39, L-59, L-159, L-39 Skyfox

ECS SPECIFICATIONS

ECS-M1V

PARAMETERS	METRIC	IMPERIAL
Airflow	1,500 kg/h	3,300 lb/h
Cooling capacity	10.8 kW	36,900 BTU/h
Heating capacity	62.0 kW	211,600 BTU/h
Dry weight	60.0 kg	132.3 lb
Max. operating altitude	6,000 m	19,700 ft

ECS-Y12F

PARAMETERS	METRIC	IMPERIAL
Airflow	1,000 kg/h	2,200 lb/h
Cooling capacity	7.8 kW	26,700 BTU/h
Heating capacity	19.7 kW	67,200 BTU/h
Dry weight	41.0 kg	90.4 lb
Max. operating altitude	7,000 m	23,000 ft

ECS-K8

PARAMETERS	METRIC	IMPERIAL
Airflow	540 kg/h	1,190 lb/h
Cooling capacity	3.3 kW	11,300 BTU/h
Heating capacity	16.8 kW	57,400 BTU/h
Dry weight	32.0 kg	70.5 lb
Max. operating altitude	11,000 m	36,000 ft

ECS-L39NG

PARAMETERS	METRIC	IMPERIAL
Airflow	530 kg/h	1,200 lb/h
Cooling capacity	3.3 kW	11,300 BTU/h
Heating capacity	16.8 kW	57,400 BTU/h
Dry weight	30.0 kg	66.1 lb
Max. operating altitude	11,000 m	36,000 ft

APPLICATIONS

Turboprop Aircraft

Helicopter

Jet Aircraft

ECS

FOR HELICOPTERS & JET TRAINERS

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info@pbsaerospace.com

ECS-US02B-2605