

CERTIFICATIONS FOR THE NEW PREVOST PIPING SYSTEM RANGE





PPSCertifications

Prevost products are essential to create high quality, professional grade air systems. Our fully customizable solution will adapt to any size or configuration building.

Since 1978, Prevost has been developing, manufacturing and marketing a complete range of products suitable for air, fluid and vacuum systems.
 PPS products are guaranteed for 10 years after installation.

Innovation and **Quality** are two core values that makes **Prevost** a key partner for numerous industrial markets using pneumatic and hydraulic energy.

- Automotive industry
- Construction
- Plastics
- Textiles
- Medical & Pharmaceutical
- Food processing
- Aeronautics and Railway
- Electronics
- Logistics, heavy duty machinery...

Our top priority is to provide an entire range of products that combine performance, quality and safety. The R&D department strives to constantly improve our line to guarantee the certification and conformity of our products.





Prevost Italy

■ Prevost products are designed, tested and validated by our own technical teams and certified by independent, third party organizations.

CONNECTED TO CERTIFICATION

Prevost GUARANTEES THE QUALITY OF THE PPS RANGE is compliant with strict internal specifications. Numerous certifications guarantee the quality of our products:

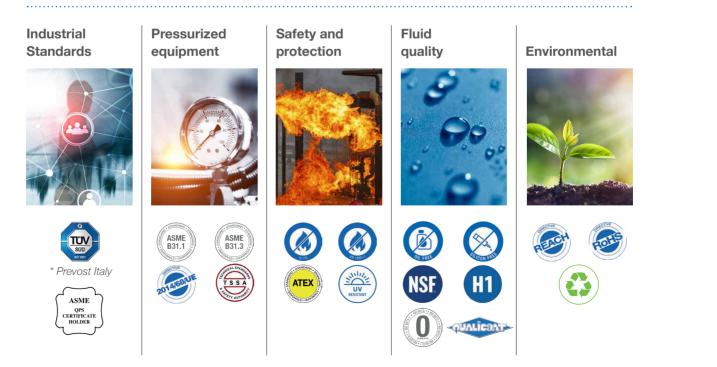
- ISO 9001 industrial organization
- Compliance with pressure equipment legislation
- Excellent fire classification
- Compliant with applicable ATEX standards
- Appropriate classifications for various fluid groups

PPSCertifications

■ OUR **WORLDWIDE** CERTIFICATIONS



■ CERTIFICATIONS BY APPLICATION CATEGORY



Industrial standards

QUALITY CERTIFICATIONS



■ Prevost meets these compressed air and fluid distribution standards through: Research & Development, design and management of manufacturing operations and assembly and quality inspections.

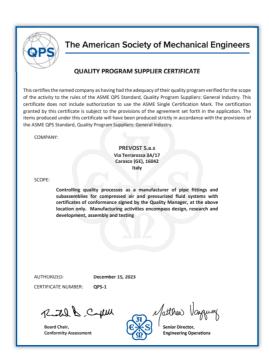
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■ Controlling quality processes as a manufacturer of pipe fittings and subassemblies for compressed air and pressurized fluid systems with certificates of conformance signed by the Quality Manager, at the above location only. Manufacturing activities encompass design, research and development, assembly and testing.

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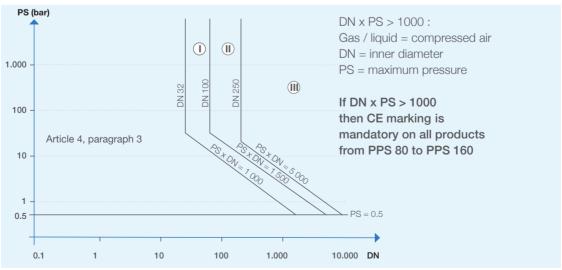


PRESSURIZED EQUIPMENT REQUIREMENTS



■ Prevost complies with European requirements (CE).





■ CRN (CANADIAN REGISTRATION NUMBER)



■ The **CRN** certification has been approved by the 13 Canadian provinces.

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■ ASME **B31.1 / B31.3**



■ **ASME** are the specifications required for material, design, dimensions and manufacturing.

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ASME is the US equivalent of the European Pressure Equipment Directive (PED 2014/68/EU) outlined below



Security and protection

FIRE CLASSIFICATION



EN 13501-1 CLASSIFICATION B-s1, d0

In the infrastructure and buildings sector, a fire classification must be provided. It provides information on the fire behavior of products in the event of a fire (insurance, etc.).

The **PPS** compressed air system line is designed to supply buildings with air power and is intended to meet this criteria.

■ In Europe, the fire classification is determined by the standard EN 13501-1



The PPS range is classified B-s1, d0:

- The fire behavior of PPS products is used to assign a classification of type:

 ■
- The additional classification for smoke production is defined by: s1
- The classification in relation to ignited droplets/particles gives a classification:

 d0



■ FIRE CLASSIFICATION



UL 723 - ASTM E84

The standardized references for fire behavior in the US are UL 723 & ASTM E84.

The PPS range has been classified 0-0-0:

- The fire behavior of **PPS** products is used to assign a classification of type: 0
- The additional classification for smoke production is defined by: 0
- The classification in relation to ignited droplets/particles gives a classification: 0
- In addition, the classification grade for plastics is

Surface Burning Characteristics of Prevost Piping

The following is a summary of the test results obtained on a pipe assembly designated Prevost sas as "Prevost Piping System" under Project 478844662. The tests were conducted at U.Cs test facility in Toronto, Ontario on December 13", 2018 in general accordance with CANULC-S102.22018, Sandarda Method of Test for Surface Burning Characteristics of Flooring, Ploor Coverings, and Miscollaneous Materials and Assemble "Edition (Exception, less than three tests were conducted as indicated under "Results and test specimens were longer than the required length as indicated under "Sample Description and Preparation").

CERTIFICATE OF COMPLIANCE

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Beny Spensieri, Jr.
Project Handler
Building & Life Safety Technologies

Report Of Surface Burning Characteristics Tests On Samples As Submitted By Prevost SAS

The test determines the Surface Burning Characteristics of the material, specifically the flame spread and smoke developed indices when exposed to fire.

was conducted in accordance with Standard UL1887, (ASTM E84). TEST METHOD: The test was conducted in accordance with UL 723, Eleventh Edition (2018/04/19).

Data sheets and graphical plots of flame travel versus time and smoke developed versus time are also enclosed.

Table 1: Test Summary

Test No.	Test Code	Sample Description	CFS Calculated Flame Spread	FSI Flame Spread Index	CSD Calculated Smoke Developed	SDI Smoke Developed Index
1	04261903	Compressed Air Piping	0.00	0	0.0	0

The Classification Marking of UL on the product is the only method provided by UL to identify products which have been produced under its Classification and Follow-Up Se No use of a Classification Marking has been authorized as a result of this investigation





Only those products bearing the UL Recognized Component Mark should be considered as be and covered under UL's Follow-Up Services.



Any information and documentation involving UL Mark services are provided on behalf of UL LLC (contact a local UL Custamer Service Representative at 1000/LLC (contact a local UL Custamer Se $\mathsf{Page 1 of 2} \ \, \mathsf{U} \mathsf{L} \mathsf{U}$







SECURITY AND PROTECTION

■ COMPLIANCE IN ATEX CLASSIFIED AREAS





■ ATEX outlines the rules to be followed during the installation process to avoid the risk of explosions in areas classified as hazardous.

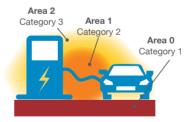
Explosion hazards can arise from various elements in the atmosphere:

- Gases/vapors: hydrocarbons, solvents, paints, thinners, petrol, alcohol, dyes, perfumes, chemicals, plastics, etc.
- Dust/powder: magnesium, aluminum, sulfur, cellulose, cereals, coal, wood, milk, resins, sugar, starch, polystyrene, fertilizer

Use of PPS products is possible in the least hazardous ATEX classified areas:

- gas: areas 1 and 2
- dust: areas 21 and 22

Area		Equipment	Presence of explosive		
Gas	Dust	category	atmosphere		
0	20	1	Constantly or for extended periods > 1000 hours per year		
1	21	2	Sometimes 10 ~ 1000 hours per year		
2	22	3	Rarely or for short periods <10 hours per year		





UV-RESISTANT



The 100% aluminium **PPS** line has excellent ultra violet ray resistance.

Fluid quality



AIR QUALITY



ISO 8573-1 CLASS 0.0.0

This international standard establishes the different quality classes of compressed air.

■ Prevost successfully meets the highest expectations of this standard. The products in the PPS range ensures the fluid being transported is not contaminated by solid particles, water, moisture or oil.

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer PREVOST s.a.s.

Address Sp. 586 via Terrarossa 3A/17, CARASCO GE, 16040, Italy

Type Pipes and Fittings

Description Aluminum pipes and fittings for compressed air and fluid distribution networks

Trade Name PPS1 Prevost Piping System

Application Industrial

Specified Standard Specification Part 2: Test methods for oil aerosol content Part 4: Test methods for soil aerosol content Part 4: Test methods for soil aerosol content

Ratings Working pressure 0.96 bar to 16 bar ISO 8573-1:2010 Class 0:0:0

External diameter of the tube (Range): 16; 20; 25; 32; 40; 50; 63; 80; 100 (mm)

Other Conditions The quality of the air to be in the category CLASS 0 in term of total oil aerosol content, measurement of humidity, solid particles content as defined soild particles content as defined as a feminate of the tube (Range): 16; 20; 25; 32; 40; 50; 63; 80; 100 (mm)

Other Conditions

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This level of quality meets the most demanding applications in terms of clean compressed air energy:

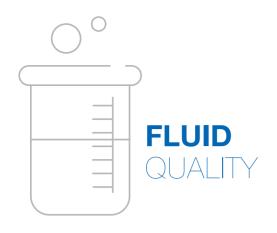
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- pharmaceutical
- food processing
- paint, etc.

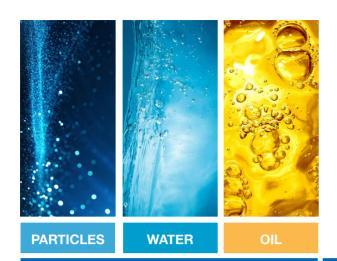








	SOI	LID PARTICLES	WATER	OIL	
ISO 8573-1 class	Maximum nu	mber of particles	Dew point	Total concentration	
	0.1 - 0.5 μm	0.5 - 1 μm	1 - 5 μm	under steam pressure	of oil (liquid, aerosol + gas)
prevost 0	AS SPECIFIED AND STRICTER THAN CLASS 1				
1	≤ 20.000	≤ 400	≤ 10	≤ -70°C	≤ 0.01 mg/m³
2	≤ 400.000	≤ 6.000	≤ 100	≤ -40°C	≤ 0.1 mg/m³
3		≤ 90.000	≤ 1.000	≤ -20°C	≤ 1 mg/m³
4			≤ 10.000	≤ +3°C	≤ 5 mg/m³
5			≤ 100.000	≤ +7°C	
6	0 < Cp ≤ 5 mg/m³			≤ +10°C	
7	5 < Cp ≤ 10 mg/m³			≤ 0.5 g/m³	
8				0.5 - 5 g/m³	
9				5-10 g/m³	
X	Cp > 10 mg/m³			> 10 mg/m³	> 10 mg/m³



ACHIEVABLE COMPRESSED AIR PURITY CLASS

SECTOR / APPLICATION

prevost 0	prevost 0	prevost 0	Consult Prevost for "clean air" and clean room requirements.
>1	< 1- 3	<1	Pharmaceutical industry, cosmetics, electronics, chemicals, aeronautics, food industry, quality paint.
1	4	1	Medical processing, weaving machines, photographic film processing, food industry and oil-free applications, pneumatic precision tools.
1	1 - 3	2	Photo laboratories.
1	4	2	Paint spraying, powder coating, packaging, inspection and instrument air.
2	1 - 3	1	Paint spraying systems.
2	4	1	Specific «clean air» routing, chemical plants.
2	1 - 3	2	Specific transport dry air, paint spraying, fine pressure regulators.
2	4	2	Quality sanding, single spray painting, air blowers, workshop.
3	4	3 - 4	Ordinary sanding, large pneumatic tools (coarse removal of oil/water particles).
4	4	3	General compressed air work, high quality sandblasting.
4	7 - X	3	Shot blasting.
4 - 6	7 - X	3 - 4	Air transport for wastewater systems.





■ Prevost products will not contaminate the conveyed fluid with grease or oil particles.



■ Prevost guarantees that no silicone-based agents have been used in the manufacturing of PPS products.

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QUALICOAT CERTIFICATION

Guidelines for the quality label for thermo-lacquering coatings (liquid or powder) of aluminum intended for architecture.

This label signifies the quality level of the treatment applied to the outer surface of **PPS** aluminum pipes.

The external surfaces must be able to withstand the harsh environmental operating conditions in various industries using compressed air systems.

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■ A high performance food grade lubricant (PPS AL).

The Prevost PPS AL lubricant is NSF H1 accredited.

It therefore meets the requirements of the most stringent applications: food, chemical, pharmaceutical, cosmetic...

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Environmental



■ Prevost closely monitors the raw materials used to produce its line of PPS products.

Through this process, products can be classified through **REACH** and **RoHSw** legislation.





■ The **PPS** line (pipes and fittings) are 100% aluminum and recyclable.

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Prevost certifications



INDUSTRIAL STANDARDS



ISO 9001

Research and Development, design and management of manufacturing operations, assembly and quality inspection of products for compressed air and other fluid applications.



QPS-ASME

Controlling quality processes as a manufacturer of pipe fittings and subassemblies for compressed air and pressurized fluid systems with certificates of conformance.

PRESSURIZED EQUIPMENT



CE - Pressure Equipment Directive PED-2014/68/EU





ASME B31.1 / B31.3



CRN (Canadian certification)

FLUID QUALITY



ISO 8573-1 Class 0.0.0



Oil Free



Silicone Free



QUALICOAT





NFS H1

SECURITY & PROTECTION



EN 13501-1 Classification B-s1, d0



UL 723 - ASTM E84 Class 0.0.0



Ultraviolet resistant



ATEX Directive: 2014/34/EU Area 1 - 2 - 21 & 22

ENVIORNMENTAL



REACH



RoSH



Recyclable



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