

# 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.

<b>Manufacturer</b>	<b>Parker Hannifin Manufacturing Ltd</b>
<b>Address</b>	Dukesway Team Valley Trading Estate, Gateshead, Tyne & Wear, NE11 0PZ, United Kingdom
<b>Type</b>	Air filters
<b>Description</b>	OIL-X Die-cast Filter Range Filtration Grade AA: High Efficiency Coalescing Filter & High Efficiency Dry Particulate Filter
<b>Trade Name</b>	AA : PX010,PX015,PX020,PX025,PX030,PX035,PX040,PX045,PX050,PX055 & PX060
<b>Application</b>	Filters for compressed air, nitrogen and all relevant Group 2 gases.
<b>Specified Standard</b>	ISO12500-1:2007 Filters for Compressed Air – Oil Aerosols ISO8573-1:2010 Contaminant and Purity Classes ISO8573-2:2018 Contaminant measurement - Oil aerosol content ISO8573-4:2019 Contaminant measurement - Particle content
<b>Ratings</b>	Class 2 for oil as defined by ISO8573-1:2010 Class 1 for particulates as defined by ISO8573-1:2010

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

**Pradip Chongder**

Sheffield DA Manager to Lloyd's Register  
EMEA  
A member of the Lloyd's Register group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

---

# Type Approval Certificate

## Other Conditions

The die-cast coalescing filter models described above are rebranded versions of the models tested and listed in table 1, at ISO reference conditions and challenged with  $10\text{mg}/\text{m}^3$  of oil aerosol, in accordance with the requirements of ISO12500-1.

The measured residual oil content downstream of the test filters averaged  $<0.01\text{mg}/\text{m}^3$ , resulting in a downstream air purity equal to Class 2 for oil as defined by ISO8573-1. The initial dry differential pressure measured across each AA filter tested did not exceed 70mbar (1psi) and the initial saturated differential pressure did not exceed 125mbar (1.8psi).

The filter models listed in Table 1, have also been tested in accordance with the requirements of ISO8573-4 and achieved a downstream air purity of Class 1 for particles, as defined by ISO 8573-1, when challenged with an upstream air purity of Class 3 for particles.

Details of the equipment, methodology and results are contained within the Technical Documentation File COV1527423/TDF.

Refer to the appendix for the filter range.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document COV1613518 O-32811/DH & PRJ11100313926 O-38018/PT and its supplementary Type Approval Terms and Conditions form part of this Certificate.

## Appendix

Table 1 : OIL-X Die-Cast Filter Range

AA - High Efficiency Coalescing and Dry Particulate Filters

Test No.	LR Cert Reference	Issue	Standard	Inlet Oil Aerosol Challenge	Remaining Oil Content	Saturated Pressure Drop mbar (PSI)	Filter Grade	Models	Diecast - DC
1	COV0413801/1	6	ISO8573-2	10 mg/m <sup>3</sup>	<0.01 mg/m <sup>3</sup>	<125 mbar (1.8 psi)	AA	(1)	DC
2	COV1527423/1	1	ISO12500-1	10 mg/m <sup>3</sup>	<0.01 mg/m <sup>3</sup>	<125 mbar (1.8 psi)	AA	(2)	DC
Test No.	LR Cert Reference	Issue	Standard	Inlet Particulate Challenge	Remaining Particulate Content	Initial Dry Pressure Drop (*) mbar (PSI)	Filter Grade	Models	Diecast - DC
3	COV0413801/4	3	ISO8573-4	Class 3	Class 1	<70 mbar (1 psi)	AA	(3)	DC
Models	(1) P010,P015,P020,P025,P030,P035,P040,P045,P050 & P055 (2) P010,P015,P020,P025,P030,P035,P040,P045,P050,P055 & P060 (3) P010,P015,P020,P025,P030,P035,P040,P045,P050 & P055								
Standards (*)	ISO8573-2 Contaminant measurement - Oil aerosol content ISO8573-4 Contaminant measurement - Particle content ISO12500-1 Filters for Compressed Air - Test Methods - Part 1 Oil Aerosols (*) Defined as the maximum differential pressure for a new <b>dry</b> particulate filter								