Certificate Reference: 42-1416

Type Test Certificate

Evaluation of the Particulate Filtration Efficiency Of D Grade Particulate Removal Filter Elements for use Compressed Air Line Filter Housings (Models F1 – F18)

ISO 12500-3:2009

Certificate Issue Date: June 2019

Test Report Reference: IBR JN 18287A and IBR JN 18287C3

Test Standards:

ISO 12500-3:2009 Filters for compressed air - Test methods - Part 3: Particulates

| Initial Dry Differential Pressure (mbar) | 85 | | |
|--|------------------------|------------------------|--------------------|
| Particle Size Range (μm) | 0,1μm < d ≤ 0,5 μm | 0,5μm < d ≤ 1,0 μm | 1,0μm < d ≤ 5,0 μm |
| Number of Upstream Particles | 4375625 | 752942 | 10077 |
| Number of Downstream Particles | 195 | 34 | 0 |
| Particle Removal Efficiency | 99.9955% | 99.9955% | 100% |
| ISO8573-1:2010 Quality Class | Class 1 | Class 1 | Class 1 |
| Max Number of Particles* | 4.49 X 10 ⁸ | 8.86 x 10 ⁶ | N/A |

^{*}Maximum number of particles (0.1 – 5.0 μ m) allowable at inlet to meet quality class for particulates

Filter models tested at 100% rated flow at 7 barg [8 bar(a)], and selected by the client as being representative of the entire filter range.

Note: Actual filter efficiency at larger particle sizes is greater.

Tested in accordance with ISO 12500-3:2009 for particulates using solid particulate aerosol 0.1-5 μ m per ISO 12500-3 sec 8.2 and using DEHS aerosol per EN1822-5:2009.