

Evaluation of the solid particle removal efficiency of Atlas Copco DD+/DDp+ or PD+/PDp+ filter According to ISO12500-3:2009

Test report IBR JN: 12828A & 12828C

Report prepared for: Atlas Copco Airpower n.v.

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PN for DD+/DDp+: 1 624 1829 09

PN for PD+/PDp+: 1 624 1829 07

	0.01 µm	0.1µm	0.5 µm	1 µm	5µm
DD+/DDp+	99.93%	99.92%	99.95%	99.998%	>99.999%
PD+/PDp+	99.995%	99.992%	99.997%	>99.999%	>99.999%

	MPPS	Efficiency at MPPS
DD+/DDp+	0.1 µm	99.92%
PD+/PDp+	0.06 µm	99.98%

Report Authorized By:



Susan H Goldsmith Managing Director

Note: Full report available upon request

Options
DD+/PD+/UD+/DDp+/PDp+/QD+

- Potential-free alarm contact for gauge.
- Smart indicator.
- External wiring kit for smart indicator (alarm/ power supply).
- Interconnection kit.
- Wall mounting kit.
- EWD including connection kit.



	DD+/PD+/UD+		DDp+/PDp+		QD+	
	Standard	inPASS™	Standard	inPASS™	Standard	inPASS™

	Standard					
	Without inPASS™					
Drain	Floater drain		X			
	Manual drain			X		X
	Sliding indicator	size 7-25				
Indicator	Gauge	> size 25				
	Smart indicator		X			
	Bypass			X		X

	Options					
	With inPASS™					
Smart indicator		X		X		X
	External wiring kit (for smart indicator)	X		X		X
	Potential-free alarm for gauge	X		X		
Filter connection kit		X		X		X
	Wall mounting kit	X		X		X
	EWD drain with connection kit	X		X		

Correction factors

When working with other pressures than the nominal pressure, the actual FAD capacity is calculated by multiplying the correction factor with the rated AML capacity. The calculated actual flow capacity corresponds to the AML-stated pressure drop.

Working pressure in bar(g)	1	2	3	4	5	6	7	8	10	12	14	16
Correction factor	0.38	0.53	0.65	0.75	0.83	0.92	1	1.06	1.20	1.31	1.41	1.50

Sizing & dimensions
DD+/PD+/UD+/DDp+/PDp+/QD+

Filter size with or without inPASS™	Nominal capacity		Reference pressure		Maximum pressure		Connections		Dimensions						Free space for cartridge replacement		Weight	
	l/s	cfm	bar(e)	psig	bar(e)	psig	G	NPT	A	B	C	D	mm	inch	mm	inch	kg	lbs
7+	7	15	7	102	16	232	G 1/2	NPT 1/2	106	417	90	354	362,6	14,3	90	3,54	1,18	2,60
15+	15	32	7	102	16	232	G 1/2	NPT 1/2	106	417	90	354	362,6	14,3	90	3,54	1,24	2,73
25+	25	53	7	102	16	232	G 1/2	NPT 1/2	106	417	90	354	415,1	16,3	90,5	3,56	1,45	3,20
45+	45	95	7	102	16	232	G 3/4	NPT 3/4	135	531	110	433	442,6	17,4	110	4,33	2,35	5,18
75+	75	159	7	102	16	232	G 1	NPT 1	135	531	110	433	527,6	20,8	110	4,33	2,8	6,17
110+	110	233	7	102	16	232	G 1 1/2	NPT 1 1/2	175	689	143	563	599,1	22,0	130,5	5,14	5,4	11,91
145+	145	307	7	102	16	232	G 1 1/2	NPT 1 1/2	175	689	143	563	629,1	24,8	130,5	5,14	5,93	13,08
180+	180	381	7	102	16	232	G 1 1/2	NPT 1 1/2	175	689	143	563	699,1	27,5	130,5	5,14	6,45	14,22
240+	240	509	7	102	16	232	G 2	NPT 2	222	874	171	673	729,6	28,7	175	6,89	9,54	21,04
300+	300	636	7	102	16	232	G 2 1/2	NPT 2 1/2	222	874	171	673	822,6	32,4	175	6,89	10,71	23,62

Non-inPASS™ variant: height "C" decreases by 51 mm (2") for sizes 7-25 and by 10 mm (0,4") for sizes 45-300.

With inPASS™																		
380+	380	805	7	102	16	232	G 3	NPT 3	250	984	191	752	927,1	36,5	200,5	7,89	13,6	29,99
425+	425	901	7	102	16	232	G 3	NPT 3	250	984	191	752	1043,1	41,1	200,5	7,89	14,95	32,96
510+	630	1081	7	102	16	232	G 3	NPT 3	250	984	191	752	1281,1	50,4	200,5	7,89	19,6	43,22

Without inPASS™																		
360+	360	763	7	102	16	232	G 2 1/2	NPT 2 1/2	222	874	171	673	812,7	32,0	175	6,89	10,2	22,49
430+	430	911	7	102	16	232	G 3	NPT 3	250	984	191	752	917,2	36,1	200,5	7,89	13,98	30,83
525+	525	1112	7	102	16	232	G 3	NPT 3	250	984	191	752	1033,2	40,7	200,5	7,89	15,32	33,78
630+	630	1335	7	102	16	232	G 3	NPT 3	250	984	191	752	1271,2	50,0	200,5	7,89	19,24	42,42

Flanged			Flanged connection															
550+F/630+F	550	1165	7	102	16	232	DN 80	DN 80	370	14,6	280	11,0	1295	51,0	1375	54,1	76,0	167,6
850+F/970+F	850	1801	7	102	16	232	DN 100	DN 100	510	20,1	410	16,1	1360	53,5	1500	59,1	141,0	310,9
850+-T	850	1801	7	102	16	232	DN 100	DN 100	510	20,1	418	16,5	796	31,3	200	7,9	35,2	77,6
1100+F/1260+F	1100	2331	7	102	16	232	DN 100	DN 100	510	20,1	410	16,1	1360	53,5	1500	59,1	142,0	315,3
1100+-T	1100	2331	7	102	16	232	DN 100	DN 100	510	20,1	418	16,5	966	38,0	200	7,9	37,4	82,4
1400+F/1600+F	1400	2967	7	102	16	232	DN 150	DN 150	620	24,4	485	19,1	1480	58,3	1560	61,4	210,0	463,0
1800+F/2200+F	1800	3814	7	102	16	232	DN 150	DN 150	640	25,2	490	19,3	1555	61,2	1640	64,6	176,0	388,0
2200+F/2400+F	2200	4662	7	102	16	232	DN 150	DN 150	640	25,2	490	19,3	1555	61,2	1640	64,6	178,0	392,4
3000+F/3600+F	3000	6357	7	102	16	232	DN 200	DN 200	820	32,3	650	17,7	1745	68,7	1710	67,3	420,0	925,9
4000+F	4000	8476	7	102	16	232	DN 200	DN 200	820	32,3	650	17,7	1745	68,7	1710	67,3	428,0	943,6
5000+F	5000	10595	7	102	16	232	DN 200	DN 200	820	32,3	650	17,7	1745	68,7	1710	67,3	432,0	952,4
6000+F	6000	12714	7	102	16	232	DN 250	DN 250	920	36,2	815	32,1	2085	82,1	1625	64,0	671,0	1479,3
7000+F	7000	14833	7	102	16	232	DN 250	DN 250	920	36,2	815	32,1	2085	82,1	1625	64,0	675,0	1488,1
8000+F	8000	16952	7	102	16	232	DN 300	DN 300	1040	40,9	930	36,6	2070	81,5	1625	64,0	900,0	1984,2

Temperature correction factors QD+

At higher temperatures, more compressor oil evaporates. When the actual working air inlet temperature differs from the reference, divide the filter capacity by the corresponding correction factors to obtain the correct capacity.

Inlet temperature °C	20	25	30	35	40	45	50	55	60
Inlet temperature °F	68	77	96	95	104	113	122	131	140
Correction factor oil-free	1	1	1	1	1	1	1	1	1
Correction factor oil-lubricated	1	1	1	1,2	1,5	1,7	2,1	2,4	2,6

Some environmental or process aspects could cause a higher amount of hydrocarbons or other volatile organic compounds in the compressed air. Contact Atlas Copco when higher concentrations can be expected.