

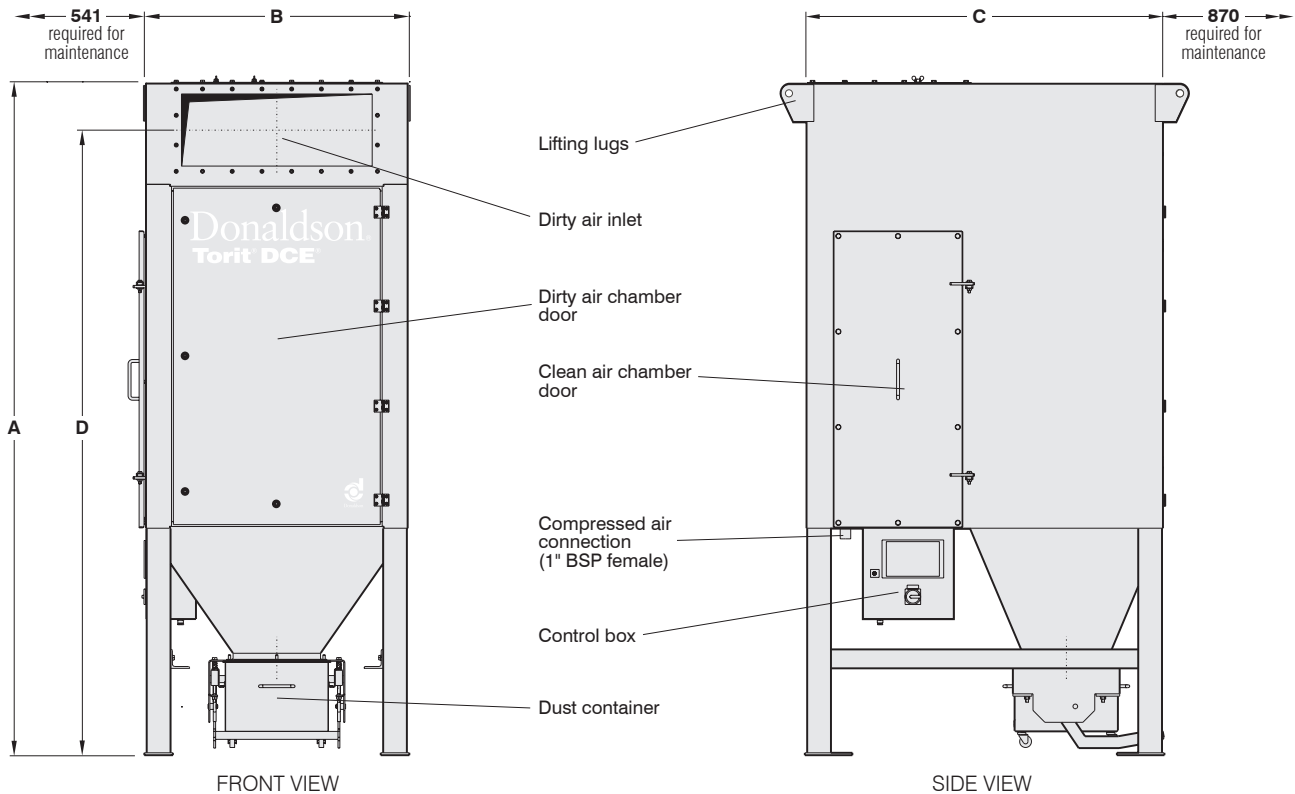


Donaldson  
FILTRATION SOLUTIONS

## DATA SHEET

### DFPRO Dust Collectors

Series DFPRO 4-16 and DFPRO-R 4-16



### DFPRO STANDARD DUST COLLECTOR

Model DFPRO 6 illustrated

#### DIMENSIONS (in mm)

		DFPRO 4	DFPRO 6	DFPRO 8	DFPRO 12	DFPRO 16
<b>Standard</b> (400 mm hopper clearance*)	A (Height)	2295	2750	3205	2750	3205
	B (Width)	1100	1100	1100	2100	2100
	C (Depth)	1500	1500	1500	1500	1500
	D (Height to Inlet)	2094	2549	3004	2531	2986
<b>Number of filter elements</b>		4	6	8	12	16
<b>Filtration area (Ultra Web®)</b>		70.6 m <sup>2</sup>	106.0 m <sup>2</sup>	141.2 m <sup>2</sup>	211.8 m <sup>2</sup>	282.4 m <sup>2</sup>

\*For 1065 mm hopper clearance add 665 mm to height 'A' and 'D'. For 1500 mm hopper clearance add 1100 mm to height 'A' and 'D'.

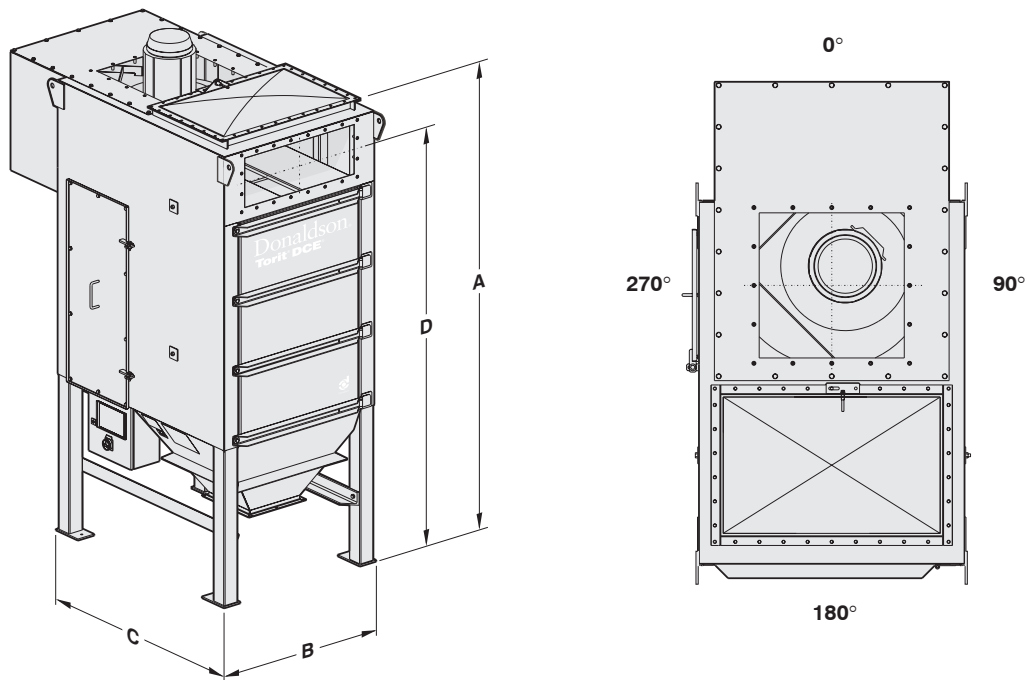
#### DESIGN SPECIFICATIONS (standard equipment)

**Operating temperature:** -10° to +65°C

**Maximum operating pressure range:** ±5 kPa (500 mm WG)

**Wind load rating:** 160 km/h

**Finishing:** Acrylated alkyd paint colour RAL 5019 (blue) – semi gloss



TOP VIEW

**DFPRO REINFORCED DUST COLLECTOR**

Model DFPRO 6 illustrated

		<b>DIMENSIONS (in mm)</b>				
		<b>DFPRO 4</b>	<b>DFPRO 6</b>	<b>DFPRO 8</b>	<b>DFPRO 12</b>	<b>DFPRO 16</b>
<b>Reinforced</b> (400 mm hopper clearance*)	A (Height)	2390	2845	3300	2845	3300
	B (Width)	1102	1102	1102	2102	2102
	C (Depth)	1562**	1562**	1562**	1562**	1562**
	D (Height to Inlet)	2094	2549	3004	2531	2986
	<b>Number of filter elements</b>	4	6	8	12	16
	<b>Filtration area (Ultra Web®)</b>	70.6 m <sup>2</sup>	106.0 m <sup>2</sup>	141.2 m <sup>2</sup>	211.8 m <sup>2</sup>	282.4 m <sup>2</sup>

\*For 1065 mm hopper clearance add 665 mm to height 'A' and 'D'. For 1500 mm hopper clearance add 1100 mm to height 'A' and 'D'.  
\*\* Includes reinforcements on door.

**COMPRESSED AIR REQUIREMENTS**

Max. 7 bar

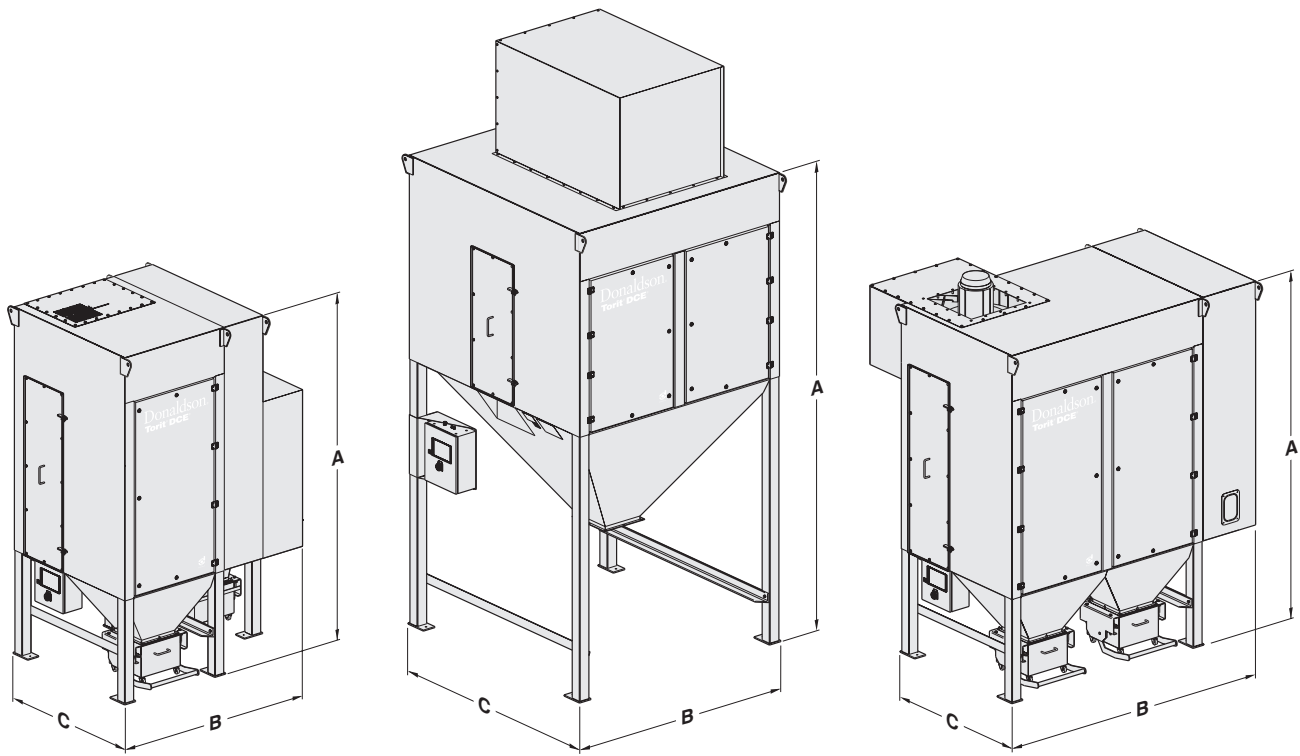
Pressure range 6-7 bar

Clean air (max. particle size 50 µm)

Free of condensate at working temperature

Max. oil content: 3 mg/m<sup>3</sup>Approx. compressed air usage\*: ±45 Nlitres per pulse  
(±16.2 Nm<sup>3</sup>/h for 10 s pulse interval at 7 bar)

\* The indicated value is the consumption per valve



### DFPRO CYCLOPEEL DUST COLLECTOR

Model DFPRO 8 illustrated

### DFPRO DROP OUT BOX DUST COLLECTOR

Model DFPRO 12 illustrated

### DFPRO SPARKTRAP DUST COLLECTOR

Model DFPRO 16 illustrated

		DIMENSIONS (in mm)				
		DFPRO 4	DFPRO 6	DFPRO 8	DFPRO 12	DFPRO 16
<b>Cyclopeel</b> (400 mm hopper clearance*)	A (Height)	2295	2750	3205	2947	3402
	B (Width)	1782	1862	2030	3225	3628
	C (Depth)	1500	1500	1500	1500	1500
	D (Height to Inlet)	–	–	–	–	–
<b>Drop Out Box</b> (1065 mm hopper clearance**)	A (Height)	2960	3415	3870	4121	4576
	B (Width)	1600	1600	1750	2100	2100
	C (Depth)	1500	1500	1500	2200	2450
	D (Height to Inlet)	2725	3130	3585	3785	4167
<b>Sparktrap</b> (400 mm hopper clearance*)	A (Height)	2295	2750	3205	2750	3205
	B (Width)	1390	1550	1455	2535	2630
	C (Depth)	1500	1500	1500	1500	1500
	D (Height to Inlet)	–	–	–	–	–
Number of filter elements		4	6	8	12	16
Filtration area (Ultra Web®)		70.6 m <sup>2</sup>	106.0 m <sup>2</sup>	141.2 m <sup>2</sup>	211.8 m <sup>2</sup>	282.4 m <sup>2</sup>

\*For 1065 mm hopper clearance add 665 mm to height 'A'. For 1500 mm hopper clearance add 1100 mm to height 'A'.  
\*\*For 1500 mm hopper clearance add 435 mm to height 'A' and 'D'.

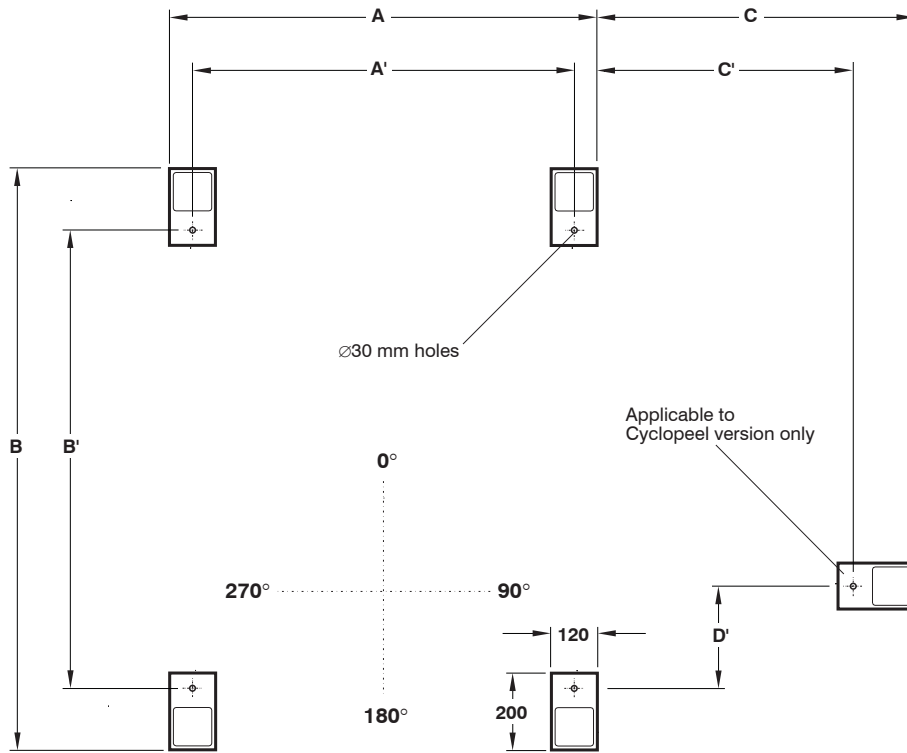
### NOISE LEVEL\*

#### Pulse noise\*

LpAeq: ≤ 75 dB (A-weighted equivalent continuous sound pressure level)

ΔLi: ≤ 10 dB (impulsive noise content)

\* Measurement according to DIN 45635/1 at 1m distance, with 6 bar compressed air pressure, pulse interval of 15s, semi-free field conditions and usual tolerance ±2 dB.



**FOUNDATION DETAILS**

		DIMENSIONS (in mm)				
		DFPRO 4	DFPRO 6	DFPRO 8	DFPRO 12	DFPRO 16
<b>Standard</b>	Width A	1114	1114	1114	2114	2114
	A'	994	994	994	1994	1994
	Depth B	1513	1513	1513	1513	1513
	B'	1193	1193	1193	1193	1193
<b>Reinforced</b>	Width A	1114	1114	1114	2114	2114
	A'	994	994	994	1994	1994
	Depth B	1513	1513	1513	1513	1513
	B'	1193	1193	1193	1193	1193
<b>Sparktrap</b>	Width A	1114	1114	1114	2114	2114
	A'	994	994	994	1994	1994
	Depth B	1513	1513	1513	1513	1513
<b>Cyclopeel</b>	Width A	1114	1114	1114	2114	2114
	A'	994	994	994	1994	1994
	Depth B	1513	1513	1513	1513	1513
	B'	1193	1193	1193	1193	1193
	Width C	595	725	893	1189	1491
	C'	435	565	733	1029	1331
	D'	200	668	411	411	461
<b>Drop Out Box</b>	Width A	1614	1614	1764	2114	2114
	A'	1494	1494	1644	1994	1994
	Depth B	1513	1513	1513	2213	2463
	B'	1193	1193	1193	1893	2143

**COLLECTOR WEIGHTS (in kg)**

Weights include filter cartridges and are for collectors prior to first use, i.e. with no dust collected.  
Add 40 kg for each EZ bin pack.  
\* Excludes fan set weight (see table below). \*\* Includes bursting panel.

**FAN SET WEIGHTS**

VCM 403S (2.2 kW).....	41 kg
VCM 451S (3 kW).....	70 kg
ART 452 (4 kW).....	98 kg
ART 451 (5.5 kW).....	110 kg
MEC 451 (7.5 kW).....	159 kg
ART 502 (7.5 kW).....	151 kg
ART 501 (11 kW).....	208 kg
MEC 502 (11 kW).....	239 kg
ART 562 (11 kW).....	230 kg
FP 501 (11 kW).....	251 kg
ART 561(15 kW).....	250 kg
FQ 562 (15 kW).....	310 kg
FQ 561 (18.5 kW).....	304 kg
FR 501 (18.5 kW).....	207 kg
ART 632 (22 kW).....	346 kg

	Fully integrated fan set*				Integrated fan set* and single hopper				Integrated fan set* and double hopper						
	DFPRO	DFPRO	DFPRO	DFPRO	DFPRO	DFPRO	DFPRO	DFPRO	DFPRO	DFPRO	DFPRO	DFPRO	DFPRO		
<b>Standard</b>	4	6	8	12	16	4	6	8	12	16	4	6	8	12	16
400 mm hopper clearance	590	740	870	-	-	568	718	848	-	-	-	-	-	1068	1263
1065 mm hopper clearance	615	765	895	-	-	593	743	873	1160	1355	-	-	-	1093	1288
1500 mm hopper clearance	640	790	920	-	-	618	768	898	1185	1380	-	-	-	1118	1313
<b>Reinforced**</b>															
400 mm hopper clearance	706	834	965	-	-	684	812	943	-	-	-	-	-	1230	1439
1065 mm hopper clearance	731	859	990	-	-	709	837	968	1322	1531	-	-	-	1255	1464
1500 mm hopper clearance	756	884	1015	-	-	734	862	993	1347	1556	-	-	-	1280	1489
<b>Sparktrap</b>															
400 mm hopper clearance	682	861	1082	-	-	660	839	1060	-	-	-	-	-	1254	1510
1065 mm hopper clearance	707	886	1107	-	-	685	864	1085	1346	1602	-	-	-	1279	1535
1500 mm hopper clearance	732	911	1132	-	-	710	889	1110	1371	1627	-	-	-	1304	1560
<b>Cyclopeel</b>															
400 mm hopper clearance	791	1020	1280	-	-	769	998	1258	-	-	-	-	-	1438	1748
1065 mm hopper clearance	816	1045	1305	-	-	794	1023	1283	1530	1840	-	-	-	1463	1773
1500 mm hopper clearance	841	1070	1330	-	-	819	1048	1308	1555	1865	-	-	-	1488	1798
<b>Drop out box</b>															
1065 mm hopper clearance	757	1010	1140	-	-	735	988	1118	1708	1928	-	-	-	1641	1861
1500 mm hopper clearance	782	1035	1165	-	-	760	1013	1143	1733	1953	-	-	-	1666	1886
<b>Standard</b>	4	6	8	12	16	4	6	8	12	16	4	6	8	12	16
400 mm hopper clearance	626	776	906	-	-	-	-	-	1126	1321	550	700	830	-	-
1065 mm hopper clearance	651	801	931	1218	1413	-	-	-	1151	1346	575	725	855	1142	1337
1500 mm hopper clearance	676	826	956	1243	1438	-	-	-	1176	1371	600	750	880	1167	1362
<b>Reinforced**</b>															
400 mm hopper clearance	742	870	1001	-	-	-	-	-	1288	1497	666	794	925	-	-
1065 mm hopper clearance	767	895	1026	1380	1589	-	-	-	1313	1522	691	819	950	1304	1513
1500 mm hopper clearance	792	920	1051	1405	1614	-	-	-	1338	1547	716	844	975	1329	1538
<b>Sparktrap</b>															
400 mm hopper clearance	718	897	1118	-	-	-	-	-	1312	1568	642	821	1042	-	-
1065 mm hopper clearance	743	922	1143	1404	1660	-	-	-	1337	1593	667	846	1067	1328	1584
1500 mm hopper clearance	768	947	1168	1429	1685	-	-	-	1362	1618	692	871	1092	1353	1609
<b>Cyclopeel</b>															
400 mm hopper clearance	827	1056	1316	-	-	-	-	-	1496	1806	751	980	1240	-	-
1065 mm hopper clearance	852	1081	1341	1588	1898	-	-	-	1521	1831	776	1005	1265	1512	1822
1500 mm hopper clearance	877	1106	1366	1613	1923	-	-	-	1546	1856	801	1030	1290	1537	1847
<b>Drop out box</b>															
1065 mm hopper clearance	793	1046	1176	1766	1986	-	-	-	1699	1919	717	970	1100	1690	1910
1500 mm hopper clearance	818	1071	1201	1791	2011	-	-	-	1724	1944	742	995	1125	1715	1935

**Fan set\* on the floor and double hopper**

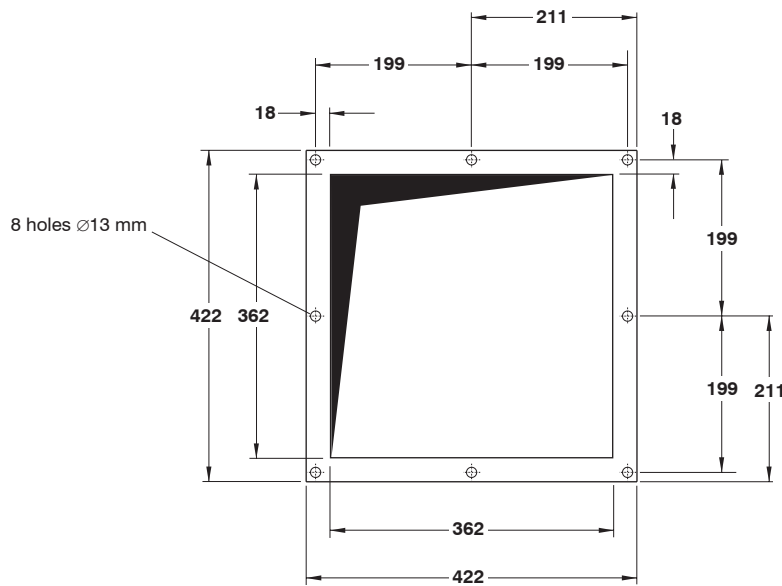
**Fan set\* on the floor and single hopper**

**Fan set\* on the roof and double hopper**

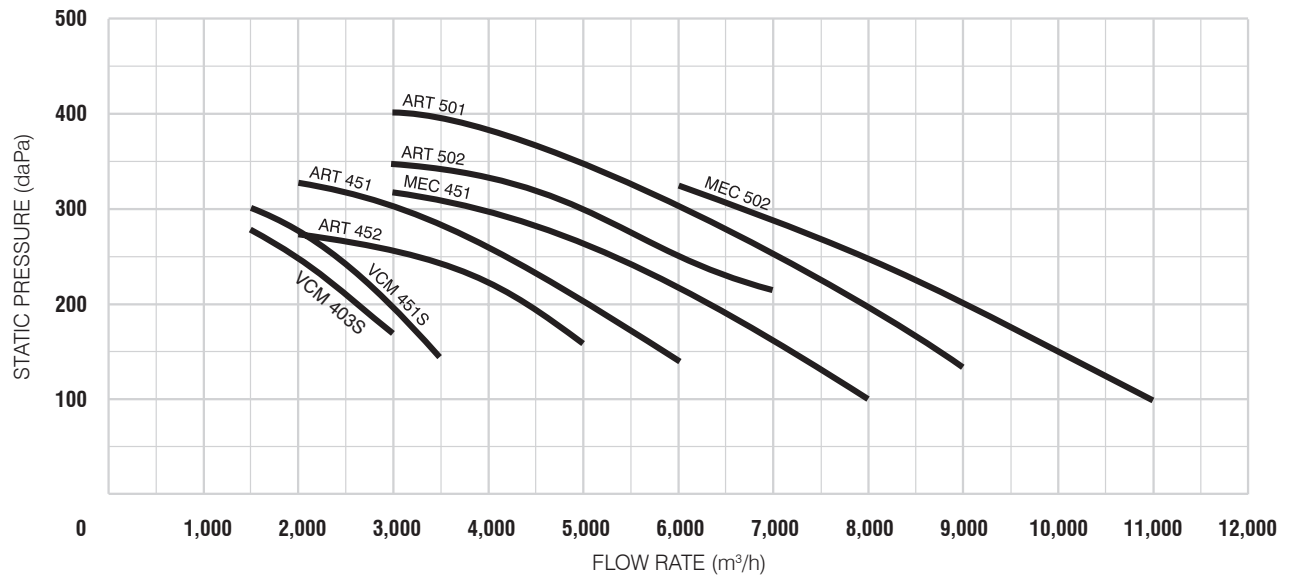
**Fan set\* on the roof and single hopper**

**DIRTY AIR INLET DETAILS**

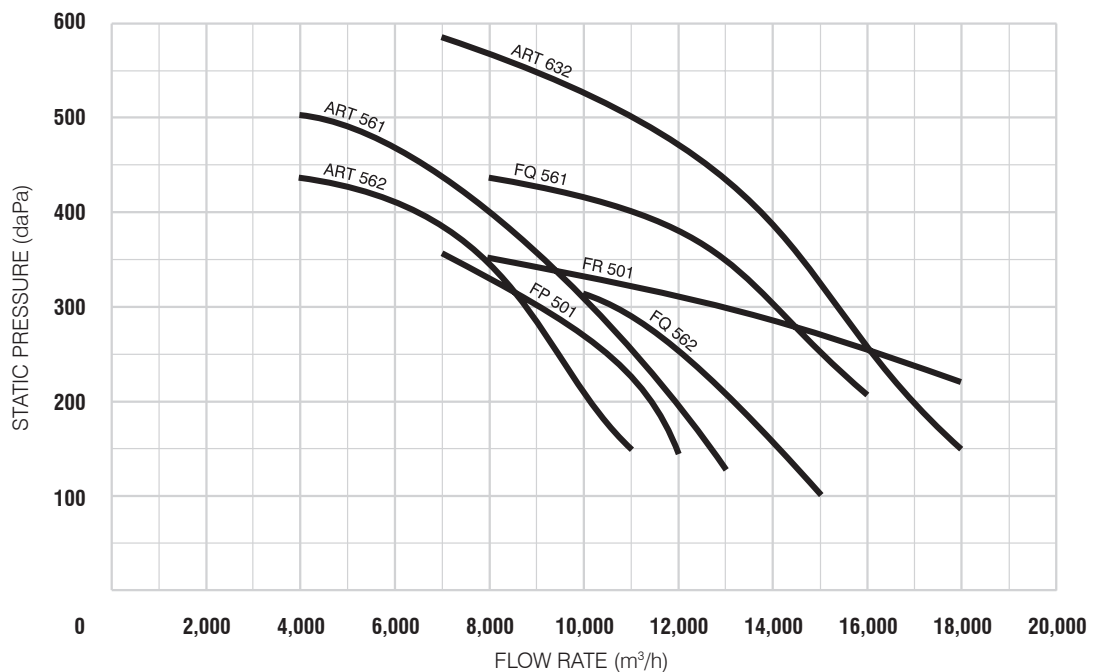
	DIN standard	DFPRO 4	DFPRO 6	DFPRO 8	DFPRO 12	DFPRO 16
<b>Standard</b>	DIN 24193/2 (mm)	800 x 300	800 x 300	800 x 300	1600 x 300	1600 x 300
<b>Reinforced**</b>	DIN 24193/2 (mm)	800 x 300	800 x 300	800 x 300	1600 x 300	1600 x 300
<b>Sparktrap</b>	Pipe (nominal)	222	248	313	353	398
<b>Cyclopeel</b>	DIN 24154/2 nominal dia.	NW 140	NW 160	NW 200	NW 250	NW 280
		NW 160	NW 180	NW 224	NW 280	NW 315
		NW 180	NW 200	NW 250	NW 315	NW 355
		NW 200	NW 224	NW 280	NW 355	NW 400
		NW 224	NW 250	NW 315	NW 400	NW 450
		NW 250	NW 280	NW 355	NW 450	NW 500
<b>Drop out box</b>	DIN 24154/2 nominal dia.	NW 280	NW 315	NW 400	NW 500	NW 560
		NW 315	NW 400	NW 500	NW 630	NW 710
		NW 355	NW 450	NW 560		
		NW 400	NW 500			
		NW 450				

**HOPPER FLANGE DETAILS (362 x 362)****ELECTRICAL SPECIFICATIONS****Controls**

Full automatic cleaning mechanism: TCB  
 Pulse time: 100 ms  
 Interval time: 10 s  
 Voltage input: 400V AC; 3 ph; 50 Hz;  
 Protection class: IP65  
 Solenoid voltage: 24V DC



FAN PERFORMANCE CURVES (2.2 to 11 kW)



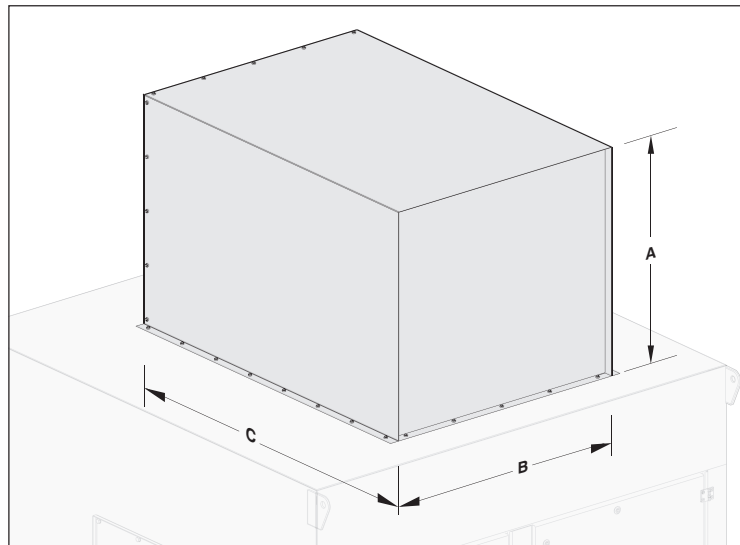
FAN PERFORMANCE CURVES (11 to 22 kW)

### FAN SELECTION

These curves indicate static pressure available at fan inlet for a given application, when fitted into a collector.

To select the most suitable fan for a given application:

- 1 Determine the air volume, in m³/h, needed to entrain the dust.
- 2 Estimate pressure drop through connected system – i.e. between point of entrainment and collector inlet.
- 3 Assess pressure drop over dust collector, prior to replacing filter cartridges, usually 100 daPa.
- 4 The sum of 2 and 3 = static pressure at inlet.
- 5 Consult graph for fan performance available.



### DIMENSIONS FANBOX ON ROOF (in mm)

			A	B	C
ART 452	ART 562	DFPRO 4	1145	1099	1500
ART 451	FP 501	DFPRO 6			
MEC 451	ART 561	DFPRO 8			
ART 502	FQ 562	DFPRO 12			
ART 501	FQ 561	DFPRO 16			
MEC 502	FR 501				
ART 632	DFPRO 12 DFPRO 16		1211	1168	1500

### OPTIONS

- Outside installation
- Service platform with galvanized gratings, handrail and ladder
- Front inlet adaptor pieces
- Full range of dust disposal systems
- Full range of filter cartridges
- Blow off channels (vent pipe) on Reinforced version for indoor installations (1, 2 or 3m lengths)
- Pulse noise attenuation down to  $L_{pAeq} \leq 70$  dB
- Earthing
- Compressed air – oil/water separator and accessories
- IAF Feeder for the absorption of oily substances

Equipment suitable for use in a potentially explosive atmosphere (Directive 94/9/EC) satisfying the requirements for group II category 2D and 3D T125°C is available





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