

LONG CASE AXIAL FANS

AIL SERIES

➔ long case ducted

DESCRIPTION:

The long case ducted helical fans of the AIL series are designed to be installed in ventilation and air conditioning systems of industrial type, where high air volumes at relatively low pressure are required. Compared with centrifugal fans, being in alignment with the ducts, they are easier to install.

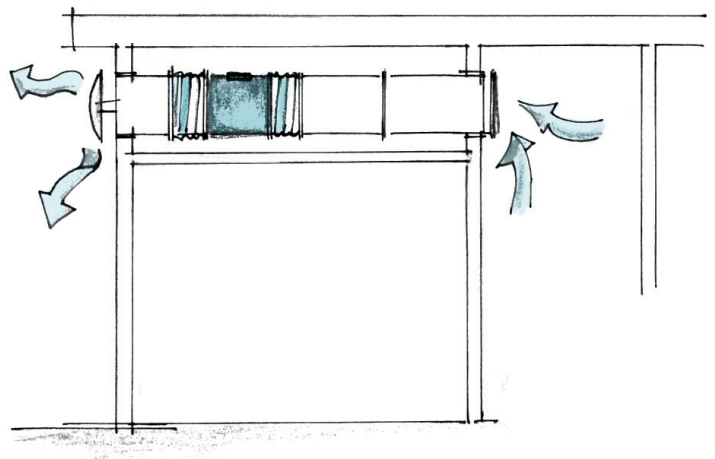
The design features of these fans make them suitable to be installed not only at the beginning of the ducts, but also at the end or in any intermediate section of these ducts.

MAIN FEATURES:

- Galvanized steel structure with fixing flanges on both extremities.
- Wing-shape profile impeller blades in thermoplastic PPG resin and aluminium hub.
- Inspection door.
- Self-ventilated motor - Class F - IP55 - "LONG LIFE" ball bearings.
- For continuous operation in environments with temperature range $-25^{\circ}\text{C} \div +40^{\circ}\text{C}$.
- 2 speed motor models controlled by a three-phase polarity switch, not supplied as an accessory but easy to find on sale.

ACCESSORIES:

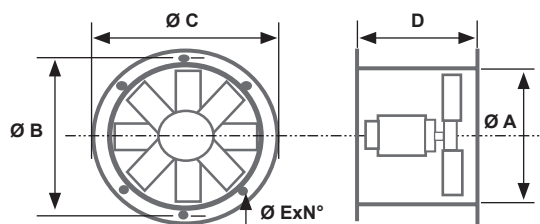
- Phase slicing speed regulator for monophase motors.
- Simple silencer.
- Nose cone silencer.
- Collar fixing flange.
- Inlet nozzle.
- Antivibration joint.
- Fan fixing supports.
- Safety protection grille for impeller and motor side of the fan.



DIMENSIONS

MODEL	ØA	ØB	ØC	D	ØE	N°
AIL 250	260	300	340	300	12,5	8
AIL 310	315	355	395	350	12,5	8
AIL 350	358	395	438	400	12,5	8
AIL 400	410	450	490	400	12,5	8
AIL 450	468	500	548	450	12,5	8
AIL 500	516	560	596	450	12,5	12
AIL 560	564	620	644	450	12,5	12
AIL 630	640	690	720	450	12,5	12

Dimensions (mm)



TECHNICAL SPECIFICATIONS

AIL LONG CASE SERIES - MONOPHASE

230V - 50HZ

CODE	MODEL	m³/hr	Pt max mmH ₂ O	Ref. curves	Rpm nom.	MOTOR				dB(A) 3mt	Kg
						Kw	A	Cl. Is.	IP		
2 POLES											
AP10001	AIL 252 M	1450	46	1	2800	0,12	1,25	F	55	60	19
AP10002	AIL 312 M	2750	58	2	2800	0,25	1,7	F	55	63	26
AP10003	AIL 352 M	6100	75	3	2800	1,1	7,4	F	55	69	40
4 POLES											
AP10004	AIL 254 M	1350	11,5	7	1400	0,09	0,9	F	55	48	18
AP10005	AIL 314 M	2350	15	8	1400	0,12	1,04	F	55	52	25
AP10006	AIL 354 M	3050	18	9	1400	0,18	1,5	F	55	54	37
AP10007	AIL 404 M	4650	21	10	1400	0,25	2,2	F	55	59	42
AP10008	AIL 454 M	5750	28	11	1400	0,37	3,1	F	55	61	54
AP10009	AIL 504 M	7700	33	12	1400	0,55	3,9	F	55	64	58
AP10010	AIL 564 M	12000	36	13	1400	1,1	7	F	55	68	72

AIL LONG CASE SERIES - THREE-PHASE

230V Δ - 400V λ - 50Hz

CODE	MODEL	m³/hr	Pt max mmH ₂ O	Ref. curves	Rpm nom.	MOTOR				dB(A) 3mt	Kg.	
						Kw	A(230VΔ)	A(400Vλ)	Cl. Is.			IP
2 POLES												
AP10023	AIL 402 T	9800	93	4	2800	2,2	8,17	4,7	F	55	75	49
AP10024	AIL 452 T	12100	125	5	2800	3	10,6	6,1	F	55	78	62
AP10025	AIL 502 T	16100	120	6	2800	4	13	7,5	F	55	78	70

AIL LONG CASE SERIES - THREE-PHASE

230V Δ - 400V λ - 50Hz

CODE	MODEL	m³/hr	Pt max mmH ₂ O	Ref. curves	Rpm nom.	MOTOR					dB(A) 3mt	Kg.
						Kw	A(230VΔ)	A(400VA)	Cl. Is.	IP		
4 POLES												
AP10029	AIL 404 T	4650	21	10	1400	0,25	1,4	0,81	F	55	59	42
AP10030	AIL 454 T	5750	28	11	1400	0,37	1,9	1,1	F	55	61	54
AP10031	AIL 504 T	7700	33	12	1400	0,55	2,6	1,5	F	55	64	58
AP10032	AIL 564 T	12000	36	13	1400	1,1	4,8	2,8	F	55	68	72
AP10033	AIL 634 T	15400	44	14	1400	1,5	6,2	3,6	F	55	70	80
6 POLES												
AP10034	AIL 566 T	8750	15,5	15	950	0,37	2	1,15	F	55	60	65
AP10035	AIL 636 T	11600	18	16	950	0,55	2,8	1,6	F	55	62	75
8 POLES												
AP10036	AIL 568 T	6650	9	17	700	0,18	1,5	0,86	F	55	54	65
AP10037	AIL 638 T	8800	10,5	18	700	0,25	1,9	1,1	F	55	56	75

AIL LONG CASE SERIES - 2 SPEED THREE-PHASE

400V - 50HZ

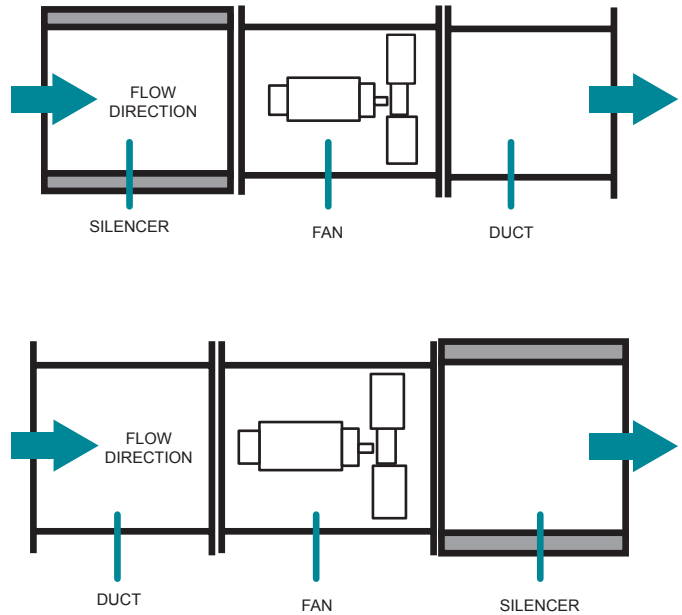
CODE	MODEL	m³/hr	Pt max mmH ₂ O	Ref. curves	Rpm nom.	MOTOR				dB(A) 3mt	Kg.
						Kw	A	Cl. Is.	IP		
2 - 4 POLES											
AP10061	AIL 402-4 DT	9800/4650	93/21	4 10	2800/1400	2,5/0,66	5,1/1,5	F	55	75/59	52
AP10062	AIL 452-4 DT	12100/5750	125/28	5 11	2800/1400	3,3/0,81	6,6/1,6	F	55	78/61	64
AP10063	AIL 502-4 DT	16100/7700	120/33	6 12	2800/1400	4,7/1,1	10,3/2,3	F	55	78/64	71
4 - 6 POLES											
AP10064	AIL 564-6 DT	12000/8750	36/15,5	13 15	1400/950	1,1/0,37	2,8/1,15	F	55	68/60	75
AP10065	AIL 634-6 DT	15400/11600	44/18	14 16	1400/950	1,7/0,6	3,8/1,7	F	55	70/62	84
6 - 8 POLES											
AP10066	AIL 566-8 DT	8750/6650	15,5/9	15 17	950/700	0,37/0,15	1,15/0,7	F	55	60/54	72
AP10067	AIL 636-8 DT	11600/8800	18/10,5	16 18	950/700	0,66/0,33	1,8/1,25	F	55	62/56	81

ACCESSORIES

SL SERIES SIMPLE SILENCER

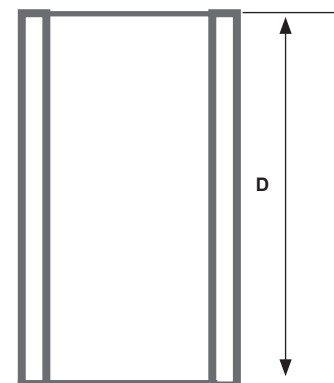
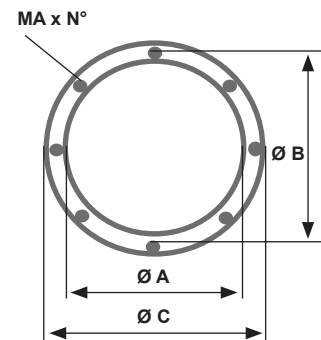
- Galvanized steel external cylindrical body, with inside covering in sound proof mineral wool with a density of 70 Kg/m³, covered on the surface with glass fibre layer with an M ZERO fire resistance class.
- The inner surface of the silencer is composed by a micro stretched wire net. Threaded inserts on the extremities allow the silencer to be fixed onto the duct's flanges.
- Installed silencers can be of three different lengths: 1, 1.5, 2 times the fan internal diameter; wherever possible, it is recommended to install them on the inlet side.
- The application of this type of silencer affects marginally fan performances but consistently reduce the noise level produced by the ventilation system.

Installation examples



CODE	MODEL	ØA	ØB	ØC	D	MA	N°	Kg.
AP19010	SL 400-1	400	450	540	400	10	8	12
AP19011	SL 400-2				600			18
AP19012	SL 400-3				800			22
AP19013	SL 450-1	450	500	610	450	10	8	15
AP19014	SL 450-2				675			21
AP19015	SL 450-3				900			25
AP19016	SL 500-1	500	560	660	500	10	12	18
AP19017	SL 500-2				750			26
AP19018	SL 500-3				1000			33
AP19019	SL 560-1	560	620	720	560	10	12	22
AP19020	SL 560-2				840			29
AP19021	SL 560-3				1120			36
AP19022	SL 630-1	630	690	790	630	10	12	25
AP19023	SL 630-2				945			34
AP19024	SL 630-3				1260			44

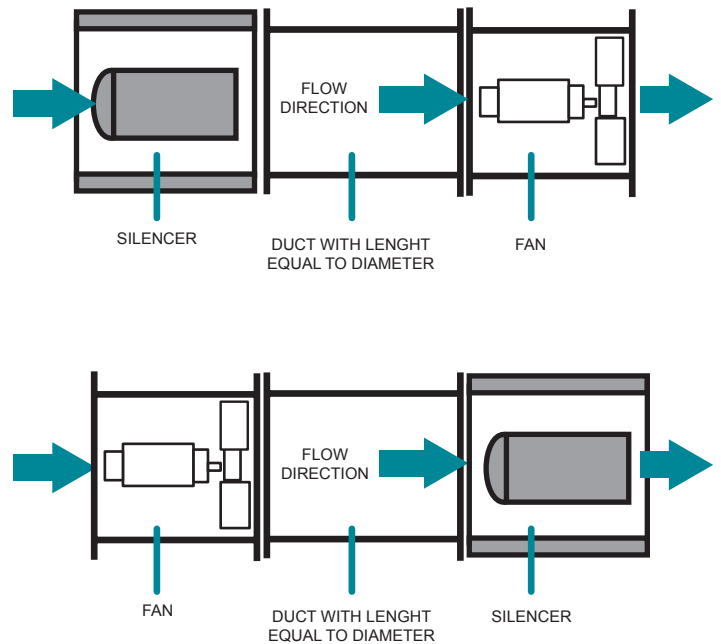
Dimensions (mm)



SLO SERIES SILENCER WITH POD

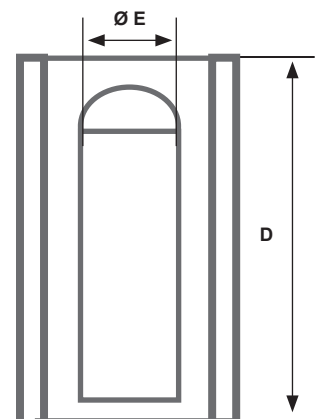
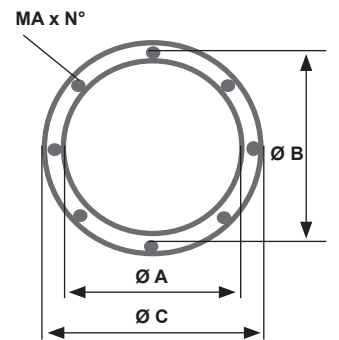
- Galvanized steel external cylindrical body, with inside covering in sound proof mineral wool with a density of 70 Kg/m^3 , covered on the surface with glass fibre layer with an M ZERO fire resistance class.
- The inner surface of the silencer is composed by a micro stretched wire net. Threaded inserts on the extremities allow the silencer to be fixed onto the duct's flanges.
- Installed silencers can be of three different lengths: 1, 1.5, 2 times the fan internal diameter; wherever possible, it is recommended to install them on the inlet side.
- For the SLO silencer installation, a duct with a length of minimum one fan's diameter has to be inserted between the silencer and the fan.
- The application of the SLO pod silencer, having a greater noise level damping, unfortunately generates additional airloss to the ventilation system depending of the airflow (see tab. A).

Installation examples



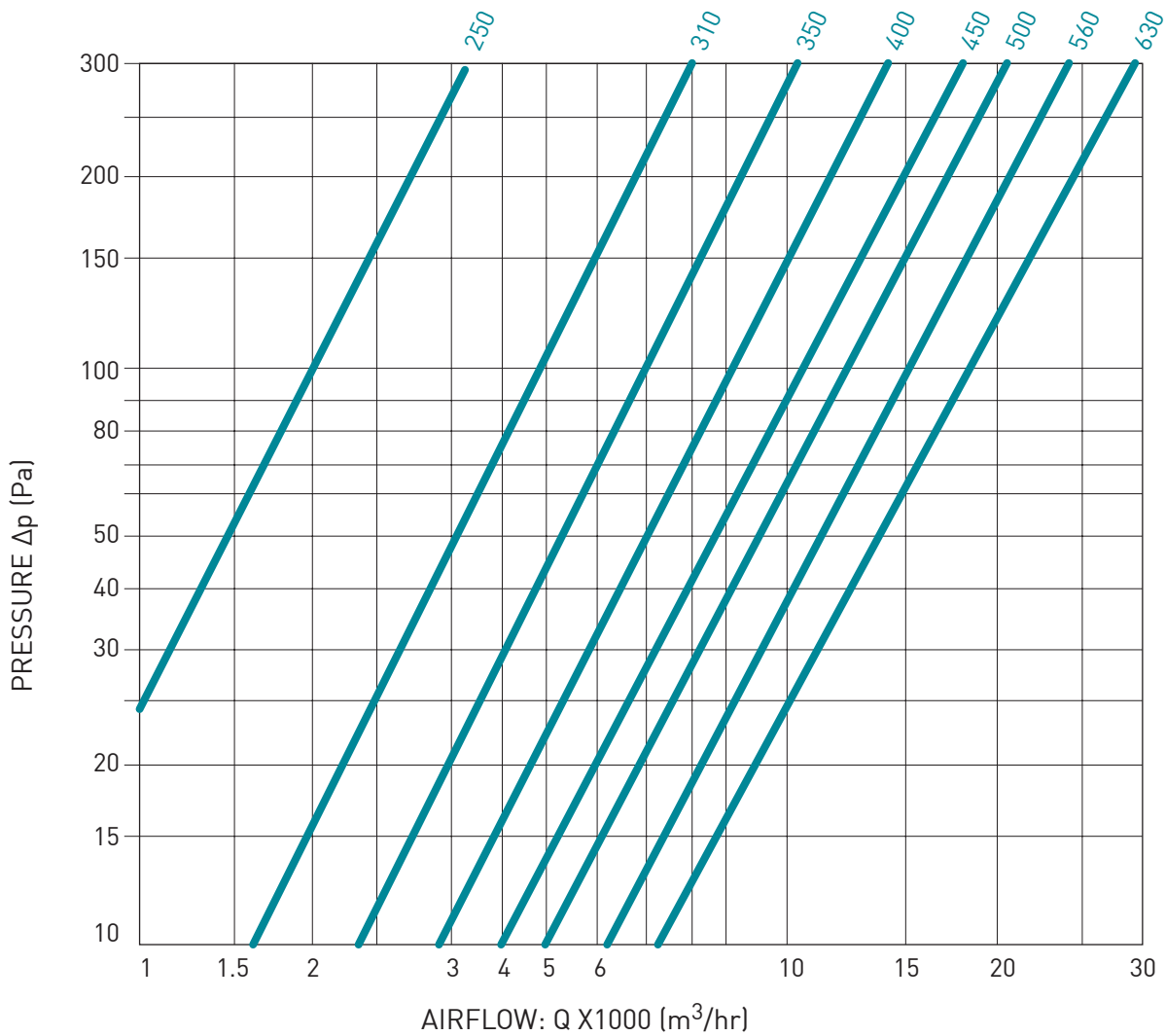
CODE	MODEL	ØA	ØB	ØC	D	ØE	MA	N°	Kg.
AP19059	SLO 400-1	400	450	540	400	200	10	8	14
AP19060	SLO 400-2				600				22
AP19061	SLO 400-3				800				26
AP19062	SLO 450-1	450	500	610	450	250	10	8	17
AP19063	SLO 450-2				675				25
AP19064	SLO 450-3				900				30
AP19065	SLO 500-1	500	560	660	500	250	10	12	23
AP19066	SLO 500-2				750				32
AP19067	SLO 500-3				1000				40
AP19068	SLO 560-1	560	620	720	560	300	10	12	28
AP19069	SLO 560-2				840				38
AP19070	SLO 560-3				1120				45
AP19071	SLO 630-1	630	690	790	630	300	10	12	32
AP19072	SLO 630-2				945				45
AP19073	SLO 630-3				1260				56

Dimensions (mm)



TAB. A AIRLOSS DIAGRAM

ADDITIONAL AIRLOSS OF SLO SERIES POD SILENCERS



SAFETY PROTECTION GRILLES

CODE MODEL

AP19173 GP 400

AP19174 GP 450

AP19175 GP 500

AP19176 GP 560

AP19177 GP 630

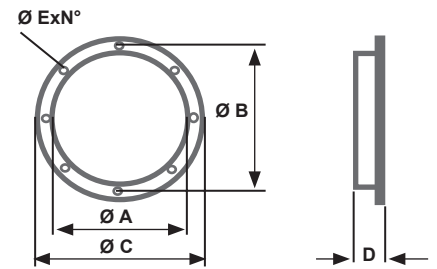
The safety protection grilles of the GP series must be installed in case the moving parts of the fan are accessible, and can be mounted on:

- the impeller side of the AIL series
- the motor side of the AIL series

COLLAR FIXING FLANGE

CODE	MODEL	ØA	ØB	ØC	D	ØE	N°	Kg
AP19103	CFC 400	410	450	490	80	12	8	4,2
AP19104	CFC 450	468	500	548	80	12	8	5,3
AP19105	CFC 500	516	560	596	80	12	12	6,5
AP19106	CFC 560	564	620	644	80	12	12	7
AP19107	CFC 630	640	690	720	80	12	12	8,3

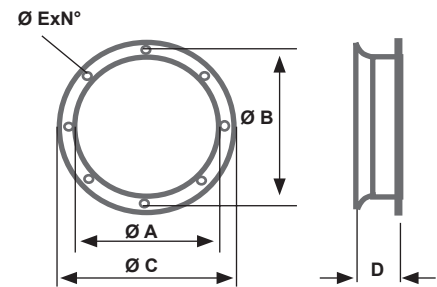
Dimensions (mm)



INLET NOZZLE

CODE	MODEL	ØA	ØB	ØC	D	ØE	N°	Kg
AP19118	BAS 400	410	450	490	140	12	8	4,2
AP19119	BAS 450	468	500	548	140	12	8	5,3
AP19120	BAS 500	516	560	596	180	12	12	6,5
AP19121	BAS 560	564	620	644	180	12	12	7
AP19122	BAS 630	640	690	720	180	12	12	8,3

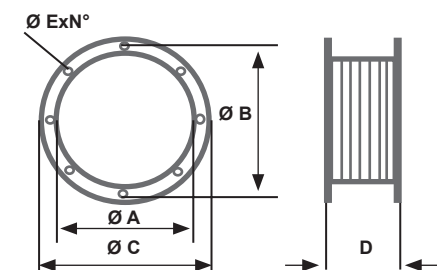
Dimensions (mm)



ANTIVIBRATION JOINT

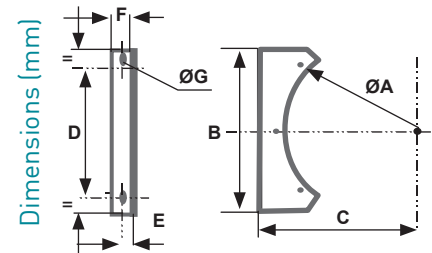
CODE	MODEL	ØA	ØB	ØC	D	ØE	N°	Kg
AP19134	GAV 400	410	450	490	200	12	8	6
AP19135	GAV 450	468	500	548	200	12	8	7
AP19136	GAV 500	516	560	596	200	12	12	8
AP19137	GAV 560	564	620	644	200	12	12	10
AP19138	GAV 630	640	690	720	200	12	12	12

Dimensions (mm)



PAIR OF FIXING SUPPORTS

CODE	MODEL	ØA	B	C	D	E	F	ØG	Kg. Un
AP19153	SFV 400	410	350	270	290	15	30	10x20	2
AP19154	SFV 450	468	400	300	330	15	30	10x20	2,2
AP19155	SFV 500	516	430	340	380	15	30	10x20	3
AP19156	SFV 560	564	470	370	420	15	30	10x20	3,5
AP19157	SFV 630	640	550	430	500	15	30	10x20	4

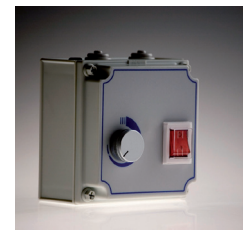


MONOPHASE SPEED REGULATORS

CODE	MODEL	to control all the AIL series models
AP2568	RDV 1,5-MF	254M
AP2600	RDV 3-MF	314M, 354M, 404M



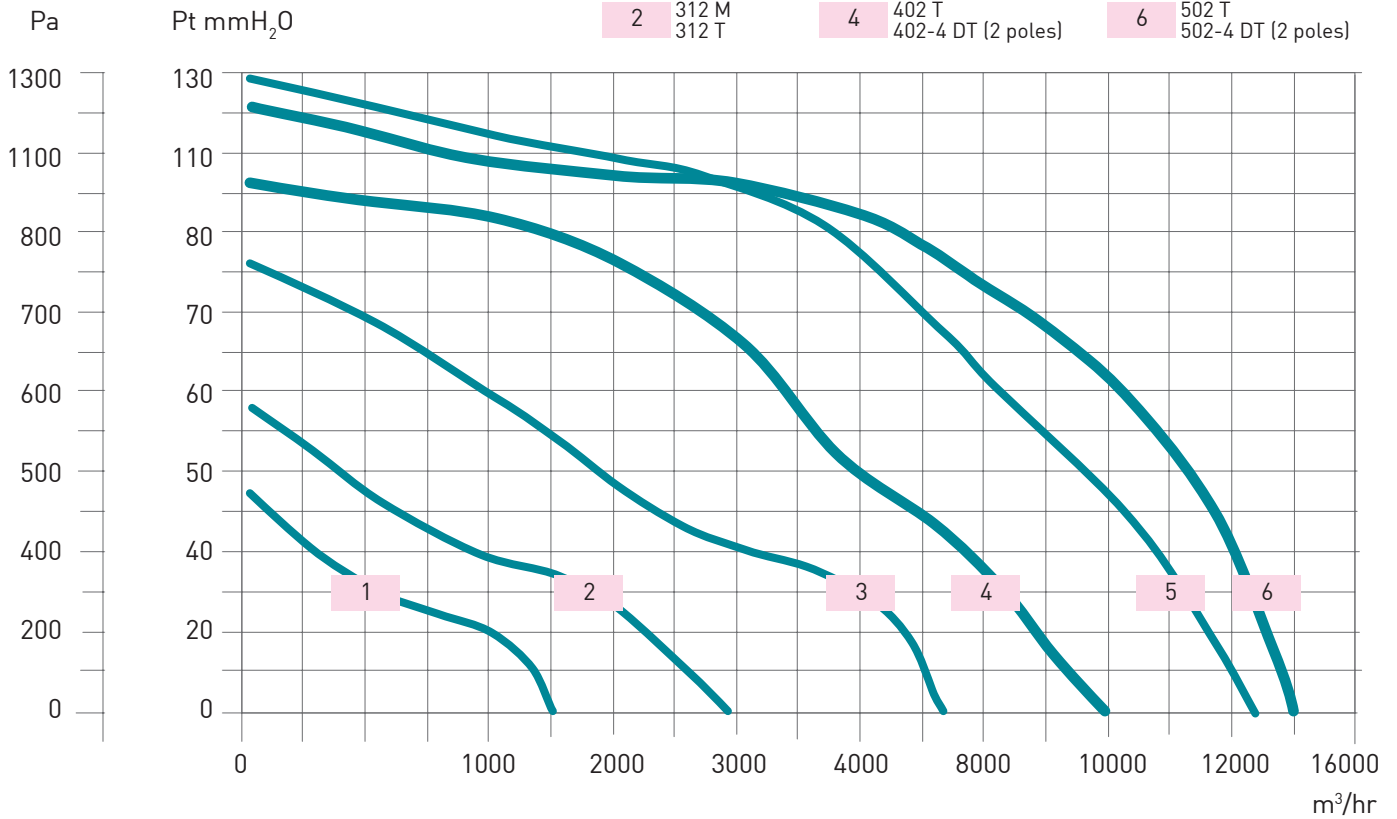
CODE	MODEL	to control all the AIL series models
AP2642	RDV5-MF	454M, 504M



CHARACTERISTIC CURVES

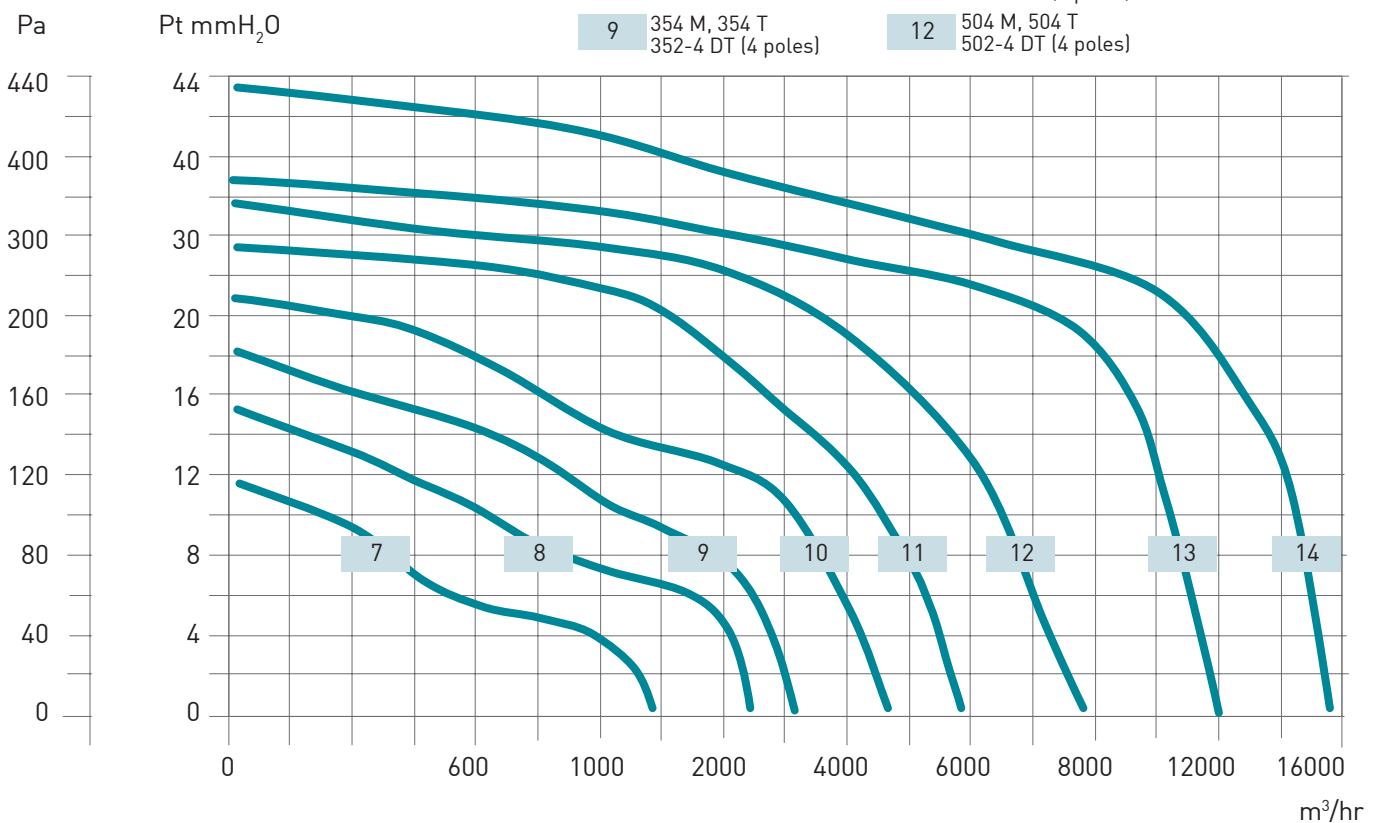
AIL SERIES - 2 POLES - 2800 RPM

1	252 M 252 T	3	352 M, 352 T 352-4 DT (2 poles)	5	452 T 452-4 DT (2 poles)
2	312 M 312 T	4	402 T 402-4 DT (2 poles)	6	502 T 502-4 DT (2 poles)

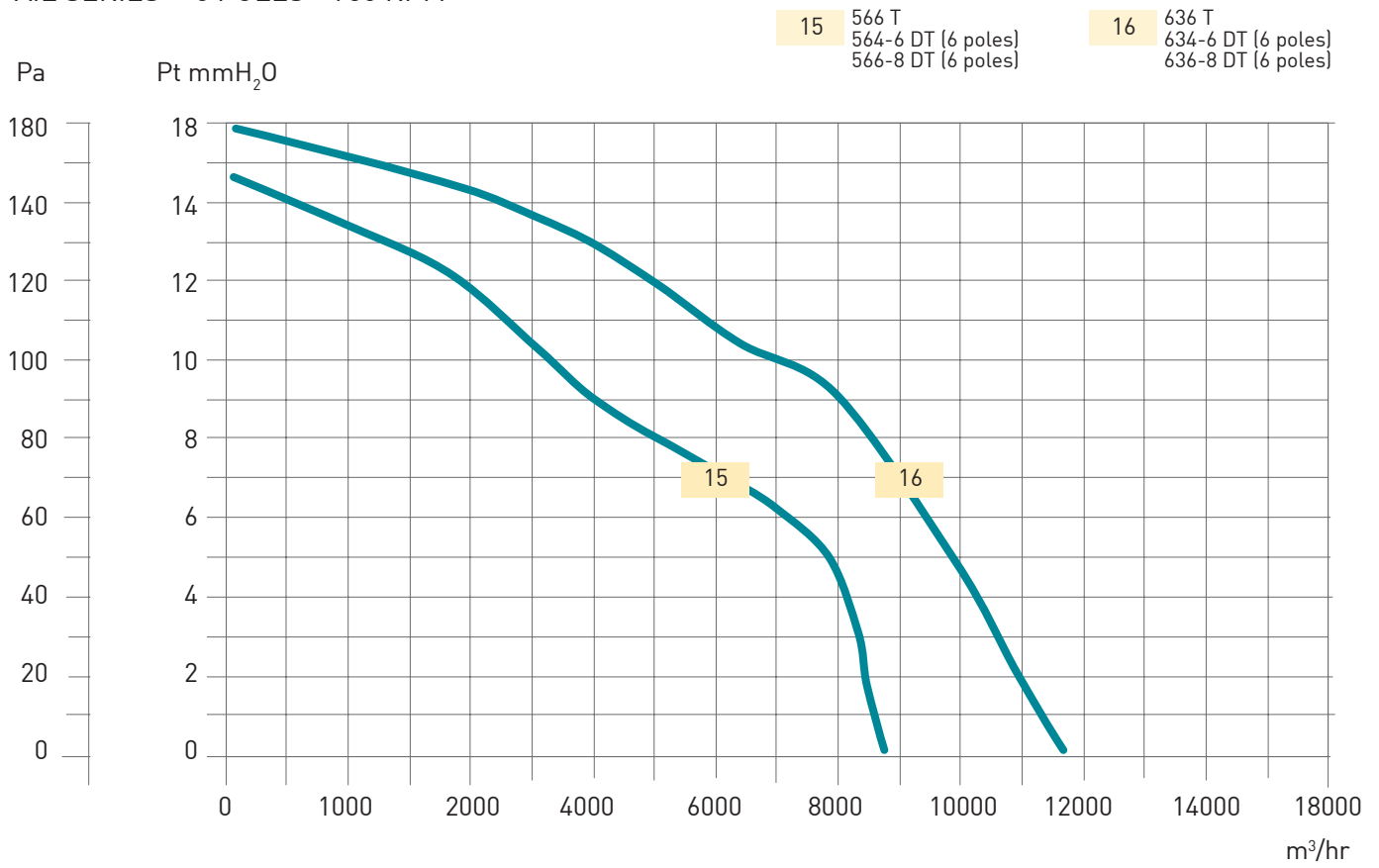


AIL SERIES - 4 POLES - 1400 RPM

7	254 M 254 T	10	404 M, 404 T 402-4 DT (4 poles)	13	564 M 564 T
8	314 M 314 T	11	454 M, 454 T 452-4 DT (4 poles)	14	634 T
9	354 M, 354 T 352-4 DT (4 poles)	12	504 M, 504 T 502-4 DT (4 poles)		



AIL SERIES - 6 POLES - 950 RPM



AIL SERIES - 8 POLES - 750 RPM

