

# BACKWARD CURVED CENTRIFUGAL FANS

## CMRT Series



CONTINUOUS operation

Range of single inlet direct drive centrifugal fans designed for continuous extraction of air stream up to 80°C.

Casings are manufactured from lockform seam sheet steel up to model 560. For larger sizes, electro-welded sheet steel. Casings are protected by grey colour, epoxy-polyester paint coating.

The scroll of the models from 630 to 1000 is fitted with a large inspection door.

All models incorporate backward curved centrifugal impellers manufactured from electro-welded sheet steel and protected by a cold galvanizing process.

Wide range of accessories to ease the installation.

Available, depending upon the model, with three phase 2 or 4 pole motors.

### Motors

All motors are **IP55, class F.**

Electrical supply:

Three-phase 230/400V-50Hz up to 3kW and 400V-50Hz for higher motor powers.

### Additional Information

The scroll can be orientated in 8 different positions as per the table below.

For models 630 to 1000, the position of the scroll is fixed on factory.

Standard supplied position: LG 270.

### On request

On request

- Fan supplied in RD positions.
- Scroll drain hole.
- Scroll inspection door (models from 280 to 560).
- Fan assembled without motor support. Max. 22kW. (MB versions – flange mounted motor B5)
- Stainless steel versions (AISI 304 or AISI 316).
- All the fan or only the scroll and the impeller.
- High temperature versions, up to 250°C (HT versions).
- Belt driven versions (models from 400 to 1000).
- Explosion proof versions.
- Fan for 60Hz application.
- Fan fitted with 2-speed motor.
- Motor with PTC thermal protection.
- High efficiency motors (EFF1).



Backward curved impeller

### APPLICATIONS



Industrial aspiration machinery



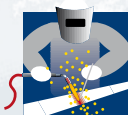
Chemical industry Laboratories



Dust transport



Iron and steel industries Foundries



Welding installations



Car industry/ Furnace ventilation



CONTINUOUS operation

### POSITIONS

LG	0°	45°	90°	135°	180°	225°	270°	315°
RD	0°	45°	90°	135°	180°	225°	270°	315°

Standard supplied position: LG270.  
Special versions are supplied on request.

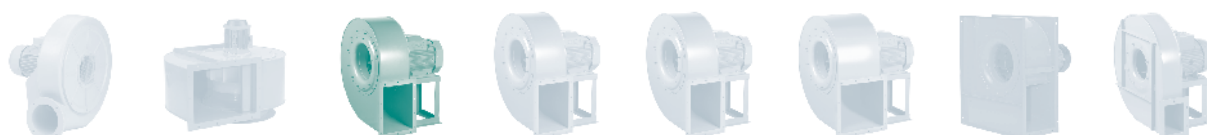
**Explosion proof versions in accordance to ATEX Directive, for three phase models:**

- Increase safety ⚡ II2G EExII T3
- Flame proof ⚡ EExdIIBT5 or EExdIICT4
- Dusty surrounding ⚡ Ex II3D 125°C or 135°C, with Dust Ignition Proof motor. Working temperature up to 40°C.

## ■ Technical characteristics

Before installation check that product electrical characteristics listed on the data plate label (Voltage, power, frequency etc) match those of the intended electrical supply. Explosion proof of types only work at an ambient temperature between -30°C and +40°C.

Model	Speed (r.p.m.)	Motor power (kW)	Maximum absorbed current 400V (A)	Maximum airflow (m <sup>3</sup> /h)	Sound pressure level (dB(A))	Weight (Kg)
2 POLES						
CMRT/2-221 0,18	2730	0,18	0,49	830	62	21
CMRT/2-251 0,37	2815	0,37	0,89	1.330	65	25
CMRT/2-281 0,55	2800	0,55	1,18	1.910	68	38
CMRT/2-312 0,75	2800	0,75	1,54	2.130	71	46
CMRT/2-311 1,1	2800	1,1	2,36	2.700	72	52
CMRT/2-352 1,5	2870	1,5	3,07	3.820	72	62
CMRT/2-351 2,2	2880	2,2	4,40	4.250	73	68
CMRT/2-402 3	2920	3	5,90	4.750	76	92
CMRT/2-401 4	2900	4	7,55	6.120	77	98
CMRT/2-452 5,5	2855	5,5	10,50	6.840	81	140
CMRT/2-451 7,5	2860	7,5	13,90	8.500	82	146
CMRT/2-502 9,2	2945	9,2	17,10	9.540	83	185
CMRT/2-501 11	2930	11	20,00	10.800	84	220
CMRT/2-562 15	2920	15	26,50	15.300	86	270
CMRT/2-561 18,5	2920	18,5	32,00	17.100	87	290
4 POLES						
CMRT/4-631 5,5	1450	5,5	11,10	12.060	73	220
CMRT/4-712 7,5	1450	7,5	14,80	17.100	74	330
CMRT/4-802 11	1470	11	22,60	23.880	78	440
CMRT/4-801 15	1455	15	28,50	24.120	79	460
CMRT/4-902 22	1470	22	41,00	34.200	82	610
CMRT/4-901 30	1475	30	55,00	34.200	83	670
CMRT/4-1002 37	1475	37	68,00	47.500	86	820
CMRT/4-1001 45	1475	45	84,00	47.500	87	845

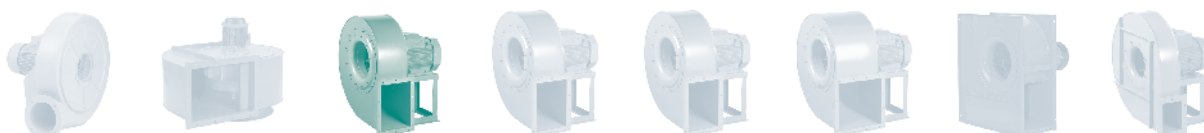
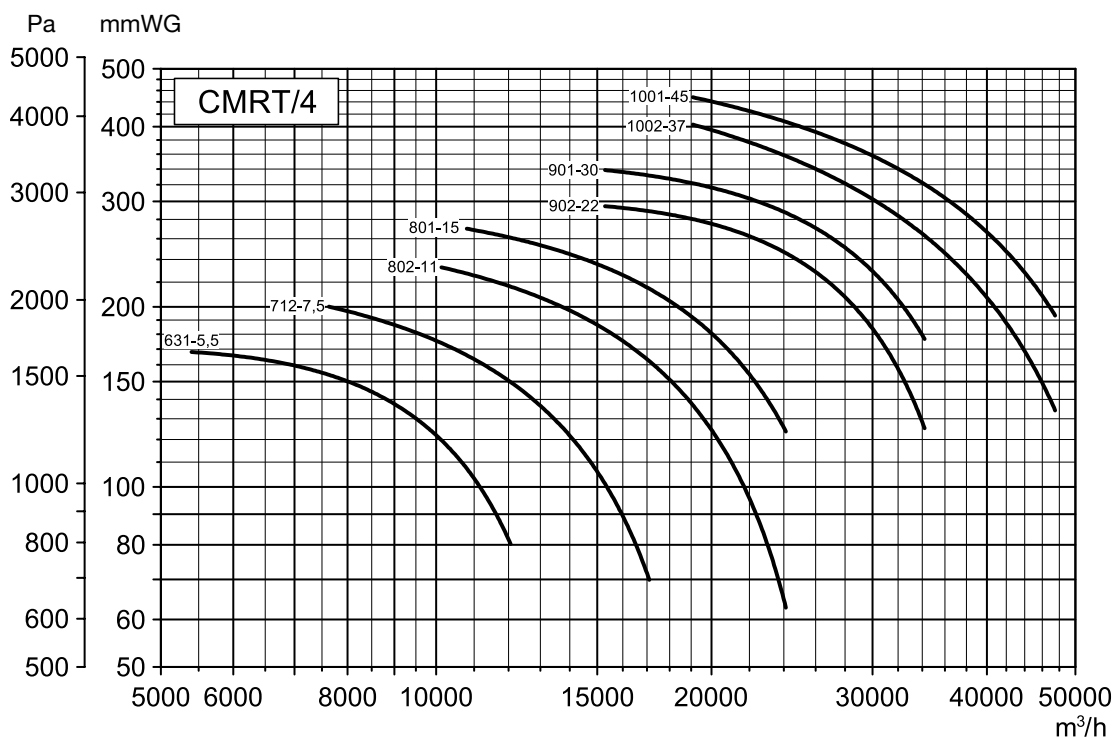
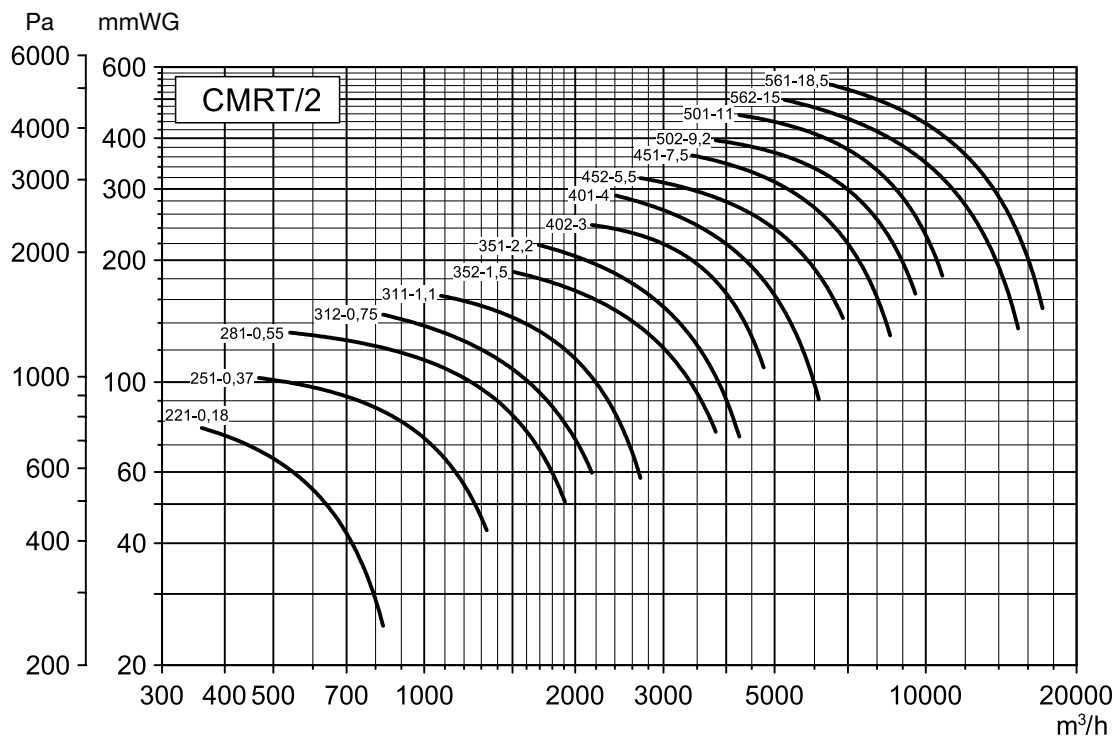


## ■ Performance curves

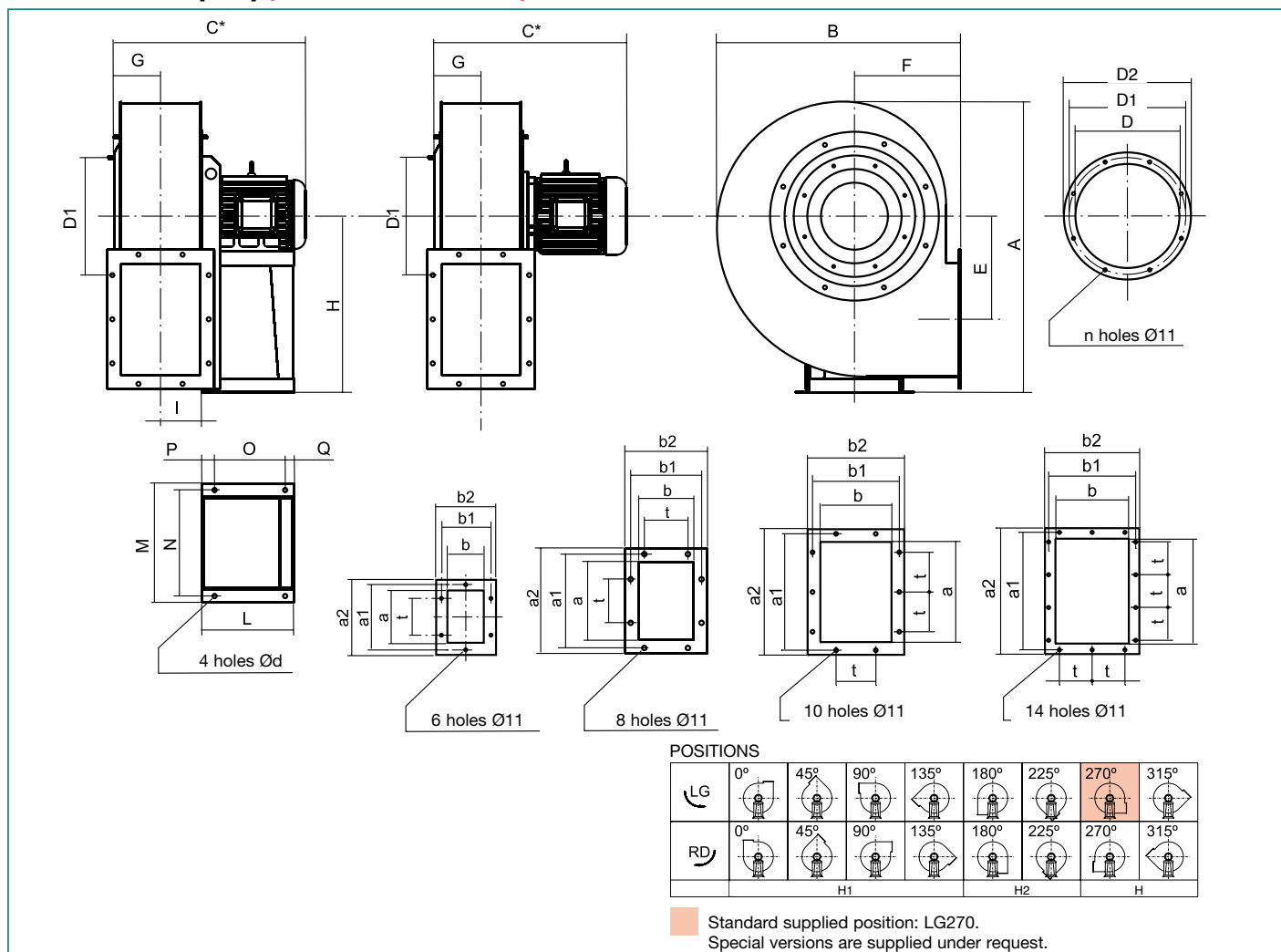
Fan ducted on both inlet and outlet sides.

Q = Air volume in m<sup>3</sup>/h.

Pe = Static pressure in mmWG and Pa.



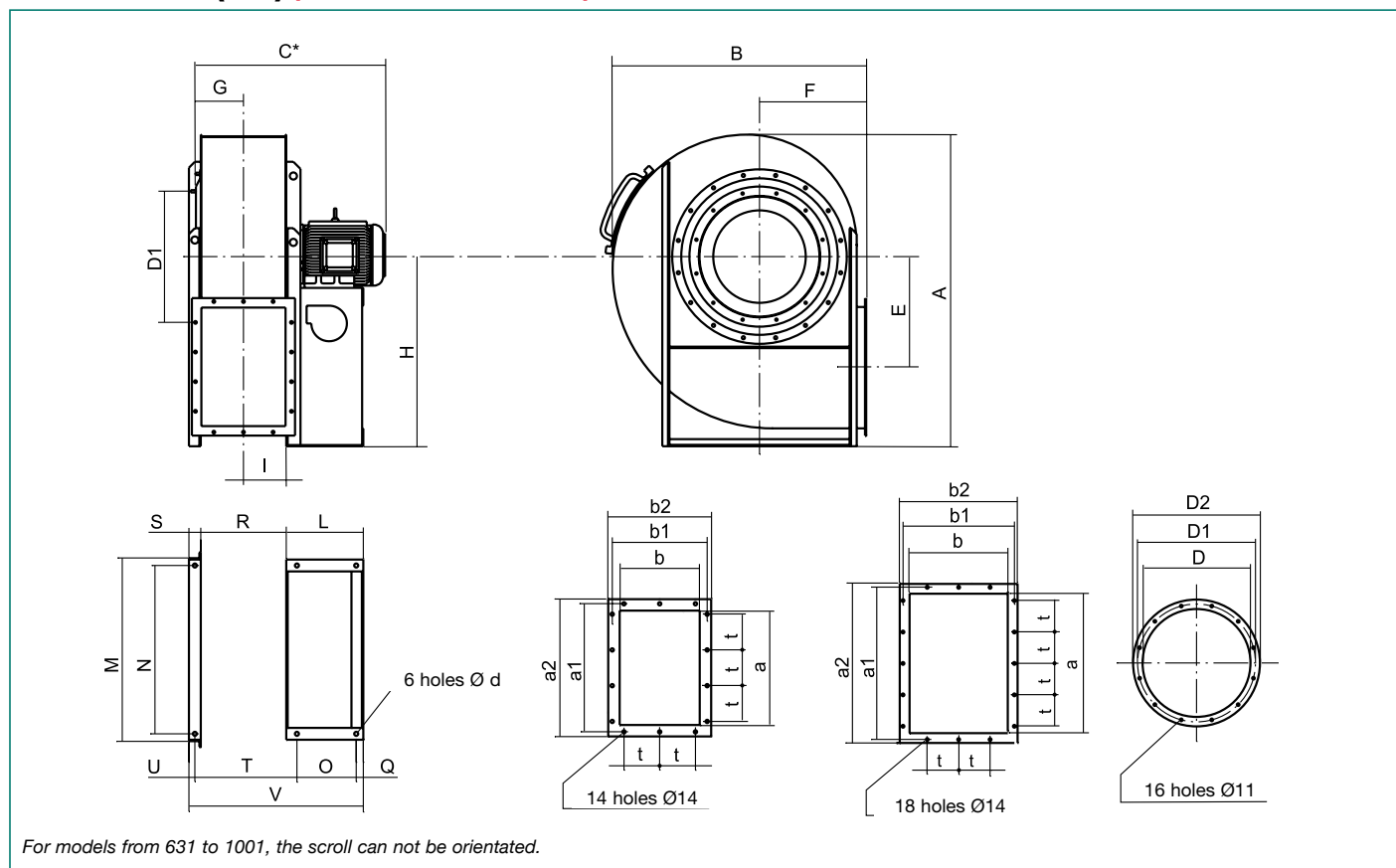
■ **Dimensions (mm) (models from 221 to 561)**



Model	A	B	C	E	F	G	H	H1	H2	I	L	M	N	O	P	Q	d
CMRT/2-221	450	355	330	177	160	62	250	250	160	56	150	196	175	85	50	15	10
CMRT/2-251	520	440	395	170	200	83	315	315	200	76	190	235	215	125	50	15	10
CMRT/2-281	585	490	420	202	212	95	355	355	212	88	190	235	215	125	50	15	10
CMRT/2-312	660	545	460	228	236	108	400	400	236	98	190	235	215	125	50	15	10
CMRT/2-311	660	545	460	228	236	108	400	400	236	98	190	235	215	125	50	15	10
CMRT/2-352	740	595	520	263	265	121	450	450	265	108	215	270	245	137	60	18	10
CMRT/2-351	740	595	545	263	265	121	450	450	265	108	215	270	245	137	60	18	10
CMRT/2-402	830	670	610	292	300	133	500	500	300	120	260	335	300	200	35	25	12
CMRT/2-401	830	670	650	292	300	133	500	500	300	120	260	335	300	200	35	25	12
CMRT/2-452	930	750	730	328	335	146	560	560	335	132	320	392	360	250	45	25	12
CMRT/2-451	930	750	730	328	335	146	560	560	335	132	320	392	360	250	45	25	12
CMRT/2-502	1010	840	760	365	355	161	630	560	355	148	320	392	360	250	45	25	12
CMRT/2-501	1010	840	830	365	355	161	630	560	355	148	425	440	400	340	55	30	14
CMRT/2-562	1120	940	920	410	400	180	710	560	400	165	425	440	400	340	55	30	14
CMRT/2-561	1120	940	950	410	400	180	710	560	400	165	425	440	400	340	55	30	14

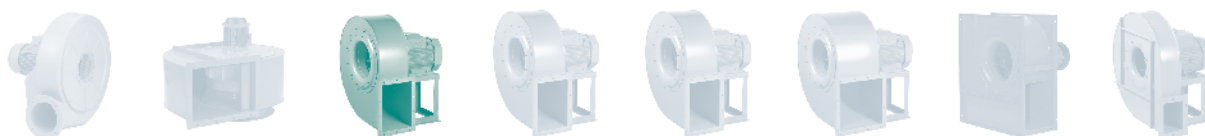
Model	D	D1	D2	n	Ø	a	b	a1	b1	a2	b2	t	N	Ø
CMRT/2-221	129	165	189	4	10	140	100	182	141	210	170	112	6	11
CMRT/2-251	185	219	255	8	11	200	140	241	182	270	210	112	8	11
CMRT/2-281	205	241	275	8	11	224	160	265	200	294	230	112	8	11
CMRT 312-311	229	265	299	8	11	250	180	292	219	320	250	112	10	11
CMRT 352-351	255	292	325	8	11	280	200	332	249	360	280	125	10	11
CMRT 402-401	286	332	366	8	11	315	224	366	273	395	304	125	10	11
CMRT 452-451	321	366	401	8	11	355	250	405	300	435	330	125	10	11
CMRT 502-501	361	405	440	8	11	400	280	448	332	480	360	125	14	11
CMRT 562-561	406	448	485	12	11	450	315	497	366	530	395	125	14	11

**■ Dimensions (mm) (models from 631 to 1001)**



Model	A	B	C	E	F	G	H	H1	H2	I	L	M	N	O	Q	R	S	T	U	V	d
CMRT/2-631	1310	1080	780	465	450	200	800	630	450	182	320	760	710	250	25	360	50	430	25	730	17
CMRT/4-712	1480	1210	850	525	500	223	900	710	500	205	320	850	800	250	25	405	50	475	25	775	17
CMRT/4-802	1650	1340	1010	585	560	250	1000	800	560	228	425	930	870	340	30	455	60	540	30	940	17
CMRT/4-801	1650	1340	1060	585	560	250	1000	800	560	228	425	930	870	340	30	455	60	540	30	940	17
CMRT/4-902	1770	1480	1160	630	630	278	1060	900	630	253	470	1030	970	370	35	506	60	601	30	1036	19
CMRT/4-901	1770	1480	1220	630	630	278	1060	900	630	253	500	1030	970	385	40	506	60	611	30	1066	19
CMRT/4-1002	1980	1660	1310	710	710	309	1180	1000	710	284	500	1130	1060	375	40	568	70	693	30	1138	21
CMRT/4-1001	1980	1660	1310	710	710	309	1180	1000	710	284	550	1130	1060	425	40	568	70	693	30	1188	21

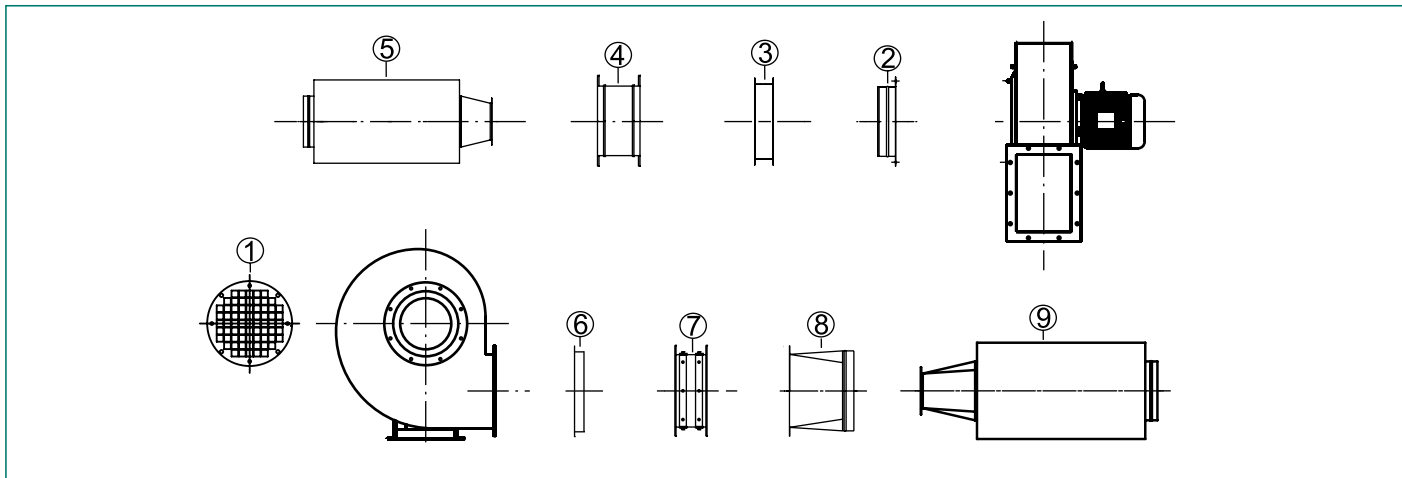
Model	D	D1	D2	N°	Ø	a	b	a1	b1	a2	b2	t	N	Ø
CMRT 631	456	497	536	12	11	500	355	551	405	580	435	125	14	11
CMRT 712	506	551	586	12	11	560	400	629	464	660	500	160	14	14
CMRT 802-801	566	629	666	16	11	630	450	698	513	730	550	160	14	14
CMRT 902-901	636	698	736	16	11	710	500	775	567	810	600	160	16	14
CMRT1002-1001	716	775	816	16	11	800	560	861	639	920	680	200	14	14





## Accessories

For more information see "Mounting accessories".



CMRT	① Inlet guard	② Inlet flange	③ Double connection flange	④ Circular flexible connector	⑤ Inlet sound attenuator	⑥ Outlet flange	⑦ Rectangular flexible connector	⑧ Rectangular/circular connection flange	⑨ Outlet sound attenuator
221	KRDA-125	KRBA-125	KRBD-125	KREA-125	KRTA-125/160	KRBR-140x100	KRED-140x100	KRBI-140x100	KRTI-140x100/160
251	KRDA-180	KRBA-180	KRBD-180	KREA-180	KRTA-180/200	KRBR-200x140	KRED-200x140	KRBI-200x140	KRTI-200x140/200
281	KRDA-200	KRBA-200	KRBD-200	KREA-200	KRTA-200/250	KRBR-224x160	KRED-224x160	KRBI-224x160	KRTI-224x160/250
312-311	KRDA-225	KRBA-225	KRBD-225	KREA-225	KRTA-225/315	KRBR-250x180	KRED-250x180	KRBI-250x180	KRTI-250x180/315
352-351	KRDA-250	KRBA-250	KRBD-250	KREA-250	KRTA-250/355	KRBR-280x200	KRED-280x200	KRBI-280x200	KRTI-280x200/355
402-401	KRDA-280	KRBA-280	KRBD-280	KREA-280	KRTA-280/400	KRBR-315x224	KRED-315x224	KRBI-315x224	KRTI-315x224/400
452-451	KRDA-315	KRBA-315	KRBD-315	KREA-315	KRTA-315/500	KRBR-355x250	KRED-355x250	KRBI-355x250	KRTI-355x250/500
502-501	KRDA-355	KRBA-355	KRBD-355	KREA-355	KRTA-355/560	KRBR-400x280	KRED-400x280	KRBI-400x280	KRTI-400x280/560
562-561	KRDA-400	KRBA-400	KRBD-400	KREA-400	KRTA-400/710	KRBR-450x315	KRED-450x315	KRBI-450x315	KRTI-450x315/710
631	KRDA-450	KRBA-450	KRBD-450	KREA-450	KRTA-450/630	KRBR-500x355	KRED-500x355	KRBI-500x355	KRTI-500x355/630
712	KRDA-500	KRBA-500	KRBD-500	KREA-500	KRTA-500/710	KRBR-560x400	KRED-560x400	KRBI-560x400	KRTI-560x400/710
802-801	KRDA-560	KRBA-560	KRBD-560	KREA-560	KRTA-560/800	KRBR-630x450	KRED-630x450	KRBI-630x450	KRTI-630x450/800
902-901	KRDA-630	KRBA-630	KRBD-630	KREA-630	KRTA-630/1000	KRBR-710x500	KRED-710x500	KRBI-710x500	KRTI-710x500/1000
1002-1001	KRDA-710	KRBA-710	KRBD-710	KREA-710	KRTA-710/1120	KRBR-800x560	KRED-800x560	KRBI-800x560	KRTI-800x560/1120



KRDA



KRBA



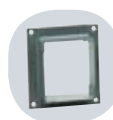
KRBD



KREA



KRTA



KRBR



KRED



KRBI



KRTI

