

# Mod. VM

$Q = 360 \div 110000 \text{ m}^3/\text{h}$

$Q = 0.1 \div 30 \text{ m}^3/\text{s}$

$p_t = 100 \div 2200 \text{ mmH}_2\text{O}$

$p_t = 1000 \div 22000 \text{ Pa}$



### Campo di lavoro

Portate basse-medie. Pressioni alte.

### Tipo di pala

Curva, rovescia (negativa), vedi pag. 2.2.

### Applicazioni

Per trasporto pneumatico, fumi, polveri fini. Adatto al trasporto di materiali solidi in miscela con aria, trucioli e segatura, con ventilatore non attraversato.

### Esecuzioni costruttive standard

Es.1-Es.4-Es.5-Es.8-Es.9-Es.12, vedi pag. 2.5 - 2.6.

### Temperature del fluido standard

-10÷+60°C. Per altre temperature vedi da pag. 1.12 a pag. 1.15.

### Tipo di costruzione

Ventilatore in lamiera di Fe360, girante in Fe360 equilibrata staticamente e dinamicamente. Per altri materiali vedi da pag. 1.12 a pag. 1.15.

### Dati di funzionamento

Condizioni dell'aria all'aspirazione T=20°C, 0m.s.l.m. e  $\rho=1.205 \text{ kg/m}^3$ .

### Rumorosità

Espressa in potenza sonora  $L_{wA}$  [dB(A)] rilevata in campo libero con ventilatore canalizzato, vedi da pag. 1.43 a pag. 1.49.

### Orientamenti

N°8 RD (rotazione oraria vista lato trasmissione) e N°8 LG. Ventilatore in versione imbullonata orientabile per le taglie 350-630, con supporto anteriore e quindi non orientabile dalla grandezza 710 a trasmissione, sempre orientabile nei ventilatori direttamente accoppiati senza supporto anteriore. Vedi pag. 2.7.

### Costruzioni speciali

Vedi da pag. 2.20 a pag. 2.30.

### Avviamento ventilatore

L'avviamento deve avvenire con ventilatore parzializzato, in funzione dell'assorbimento massimo del ventilatore.

### Classi giranti

La seguente tabella fa riferimento a condizioni di lavoro standard. In condizioni di esercizio gravose si consiglia di contattare il servizio clienti di MORO per conoscere la tipologia di girante più idonea.

### ■ Domaine de travail

Débits faibles-moyens. Hautes pressions.

#### Type d'ailette

Courbée, inversée (négative), voir page 2.2.

#### Applications

Pour transport pneumatique, fumées, poussières fines. Convient au transport de matières solides en mélange dans l'air, copeaux et sciure avec ventilateur non traversé.

#### Configurations de constructions standard

Ex.1 - Ex.4 - Ex.5 - Ex.8 - Ex.9 - Ex.12, voir pages 2.5 - 2.6.

#### Températures du fluide standard

-10÷+60°C. Pour d'autres températures voir pages 1.12-1.15.

#### Type de fabrication

Ventilateur en tôle de Fe360, turbine en Fe360 équilibrée statiquement et dynamiquement. Pour d'autres matériaux, voir pages 1.12-1.15.

#### Données de fonctionnement

Conditions de l'air à l'aspiration T=20°C, 0 m asl et  $\rho=1.205 \text{ kg/m}^3$ .

#### Niveau sonore

Exprimé en puissance sonore  $L_{wA}$  [dB(A)], relevé à l'air libre avec un ventilateur canalisé, voir pages 1.43 - 1.49.

#### Orientations

8 RD (rotation dans le sens des aiguilles d'une montre côté transmission) et 8 LG. Ventilateur en version boulonnée orientable pour les tailles 350-630, avec un support avant et donc non orientable de la grandeur 710 à transmission, toujours orientable dans les ventilateurs directement accouplés sans support avant. Voir page 2.7.

#### Fabrications spéciales

Voir pages 2.20-2.30.

#### Mise en marche du ventilateur

Le démarrage doit se faire avec un ventilateur partialisé, en fonction de l'absorption maximale du ventilateur.

#### Classes de turbines

Le tableau ci-dessus fait référence aux conditions de travail normales, en conditions de travail pénibles, on préconise de contacter le service clientèle de MORO pour connaître le type de turbine le plus adapté.

GRANDEZZA VENTILATORE • Grandeur • Size • Größe • Tamaño	RPM MASSIMO • Maxi tours/min. • Max rpm • Max. U/min R.p.m. máx.		
	CLASSE I	CLASSE II	CLASSE III
VM350/R	5000		
VM350	5000		
VM400/R	5000		
VM400	5000		
VM450/R	5000		
VM450	5000		
VM500/R	4750		
VM500	4500	5000	
VM560/R	4250	4750	
VM560	4000	4500	
VM630/R	3850	4150	4500
VM630	3700	3900	4250
VM710/R	3550	3850	4150
VM710	3400	3700	4000
VM800/R	3250	3550	3850
VM800	3000	3300	3600
VM900/R	3200	3500	3700
VM900	3000	3250	3450
VM1000/R	3150	3350	3450
VM1000	3000	3150	3350
VM1120	2700	2900	3100
VM1250	2400	2600	2800
VM1400	2100	2300	2450
VM1600	1850	2000	2100
VM1800	1650	1750	1850
VM2000	1450	1550	1650

### VALORI VALIDI FINO A 60°C

• Valeurs valables jusqu'à 60°C • Values valid up to 60°C  
• Werte bis 60°C gültig • Valores válidos hasta 60°C

FRA • entre • between • zwischen • entre	60°C	E • et • and • und • y	100°C	DECLASSARE VELOCITÀ • déclasser vitesse • degrade speed • Geschwindigkeit herabsetzen • rebajar velocidad	4%
			100°C		150°C
	150°C	200°C	16%		
	200°C	250°C	23%		
	250°C	300°C	30%		
	300°C	350°C	37%		
	350°C	400°C	45%		
	400°C	450°C	54%		
	450°C	500°C	64%		

### ■ Field of operation

Medium-low flow rates. High pressures.

#### Blade type

Curve, backward (negative), see pg. 2.2.

#### Applications

For pneumatic transport, fumes, fine dust. Suitable for transporting solid materials mixed with air, chips and sawdust with a non-transited fan.

#### Standard constructional arrangements

Arr.1 - Arr.4 - Arr.5 - Arr.8 - Arr.9 - Arr.12, see pgs. 2.5 - 2.6.

#### Standard fluid temperatures

-10÷+60°C. For other temperatures see pgs. 1.12 to 1.15.

#### Type of construction

Fan in Fe360 plate, impeller in Fe360 statically and dynamically balanced. For other materials see pgs. 1.12 to 1.15.

#### Operating specifications

Condition of inlet air T=20°C, 0 m above sea level and  $\rho=1.205 \text{ kg/m}^3$ .

#### Noise level

Expressed as sound power  $L_{wA}$  [dB(A)] measured in free field with ducted fan, see pgs. 1.43 to 1.49.

#### Orientations

No.8 RD (clockwise viewed from transmission side) and No.8 LG. Fan in bolted orientable version for sizes 350-630, with front support and so not orientable for sizes 710 and above with transmission drive, always orientable for directly coupled fans without front support. See pg. 2.7.

#### Special applications

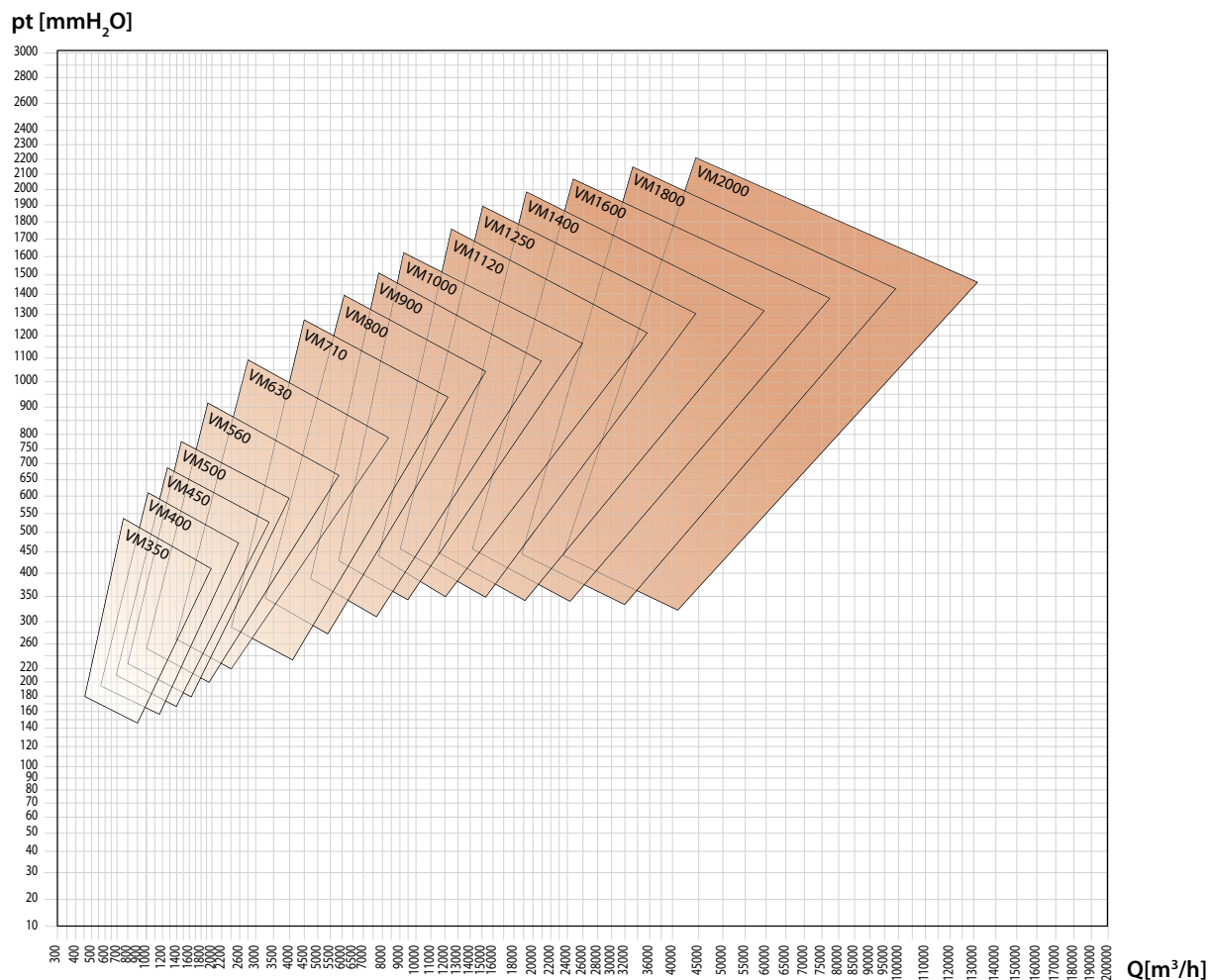
See pgs. 2.20 to 2.30.

#### Fan start-up

During start-up the fan flow rate must be limited, calibrated for the fan's maximum electrical input.

#### Impeller classes

The above table refers to standard operating conditions, in heavy-duty service conditions it is advisable to contact the MORO Customer Service to establish the most suitable type of impeller.



### ■ Arbeitsbereich

Niedrige - mittlere Fördermengen. Hohe Drücke.

#### Schaufelform

Kurve, rückwärts gekrümmt (negativ), siehe Seite 2.2.

#### Anwendungen

Zum Transport von Stäuben, zur Trocknung und für mit Überdruck zu beaufschlagende Räume. Zur Verwendung im industriellen Bereich, Giessereien, Nudelfabriken, Öfen und der Chemie geeignet.

#### Konstruktive Standardausführungen

Ausf. 1-Ausf. 4-Ausf. 5-Ausf. 8-Ausf. 9-Ausf. 12, siehe Seiten 2.5 - 2.6.

#### Standardtemperatur des Mediums

-10 ÷ +60°C. Für andere Temperaturen siehe Seiten 1.12 bis 1.15.

#### Konstruktionsart

Ventilator aus Blech Fe360, Laufrad aus Fe360, statisch und dynamisch ausgewuchtet. Für andere Materialien siehe Seiten 1.12 bis 1.15.

#### Betriebsdaten

Physikalischer Zustand der Ansaugluft T = 20°C, 0 m ü. M. und  $\rho = 1.205 \text{ kg/m}^3$ .

#### Geräuschpegel

Angegeben als Schalleistungspegel  $L_{wA}$  [dB(A)] mit Messung im Freifeld und an Rohren angeschlossenem Ventilator, siehe Seiten 1.43 bis 1.49.

#### Ausrichtung

8 Modelle RD (Drehrichtung im Uhrzeigersinn, von Antriebsseite aus gesehen) und 8 Modelle LG. Angeschraubter, in der Ausrichtung veränderbarer Ventilator in den Größen 350-630, mit Vorderstütze und damit nicht veränderbar ab Größe 710 mit Riementrieb, immer ausrichtbar bei allen direkt angetriebenen Ventilatoren ohne Vorderstütze, siehe Seite 2.7.

#### Spezialausführungen

Siehe Seiten 2.20 bis 2.30.

#### Ventilator-Anlauf

Der Ventilatoranlauf muss bei teilweise geschlossenem Ventilator erfolgen, in Abhängigkeit von der maximalen Stromaufnahme des Motors.

#### Laufradklassen

Die obenstehende Tabelle bezieht sich auf normale Betriebsbedingungen. Bei erschwerenden Betriebsbedingungen wird empfohlen, den Kundenservice der MORO zu kontaktieren, um den am besten geeigneten Laufradtyp zu bestimmen.

### ■ Campo de trabajo

Caudales bajo-medios. Presiones altas.

#### Tipo de pala

Curva, invertida (negativa), ver pág. 2.2.

#### Aplicaciones

Para transporte neumático, polvos, desecación y presurización. Apto para el uso en el campo industrial: fundiciones, fábricas de pasta, hornos e industria química.

#### Variantes constructivas estándares

Ejec.1-Ejec.4-Ejec.5-Ejec.8-Ejec.9-Ejec.12, ver págs. 2.5 - 2.6.

#### Temperaturas del fluido estándares

De -10 a +60°C. Para otras temperaturas, ver págs. de 1.12 a 1.15.

#### Tipo de construcción

Ventilador de chapa en Fe360, rotor en Fe360 equilibrado estática y dinámicamente. Para otros materiales, ver págs. de 1.12 a 1.15.

#### Datos de funcionamiento

Condiciones del aire en aspiración T=20°C, 0 m SNM y  $\rho = 1.205 \text{ kg/m}^3$ .

#### Niveles de ruido

Expresados en potencia sonora  $L_{wA}$  [dB(A)] medida en campo abierto con ventilador canalizado, ver págs. de 1.43 a 1.49.

#### Orientaciones

8 RD (rotación dextrógira vista desde el lado de transmisión) y 8 LG. Ventilador en versión emperrada orientable para tamaños 350-630, con soporte delantero, por lo cual no es orientable a partir del tamaño 710 de transmisión, siempre orientable en ventiladores acoplados directamente sin soporte delantero. Ver pág. 2.7.

#### Construcciones especiales

Ver págs. de 2.20 a 2.30.

#### Puesta en marcha del ventilador

La puesta en marcha debe efectuarse con ventilador parcializado, en función de la absorción máxima del ventilador.

#### Clases de rotores

La tabla arriba hace referencia a condiciones de trabajo estándares, en condiciones de funcionamiento pesadas, se aconseja llamar al Servicio de atención al cliente de MORO para conocer el tipo de rotor más adecuado.

Tipo • Type • Type • Typ • Tipo		P inst. [kW]	n	LpA [dB(A)]	Tolleranza sulla portata ±5% • Tolérance sur le débit ±5% • Load tolerance ±5% • Durchsatztoleranz ±5% • Tolerancia respecto caudal ±5%															
Ventilatore • Ventilateur • Fan • Ventilator • Ventilador	Motore • Moteur • Motor • Motor • Motor				Q [m³/h]															
					360	400	430	470	540	650	720	790	865	935	1080	1225	1370	1440	1620	1800
					pt[mmH <sub>2</sub> O]															
VM350/N2R	80	0,75	2840	60	186	185	184	183	181	174	170	160	152	140						
VM350/N2	80	1,1	2845	61	216	216	216	215	214	210	206	202	198	194	180	160	145	130		
VM400/N2R	90	1,5	2860	63					246	243	241	239	235	230	222	211	195	185	170	
VM400/N2	90	2,2	2920	67						298	297	296	296	295	288	277	271	267	250	235
VM450/N2R	100	3	2920	67							320	322	320	319	318	312	306	300	290	275
VM450/N2	112	4	2920	70								380	381	380	379	377	371	367	363	352
VM500/N2R	112	4	2920	70											410	410	408	406	404	390
VM500/N2	132	5,5	2920	70												462	465	467	466	461
VM560/N2R	132	7,5	2940	74														545	545	543
VM560/N2	160	11	2940	75														612	612	610
VM630/N2R	160	15	2940	76																680
VM630/N2	160	18,5	2940	76																
VM710/N2R	180	22	2940	77																
VM710/N2	200	30	2945	78																
VM710/N2	200	37	2945	78																
VM800/N2R	225	45	2945	80																
VM800/N2	250	55	2960	81																
VM800/N2	280	75	2960	81																
VM900/N2R	280	75	2960	81																
VM900/N2	280	90	2960	82																
VM900/N2	315	110	2960	84																
VM1000/N2R	315	110	2960	82																
VM1000/N2R	315	132	2960	84																
VM1000/N2	315	160	2960	87																
VM1000/N2	315	200	2960	88																
VM710/N4R	112	4	1440	64																213
VM710/N4	132	5,5	1455	65																246
VM800/N4R	132	7,5	1455	67																
VM800/N4	160	11	1460	68																
VM900/N4R	160	11	1460	70																
VM900/N4	160	15	1460	71																
VM1000/N4R	180	18,5	1460	72																
VM1000/N4	180	22	1465	74																

Il livello di pressione sonora ponderato A, LpA (cap.14), corrisponde al valore rilevato, nelle condizioni di prova, nel punto di massima rumorosità.

**Tolleranza sulla rumorosità ±4dB(A)**

- Tolérance sur le bruit ±4dB(A) • Noise tolerance ±4dB(A)
- Geräushtoleranz ±4dB(A) • Tolerancia respecto a ruido ±4dB(A)

Q [m³/h]

2160	2520	2880	3240	3600	3960	4320	4680	5400	6120	7200	7920	9000	10080	10800	12600	14400	16200	18000	19800	21600	29000	33000	
pt[mmH <sub>2</sub> O]																							
196																							
250	215																						
336	305	272																					
378	350	326	287																				
449	435	408	386	357																			
539	530	520	496	477	463	430	390																
605	594	582	570	560	545	525	495	420															
678	675	670	662	652	640	625	608	570	525	430													
780	775	770	765	760	755	745	734	710	675	615	535												
		900	892	887	882	875	868	860	845	795	770	705											
				1010	1005	1000	996	990	980	953	925	885											
				1010	1005	1000	996	990	980	953	925	885	835	795									
					1135	1134	1130	1126	1120	1090	1080	1055	1025	990	895	800							
							1305	1300	1295	1280	1265	1245	1225	1205	1175								
							1305	1300	1295	1280	1265	1245	1225	1205	1175	1060	960						
								1460	1455	1450	1440	1425	1415	1405	1370	1315	1250	1190					
									1635	1625	1620	1610	1600	1590	1560	1510	1450						
										1635	1625	1620	1610	1600	1590	1560	1510	1450	1375	1320			
											1830	1825	1820	1810	1790	1765	1735	1700					
												1830	1825	1820	1810	1790	1765	1735	1700	1660	1590		
													2020	2010	2000	1980	1960	1935	1905	1875			
														2020	2010	2000	1980	1960	1935	1905	1875	1630	1470
212	208	205	203	195	188	175	163																
244	243	241	236	230	224	218	209	194															
274	272	271	269	265	261	257	250	237	221														
	315	314	312	310	307	304	300	292	285	258	236												
		355	354	353	352	350	348	341	336	320	310	285	270										
			400	398	397	396	395	390	384	375	365	346	330	315									
				446	445	443	440	437	432	422	411	398	387	356									
					495	490	485	480	475	470	465	460	440	420									

■ Le niveau de pression sonore pondérée A, LpA (chap. 14), correspond à la valeur relevée dans les conditions d'essai au point de niveau sonore maximum.

■ The A-weighted sound power level, LpA (Chap.14), is the value measured in test conditions at the point of maximum noise level.

■ Der nach A bewertete Schalldruckpegel LpA (Kap. 14) entspricht in den Testbedingungen dem höchsten gemessenen Wert des Geräuschpegels.

■ El nivel de presión sonora ponderado A, LpA (cap. 14), corresponde al valor medido, en las condiciones de prueba, en el punto con máximos niveles de ruido.

Tipo • Type • Type • Typ • Tipo		P inst. [kW]	n	LpA [dB(A)]	Tolleranza sulla portata ±5% • Tolérance sur le débit ±5% • Load tolerance ±5% • Durchsatztoleranz ±5% • Tolerancia respecto caudal ±5%															
Ventilatore • Ventilateur • Fan • Ventilator • Ventilador	Motore • Moteur • Motor • Motor • Motor				Q [m³/h]															
					360	400	430	470	540	650	720	790	865	935	1080	1225	1370	1440	1620	1800
					pt[mmH <sub>2</sub> O]															
VM350/N2R	80	0,75	2840	60	181	180	178	177	174	166	160	149	140	126						
VM350/N2	80	1,1	2845	61	210	209	209	208	206	200	195	190	184	179	162	138	118	101		
VM400/N2R	90	1,5	2860	63					238	234	231	229	224	218	208	195	177	165	146	
VM400/N2	90	2,2	2920	67						286	285	283	282	280	271	258	250	244	224	204
VM450/N2R	100	3	2920	67							308	309	307	305	303	296	288	281	269	252
VM450/N2	112	4	2920	68								364	364	362	360	357	349	345	338	325
VM500/N2R	112	4	2920	69											391	390	387	385	381	366
VM500/N2	132	5,5	2920	70												438	440	441	438	432
VM560/N2R	132	7,5	2940	73														514	513	510
VM560/N2	160	11	2940	73														574	573	570
VM630/N2R	160	15	2940	74																634
VM630/N2	160	18,5	2940	75																
VM710/N2R	180	22	2940	76																
VM710/N2	200	30	2945	77																
VM710/N2	200	37	2945	77																
VM800/N2R	225	45	2945	78																
VM800/N2	250	55	2960	79																
VM800/N2	280	75	2960	80																
VM900/N2R	280	75	2960	80																
VM900/N2	280	90	2960	81																
VM900/N2	315	110	2960	83																
VM1000/N2R	315	110	2960	82																
VM1000/N2R	315	132	2960	83																
VM1000/N2	315	160	2960	85																
VM1000/N2	315	200	2960	86																
VM710/N4R	112	4	1440	64																206
VM710/N4	132	5,5	1455	65																238
VM800/N4R	132	7,5	1455	67																
VM800/N4	160	11	1460	68																
VM900/N4R	160	11	1460	70																
VM900/N4	160	15	1460	71																
VM1000/N4R	180	18,5	1460	72																
VM1000/N4	180	22	1465	74																

Il livello di pressione sonora ponderato A, LpA (cap.14), corrisponde al valore rilevato, nelle condizioni di prova, nel punto di massima rumorosità.



**Tolleranza sulla rumorosità ±4dB(A)**

• Tolérance sur le bruit ±4dB(A) • Noise tolerance ±4dB(A)  
 • Geräuschtoleranz ±4dB(A) • Tolerancia respecto a ruido ±4dB(A)

Q [m³/h]

pt[mmH<sub>2</sub>O]

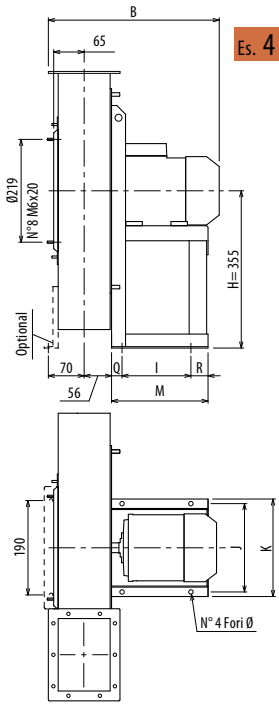
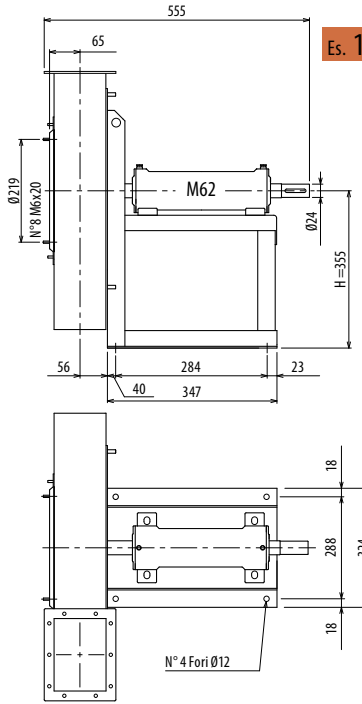
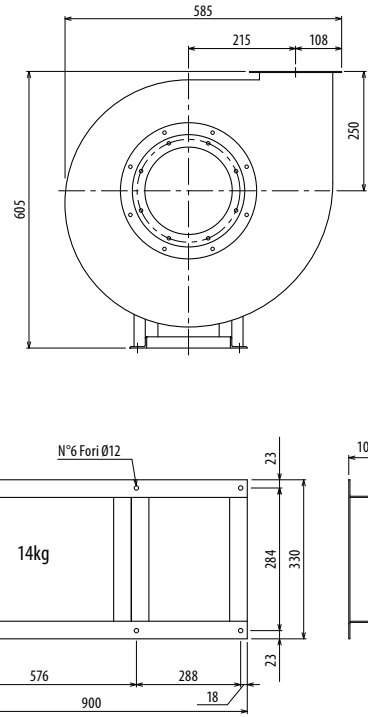
2160	2520	2880	3240	3600	3960	4320	4680	5400	6120	7200	7920	9000	10080	10800	12600	14400	16200	18000	19800	21600	29000	33000	
155																							
221	179																						
303	265	224																					
351	320	291	247																				
417	399	368	341	306																			
504	493	480	454	432	414	378	335																
563	551	536	522	508	490	466	433	349															
631	626	620	610	599	585	568	549	506	455	349													
720	714	708	701	694	686	674	661	632	591	520	434												
		822	814	808	801	793	785	773	754	700	670	599											
				911	905	899	893	883	869	836	805	757											
				911	905	899	893	883	869	836	805	757	698	651									
					1016	1014	1009	1003	994	963	950	921	887	850	749	642							
								1150	1143	1135	1117	1101	1077	1052	1029	986							
								1150	1143	1135	1117	1101	1077	1052	1029	986	868	756					
									1272	1266	1258	1248	1232	1219	1207	1168	1111	1044	977				
										1399	1389	1381	1368	1357	1339	1304	1251	1188					
										1399	1389	1381	1368	1357	1339	1304	1251	1188	1109	1044			
											1546	1540	1533	1524	1504	1478	1448	1413					
											1546	1540	1533	1524	1504	1478	1448	1413	1373	1308			
												1677	1668	1655	1634	1613	1586	1555	1522				
													1677	1668	1655	1634	1613	1586	1555	1522	1280	1111	
204	198	194	190	180	171	156	141																
234	232	228	222	214	206	197	186	165															
264	262	259	256	251	246	240	232	215	195														
	302	300	297	294	290	285	280	268	257	223	196												
		340	339	337	335	332	329	320	312	292	279	249	227										
			382	379	377	375	373	366	357	344	331	307	284	265									
				424	423	420	416	411	404	392	378	362	348	310									
						468	462	456	448	441	433	424	416	389	360								

■ Le niveau de pression sonore pondérée A, LpA (chap. 14), correspond à la valeur relevée dans les conditions d'essai au point de niveau sonore maximum.

■ The A-weighted sound power level, LpA (Chap.14), is the value measured in test conditions at the point of maximum noise level.

■ Der nach A bewertete Schalldruckpegel LpA (Kap. 14) entspricht in den Testbedingungen dem höchsten gemessenen Wert des Geräuschpegels.

■ El nivel de presión sonora ponderado A, LpA (cap. 14), corresponde al valor medido, en las condiciones de prueba, en el punto con máximos niveles de ruido.


**Es. 4**

**Es. 1**


Il ventilatore è orientabile • Peso in tabella comprensivo di motore

 ■ Le ventilateur est orientable  
 Le poids dans le tableau inclut le moteur

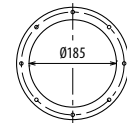
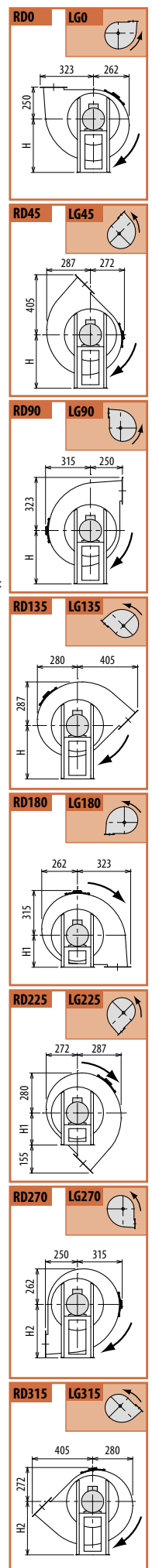
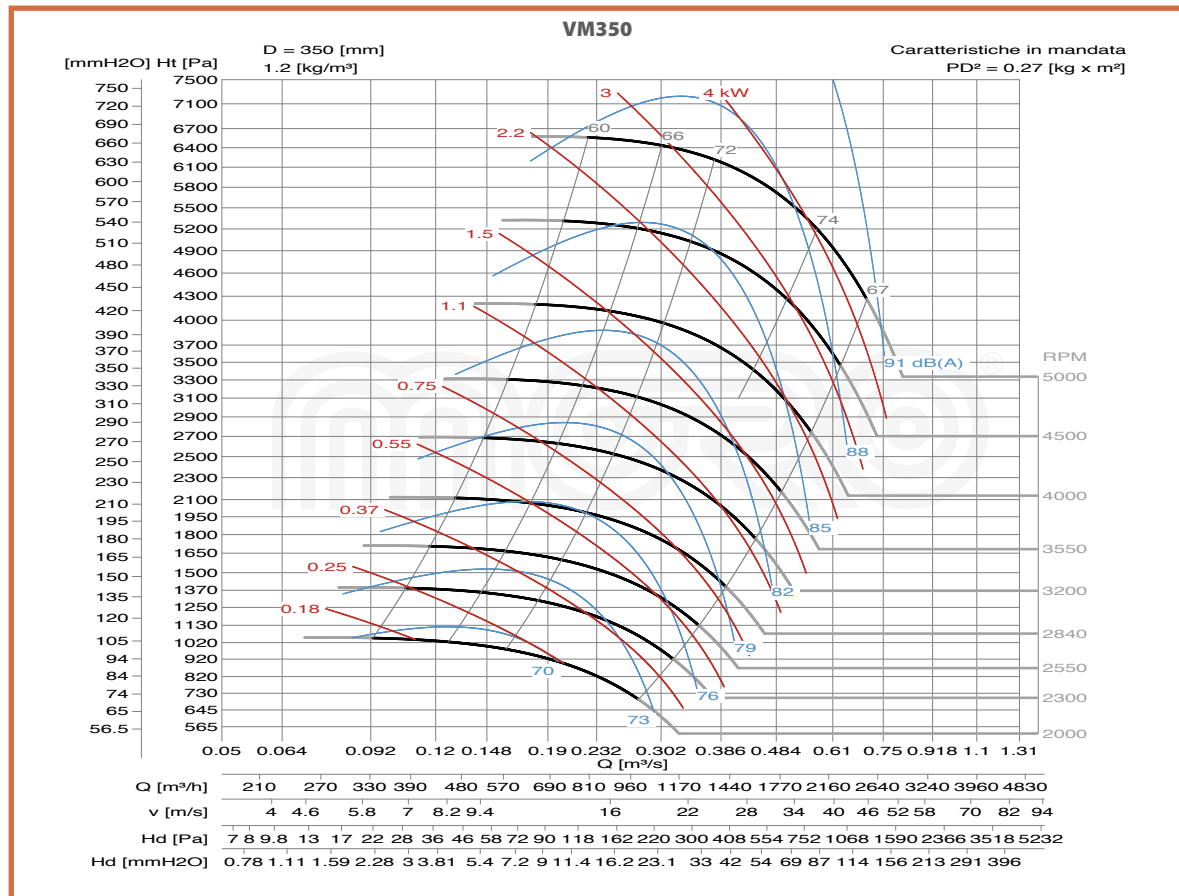
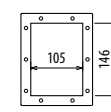
 ■ The fan is revolvable  
 The weight indicated in the table includes motor

 ■ Der Ventilator ist drehbar  
 Gewichtsangabe in Tabelle inkl. Motor

 ■ El ventilador es orientable  
 El peso en la tabla incluye el motor

 Ulteriori informazioni e quote:  
 ■ Ulérieures informations et cotes:  
 ■ Further information and sizes:  
 ■ Weitere Infos und Größen:  
 ■ Más informaciones y medidas:

TIPO • Type		PESO Weight Kg	PD <sup>2</sup> Kgf x m <sup>2</sup>	B	I	H	H1	H2	J	K	M	Q	R	Ø
VENTILATORE Fan	MOTORE Motor													
VM350/N2R	80 A2	35	0,21	377	121	355	250	355	203	225	211	45	45	10
VM350/N2	80 B2	36	0,27	377	121	355	250	355	203	225	211	45	45	10
VM350/N/T		35	0,27			355	250	355						

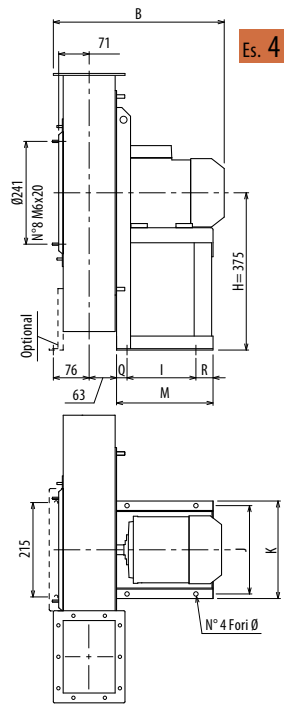
 pg. / s.  
3.6

 pg. / s.  
3.5




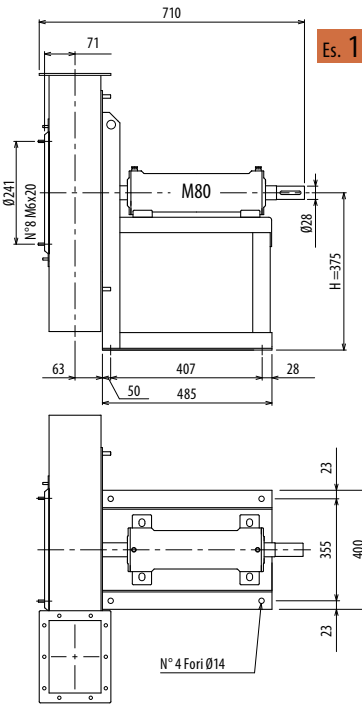
# DIMENSIONI D'INGOMBRO E PESI/CURVE DI FUNZIONAMENTO

■ DIMENSIONS D'ENCOMBREMENT ET POIDS/COURBES DE FONCTIONNEMENT ■ OVERALL DIMENSIONS AND WEIGHT/WORKING CURVES  
 ■ AUSMAß UND GEWICHTE/FUNKTIONSKURVEN ■ DIMENSIONES QUE OCUPA Y PESOS/CURVAS DE FUNCIONAMIENTO

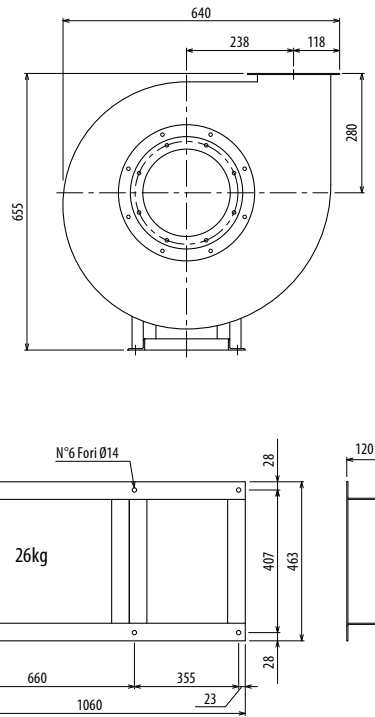
# VM400/N



Es. 4



Es. 1



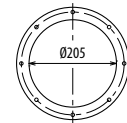
Il ventilatore è orientabile • Peso in tabella comprensivo di motore

- Le ventilateur est orientable
- The fan is revolvable
- Der Ventilator ist drehbar
- El ventilador es orientable
- Further information and sizes:
- Weitere Infos und Größen:
- Más informaciones y medidas:

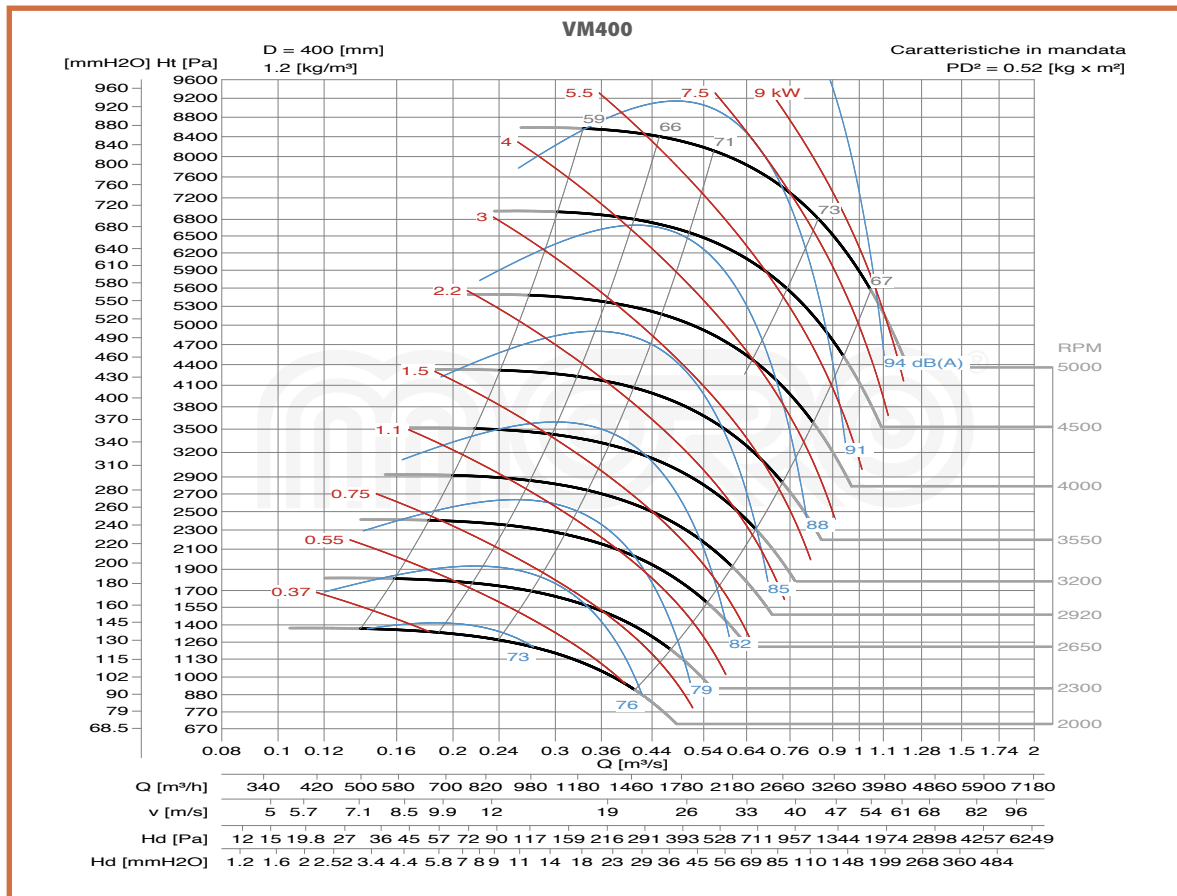
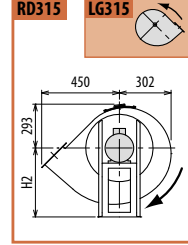
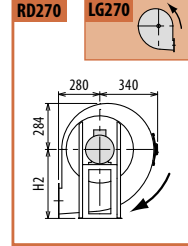
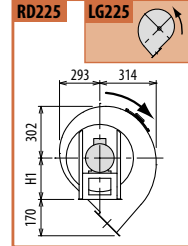
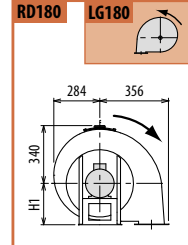
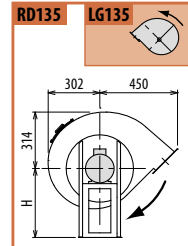
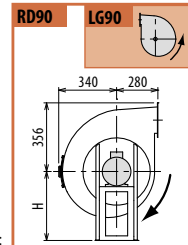
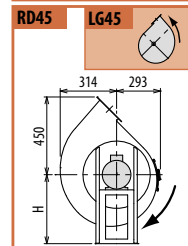
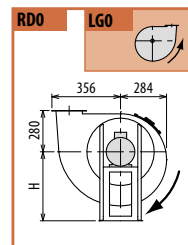
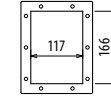
Ulteriori informazioni e quote:  
 ■ Further information and sizes:  
 ■ Weitere Infos und Größen:  
 ■ Más informaciones y medidas:

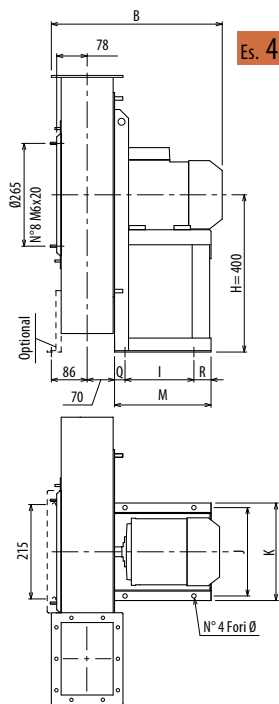
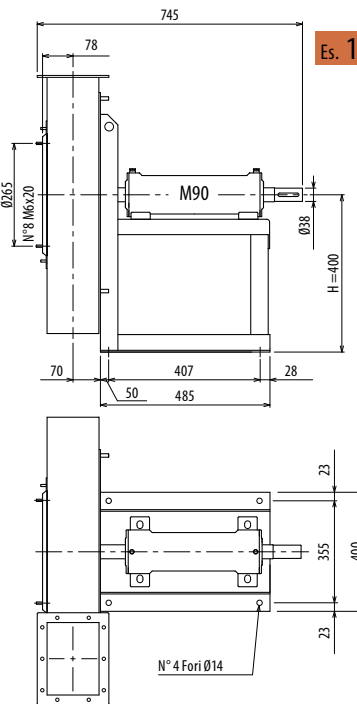
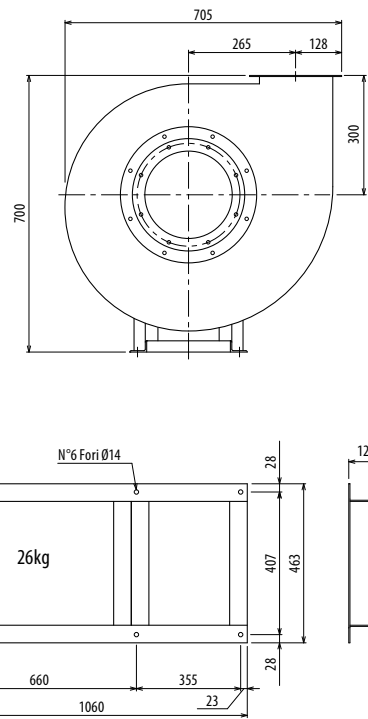
TIPO • Type		PESO Weight Kg	PD <sup>2</sup> Kgf x m <sup>2</sup>	B	I	H	H1	H2	J	K	M	Q	R	Ø
VENTILATORE Fan	MOTORE Motor													
VM400/N2R	90 S2	46	0,37	437	133	375	280	375	234	260	246	55	58	10
VM400/N2	90 L2	50	0,52	437	133	375	280	375	234	260	246	55	58	10
VM400/N/T		52	0,52			375	280	375						

pg. / s. 3,6



pg. / s. 3,5




**Es. 4**

**Es. 1**


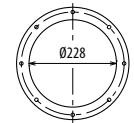
Il ventilatore è orientabile • Peso in tabella comprensivo di motore

- Le ventilateur est orientable
- The fan is revolvable
- Der Ventilator ist drehbar
- El ventilador es orientable
- Le poids dans le tableau inclut le moteur
- The weight indicated in the table includes motor
- Gewichtsangabe in Tabelle inkl. Motor
- El peso en la tabla incluye el motor

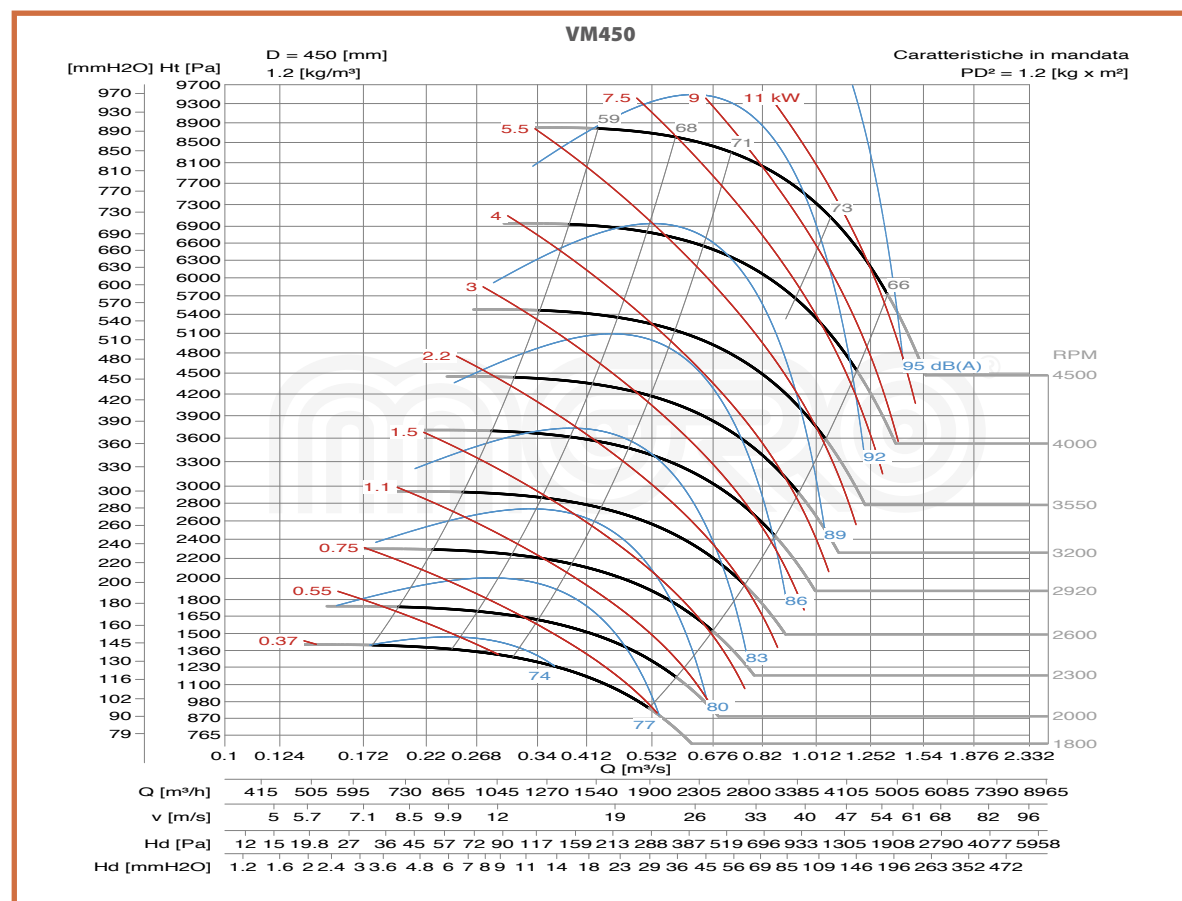
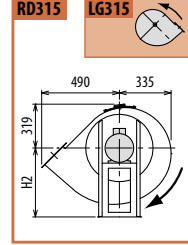
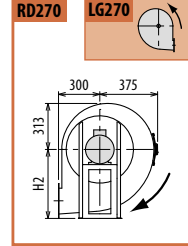
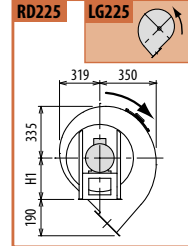
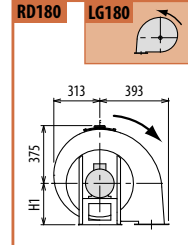
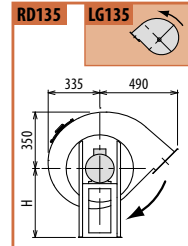
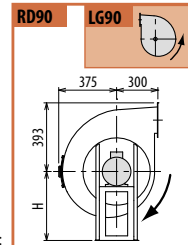
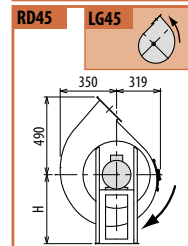
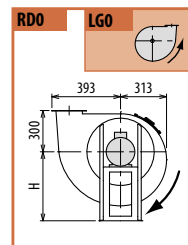
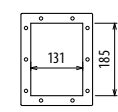
 Ulteriori informazioni e quote:  
 ■ Ulérieures informations et cotes:  
 ■ Further information and sizes:  
 ■ Weitere Infos und Größen:  
 ■ Más informaciones y medidas:

TIPO - Type		PESO Weight Kg	PD² Kgf x m²	B	I	H	H1	H2	J	K	M	Q	R	Ø
VENTILATORE Fan	MOTORE Motor													
VM450/N2R	100 L2	60	1,0	482	197	400	300	400	289	324	276	30	49	12
VM450/N2	112 M2	80	1,2	503	197	400	300	400	289	324	276	30	49	12
VM450/N/T		76	1,2			400	300	400						

pg. / s. 3,6



pg. / s. 3,5

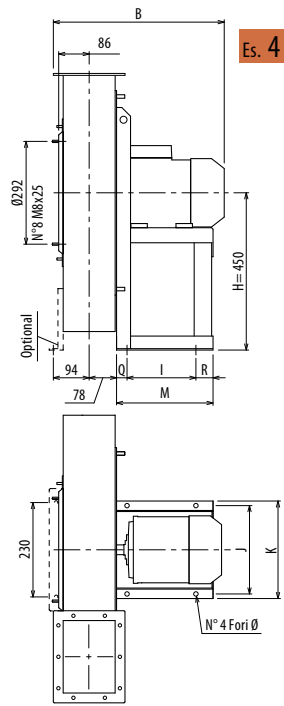


# DIMENSIONI D'INGOMBRO E PESI/CURVE DI FUNZIONAMENTO

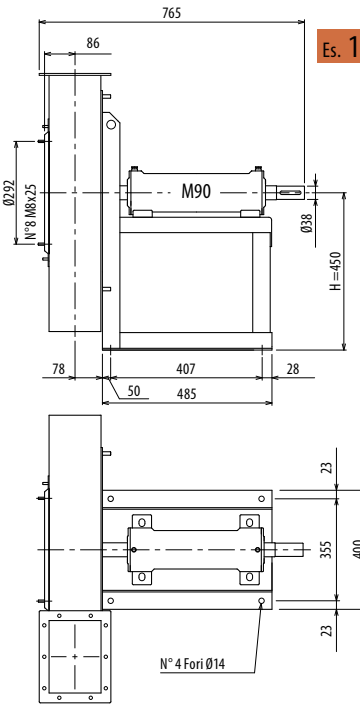
# VM500/N



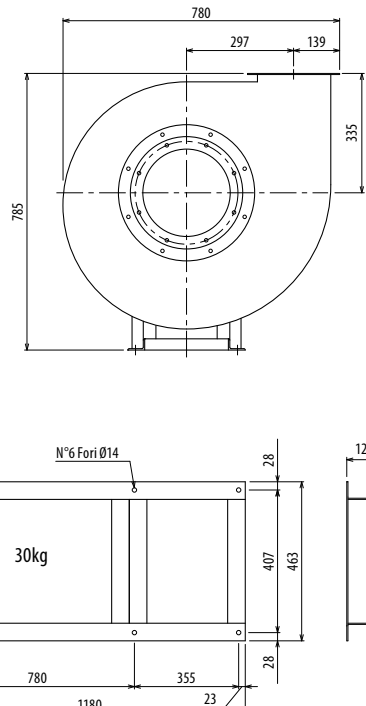
■ DIMENSIONS D'ENCOMBREMENT ET POIDS/COURBES DE FONCTIONNEMENT ■ OVERALL DIMENSIONS AND WEIGHT/WORKING CURVES  
 ■ AUSMAß UND GEWICHTE/FUNKTIONSKURVEN ■ DIMENSIONES QUE OCUPA Y PESOS/CURVAS DE FUNCIONAMIENTO



Es. 4



Es. 1



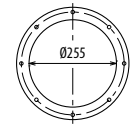
Il ventilatore è orientabile • Peso in tabella comprensivo di motore

- Le ventilateur est orientable
  - The fan is revolvable
  - Der Ventilator ist drehbar
  - El ventilador es orientable
  - Further information and sizes:
  - Weitere Infos und Größen:
  - Más informaciones y medidas:
- The weight indicated in the table includes motor      Gewichtsangabe in Tabelle inkl. Motor      El peso en la tabla incluye el motor

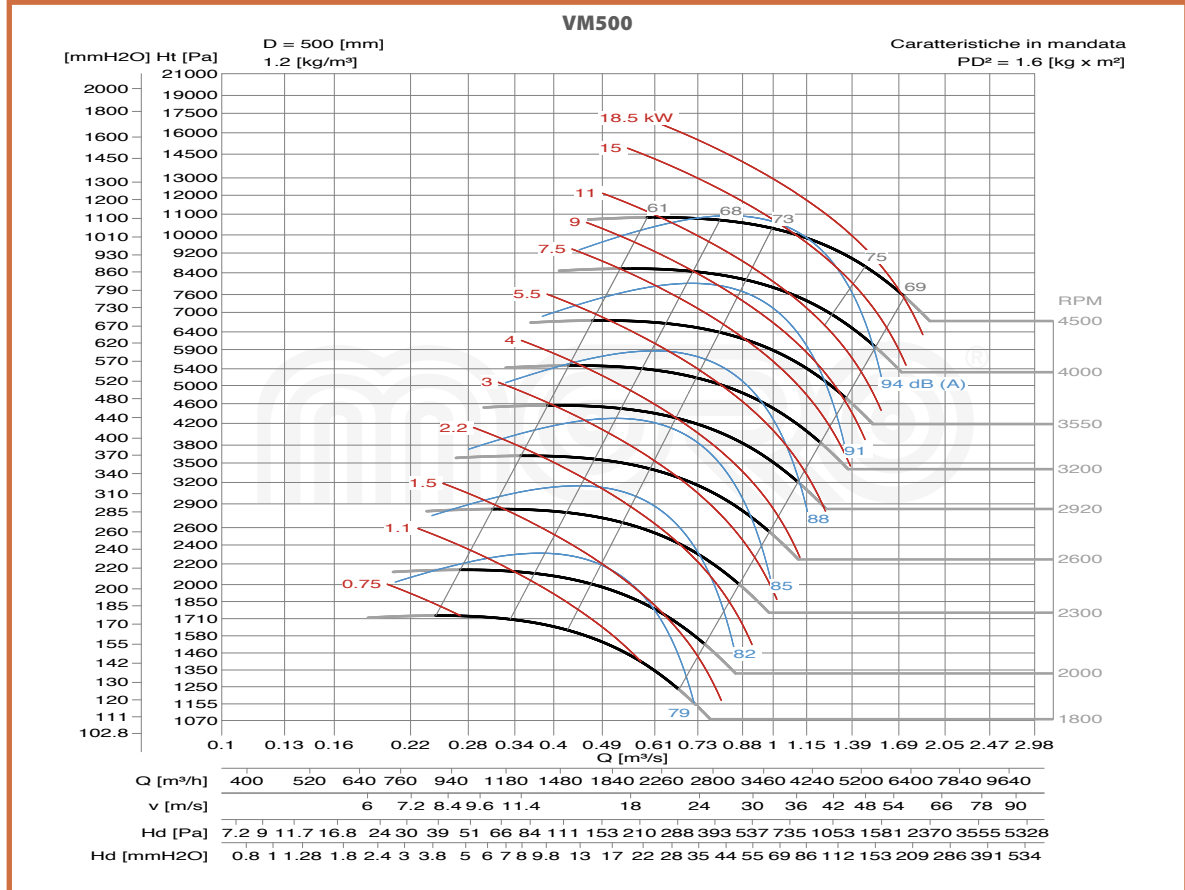
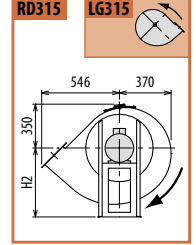
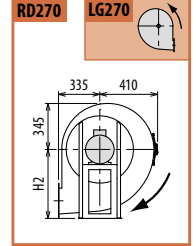
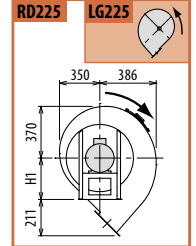
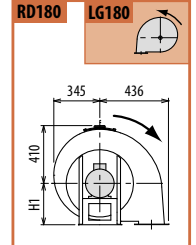
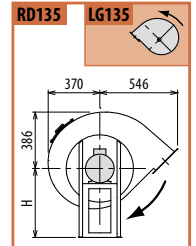
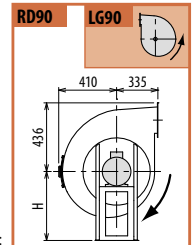
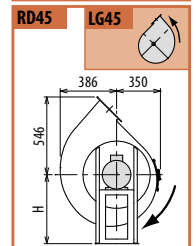
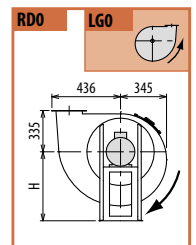
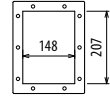
Ulteriori informazioni e quote:  
 ■ Ulérieures informations et cotes:  
 ■ Further information and sizes:  
 ■ Weitere Infos und Größen:  
 ■ Más informaciones y medidas:

TIPO - Type		PESO Weight Kg	PD <sup>2</sup> Kgf x m <sup>2</sup>	B	I	H	H1	H2	J	K	M	Q	R	Ø
VENTILATORE Fan	MOTORE Motor													
VM500/N2R	112 M2	92	1,4	520	197	450	335	450	289	324	276	30	49	12
VM500/N2	132 SA2	107	1,6	560	237	450	335	450	337	372	336	40	59	12
VM500/N/T		91	1,6			450	335	450						

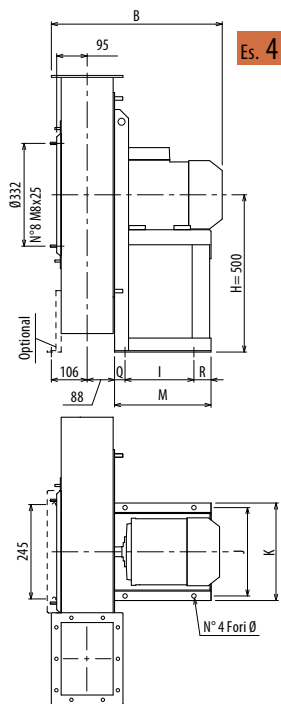
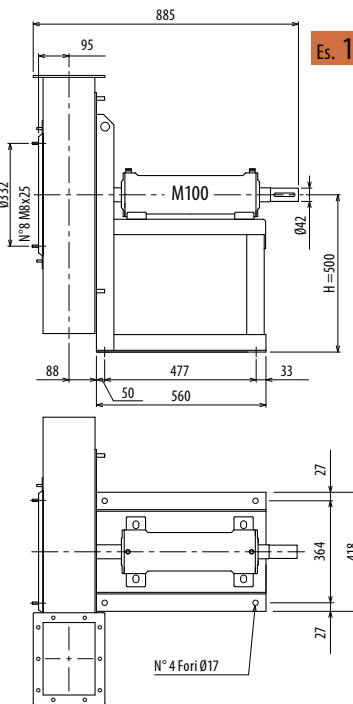
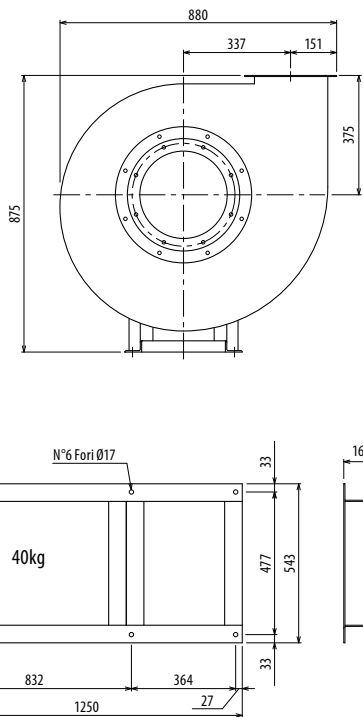
pg. / s.  
3.6



pg. / s.  
3.5



VM


**Es. 4**

**Es. 1**


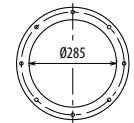
Il ventilatore è orientabile • Peso in tabella comprensivo di motore

- Le ventilateur est orientable
- The fan is revolvable
- Der Ventilator ist drehbar
- El ventilador es orientable
- Le poids dans le tableau inclut le moteur
- The weight indicated in the table includes motor
- Gewichtsangabe in Tabelle inkl. Motor
- El peso en la tabla incluye el motor

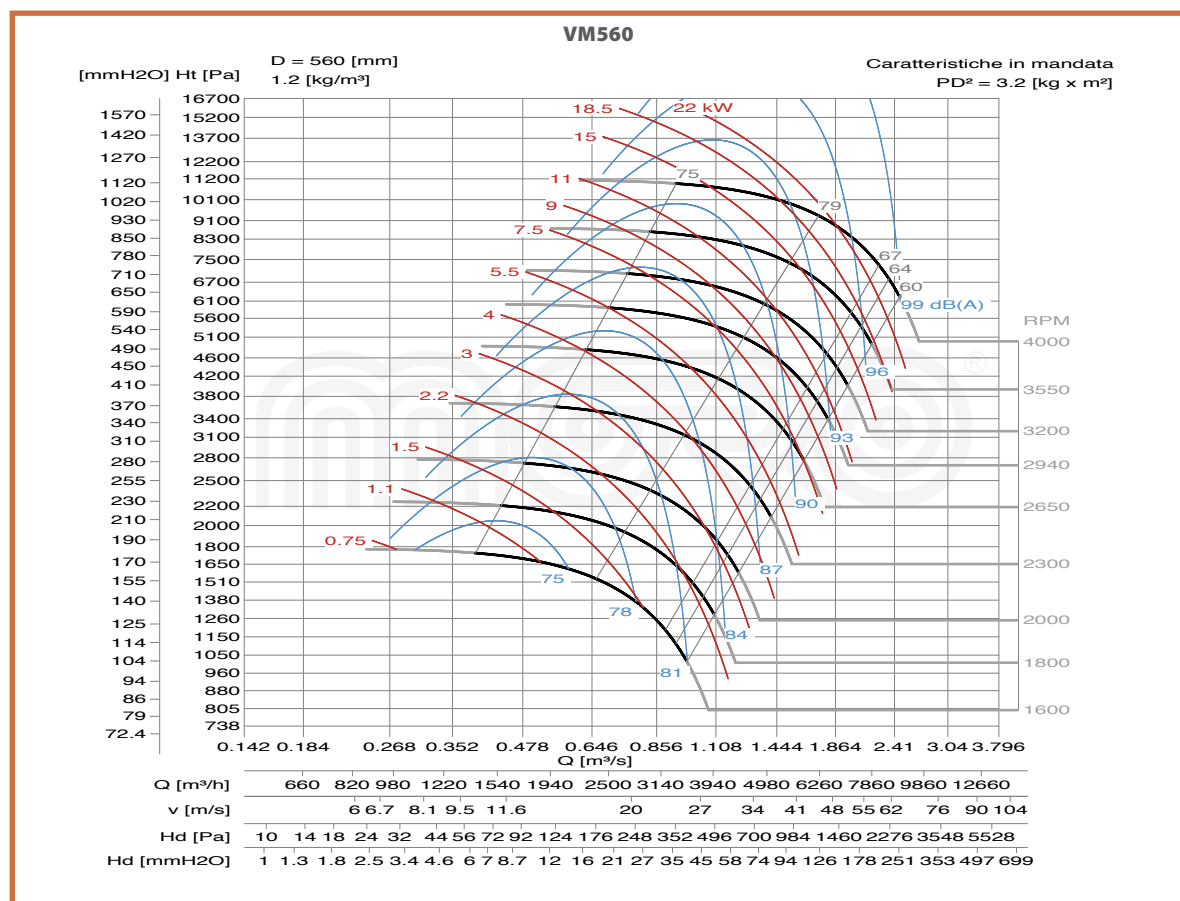
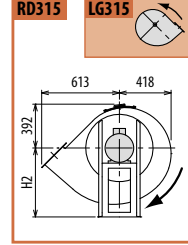
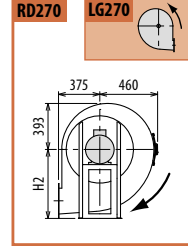
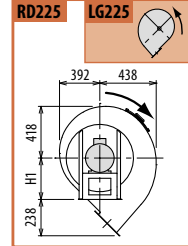
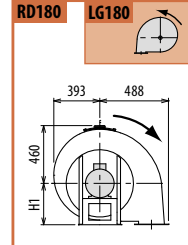
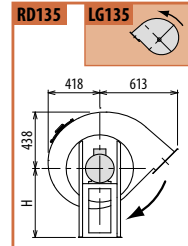
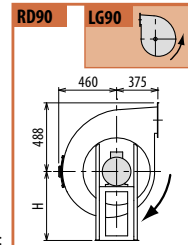
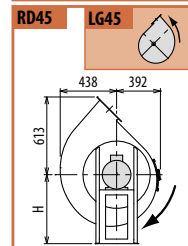
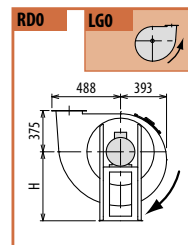
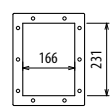
 Ulteriori informazioni e quote:  
 ■ Ulérieures informations et cotes:  
 ■ Further information and sizes:  
 ■ Weitere Infos und Größen:  
 ■ Más informaciones y medidas:

TIPO • Type		PESO Weight Kg	PD <sup>2</sup> Kg f x m <sup>2</sup>	B	I	H	H1	H2	J	K	M	Q	R	Ø
VENTILATORE Fan	MOTORE Motor													
VM560/N2R	132 SB2	122	2,5	579	237	500	375	500	337	372	336	40	59	12
VM560/N2	160 MA2	163	3,2	684	337	500	375	500	395	440	436	50	49	14
VM560/N/T		118	3,2			500	375	500						

pg. / s. 3,6



pg. / s. 3,5

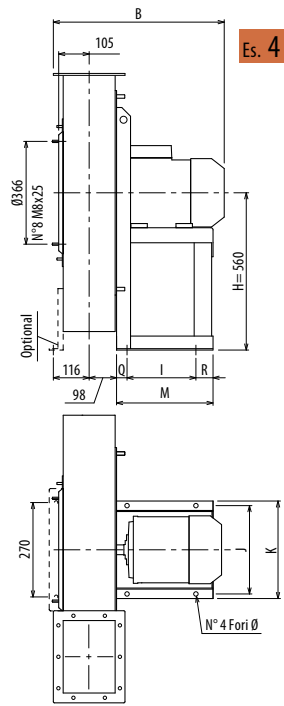


# DIMENSIONI D'INGOMBRO E PESI/CURVE DI FUNZIONAMENTO

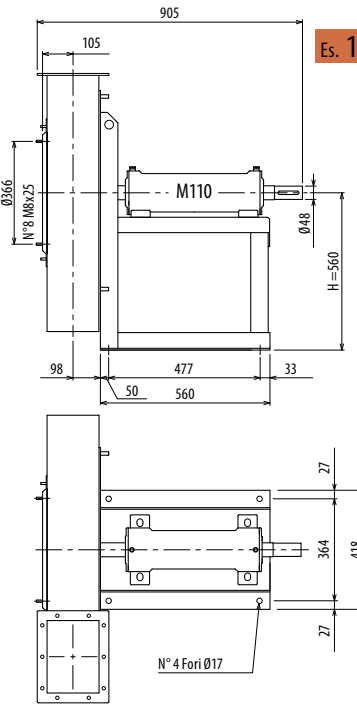
# VM630/N



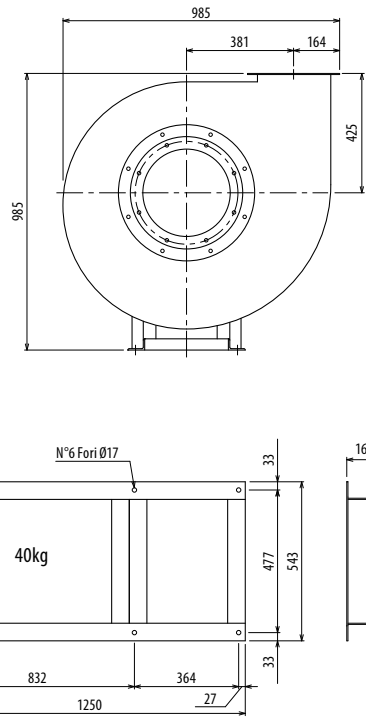
■ DIMENSIONS D'ENCOMBREMENT ET POIDS/COURBES DE FONCTIONNEMENT ■ OVERALL DIMENSIONS AND WEIGHT/WORKING CURVES  
 ■ AUSMAß UND GEWICHTE/FUNKTIONSKURVEN ■ DIMENSIONES QUE OCUPA Y PESOS/CURVAS DE FUNCIONAMIENTO



Es. 4



Es. 1



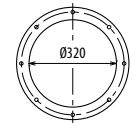
Il ventilatore è orientabile • Peso in tabella comprensivo di motore

- Le ventilateur est orientable
- The fan is revolvable
- Der Ventilator ist drehbar
- El ventilador es orientable
- Further information and sizes:
- Weitere Infos und Größen:
- Más informaciones y medidas:

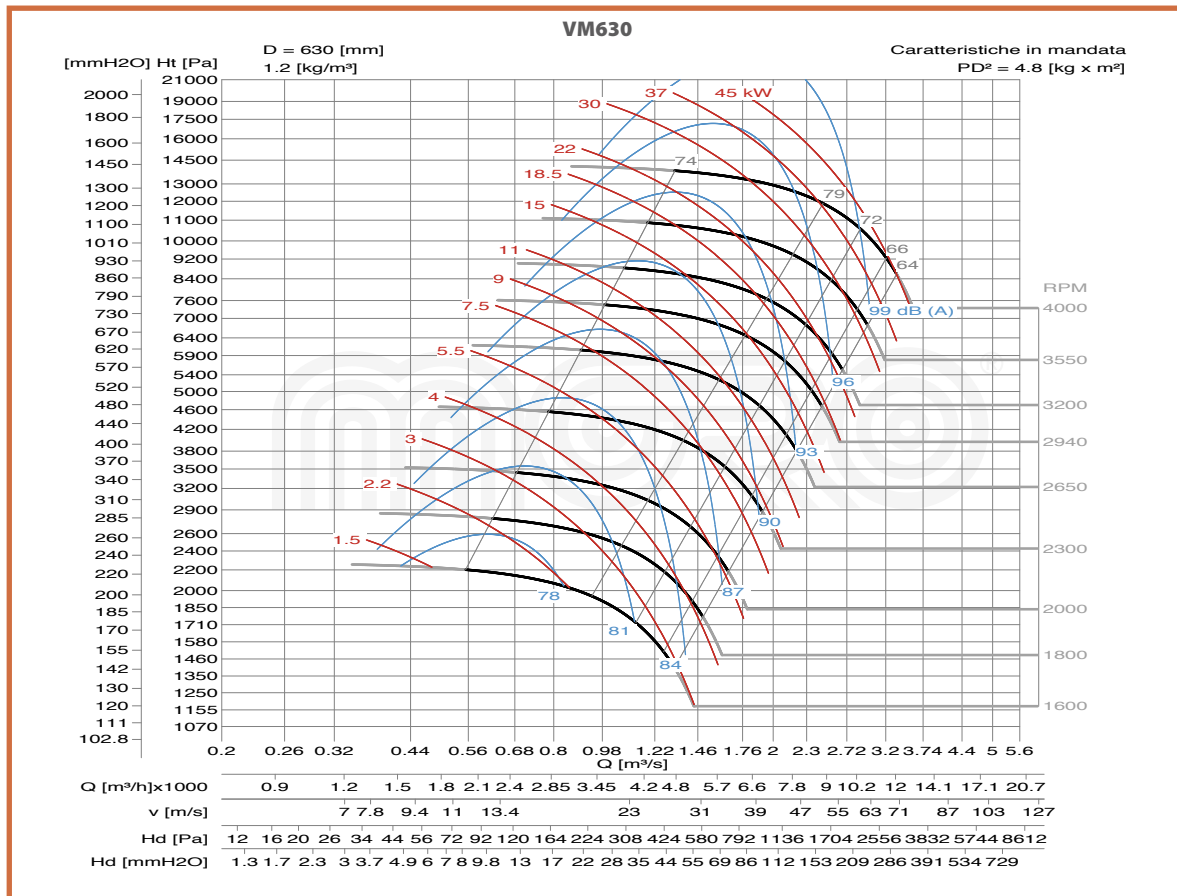
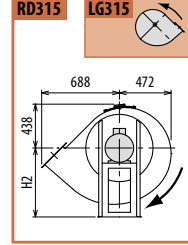
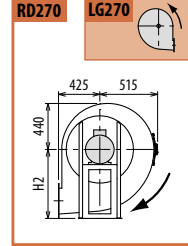
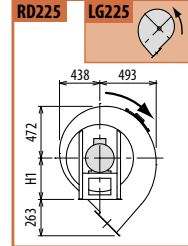
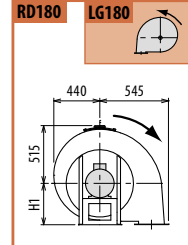
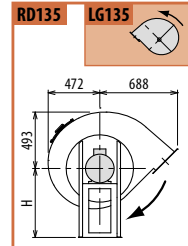
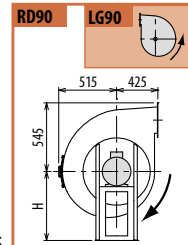
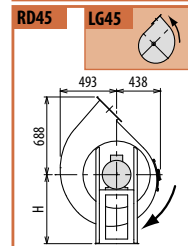
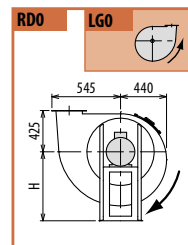
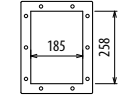
Ulteriori informazioni e quote:  
 ■ Ulérieures informations et cotes:  
 ■ Further information and sizes:  
 ■ Weitere Infos und Größen:  
 ■ Más informaciones y medidas:

TIPO - Type		PESO Weight Kg	PD² Kg x m²	B	I	H	H1	H2	J	K	M	Q	R	Ø
VENTILATORE Fan	MOTORE Motor													
VM630/N2R	160 MB2	175	4,4	703	337	560	425	560	395	440	436	50	49	14
VM630/N2	160 L2	193	4,8	703	337	560	425	560	395	440	436	50	49	14
VM630/N/T		160	4,8			560	425	560						

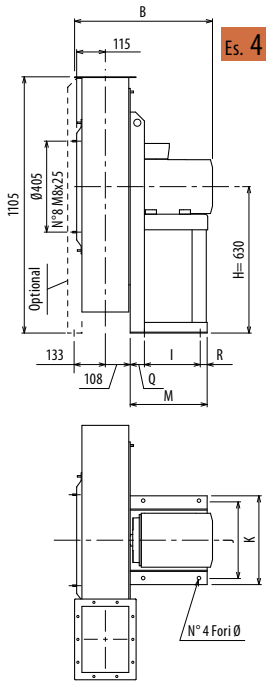
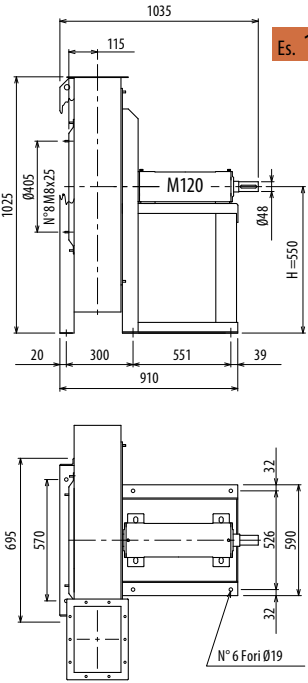
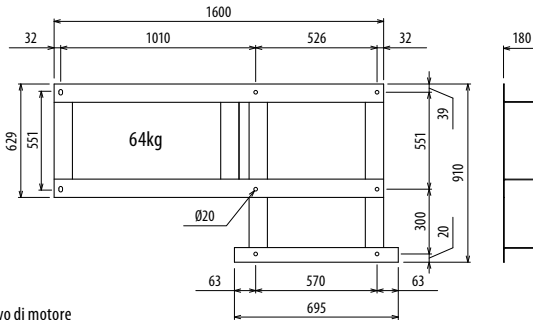
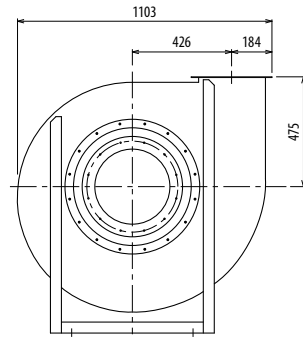
pg. / s. 3,6



pg. / s. 3,5






**Es. 4**

**Es. 1**


Il ventilatore in Es. 4 senza supporto anteriore è orientabile, in Es. 1 non è orientabile - Peso in tabella comprensivo di motore

■ Le ventilateur en Ex. 4 sans support frontal est orientable, en Ex. 1 n'est pas orientable.

Le poids dans le tableau inclut le moteur

■ Der Ventilator in Aus. 4, ohne Vorderhalterung, ist drehbar, in Aus. 1 ist nicht drehbar.

Das Gewicht in Tafel schließt den Motor ein

■ The fan in Ex. 4 without front support is revoluble, in Ex. 1 is not orientable.

The weight indicated in the table includes motor

■ El ventilador en Ej. 4 sin soporte delantero es orientable, en Ej. 1 no es orientable.

El peso en la tabla incluye el motor

Ulteriori informazioni e quote:

■ Ulérieures informations et cotes:

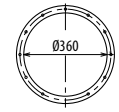
■ Further information and sizes:

■ Weitere Infos und Größen:

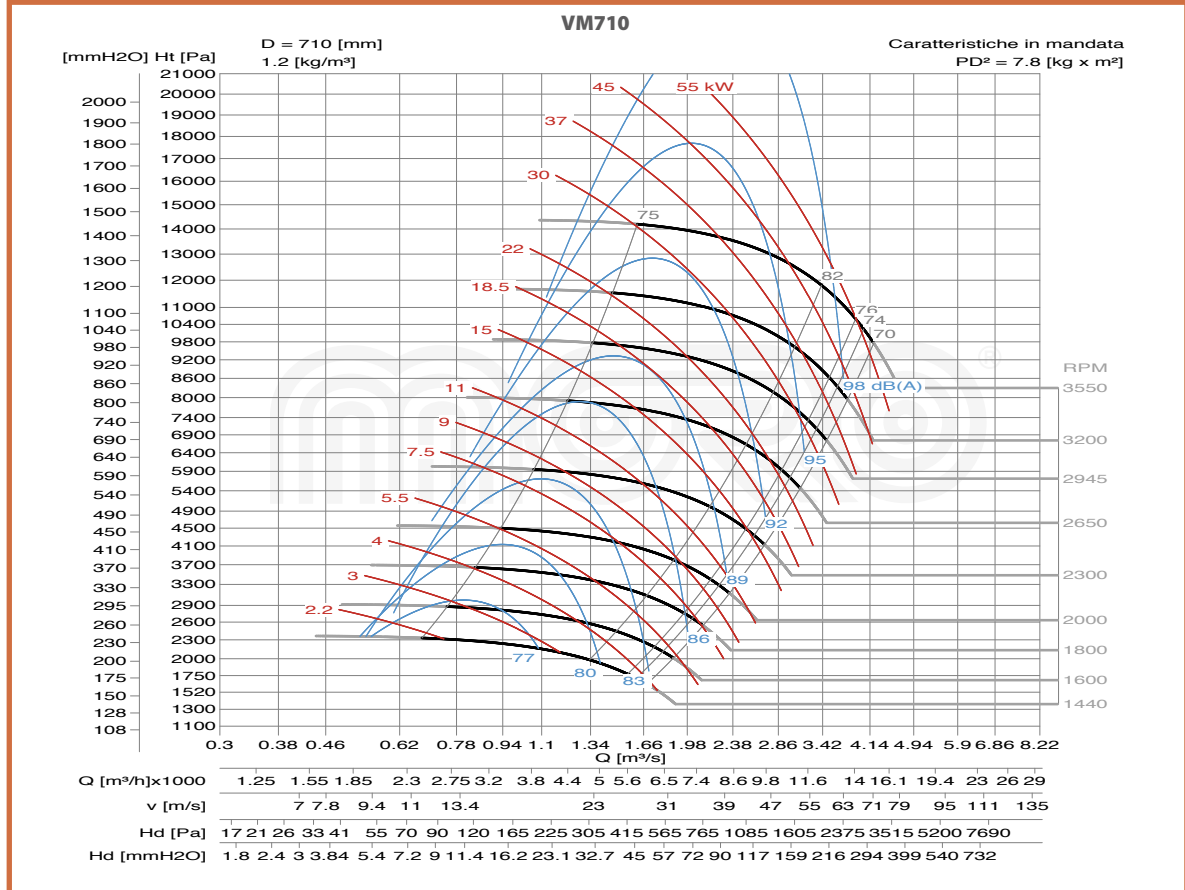
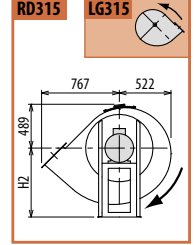
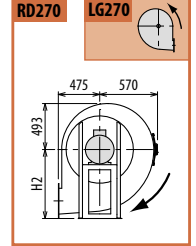
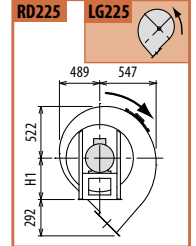
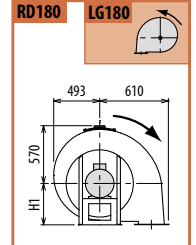
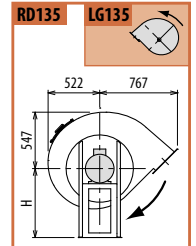
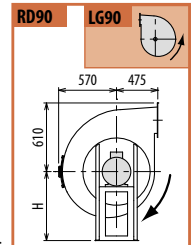
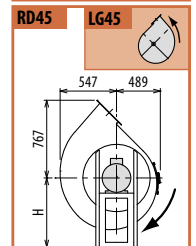
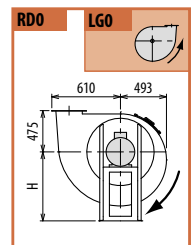
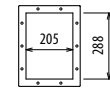
■ Más informaciones y medidas:

TIPO - Type		PESO Weight Kg	PD <sup>2</sup> Kgf x m <sup>2</sup>	B	I	H	H1	H2	J	K	M	Q	R	Ø
VENTILATORE Fan	MOTORE Motor													
VM710/N2R	180 M2	300	7,1	809	357	630	475	630	434	488	460	70	33	17
VM710/N2	200 LA2	390	7,8	917	381	630	475	630	506	568	500	80	39	19
VM710/N2	200 LB2	390	7,8	917	381	630	475	630	506	568	500	80	39	19
VM710/N4R	112 M4	194	7	583	197	630	475	630	289	324	276	30	49	12
VM710/N4	132 S4	211	7,5	623	237	630	475	630	337	372	336	40	59	12
VM710/N/T		237	7,8			550	475	630						

pg. / s.  
3.6

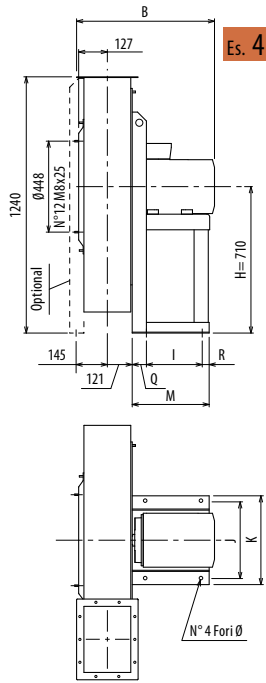


pg. / s.  
3.5

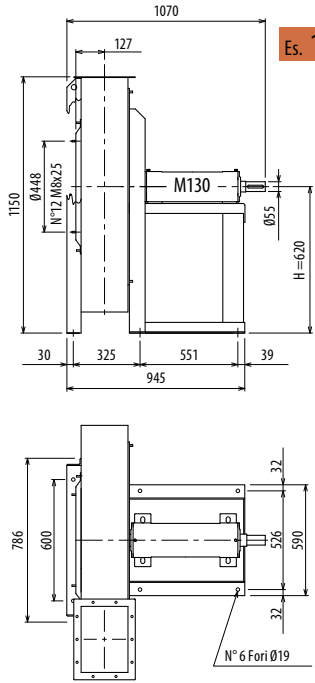




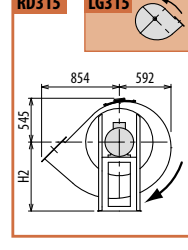
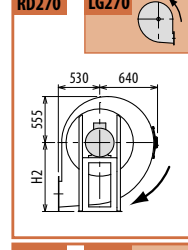
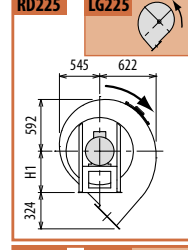
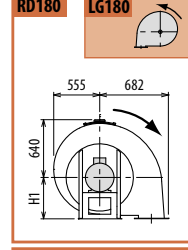
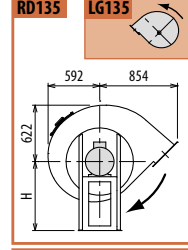
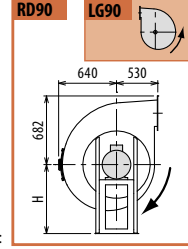
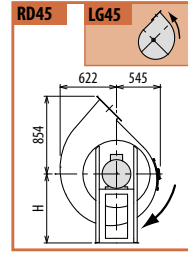
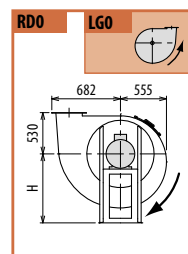
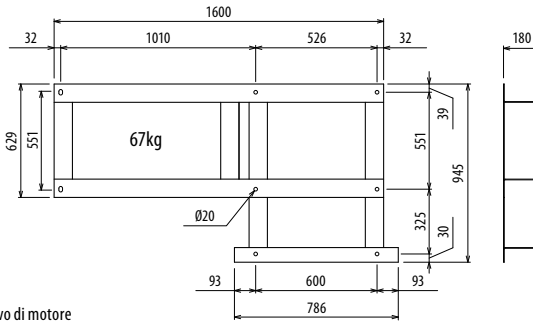
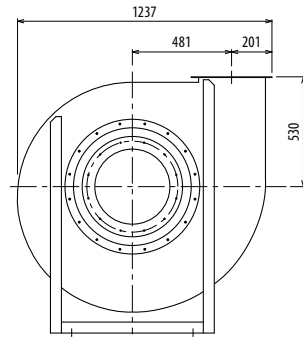
■ DIMENSIONS D'ENCOMBRE ET POIDS/COURBES DE FONCTIONNEMENT ■ OVERALL DIMENSIONS AND WEIGHT/WORKING CURVES  
 ■ AUSMAßE UND GEWICHTE/FUNKTIONSKURVEN ■ DIMENSIONES QUE OCUPA Y PESOS/CURVAS DE FUNCIONAMIENTO



Es. 4



Es. 1



Il ventilatore in Es. 4 senza supporto anteriore è orientabile, in Es. 1 non è orientabile - Peso in tabella comprensivo di motore

■ Le ventilateur en Ex. 4 sans support frontal est orientable, en Ex. 1 n'est pas orientable.  
 Le poids dans le tableau inclut le moteur  
 ■ Der Ventilator in Aus. 4, ohne Vorderhalterung, ist drehbar, in Aus. 1 ist nicht drehbar.  
 Das Gewicht in Tafel schließt den Motor ein

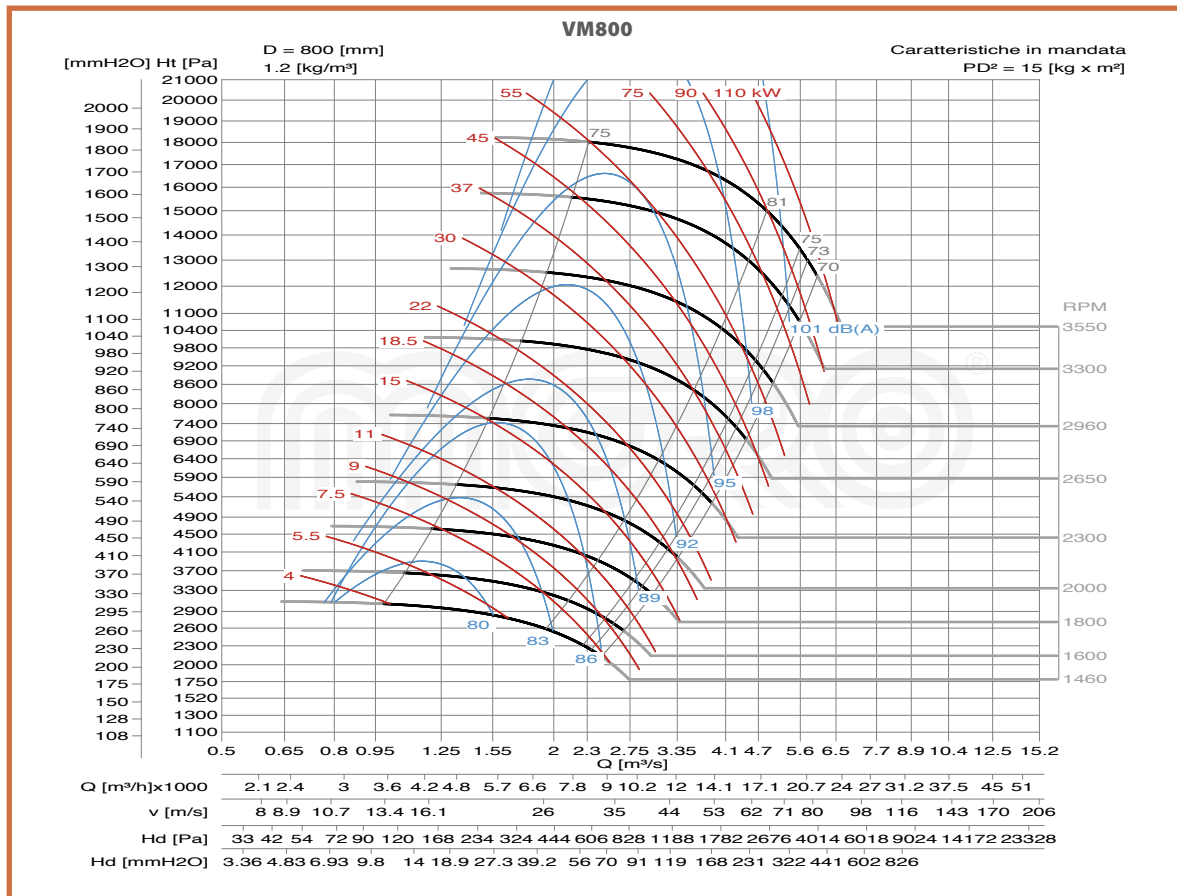
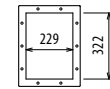
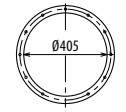
■ The fan in Ex. 4 without front support is revolvable, in Ex. 1 is not revolvable.  
 The weight indicated in the table includes motor  
 ■ El ventilador en Ej. 4 sin soporte delantero es orientable, en Ej. 1 no es orientable.  
 El peso en la tabla incluye el motor

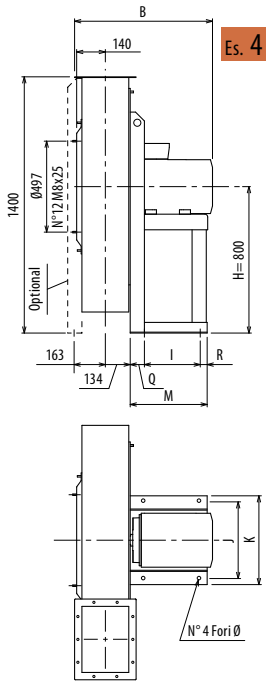
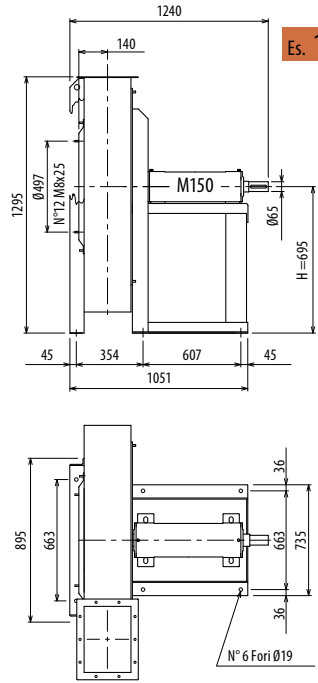
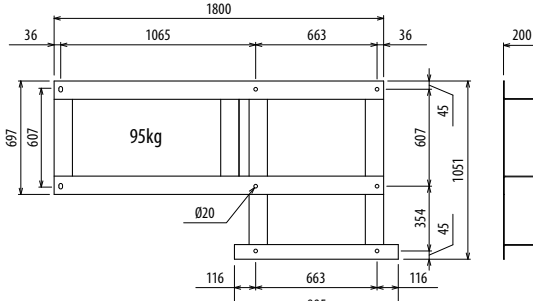
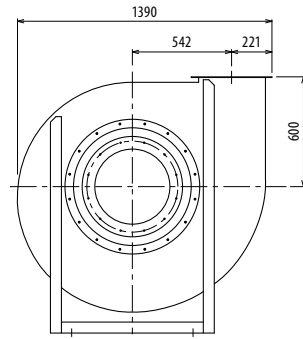
Ulteriori informazioni e quote:  
 ■ Ulterérieures informations et cotes:  
 ■ Further information and sizes:  
 ■ Weitere Infos und Größen:  
 ■ Más informaciones y medidas:

TIPO - Type		PESO Weight Kg	PD <sup>2</sup> Kgf x m <sup>2</sup>	B	I	H	H1	H2	J	K	M	Q	R	Ø
VENTILATORE Fan	MOTORE Motor													
VM800/N2R	225 M2	526	13	984	421	710	530	710	556	616	540	80	39	19
VM800/N2	250 M2	664	15	1092	501	710	530	710	604	690	600	60	39	19
VM800/N2	280 S2	794	15	1095	591	710	530	710	690	750	697	60	46	21
VM800/N4R	132 M4	255	12	648	237	710	530	710	337	372	336	40	59	12
VM800/N4	160 M4	286	14	753	337	710	530	710	395	440	436	50	49	14
VM800/N/T		285	15			620	530	710						

pg. / s. 3,6

pg. / s. 3,5




**Es. 4**

**Es. 1**


Il ventilatore in Es. 4 senza supporto anteriore è orientabile, in Es. 1 non è orientabile - Peso in tabella comprensivo di motore

■ Le ventilateur en Es. 4 sans support frontal est orientable, en Es. 1 n'est pas orientable.

■ The fan in Es. 4 without front support is revolvable, in Es. 1 is not revolvable.

Le poids dans le tableau inclut le moteur

The weight indicated in the table includes motor

■ Der Ventilator in Aus. 4, ohne Vorderhalterung, ist drehbar, in Aus. 1 ist nicht drehbar.

■ El ventilador en Ej. 4 sin soporte delantero es orientable, en Ej. 1 no es orientable.

Das Gewicht im Tafel schließt den Motor ein

El peso en la tabla incluye el motor

Ulteriori informazioni e quote:

■ Ulérieures informations et cotes:

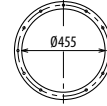
■ Further information and sizes:

■ Weitere Infos und Größen:

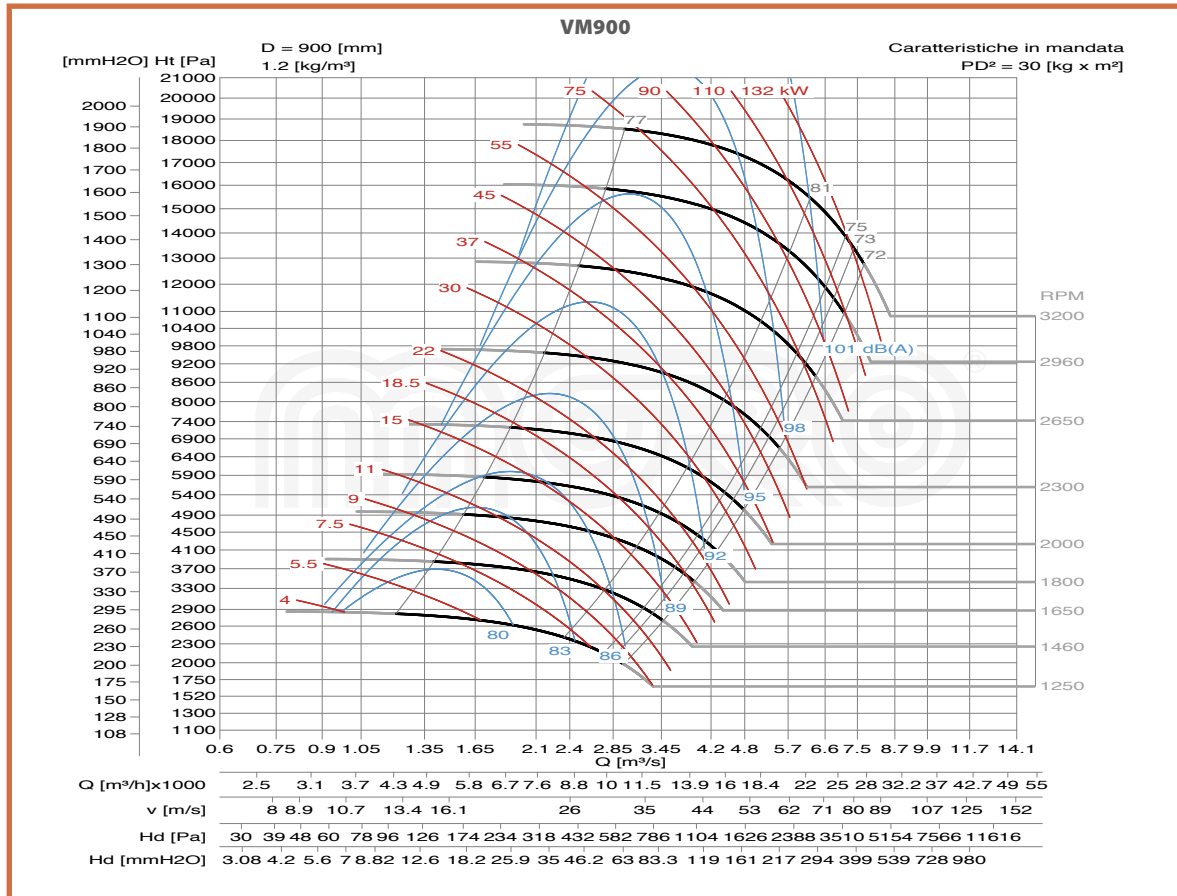
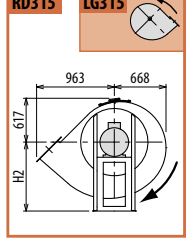
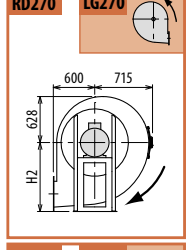
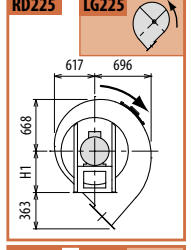
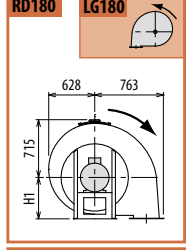
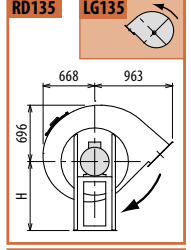
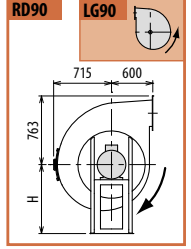
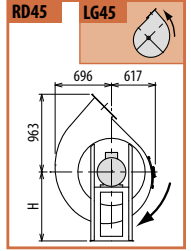
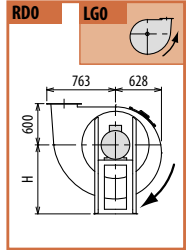
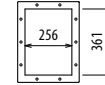
■ Más informaciones y medidas:

TIPO - Type		PESO Weight Kg	PD <sup>2</sup> Kg f x m <sup>2</sup>	B	I	H	H1	H2	J	K	M	Q	R	Ø
VENTILATORE Fan	MOTORE Motor													
VM900/N2R	280 S2	926	26	1122	591	800	600	800	690	750	697	60	46	21
VM900/N2	280 M2	969	30	1122	591	800	600	800	690	750	697	60	46	21
VM900/N2	315 S2	1109	30	1334	675	800	600	800	760	865	800	80	45	24
VM900/N4R	160 M4	380	25	780	337	800	600	800	395	440	436	50	49	14
VM900/N4	160 L4	401	29	780	337	800	600	800	395	440	436	50	49	14
VM900/N/T		437	30			695	600	800						

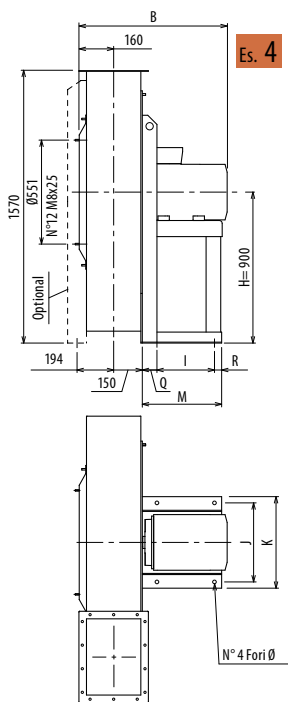
pg. / s. 3.6



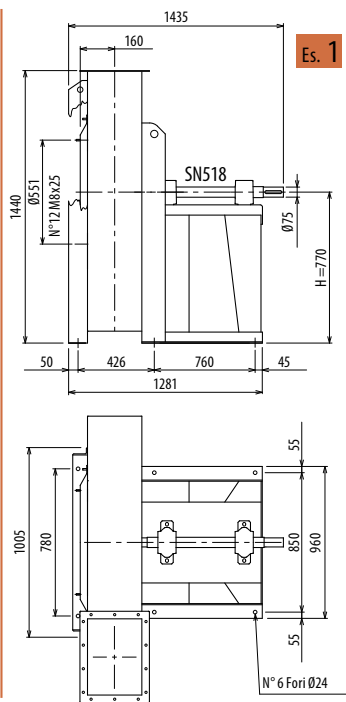
pg. / s. 3.5



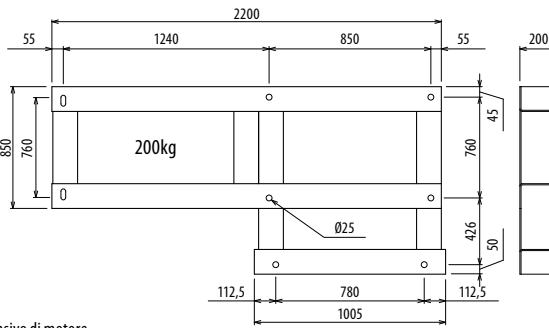
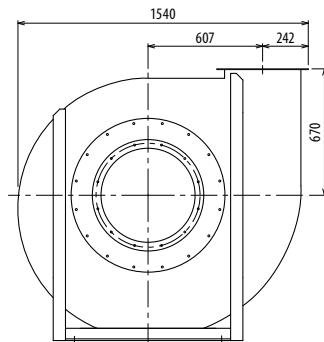
■ DIMENSIONS D'ENCOMBRE ET POIDS/COURBES DE FONCTIONNEMENT ■ OVERALL DIMENSIONS AND WEIGHT/WORKING CURVES  
 ■ AUSMAß UND GEWICHT/FUNKTIONSKURVEN ■ DIMENSIONES QUE OCUPA Y PESOS/CURVAS DE FUNCIONAMIENTO



Es. 4



Es. 1



Il ventilatore in ES. 4 senza supporto anteriore è orientabile, in ES. 1 non è orientabile - Peso in tabella comprensivo di motore

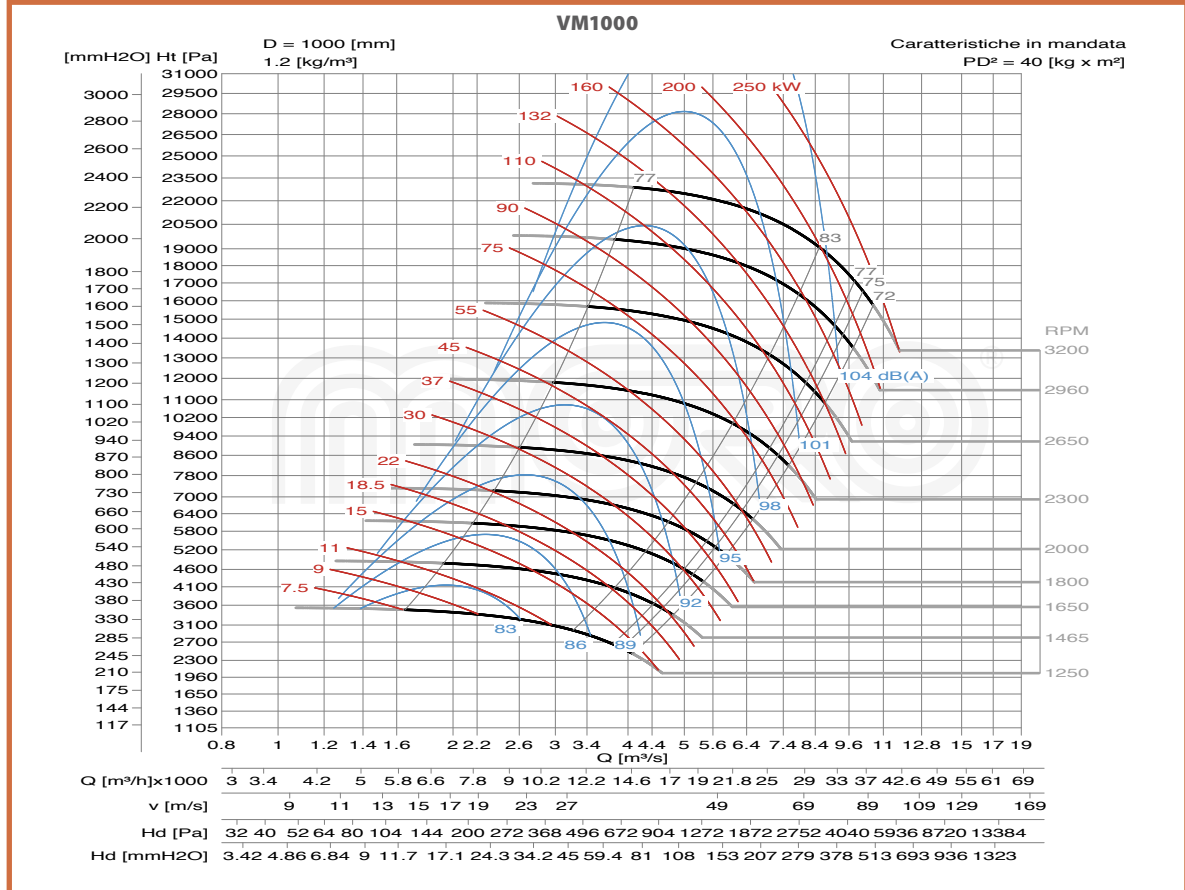
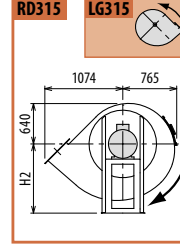
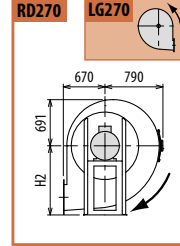
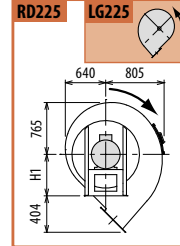
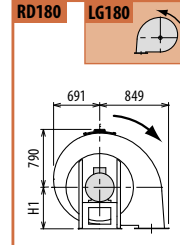
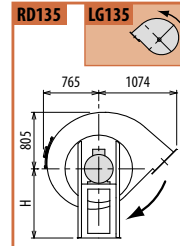
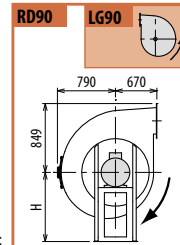
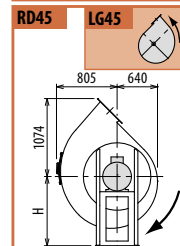
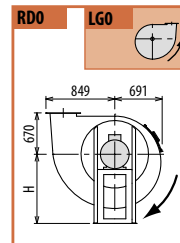
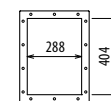
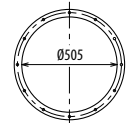
- Le ventilateur en Ex. 4 sans support frontal est orientable, en Ex. 1 n'est pas orientable. ■ The fan in Ex. 4 without front support is revolvable, in Ex. 1 is not revolvable.
- Le poids dans le tableau inclut le moteur ■ The weight indicated in the table includes motor
- Der Ventilator in Aus. 4, ohne Vorderhalterung, ist drehbar, in Aus. 1 ist nicht drehbar. ■ El ventilador en Ej. 4 sin soporte delantero es orientable, en Ej. 1 no es orientable.
- Das Gewicht im Tafel schließt den Motor ein ■ El peso en la tabla incluye el motor

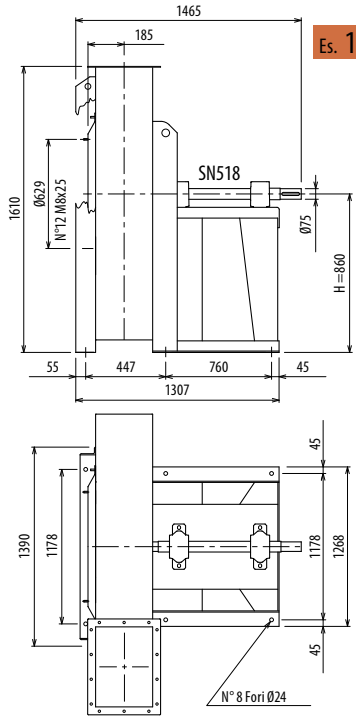
Ulteriori informazioni e quote:  
 ■ Ulteriori informazioni e quote:  
 ■ Further information and sizes:  
 ■ Weitere Infos und Größen:  
 ■ Más informaciones y medidas:

TIPO - Type		PESO Weight Kg	PD <sup>2</sup> Kg x m <sup>2</sup>	B	I	H	H1	H2	J	K	M	Q	R	Ø
VENTILATORE Fan	MOTORE Motor													
VM1000/N2R	315 S2	1240	35	1366	675	900	670	900	760	865	800	80	45	24
VM1000/N2R	315 M2	1400	35	1366	675	900	670	900	760	865	800	80	45	24
VM1000/N2	315 L2	1460	40	1366	675	900	670	900	760	865	800	80	45	24
VM1000/N2	315 L2	1660	40	1366	675	900	670	900	760	865	800	80	45	24
VM1000/N4R	180 M4	620	34	893	357	900	670	900	434	488	460	70	33	17
VM1000/N4	180 L4	640	39	944	357	900	670	900	434	488	460	70	33	17
VM1000/N/T		690	40			770	670	900						

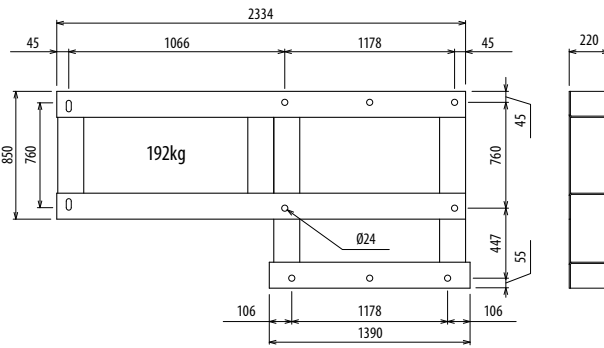
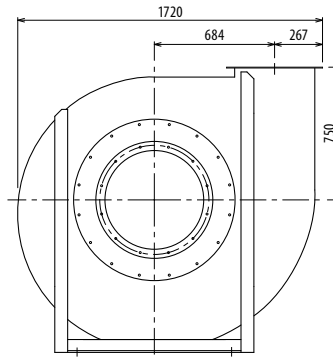
pg. / s. 3.6

pg. / s. 3.5





Es. 1



Il ventilatore non è orientabile

■ Le ventilateur n'est pas orientable

■ The fan is not revolvable

■ Der Ventilator ist nicht drehbar

■ El ventilador no es orientable

Ulteriori informazioni e quote:

■ Ulérieures informations et cotes:

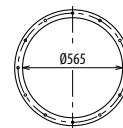
■ Further information and sizes:

■ Weitere Infos und Größen:

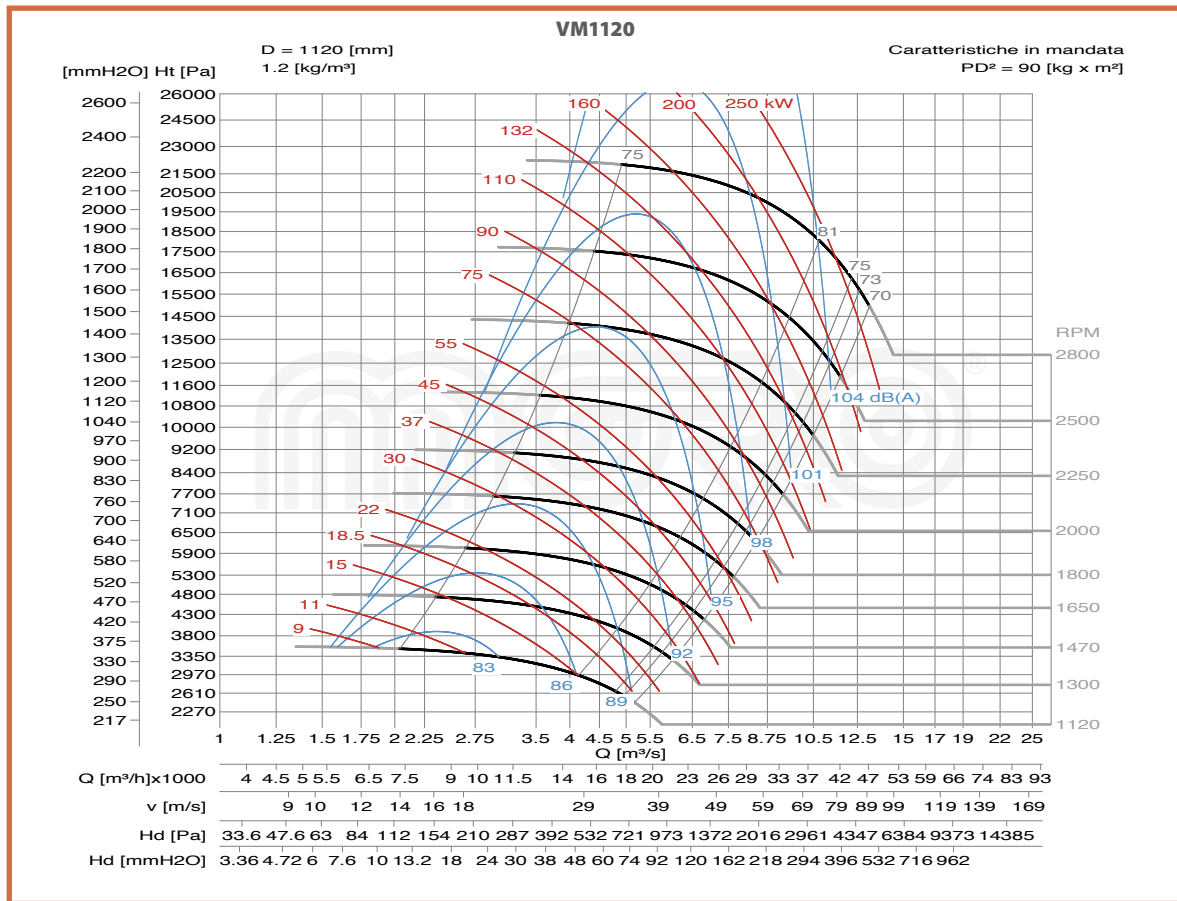
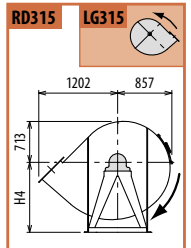
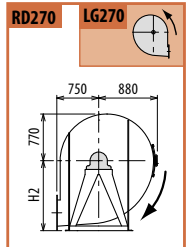
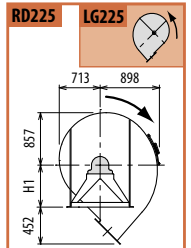
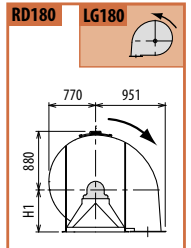
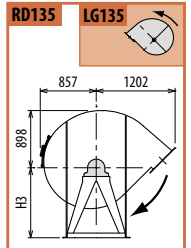
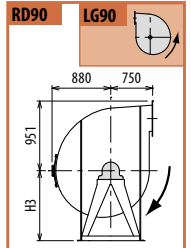
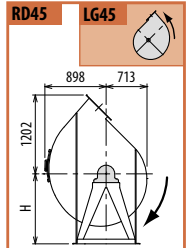
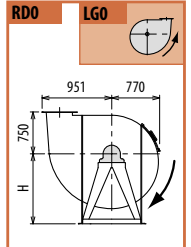
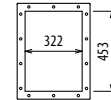
■ Más informaciones y medidas:

TIPO - Type		PESO Weight Kg	PD <sup>2</sup> Kgf x m <sup>2</sup>	B	I	H	H1	H2	H3	H4	M
VENTILATORE Fan	MOTORE Motor										
VM1120/N/T		738	90			860	750	1000	860	1000	

pg. / s. 3.6



pg. / s. 3.5

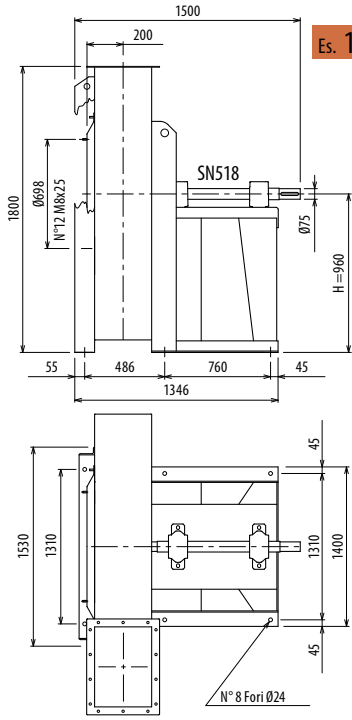


# DIMENSIONI D'INGOMBRO E PESI/CURVE DI FUNZIONAMENTO

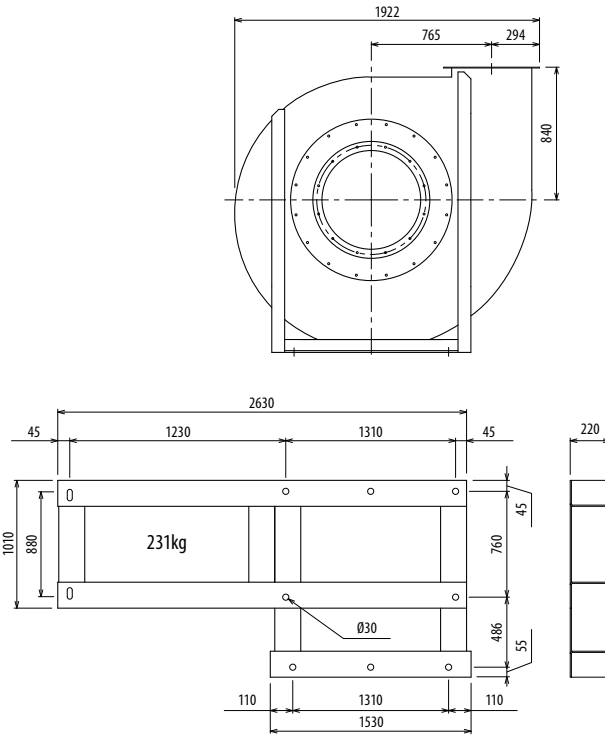
# VM1250/N



■ DIMENSIONS D'ENCOMBREMENT ET POIDS/COURBES DE FONCTIONNEMENT ■ OVERALL DIMENSIONS AND WEIGHT/WORKING CURVES  
 ■ AUSMAßE UND GEWICHTE/FUNKTIONSKURVEN ■ DIMENSIONES QUE OCUPA Y PESOS/CURVAS DE FUNCIONAMIENTO



Es. 1



Il ventilatore non è orientabile

■ Le ventilateur n'est pas orientable

■ The fan is not revolvable

■ Der Ventilator ist nicht drehbar

■ El ventilador no es orientable

Ulteriori informazioni e quote:

■ Ulérieures informations et cotes:

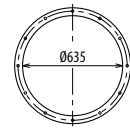
■ Further information and sizes:

■ Weitere Infos und Größen:

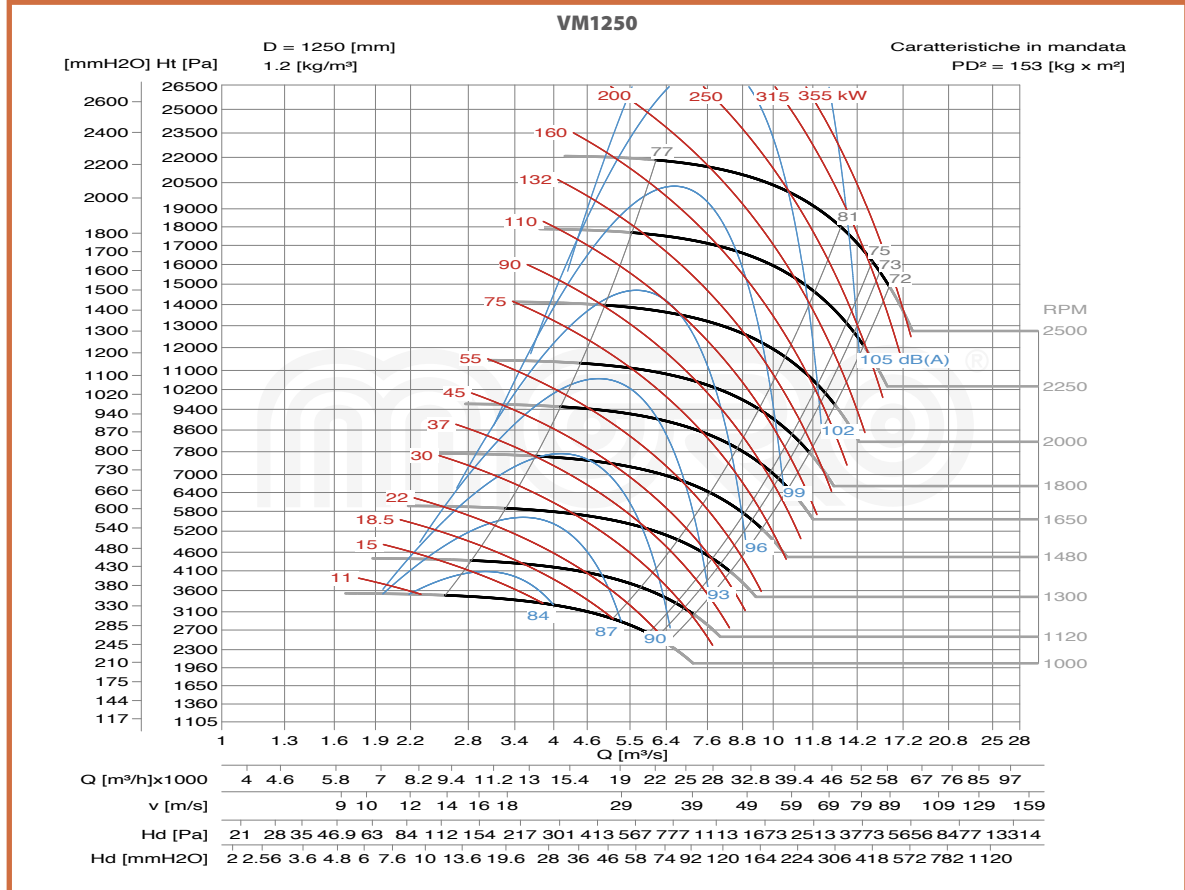
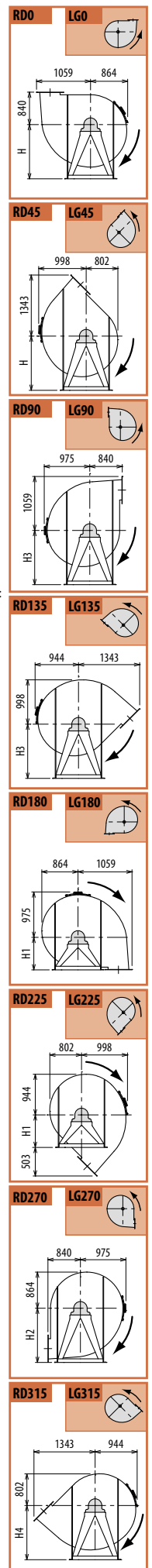
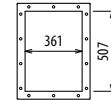
■ Más informaciones y medidas:

TIPO - Type		PESO Weight Kg	PD <sup>2</sup> Kg x m <sup>2</sup>	B	I	H	H1	H2	H3	H4	M
VENTILATORE Fan	MOTORE Motor										
VM1250/N/T		1105	153			960	840	1120	960	1120	

pg. / s. 3.6



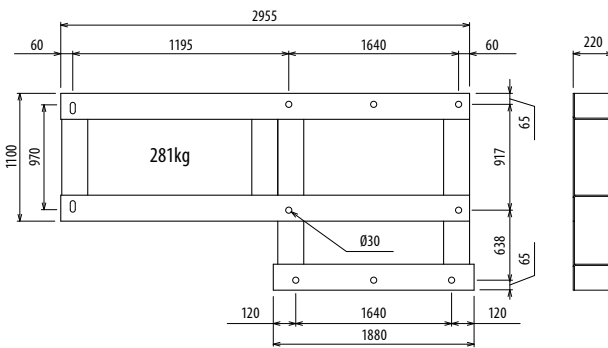
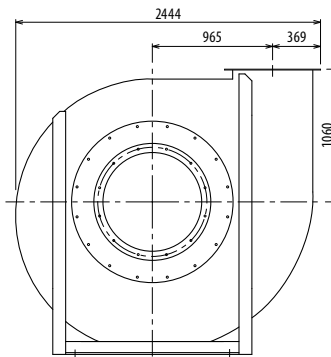
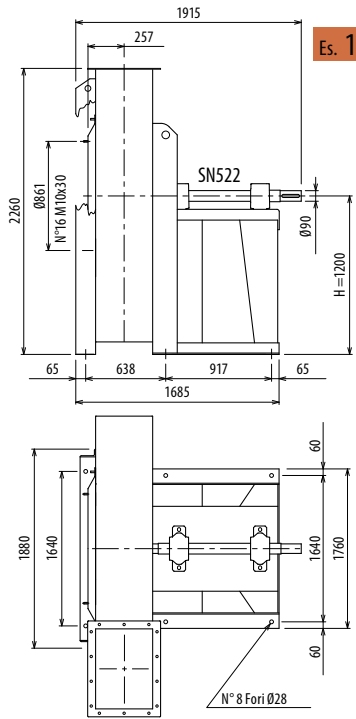
pg. / s. 3.5











Il ventilatore non è orientabile

■ Le ventilateur n'est pas orientable

■ The fan is not revolvable

■ Der Ventilator ist nicht drehbar

■ El ventilador no es orientable

Ulteriori informazioni e quote:

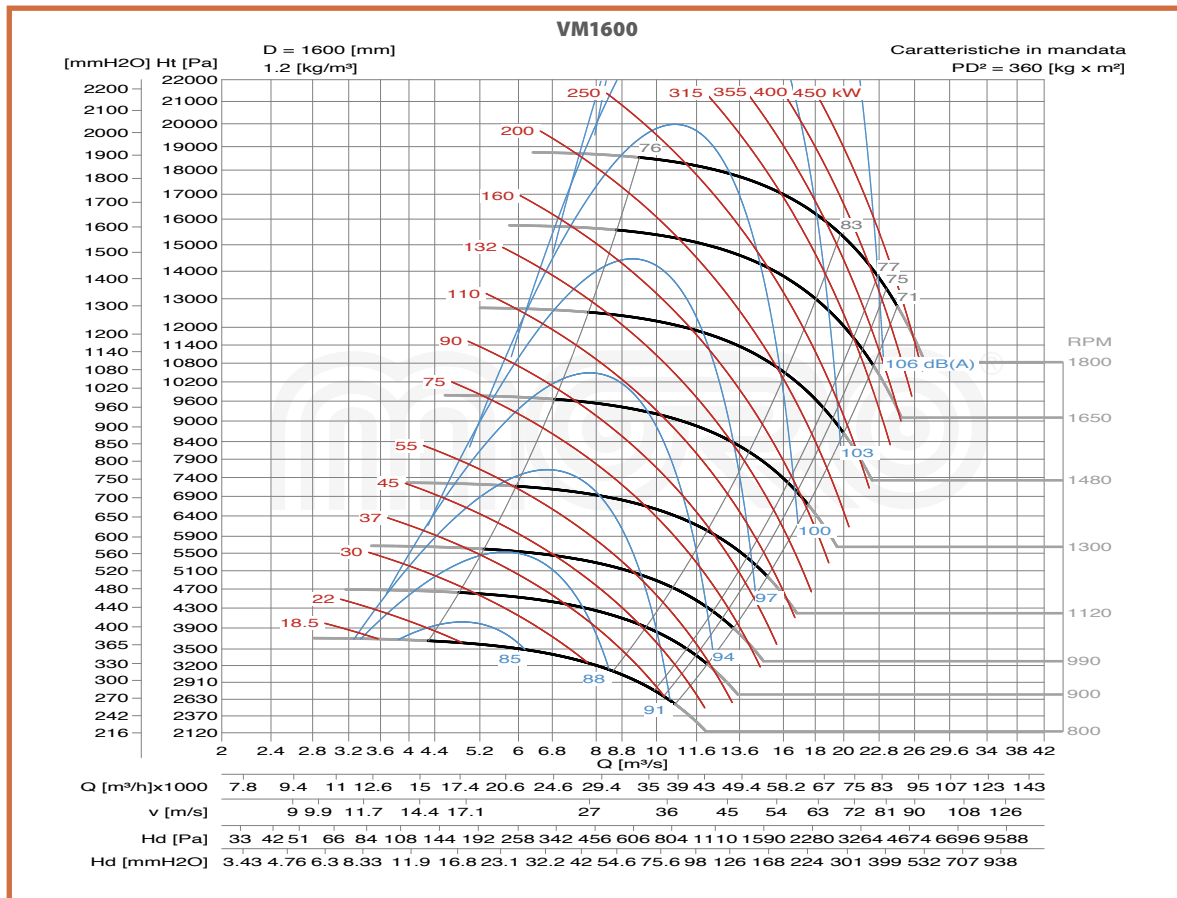
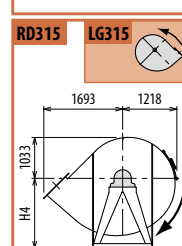
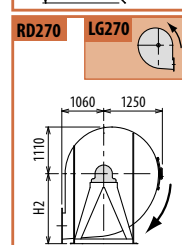
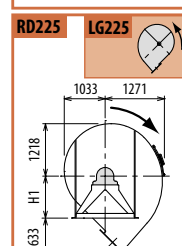
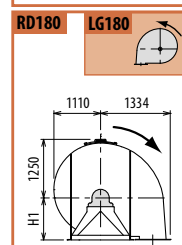
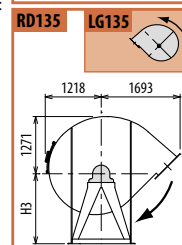
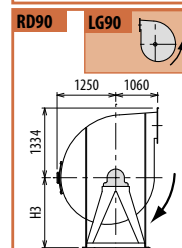
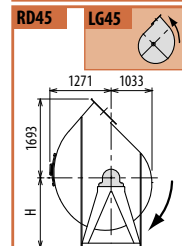
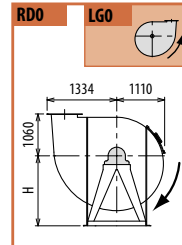
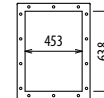
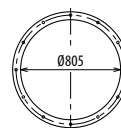
■ Ulérieures informations et cotes:

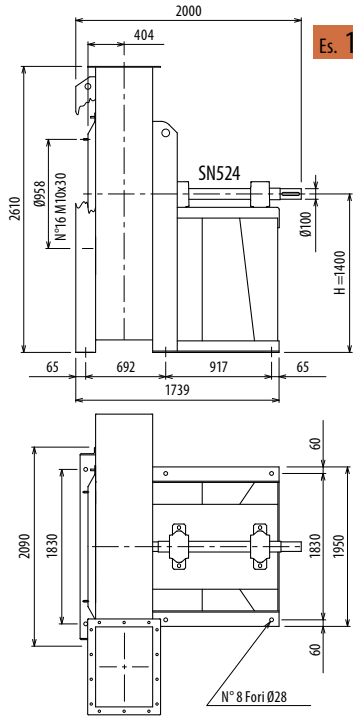
■ Further information and sizes:

■ Weitere Infos und Größen:

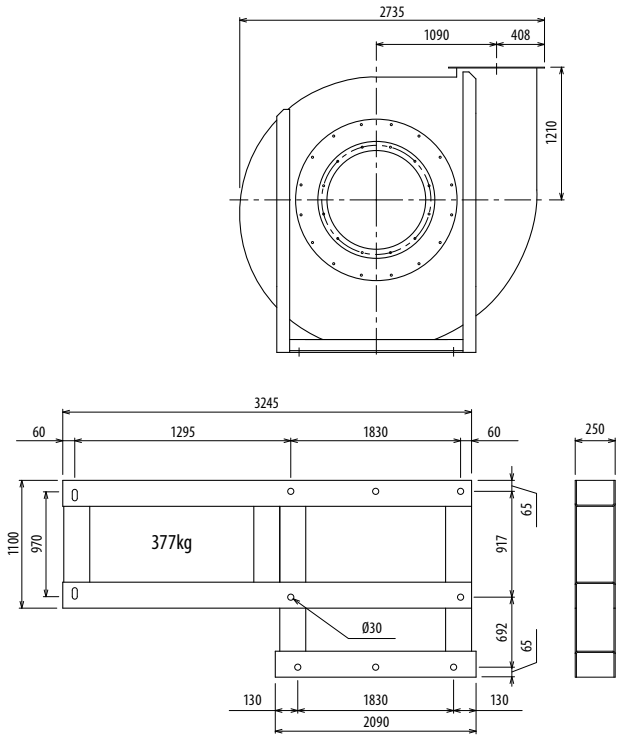
■ Más informaciones y medidas:

TIPO - Type		PESO Weight Kg	PD <sup>2</sup> Kg f x m <sup>2</sup>	B	I	H	H1	H2	H3	H4	M	pg. / s. 3.6
VENTILATORE Fan	MOTORE Motor											
VM1600/N/T		1713	360			1200	1060	1400	1120	1400		pg. / s. 3.5





Es. 1



Il ventilatore non è orientabile

■ Le ventilateur n'est pas orientable

■ The fan is not revolvable

■ Der Ventilator ist nicht drehbar

■ El ventilador no es orientable

Ulteriori informazioni e quote:

■ Ulérieures informations et cotes:

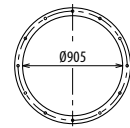
■ Further information and sizes:

■ Weitere Infos und Größen:

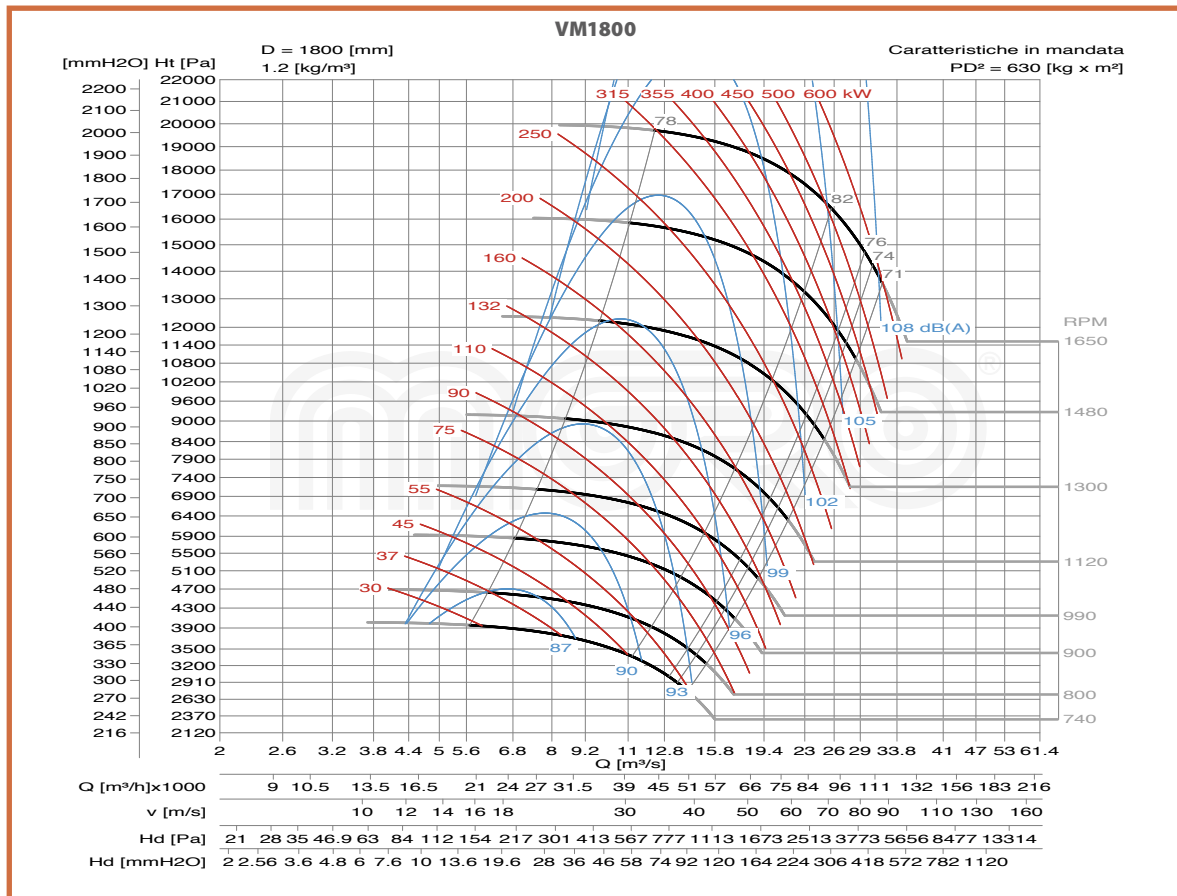
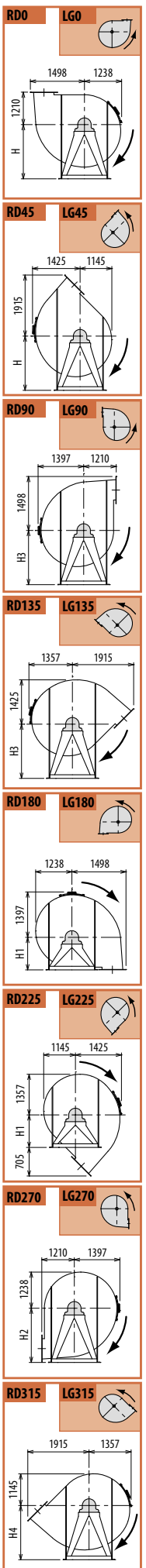
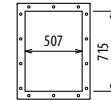
■ Más informaciones y medidas:

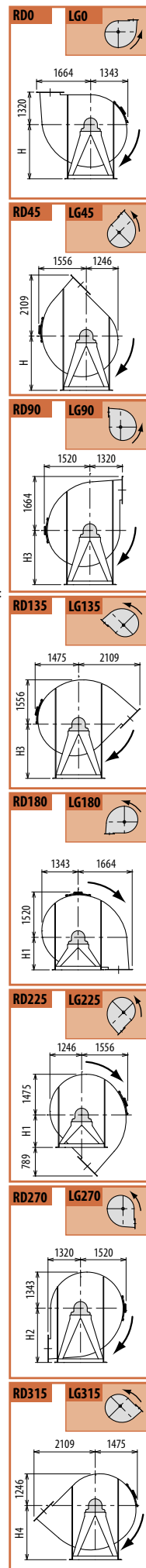
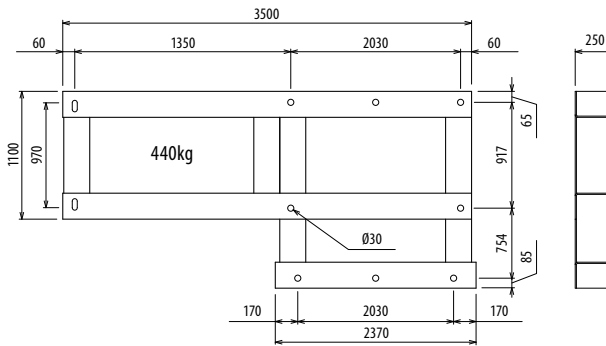
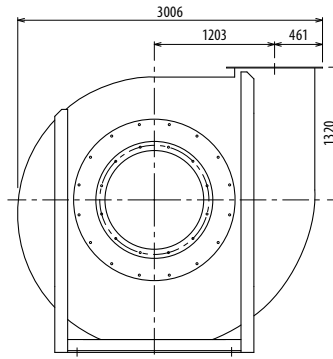
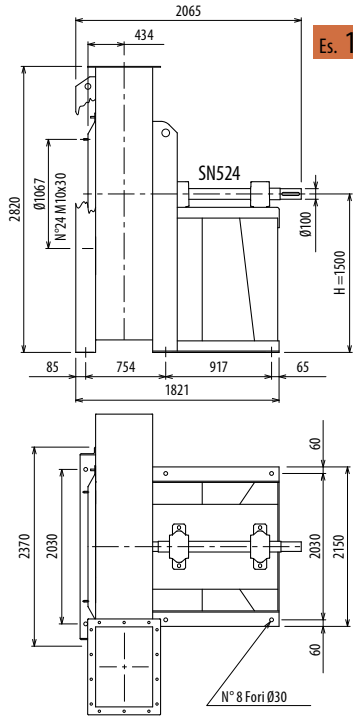
TIPO - Type		PESO Weight Kg	PD <sup>2</sup> Kgf x m <sup>2</sup>	B	I	H	H1	H2	H3	H4	M
VENTILATORE Fan	MOTORE Motor										
VM1800/N/T		2370	630			1400	1210	1550	1250	1400	

pg. / s. 3.6



pg. / s. 3.5





Il ventilatore non è orientabile

■ Le ventilateur n'est pas orientable

■ The fan is not revolvable

■ Der Ventilator ist nicht drehbar

■ El ventilador no es orientable

Ulteriori informazioni e quote:

■ Ulérieures informations et cotes:

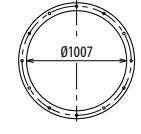
■ Further information and sizes:

■ Weitere Infos und Größen:

■ Más informaciones y medidas:

TIPO - Type		PESO Weight Kg	PD² Kgf x m²	B	I	H	H1	H2	H3	H4	M
VENTILATORE Fan	MOTORE Motor										
VM2000/N/T		3064	1120			1500	1320	1800	1400	1600	

pg. / s. 3.6



pg. / s. 3.5

