Centrifugal Fan NO. 4-79、4-72

4–79/70（72）型离心风机

ISO14001

ISO9001

国家质量管理奖

4-79、4-70(72)型离心式通风机

4-79、4-70(72)Series centrifugal fans

一、概述

4-79、4-70(72)型离心式通风机系引进日本ミツヤ株式会社的先进技术并通过公司工程技术中心进行吸收、消化、创新、开发而成功的。系列入国家级计划开发项目。其性能指标优于我国通用的4-79型、4-72型离心式通风机，该风机较老式风机噪声低5~8dB(A)，外形尺寸比较老式风机紧凑，效率及比A声级优于机械工业部制订的A级标准。4-70型通风机共15种机号，风量930~154，000m³/h，风压170~2，950Pa；4-79型通风机共20种机号，风量1，100~438，000m³/h，风压230~3，320Pa，用户可根据不同参数选择。该风机因效率高，噪声低、运行可靠而畅销全国各省市，还出口东南亚、港、台等地区，广大用户给予一致好评。

General

Type 4-79、4-70(72) centrifugal fans are designed and developed by our engineering technology center with the absorption and improvement of the advanced technology from Mitsuya Fan Manufacturing Co ,Japan. The products is listed into the national design develop project. The performance of this range is better than the traditional type 4-79、4-72 centrifugal fans. The noise is lower 5~8dB(A)than traditional fans, compact structure and better efficiency and A-weighted sound level than the standard A drawn by Machinery Industrial Ministry. Type 4-70 centrifugal fan is divided into fifteen sizes with air volume ranging fron 1,100 to 438,000m³/h and air pressure from 230 to 3,320Pa.The user can be selected the optimized fan size as per the different performance data. Because of the high efficiency, low noise and reliable operation of the fan, there are good markets for then in China including Hong Kong and Taiwan,also in South and East Asia, and awarded by all of the users.

(一)、4-79 、4-70(72)型离心风机用途和使用条件

应用场所：广泛应用于各类大中型工厂和高级民用建筑、大型广场、馆、所输出气体的室内换气通风。

输送气体种类：空气内不含易燃易爆、腐蚀性的气体。

气体内的杂质：气体内不许有粘性物质，所含的尘土及硬质颗粒不大于150mg/m3.

如由于使用场合带有腐蚀性气体，温度超过80℃，或空气中含一定尘量的气体，则可以根据用途不同，选择不同材料制作成防爆；防腐、耐高温型风机，以满足广大用户的需要。

Type 4-79 、4-70(72) Fans Application & Operating Conditions

Place of application:4-70 centrifugal fans may be applied widely to the ventilation or air-exchange of large and middle-scale enterprises and advanced buildings, hotels and so on.

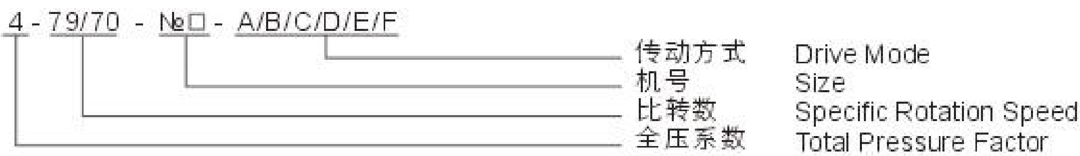
Kind of conveying gases: The conveying gas without containing combustible,explosive gases.

Impurity: Stickiness mater isn′t permissible,dust and hard particles is not more than 150mg/m3.

Special construction:If the conveying gas is explosive, corrosive, dusty or in high temperature (more than 80℃),specisl material (e. G. Glass/nylon) may be used to construct ant explosion/corrosion/wearing or high temperature 4-70 car refusal fans to meet all the user′ demands.

4-79、4-70（72）型离心风机表示方式

4-79、4-70（72）Centrifugal Fans Express Method

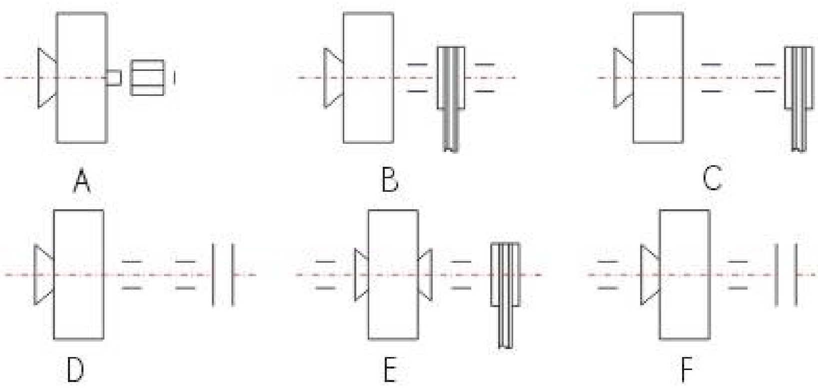


例：4-70-№ 5A 表示单吸入结构形式，全压系数为0.4，比转数为70，叶轮直径500mm，电机直联传动。

再例：4-79-№ 10E 表示双吸入结构形式，全压系数为0.4，比转数为79，叶轮直径为1000mm，电机皮带传动。

(三)、4-79、4-70(72)型离心风机六种传动方式示意图如下：

Six Drive Modes Described In The Following Fingers.

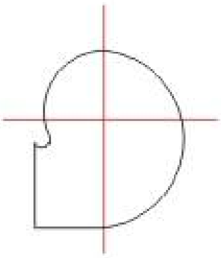


4-79、4-70(72)型离心风机型式

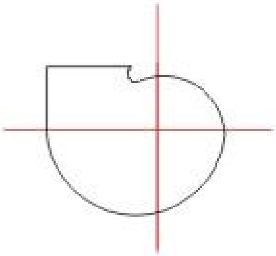
4-79、4-70(72)Fans Rotation Direction

风机分左旋和右旋两种形式，从电机一端正视，叶轮按顺时针方向旋转，称为右旋风机，以“右”表示；按逆时针方向旋转，称为左旋风机，以“左”表示。风机旋转方向及出口位置示意图如下：

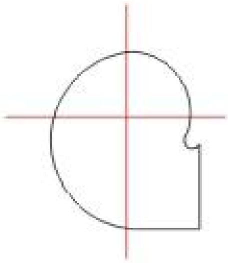
4-79、4-70(72) centrifugal fans are divided into two types according to the rotation direction of the wheel they are the right-rotation fans(R) and left-rotation fans(L). Right-or left-fans wheels turn clockwise or anticlockwise respectively as looking towards from the motor end.



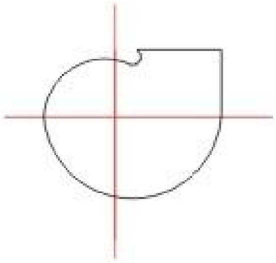
右 0



右 90



左 0



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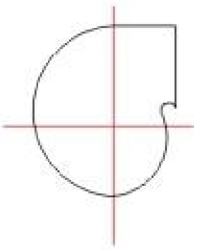
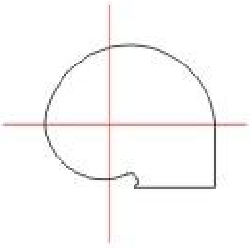
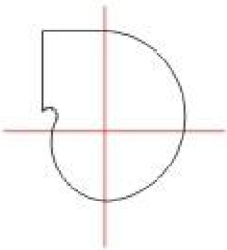


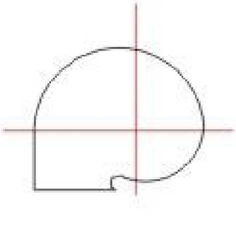
右 180



右 270



左 180



左270

4-79 性能参数表

4-79型离心风机性能参数表

4-79Series Centrifugal Fan Performance Parameters

机号 Machine Number	转数 Speed (r/min)	全压 Total Pressure (Pa)	流量 Air-flow Rate (m^3/h)	电机功率 Motor Power (kw)	重量 Weight (kg)
3A	2900	1190-910	2180-3480	1.5	57
	1450	300-230	110-1740	0.55	58
3.5A	2900	1620-1230	3460-5520	3.0	69
	1450	410-310	1750-2760	0.75	69
4A	2900	2120-1610	5220-8240	5.5	93
	1450	530-400	2610-4120	1.1	82
4.5A	2900	2680-2040	7440-11720	11	96
	1450	670-510	3720-5860	1.5	100
5A	2900	3320-2520	10200-16100	15	125
	1450	830-630	5100-8050	2.2	125
6A	1450	1200-910	8820-13920	5.5	160
	960	530-410	5840-9220	1.5	137

机号 Machine Number	转数 Speed (r/min)	全压 Total Pressure (Pa)	流量 Air-flow Rate (m^3/h)	电机功率 Motor Power (kw)	三角胶带V-belt			风机轮 Driven Pulley	电机轮 Driving pulley	电机导轨 Chute-rail	重量 Weight (kg)
					型号 Type	根数 Qty	长度 Length				
7C	1800	2510-1910	17400-27600	4P-22	C	4	3658	54-C_4-280	48-C_4-350	SHT-2	534
	1600	1980-1510	15450-24500	4P-15	B	4	3353	54-B_4-280	42-B_4-310	SHT-2	513
	1250	1210-920	12120-19160	4P7.5	B	4	3353	54-B_4-280	38-B_4-240	SHT-1	458
	1120	970-740	10830-17200	4P-5.5	B	4	3353	54-B_4-280	38-B_4-215	SHT-1	433
	1000	770-590	9660-15300	4P-4	B	4	3175	54-B_4-280	28-B_4-195	SHT-1	428
	900	620-480	8690-13800	4P-3	A	2	3175	54-A_2-280	28-A_2-175	SHT-1	424
	800	490-380	7730-12240	4P-2.2	A	2	3175	54-A_2-280	28-A_2-155	SHT-1	417
	710	390-300	6850-10870	4P-1.5	A	2	3175	54-A_2-280	28-A_2-135	SHT-1	412

4-79型离心风机性能参数表
4-79Series Centrifugal Fan Performance Parameters

机号 Machine Number	转数 Speed (r/min)	全压 Total Pressure (Pa)	流量 Air-flow Rate (m^3/h)	电机功率 Motor Power (kW)	三角胶带V-belt 型号 Type	三角胶带V-belt 根数 Qty	三角胶带V-belt 长度 Length	风机轮 Driven Pulley	电机轮 Driving pulley	电机导轨 Chute-rail	重量 Weight (kg)
8C	1600	2500-1910	24000-38100	4P-30	C	4	3658	54-C_4-280	55-C_4-280	SHT-3	627
	1270	1580-1200	19100-30200	4P-15	B	4	3658	54-B_4-280	42-B_4-245	SHT-2	560
	1120	1230-940	16800-26700	4P-11	B	4	3658	54-B_4-280	42-B_4-215	SHT-2	518
	1000	980-750	15000-23800	4P-7.5	B	4	3556	54-B_4-280	38-B_4-195	SHT-1	505
	900	790-610	13500-21400	4P-5.5	B	4	3556	54-B_4-280	38-B_4-175	SHT-1	480
	800	625-480	12000-19050	4P-4	B	4	3556	54-B_4-280	28-B_4-155	SHT-1	475
	710	480-380	10660-16900	4P-3	A	2	3556	54-A_2-280	28-A_2-135	SHT-1	471
	630	390-300	9460-15000	6P-2.2	A	2	3556	54-A_2-280	28-A_2-185	SHT-1	470
10C(E)	1300	2660-1810	38500-63500	4P-55	D	5	4572	65-D_5-380	65-D_5-340	SHT-4	1104
	1170	2160-1470	34600-57100	4P-37	D	5	4572	65-D_5-380	65-D_5-305	SHT-3	1090
	1000	1570-1070	29600-48800	4P-22	C	4	4521	65-C_4-380	48-C_4-260	SHT-2	1000
	940	1390-950	27850-45900	4P-18.5	B	4	4521	65-B_4-380	48-B_4-245	SHT-2	964
	830	1080-740	24550-40500	4P-15	B	4	4521	65-B_4-380	42-B_4-215	SHT-2	943
	740	860-590	21900-36100	4P-11	B	4	4521	65-B_4-380	42-B_4-195	SHT-2	901
	660	680-470	19500-32200	6P-7.5	B	4	4521	65-B_4-380	42-B_4-260	SHT-2	904
	580	530-360	17160-28300	6P-5.5	B	4	4521	65-B_4-380	38-B_4-230	SHT-1	893
	520	420-290	15400-25400	6P-4	B	4	4521	65-B_4-380	38-B_4-205	SHT-1	883
10C(E)	1040	2440-1670	53300-87800	4P-75	D	5	4572	65-D_5-380	75-D_5-270	SHT-4	1629
	941	1990-1360	48200-79300	4P-55	D	5	4572	65-D_5-380	65-D_5-245	SHT-4	1486
	830	1560-1060	42500-70100	6P-37	D	5	4572	65-D_5-380	65-D_5-330	SHT-4	1452
	740	1240-840	37800-62400	6P-22	C	4	4572	65-C_4-380	55-C_4-290	SHT-3	1422
	660	980-670	33800-55700	6P-18.5	C	4	4572	65-C_4-380	55-C_4-260	SHT-3	1349
	580	770-520	29700-48900	6P-11	B	4	4521	65-B_4-380	42-B_4-230	SHT-2	1321
	520	615-410	26650-43900	6P-7.5	B	4	4521	65-B_4-380	42-B_4-205	SHT-1	1286
	470	500-340	24100-39700	6P-5.5	B	4	4521	65-B_4-380	38-B_4-185	SHT-1	1276
	420	395-270	21500-35450	6P-4	B	4	4521	65-B_4-380	38-B_4-165	SHT-1	1265

4-79型离心风机性能参数表
4-79Series Centrifugal Fan Performance Parameters

机号 Machine Number	转数 Speed (r/min)	全压 Total Pressure (Pa)	流量 Air-flow Rate (m^3/h)	电机功率 Motor Power (kw)	三角胶带V-belt			风机轮 Driven Pulley	电机轮 Driving pulley	电机导轨 Chute-rail	重量 Weight (kg)
					型号 Type	根数 Qty	长度 Length				
14E	830	2130-1450	67400-111000	6P-75	D	5	6096	90-D_5-480	80-D_5-410	SHT-5	1629
	740	1600-1150	60100-98900	6P-55	D	5	5588	90-D_5-480	75-D_5-375	SHT-4	1486
	680	1430-970	55300-90900	6P-37	D	5	5588	90-D_5-480	65-D_5-340	SHT-4	1452
	580	1040-700	47100-77500	6P-22	C	4	5588	90-C_4-480	55-C_4-300	SHT-3	1422
	520	830-560	42200-69500	6P-18.5	C	4	5334	90-C_4-480	48-C_4-265	SHT-3	1349
	460	650-440	37300-61500	6P-15	B	4	5334	90-B_4-480	48-B_4-236	SHT-2	1321
	420	540-370	34050-56200	6P-11	B	4	5334	90-B_4-480	42-B_4-212	SHT-2	1286
	370	420-280	30000-49400	6P-7.5	B	4	5334	90-B_4-480	42-B_4-190	SHT-2	1276
	330	330-230	26800-44100	6P-5.5	B	4	5334	90-B_4-480	42-B_4-170	SHT-1	1265
16E	740	2220-1510	89700-147800	6P-90	D	5	6858	90-D_5-590	80-D_5-455	SHT-5	2987
	660	1760-1200	80100-131900	6P-75	D	5	6858	90-D_5-590	80-D_5-410	SHT-5	2725
	580	1360-920	70300-115900	6P-55	D	5	6858	90-D_5-590	75-D_5-355	SHT-4	2662
	510	1050-710	61700-101900	6P-37	D	5	6350	90-D_5-590	65-D_5-315	SHT-4	2607
	470	890-610	56900-94000	6P-30	C	4	6350	90-C_4-590	60-C_4-300	SHT-3	2474
	420	710-490	50800-84000	6P-18.5	C	4	6350	90-C_4-590	35-C_4-265	SHT-3	2422
	370	550-380	44800-74100	6P-15	B	4	6350	90-B_4-590	48-B_4-236	SHT-2	2358
	330	440-300	40000-66100	6P-11	B	4	6096	90-B_4-590	42-B_4-200	SHT-2	2340
	290	340-230	35100-58000	6P-7.5	B	4	6096	90-B_4-590	42-B_4-236	SHT-2	2320
18E	660	2230-1520	114000-187900	6P-110	D	7	7112	100-D_7-640	80-D_7-440	SHT-5	4244
	580	1720-1170	100200-165100	8P-75	D	5	7112	100-D_5-640	80-D_5-510	SHT-5	4147
	520	1390-950	89900-148100	8P-55	D	5	7112	100-D_5-640	80-D_5-475	SHT-5	4061
	470	1130-770	81200-133800	8P-45	D	5	6858	100-D_5-640	75-D_5-410	SHT-4	3853
	420	900-610	72500-119500	8P-30	C	4	6858	100-C_4-640	65-C_4-375	SHT-4	3773
	370	700-470	63800-105400	8P-22	C	4	6858	100-C_4-640	60-C_4-330	SHT-3	3673
	330	560-370	56900-94000	8P-15	C	4	6858	100-C_4-640	55-C_4-300	SHT-3	3644
	290	430-290	50400-82600	8P-11	B	4	6350	100-B_4-640	48-B_4-265	SHT-2	3613
	260	350-230	44800-74100	8P-7.5	B	4	6350	100-B_4-640	42-B_4-236	SHT-2	3613
20E	580	2120-1440	137500-226500	8P-132	D	7	7620	100-D_7-740	90-D_7-590	SHT-6	4737
	520	1710-1160	123400-203000	8P-90	D	7	7620	100-D_7-740	80-D_7-530	SHT-5	4629
	470	1400-950	111000-183500	8P-75	D	5	7112	100-D_5-740	80-D_5-475	SHT-5	4534
	420	1110-760	99600-163700	8P-55	D	5	7112	100-D_5-740	80-D_5-425	SHT-5	4301
	370	860-590	87800-144100	8P-37	D	5	7112	100-D_5-740	75-D_5-375	SHT-4	4211
	330	690-470	78300-128600	8P-30	C	4	6858	100-C_4-740	65-C_4-330	SHT-3	4100
	290	530-360	68800-113000	8P-18.5	C	4	6858	100-C_4-740	60-C_4-300	SHT-3	4068
	260	430-290	61700-101400	8P-15	B	4	6858	100-B_4-740	55-B_4-265	SHT-3	4033

4-79型离心风机性能参数表

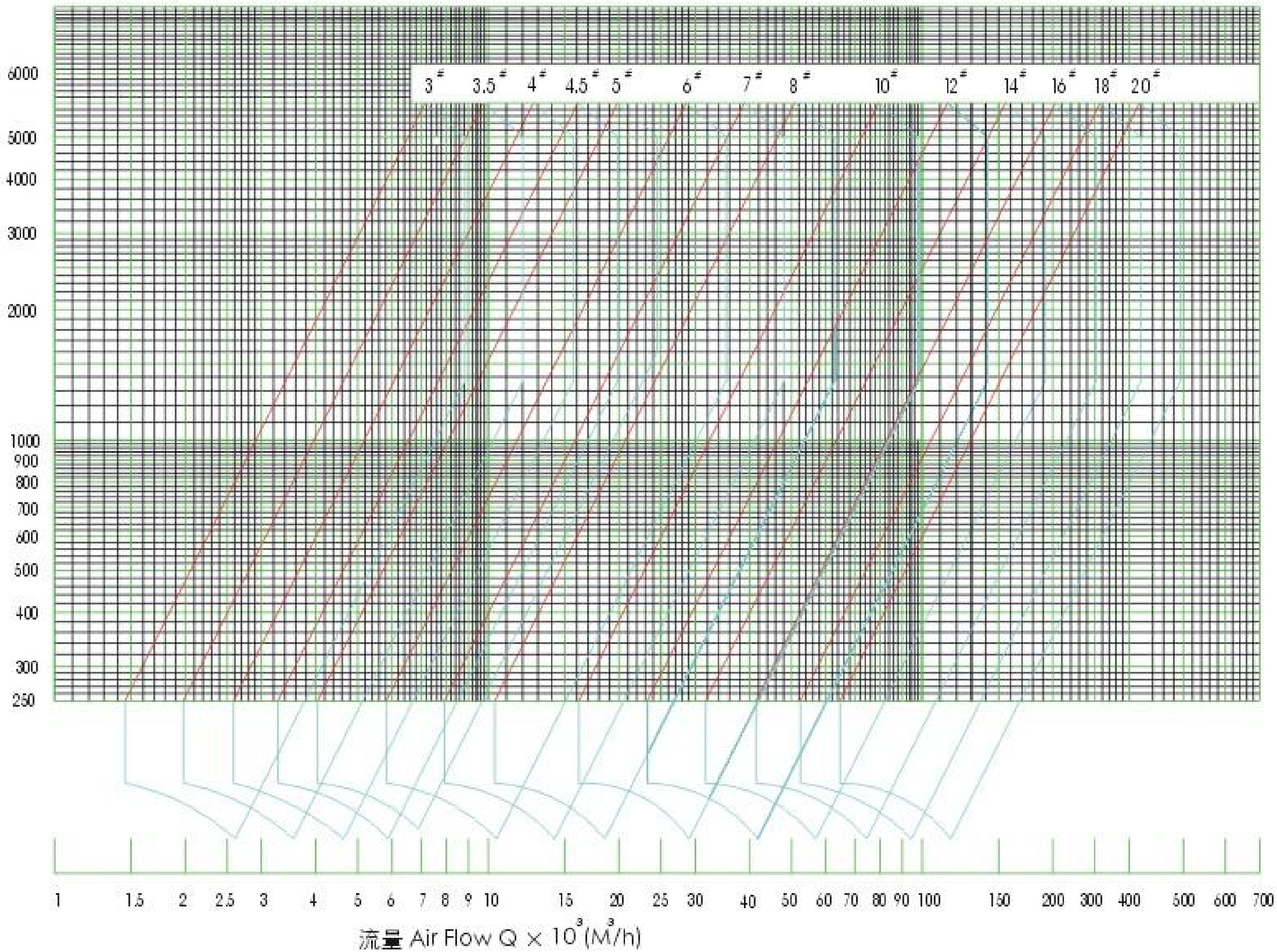
4-79Series Centrifugal Fan Performance Parameters

机号 Machine Number	转数 Speed (r/min)	全压 Total Pressure (Pa)	流量 Air-flow Rate (m³/h)	电机功率 Motor Power (kW)	三角胶带V-belt			风机轮 Driven Pulley	电机轮 Driving pulley	电机导轨 Chute-rail	重量 Weight (kg)
					型号 Type	根数 Qty	长度 Length				
4-2×79 8E	1270	1569-931	23760-52960	4P-30	C	4	3658	48-C_4-380	55-C_4-250	SHT-2	854
	1120	1225-725	24080-46720	4P-22	C	4	4572	48-C_4-380	48-C_4-295	SHT-2	834
	1000	970-558	21520-41680	4P-15	B	4	4521	48-B_4-380	42-B_4-265	SHT-2	816
	900	784-470	19360-37600	4P-11	B	4	4521	48-B_4-380	42-B_4-236	SHT-2	775
	800	617-372	17200-33360	4P-11	B	4	4521	48-B_4-380	42-B_4-210	SHT-2	759
	710	490-294	15230-30080	6P-7.5	B	4	4521	48-B_4-380	42-B_4-280	SHT-1	739
	650	387-225	13520-26320	6P-5.5	B	4	4521	48-B_4-380	38-B_4-260	SHT-1	733
4-2×79 10E	1170	2160-1470	69200-114200	4P-75	D	5	4572	60-D_5-380	75-D_5-305	SHT-4	1486
	1040	1700-1170	61500-102600	4P-55	D	5	4572	60-D_5-380	65-D_5-270	SHT-4	1452
	940	1390-950	55700-91800	4P-37	D	5	4572	60-D_5-380	60-D_5-245	SHT-3	1422
	830	1080-740	19100-81000	4P-30	C	4	4572	90-C_4-380	55-C_4-215	SHT-3	1349
	740	860-590	43800-72200	4P-18.5	B	4	4521	60-B_4-380	48-B_4-195	SHT-2	1321
	660	680-470	39000-64400	6P-15	B	4	4521	60-B_4-380	48-B_4-260	SHT-2	1286
	580	530-360	34320-56600	6P-11	B	4	4521	60-B_4-380	42-B_4-230	SHT-2	1276
4-2×79 12E	940	1990-1360	96400-158600	4P-90	D	5	4572	65-D_5-380	75-D_5-245	SHT-4	1769
	830	1560-1060	85000-140200	6P-75	D	5	4572	65-D_5-380	80-D_5-330	SHT-5	1728
	740	1240-840	75800-124800	6P-55	D	5	4572	65-D_5-380	75-D_5-295	SHT-4	1639
	680	1060-710	69700-114800	6P-37	D	5	4572	65-D_5-380	65-D_5-270	SHT-4	1606
	580	770-520	59400-97800	6P-22	C	4	4572	65-C_4-380	55-C_4-230	SHT-3	1537
	520	615-410	53300-87800	6P-15	B	4	4572	65-C_4-380	48-C_4-205	SHT-2	1531
	470	500-340	48200-97400	6P-11	B	4	4521	65-B_4-380	42-B_4-185	SHT-2	1519
4-2×79 14E	740	1690-1150	120200-197800	6P-90	D	7	5588	90-D_7-480	80-D_7-375	SHT-5	3240
	660	1430-970	110600-181800	6P-75	D	5	5588	90-D_5-480	80-D_5-340	SHT-5	3167
	580	1040-700	94200-155000	6P-55	D	5	5588	90-D_5-480	75-D_5-300	SHT-4	3101
	520	830-560	84400-139000	6P-30	C	4	5334	90-C_4-480	60-C_4-265	SHT-4	2942
	460	650-440	74600-123000	6P-22	C	4	5334	90-C_4-480	55-C_4-236	SHT-3	2881
	420	540-370	68100-112400	6P-18.5	C	4	5334	90-C_4-480	48-C_4-212	SHT-3	2805
	370	420-280	60000-98800	6P-15	B	4	5334	90-B_4-480	48-B_4-190	SHT-2	2782

4-79型离心风机性能参数表
4-79Series Centrifugal Fan Performance Parameters

机号 Machine Number	转数 Speed (r/min)	全压 Total Pressure (Pa)	流量 Air-flow Rate (m³/h)	电机功率 Motor Power (kw)	三角胶带V-belt 型号 Type	根数 Qty	长度 Length	风机轮 Driven Pulley	电机轮 Driving pulley	电机导轨 Chute-rail	重量 Weight (kg)
4-2×79 16E	740	2220-1510	171400-295600	6P-200	E	7	6858	90-E_7-590	90-E_7-450	SHT-6	4668
	660	1760-1200	160200-263800	6P-132	D	7	6858	90-D_7-590	80-D_7-410	SHT-5	4259
	580	1360-920	140600-231800	6P-90	D	5	6858	90-D_5-590	80-D_5-355	SHT-5	4161
	510	1050-710	123400-203800	6P-75	D	5	6350	90-D_5-590	80-D_5-315	SHT-5	4075
	470	890-610	113800-188000	6P-55	D	5	6350	90-D_5-590	75-D_5-300	SHT-4	3866
	420	710-490	101600-168000	6P-37	D	5	6350	90-D_5-590	65-D_5-270	SHT-4	3785
	370	550-380	89600-148400	6P-30	C	4	6350	90-C_4-590	60-C_4-236	SHT-3	3685
	330	440-300	80000-132200	6P-18.5	B	4	6096	90-B_4-590	55-B_4-200	SHT-3	3657
	290	340-230	70200-116000	8P-15	B	4	6096	90-B_4-590	55-B_4-236	SHT-3	3625
4-2×79 18E	660	2230-1520	228000-375800	6P-250	E	7	7112	100-E_7-640	90-E_7-440	SHT-6	6098
	580	1720-1170	200400-330200	8P-160	E	7	7112	100-E_7-640	90-E_7-510	SHT-6	5958
	520	1390-950	179800-296200	8P-132	D	7	7112	100-D_7-640	90-D_7-475	SHT-6	5835
	470	1130-770	162400-267600	8P-90	D	7	6858	100-D_7-640	80-D_7-410	SHT-5	5536
	420	900-610	145000-239000	8P-75	D	5	6858	100-D_5-640	80-D_5-375	SHT-5	5421
	360	660-440	124200-205000	8P-37	D	5	6858	100-D_5-640	75-D_5-315	SHT-4	5277
	330	560-370	113800-188000	8P-30	C	4	6858	100-C_4-640	65-C_4-300	SHT-4	5236
	290	430-290	100800-165200	8P-22	C	4	6350	100-C_4-640	60-C_4-265	SHT-3	5191
	260	350-230	89600-148200	8P-15	C	4	6350	100-C_4-640	55-C_4-236	SHT-3	5191
4-2×79 20 E	560	1980-1340	265600-438000	8P-250	E	7	7620	100-E_7-740	100-E_7-560	SHT-7	6772
	520	1710-1160	246800-406000	8P-200	E	7	7620	100-E_7-740	90-E_7-530	SHT-7	6617
	470	1400-950	222000-367000	8P-132	D	7	7112	100-D_7-740	90-D_7-475	SHT-6	6481
	420	1110-760	199200-327400	8P-90	D	7	7112	100-D_7-740	80-D_7-425	SHT-5	6148
	370	860-590	175600-288200	8P-75	D	5	7112	100-D_5-740	80-D_5-375	SHT-5	6020
	330	690-470	156600-257200	8P-55	D	5	6858	100-D_5-740	80-D_5-340	SHT-5	5861
	290	530-360	137600-226000	8P-37	D	5	6858	100-D_5-740	75-D_5-300	SHT-4	5815
	260	430-290	123400-202800	8P-30	C	4	6858	100-C_4-740	65-C_4-265	SHT-4	5765

三、4-79型离心风机性能选型图
Centrifugal Fan Performance Selection Chart



使用曲线图确定风机型号

How to use the curve charts to choose fans

1、应用机号曲线图，用户可根据所需的流量和全压进行选择机号。选择时应根据二个原则，一是尽量选择大机号、低转速，二是工况位于所选择机号的高效率区。

2、确定机号后，应用该机号的性能曲线图，便可查出一定风量和全压下的风机效率、叶轮转速、轴功率等。

3、用户确定电机功率时，根据性能曲线，便可查出一定风量和全压下的风机效率、叶轮转速、轴功率等。

$$Nm=(1.1\sim1.2)N$$

式中N和Nm分别是轴功率和电机功率，其单位是kW.

为了选用标准系列电机，或计算传动损失，或为了弥补计算误差等，实际选用的电机功率应高于上述公式给出的值，用户可与我公司技术部联系。

4、风机在最佳效率工况运转时，其A声级值按下列公式计算：

$L_A=L_{SA}+10\lg(Q\cdot P^2)$

L_A——A声压级，

L_{SA}——比声压级，一般取16~25dB(A),

Q——m^3/min

P——mmH_2O

1.Apply the version-size chart to select the version size according to required airflow and total pressure. Two principles should be applied, one is large version size and low speed of rotation, the other is fan running in high efficiency area.

2.Applying performance chart for the determined version size, efficiency, impeller speed and shaft absorbed power can be specified.

3.The user refer to indicated value of shaft power as per curves, then, using following relation between the motor power and the shaft absorbed power, the motor power may be valued:

$$Nm=(1.1\sim1.2)N$$

Where N and Nm are absorbed poweer and motor power respectively(kW).

To apply the standard motor, or consider mechanical transmission loss or calculation error,and so on,the installation power of motor may be bigger than the estimation using above relation. Please get in contact with our technique department for more information.

4.While fan running at maximun efficiency,its noise may be estimated by specific A sound pressure level as follows

$L_A=L_{SA}+10\lg(Q\cdot P^2)$

L_A——Asound pressure level,

L_{SA}——Relative sound pressure,16~25dB(A) is used generally

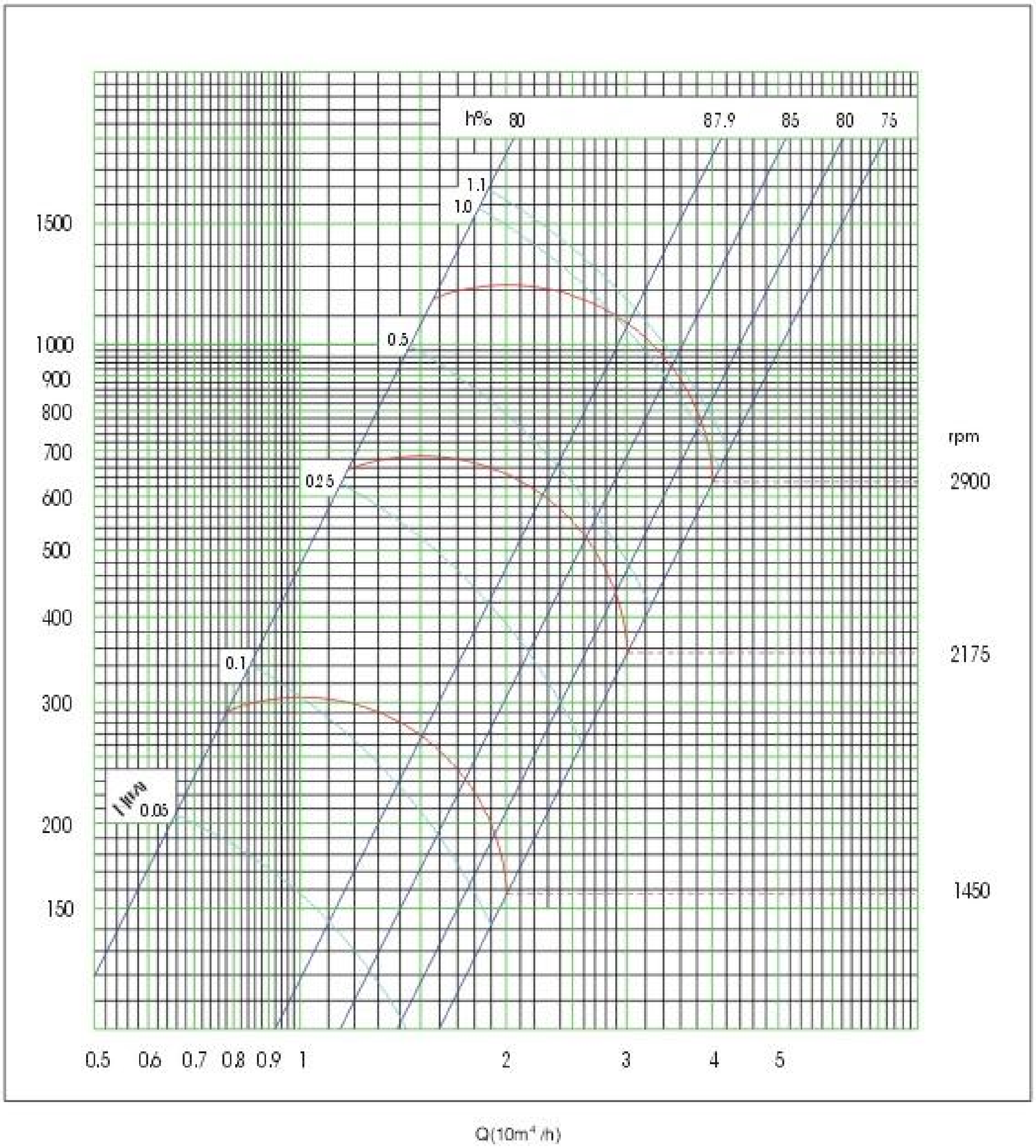
Q——m^3/min

P——mmH_2O

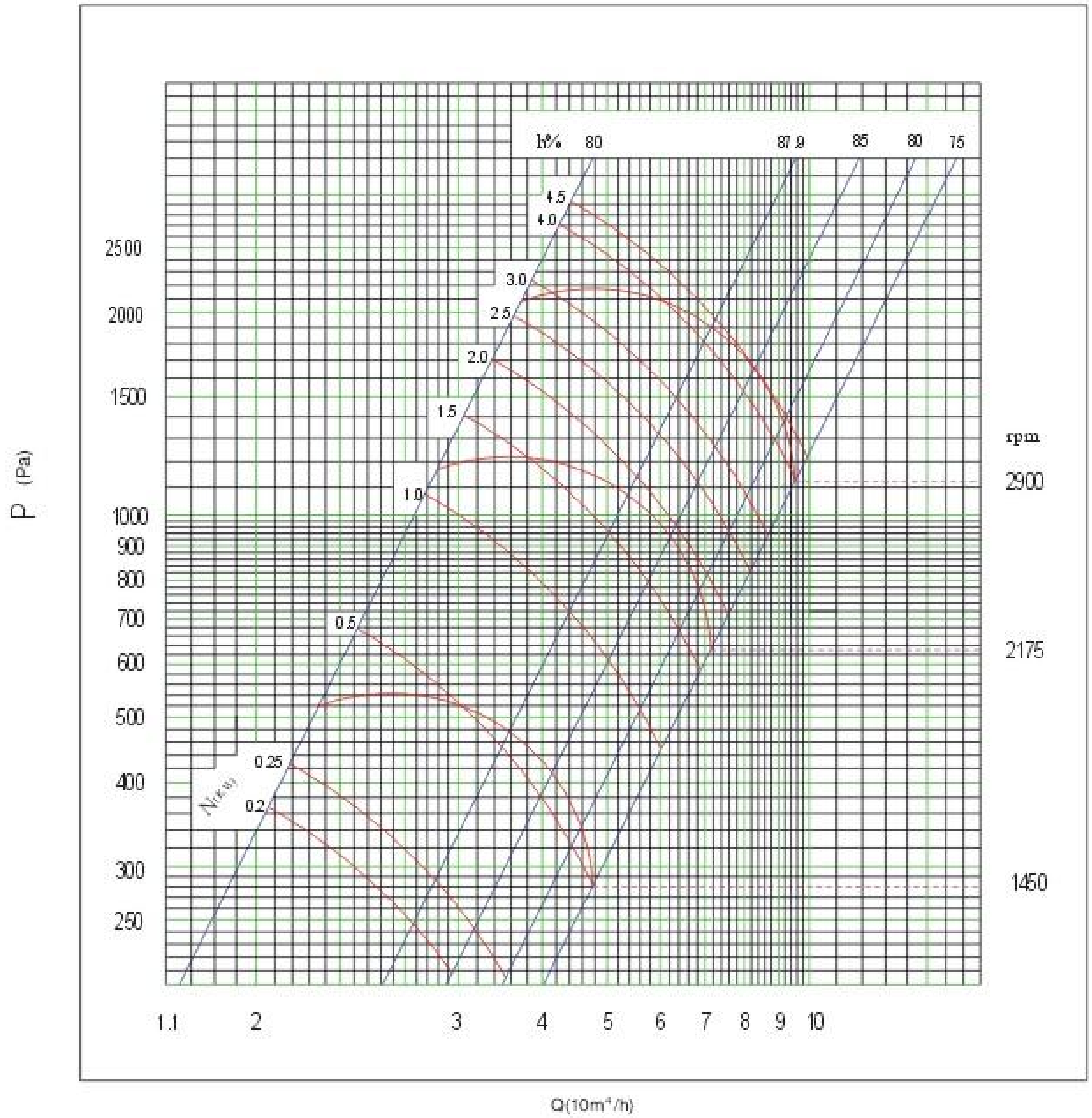
四、 4-79 性能曲线图
4-79 Performance curve

4-79-NO3 性能曲线图 Performance curve

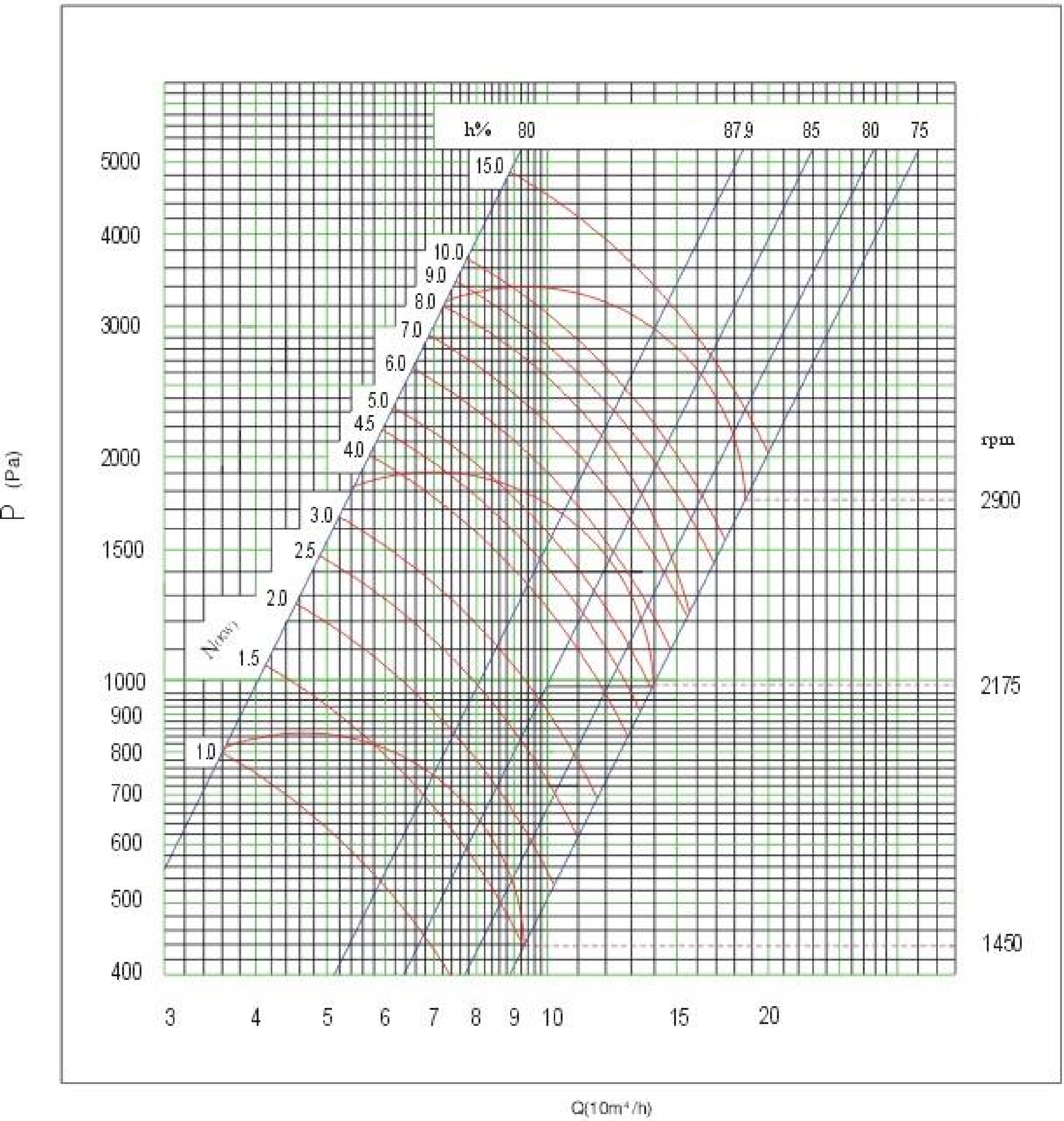
叶轮直径（Impeller Diameter）：600mm 空气密度（Air Density）：1.2kg/m³



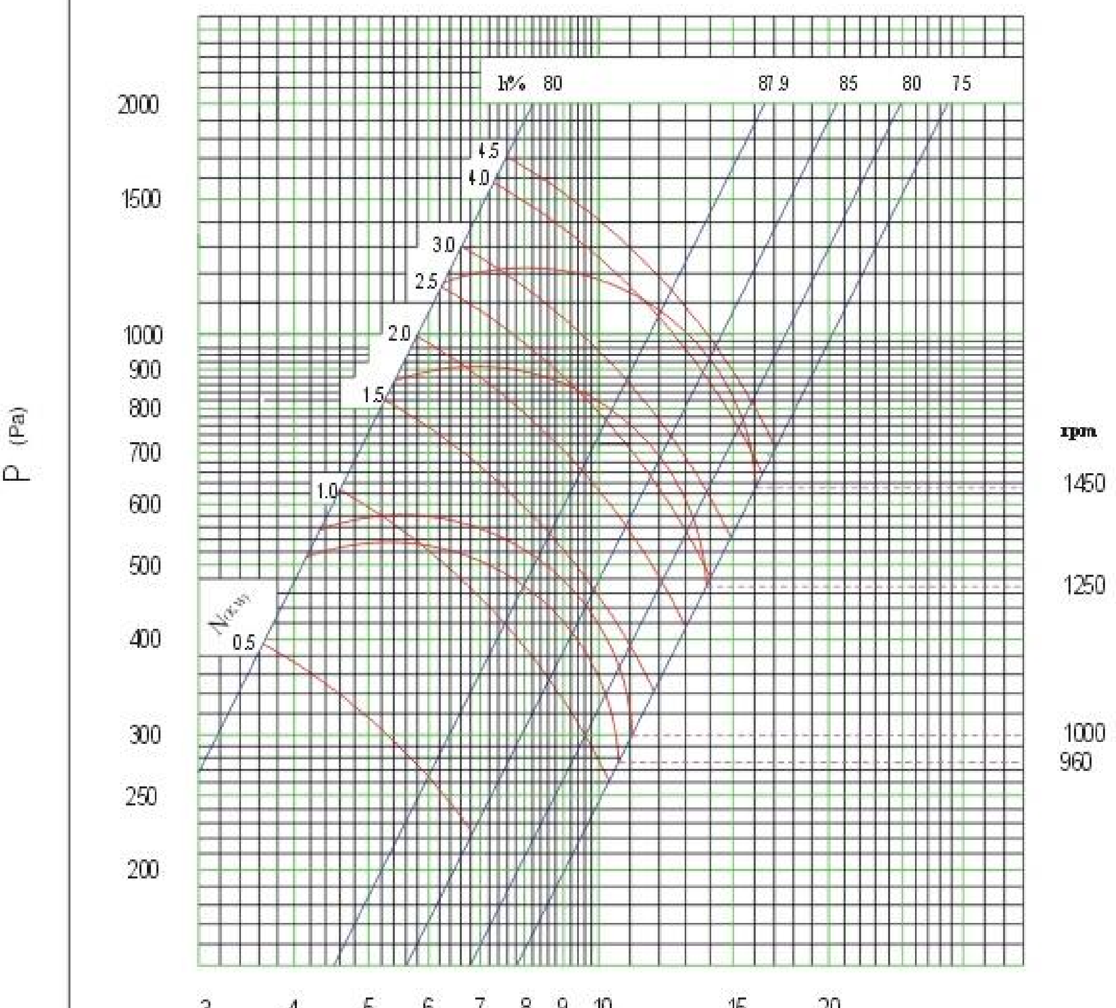
4-79-NO4 性能曲线图 Performance curve



4–79–NO5 性能曲线图 Performance curve

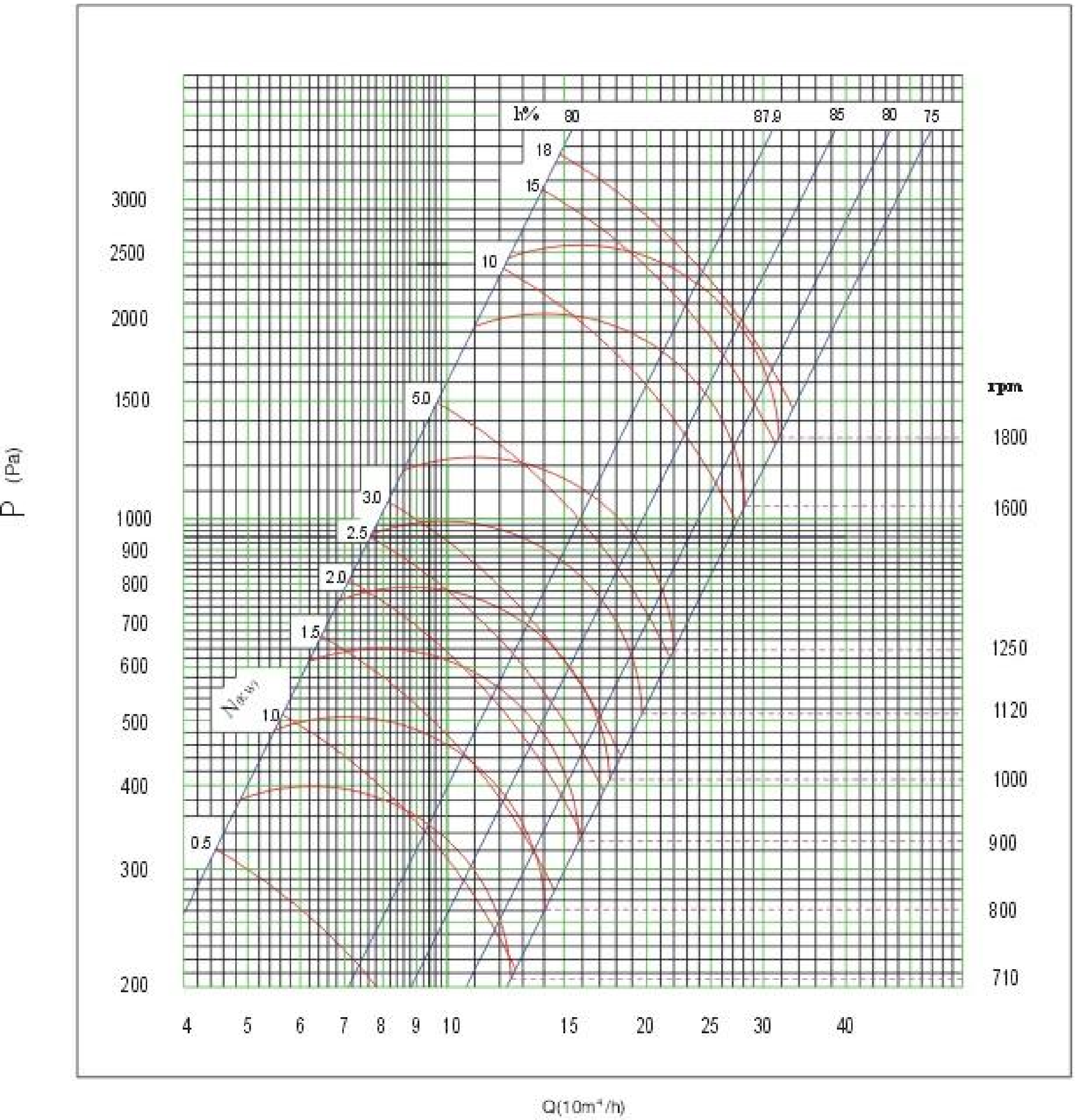


4-79-NO6 性能曲线图 Performance curve

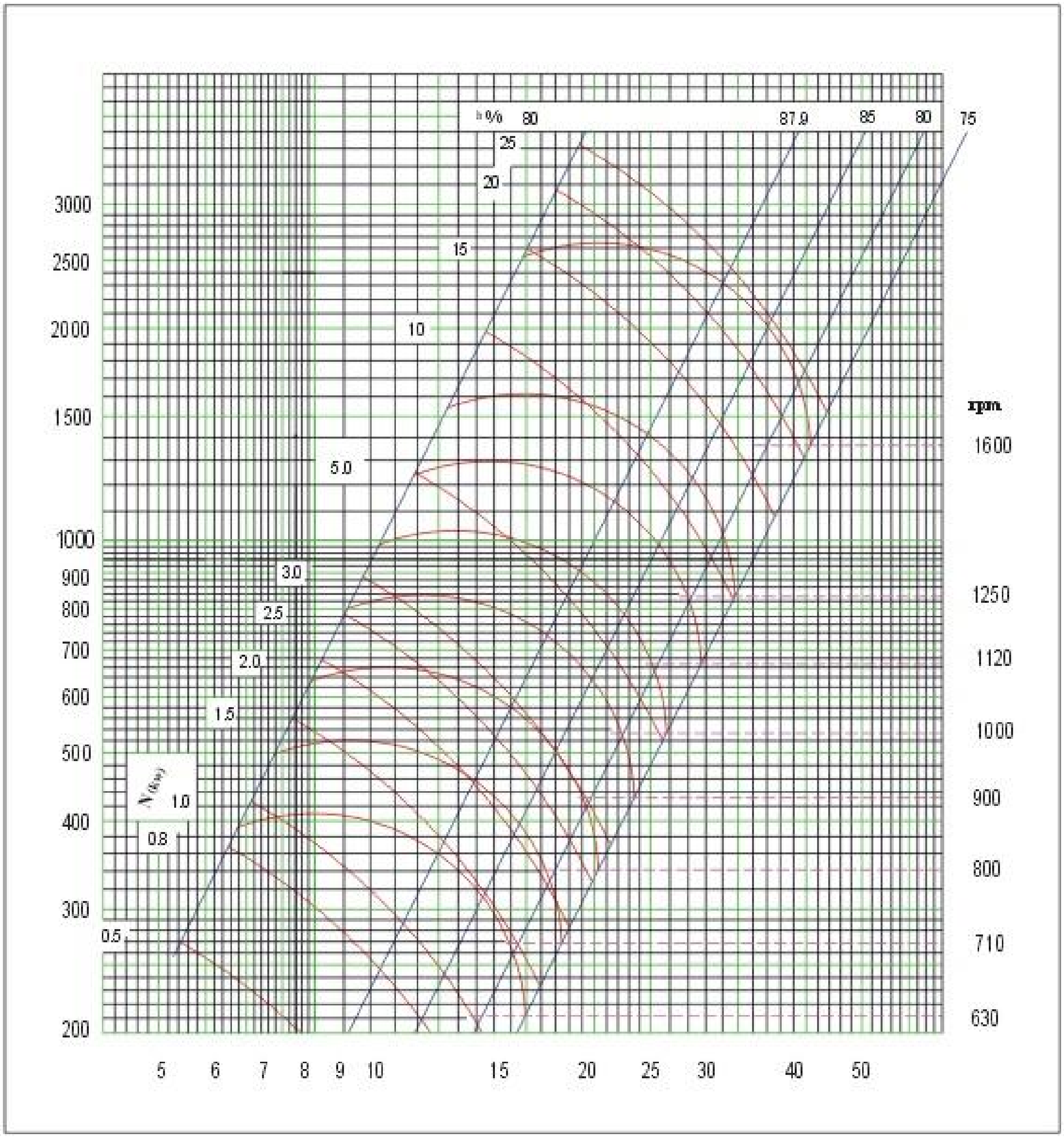


Q(10m³/h)

4-79-NO7 性能曲线图 Performance curve

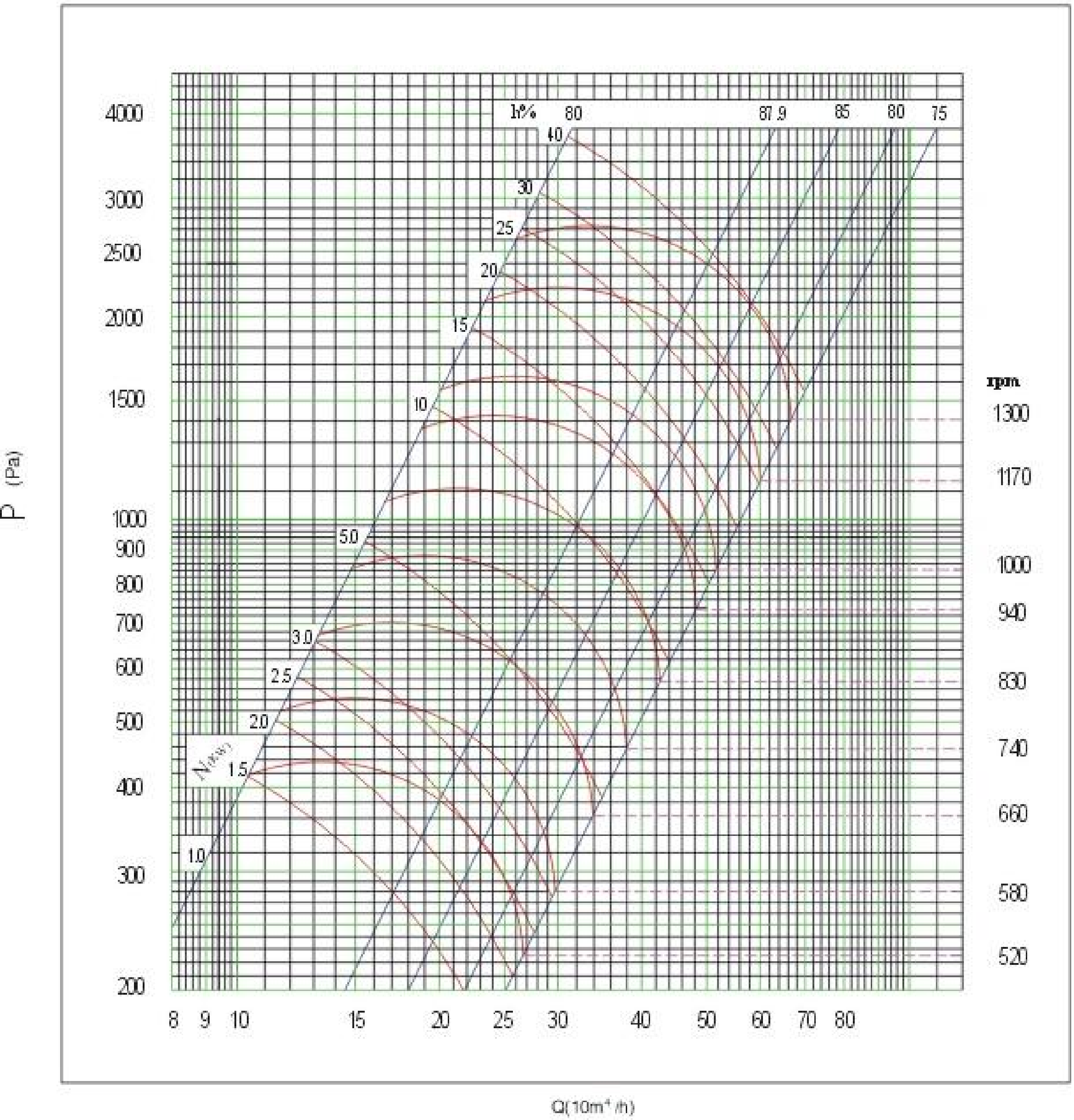


4-79-NO8 性能曲线图 Performance curve

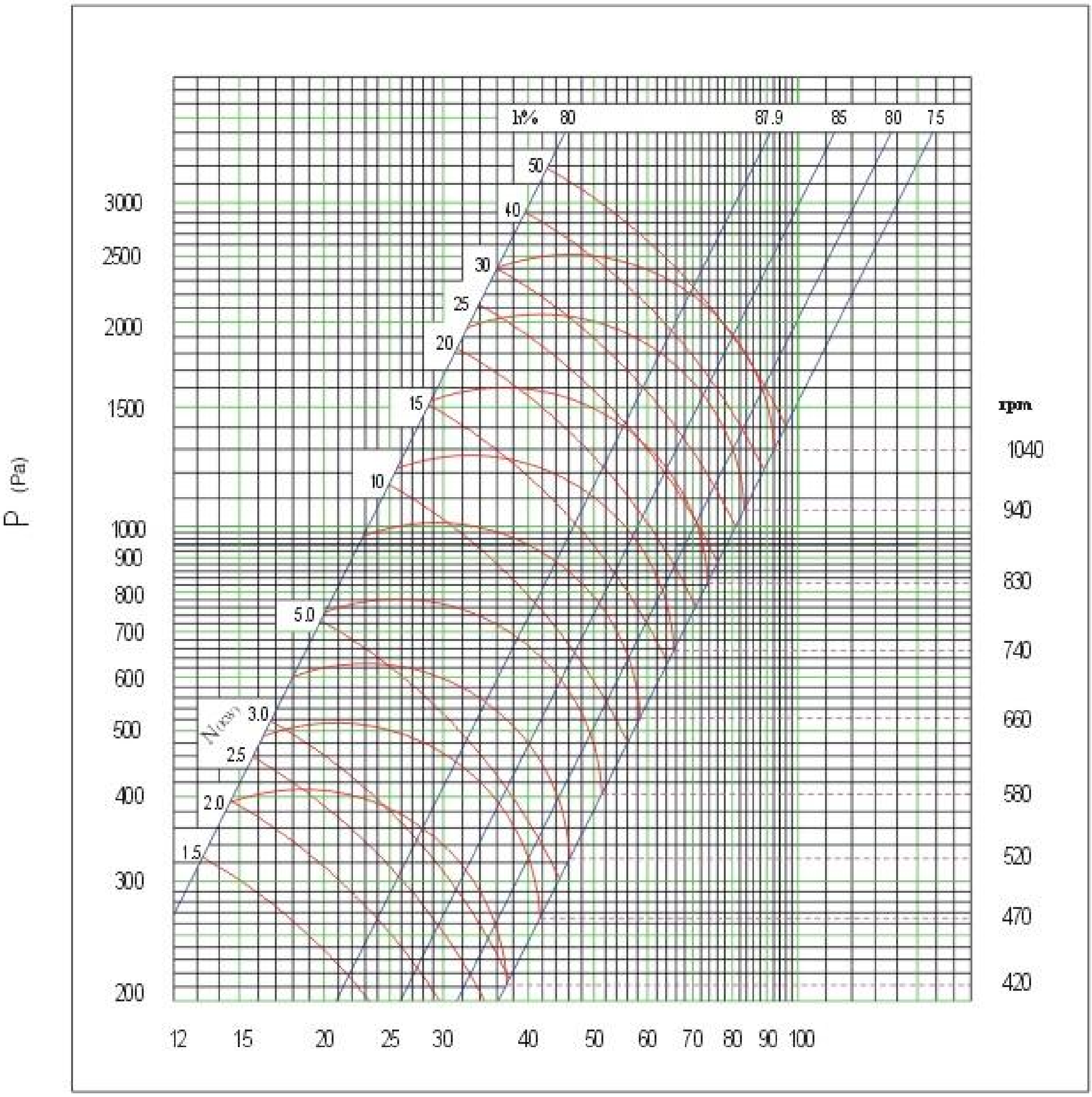


Q(10m³/h)

4-79-NO10 性能曲线图 Performance curve

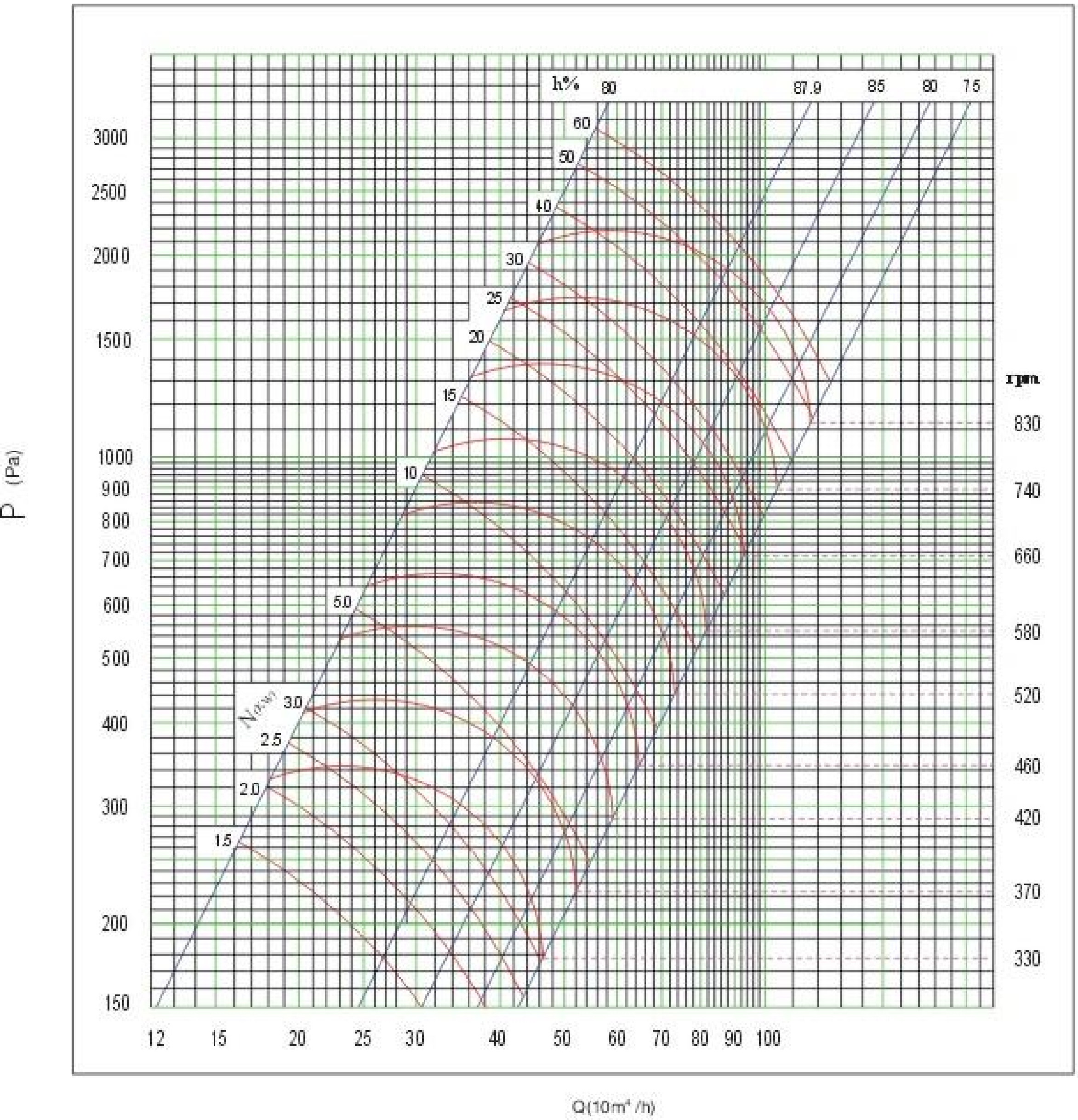


4-79-NO12 性能曲线图 Performance curve

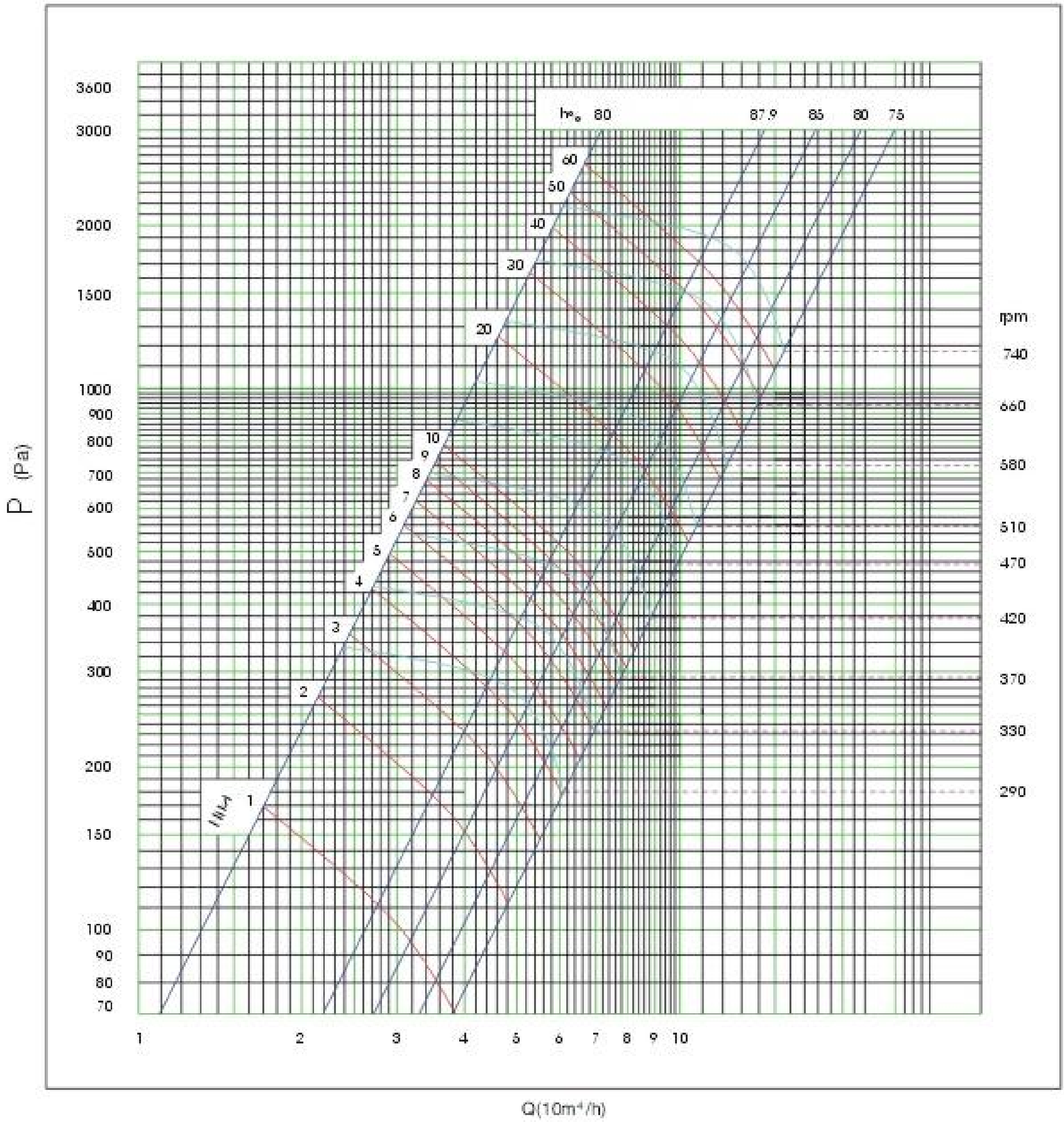


Q(10m³/h)

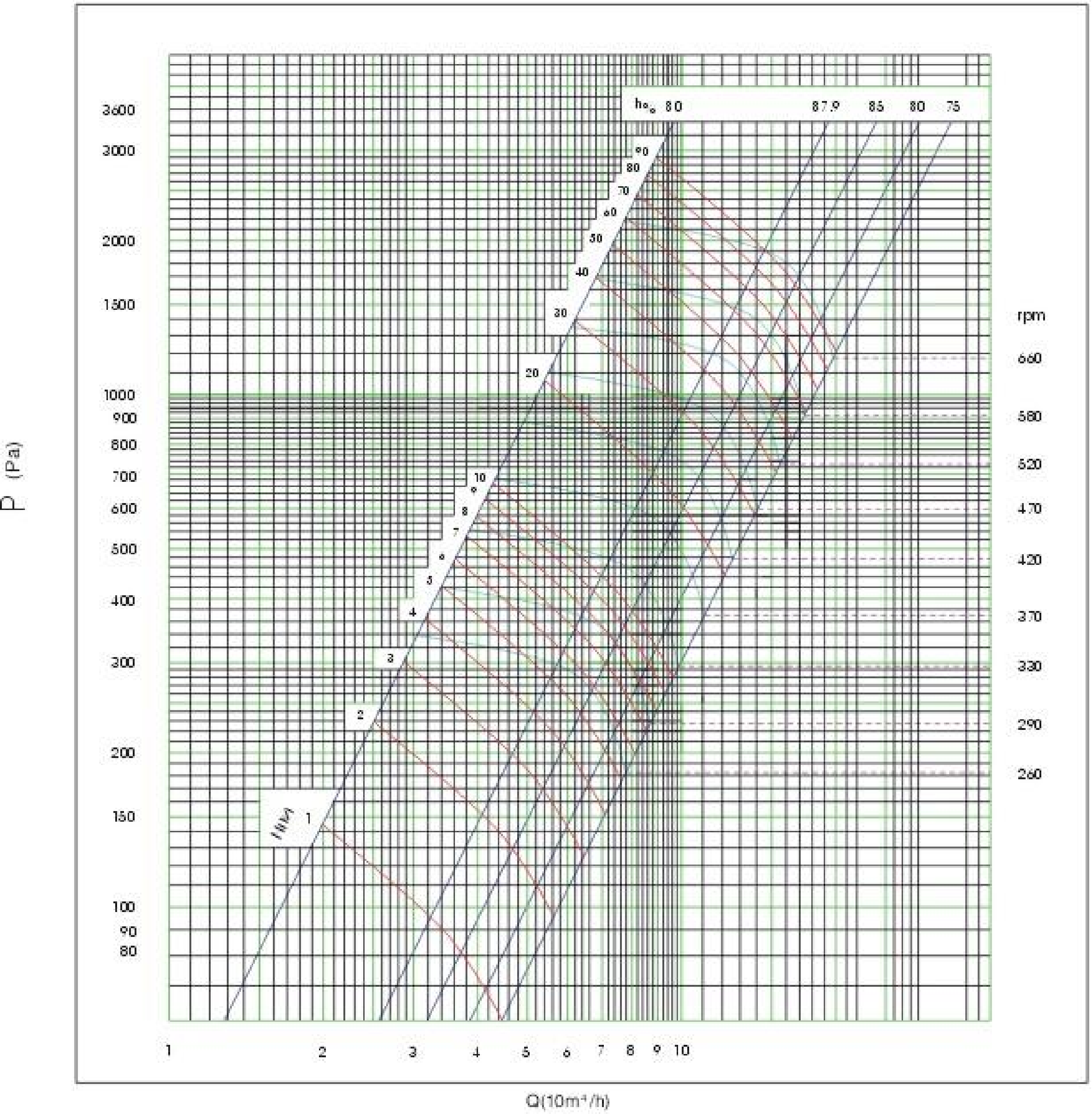
4-79-NO14 性能曲线图 Performance curve



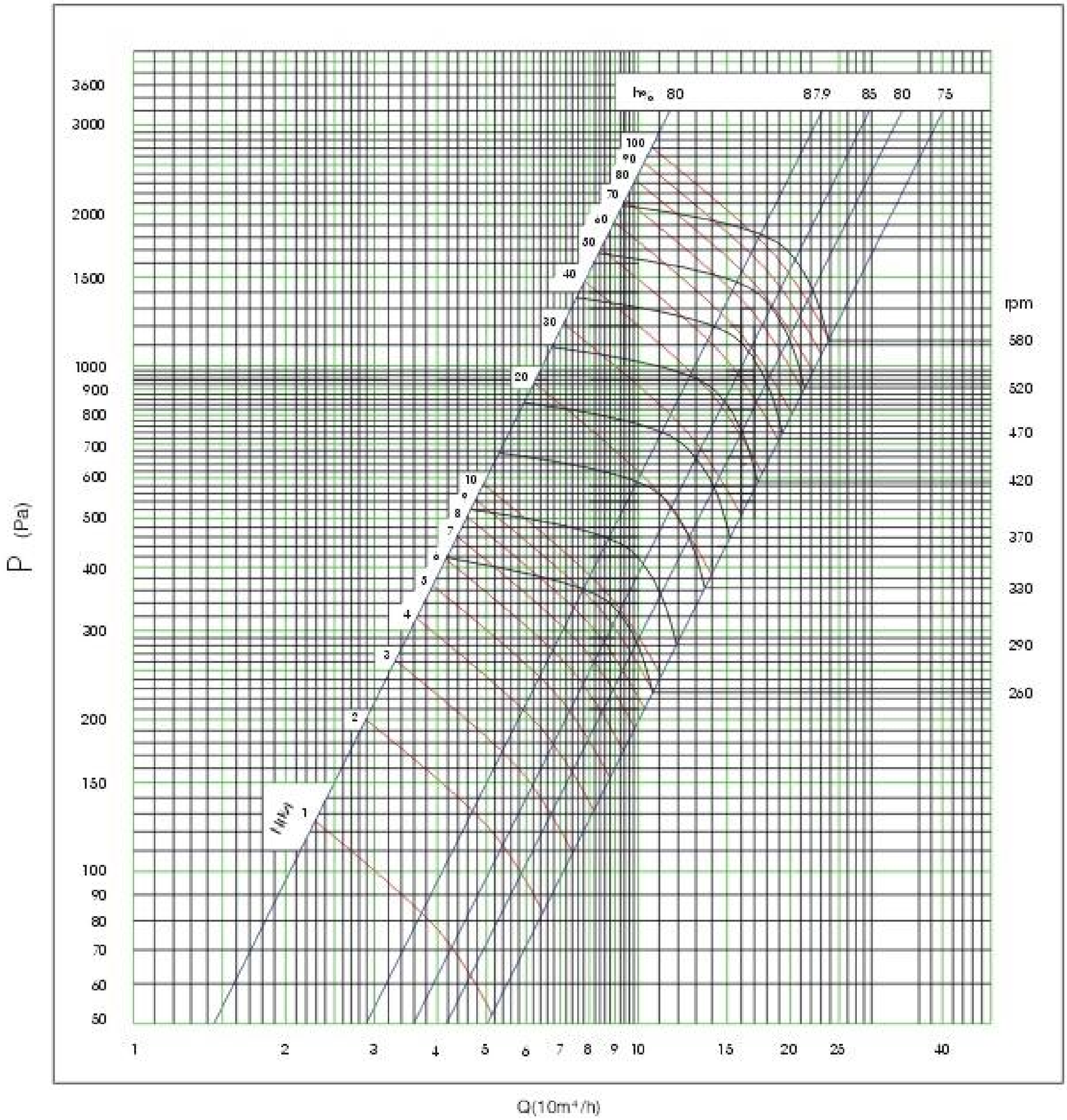
4-79-NO16 性能曲线图 Performance curve



4-79-NO18 性能曲线图 Performance curve

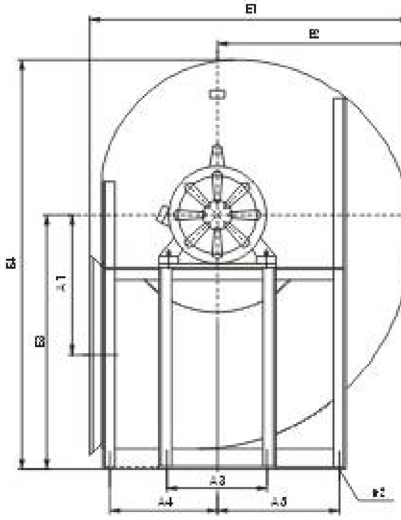


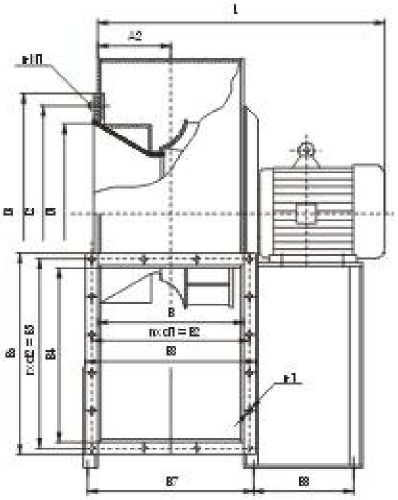
4-79-NO20 性能曲线图 Performance curve

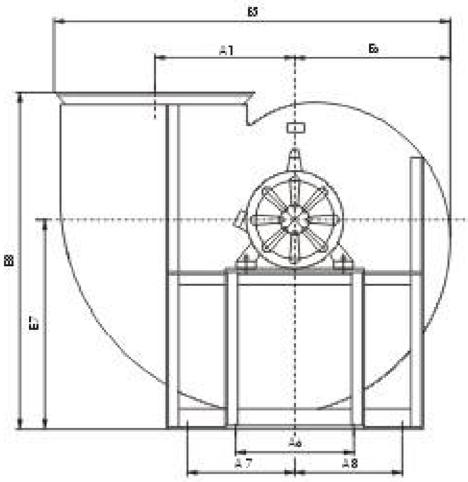


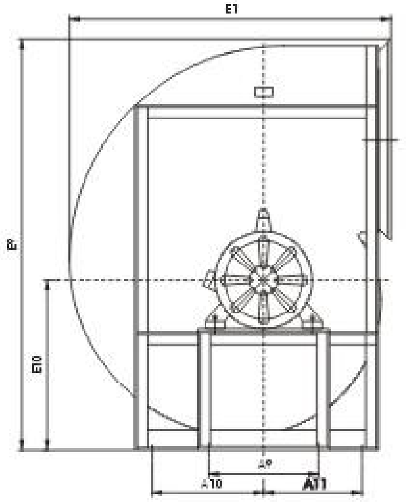
五、4–79 型离心风机外型尺寸图表 Centrifugal Fans Overall dimensions

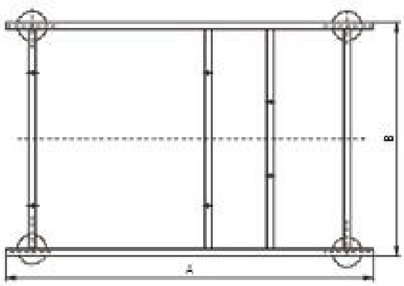
4-79-A 型离心风机外型尺寸图 Overall dimensions









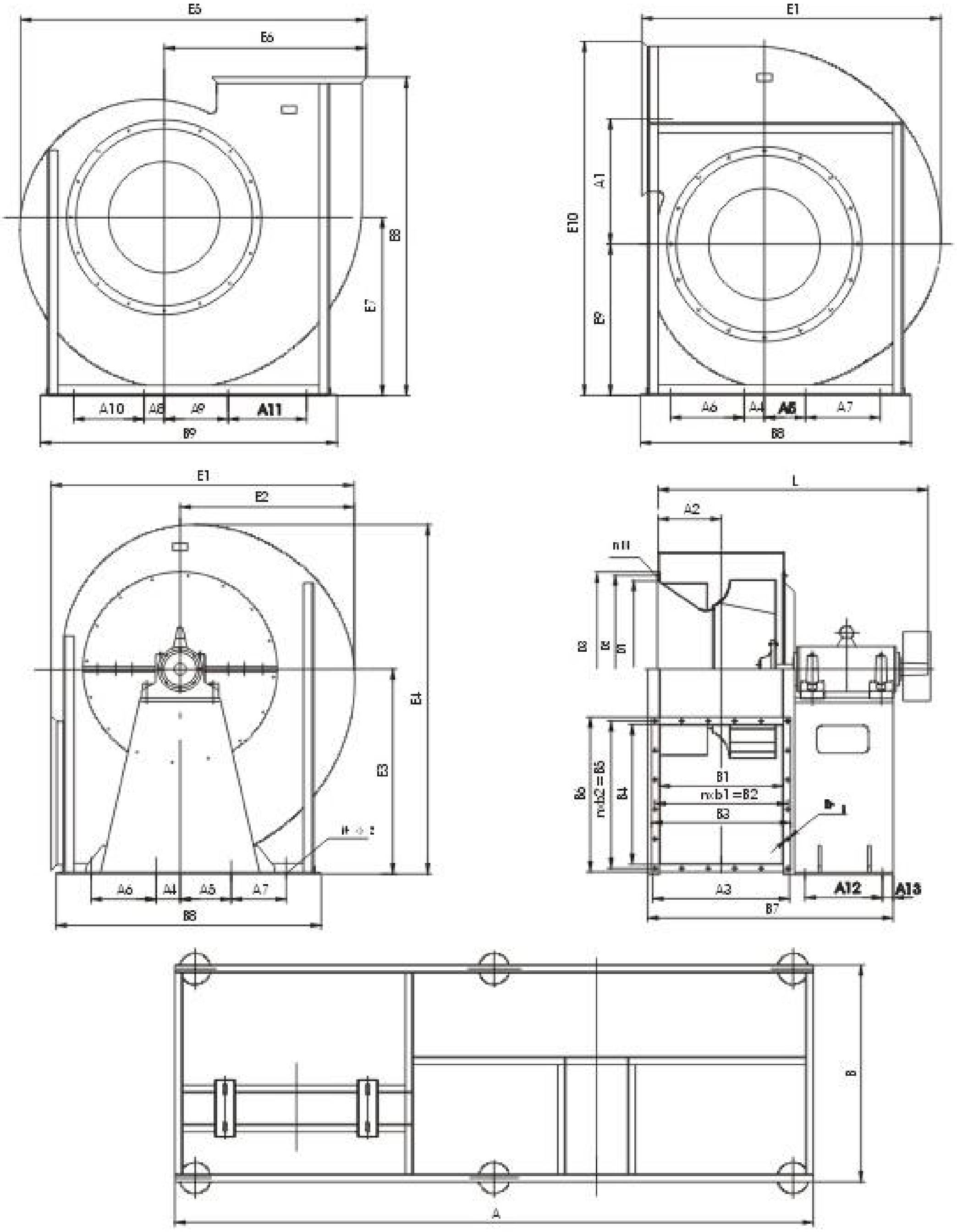


4-79-A 型离心风机外型尺寸表 Overall dimensions

机号	电机型号	进风口尺寸				出风口尺寸									安装及外形尺寸					
		D1	D2	D3	n-M	B1	B2	B3	B4	B5	B6	n×d1	n×d2	n-Φ1	B7	B8	A1	A2	A3	A4
3A	Y802-4	φ282	φ348	φ378	8-M8	199	228	259	274	304	334	3×76	4×76	14-φ10	239	140	209	100	125	188
	Y90S-2															160			140	
3.5A	Y90S-4	φ330	φ390	φ420	12-M8	233	264	293	319	350	379	4×66	5×70	18-φ10	273	150	270	117	150	220
	Y100L-2															195			165	
4A	Y90S-4	φ380	φ438	φ468	12-M8	260	306	346	364	404	444	3×102	4×101	14-φ10	310	130	276	130	140	249
	Y132S$_1$-2															255			230	
4.5A	Y90L-4	φ428	φ500	φ540	16-M8	300	340	380	400	440	480	4×85	5×88	18-φ10	350	180	316	150	130	282
	Y160M$_1$-2															360			280	
5A	Y100L$_1$-4	φ474	φ550	φ590	16-M8	332	372	412	456	495	536	4×93	5×99	18-φ10	392	170	344	166	150	300
	Y160M$_2$-2															335			270	
6A	Y100L-6	φ570	φ648	φ688	16-M10	396	445	496	546	594	646	5×89	6×99	22-φ12	446	190	414	198	155	382
	Y132S-4															250			230	

机号	电机型号	安装及外形尺寸																		
		A5	A6	A7	A8	A9	A10	A11	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	L	n-φ2
3A	Y802-4	188	125	180	180	125	188	188	542	304	395	651	608	256	320	558	634	260	449	6-φ8.5
	Y90S-2		140			140													474	
3.5A	Y90S-4	200	150	210	210	150	200	200	621	348	440	732	723	264	360	633	677	310	502	6-φ12
	Y100L-2		165			165													567	
4A	Y90S-4	249	140	235	235	140	249	249	716	402	510	848	838	338	420	734	880	380	525	6-φ12
	Y132S$_1$-2		230			230													681	
4.5A	Y90L-4	282	130	275	275	130	282	282	799	452	580	960	935	380	460	808	956	400	590	6-φ12
	Y160M$_1$-2		280			280													837	
5A	Y100L$_1$-4	300	150	300	300	150	300	300	880	500	620	1040	1000	420	520	900	1052	440	652	6-φ12
	Y160M$_2$-2		270			270													846	
6A	Y100L-6	382	155	355	355	155	382	382	1056	599	780	1283	1240	503	620	1077	1257	520	716	6-φ12
	Y132S-4		230			230													811	

4-79-C 型离心风机外型尺寸图 Overall dimensions



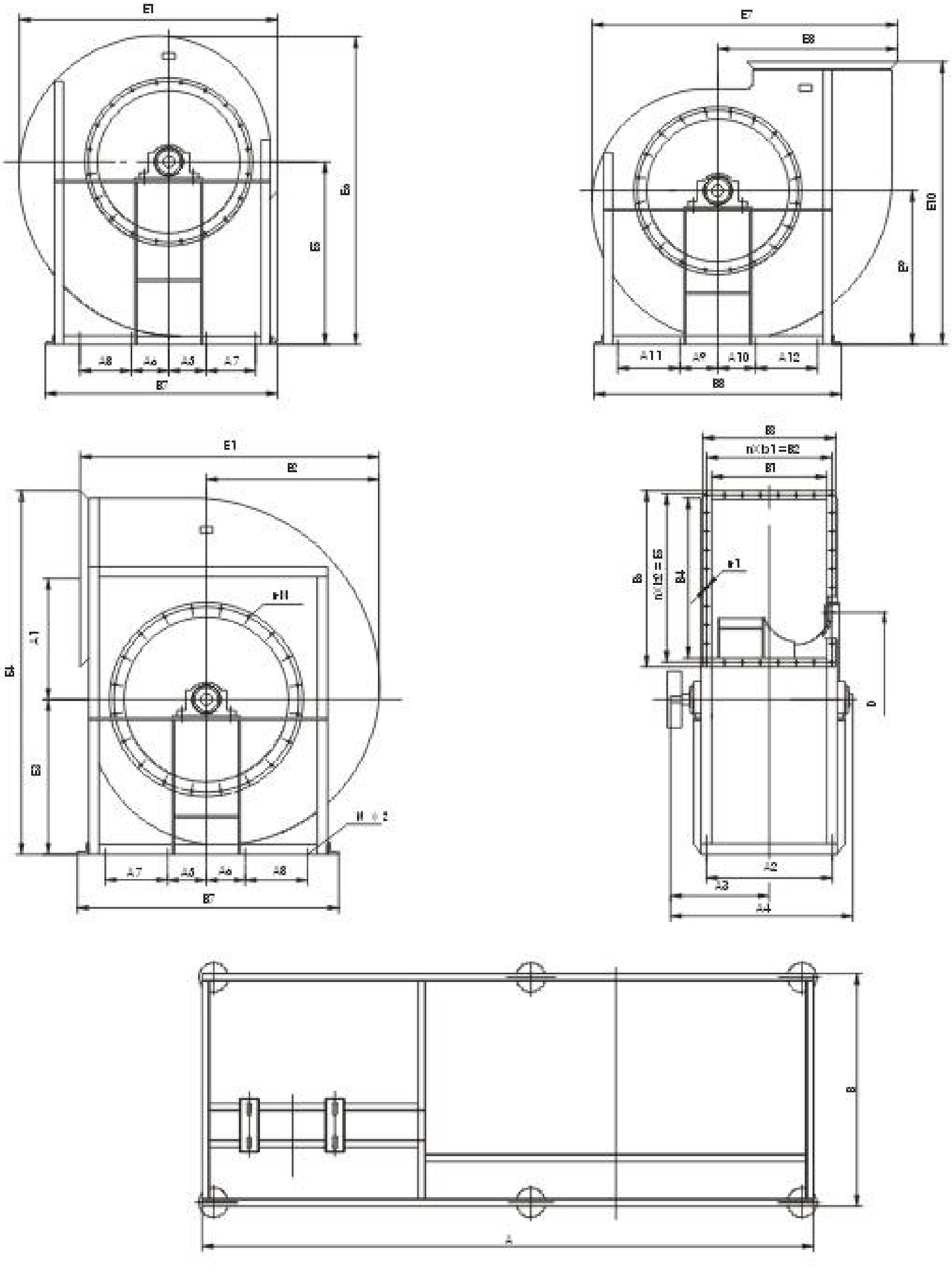
4-79-C 型离心风机外型尺寸表 Overall dimensions

机号	进风口尺寸				出风口尺寸								
	D1	D2	D3	n-M	B1	B2	B3	B4	B5	B6	n-Φ1	n×b1	n×b2
7C	Φ700	Φ758	Φ808	16-M8	461	510	561	636	686	736	24-Φ12	5×102	7×98
8C	Φ800	Φ858	Φ908	16-M8	528	580	628	726	777	826	24-Φ12	5×116	7×111
10C	Φ1000	Φ1060	Φ1110	18-M10	660	726	786	908	976	1034	28-Φ12	6×121	8×122
12C	Φ1200	Φ1270	Φ1330	20-M10	790	861	910	1088	1152	1208	32-Φ12	7×123	9×128

机号	安装及外形尺寸															
	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	B7	B8	B9	E1
7C	483	230.5	521	/	/	373	400	140	140	280	280	294	954	1053	1100	1220
8C	555	264	578	150	160	290	290	150	150	300	300	294	1012	1168	1160	1384
10C	692	393	730	155	245	400	400	160	260	420	420	430	1299	1520	1600	1725
12C	832	395	870	210	210	420	420	190	290	480	480	430	1417	1700	1700	2052

机号	安装及外形尺寸													
	E2	E3	E4	E5	E6	E7	E8	E9	E9+E6	L	A13	n-Φ2	A	B
7C	697	860	1445	1436	851	745	1268	620	1471	1054	38	8-Φ16	1950	1200
8C	795	1020	1687	1677	1010	846	1435	700	1710	1117	38	8-Φ16	2200	1300
10C	991	1240	2071	2037	1206	1020	1754	865	2074	1388	25	8-Φ18	2450 2800	1450
12C	1188	1470	2466	2428	1432	1220	2084	1050	2482	1501	25	8-Φ18	3200 2850	1650

4-79-E 型离心风机外型尺寸图 Overall dimensions



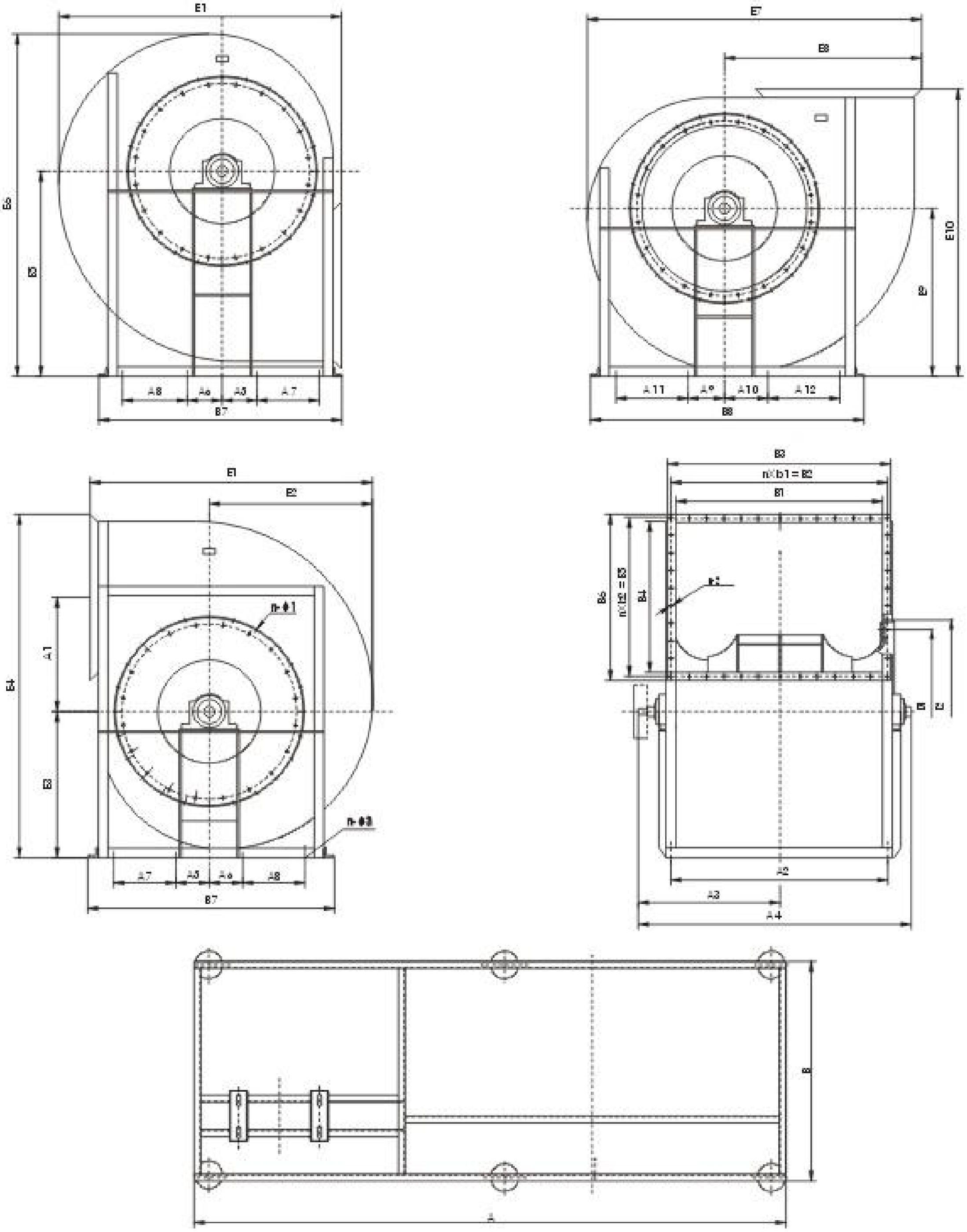
4-79-E 型离心风机外型尺寸表 Overall dimensions

机号	进风口尺寸				出风口尺寸								
	D	n-M	B1	B2	B3	B4	B5	B6	n-Φ1	n×b1	n×b2	A1	A2
10E	Φ1060	18-M10	660	732	780	908	976	1028	18-Φ12	6×122	8×122	693	730
12E	Φ1270	20-M12	790	861	910	1088	1152	1208	32-Φ12	7×123	9×128	822	870
14E	Φ1476	24-M12	922	973	1022	1260	1310	1360	34-Φ14	7×139	10×131	1004	992
16E	Φ1670	24-M12	1143	1200	1263	1440	1500	1560	44-Φ14	10×120	12×125	1892	1233
18E	Φ1930	26-M12	1317	1390	1443	1954	2016	2080	50-Φ14	10×139	14×144	983	1407
20E	Φ2130	26-M12	1460	1560	1610	2165	2261	2351	58-Φ14	12×130	17×133	1090.5	1550

机号	安装及外形尺寸											
	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	B7	B8
10E	582(637)	1030(1085)	130	240	390	380	240	240	360	360	1500	1580
12E	634(683)	1149(1204)	227	280	450	450	227	280	450	450	1787	1787
14E	738	1299(1410)	250	250	580	580	250	250	600	600	1938	1980
16E	903.5	1580	350	350	600	600	350	350	600	600	2200	2200
18E	1156	1967	277	277	745	745	172.5	572.5	800	800	2751	2850
20E	1236	2119	320	320	815	715	160	640	850	850	2965	3090

机号	安装及外形尺寸												
	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	n-Φ2	A	B
10E	1724	992	850	2057	1250	2082	2039	1207	1020	1752	8-Φ18	2450(2800)	1100
12E	2046	1189	1040	2421	1500	2497	2378	1381	1220	2077	8-Φ18	2850(3200)	1200
14E	2339	1380	1186	3832	1676	2832	2802	1646	1410	2369	8-Φ20	3310	1430
16E	2780	1580	1360	3248	1960	3284	3212	1888	1620	3820	8-Φ20	4400	1700
18E	3300	1880	1570	3590	2040	3560	3540	2020	1880	3300	8-Φ24	4960	2080
20E	3580	2020	1760	4015	2260	3950	3945	2255	2070	3630	8-Φ26	5200	2300

4-2X79-E 型离心风机外型尺寸图 Overall dimensions



4-2X79-E 型离心风机外型尺寸表 Overall dimensions

机 号	进风口尺寸		
	D1	D2	n-Φ1
4-2×79-8E	Φ858	Φ918	12-Φ14
4-2×79-10E	Φ1058	Φ1120	16-Φ14
4-2×79-12E	Φ1260	Φ1320	16-Φ14
4-2×79-14E	Φ1476	Φ1546	16-Φ14
4-2×79-16E	Φ1660	Φ1760	24-Φ14
4-2×79-18E	Φ1930	Φ1992	26-Φ18
4-2×79-20E	Φ2130	Φ2192	26-Φ18

机 号	出 风 口 尺 寸										
	B1	B2	B3	B4	B5	B6	n-Φ2	n×b1	n×b2	A1	A2
4-2×79-8E	984	1035	1084	726	777	826	32-Φ12	9×155	7×111	552	1040
4-2×79-10E	1222	1280	1322	906	952	1006	36-Φ12	10×128	8×119	691	1282
4-2×79-12E	1474	1520	1574	1086	1136	1186	36-Φ14	10×152	8×142	828	1534
4-2×79-14E	1716	1788	1842	1260	1330	1386	48-Φ14	12×149	10×133	966	1796
4-2×79-16E	2192	2250	2312	1440	1500	1560	50-Φ14	15×150	10×150	1108	2272
4-2×79-18E	2624	2698	2750	1954	2016	2080	66-Φ14	19×140	14×144	983	2744
4-2×79-20E	2910	3000	3060	2165	2261	2315	74-Φ14	20×150	17×133	1098	3030

机 号	安 装 及 外 形 尺 寸											
	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	B7	B8
4-2×79-8E	727	1339	260	260	250	330	260	260	320	320	1300	1260
4-2×79-10E	942	1709	145	275	420	420	150	290	400	400	1570	1586
4-2×79-12E	985	1855	300	300	463	507	300	300	480	530	1790	1830
4-2×79-14E	1171	2150	300	350	500	500	270	270	560	560	1990	1980
4-2×79-16E	1450	2720	350	350	600	600	350	350	600	600	2260	2260
4-2×79-18E	1809	3279	277	468	746	745	172.5	527.5	800	800	2750	2850
4-2×79-20E	1961	3574	320	495	815	815	160	640	850	850	2965	3090

机 号	安 装 及 外 形 尺 寸												
	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	n-Φ3	A	B
4-2×79-8E	1384	795	700	1667	1020	1687	1686	967	824	1413	8-Φ16	2200	1280
4-2×79-10E	1712	991	880	2073	1240	2051	2066	1193	1057	1778	8-Φ18	2760	1620
4-2×79-12E	2040	1187	1020	2441	1455	2450	2416	1421	1220	2073	8-Φ18	3080	1820
4-2×79-14E	1364	1379	1196	2855	1686	2842	2802	1659	1410	2395	8-Φ20	4200	2350
4-2×79-16E	2780	1580	1360	3251	1960	3284	3212	1891	1620	2820	8-Φ20	4550	3000
4-2×79-18E	3300	1880	1570	3593	2040	3560	3543	2023	1880	3300	8-Φ22	4980	3490
4-2×79-20E	3580	2020	1760	4015	2260	3950	3945	2255	2070	3630	8-Φ24	5200	3860

4–70（72）性能参数表 Performance data

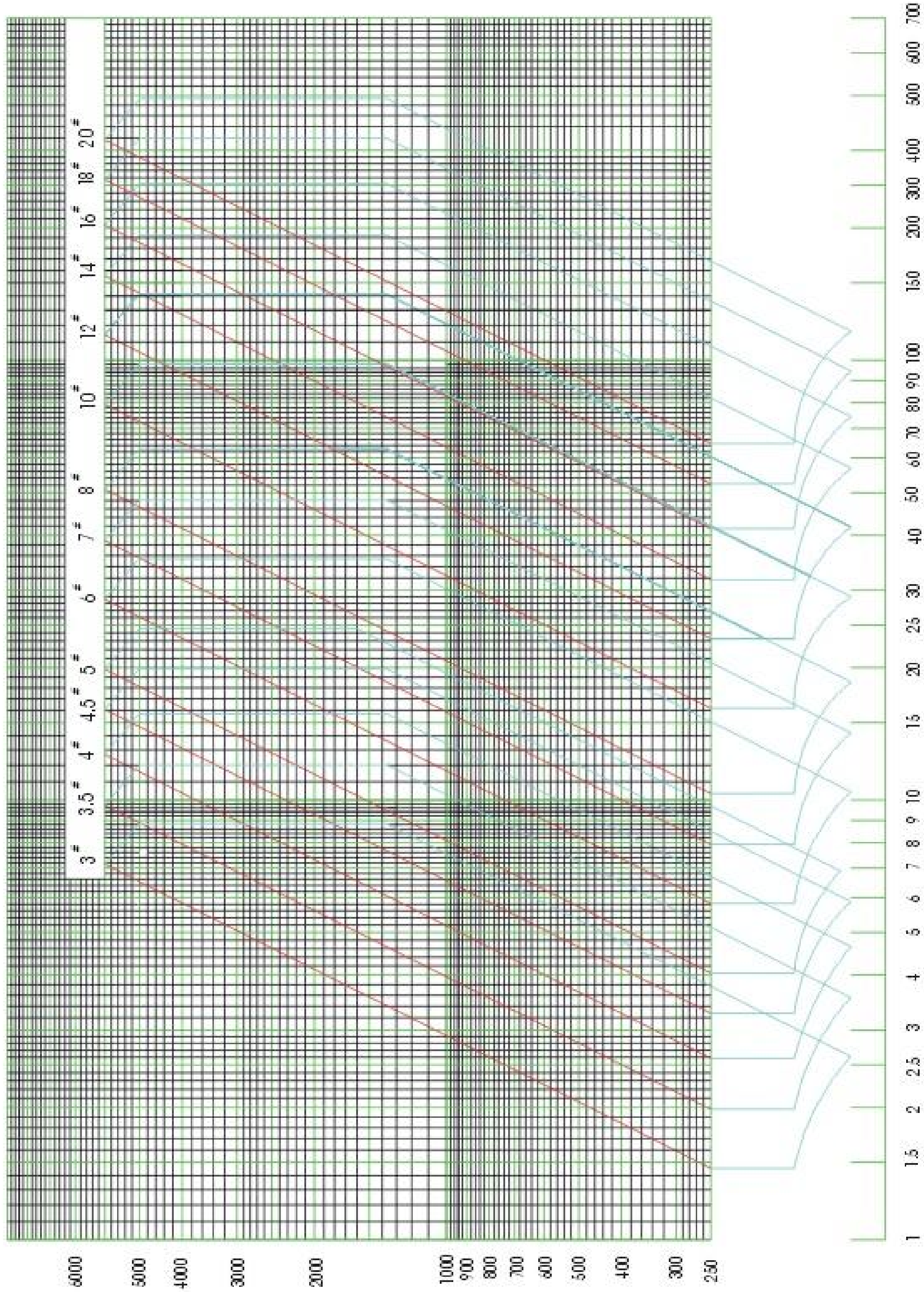
机号 Machine Number	转数 Speed (r/min)	全压 Total Pressure (Pa)	流量 Air-flow Rate (m^3/h)	电机功率 Motor Power (kw)	重量 Weight (kg)
2.8A	2900	670-940	2290-1470	1.1	53
3A	2900	836-1181	2823-1895	1.1	57
	1450	209-295	1412-930	0.37	58
3.2A	2900	880-1230	3400-2210	1.5	69
	1450	220-310	1700-1105	0.55	69
3.5A	2900	1138-1608	4454-2950	2.2	82
	1450	284-402	2230-1480	0.75	79
4A	2900	1465-2100	6693-4407	5.5	145
	1450	372-525	3346-2204	1.1	103
4.5A	2900	1881-2658	9529-6275	7.5	169
	1450	470-665	4765-3118	1.1	121
5A	2900	2322-2950	13072-8608	11	234
	1450	581-820	6536-4304	2.2	151
6A	1450	836-1181	11294-7437	4	187
	960	366-517	7477-4924	1.5	177

机号 Machine Number	转数 Speed (r/min)	全压 Total Pressure (Pa)	流量 Air-flow Rate (m^3/h)	电机功率 Motor Power (kw)	三角胶带V-belt			风机轮 Driven Pulley	电机轮 Driving pulley	电机导轨 Chute-rail	重量 Weight (kg)
					型号 Type	根数 Qty	长度 Length				
7C	1800	1754-2478	22263-14661	4P-15	B	4	3175	54-B4-280	42-B4-350	SHT-2	534
	1600	1385-1958	19790-13032	4P-11	B	4	3175	54-B4-280	42-B4-310	SHT-2	513
	1250	846-1195	15461-10181	4P-5.5	B	4	3353	54-B4-280	38-B4-240	SHT-1	458
	1120	679-959	13853-9122	4P-4	B	4	3353	54-B4-280	28-B4-215	SHT-1	433
	1000	541-765	12368-8145	4P-3	A	2	3175	54-A2-280	28-A2-195	SHT-1	428
	900	438-625	11132-7332	4P-2.2	A	2	3175	54-A2-280	28-A2-175	SHT-1	424
	800	346-490	9895-6519	4P-1.5	A	2	3175	54-A2-280	23-A2-155	SHT-1	417
	710	273-386	8982-5783	4P-1.1	A	2	3175	54-A2-280	23-A2-135	SHT-1	412

机号 Machine Number	转数 Speed (r/min)	全压 Total Pressure (Pa)	流量 Air-flow Rate (m^3/h)	电机功率 Motor Power (kw)	三角胶带V-belt			风机轮 Driven Pulley	电机轮 Driving pulley	电机导轨 Chute-rail	重量 Weight (kg)
					型号 Type	根数 Qty	长度 Length				
8C	1600	1810-2557	29540-19453	4P-22	C	4	3810	54-C_4-280	48-C_4-310	SHT-2	627
	1270	1105-1561	23078-15198	4P-11	B	4	3810	54-B_4-280	42-B_4-240	SHT-2	560
	1120	887-1252	20678-13617	4P-7.5	B	4	3810	54-B_4-280	38-B_4-215	SHT-2	518
	1000	707-999	18463-12158	4P-5.5	B	4	3556	54-B_4-280	38-B_4-195	SHT-1	505
	900	573-809	16616-10942	4P-4	B	4	3556	54-B_4-280	28-B_4-175	SHT-1	480
	800	452-639	14770-9762	4P-3	A	2	3556	54-A_2-280	28-A_4-155	SHT-1	475
	710	356-504	13108-8632	4P-2.2	A	2	3556	54-A_2-280	28-A_2-135	SHT-1	471
	630	281-396	11631-7660	6P-1.5	A	2	3556	54-A_2-280	28-A_2-185	SHT-1	470
10C	1300	1867-2638	46878-30870	4P-37	D	5	4572	65-D_5-380	55-D_5-340	SHT-4	1104
	1170	1512-2137	42190-27783	4P-30	C	4	4572	65-D_5-380	55-C_4-310	SHT-3	1090
	1000	1195-1688	37502-24696	4P-18.5	B	4	4572	65-C_4-380	48-B_4-275	SHT-2	1000
	940	976-1379	33896-22312	4P-15	B	4	4572	65-B_4-380	42-B_4-245	SHT-2	964
	830	761-1075	29930-19709	4P-11	B	4	4521	65-B_4-380	42-B_4-215	SHT-2	943
	740	605-855	26684-17572	4P-7.5	B	4	4521	65-B_4-380	38-B_4-195	SHT-2	901
	660	481-680	23799-15672	6P-5.5	B	4	4521	65-B_4-380	38-B_4-260	SHT-2	904
	580	372-525	20914-13772	6P-4	B	4	4521	65-B_4-380	38-B_4-230	SHT-1	893
	520	299-422	18751-12348	6P-3	B	4	4521	65-B_4-380	38-B_4-205	SHT-1	883
12C	1040	1720-2431	68804-42675	4P-55	D	5	4572	65-B_4-380	70-D_5-270	SHT-4	1629
	941	1405-1986	58572-38571	4P-37	D	5	4572	65-D_5-380	60-D_5-245	SHT-4	1486
	830	1092-1548	51718-34058	6P-22	C	4	4572	65-D_5-380	55-C_4-330	SHT-4	1452
	740	871-1231	46110-30365	6P-18.5	C	4	4572	65-C_4-380	55-C_4-290	SHT-3	1422
	660	693-979	41125-27082	6P-11	B	4	4521	65-C_4-380	42-B_4-260	SHT-3	1349
	580	535-756	36140-23799	6P-7.5	B	4	4521	65-B_4-380	42-B_4-230	SHT-2	1321
	520	430-608	32420-21337	6P-5.5	B	4	4521	65-B_4-380	38-B_4-205	SHT-1	1286
	470	351-497	29286-19286	6P-4	B	4	4521	65-B_4-380	38-B_4-185	SHT-1	1276
	420	281-396	26171-17234	6P-3	B	4	4521	65-B_4-380	38-B_4-165	SHT-1	1265

机号 Machine Number	转数 Speed (r/min)	全压 Total Pressure (Pa)	流量 Air-flow Rate (m³/h)	电机功率 Motor Power (kw)	三角胶带V-belt 型号 Type	三角胶带V-belt 根数 Qty	三角胶带V-belt 长度 Length	风机轮 Driven Pulley	电机轮 Driving pulley	电机导轨 Chute-rail	重量 Weight (kg)
14E	830	1083-2070	91137-57898	6P-55	D	5	6096	80-D_5-480	75-D_5-410	SHT-4	2660
	740	860-1645	81254-51620	6P-37	D	5	6096	80-D_5-480	65-D_5-375	SHT-4	2473
	660	685-1308	72470-46030	6P-30	C	4	6096	80-C_4-480	60-C_4-330	SHT-3	2357
	580	528-1010	63686-40459	6P-18.5	C	4	6096	80-C_4-480	55-C_4-300	SHT-3	2285
	520	425-812	57098-36273	6P-15	C	4	5334	80-C_4-480	48-C_4-265	SHT-2	2260
	470	347-664	51608-32785	6P-11	B	4	5334	80-B_4-480	42-B_4-236	SHT-2	2212
	420	277-530	46118-29298	6P-7.5	B	4	5334	80-B_4-480	42-B_4-212	SHT-2	2184
	370	215-411	40627-25810	6P-5.5	B	4	5334	80-B_4-480	38-B_4-190	SHT-1	2149
	330	171-327	36235-23020	6P-4	B	4	5334	80-B_4-480	38-B_4-170	SHT-1	2138
16E	830	1414-2702	136042-86425	6P-90	D	5	7112	90-D_5-590	85-D_5-510	SHT-5	3554
	740	1124-2148	121290-77035	6P-75	D	5	6858	90-D_5-590	75-D_5-410	SHT-5	3464
	660	894-1709	108178-68723	6P-55	D	5	6858	90-D_5-590	85-D_5-510	SHT-4	3069
	580	690-1320	95065-60393	6P-37	D	5	6858	90-D_5-590	65-D_5-355	SHT-4	2882
	520	555-1060	85231-54145	6P-22	C	4	6350	90-C_4-590	55-C_4-330	SHT-3	2724
	470	454-867	77036-48940	6P-18.5	C	4	6350	90-C_4-590	55-C_4-300	SHT-3	2694
	420	362-692	68840-43723	6P-15	C	4	6350	90-C_4-590	48-C_4-265	SHT-2	2669
	370	281-537	60645-38527	6P-11	B	4	6096	90-B_4-590	42-B_4-224	SHT-2	2621
	330	224-427	54088-34362	6P-7.5	B	4	6096	90-B_4-590	42-B_4-220	SHT-2	2593
18E	660	1132-2163	154026-97850	6P-90	D	7	7112	100-D_7-640	80-D_7-440	SHT-5	4854
	580	874-1670	135356-85990	8P-75	D	5	7112	100-D_5-640	85-D_5-510	SHT-5	4574
	520	703-1343	121345-77094	8P-55	D	5	7112	100-D_5-640	75-D_5-475	SHT-4	4474
	470	574-1097	109685-69680	8P-30	C	4	6858	100-C_4-640	65-C_4-410	SHT-4	3879
	420	458-876	98017-62268	8P-22	C	4	6858	100-C_4-640	60-C_4-375	SHT-3	3766
	370	356-680	86348-54855	8P-15	C	4	6858	100-C_4-640	55-C_4-330	SHT-3	3724
	330	283-541	77013-48925	8P-11	B	4	6858	100-B_4-640	48-B_4-300	SHT-2	3658
	290	219-418	67678-42995	8P-7.5	B	4	6096	100-B_4-640	42-B_4-265	SHT-2	3619
	260	176-336	60677-38457	8P-5.5	B	4	6096	100-B_4-640	42-B_4-236	SHT-2	3593

七、4-70(2)型离心风机性能选型图
Centrifugal Fan Performance Selection Chart

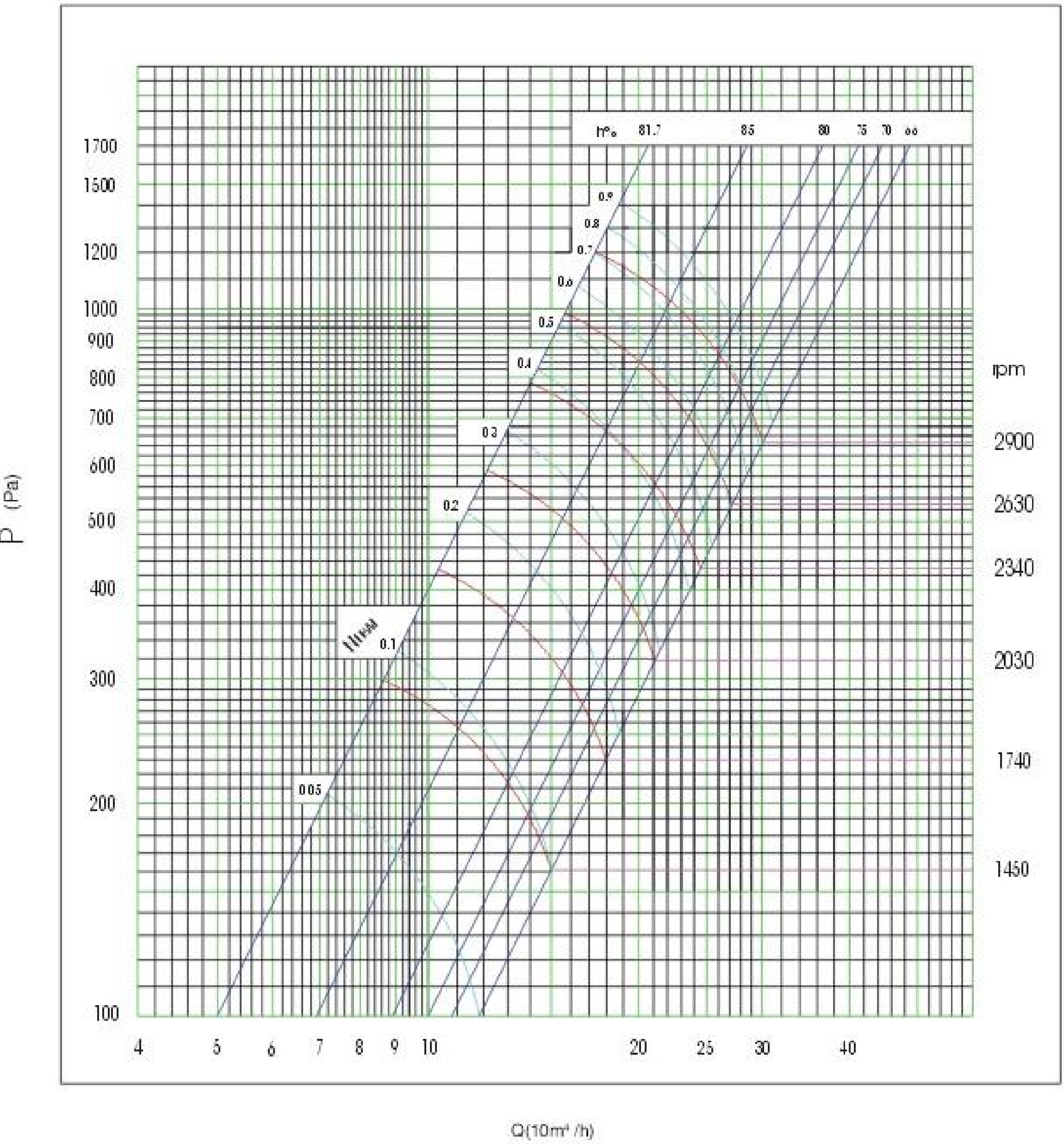


全压Total Pressure P(Pa)

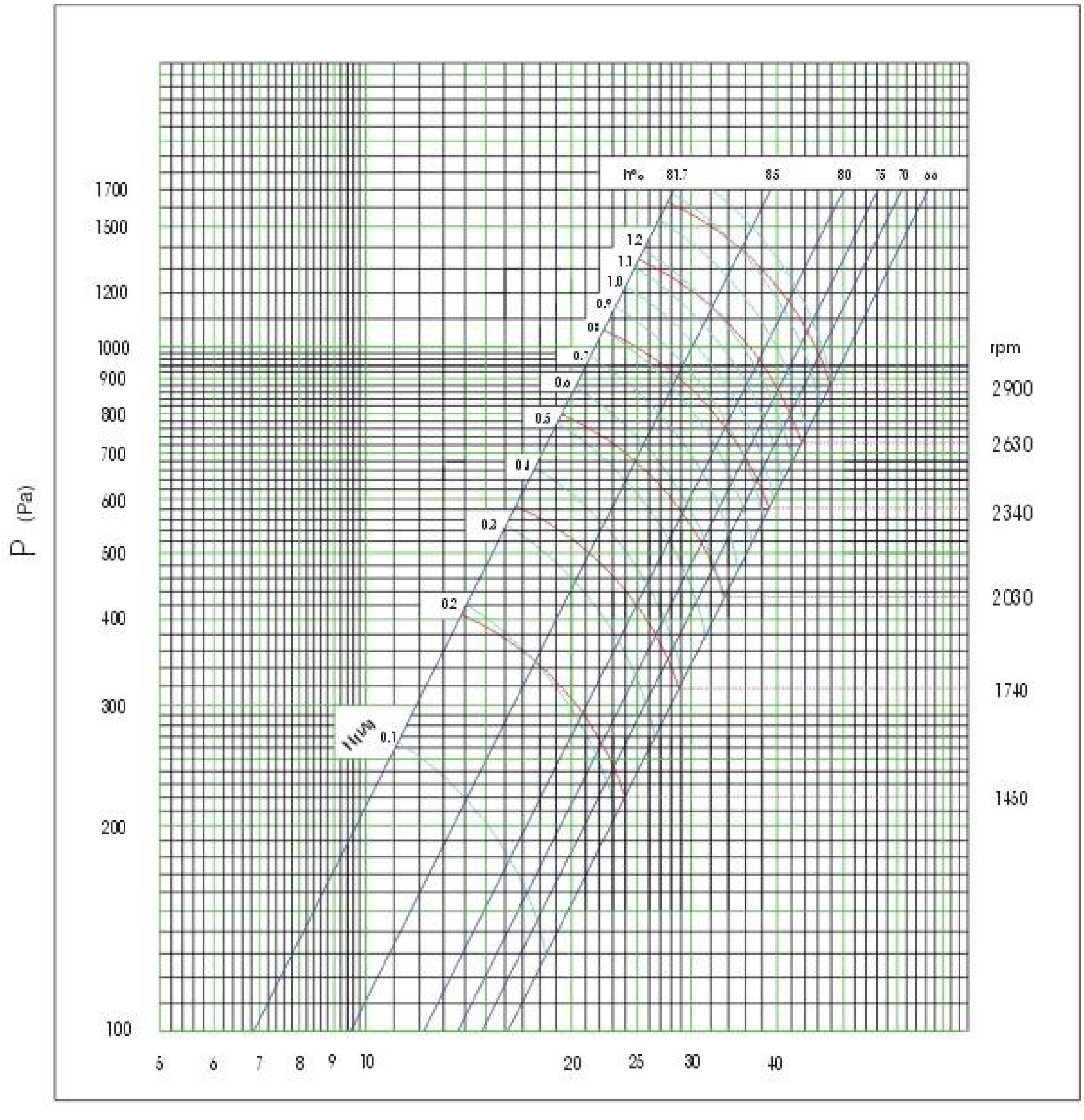
流量 Air Flow Q × 10³(M³/h)

4-70（2）性能曲线图 Performance curve

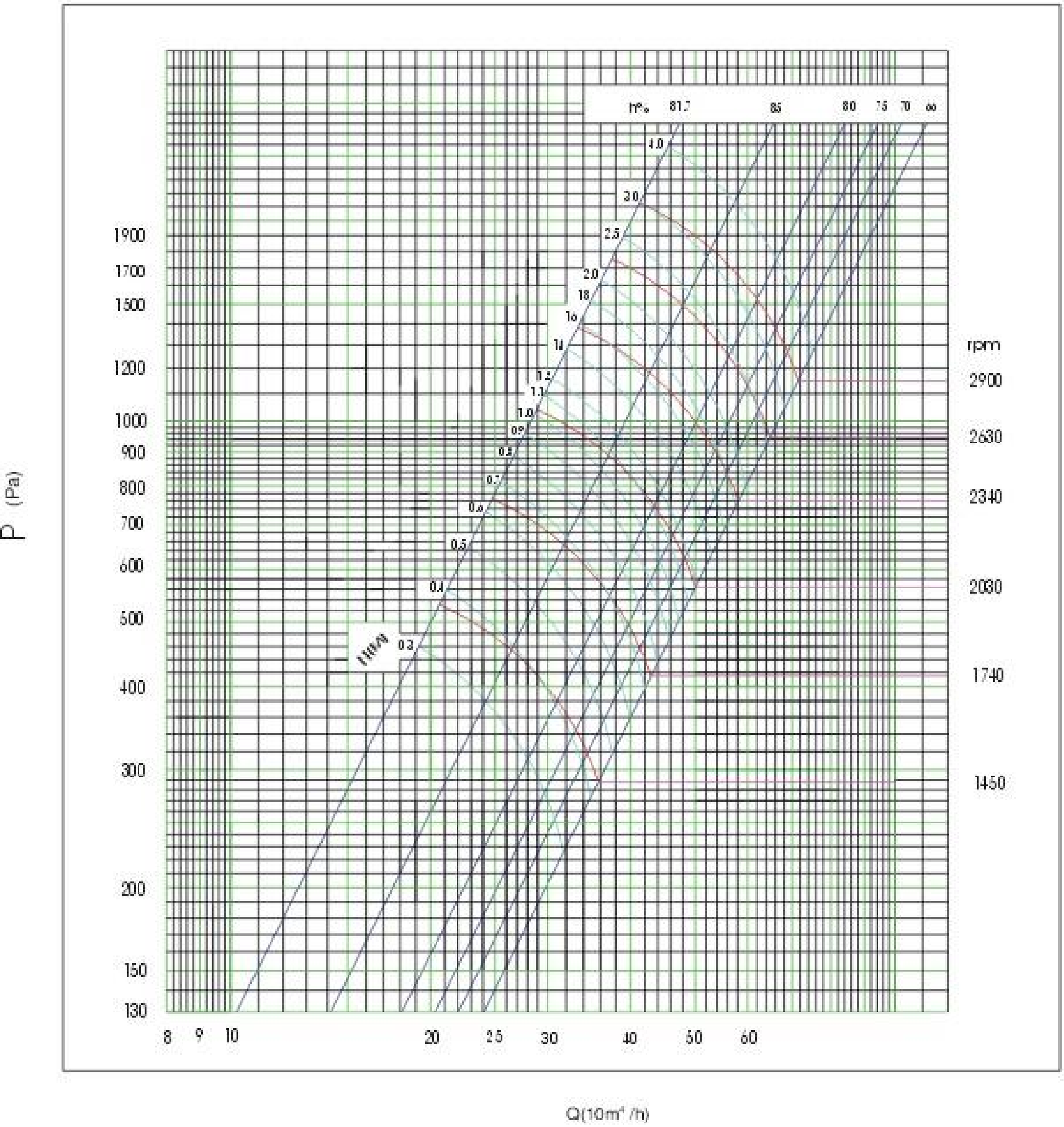
4-70(72)-NO3 Performance curve



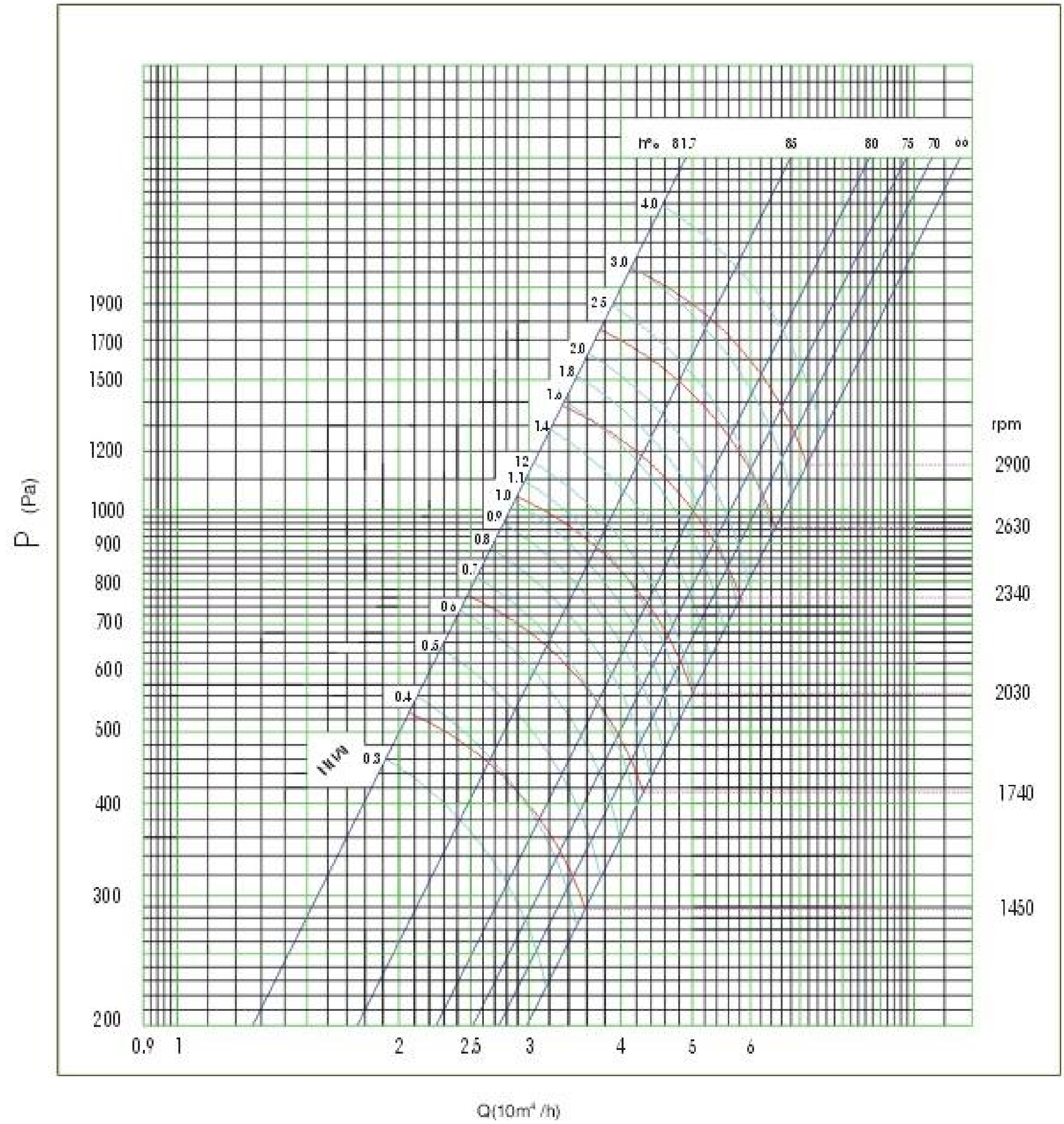
4-70(72)-NO3.2 Performance curve



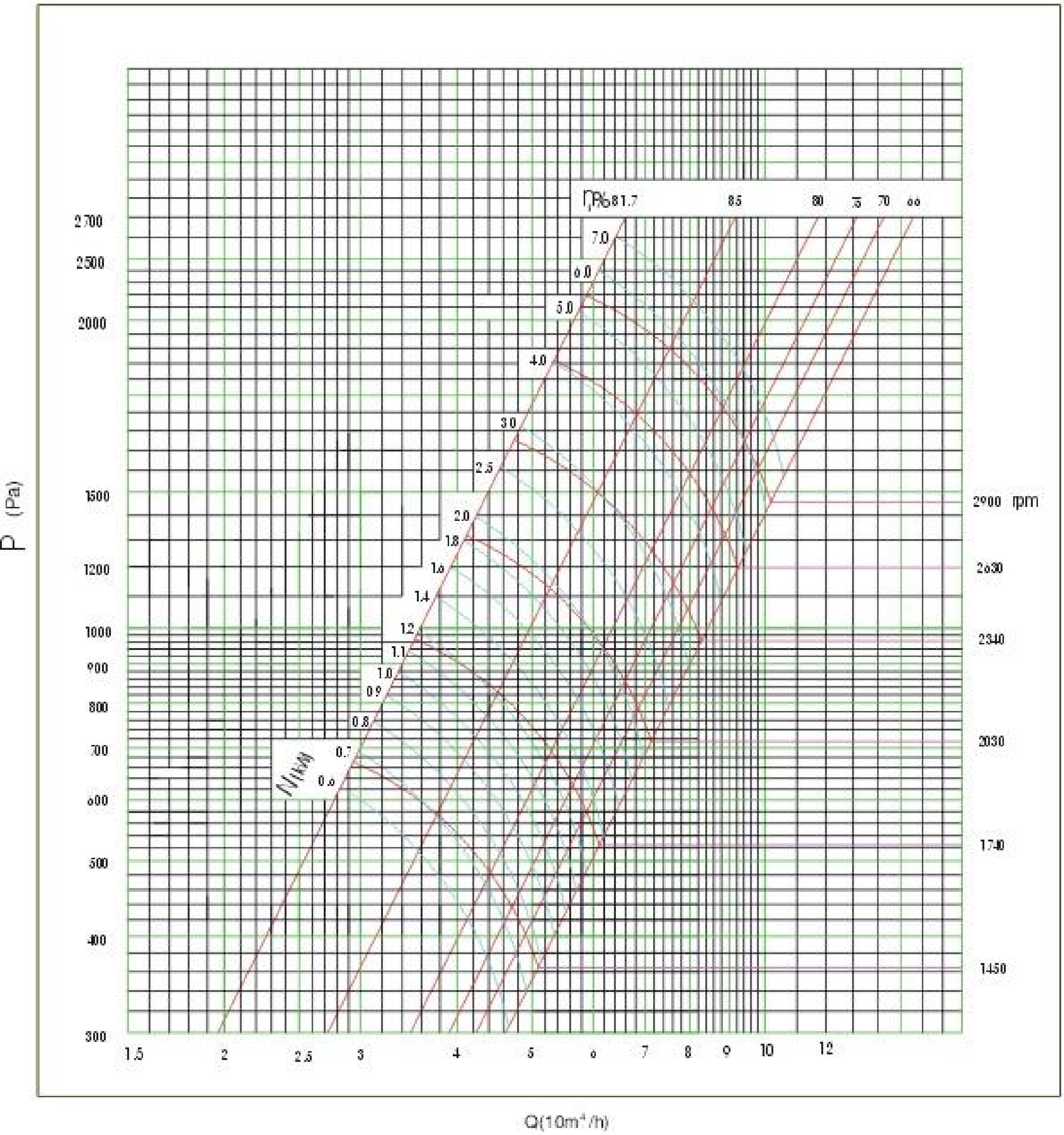
4-70(72)-NO3.5 Performance curve



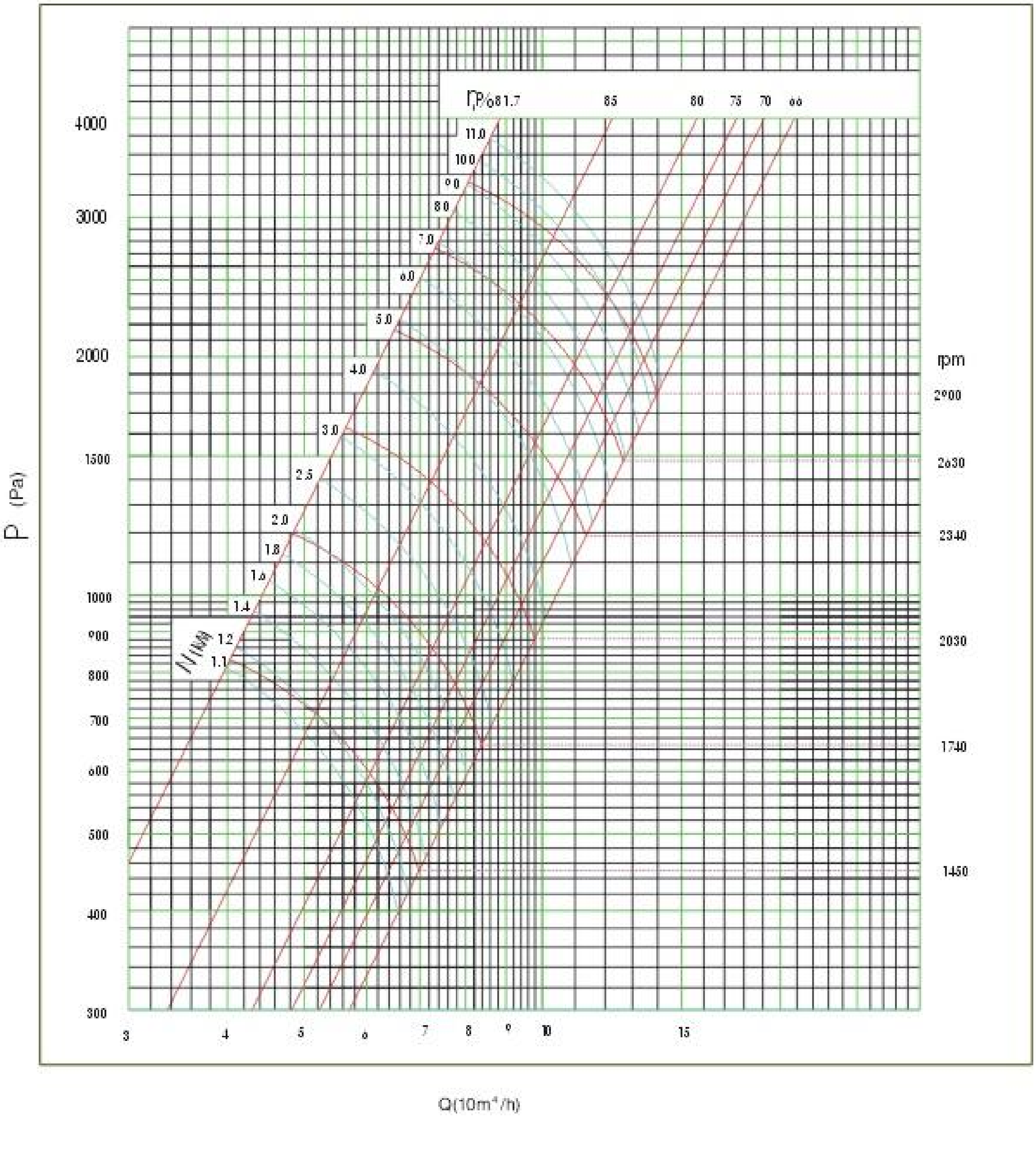
4-70(72)-NO4 Performance curve



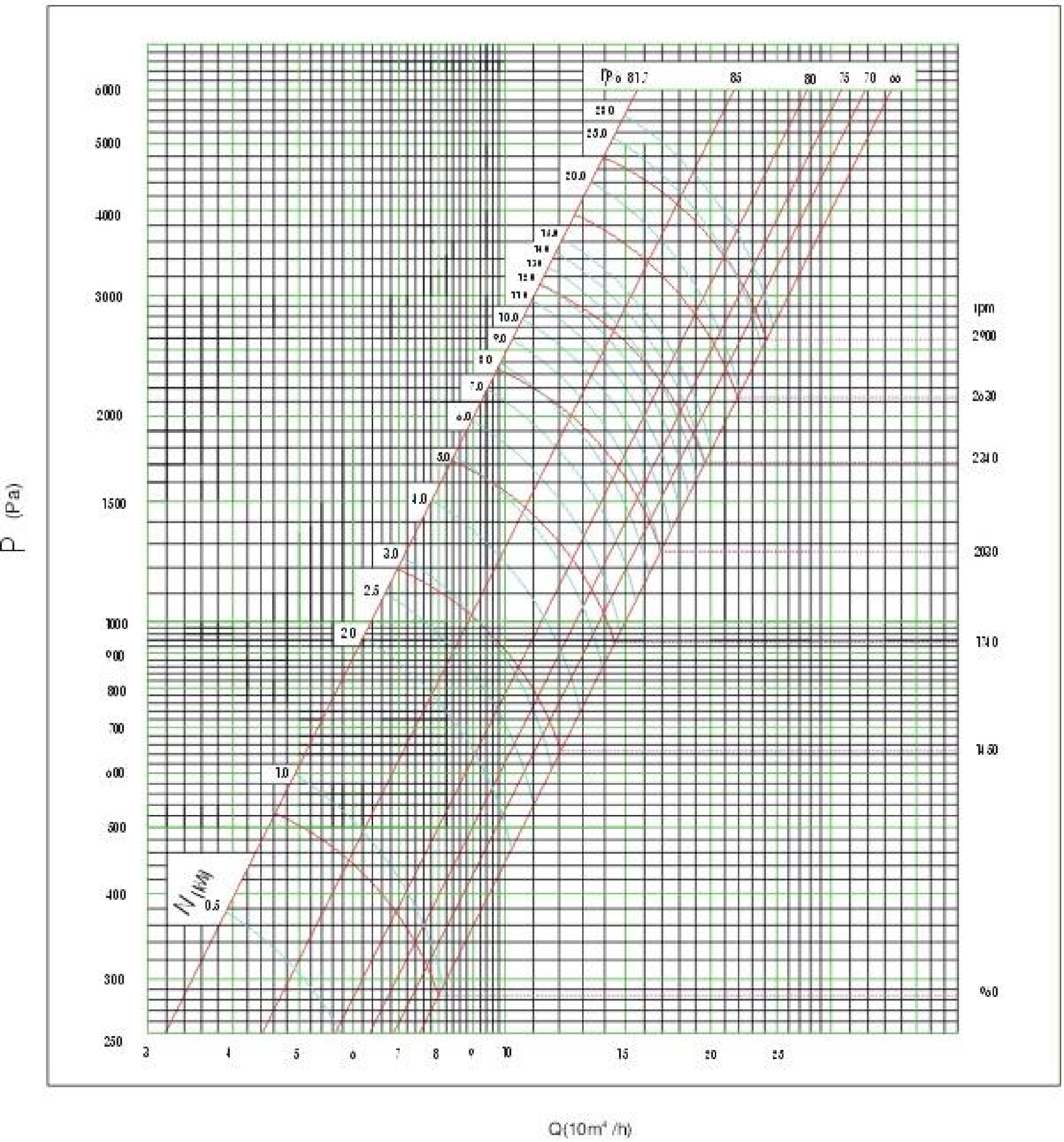
4-70(72)-NO4.5 Performance curve



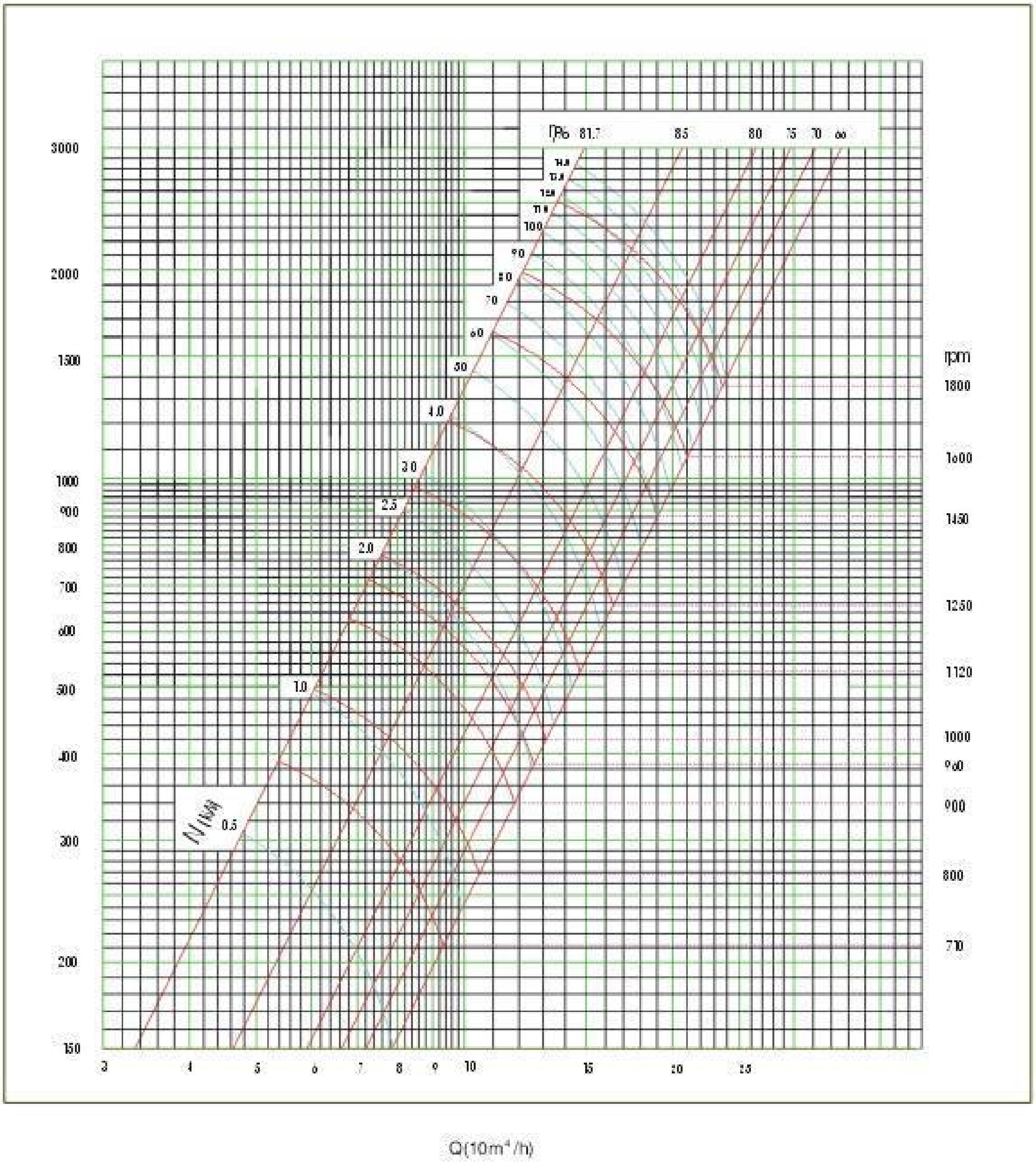
4-70(72)-NO5 Performance curve



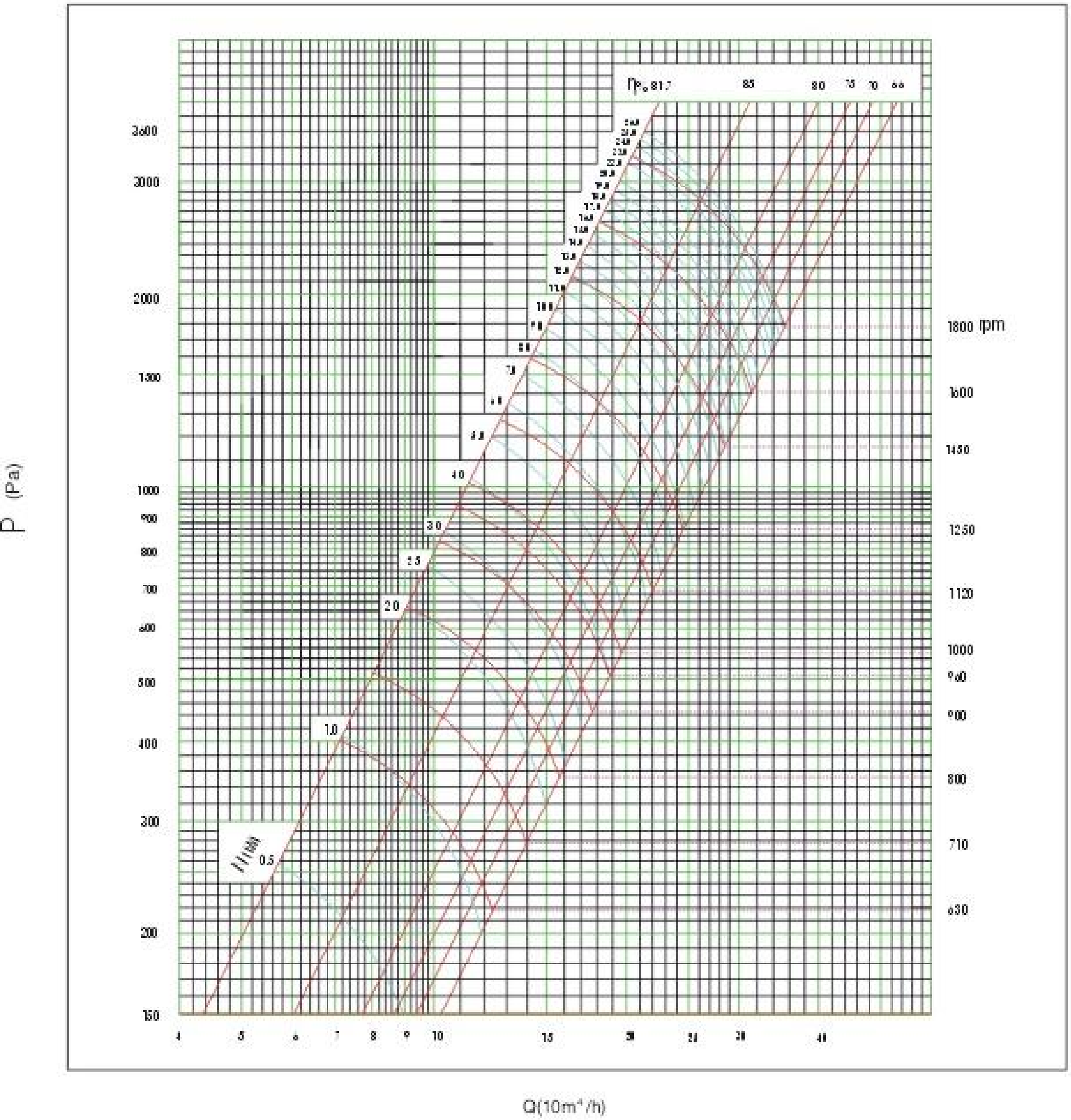
4-70(72)-NO6 Performance curve



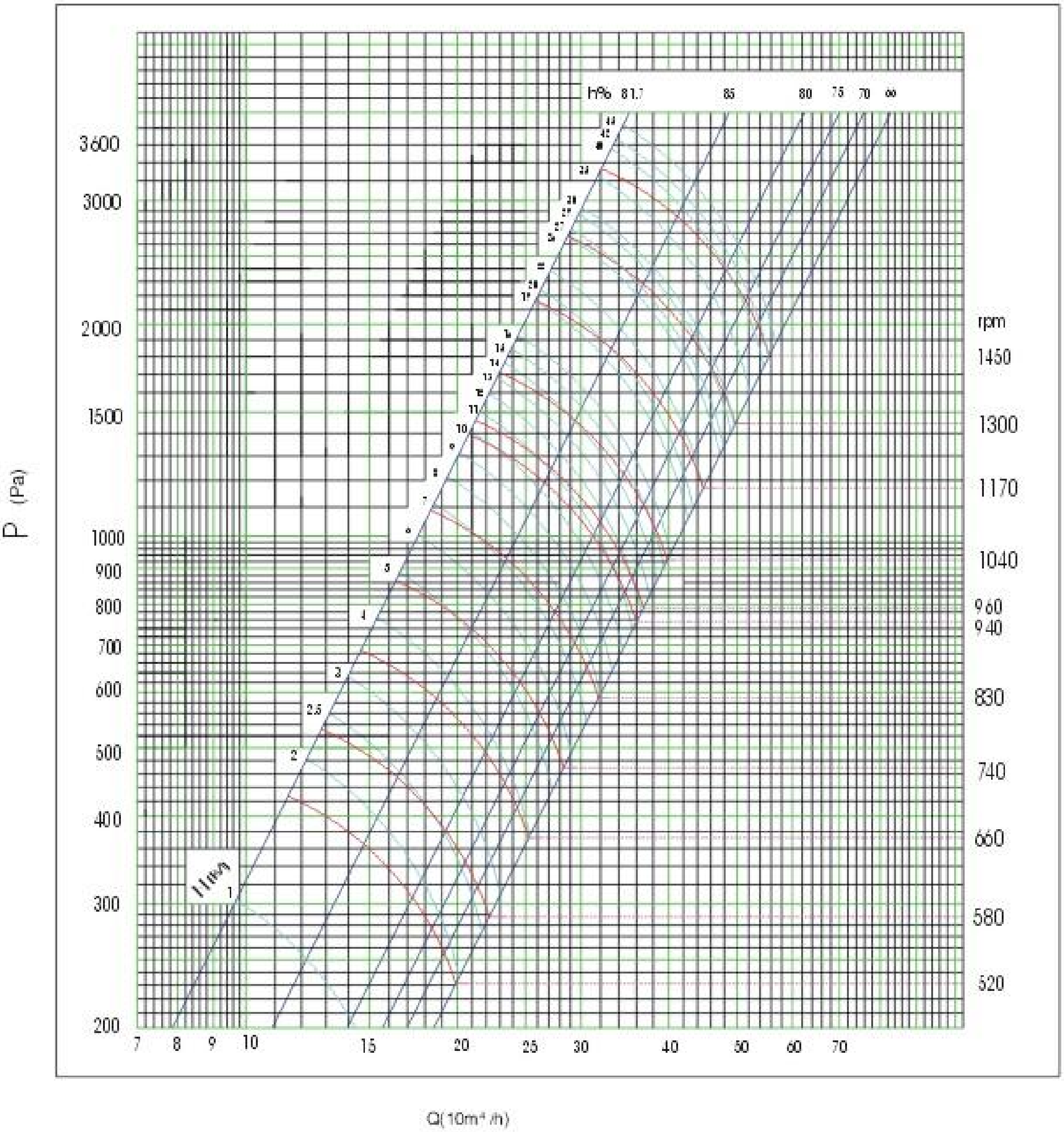
4-70(72)-NO7 Performance curve



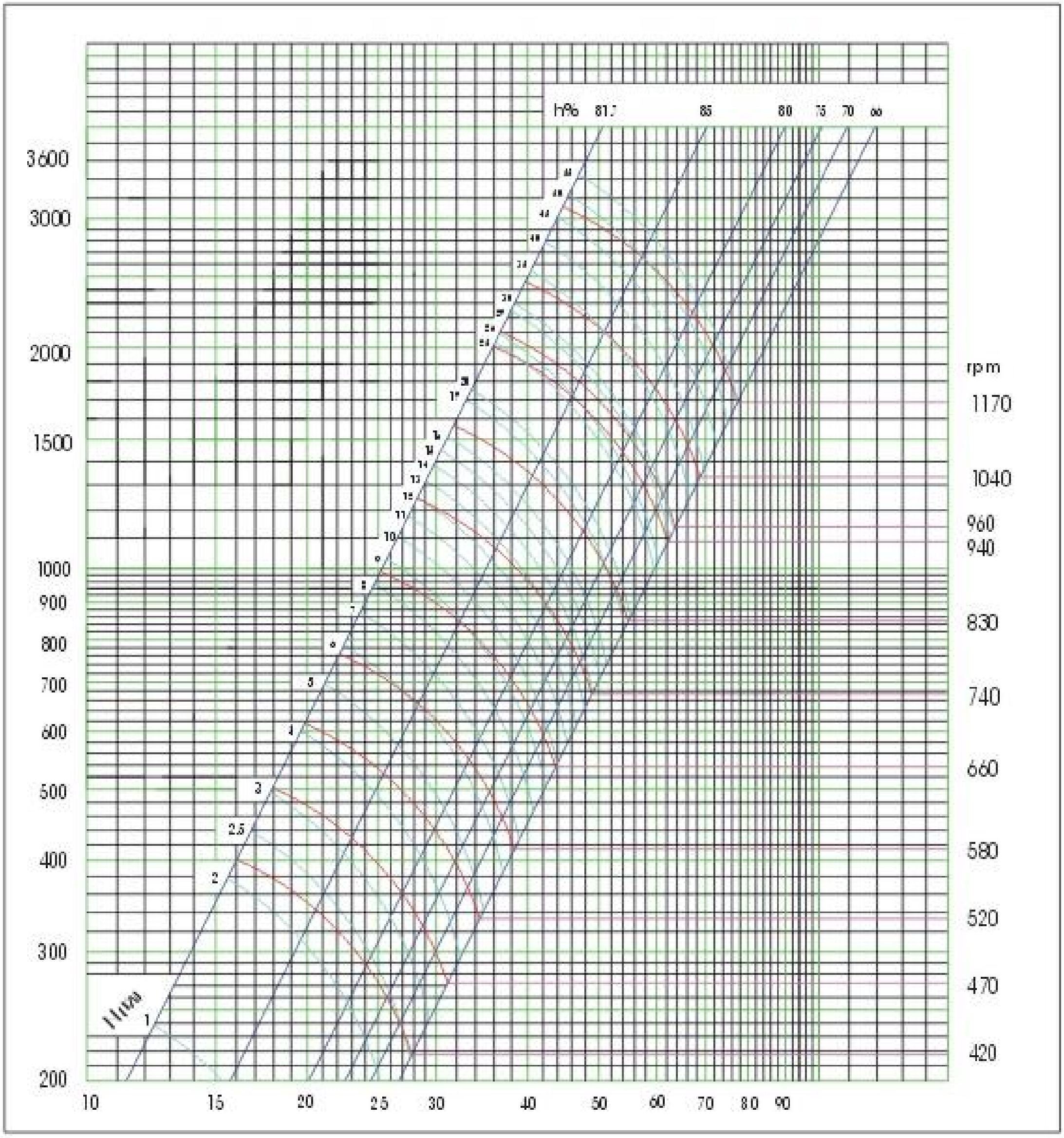
4-70(72)-NO8 Performance curve



4-70(72)-NO10 Performance curve

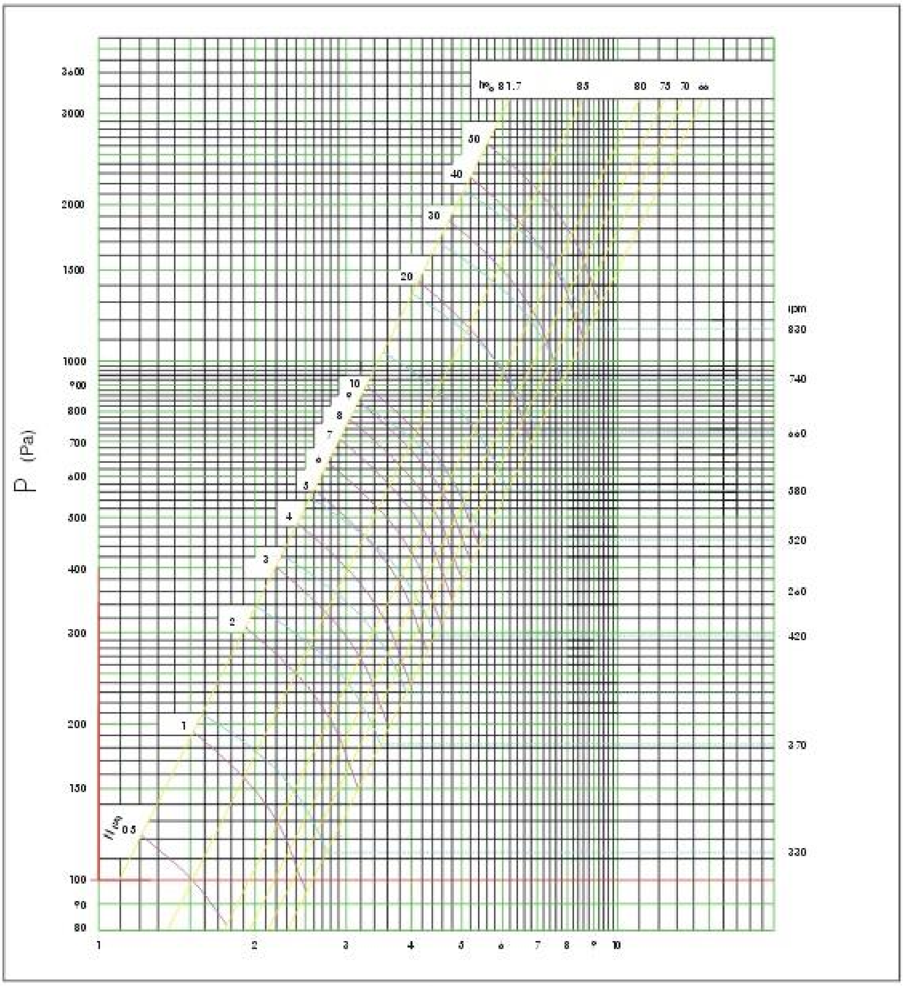


4-70(72)-NO12 Performance curve

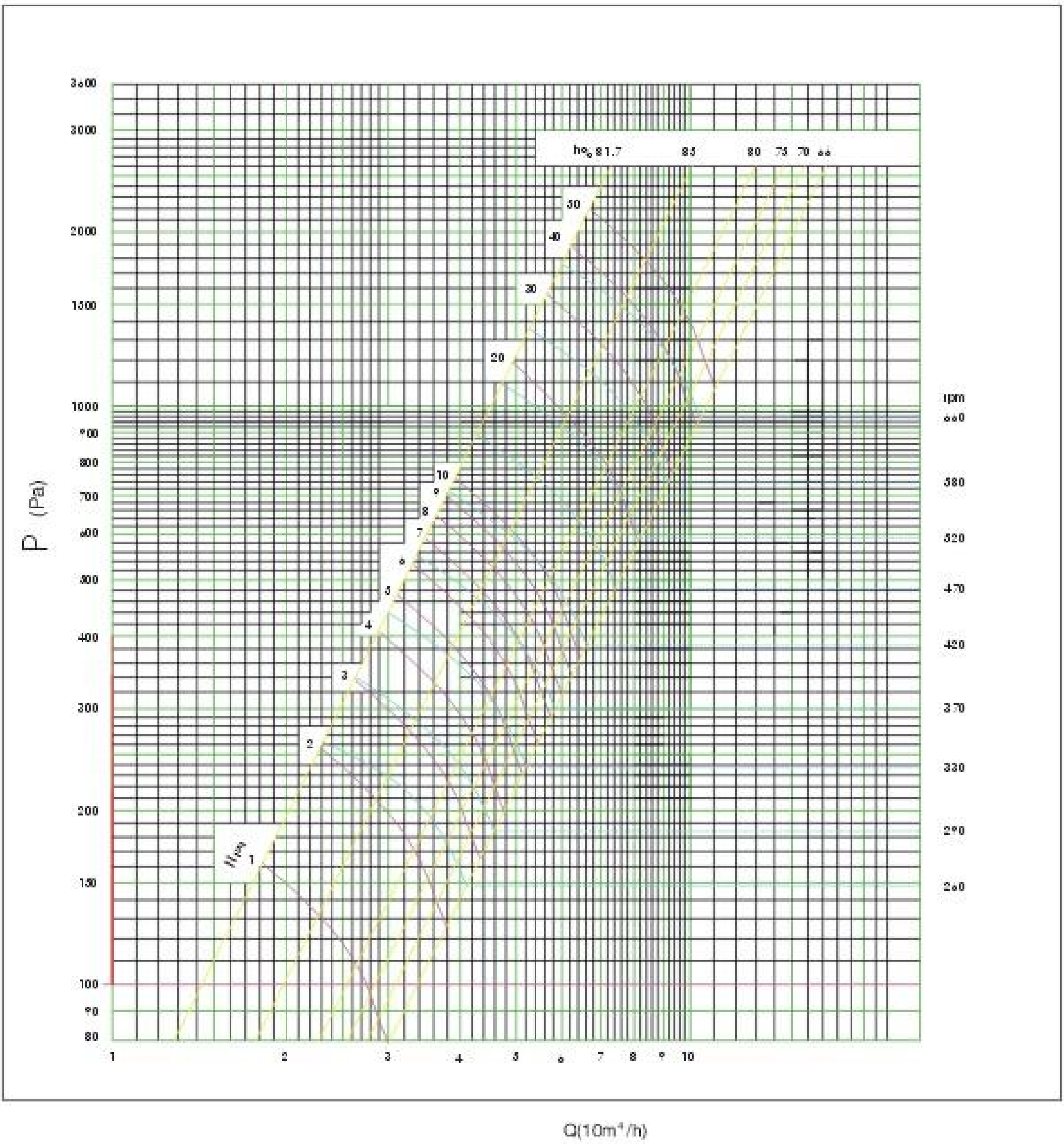


Q(10m³/h)

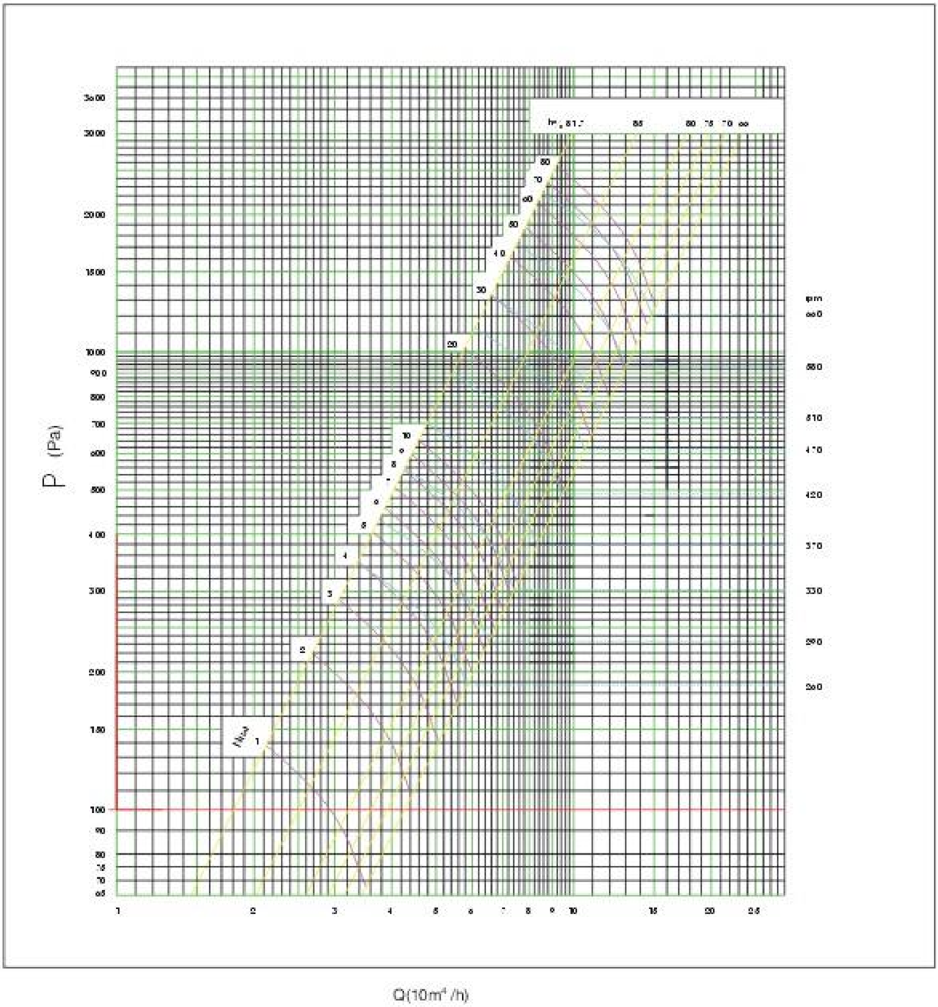
4-70(72)-NO14 Performance curve



4-70(72)-NO16 Performance curve



4-70(72)-NO18 Performance curve



机号	电机型号	进风口尺寸				出风口尺寸													
		D1	D2	D3	n-Φ1	B1	B2	B3	B4	B5	B6	n1×d1	n1×d2	n-Φ2	B7	B8	A1	A2	A3
2.8A	Y802-2	Φ280	Φ305	Φ330	8-Φ9.5	202	234	262	228	258	288	3×78	3×86	12-Φ10	232	199	196	135	125
3A	Y802-2 Y802-4	Φ300	Φ330	Φ360	8-Φ9.5	216	246	276	244	276	304	3×82	3×92	12-Φ10	256	140	209	145	125
3.2A	Y90S-4 Y90S-2	Φ320	Φ350	Φ380	10-Φ9.5	230	258	290	260	292	320	3×86	4×73	14-Φ10	270	160	226	159	140
3.5A	Y90L-2 Y90S-4	Φ350	Φ380	Φ410	10-Φ9.5	251	292	331	284	324	364	4×73	4×81	16-Φ10	291	160 150	249	173	140
4A	Y132S,-2 Y90S-4	Φ400	Φ430	Φ460	10-Φ9.5	286	324	366	324	364	404	4×81	4×91	16-Φ10	336	230 150	282	199	220 130
4.5A	Y132S,-2 Y90S-4	Φ450	Φ480	Φ510	10-Φ9.5	315	356	395	360	400	440	4×89	5×80	18-Φ10	365	240 150	319	225	230 140
5A	Y160M,-2 Y100L,-4	Φ500	Φ540	Φ580	12-Φ9.5	350	400	430	400	450	480	4×100	5×90	18-Φ10	400	355 180	353	251	270 150
6A	Y112M-4 Y100L-6	Φ600	Φ640	Φ680	12-Φ9.5	426	475	526	484	534	584	5×95	6×89	22-Φ10	476	185 178	423	291	195 155

机号	电机型号	安装及外形尺寸																			
		A4	A5	A6	A7	A8	A9	A10	A11	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	L	n-Φ2
2.8A	Y802-2	177	225	125	165	145	125	180	160	496	274	355	587	574	232	290	512	250	592	482	6-Φ10
3A	Y802-2 Y802-4	183	230	125	170	170	125	230	183	527	294	380	628	611	249	310	544	260	623	498	6-Φ10
3.2A	Y90S-2 Y90S-4	190	200	140	200	160	140	190	190	554	314	405	671	652	266	330	570	282	668	534	6-Φ12
3.5A	Y90L-2 Y90S-4	217	217	140	200	200	140	217	217	621	344	450	741	721	291	360	638	300	731	583 558	6-Φ12
4A	Y132S,-2 Y90S-4	230	230	220 130	230	230	220 130	230	230	700	390	500	830	814	330	420	730	350	834	763 602	6-Φ12
4.5A	Y132S,-2 Y90S-4	240	280	230 140	290	290	230 140	280	240	778	437	560	929	908	369	460	801	390	929	799 642	6-Φ12
5A	Y160M,-2 Y100L,-4	293	293	270 150	270	270	270 150	293	293	857	784	610	1019	1001	409	500	874	415	1008	953 746	6-Φ14
6A	Y112M-4 Y100L-6	375	405	195 155	395	335	195 245	405	375	1032	581	750	1241	1206	491	600	1051	500	1215	844 824	6-Φ14

风机的安装与使用
Installation and Operations

(一)安装

1、安装前首先检查风机各部件是否齐全，对蜗壳、叶轮、主轴等主要部件应检查是否出现由于运输而出现变形和损坏，否则，应予修复后方可安装。

2、风机运行前应检查各部位螺栓是否拧紧，如出现松动，必须拧紧各部位的螺栓；校正进风口与叶轮之间的间隙，主轴保持水平和中心位置。

3、检查机壳内部是否有掉入或遗留的工具和杂物，否则应予清除。

4、安装4-79型、4-70型D式风机时，应利用千分表和塞尺，测量风机主轴和电机轴的同心度及联轴器两端面的平等度，否则应予校正。两轴同心度允差为0.05mm，联轴器两端面不平行度允差为0.1mm。

5、风机安装完毕后，用手或杠杆拨动叶轮，检查是否有过紧或碰撞现象。在无过紧或碰撞的情况下主可进行试运转。

6、风机安装后，应安装带轮和联轴器的防护罩，如进气口处不接进气管道时，也需添加防护罩（用户自备）。

7、安装进风口管道时，可以直接利用风机进口的螺栓孔进行连接。但通风管道的重量不应加在机壳上。

8、风机的其它部件，必须严格按图纸要求进行安装。

9、主轴转数（n）变化后，其风机的流量Q、全压H、轴功率N变化如下：

$$Q_1/Q_2=n_1/n_2; \quad H_1/H_2=(n_1/n_2)^2; \quad N_1/N_2=(n_1/n_2)^3$$

因此，在装机容量不改变时，主轴转数不得增大，否则，会导致电机过载而被烧坏。

10、风机所消耗的功率，是指在额定工况条件下，虽然有一定的富余量，但是，由于工况条件的故意改变而导致电机功率增大，例：进、出风口全开时，风机空运转会使风机消耗功率增大而烧坏电机。在风机试运行时，应查明原因方可运行。

(I) Installation

1、Before mounting, first of all, check over all parts of fan, especially main parts such as worm gear and shaft for transportation deformation and damages. If something is wrong, please repair it before mounting.

2、Check up bolts of all parts before the fans are operated, Please connect all bolts if they become flexible, and check the distance between inlet and impellet to make the shaft keeping horizontal and centre location.

3、Be sure that no remains such as tools, cluster of cloth and left in the fan casing.

4、Keep the nonhomcentricity of fan’s shaft and motor’s shaft within 0.05mm and the unparallelism of two ends of the coupling within 0.1mm for 4-79、4-70 type D style centrifugal fans.

5、Turn the rotator with hand or lever to feel whether it is too tight or impactde after mounting. Make the fan operate under normal condition.

6、Mount belt guard and coupling guard after the mounted, also mount the guard in the inlet if the inlet is not connected by a duct.

7、Couple allowably inlet duct with bolts of fan' s inlet. However, the weight of duct must not be able to load on the fan casing.

8、All other parts of fans must be mounted as per design drawings stringently.

9、Fans' s airflow（Q）, total pressure（H）and shaft absorbed power（N）will have the following changes when impeller speed of rotation（n）changes:

$$Q_1/Q_2=n_1/n_2;\quad H_1/H_2=(n_1/n_2)^2;\quad N_1/N_2=(n_1/n_2)^3$$

Therefore, it is not allowable to increase the impeller speed of rotation without the capacity of motor changing.

Otherwise, it would result in motor' s overload and being damaged.

10、The motor power is not selected for free discharge but for some special condition, Although the motor power has surplusage in specified operation condition, it will increase because of the changing of condition intertionally. For example, fan run freely without any resistance will make the power increase to damage the motor when both opening the inlet and outlet. While the fans are opetating, pay increase to damage the motor when both opening the specified volume, otherwise, the reasons have to be found out.

（二）风机运行中的故障及产生原因

故障名称	产生原因
轴承箱振动剧烈	1．机壳或进风口与叶轮摩擦； 2．基础钢度不牢固； 3．叶轮铆钉松动或叶轮前后盘变形； 4．叶轮轴盘与轴松动，联轴器螺栓松动； 5．机壳与支架、轴承箱盖与轴承座等联接螺栓松动； 6．风机进、出风管安装不良，产生振动； 7．转子不平衡．
轴承温升过高	1．轴承箱剧烈振动； 2．润滑油脂质量不良或油脂内含有灰尘、粘沙、污垢等杂质； 3．轴承箱盖与座联接螺栓拧紧力过大； 4．电机轴与传动轴安装歪斜，前后两端轴承不同轴； 5．滚动轴承损坏．
电动机电流过大和温升过高	1．开机时通风管道内闸门或节流阀未关闭、风管漏气等； 2．风机流量超过规定值； 3．风机输送之气体密度过大； 4．电动机输入电压过低或电源单相断电； 5．受轴承箱振动剧烈的影响 6．受并联风机工作情况恶化或发生故障的影响．
胶带跳动和胶带滑下	两带轮位置没有找正，彼此不在同一截面上，带轮距离太近或胶带太长，风机运转时剧烈振动．

（II）Following table presents some probable causes.

Malfunctions	Probable causes
Vibration of bearing-box	1.Fan house or inlet frcts with impeller 2.The stiffness or strength of foundati 88 88on is not big enough. 3.Impeller rivets become loose or impeller front and behind plate is deformed. 4.Between impeller shaft installing sleeve and shaft has olse contact,coupling bolts come loose. 5.Connection becomes loose between wheel disc and shaft,or fan casing and house frame,or bearing-box and support,or bearing-cap and house frame,or bearing-box and support,or bearing-cap and shaft supports,etc. 6.Duct vibration effected by incorrect mounting of inlet and outlet ducts. 7.Rotator is out of balance.
Overheat of bearing	1.Vibration of bearing-box 2.Lubricant grease is in bad quality or deteriorated or blocked too much,or contains dust,sticky sand and other dirty. 3.The tension of connection bolts between bearing cap and its support is too big. 4.Driven shaft is mounted unnormally to motor shaft.The front and back bearings are not concentric. 5.Roll-bearing is damaged.
Overcurrent and overheat of motor	1.Inlet valve or throttle valve is not vlosed at start while the fans are operated. 2.Airflow surpasses the rated volume. 3.The density of the conveying gas is too high. 4.Input voltage of motor is too low or one phase of electricity is broken is broken down. 5.Effected by the vibration of bearing-box. 6.Connected fans run in bad state even with failure.
Run-away of belt and slipping of belt	Position of pulleys are not setting,each other is not in the same plane.Span of pulleys.Too short or belt too long.Vibration with fan rotation.

（三）维护保养

1．风机维护工作制度

①风机运行时，必须定期检查，是否出现电流过载和发出异常声音，否则，应予修复后方可运转.

②风机长期运行，一年内应予维护保养，电机轴承和传动件的轴承箱应添加润油指，否则，会损坏传动件或电机.

③如风机输送的气体带有尘埃，必须定期清除风机及输送管道内部的灰尘、污垢等杂质，防止锈蚀和堵塞风道.

④风机修复时，应切断电源，以保证安全.

2．风机运转时如出现下列不正常情况之一的，必须停机修复：

发现电流过大；风机运行出现异常的声音；胶带过于松动；发生剧烈振动；电机温升过高.

(III) Maintenance

1． Fan maintenance system

①When the fan is operated, it has to be examined regularly whether the absorbed curent of motor is overloaded and there is unusual sound. Otherwise, the fans may be runned until repairing it.

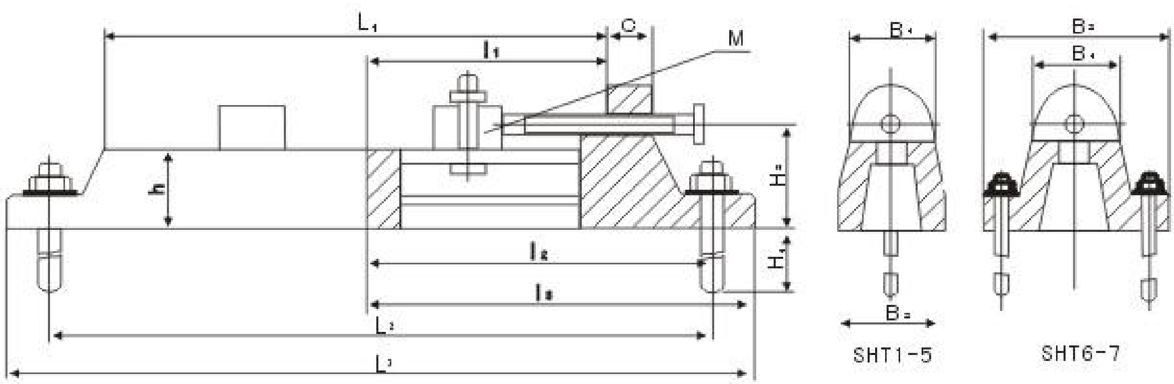
②If the fan is operated continuously, it have to be maintenance in one year, the motor shaft and the casing of the bearing of driven parts have to be get more greade against damaging driven parts or motor.

③If there is any forigen substsmces in the conveying gas, clean up dust and dirty in the fan and ducts regularly to prevent any rust or blocking ducts.

④Being repaired, the fans have to be cut off the electricity supply for safety.

2． Tthere are the following abnormal conditions while the fan is running, it has to be stopped and repaired;

Overcurrent of motor;unusual sound of the running fans; the loosen belt; vibration of bearing-box; the overheat of motor.



4-79、4-70（72）型离心风机电机导轨尺寸表
Chuterail Dimension Table

（单位：mm）

道轨型号 Pail model	L_1	L_2	L_3	1_1	1_2	1_3	C	h	H_1	H_2	B_1	B_2	地脚螺栓 Foot screw bolt	调节螺钉 Adjustment screw	螺栓 Nut (mm)
SHT-0	300	360	390	150	190	205	20	34	130	42	14	18	M8×180	M8×180	M8
SHT-1	400	460	490	200	240	255	20	35	170	46	38	42	M10×200	M12×140	M10
SHT-2	520	580	620	260	300	320	20	45	215	56	45	50	M12×250	M12×140	M12
SHT-3	640	725	785	320	375	405	25	60	270	73	65	75	M16×320	M12×180	M16
SHT-4	820	950	1010	410	490	520	30	70	340	83	90	105	M20×400	M16×220	M20
SHT-5	940	1075	1145	470	555	590	35	85	430	100	110	140	M24×500	M20×260	M24
SHT-6	1100	890	1210	550	445	625	40	60	420	115	150	300	M24×500	M24×300	M24
SHT-7	1400	1145	1525	750	537	785	45	100	530	135	150	320	M30×630	M30×420	M30

DJF-1型电动脚踏两用风机

DJF-1型电动脚踏两用风机

DJF-1型电动脚踏两用风机是由上海市人防科研所和上海市飞机读者设计研究所共同研制的，该风机是人防工事，防空地下室在战争时电源被毁，敌方使用原子、化学或细菌武器的情况下，采用滤毒式通风防护不可少的设备。其技术指标的重点，是保证战争时人力驱动情况下，满足400人单元的滤毒式通风要求。同时，考虑到平、战结合，可利用电源为人防工事、地下旅馆、餐厅和商场等进行通风换气。

DJF-1型电动脚踏两用风机主要技术参数

1.战争时（脚踏驱动）

在四个人驱动，脚踏转速为n=40转/分时。

风量：Q</1200立方公尺/小时。

风压：（全压）：P</120毫米水柱。

四个一般体力的人，能连续运转20分钟以上。

2.平时（电动）

有Y90S-4电动机传动（电机功率N=1.1千瓦，转速n=1400转/分，电源为三相380伏）

风量Q=2600~3060立方米/小时。

风压：（全压）P=90~60`毫米水柱。

DJF-1型电动脚踏两用风机安装与风机

1.安装前应仔细检查通风机各连接部分，叶片与机壳是否有碰擦现象。按图校下风口与叶轮之间间隙尺寸，而保持为水平位置。

2.如机架为散装件装箱，则应先将散装件按DJF-1型风机外形尺寸图整装成机架后，按图示地脚螺栓尺寸，共（11处）分别将机架及增速箱固定到位，尽量使两轴线同心并在其连接处“铰链联轴器”上装圆柱销。然后按使用说明书维护保养一节进行电动、脚踏变换工况（工况变换手把设在增速箱一侧）试运转。

DJF-1型电动脚踏两用风机维护保养

电动脚踏两用风机的经常工作方式是电动，只有在战时才使用脚踏。但一旦使用，都是危急情况，要确保能可靠地动转。所以，平时要加强维护保养，特别是各运动部分。

SR900型电动脚踏两用风机

SR900型电动脚踏两用风机用途

SR900型电动脚踏两用风机供地下人防通风配套使用，当供电正常时电动驱动，电源遭切断时，采用人力带动风机通风。

SR900型电动脚踏两用风机主要技术参数

1.电动

转速2990转/分；风量900~1650米3/时

风压2280~1450帕（232.6~148毫米水柱）

转速2840转/分；风量900~1650米3/时

风压2040~1140帕（208~116.3毫米水柱）

2.脚踏

转速2000转/分；风量900米3/时

风压830帕（84.6毫米水柱）

3.噪声水平

倍频中心频率[赫兹]（分贝）										总声级（分贝）			
31.5	63	125	250	500	1000	2000	4000	8000	16000	A	B	C	L
70	79	79	81	83	81	78	72	61	51	85	87	88	89

脚踏部分是根据每人作功0.28千瓦设计，两人脚踏可作动0.56千瓦，实测功率时，轴功率为0.54千瓦。体力较强的人脚踏可维持十分钟左右，在防空专业队伍中，须考虑有轮换人员的编制。风机有左90°及右90° 两种。

SR900型电动脚踏两用风机安装与使用

1.风机安装时应全面检查机壳内是否有遗留物件，各部联接是否牢固，转动是否灵活，如发现有异常时应及时排除和调整。

2.风机安装应注意呈水平位置，送回风管道的重量不应加在机壳上。

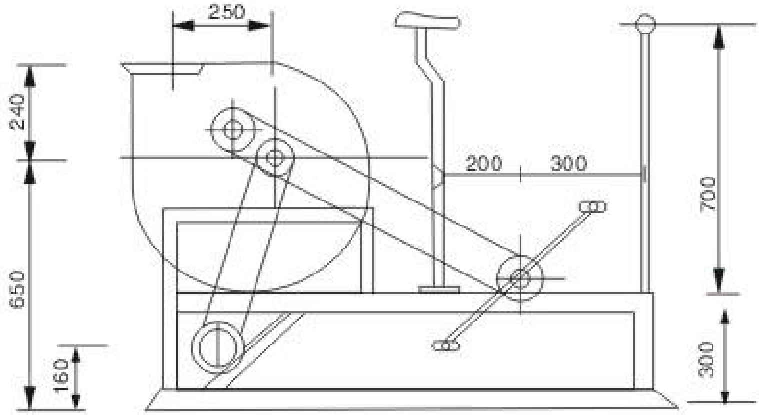
3.在风机运转或停车过程中，如发现不正常现象时，应立即进行检查，只有在风机设备和线路完全正常情况下方可运转。风机及支架可以拆卸，选用时边框不必放大。

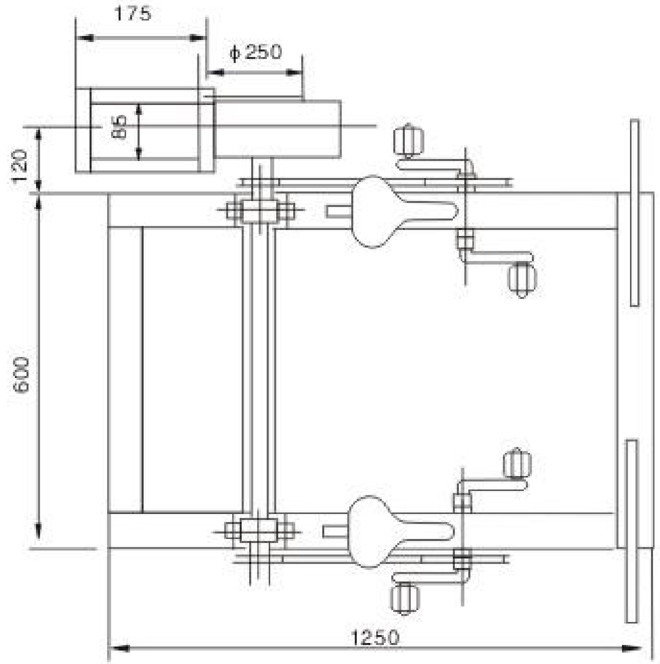
4.使用脚踏时，电动三角皮带应脱卸。风机机座的固定可采用预埋钢板。

SR900型电动脚踏两用风机维修保养

1.SR900型电动脚踏两用风机保养应定期进行，更换润滑油，该风机运行二年后，应全面保养一次。
2.检查支架部分结构，有否锈蚀损坏或失落紧固件。
3.风机长期不使用，应将皮带卸下，或将电机底板调松，使皮带松驰。

SR900型电动脚踏两用风机外形尺寸和安装尺寸





F270型手摇电动两用风机

F270-2型电动手摇两用风机概述

F270-2型电动手摇两用风机为地下工事配套使用，可以获得滤毒的清洁空气。当供电正常时，电力驱动；当电源遭到切断时，又可以手动，是积各级人防工事、地下建筑必不可少的通风设备。

F270-2型电动手摇两用风机技术参数

型号	F270-2	电要功率（Kw）	0.75
风量（m3/h）	500~100	电源（v）	380
风压（Pa）	1230~580	摇把中心高（mm）	125
主轴转速（r/min）	2800	回转半径（mm）	280
旋转方向（从电机端看）	顺时针方向	摇把长度（mm）	300
外形尺寸（mm）	830×545×471	重量（kg）	40

F270-2型电动手摇两用风机安装、使用和维护

1.用户在安装前应检查电机绝缘是否符合要求，三相电源是否平衡，检查风机各部是否有松动现象，风机旋转是否灵活，然后加机油约35毫升，使双连齿轮的下方与油面接触。

2.摇把中心离地面的高度一般为0.8至1.056米。用户根据通风系统示意图或专业部门的设计布置图，将进风口与过滤道风管和清洁风管连接；出风口与流量计或FX-1型风量显示器及室内管道连接，但过滤器，流量计（或风量显示器）及其管道、阀门等重量不得压在风机上。

3.电机及手柄转向必须符合产品的标志方向，即叶轮的转向从电机方向上视为顺时针方向。本产品主要用于战备，设备安装试车良好后，若一时不使用，应将摇把取下，妥善放置在风机附近。

4.用三相电机带动的风机可以直接起动，用单相电机带动的风机应先关闭风道再起动风机，转速达到额定值时，再打开风道。为了增加主轴的润滑，可以回转摇把主轴加油。

7.手摇时应均衡回转摇把。若转速不是额定时，风机性能按下列关系换算。

$$\frac{Q1}{Q2}=\frac{\mathbf{n1}}{\mathbf{n2}} \qquad \frac{H1}{H2}=(\frac{\mathbf{n1}}{\mathbf{n2}})$$

式中:n1、Q1、H1、分别为额定工况时转速、风量、风压

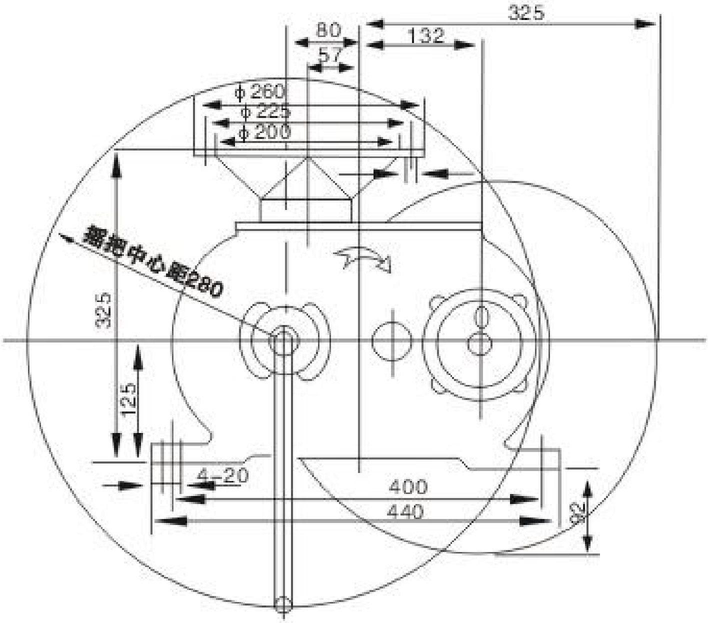
n2、Q2、H2分别为实际工况时转速、风量、风压

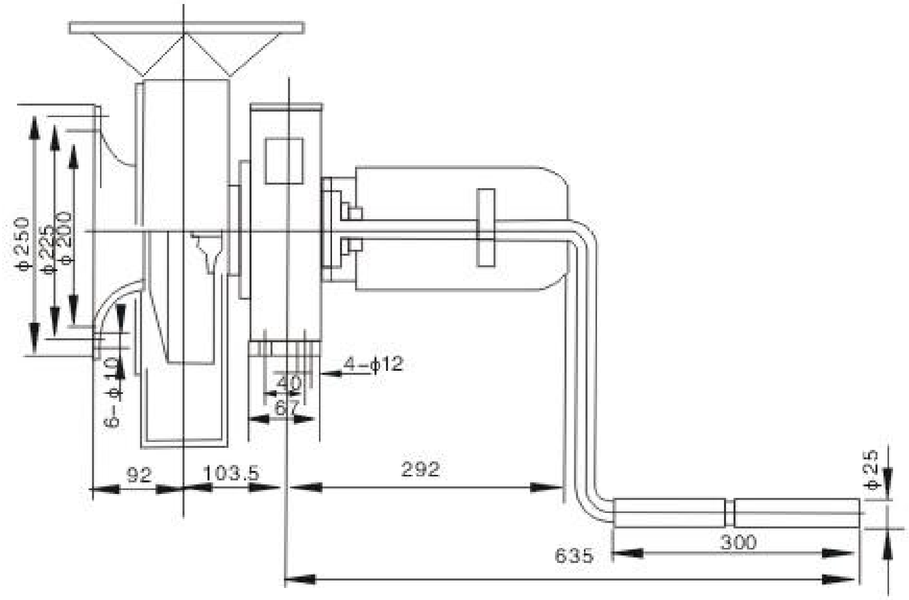
8.风机未装有管道时，不应使电机长时间运行，更不应连续频繁起动。

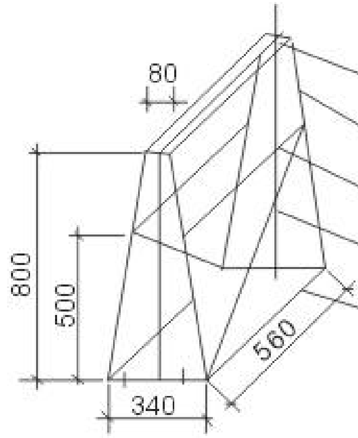
9.每年潮湿季节应检查电机的绦绝电阻。当绝缘电阻低于2兆欧时，应在烘干处理后使用

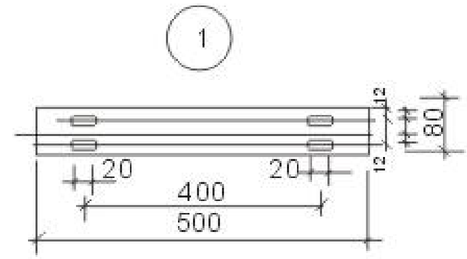
10.拆卸叶轮时应用专用的拉马。

F270-2型电动手摇两用风机外形尺寸和安装尺寸









注：
（1）支架所有节点均采用焊接。
（2）焊接过程中应正校支架，以保证顶板与底部平行。
（3）无特殊要求时，先涂红丹防锈底漆两道，再涂金属锤纹漆两道。

⑤	底连板	<40×4	L=550	根	2	YB166-65
④	斜撑	<40×5	L=670	根	2	YB166-65
③	横撑	<40×5	L=550	根	2	YB166-65
②	支架	<50×5	L=1960	根	2	YB166-65
①	顶板	-80×10	L=560	根	1	YB704-65
编号	名称	型号及规格		单位	数量	备注
材　料　表