

WD PLUS



Series of roof fans with new impellers that provide better air throughput and accumulation with lower noise level.

INTENDED USE

Roof ventilators remove air from production shop floors, warehouses, shops, etc. The removed air can be contaminated with corrosive vapours and gases or dust laden to a degree exceeding environmental limits.

DEVICE DESCRIPTION

The offered roof fans are available in 3 sizes.

The roof fans incorporate:

- high efficiency radial impeller made of steel;
- electric motor;
- fibre reinforced plastic support plate, body and hood.

The fan is designed for roof mount with optional silencers under the fan.

WORKING CONDITIONS

The fans of size 25, 31.5 and 40 can be supplied with three-phase single-speed motors with speeds ~700 rpm or ~900 rpm.

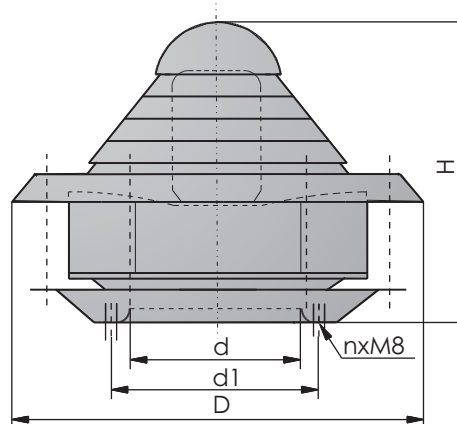
Maximum allowed temperature of removed air is 50°C.

DESIGNATIONS

Roof fan	WD PLUS - 31,5 - T - 900
Type	25; 31,5; 40
Motor type	three-phase single-speed (T)
Revolutions	700 rpm; 900 rpm for size 25

TECHNICAL DATA

Basic dimensions

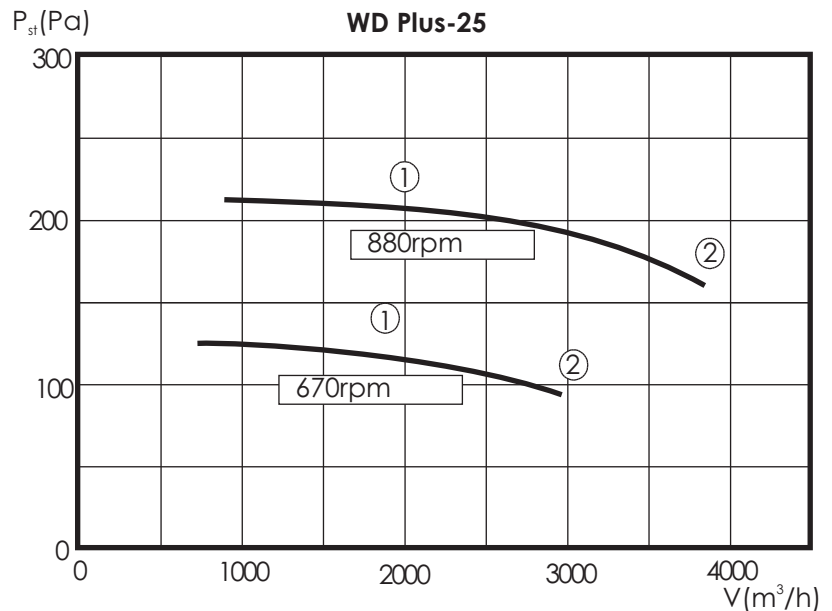


Fan size	d [mm]	d ₁ [mm]	D [mm]	H [mm]	n	Weight [kg]
WD PLUS-25	276	313	625	510	6	35
WD PLUS-31,5	348	394	788	634	8	54
WD PLUS-40	450	500	945	860	8	78

Motor

S Kh 71-8B
3~400 V
0,12 kW
0,7 A
670 rpm

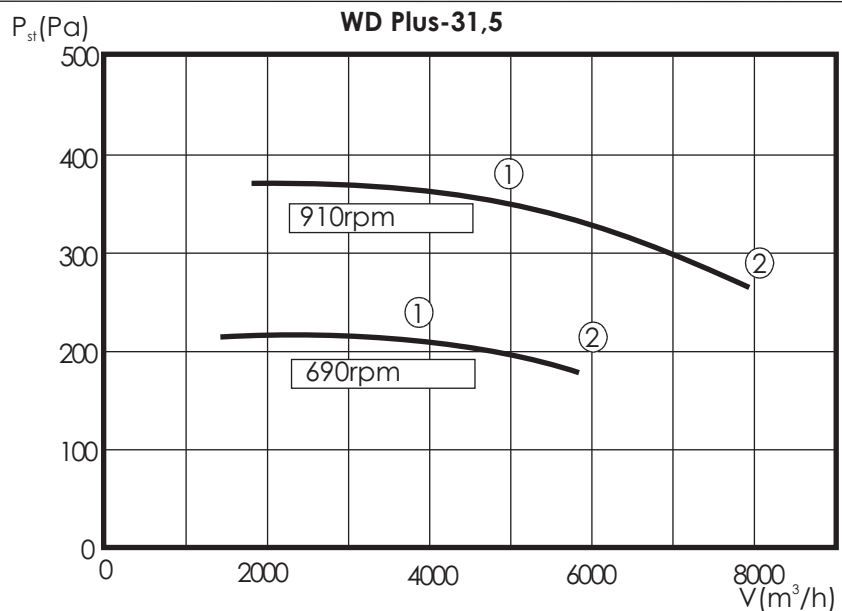
S kh 71-6B
3~400 V
0,25 kW
1,0 A
880 rpm



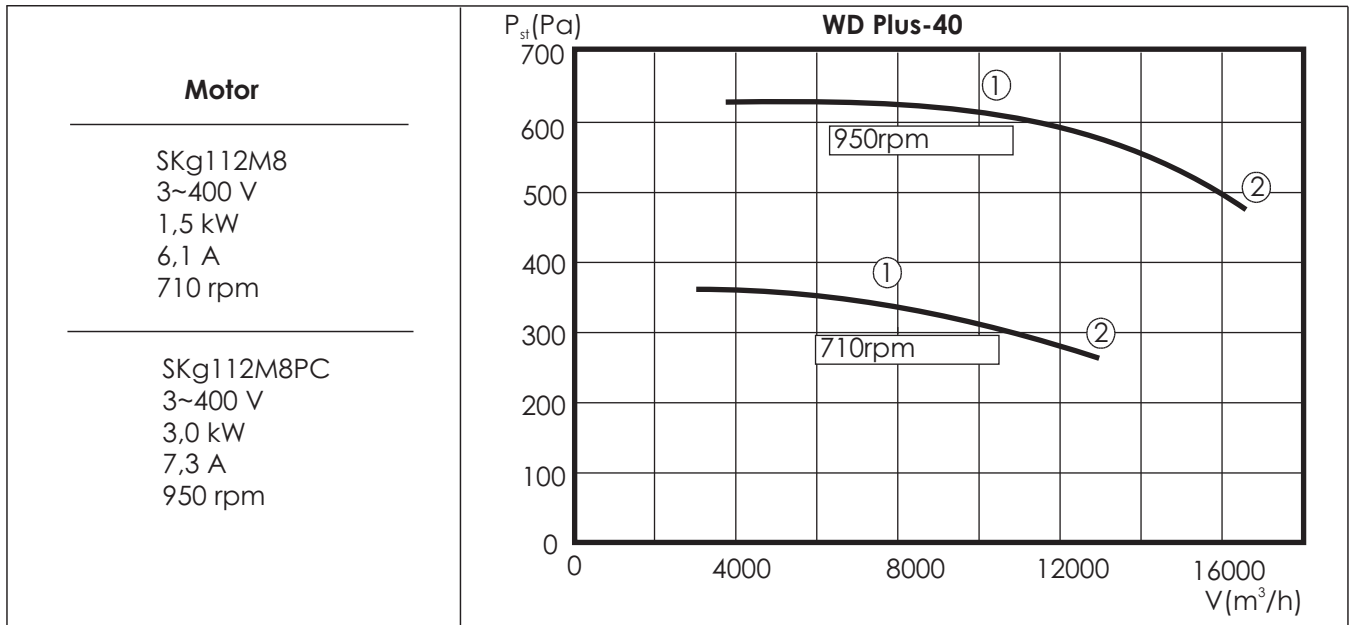
Motor

SkhR90-8S
3~400 V
0,37 kW
1,5 A
690 rpm

SkhR90-6L
3~400 V
1,1 kW
3,1 A
910 rpm



WD PLUS ROOF FANS



P_{st} –static negative pressure in the fan inlet

Operating noise level

Fan size	Revolutions [rpm]	Operating noise level [dB(A)]							
		at the air outlet side*				at the air inlet side**			
		at the point ①		at the point ②		at the point ①		at the point ②	
		at 1m dist.	at 5m dist.	at 1m dist.	at 5m dist.	at 1m dist.	at 5m dist.	at 1m dist.	at 5m dist.
WD PLUS-25	670	51	39	55	48	47	39	51	43
	880	57	45	61	49	53	45	57	49
WD PLUS-31,5	690	59	47	63	51	55	47	59	51
	910	65	53	69	57	61	53	65	57
WD PLUS-40	710	67	55	72	60	63	55	67	59
	950	74	62	79	67	70	62	74	66

* Noise level defined as the acoustic pressure at the side of the air discharge side, in open air, taking the directivity factor $Q=2$ and fan operation into account and fans' operation in points specified in the characteristics.

** Noise level is defined as the acoustic pressure at the air inlet as measured at the distances from the fan, indicated in the tables, taking into account the dispersion factor of room $A=300\text{m}^2$ and the directivity factor $Q=2$.

ADDITIONAL INFORMATION

For the WD PLUS roof fans we can supply the universal bases and the additional elements.

WD PLUS roof fan with **PWD PLUS** roof bases

Fan size	Roof base size	Additional elements		
		Damper	Throttle	Inlet diffuser
WD PLUS-25	PWD PLUS-25	TWD PLUS-25	SWD PLUS-25	DW PLUS-25
WD PLUS-31,5	PWD PLUS-31,5	TWD PLUS-31,5	SWD PLUS-31,5	DW PLUS-31,5
WD PLUS-40	PWD PLUS-40	TWD PLUS-40	SWD PLUS-40	DW PLUS-40

WD PLUS roof fan with **PU i PUT** roof bases

Fan size	Roof base size		Roof base	Additional elements			
	PU	PUT		Assembly plate	Throttle	Inlet diffuser	Elastic spout
WD PLUS-25	PU-4	PUT-4	PWD† PLUS-4	PM-4	SWD-4	DW-4	KE-4
WD PLUS-31,5	PU-5	PUT-6	PWD† PLUS-6	PM-6	SWD-6	DW-6	KE-6
WD PLUS-40	PU-8	PUT-8	PWD† PLUS-8	PM-7	SWD-8	DW-8	KE-8

Elements necessary for assembling the WD PLUS fans

- roof bases **PWD PLUS - B/I; B/II or B/III** type
- or **PU** universal bases with **PWDt PLUS** roof base
- or **PUT** universal damping bases with **PWDt PLUS** roof base

Additional elements supplied for the WD PLUS fans on PWD PLUS bases

- TWD dampers;
- SWD self-closing throttle or single-planed throttle operated manually or by the use of servo-motor
- DW inlet diffusers;

Additional elements supplied for the WD PLUS fans on PU and PUT universal roof bases

- PM assembly plates;
- SWD self-closing throttle or single-planed throttle operated manually or by the use of servo-motor
- DW inlet diffusers;
- KE elastic spouts.

Technical data of additional fans equipment are presented in the catalogue sheet of universal bases in this catalogue.

All sizes of fans may be provided with rotors made of acid-proof steel. It should be specified in the order.

AUTOMATICS

Description of operation and fans automatics components selection are presented in the section: VENTILATORS CONTROL AND AUTOMATICS in this catalogue