

# KLIMA

S.R.O.



**KLIMA s.r.o.**

**Krumlovská 38**

**383 01 Prachatice**

**Czech Republic**

**Phone: 00420 388 601 154**

**E-mail: [info@klimacz.cz](mailto:info@klimacz.cz)**

**[www.klimacz.cz](http://www.klimacz.cz)**



# FANS

## Contents

### ***Axial Fans***

*Axial Fans API*

*Axial Fans APT*

### ***Radial Fans***

*Radial Fans RSJ single side suction*

*Radial Fans RSU*

*Radial Fans RSI 800 through 2000 single side suction*

*Radial Fans RVI 315 through 630 single side suction*

*Radial Fans RVK 800 through 1250 single side suction*

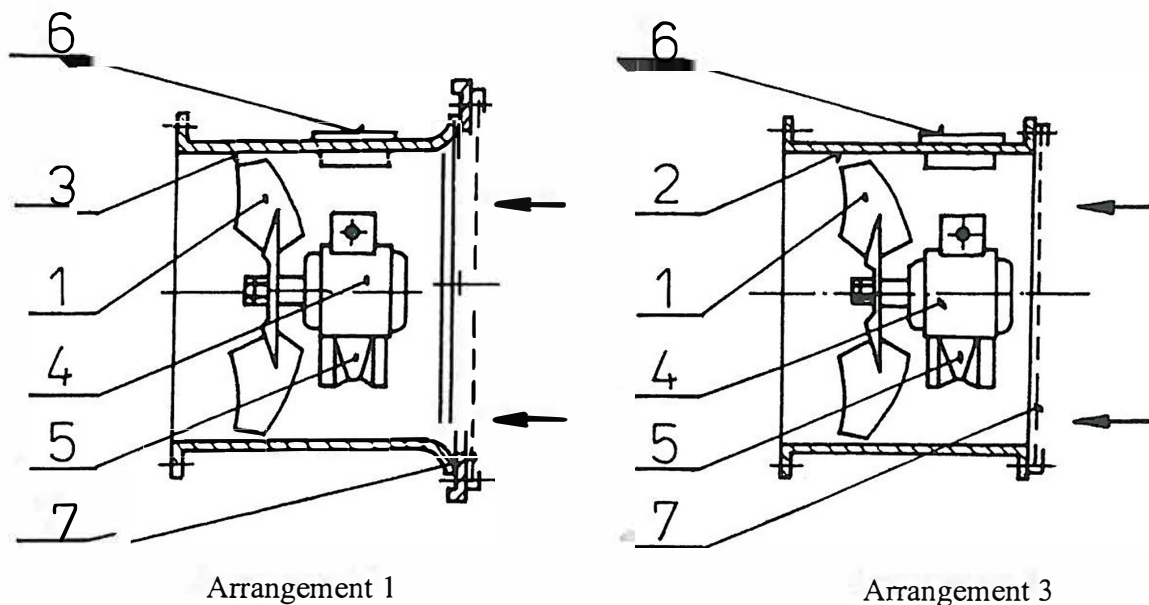
*Radial Fans RVK 1600 through 2500 single side suction*

*Radial Fans RVI 1600 through 2500 single side suction*

*Radial Fans RVI/2 1600 through 2500 dual inlet*

Klima Fans – picture - examples

## API AXIAL FANS



### Main components:

1. Impeller with hub
2. Housing with flanges
3. Housing with suction orifice
4. Electric motor

5. Bracket
6. Assembly hole
7. Guard grating

---

Klima sr.o.  
Krumlovská 38  
383 01 Prachatice  
Czech republic

Phone: 00420 388 601 154  
E-mail: [info@klimacz.cz](mailto:info@klimacz.cz)  
[www.klimacz.cz](http://www.klimacz.cz)

## *Description*

The API 500 axial fan is a propeller rotary machine for transportation of air at the maximum compressive strain of 1.3. Direction of the meridian velocity of air at the inlet and the delivery of the impeller is approximately parallel to the rotation axis. Static pressure behind the impeller is higher than in front of the impeller.

The fans are designed as vertical or horizontal and driven by an asynchronous motor. They are manufactured in the size of 500 in two arrangements and two versions:

Arrangement 1 - fan with inlet air wall designed for installation in wall

Arrangement 2 - fan with the housing and flanges for installation in ducts

BNV version - fans suitable for non explosive environment

ZONE 1 version - fans suitable for explosive environment of ZONE 1 type

## *Intended use*

The fans are designed for transportation of clean air without abrasive particles. They are intended for ventilation of cellars, warehouses, auxiliary operations and for any applications where their parameters are appropriate.

## *Operating conditions*

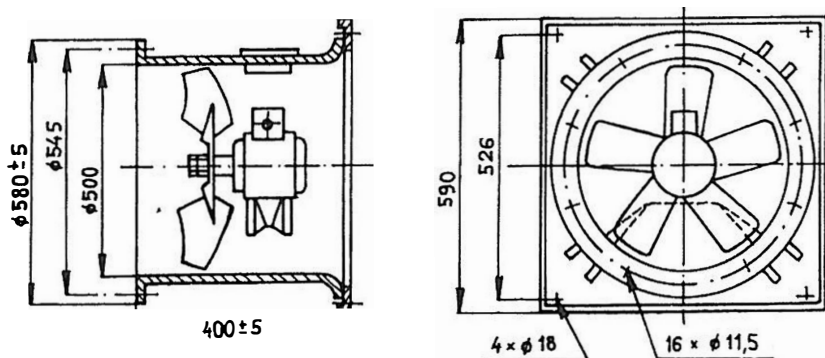
The fans may transport air or gas at temperatures ranging from - 20 °C to + 40 °C. They are designed for installations at the ambient temperatures ranging from - 20 °C to + 40 °C.

At low temperatures of the extracted air the user must exclude possible formation of frost on the impeller blades.

The fans must be installed on a rigid structure, in a wall or inside piping. They may be used in both horizontal and vertical position.

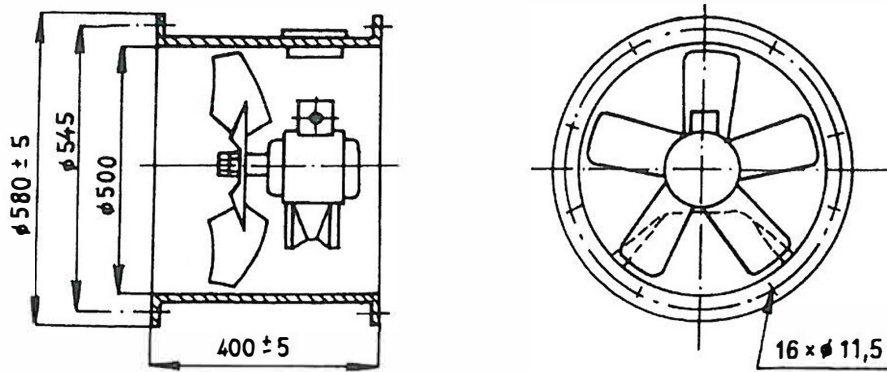
The fans must not be operated at higher duct resistance than as specified for the top values of the parameters as well as in the case of closed or blocked cross sectional area of the air flow.

**Fig. 1 API 500 FAN, ARRANGEMENT 1**



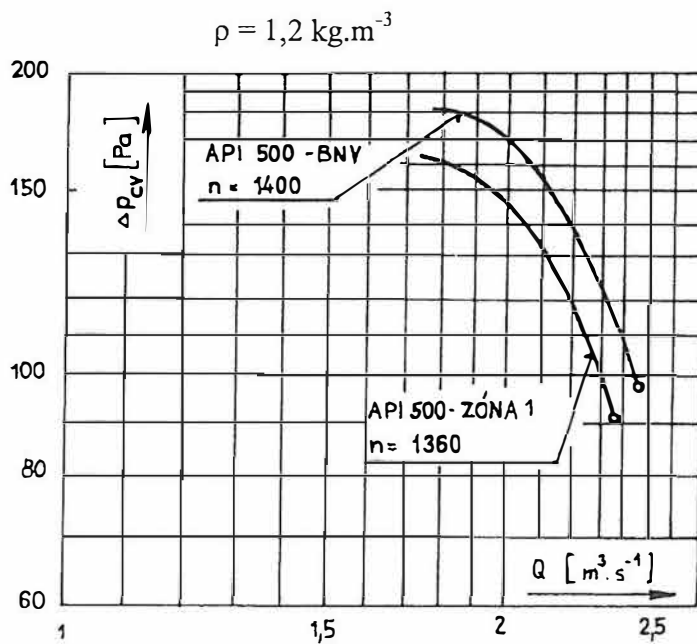
API type	Weight [kg]
BNV	34,0
ZÓNE 1	44,2

Fig. 2 API 500 FAN , ARRANGEMENT 3

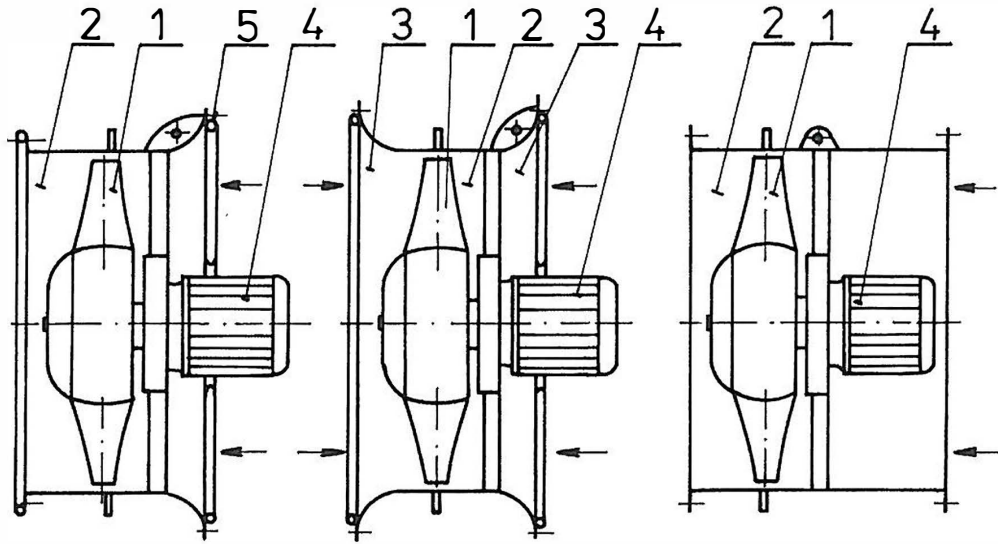


API type	Weight [kg]
BNV	29,0
ZZONE 1	39,5

Diagram 1 API FAN PERFORM PARAMETERS



*APT AXIAL FANS*



Arrangement 1

Arrangement 2

Arrangement 3

**Main components:**

- |                             |                   |
|-----------------------------|-------------------|
| 1. Impeller with hub casing | 4. Electric motor |
| 2. Housing                  | 5. Guard grating  |
| 3. Air intake               |                   |

Klima sr.o.  
Krumlovská 38  
383 01 Prachatice  
Czech republic

Phone: 00420 388 601 154  
E-mail: [info@klimacz.cz](mailto:info@klimacz.cz)  
[www.klimacz.cz](http://www.klimacz.cz)

## ***Description***

The APT fans are available in three basic arrangements driven by an asynchronous motor. It is manufactured in sizes 800 and 1000.

Arrangement 1 - short housing and air intake – single side rotation

Arrangement 2 - short housing and both-sided air intake - double side rotation

Arrangement 3 - duct fan - single side rotation

In addition a single purpose fan is available:

Arrangement 5 - APT 1000 fan for brick product drying technology. It is a double side rotation fan with the housing and motor designed for hot and humid environment.

The arrangement 1 and 2 fans are fitted with guard grating at the air intake side and the delivery side in accordance with ČSN 12 2002. Per client's request it is possible to deliver a fan with the guard grating fitted on the air intake side or on the delivery side only or without the guard grating, provided that the fan installation prevents access of persons to the fan when in operation (e.g. fans installed in enclosed ventilation chambers, fans installed inside machines with own housing etc.).

The fan impeller is fitted with 6 blades and installed on the electric motor pin. The double side rotation fans have three-to-three alternate blades. The blades are shaped. The hub is fitted with a casing.

In the case of the arrangements 1 and 2 the cylindrical housing is connected to the air intake. In the case of the arrangements 1, 2 and 3 the core supported by four brackets is welded to the housing.

## ***Intended use***

The fans are designed for transportation of air without any abrasive particles in non explosive environment in accordance with ČSN EN 60079-10. The fans are not suitable for transportation of air containing fibrous or adhesive particles.

## ***Operating conditions***

The fans must be installed on a rigid structure, in a wall or inside piping. The fans of the basic arrangements 1, 2, 3 may be used for transportation of air at temperatures ranging from 15 °C to + 40 °C. The arrangement 5 fans may be operated in hot and humid environment (e.g. in brick product drying facilities at temperatures up to + 100 °C and the relative humidity up to 100 %). The motor power for + 100 °C must not exceed 2.8 kW (3.55 kW at + 20 °C).

In the case of double side rotation fans the rotation reversion may occur maximum 4 times in one hour. Higher number of starts of all fans (more than 4 times in one hour) must be consulted with the motor manufacturer.

The fans are suitable for operation in horizontal position. Operation in vertical position should be consulted with the fan manufacturer in advance.

Fig. 1 APT 800, 1000 FANS

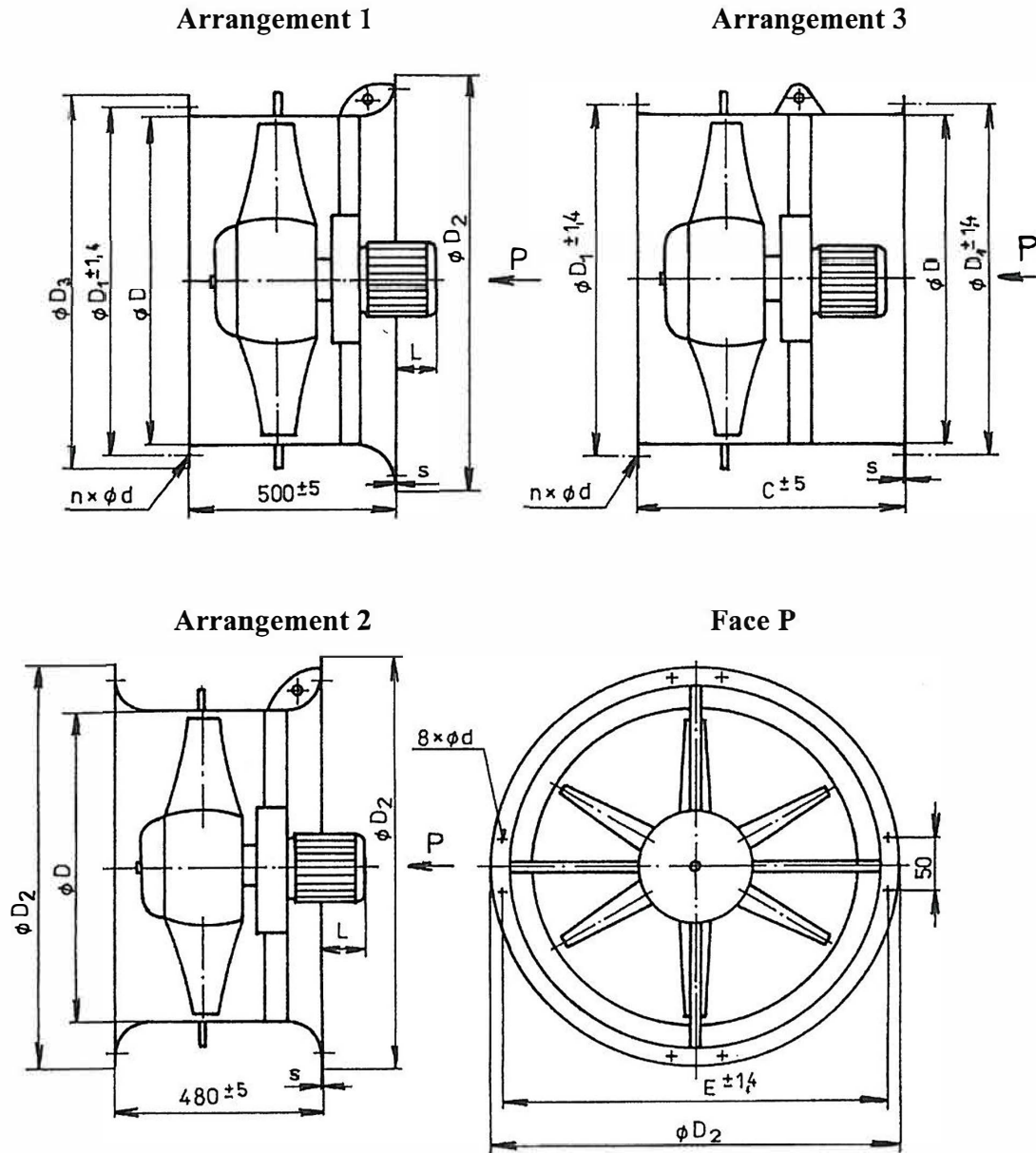


Table 1 MAIN DIMENSIONS

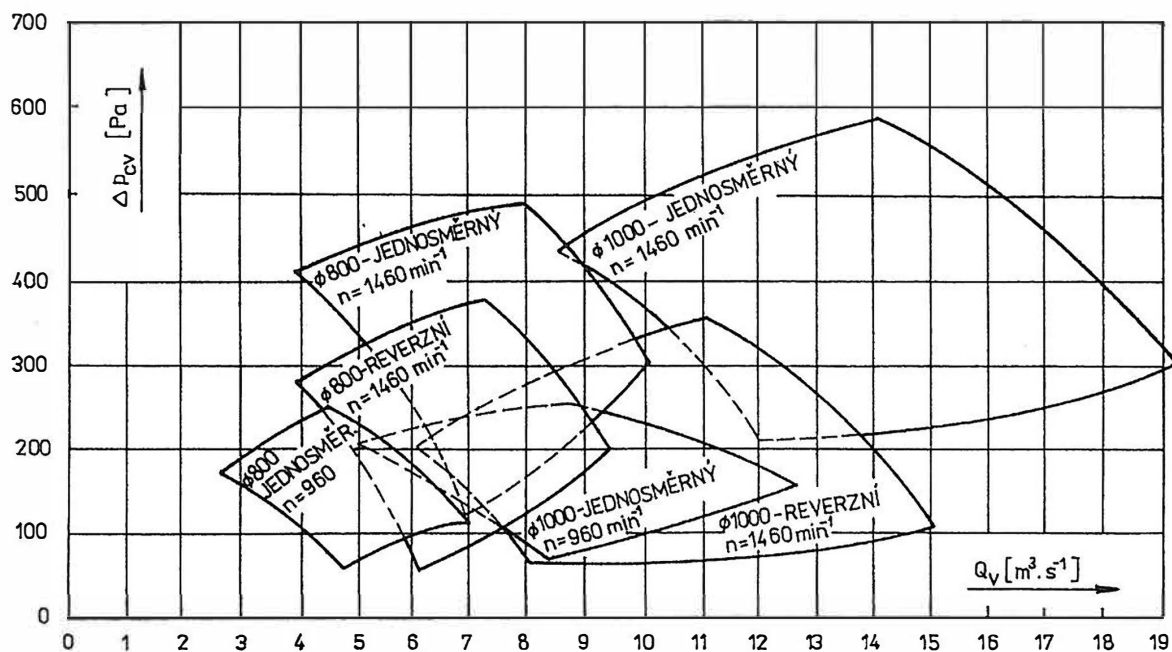
Size D	D <sub>1</sub>	D	s	E	n	d	D	C
800	860	1000	3	975	20	15	900	800
1000	1070	1220	4	1170	24	19	1120	850

Note: the L dimension depends on the electric motor used



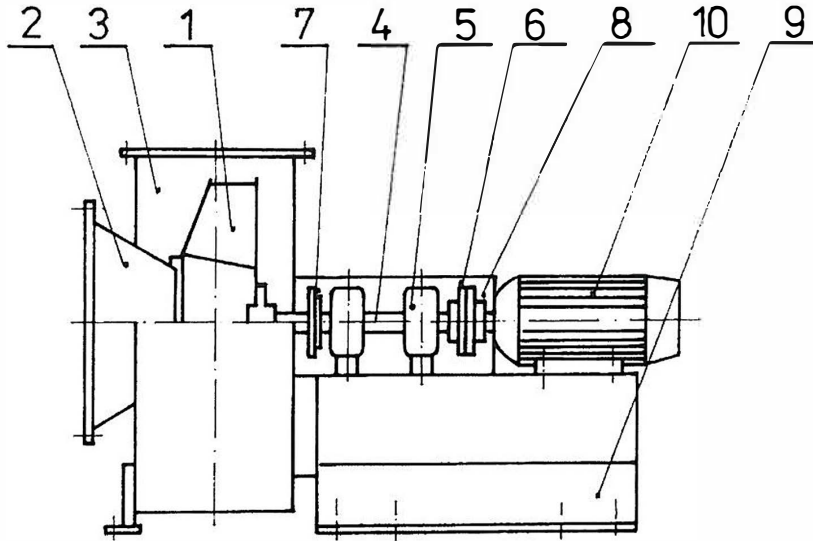
**Diagram 1 APT FAN PERFORMANCE PARAMETERS**

$$\rho = 1.2 \text{ kg.m}^{-3}$$



jednosměrný = single side rotation  
 reverzní = double side rotation

## *RADIAL FANS RSJ single side suction*



### Main components:

- |                |                      |
|----------------|----------------------|
| 1. Impeller    | 6. Coupling          |
| 2. Air intake  | 7. Cooling disk      |
| 3. Fan casing  | 8. Housing           |
| 4. Shaft       | 9. Fan support frame |
| 5. Bearing box | 10. Electric motor   |

---

Klima sr.o.  
Krumlovská 38  
383 01 Prachatice  
Czech republic

Phone: 00420 388 601 154  
E-mail: [info@klimacz.cz](mailto:info@klimacz.cz)  
[www.klimacz.cz](http://www.klimacz.cz)



## ***Description***

The RSJ fans are single side suction, medium pressure radial fans. They are manufactured at sizes 315, 560, 630, 710 and 900, all without capacity regulation.

The impeller with backward curved blades of constant thickness is fitted on the fan shaft. The shaft is supported on anti-friction bearings. The fan is driven by electric motor through a flexible coupling. The fan casing is fitted with an inspection hole. The fans may be installed directly on concrete foundation or using vibration insulators.

## ***Intended use***

The fans are used for transportation of air in non-explosive environments - BNV type in accordance with ČSN EN 60079-10, especially for industrial ventilation and exhausting and for transportation of combustion gases to generate an induced draft of boilers.

The fans may be manufactured in the ATYP (non-standard) design for transportation of air in explosive environments - ZONE 1, ZONE 2 (the order requires consultation with the manufacturer and approval for explosive environment).

The fans are not designed for transportation of air containing corrosive, fibrous and adhesive particles. Fans are not gas-tight. They cannot be used for transportation of harmful and smelly air masses.

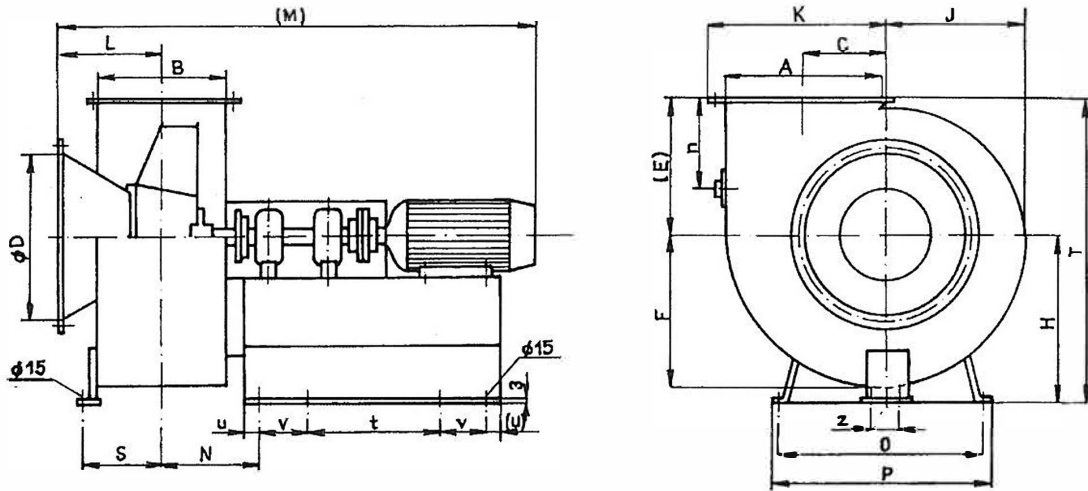
## ***Operating conditions***

The fans may transport air at temperatures ranging from - 20 °C to + 360 °C. The lowest permitted ambient temperature is - 15 °C, the highest permitted ambient temperature is + 40 °C.

In the case of outdoor installation unprotected against rain the electric motors must be protected by housing against direct sun, rain, snow (not provided by the fan manufacturer).

In the case of elastic mounting with vibration isolation the housing must not be fixed to the fan.

**Fig. 1 RSJ FANS**

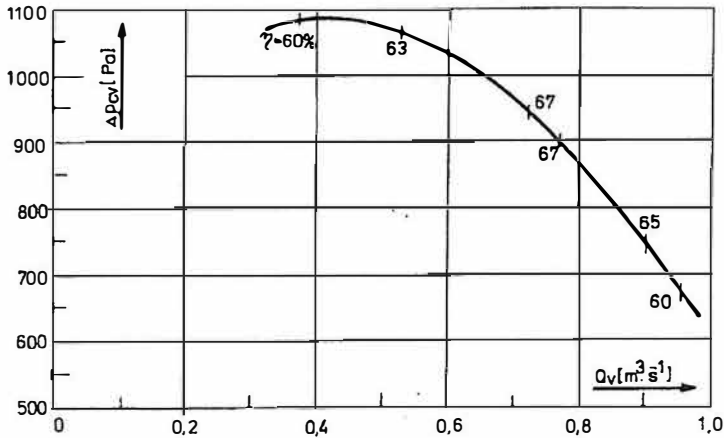


Size	A	B	C	D	E	F	H	J	K	L	N	O	P	S	T	t	v	u	z	n	Hm.
315	355	225	137	315	215	275	370	235	345	155	252	380	440	162,5	585	-	275	90	-	-	107
560	560	315	413	500	495	616	640	540	734	244	248	670	720	237,5	1135	-	405	50	160	390	253
630	630	355	470	560	547	697	750	609	825	280	348	850	930	257,5	1297	600	200	125	160	435	433
710	800	400	507	630	829	805	900	704	956	322	377	1000	1080	280	1729	600	200	125	160	650	648
900	900	500	652	800	811	980	1050	857	1153	410	427	1100	1180	330	1861	600	200	125	160	645	820

Note: the M dimension depends on the electric motor used

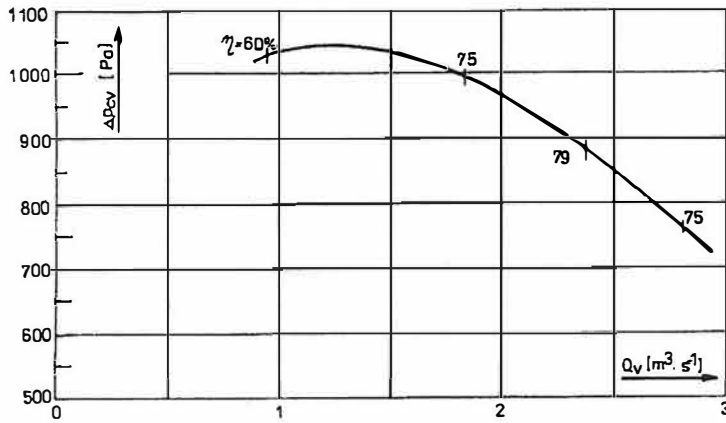
**Diagram 1 RSJ 315 FAN PROPERTIES**

$n = 2875 \text{ min}^{-1}$   $\rho = 1.2 \text{ kg.m}^{-3}$



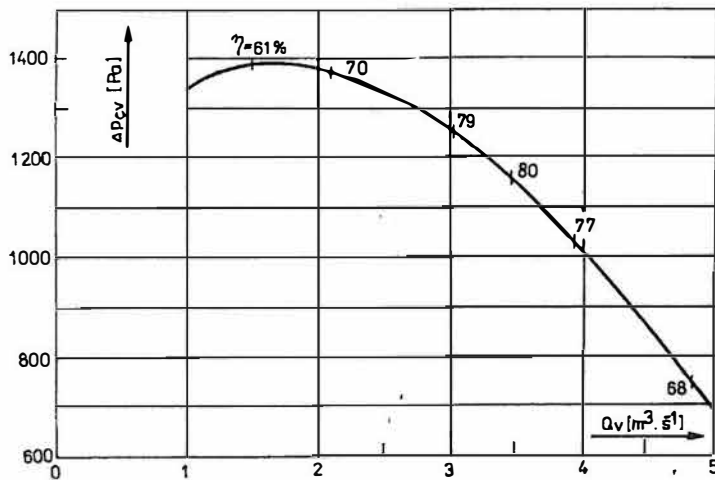
**Diagram 2 RSJ 560 FAN PROPERTIES**

$n = 1420 \text{ min}^{-1}$   $\rho = 1.2 \text{ kg.m}^{-3}$



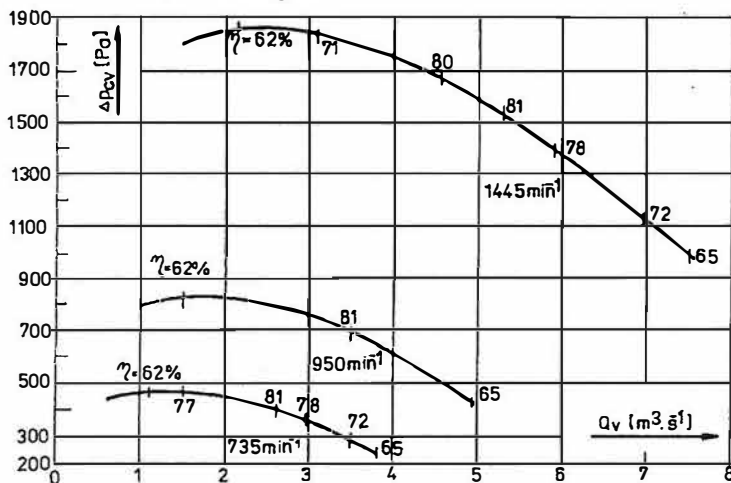
**Diagram 3 RSJ 630 FAN PROPERTIES**

$n = 1450 \text{ min}^{-1}$   $\rho = 1.2 \text{ kg.m}^{-3}$



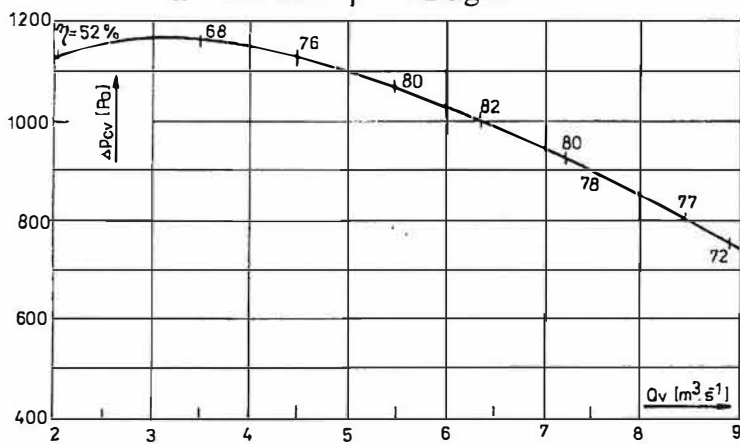
**Diagram 4 RSJ 710 FAN PROPERTIES**

$\rho = 1.2 \text{ kg.m}^{-3}$

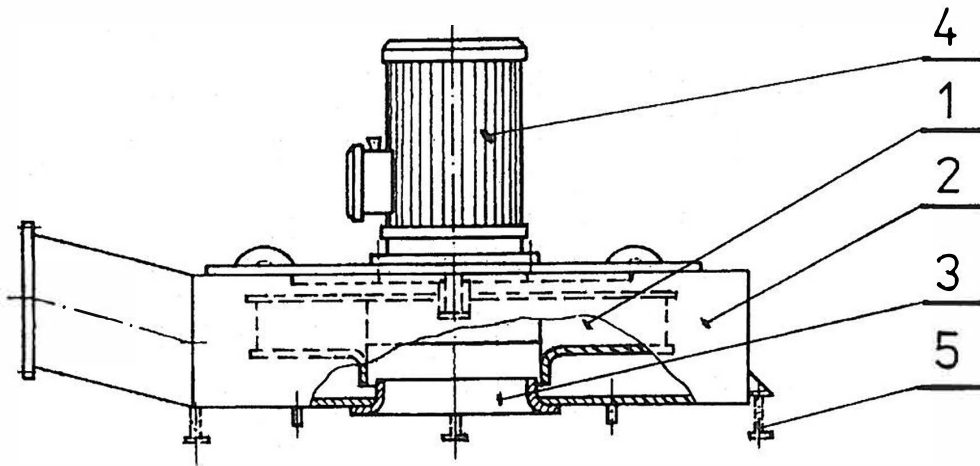


**Diagram 5 RSJ 900 FAN PROPERTIES**

$n = 965 \text{ min}^{-1}$   $\rho = 1.2 \text{ kg.m}^{-3}$



## *RADIAL FANS RSU*



### Main components:

- |               |                   |
|---------------|-------------------|
| 1. Impeller   | 4. Electric motor |
| 2. Fan casing | 5. Delivery screw |
| 3. Air intake |                   |

---

Klima sr.o.  
Krumlovská 38  
383 01 Prachatice  
Czech republic

Phone: 00420 388 601 154  
E-mail: [info@klimacz.cz](mailto:info@klimacz.cz)  
[www.klimacz.cz](http://www.klimacz.cz)

### ***Description***

The RSU fans are single side suction, medium pressure radial fans driven directly. The fans operate in the vertical position (pin downward). They are manufactured at sizes of 630, 800 and 1000 for non explosive environment - BNV or for explosive environment - ZONE 1.

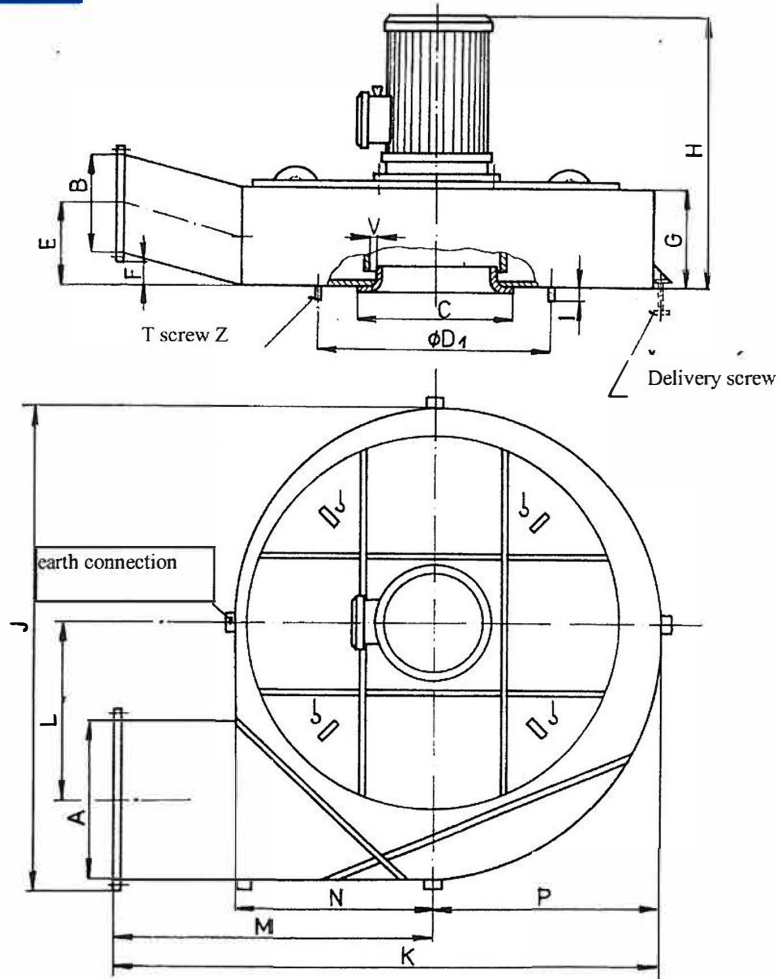
### ***Intended use***

The BNV type fans may be used for any applications where their parameters and design are appropriate. The ZONE 1 type fans are designed for exhaustion from spraying cabins. An effective filter should be installed in front of the fan air intake in order to prevent contamination inside the fan. The filter is not included in the delivery.

### ***Operating conditions***

The fans may be used for transportation of clean air without abrasive particles and fibrous admixtures at the temperatures ranging from - 20 °C to + 40 °C in non explosive environments - BNV type, or in explosive environments - the ZONE 1 type depending on the design. The permitted ambient temperature ranges from - 20 °C to + 40 °C.





**Fig. 1 RSU FANS**

Size	A	B	C	D <sub>1</sub>	E	F	G	H	I
630-1	355	180	485	545	130	10	186	526	17
630-2								574	
800-1	450	225	600	680	162.5	10	233	658	21
800-2								696	
1000	560	280	687	860	190	10	288	839	21

Size	J	K	L	M	N	P	T	V	Z
630-1.2	1203.5	1264	495	673	411	591	16	4	M8
800-1.2	1448	1488.5	589.5	780	478.5	708.5	16	5	M10
1000	1902	1861	790	925	648	936	20	5.5	M12



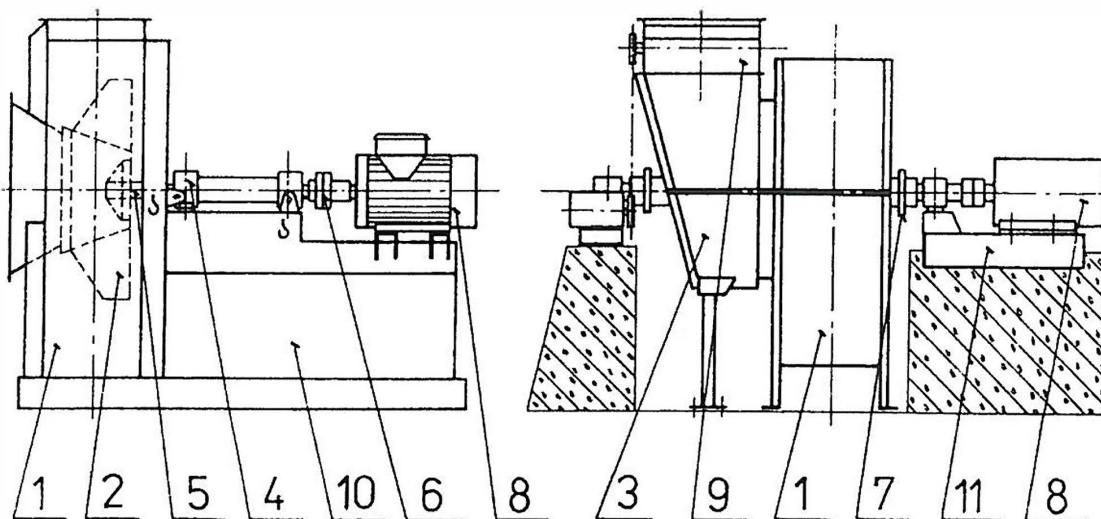
## Technical data

The Table 1 lists the performance parameters for the operating conditions at  $\rho = 1.2 \text{ kg.m}^{-3}$

Table 1 **PERFORMANCE PARAMETERS**

Fan size	$Q_v$ [m <sup>3</sup> s <sup>-1</sup> ]	$\Delta p_{cv}$ [Pa]
630-1	1.35	1400
630-2	1.8	1400
800-1	2.4	1560
800-2	3.6	1230
1000	5.0	1320

***RADIAL FANS RSI 800 through 2000  
single side suction***



**Main components:**

- |                |                          |
|----------------|--------------------------|
| 1. Fan casing  | 7. Cooling disk          |
| 2. Impeller    | 8. Electric motor        |
| 3. Air intake  | 9. Control valve         |
| 4. Bearing box | 10. Support frame        |
| 5. Shaft       | 11. Electric motor frame |
| 6. Coupling    |                          |

Klima s.r.o.  
Krumlovská 38  
383 01 Prachatice  
Czech republic

Phone: 00420 388 601 154  
E-mail: info@klimacz.cz  
www.klimacz.cz

## ***Description***

The RSI fans are single side suction, medium pressure radial fans with backward curved blades manufactured in the sizes of 800, 1000, 1520, 1600 and 2000. The fans are driven by electric motors via the coupling.

The fan sizes 800, 1000 and 1250 have a common frame with the electric motor which may be elastic mounted. The fan casing is fitted with a drain in the lowest section of the casing (depending on the casing orientation). On demand, these fan sizes are delivered with axial regulation connected to the air intake of the fan.

The fan sizes 1600 and 2000 have no common frame with the electric motor. The fan casing (with the drain in its lowest section), the intake chamber, the electric motor and the bearings are installed separately on a concrete foundation. These fan sizes are always delivered with the control valve. The control valves are intended for achieving the required constant flow volume or for gradual regulation of the flow volume in operationally proven range.

The fan shaft is supported in separate bearing boxes. The RSI 800 through 1250 fans have grease lubricated bearings, oil lubrication is used for the bigger fan sizes. At the transported air temperatures above + 100 °C the bearings are cooled by the cooling disk fitted on the shaft between the fan casing and the bearing. The fan sizes 1600 and 2000 are fitted with contact thermometers on the bearings - the DTU type or with resistance thermometers (as required). The fan shaft is connected with the electric motor by a coupling. The shaft is connected to the impeller which is overhung in the case of sizes 800 through 1250 or installed between the bearings in the case of sizes 1600 and 2000. Three different impellers may be used for each size in order to extend the capacity range.

## ***Intended use***

The fans are used for transportation of clean air or air containing soft-dust particles in non-explosive environment - BNV in accordance with ČSN EN 60079-10. The fans cannot be used for transportation of explosive air masses containing corrosive or fibrous particles and air with particles which may cause gumming. Fans are not gas-tight. They cannot be used for transportation of harmful and smelly air masses.

## ***Operating conditions***

The fans may transport air at temperatures ranging from - 20 °C to + 250 °C. The lowest permitted ambient temperature is - 20 °C, the highest permitted ambient temperature is + 40 °C. In the case of outdoor installation the electric motors must be protected by housing against direct sun, rain and snow. The motor housing is delivered as an accessory on demand.

**Diagram 1 RSI FAN PERFORMANCE PARAMETERS**

$\rho = 1.2 \text{ kg.m}^{-3}$

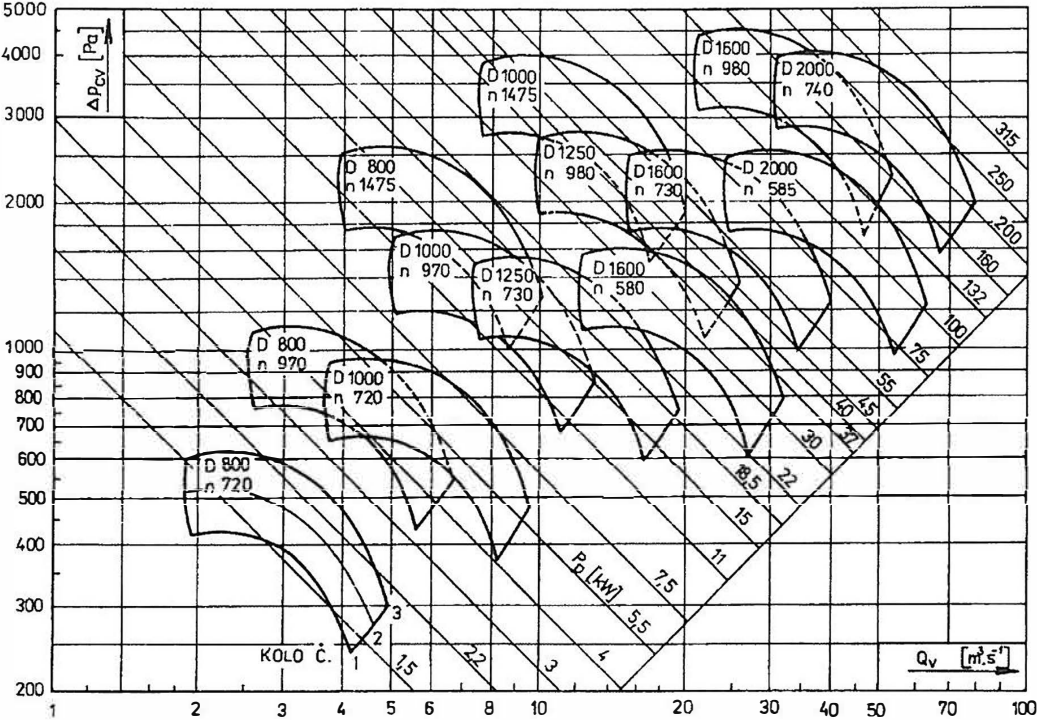
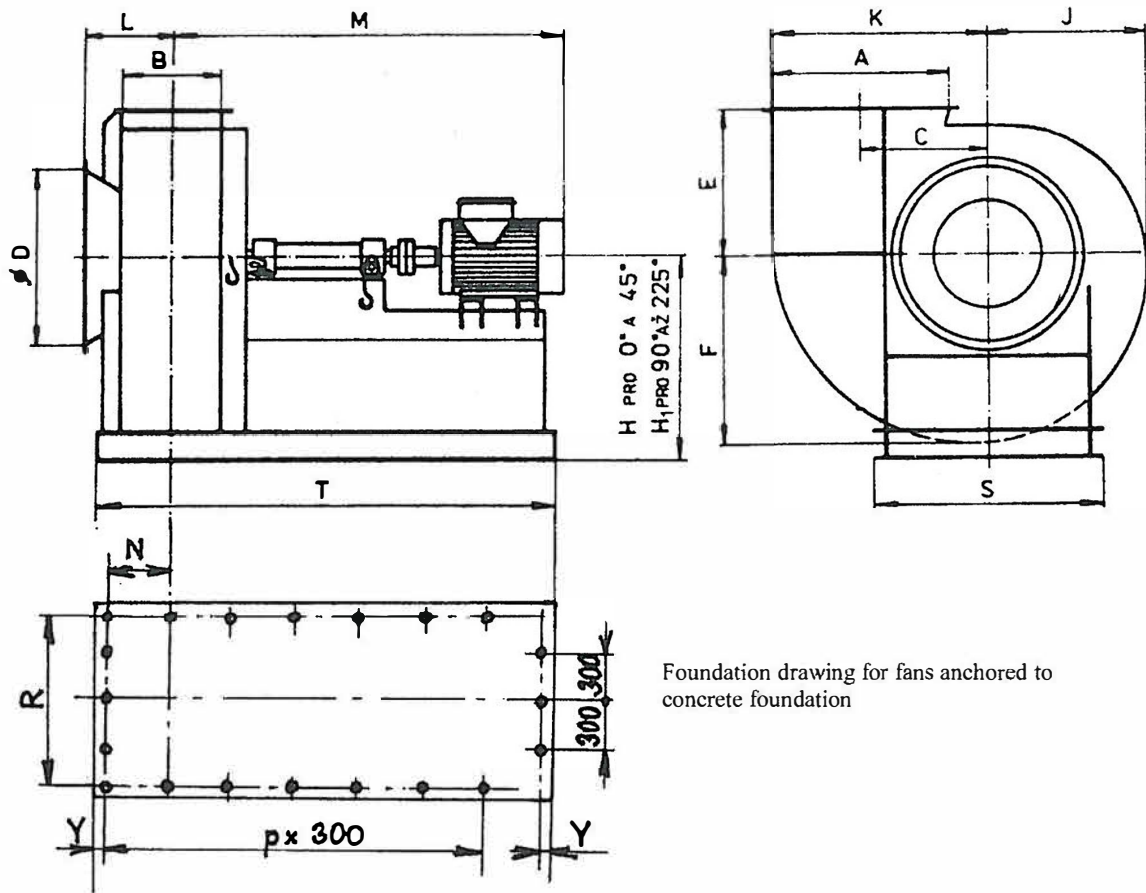


Fig. 1 FANS RSI 800 THROUGH 1250

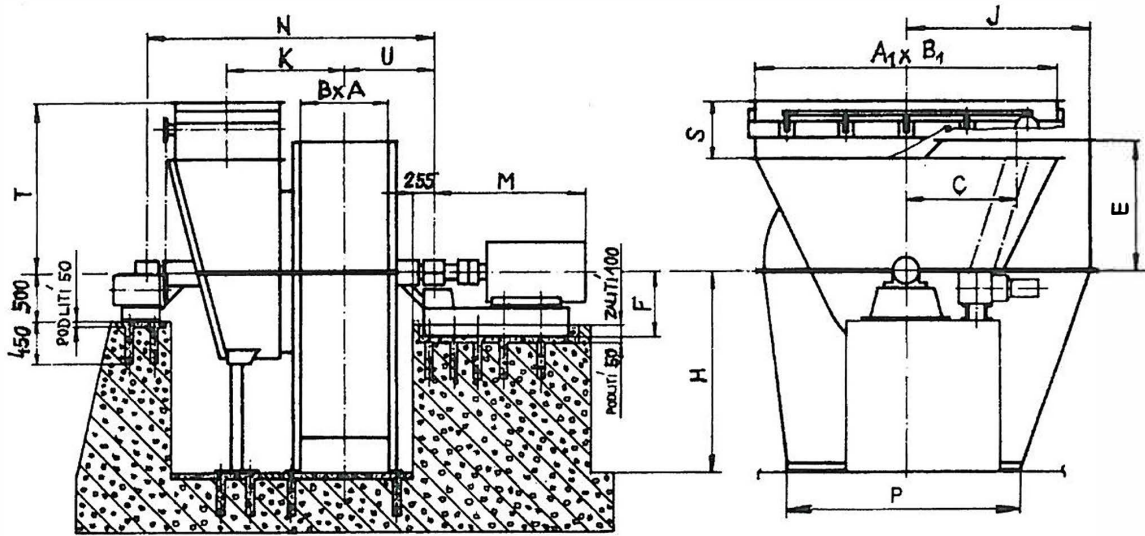


Size	A	B	C	D	E	F	H	H <sub>1</sub>	J
800	800	450	580	800	750	870	1060	950	760
1000	1000	560	725	1000	935	1088	1250	1120	951
1250	1250	710	904	1250	1170	1359	1600	1400	1188

Size	K	L	N	R	S	Y	Weight without motor
800	980	395	295	1000	1050	25	592 až 687
1000	1225	495	350	1300	1360	30	1058 až 1227
1250	1530	610	425	1600	1660	30	1706 až 1859

Note: the M, T, p dimensions depend on the electric motor used

Fig. 2 FANS RSI 1600 THROUGH 2000

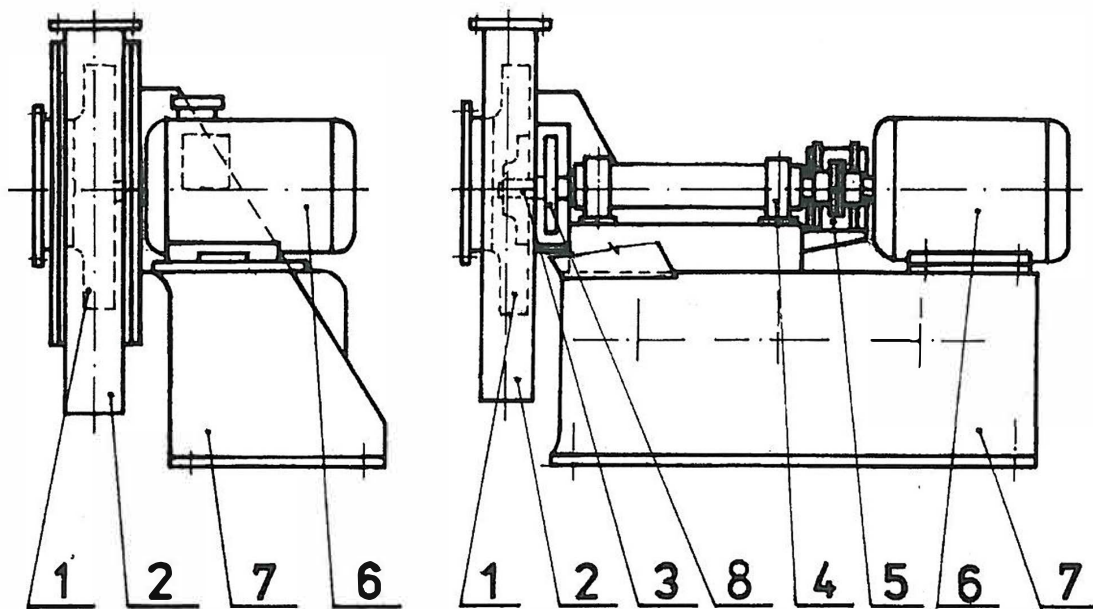


Size	A	A <sub>1</sub>	B	B <sub>1</sub>	C	E	H	J
1600	1600	3150	900	1120	1160	1340	2100	1960
2000	2000	4000	1120	1400	1440	1660	2560	2440

Size	K	N	S	T	U	P cca	Weight without motor
1600	1230	3050	600	1765	950	2500	6 770
2000	1520	3560	800	2200	1050	3000	12 060

Note: the F, M dimensions depend on the electric motor used; the foundation dimensions are to be specified for each order separately

## *RADIAL FANS RVI 315 through 630 single side suction*



### Main components:

- |                |                   |
|----------------|-------------------|
| 1. Impeller    | 5. Coupling       |
| 2. Fan casing  | 6. Electric motor |
| 3. Shaft       | 7. Support frame  |
| 4. Bearing box | 8. Cooling disk   |

---

Klima sr.o.  
Krumlovská 38  
383 01 Prachatice  
Czech republic

Phone: 00420 388 601 154  
E-mail: [info@klimacz.cz](mailto:info@klimacz.cz)  
[www.klimacz.cz](http://www.klimacz.cz)



### ***Description***

The RVI fans are single side suction high pressure radial fans of sizes 315, 400, 500 and 630. They are driven by electric motors by means of a flexible coupling or directly.

In the case of directly driven fans the impeller is installed on the electric motor shaft end. In the case of fans driven by coupling the impeller is overhung on the shaft. Three different impellers, No. 1, 5 and 8, may be used for directly driven fans in order to extend the fan capacity range; in the case of the fans driven through the coupling five different impellers may be used, No. 1, 3, 5, 7 and 8.

The fans have no capacity regulation.

Shaft of the fans driven through the coupling is supported by cone bearings in a common bearing box or in separate bearing boxes. At the air temperatures above + 100 °C the bearings are cooled by the cooling disk fitted on the shaft between the fan casing and the bearing.

### ***Intended use***

Fans of the standard design are used for transportation of clean air or air containing fine particles; fans of armoured design are intended for transportation of air with abrasive particles. The fans cannot be used for transportation of explosive air masses containing corrosive or fibrous particles and air with particles which may cause gumming.

### ***Operating conditions***

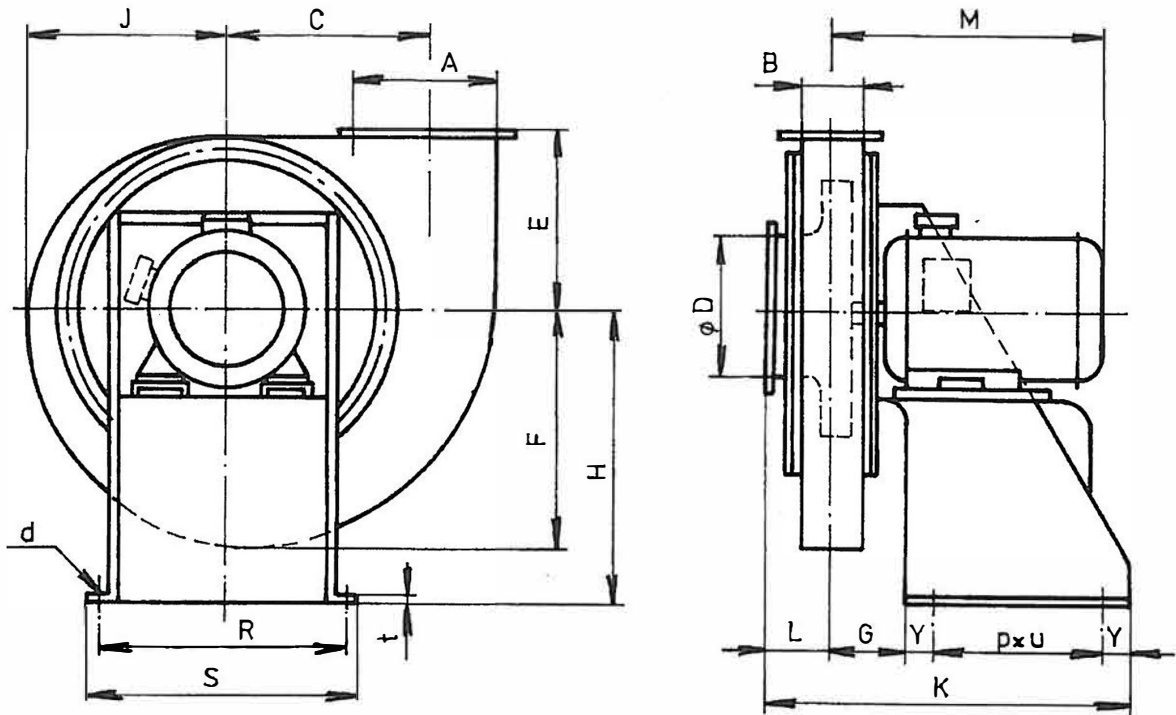
The directly driven fans may be used for transportation of clean air at temperatures ranging from - 20 °C to + 60 °C and are available in standard design only.

The standard design fans driven through the coupling may be used for transportation of air not containing abrasive particles at temperatures ranging from - 20 °C to + 250 °C.

Armoured design RVI 360 fans may be used for transportation of air containing abrasive particles at the same temperatures as the standard-design fans. The admissible amount of particles depending on their kind and abrasive properties must always be consulted with the fan manufacturer.

The fans may only be operated within parameters confirmed by the manufacturer in accordance with data plate on the fan.

**Fig. 1 RVI 315 THROUGH 630 FANS, DIRECTLY DRIVEN**



**Table 2 MAIN DIMENSIONS OF DIRECTLY DRIVEN RVI FANS**

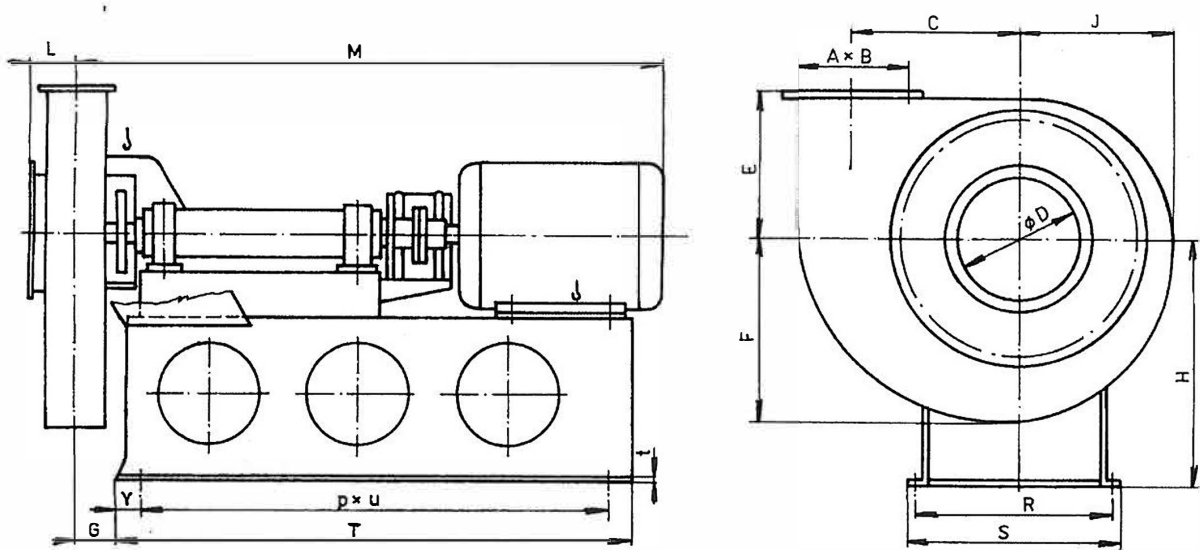
Fan size	A	B	C	D	E	F	G	H	J
315	180	100	250	180	213	297	84	375	252
400	225	110	315	225	262	372	90	465	314
500	280	140	400	280	332	470	106	580	398
630	355	180	495	355	415	585	125	730	495

Fan size	K	L	R	S	Y	d	p	u	t	Weight [kg]
315	428	70	294	324	17	15	2	120	6	35
400	562	82	370	400	15	15	3	120	6	52
500	705	115	460	490	42	15	2	200	7	98
630	893	128	580	620	20	15	3	200	10	200

Note:

- the weight indicated in the table is the calculated weight of the fan without the motor and accessories
- the M dimension depends on the electric motor selected

**Fig. 2 RVI 315 THROUGH 630 FANS, DRIVEN THROUGH COUPLING**



**Table 3 MAIN DIMENSIONS OF RVI FANS DRIVEN THROUGH COUPLING**

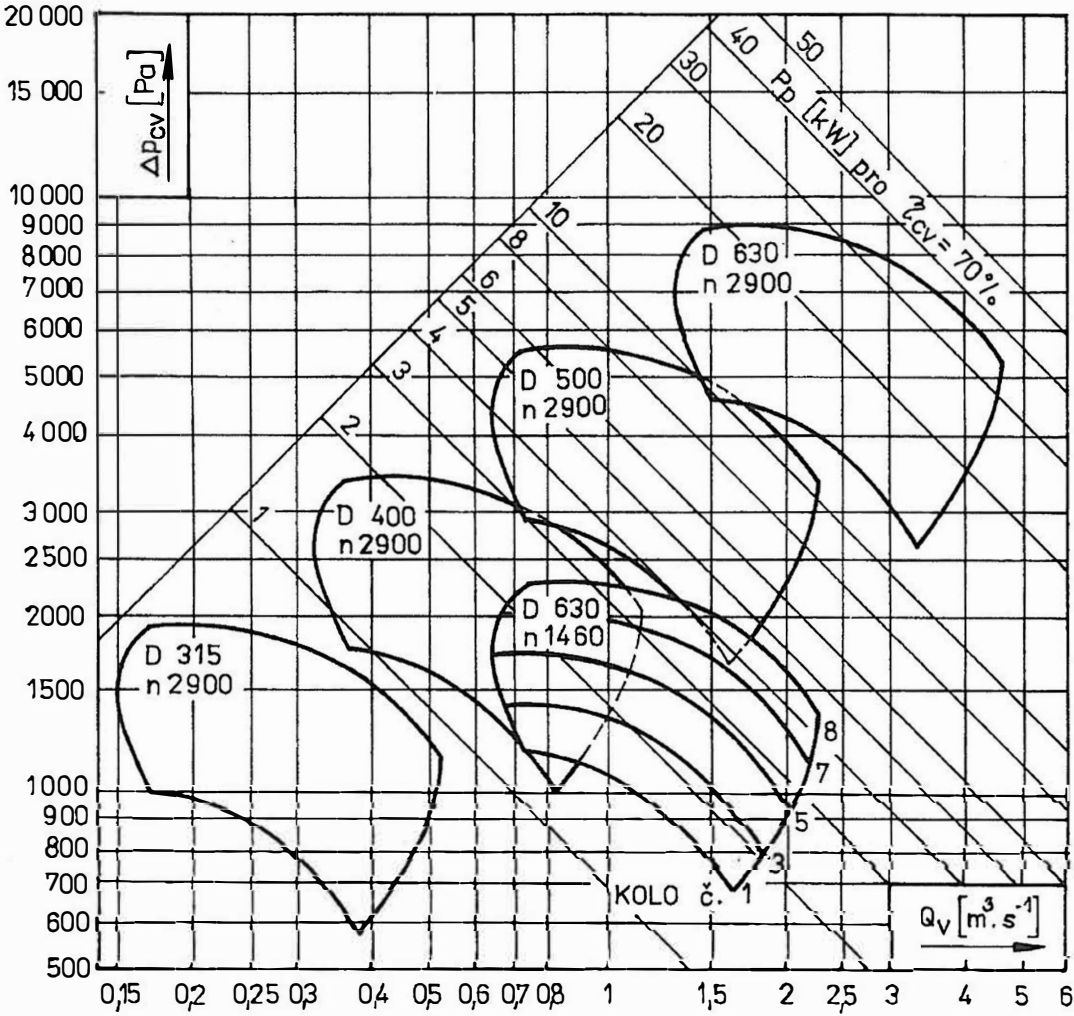
Fan size	A	B	C	D	E	F	G	H	J
315	180	100	250	180	213	297	84	375	252
400	225	110	315	225	262	372	90	465	314
500	280	140	400	280	332	470	106	580	398
630	355	180	495	355	415	585	125	730	495

Fan size	L	S	R	Y	p	u	t	Weight [kg]
315	70	324	294	50	4	160	6	66
400	82	400	370	20	6	160	6	90
500	115	490	460	20	7	160	6	168
630	125	620	580	25	5	200	12	349
				25	7			
				75	7			

Note:

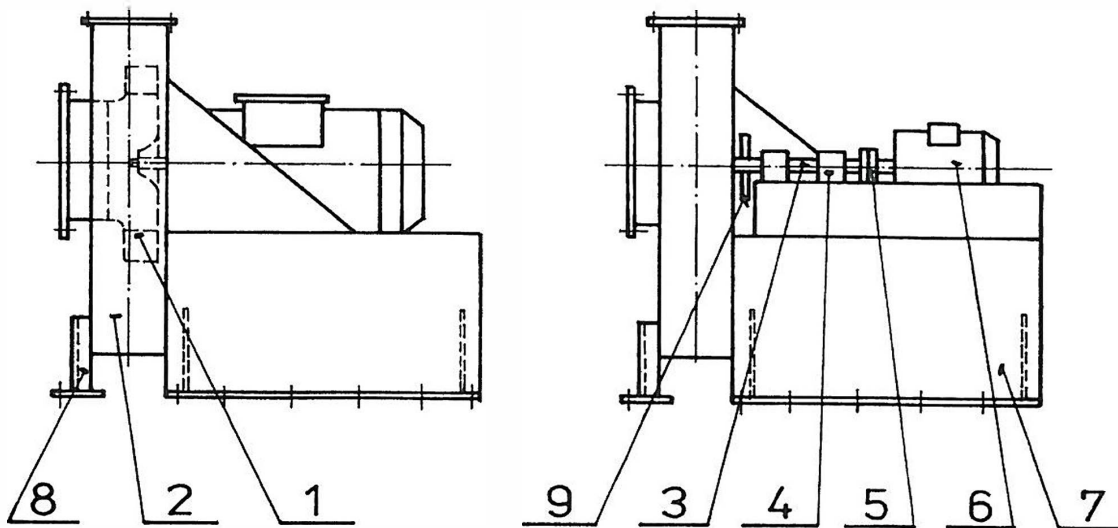
- the weight indicated in the table is the calculated weight of the fan without the motor and accessories
- the M, T dimensions depend on the electric motor selected

**Diagram 1 RVI 315 THROUGH 630 FANS PERFORMANCE PARAMETERS**  
 $\rho = 1.2 \text{ kg.m}^{-3}$



Impeller No. 1

*RADIAL FANS RVK 800 through 1250  
single side suction*



**Main components:**

- |                |                   |
|----------------|-------------------|
| 1. Impeller    | 6. Electric motor |
| 2. Fan casing  | 7. Support frame  |
| 3. Shaft       | 8. Footing        |
| 4. Bearing box | 9. Cooling disk   |
| 5. Coupling    |                   |

---

Klima sr.o.  
Krumlovská 38  
383 01 Prachatice  
Czech republic

Phone: 00420 388 601 154  
E-mail: [info@klimacz.cz](mailto:info@klimacz.cz)  
[www.klimacz.cz](http://www.klimacz.cz)

## ***Description***

The RVK fans are single side suction high pressure radial fans of sizes 800, 1000 and 1250. They are driven by electric motors by means of a flexible coupling or directly.

In the case of directly driven fans the impeller is installed on the electric motor shaft end. In the case of fans driven through coupling the impeller is overhung on the shaft. For the purpose of capacity range extension it is possible to use five different impellers No. 1, 3, 5, 7 and 8 for fan sizes 800 and 1000; in the case of the 1250 fan size seven different impellers may be used, No. 1, 3, 4, 5, 6, 7 and 8. The regulation device may be connected to the fans (optional).

Shaft of the fans driven through the coupling is supported by cone bearings in a common bearing box or in separate bearing boxes. At the air temperatures above + 100 °C the bearings are cooled by the cooling disk fitted on the shaft between the fan casing and the bearing.

The fan casing is welded and fitted with an inspection hole. The fan casing is fitted with a drilled drain hole in the lowest section.

Fans together with the electric motors are installed on a common welded support frame. The size 800 and 1250 fans with motors of greater power and weight are installed on cast support.

The fans may be installed directly on concrete foundation or using vibration insulators (optional).

## ***Intended use***

Fans of the standard design are used for transportation of clean air or air containing fine particles; fans of armoured design are intended for transportation of air with abrasive particles. The fans cannot be used for transportation of explosive air masses containing corrosive or fibrous particles and air with particles which may cause gumming.

## ***Operating conditions***

The directly driven fans may be used only for transportation of clean air at temperatures ranging from - 20 °C to + 60 °C and are available in standard design only.

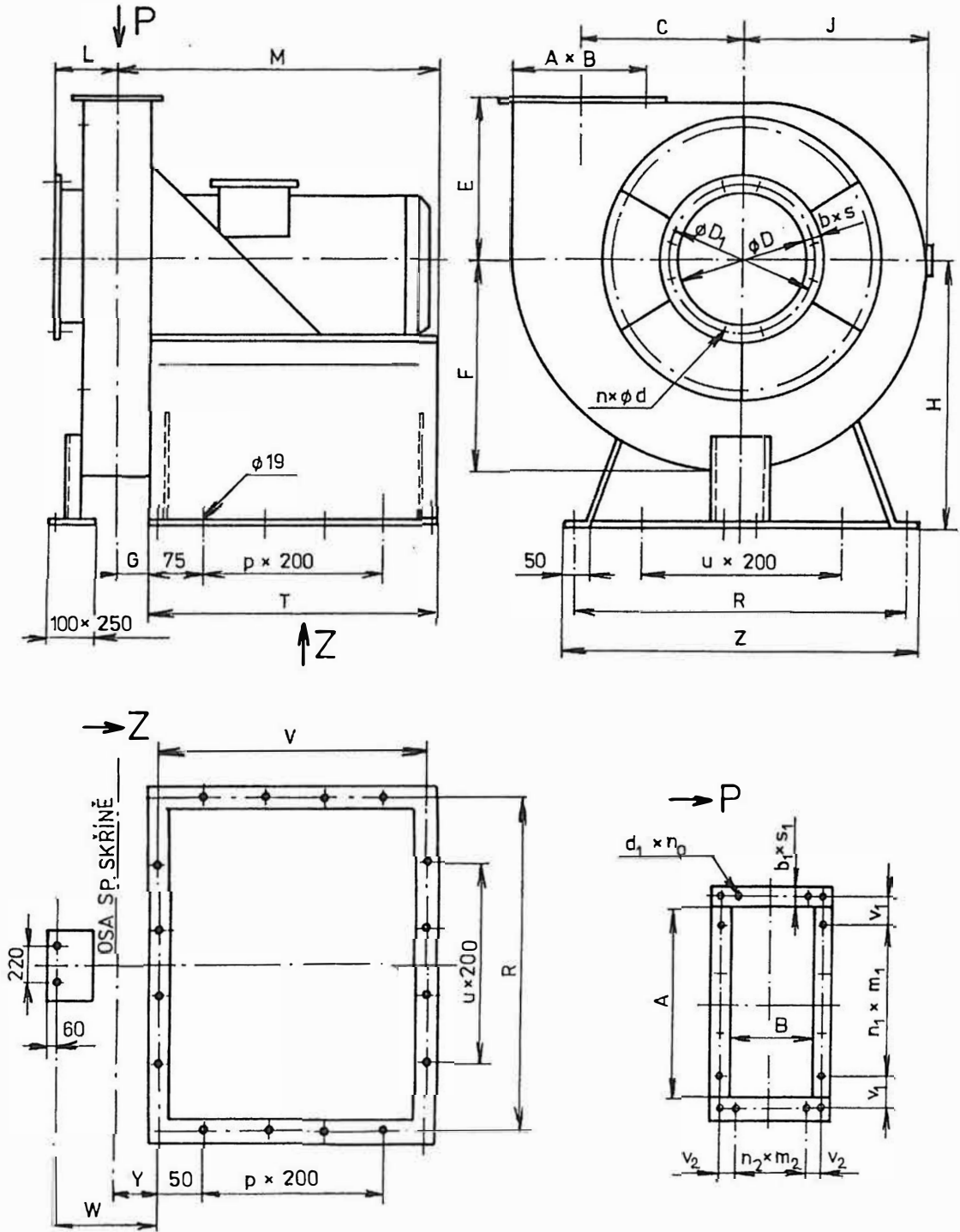
The standard design fans driven through the coupling may be used for transportation of air not containing abrasive particles at temperatures ranging from - 20 °C to + 250 °C; the size 1250 fan may be used for temperatures up to + 400 °C.

The 800 and 1000 size fans with thermal barrier may be used for transportation of air (combustion gases) up to the temperature of + 400 °C.

Armoured-design fans may be used for transportation of air containing abrasive particles at the same temperatures as the standard design fans. The admissible amount of particles depending on their kind and abrasive properties must always be consulted with the fan manufacturer.

The fans are suitable for transportation of air in non explosive environment in accordance with ČSN EN 60079-10 at ambient temperatures ranging from - 20 °C to + 40 °C.

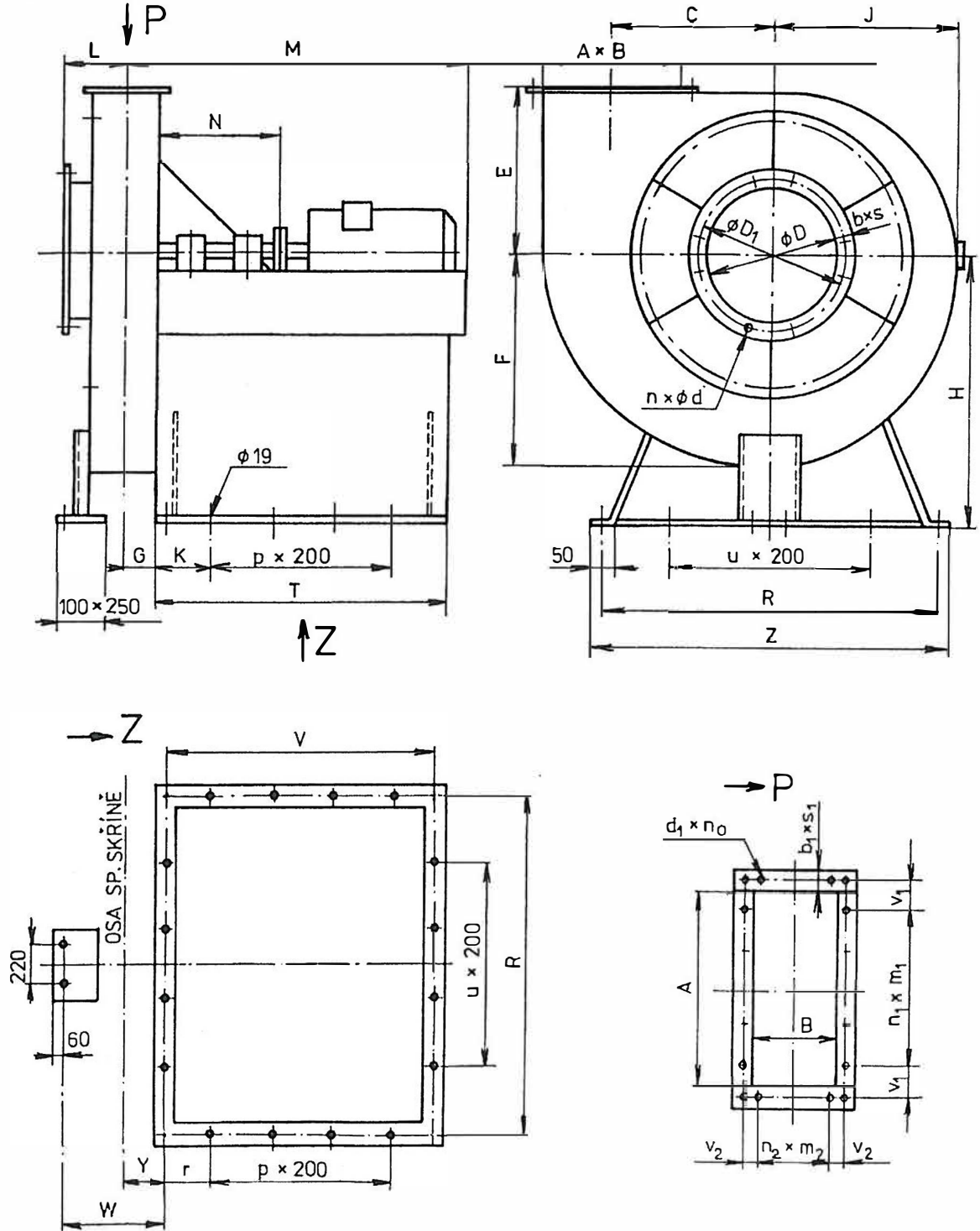
Fig. 1 RVK FANS, DIRECTLY DRIVEN



Osa sp. skříně = Fan casing axis

The dimensions are included in the Table 2  
 Dimensions M, T, V, p depend on the electric motor used.

Fig. 2 RVK FANS, DRIVEN THROUGH COUPLING



Osa sp. skříně = Fan casing axis

The dimensions are included in the Table 2  
 Dimensions M, T, V, N, K, r, p depend on the electric motor used.



**Table 2 MAIN RVK FAN DIMENSIONS**

Size	A	B	C	E	F	G	J	L	W	Y
800	450	225	635	528	748	117	633	192	298	142
1000	560	280	790	652	930	145	786	220	355	170
1250	710	355	990	822	1169	183	989	260	430	208

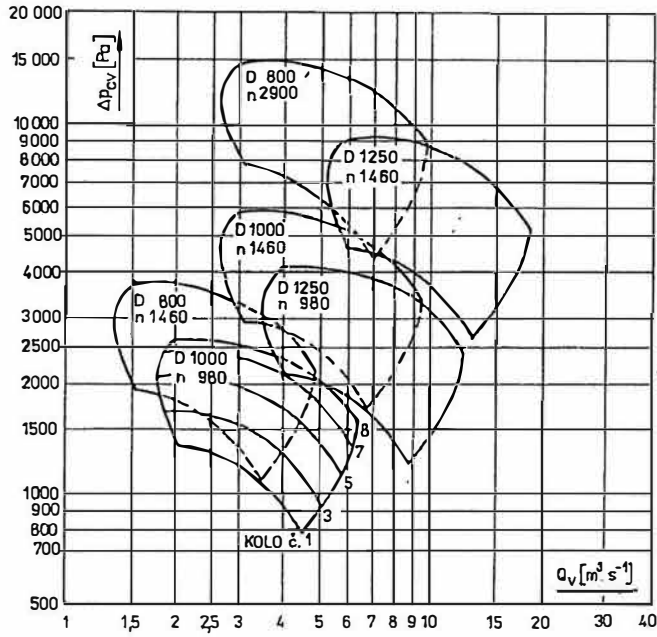
Size	H	Z	R	u	H	Z	R	u
	0° - 45°				90° - 225°			
800	950	1230	1180	5	800	1070	1020	4
1000	1200	1500	1450	6	950	1230	1180	5
1250	1400	1720	1670	7	1200	1500	1450	6

Size	A	B	b <sub>1</sub> xS <sub>1</sub>	d <sub>1</sub>	n <sub>1</sub>	m <sub>1</sub>	v <sub>1</sub>	n <sub>2</sub>	m <sub>2</sub>	v <sub>2</sub>	n <sub>0</sub>
800	450	225	40x10	12	3	100	97	1	100	84,5	16
1000	560	280	40x10	12	4	100	102	1	100	112	18
1250	710	355	50x12	15	4	120	140	2	120	82,5	20

Size	D	D <sub>1</sub>	b	s	d	n	Maximum fan weight without motor	
							Directly driven	Through coupling
800	450	495	40	10	12	12	363,0	516,0
1000	560	605	40	10	12	16	584,0	805,0
1250	710	760	45	12	15	20	920,0	1350,0

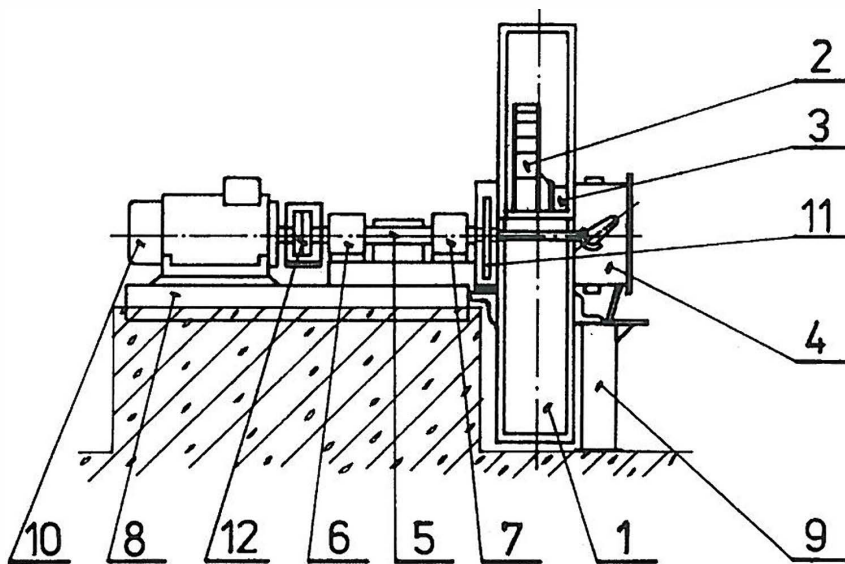
The weight is indicated for the standard design fan; for the armoured design fan it is necessary to add +35 kg for the size 800, +75 kg for the size 1000, +125 kg for the size 1250;

**Diagram 1 RVK FAN PERFORMANCE PARAMETERS**  
 $\rho = 1.2 \text{ kg.m}^{-3}$



*Impeller No. 1*

*RADIAL FANS RVK 1600 through 2500  
single side suction*



**Main components:**

- |                         |                     |
|-------------------------|---------------------|
| 1. Fan casing           | 7. Floating bearing |
| 2. Impeller             | 8. Frame            |
| 3. Air intake           | 9. Support          |
| 4. Regulating mechanism | 10. Electric motor  |
| 5. Shaft                | 11. Cooling disk    |
| 6. Fixed bearing        | 12. Coupling        |

---

Klima s.r.o.  
Krumlovská 38  
383 01 Prachatice  
Czech republic

Phone: 00420 388 601 154  
E-mail: [info@klimacz.cz](mailto:info@klimacz.cz)  
[www.klimacz.cz](http://www.klimacz.cz)

## ***Description***

The RVK fans are single side suction high pressure radial fans of sizes 1600, 2000 and 2500. They are driven by electromotors by means of a flexible coupling.

The fan impeller is overhung on the conical end of the shaft. Each fan size may be fitted with eight different impellers No. 1 through No. 8 in order to extend the capacity range of the fan.

The fans are manufactured both in standard and armoured design. The armoured design is manufactured with beaded impellers and replaceable liner of the fan casing perimeter metal plate.

In order to achieve more accurate value of the required air flow each fan is fitted with a servo-driven regulating mechanism (the servo-drive with the connecting rod are not included in the fan delivery and must be specified in the order if required).

The fan shaft is supported by cone bearings in separate bearing boxes. At the transported air temperatures above + 100 °C the bearings are cooled by the cooling disk fitted between the fan casing and the floating bearing. The fans used for transportation of air at temperatures ranging from + 250 °C to + 400 °C are cooled by the cooling disk and fitted with close-circuit cooling of bearings. The bearings are fitted with contact thermometers.

The fan casing is welded. There is an assembly hole provided in the perimeter metal sheet at the delivery side of the fan. A drain is provided at the lowest point of the fan casing. The fan components are installed on two frames of which one is anchored to a horizontal concrete floor and the other to a concrete block elevated above the floor level. Upon consultation with the manufacturer it is possible to deliver a fan of non-standard design for elastic mounting on a steel support.

## ***Intended use***

Fans of the standard design are used for transportation of clean air or air containing fine particles; fans of armoured design are intended for transportation of air with abrasive particles. The fans cannot be used for transportation of explosive air masses containing corrosive or fibrous particles and air with particles which may cause gumming.

## ***Operating conditions***

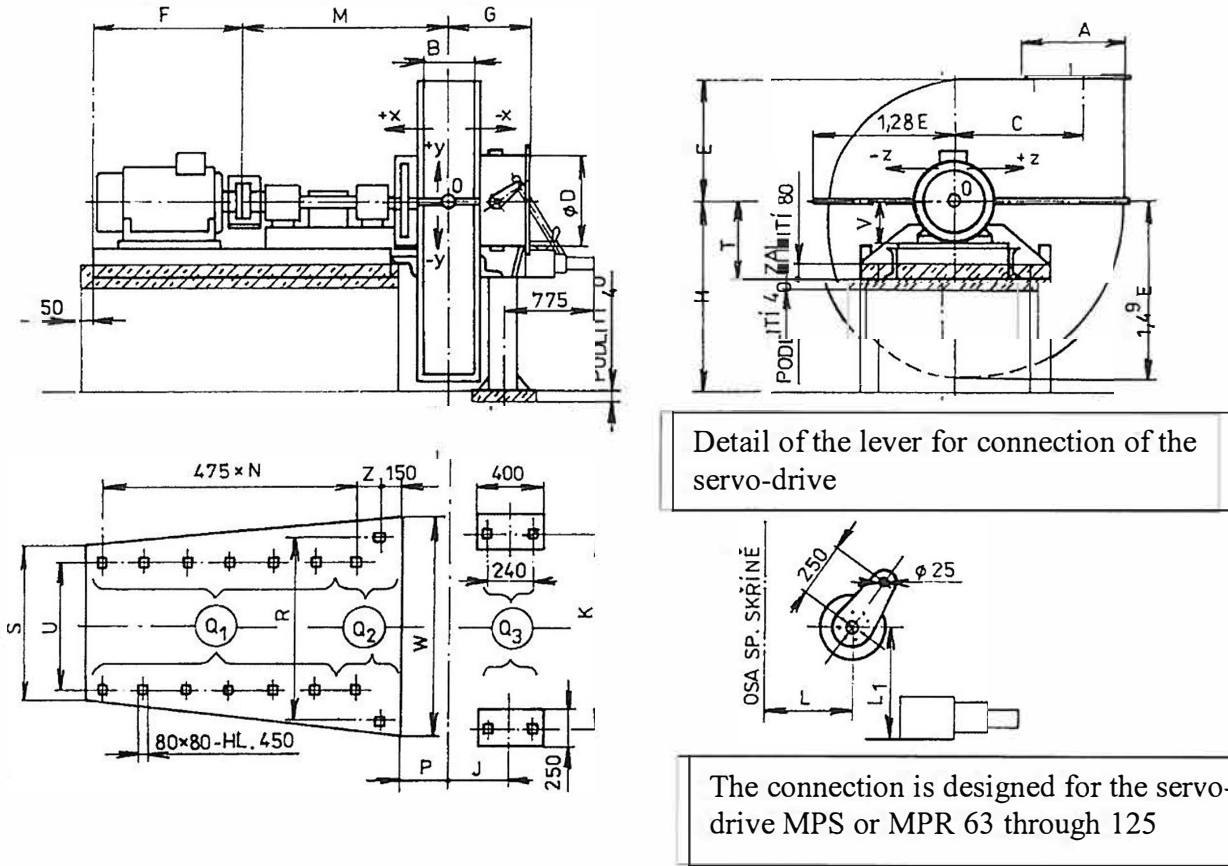
The fans may transport air at temperatures ranging from - 20 °C to + 400 °C. Each fan may only be operated within parameters confirmed by the manufacturer in accordance with data plate on the fan. For constant operating conditions the fan performance may be regulated by the regulating mechanisms within the minimum range of 60% of the total fan efficiency, or within the operationally proven range.

Operation of each fan is limited by the values of the mechanical vibration in accordance with ČSN 12 2011.

The fans are suitable for transportation of air and installation in non explosive environment in accordance with ČSN EN 60079-10 at ambient temperatures ranging from - 20 °C to + 35 °C. For the transported air temperature up to + 250 °C the ambient temperature may be up to + 40 °C.

In the case of outdoor installation the electric motors must be protected by housing against direct sun, rain and snow. The motor housing is delivered as an accessory on demand.

**Fig. 1 RVK 1600 THROUGH 2500 FANS**



*Podlití = Grouting*

*Zaliti = Concrete casting*

**Table 2 RVK 1600 THROUGH 2500 FANS MAIN DIMENSIONS**

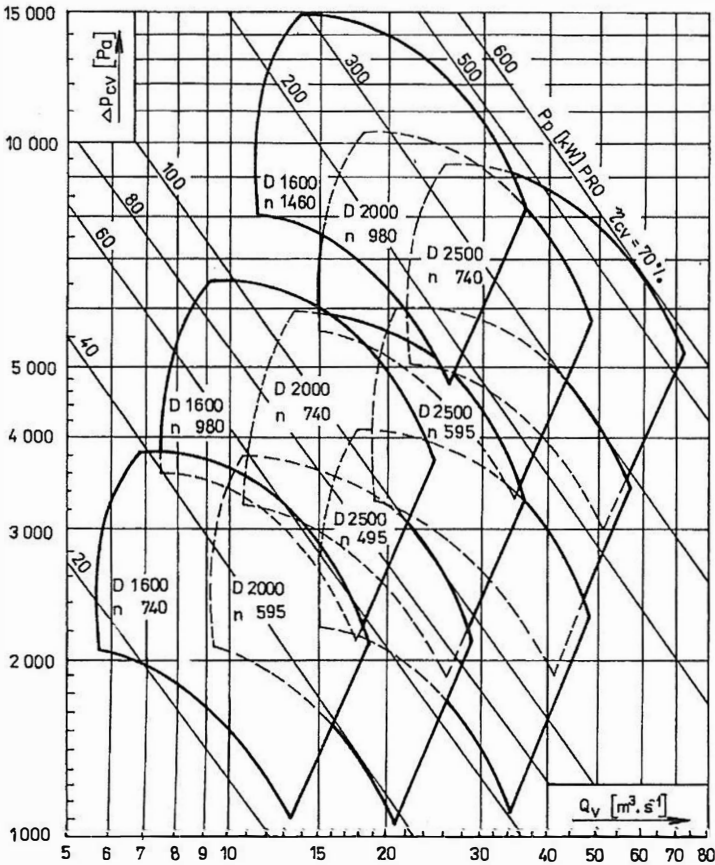
Fan size	A	B	C	D	E	G	H - for the fan casing position				
							45°	90°	135°	180°	225°
1600	900	450	1270	900	1050	580	1700	1600	1500	1400	1300
2000	1120	560	1585	1120	1290	700	2200	2000	1900	1700	1600
2500	1400	710	1975	1400	1610	845	2650	2500	2300	2100	1900

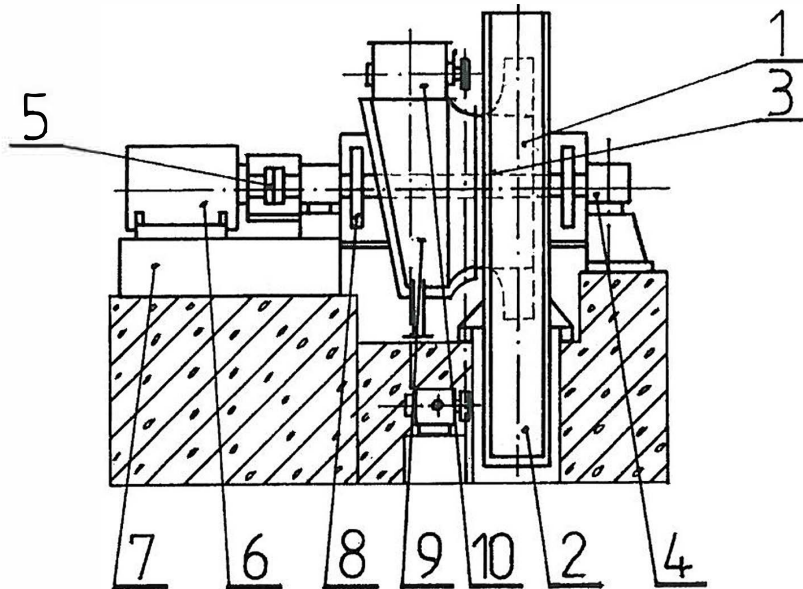
Fan size	J	K	L	L <sub>1</sub>	M	P	R	W	Z	Weight [kg]
1600	425	2100	360	860	2115	445	1560	1900	200	4105
2000	480	2100	415	860	2300	500	1640	1900	250	5740
2500	560	2400	490	930	2375	575	1900	2150	250	7500

Note: the table lists maximum fan weights for normal fan design without the motor and the accessories

**Diagram 1 RVK 1600 THROUGH 2500 FANS PERFORMANCE PARAMETERS**  
 $\rho = 1.2 \text{ kg.m}^{-3}$



*RADIAL FANS RVI 1600 through 2500  
single side suction*



Main components:

- |                |                       |
|----------------|-----------------------|
| 1. Impeller    | 6. Electric motor     |
| 2. Fan casing  | 7. Motor frame        |
| 3. Shaft       | 8. Cooling disk       |
| 4. Bearing box | 9. Air intake chamber |
| 5. Coupling    | 10. Control valve     |

---

Klima s.r.o.  
Krumlovská 38  
383 01 Prachatice  
Czech republic

Phone: 00420 388 601 154  
E-mail: [info@klimacz.cz](mailto:info@klimacz.cz)  
[www.klimacz.cz](http://www.klimacz.cz)

## ***Description***

The RVI fans are single side suction high pressure radial fans of sizes 1600, 2000 and 2500. They are driven by electromotors by means of a flexible coupling.

The impeller is installed between bearings. Seven different impellers No. 1, 3, 4, 5, 6, 7 and 8 for a single fan size may be used in order to extend the fan capacity range. For the size 2000 fan, speed  $1460 \text{ min}^{-1}$ , and size 2500 fan, speed  $980 \text{ min}^{-1}$ , the impellers No. 2, 4, 6 and 8 may be used. The fans are always fitted with a servo-driven control valve. The control valves are intended for achieving the required constant flow volume or for gradual regulation of the flow volume in operationally proven range.

The fan shaft is supported by cone bearings in separate bearing boxes. At the transported air temperatures above  $+ 100 \text{ }^\circ\text{C}$  the bearings are cooled by the cooling disk fitted on the shaft between the fan casing, the air intake chamber and the bearing. The fans used for transportation of air at temperatures ranging from  $+ 250 \text{ }^\circ\text{C}$  to  $+ 400 \text{ }^\circ\text{C}$  are cooled by the cooling disk and are fitted with close-circuit cooling of bearings. The bearings are fitted with contact pressure-type thermometers.

## ***Intended use***

Fans of the standard design are used for transportation of clean air or air containing fine particles; fans of armoured design are intended for transportation of air with abrasive particles. The fans cannot be used for transportation of explosive air masses containing corrosive or fibrous particles and air with particles which may cause gumming.

## ***Operating conditions***

The standard design fans may be used for transportation of air not containing abrasive particles at temperatures ranging from  $- 20 \text{ }^\circ\text{C}$  to  $+ 400 \text{ }^\circ\text{C}$ .

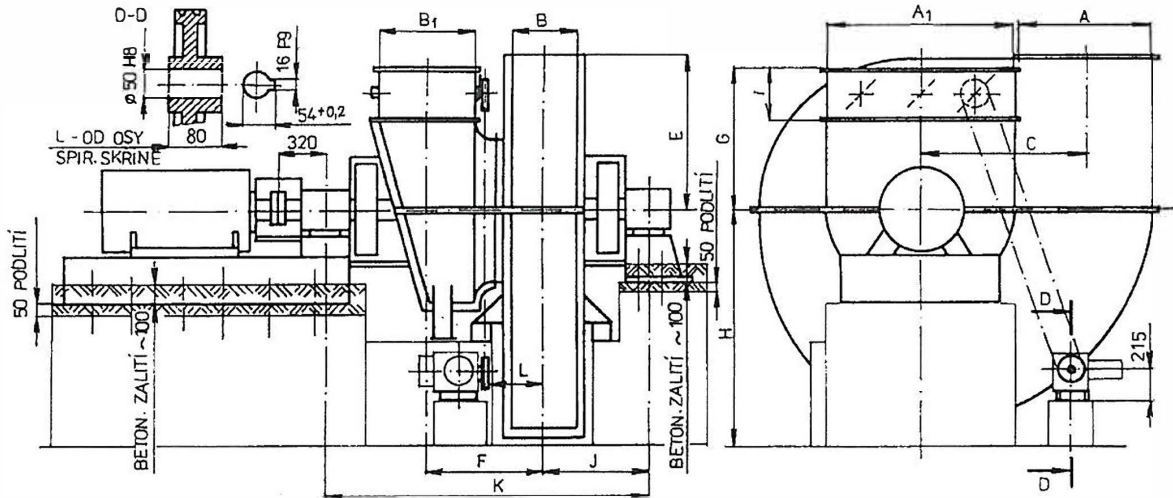
Armoured-design fans may be used for transportation of air containing abrasive particles at the same temperatures as the standard design fans. Admissible amount of impurities depending on their kind and abrasive properties must always be consulted with the fan manufacturer.

The fans may only be operated within parameters confirmed by the manufacturer in accordance with data plate on the fan.

The fans are suitable for transportation of air in non explosive environment - the BNV type - in accordance with ČSN EN 60079-10 at ambient temperatures ranging from  $- 20 \text{ }^\circ\text{C}$  to  $+ 40 \text{ }^\circ\text{C}$ .



**Fig. 1 RVI 1600 THROUGH 2500 FANS**



*Podlití = Grouting*

*Bet. zalití = Concrete casting*

*Od osy spirální skříně – from fan casing axis*

**Table 3 RVI 1600 THROUGH 2500 FANS MAIN DIMENSIONS**

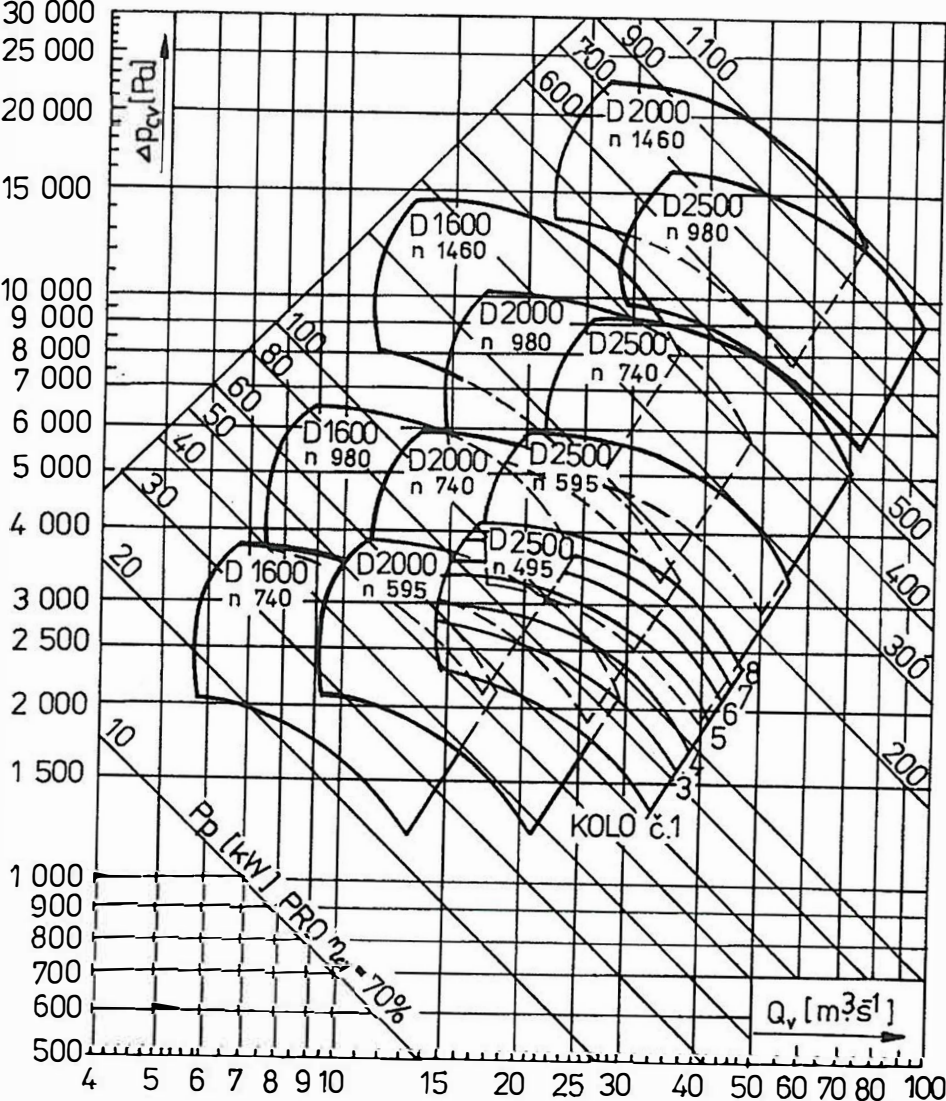
Fan size	A	B	A <sub>1</sub>	B <sub>1</sub>	C	E	H - for the fan casing position				
							45°	90°	135°	180°	225°
1600	900	450	1250	630	1270	1040	1700	1600	1500	1400	1300
2000	1120	560	1600	800	1585	1290	2200	2000	1900	1700	1600
2500	1400	710	2000	1000	1975	1610	2650	2500	2300	2100	1900

Fan size	F	G	I	J	K	L	Weight [kg]	
							Impeller 8 N	Impeller 8 P
1600	775	950	320	725	2180	340	4280	4560
2000	970	1200	400	780	2550	450	5940	6390
2500	1175	1500	500	900	2950	-	9080	9810

Note:

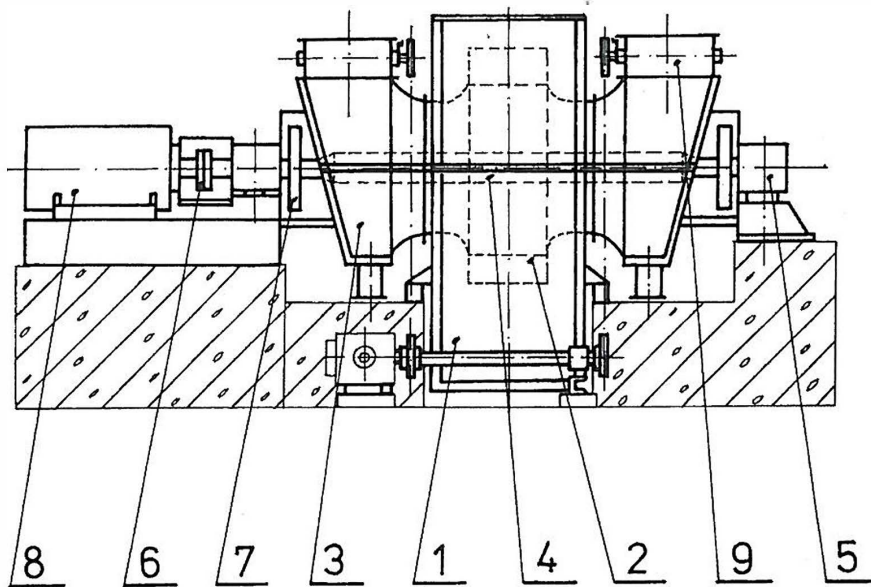
- the table lists weights of fans without the motor for the medium speed and the impeller No. 8
- the L dimension for the size 2500 fan is indicated by the manufacturer separately for each individual order

**Diagram 1 RVI 1600 THROUGH 2500 FANS PERFORMANCE PARAMETERS**  
 $\rho = 1.2 \text{ kg.m}^{-3}$



Impeller No. 1

## *RADIAL FANS RVI/2 1600 through 2500 dual inlet*



### Main components:

- |                       |                   |
|-----------------------|-------------------|
| 1. Fan casing         | 6. Coupling       |
| 2. Impeller           | 7. Cooling disk   |
| 3. Air intake chamber | 8. Electric motor |
| 4. Shaft              | 9. Control valve  |
| 5. Bearing box        |                   |

---

Klima s.r.o.  
Krumlovská 38  
383 01 Prachatice  
Czech republic

Phone: 00420 388 601 154  
E-mail: [info@klimacz.cz](mailto:info@klimacz.cz)  
[www.klimacz.cz](http://www.klimacz.cz)

## *Description*

The RVI/2 fans are both side suction high pressure radial fans of sizes 1600, 1000 and 2500. They are driven by electric motors by means of a flexible coupling.

The impeller is embedded on a shaft between two bearings. Six different impellers No. 3, 4, 5, 6, 7 and 8 for a single fan size may be used in order to extend the fan capacity range.

The fans are always fitted with a servo-driven control valve using a connection device. The control valves are intended for achieving the required constant flow volume or for gradual regulation of the flow volume in operationally proven range.

The fan shaft is supported by cone bearings in separate bearing boxes. At the transported air temperatures above + 100 °C the bearings are cooled by the cooling disks fitted on the shaft between the air intake chamber and the bearing. In case of fans which transport air mass at temperatures ranging from +250°C to + 400 °C the bearings are cooled by cooling disks and closed-circuit lubrication with oil cooling. The bearings are fitted with contact pressure-type thermometers.

## *Intended use*

Fans of the standard design are used for transportation of clean air or air containing fine particles; fans of armoured design are intended for transportation of air with abrasive particles. The fans cannot be used for transportation of explosive air masses containing corrosive or fibrous particles and air with particles which may cause gumming.

## *Operating conditions*

The standard design fans may be used for transportation of air not containing abrasive particles at temperatures ranging from - 20 °C to + 400 °C.

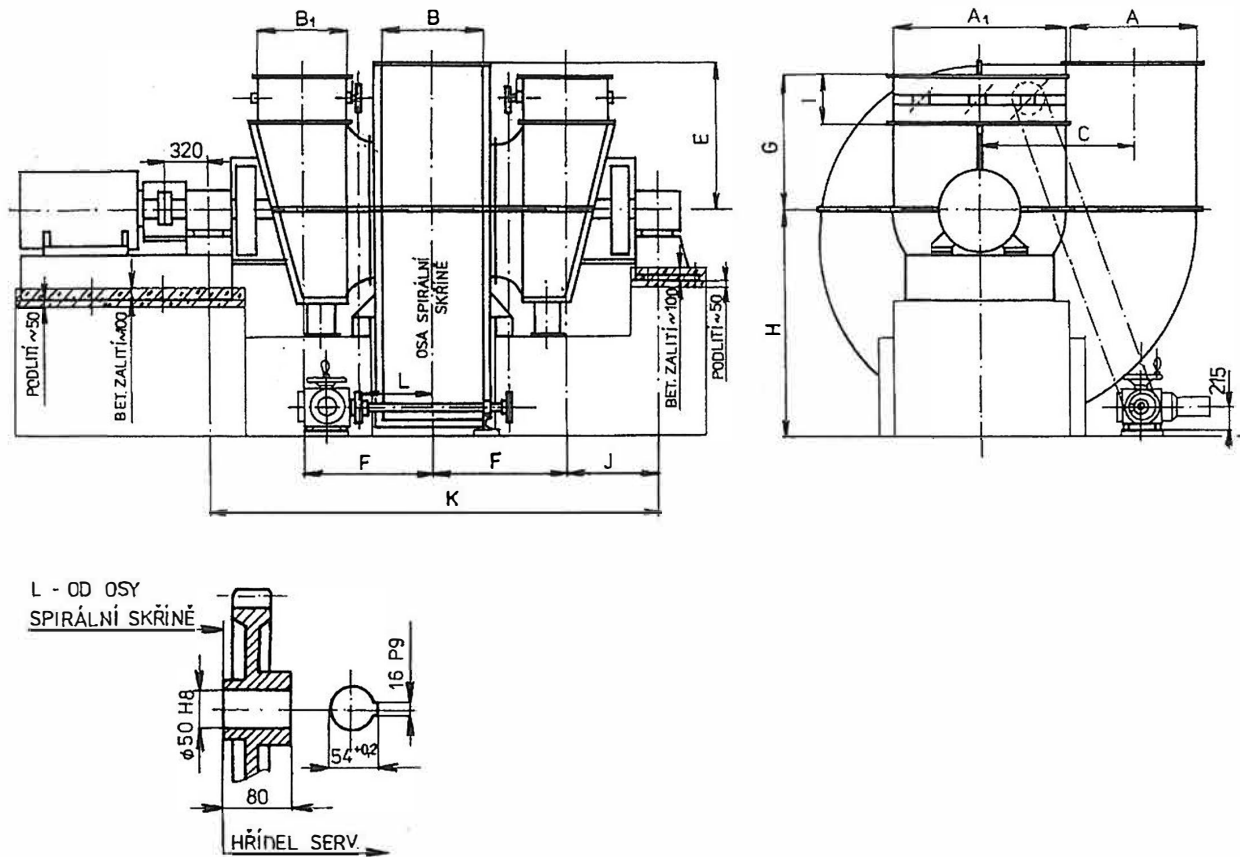
Armoured-design fans may be used for transportation of air containing abrasive particles at the same temperatures as the standard design fans. Admissible amount of impurities depending on their kind and abrasive properties must always be consulted with the fan manufacturer.

The fans may only be operated within parameters confirmed by the manufacturer in accordance with data plate on the fan.

The fans are suitable for transportation of air and installation in non explosive environment - the BNV type - in accordance with ČSN EN 60079-10 at ambient temperatures ranging from - 20 °C to + 40 °C, and fans with the closed-circuit lubrication of bearings at the maximum ambient temperature of + 35 °C.

In the case of outdoor installation the electric motors must be protected by housing against direct sun, rain and snow. The motor housing is delivered as an accessory on demand.

**Fig. 1 RVI/2 1600 THROUGH 2500 FANS**



*Podlití = Grouting*

*Bet. zalití = Concrete casting*

*Hřídel serv. – Servo-drive shaft*

*Osa spirální skřine – Fan casing axis*

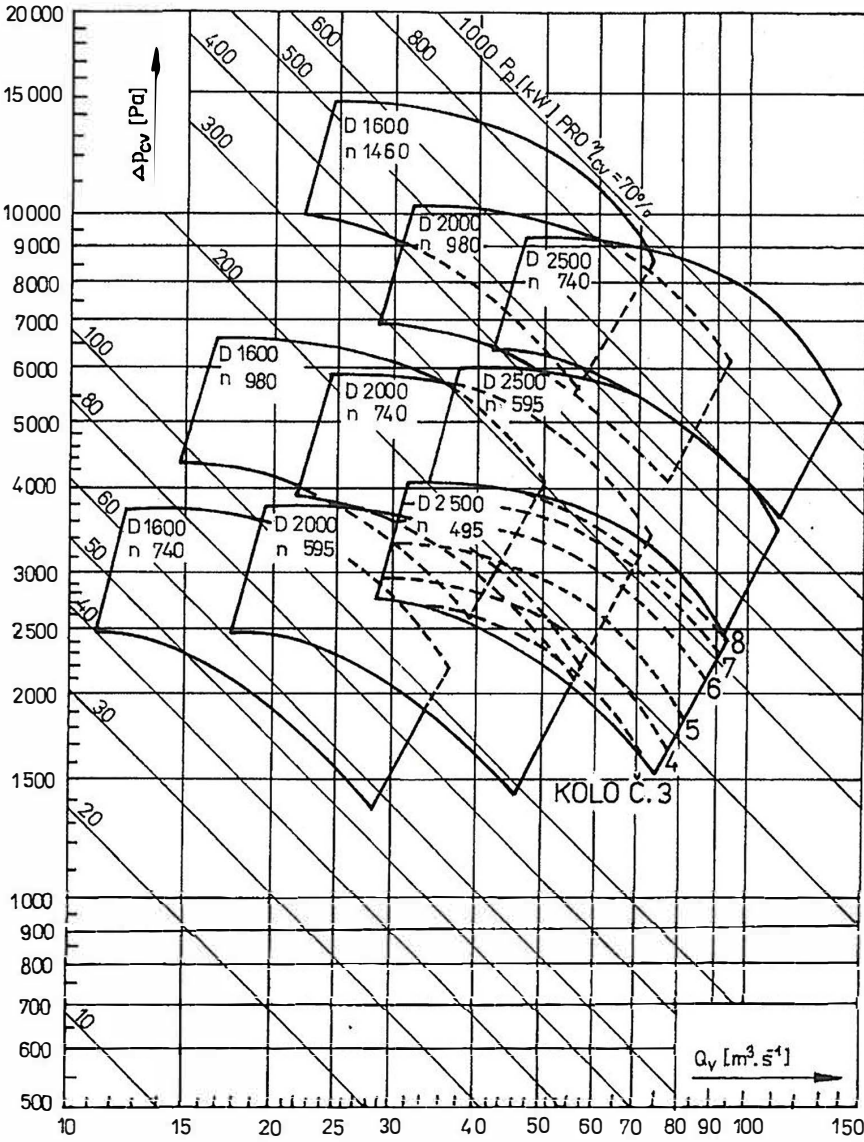
*Od osy spirální skřine – from fan casing axis*

**Table 3 RVI/2 1600 THROUGH 2500 FANS MAIN DIMENSIONS**

Fan size	A	B	A <sub>1</sub>	B <sub>1</sub>	C	E	H - for the fan casing position				
							45°	90°	135°	180°	225°
1600	900	900	1250	630	1270	1040	1700	1600	1500	1400	1300
2000	1120	1120	1600	800	1585	1290	2200	2000	1900	1700	1600
2500	1400	1400	2000	1000	1975	1610	2650	2500	2300	2100	1900

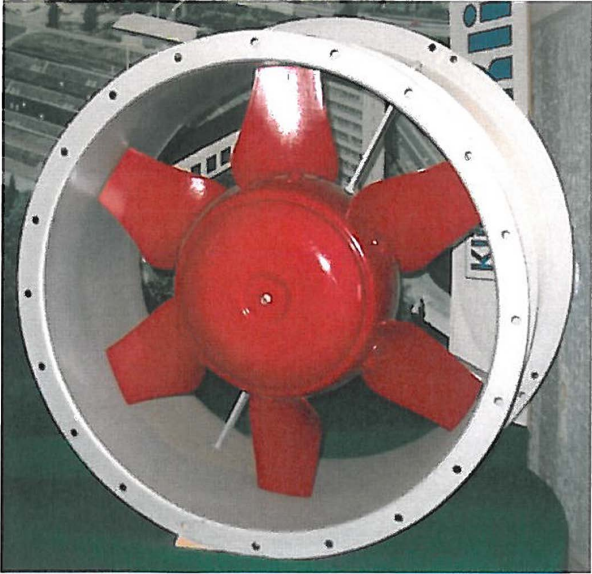
Fan size	F	G	I	J	K	L	Weight without motor [kg]
1600	1000	950	320	680	3360	560	5110 to 6350
2000	1250	1200	400	800	4100	730	7090 to 8800
2500	1520	1500	500	905	4850	892	10270 to 12750

**Diagram 1 RVI/2 1600 THROUGH 2500 FANS PERFORMANCE PARAMETERS**  
 $\rho = 1.2 \text{ kg.m}^{-3}$

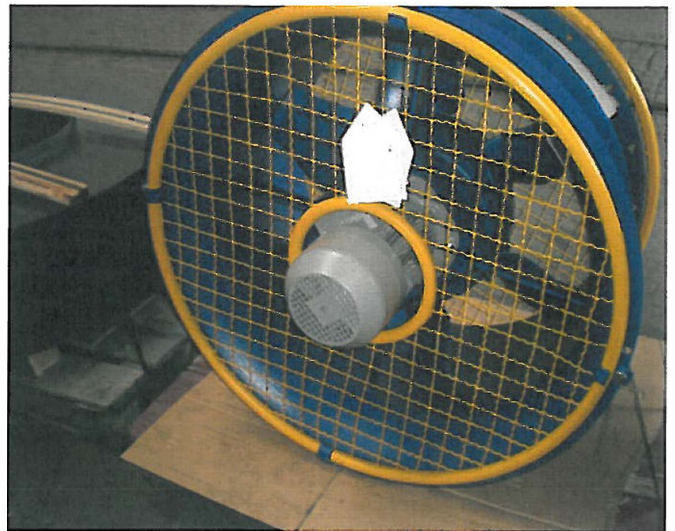


Impeller No. 3

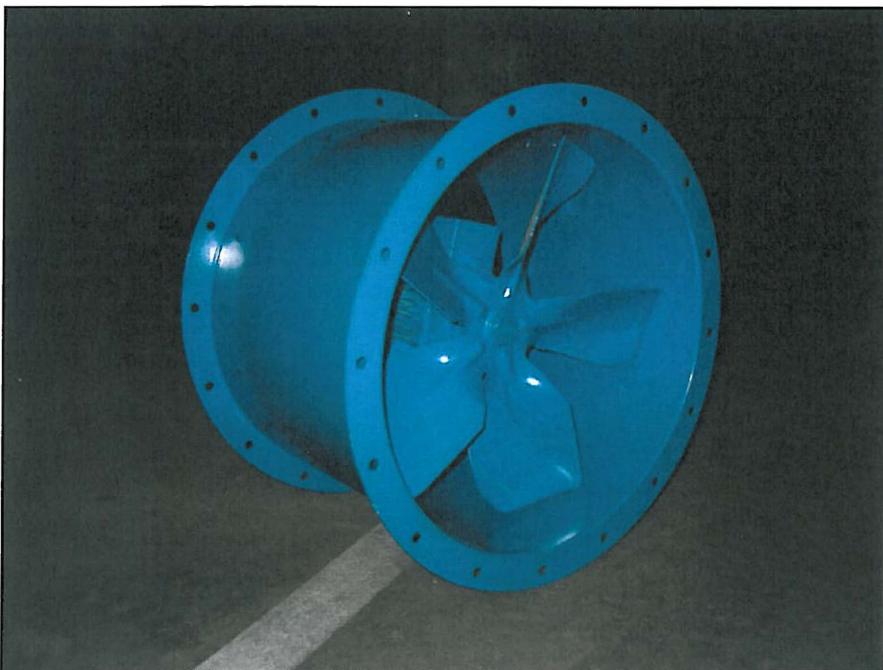
Note: The total efficiency of the fan within the indicated operating conditions is at least 70%.



APT AXIAL FAN



APT AXIAL FAN



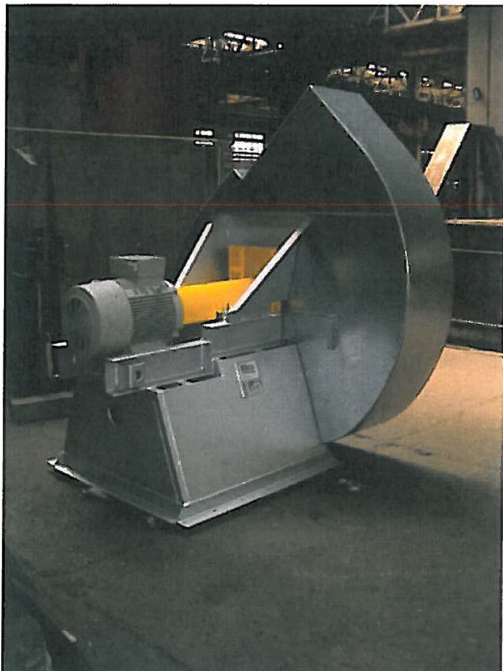
API AXIAL FAN



RADIAL FAN RSK

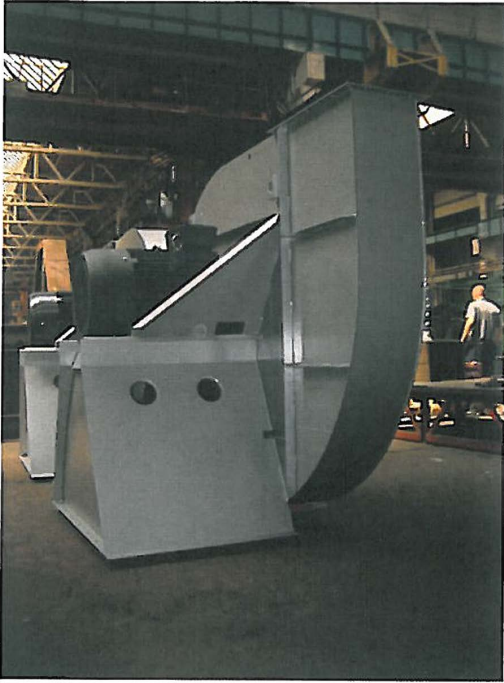


RADIAL FAN RSU 630

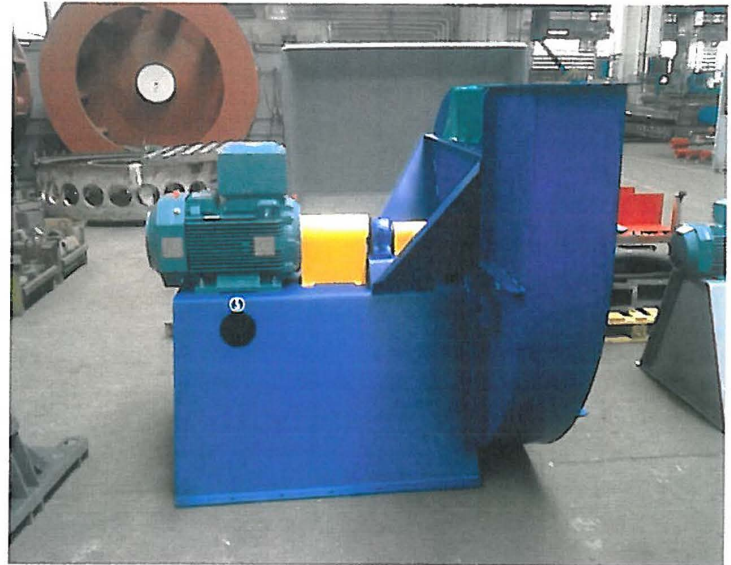


RADIAL FAN RVI





RADIAL FAN RVK 800 – 1250 DIRECTLY DRIVEN



RADIAL FAN RVK 800 – 1250 DRIVEN  
THROUGH COUPLING



RADIAL FAN RVI/2 1600 - 2500  
DUAL INLET