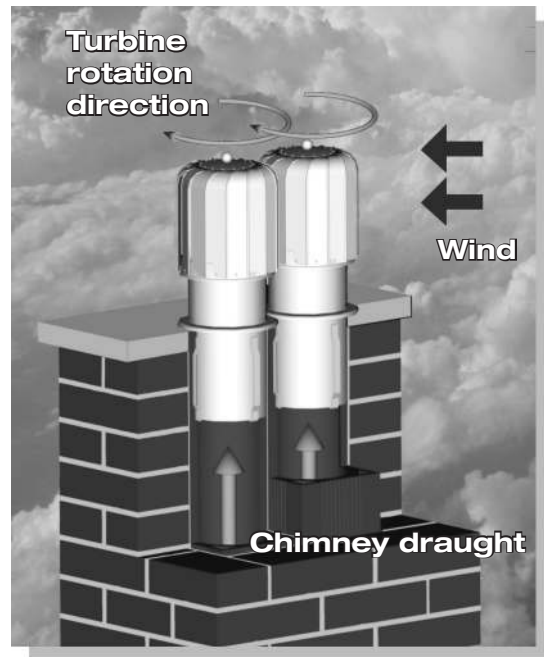


PICTURE



FUNCTION PRINCIPLE



DESCRIPTION

Rotary chimney cowl Turbowent Tulipan is a device, which, in a dynamic way, uses force of the wind to increase chimney draught. The turbine always rotates in the same direction no matter of the wind strength or its direction. It is to be mounted on gravitation based ventilation chimney duct endings. The construction of the cowl allows it to be mounted on chimney ducts which are very close to each other. The patented force-in mounting method allows the cowl to be mounted without any additional devices needed.

Maximal working temperature: 150 [°C]

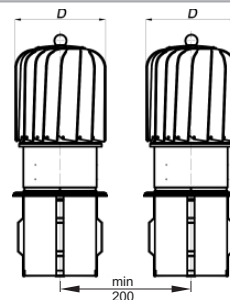
Rotating unit: ball bearing system sunk in high-temperature oil

DESTINATION

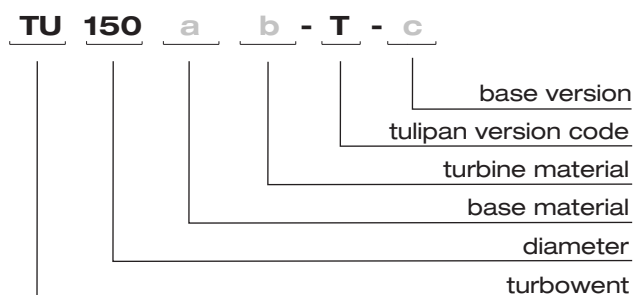
- when there are wind fluctuations on the chimney duct ending, caused by its bad location
- when there is an unfavorable terrain configuration, with strong and frequent winds
- when there is a lack of chimney draught or it is too weak
- in order to improve the natural (gravitation) ventilation.

MEASUREMENTS

Diameter	Turbine diameter D
Ø150	~ 195



DENOTATIONS / PRODUCT CODES



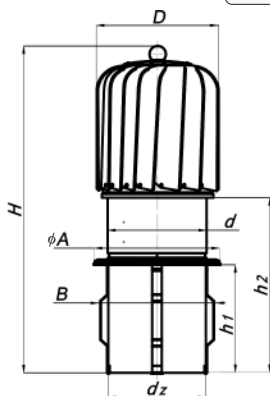
MATERIALS

Destination	W	W	W	W	W - ventilation ducts
	-	-	-	-	S - gas and oil exhaust ducts
	-	-	-	-	D - smoke ducts
Base material	CH	-	CH	-	CH - chrome - nickel sheet 1.4301
	-	OC	-	-	OC - galvanised steel sheet
	-	-	-	-	AL - aluminum
	-	-	-	ML	ML- powder coated
Turbine material	CH	-	-	-	CH - chrome - nickel sheet 1.4301
	-	AL	AL	-	AL - aluminum
	-	-	-	ML	ML- powder coated

TULIPAN - VERSIONS OF BASES

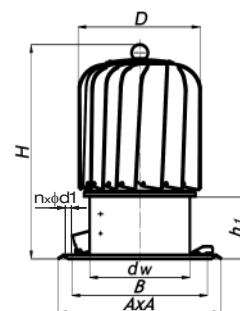
1. FORCE - IN MOUNTING BASE

-T



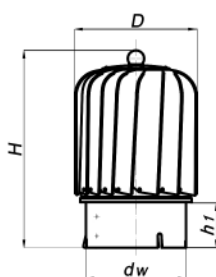
2. SQUARE BASE

-PK



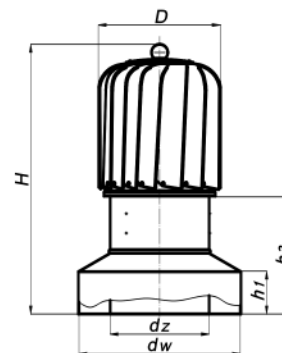
3. DISMOUNTABLE BASE

-R



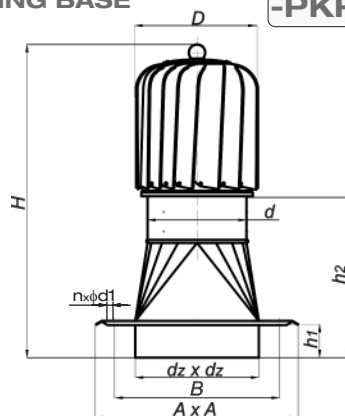
4. BASE WITH INSULATION CLOSING

-B-K



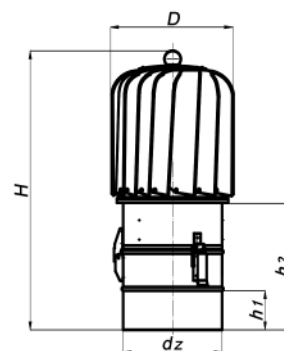
5. PKR - TYPE REDUCING BASE

-PKR



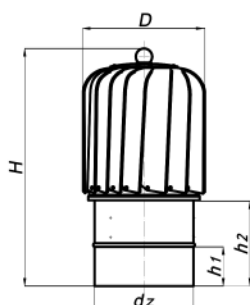
6. INLET PIPE OPENABLE

-B



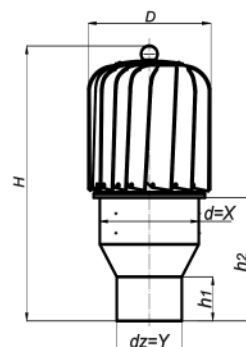
7. INLET PIPE NOT OPENABLE

-B-S



8. INLET PIPE REDUCED

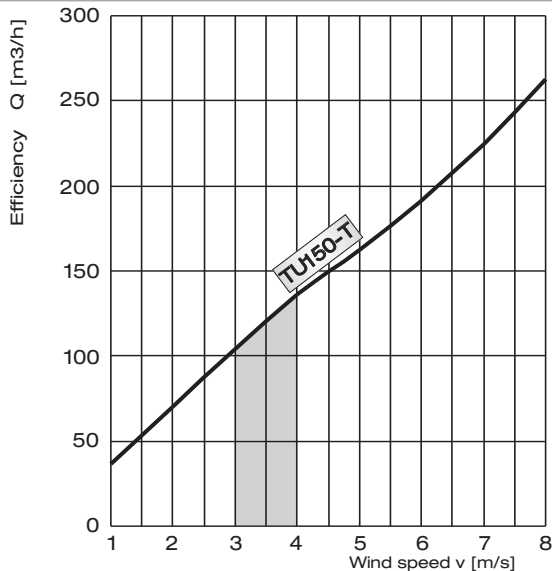
-X/Y-...-B-S



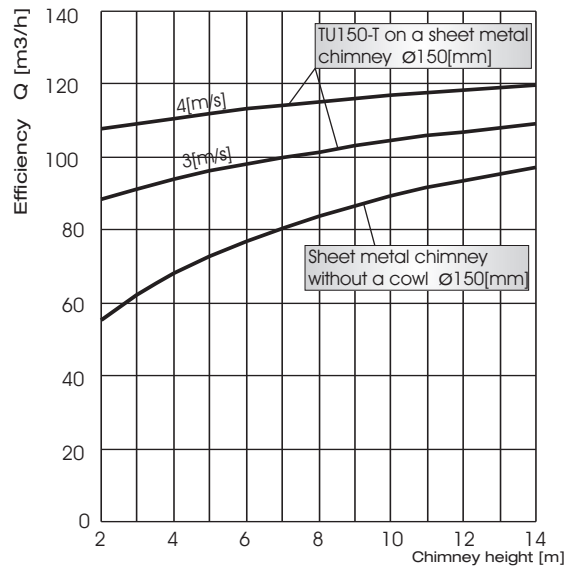
MEASUREMENTS TABLE FOR VARIOUS INLET DIAMETERS

Ø 150		Dimensions [mm]									Weight [kg]			
Lp	Base version	d _w	d _z	H	h ₁	h ₂	A	B	d ₁	Amount n	OCAL	CHAL	ML	CHCH
1	-T	-	144.0	475	155	240	187	158	6.2	-	1.30	1.40	1.40	1.60
2	-PK	149.0	-	330	95	-	250	208	6.2	4	1.05	1.15	1.15	1.35
3	-R	150.4	-	345	110	-	-	-	-	-	0.95	1.00	1.00	1.20
4	-B-K	253.3	151.7	425	70	190	-	-	-	-	1.55	1.70	1.70	1.90
5	-PKR	-	140.0	435	50	200	250	187	6.2	4	2.05	2.30	2.30	2.50
6	-B	-	151.7	428	60	193	-	-	-	-	1.35	1.40	1.40	1.60
7	-B-S	-	151.7	375	60	140	-	-	-	-	1.15	1.20	1.20	1.40
8	X/Y-...-B-S	-	Y	425	60	190	-	-	-	-	1.30	1.35	1.35	1.55

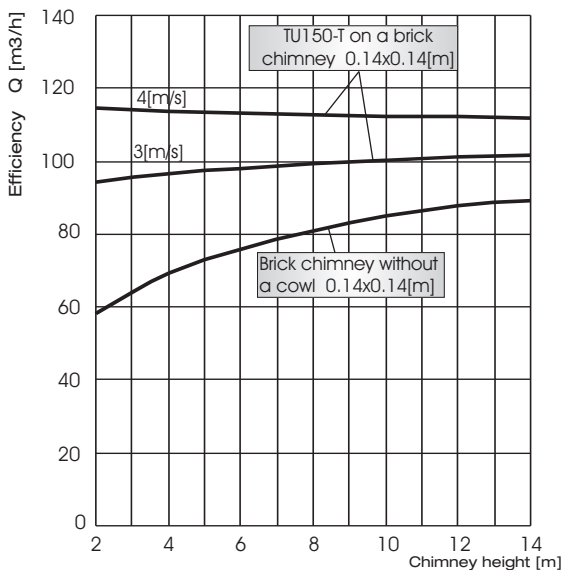
AIRFLOW CHARTS



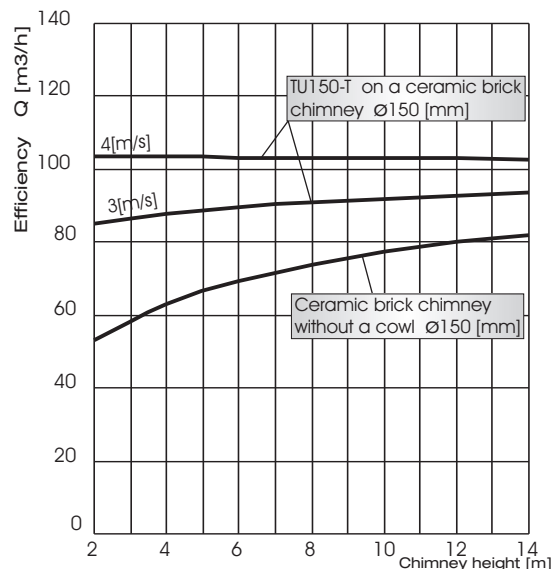
Efficiency chart for Tulipan cowl in a function of wind speed not including the influence of chimney height
*1 [m/s] = 3,6 [km/h]



Efficiency chart for Turbowent Tulipan Ø150 in a function of chimney height on a sheet metal chimney (for two wind speeds: 3 and 4 [m/s])



Efficiency chart for Turbowent Tulipan Ø150 in a function of chimney height on a brick chimney (for two wind speeds: 3 and 4 [m/s])



Efficiency chart for Turbowent Tulipan Ø150 in a function of chimney height on a ceramic brick chimney (for two wind speeds: 3 and 4 [m/s])