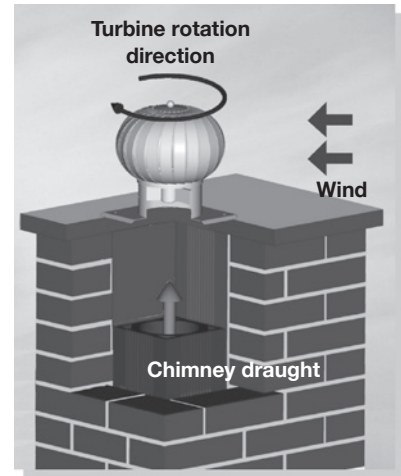


PICTURE



FUNCTION PRINCIPLE



DESCRIPTION

Rotary chimney cowl Turbowent 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.

Maximal working temperature: 150 [oC]

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

Noise level: 26dB

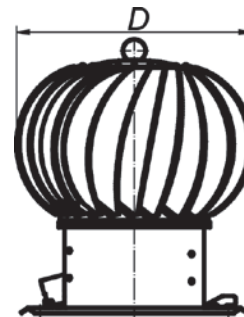
Includes solutions reserved in the RP Patent Office.

DESTINATION

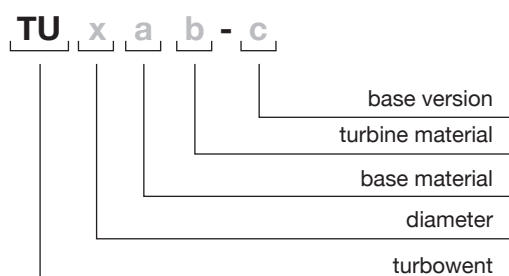
- when there are wind fluctuations on the chimney duct ending, caused by its bad location
- when there is an unfavorable terrain configuration, with strong and frequent winds
- when there is a lack of chimney draught or it is too weak
- in order to improve the natural (gravitation) ventilation

MEASUREMENTS

Diameter	Turbine diameter D
Ø 150	~ 260
Ø 200	~ 320
Ø 250	~ 380
Ø 300	~ 460
Ø 350	~ 490



DENOTATIONS / PRODUCT CODES

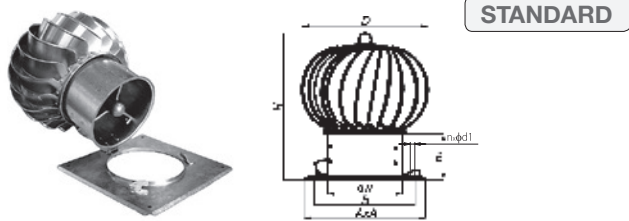


MATERIALS

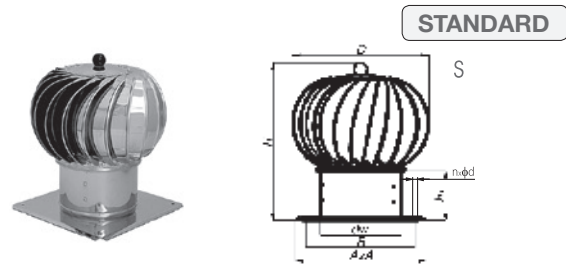
	W	W	W	W	W - ventilation ducts
Destination	-	-	-	-	S - gas and oil exhaust ducts
	-	-	-	-	D - smoke ducts
	-	-	-	-	
Base material	CH	-	CH	-	CH - chrome-nickel sheet 1.4301
	-	OC	-	-	OC - galvanised steel sheet
	-	-	-	-	AL - aluminum
	-	-	-	ML	ML - powder coated
Turbine material	CH	-	-	-	CH - chrome-nickel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

TURBOWENT - VERSIONS OF BASES

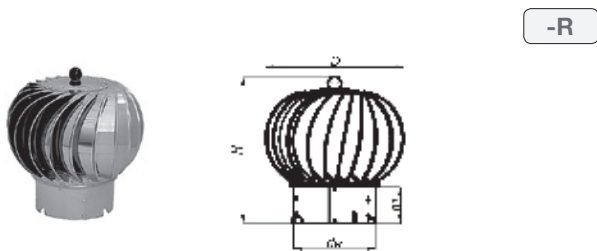
1. SQUARE BASE OPENABLE Ø150, Ø200, Ø250



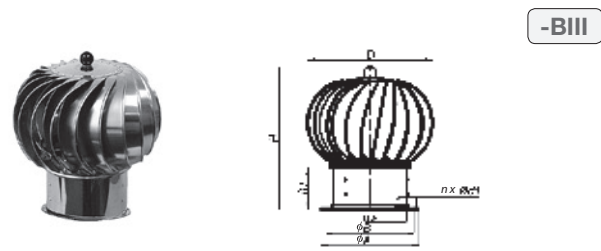
2. SQUARE BASE NOT OPENABLE Ø300, Ø350



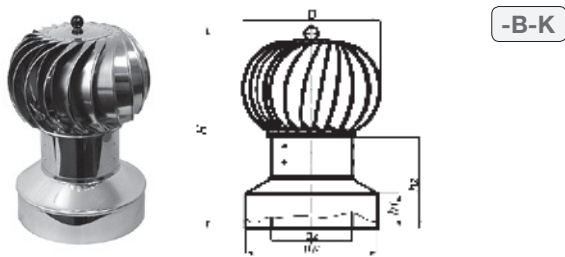
3. DISMOUNTABLE BASE



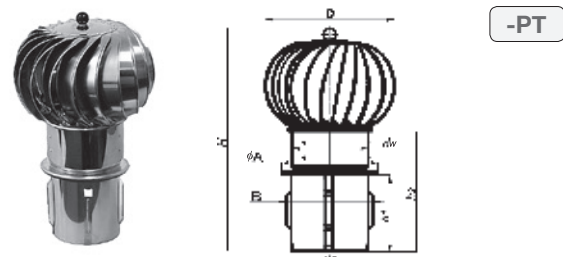
4. BASE WITH COLLAR



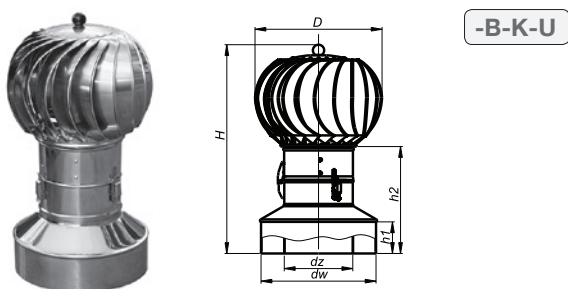
5. BASE WITH INSULATION CLOSING



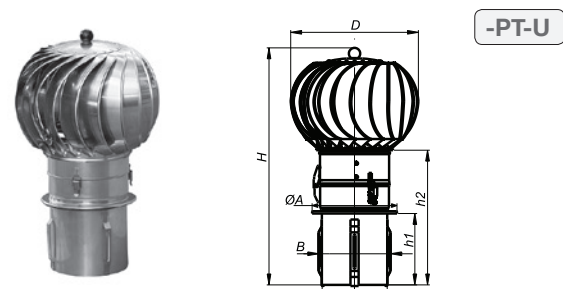
6. FORCE-IN MOUNTING BASE



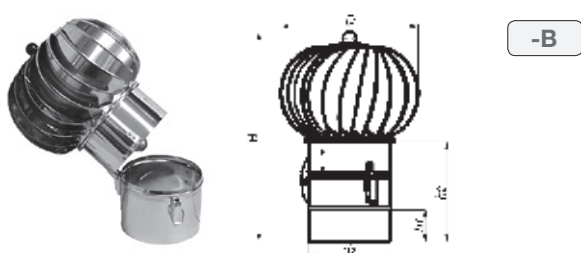
7. BASE WITH INSULATION CLOSING - OPENABLE



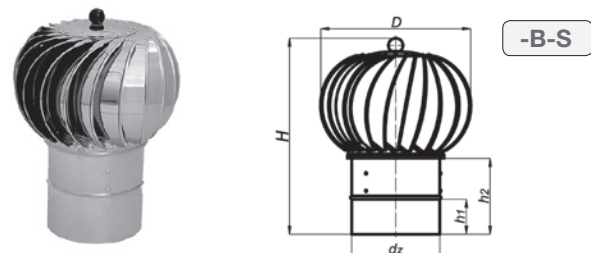
8. FORCE-IN MOUNTING BASE - OPENABLE



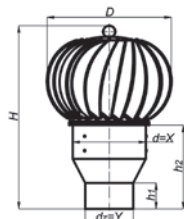
9. INLET PIPE OPENABLE Ø150, Ø200, Ø250, Ø300



10. INLET PIPE NOT OPENABLE

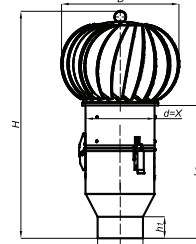


11. INLET PIPE REDUCED



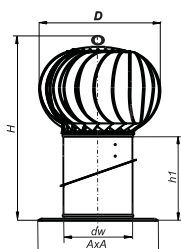
-X/Y-...-B-S

12. INLET PIPE REDUCED OPENABLE Ø150, Ø200, Ø250, Ø300



-X/Y-...-B

13. ADJUSTABLE BASE



-N

Adjustment ranges for various inlet diameters::

- Ø150÷Ø250 - angle 0°÷45°
- Ø300÷Ø350 - angle 0°÷45° or 0°÷30°

MEASUREMENTS TABLE FOR VARIOUS INLET DIAMETERS

Ø 150	Dimensions [mm]										Weight [kg]			
	Base version	D	dw	dz	H	h1	h2	A	B	d1	Amount n	OCAL	CHAL	ML
STANDARD	~260	150.4	-	305	100	-	250	208	6.2	4	1.50	1.60	1.60	1.80
-R	~260	150.4	-	320	105	-	-	-	-	-	1.40	1.45	1.45	1.65
-BIII	~260	150.1	-	292	90	-	212	182	9.5	6	1.80	1.85	1.85	2.05
-B-K	~260	253.3	151.7	399	70	194	-	-	-	-	2.00	2.20	2.20	2.40
-PT	~260	-	144.0	450	157	244	187	158	-	-	1.75	1.85	1.85	2.05
-B-K-U	~260	253.3	151.7	449	70	244	-	-	-	-	2.20	2.40	2.40	2.60
-PT-U	~260	-	144.0	500	157	294	187	158	-	-	1.95	2.05	2.05	2.25
-B	~260	-	152.0	402	60	197	-	-	-	-	1.50	1.60	1.60	1.80
-B-S	~260	-	152.0	349	60	144	-	-	-	-	1.35	1.40	1.40	1.60
-X/Y-...-B-S	~260	-	Y	399	60	194	-	-	-	-	1.50	1.55	1.55	1.75
-X/Y-...-B	~260	-	Y	492	60	287	-	-	-	-	1.80	1.90	1.90	2.10
-N	~260	150.4	-	425	220	-	250	-	-	-	1.80	1.90	1.90	2.10

MEASUREMENTS TABLE FOR VARIOUS INLET DIAMETERS

Ø 200		Dimensions [mm]									Weight [kg]			
Base version	D	dw	dz	H	h1	h2	A	B	d1	Amount n	OCAL	CHAL	ML	CHCH
STANDARD	~320	200.0	-	340	100	-	330	284.0	6.2	4	1.90	2.00	2.00	2.30
-R	~320	199.7	-	355	105	-	-	-	-	-	1.45	1.50	1.50	1.80
-BIII	~320	199.4	-	362	90	-	263	233	9.5	6	2.00	2.00	2.00	2.30
-B-K	~320	303.1	201.0	434	70	194	-	-	-	-	2.35	2.50	2.40	2.80
-PT	~320	-	194.0	494	167	254	237	208	-	-	2.05	2.20	2.10	2.50
-B-K-U	~320	303.1	201.0	484	70	244	-	-	-	-	2.65	2.80	2.70	3.10
-PT-U	~320	-	194.0	544	167	304	237	208	-	-	2.35	2.50	2.40	2.80
-B	~320	-	201.0	471	60	197	-	-	-	-	1.80	1.90	1.90	2.20
-B-S	~320	-	201.0	384	60	144	-	-	-	-	1.55	1.60	1.60	1.90
-X/Y-...-B-S	~320	-	Y	434	60	194	-	-	-	-	1.75	1.80	1.80	2.10
-X/Y-...-B	~320	-	Y	527	60	287	-	-	-	-	2.16	2.26	2.26	2.56
-N	~320	199.7	-	460	220	194	330	-	-	4	2.30	2.40	2.40	2.70

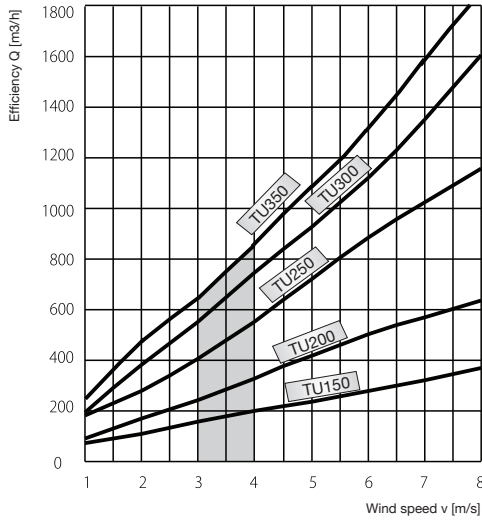
Ø 250		Dimensions [mm]									Weight [kg]			
Base version	D	dw	dz	H	h1	h2	A	B	d1	Amount n	OCAL	CHAL	ML	CHCH
STANDARD	~380	250.7	-	410	105	-	380	330	6.2	4	2.50	2.60	2.60	3.10
-R	~380	250.7	-	400	105	-	-	-	-	-	1.95	2.00	2.00	2.50
-BIII	~380	250.7	-	432	100	-	313	283	9.5	8	3.35	3.45	3.45	3.95
-B-K	~380	352.4	252.3	480	70	194	-	-	-	-	2.95	3.20	3.05	3.70
-PT	~380	-	244.0	550	177	264	287	259	-	-	2.75	2.80	2.85	3.40
-B-K-U	~380	352.4	252.3	530	70	244	-	-	-	-	3.40	3.65	3.50	4.15
-PT-U	~380	-	244.0	600	177	314	287	259	-	-	3.20	3.25	3.80	3.85
-B	~380	-	252.3	541	60	197	-	-	-	-	2.40	2.50	2.50	3.00
-B-S	~380	-	252.3	430	60	144	-	-	-	-	2.10	2.20	2.20	2.70
-X/Y-...-B-S	~380	-	Y	480	60	190	-	-	-	-	2.30	2.40	2.40	2.90
-X/Y-...-B	~380	-	Y	593	60	303	-	-	-	-	2.85	2.95	2.95	3.45
-N	~380	250.4	-	525	220	-	380	-	-	-	2.95	3.05	3.05	3.55

MEASUREMENTS TABLE FOR VARIOUS INLET DIAMETERS

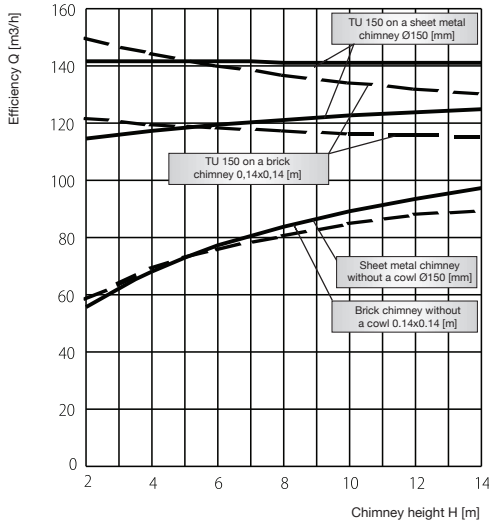
Ø 300	Dimensions [mm]										Weight [kg]			
	Base version	D	dw	dz	H	h1	h2	A	B	d1	Amount n	OCAL	CHAL	ML
STANDARD	~460	298.0	-	425	90	-	430	380	6.2	4	3.00	3.25	3.25	4.00
-R	~460	300.0	-	419	105	-	-	-	-	-	2.00	2.10	2.10	2.85
-BIII	~460	300.0	-	508	100	-	363	337	9.5	8	2.95	3.05	3.05	3.80
-B-K	~460	403.7	301.6	499	70	194	-	-	-	-	3.25	3.50	3.50	4.30
-PT	~460	-	294.0	569	177	244	337	308	-	-	3.00	3.20	3.20	4.00
-B-K-U	~460	403.7	301.6	549	70	244	-	-	-	-	3.90	4.15	4.15	4.95
-PT-U	~460	-	294.0	619	177	294	337	308	-	-	3.65	3.85	3.85	4.65
-B	~460	-	301.6	635	60	197	-	-	-	-	2.60	2.70	2.70	3.45
-B-S	~460	-	301.6	553	60	144	-	-	-	-	2.20	2.30	2.30	3.05
-X/Y...-B-S	~460	-	Y	499	60	174	-	-	-	-	2.50	2.60	2.60	3.35
-X/Y...-B	~460	-	Y	612	60	287	-	-	-	-	3.10	3.20	3.20	3.95
-N	~460	300	-	635	300	-	430	-	-	-	4.50	4.75	4.75	5.50

Ø 350	Dimensions [mm]										Weight [kg]			
	Base version	D	dw	dz	H	h1	h2	A	B	d1	Amount n	OCAL	CHAL	ML
STANDARD	~490	347.3	-	425	90	-	500	460	6.2	4	3.60	3.85	3.85	4.60
-R	~490	349.3	-	419	105	-	-	-	-	-	2.10	2.20	2.20	2.95
-BIII	~490	349.3	-	508	100	-	412	382	9.5	8	3.15	3.25	3.25	4.00
-B-K	~490	349.3	350.9	499	70	194	-	-	-	-	3.65	3.80	3.80	4.60
-PT	~490	-	344	569	177	244	387	358	-	-	3.60	3.80	3.80	4.60
-B-S	~490	-	350.9	553	60	144	-	-	-	-	2.35	2.45	2.45	3.20
-X/Y...-B-S	~490	-	Y	499	60	174	-	-	-	-	2.70	2.80	2.80	3.55
-N	~490	349.3	-	635	300	-	500	-	-	-	5.35	5.60	5.60	6.35

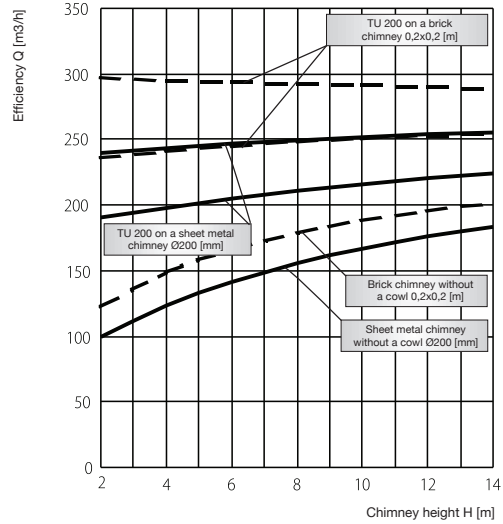
AIRFLOW CHARTS



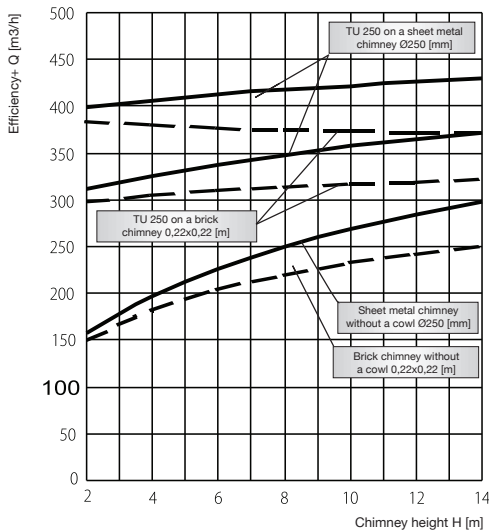
Efficiency chart for Turbowents (various diameters) in a function of wind speed, not including the influence of chimney height. (*1[m/s]=3,6[km/h])



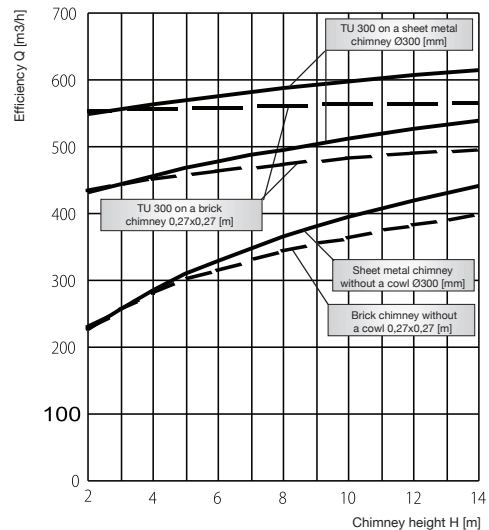
Efficiency chart for Turbowents Ø150 in a function of chimney height on a brick or sheet metal chimney (for two wind speeds: 3 and 4 [m/s]).



Efficiency chart for Turbowents Ø200 in a function of chimney height on a brick or sheet metal chimney (for two wind speeds: 3 and 4 [m/s]).



Efficiency chart for Turbowents Ø250 in a function of chimney height on a brick or sheet metal chimney (for two wind speeds: 3 and 4 [m/s]).

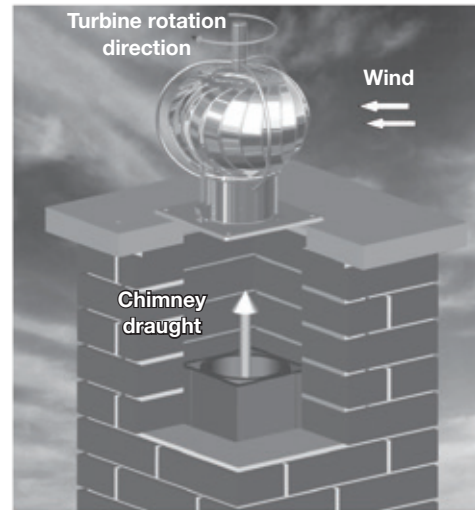


Efficiency chart for Turbowents Ø300 in a function of chimney height on a brick or sheet metal chimney (for two wind speeds: 3 and 4 [m/s]).

PICTURE



FUNCTION PRINCIPLE



DESCRIPTION

Rotary chimney cowl Turbowent with external bearings 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. Thanks to the patented bearing system placed outside, the influence of exhaust gases is minimised and the cowl can be used with gas - fired applications. It is recommended

for flue ducts.

Maximal working temperature: 250 [°C]

Rotating unit: greased ball bearings, placed outside the turbine

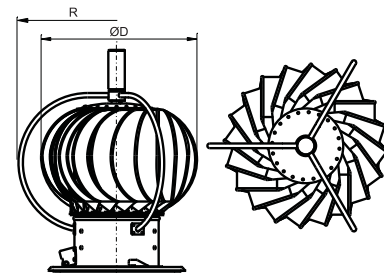
This solution is reserved in the RP Patent Office.

DESTINATION

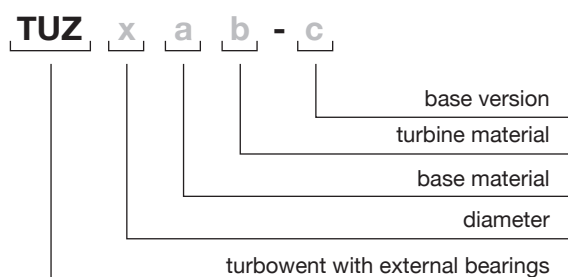
- when there are wind fluctuations on the chimney duct ending, caused by its bad location
- when there is an unfavorable terrain configuration, with strong and frequent winds
- when there is a lack of chimney draught or it is too weak
- in order to improve the natural (gravitation) chimney draught in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

MEASUREMENTS

Diameter	Turbine diameter D	R
Ø 150	~ 260	165
Ø 200	~ 320	195



DENOTATIONS / PRODUCT CODES



MATERIALS

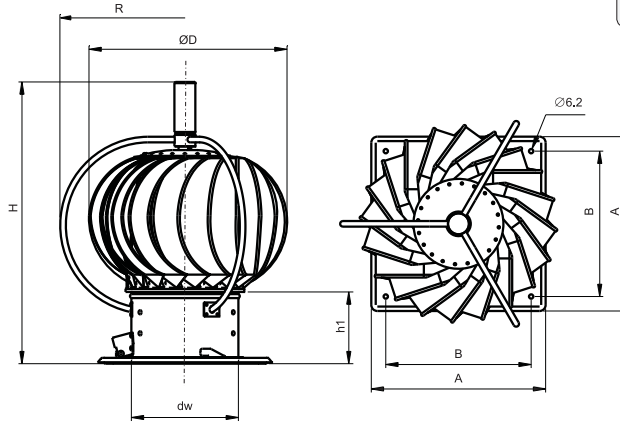
Destination	-	W - ventilation ducts
	S	S - flue ducts
	-	D - smoke ducts
Base material	CH	CH - chrome-nickel sheet 1.4301
	-	OC - galvanised steel sheet
	-	AL - aluminum
	-	ML- powder coated
Turbine material	CH	CH - chrome-nickel sheet 1.4301
	-	AL - aluminum
	-	ML- powder coated

TURBOWENT WITH EXTERNAL BEARINGS

Ø150 ÷ Ø200 - rotary chimney cowl

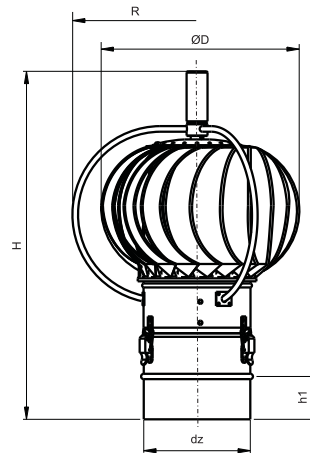
TURBOWENT - VERSIONS OF BASES

1. SQUARE BASE OPENABLE



STANDARD

2. INLET PIPE OPENABLE



-B

MEASUREMENTS TABLE FOR VARIOUS INLET DIAMETERS

Ø 150	Dimensions [mm]											Weight [kg]
	Base version	D	dw	dz	H	h1	h2	A	B	d1	Amount n	
STANDARD	~260	150.4	-	305	100	-	250	208	6.2	4	165	2.00
-B	~260	-	152.0	402	60	197	-	-	-	-	165	2.00

Ø 200	Dimensions [mm]											Weight [kg]
	Base version	D	dw	dz	H	h1	h2	A	B	d1	Amount n	
STANDARD	~320	200.0	-	340	100	-	330	284.0	6.2	4	195	2.50
-B	~320	-	201.0	471	60	197	-	-	-	-	195	2.50