



DECLARATION OF CONFORMITY AND PRODUCT DESCRIPTION

EN 1856-1

Chimneys – Requirements for metal chimneys. Part 1: System chimney products

Manufacturer:

DINAK

Camiño do Laranxo, 19. 36216, VIGO (ESPAÑA)

Product commercial name:

DW hp

Product description:

Double wall metal chimney with rock wool insulation of 30 to 37,5 mm thickness depending on sizes with inner seal and outer sealant.

Name and function of the responsible person:

Íñigo A. Canoa (General Manager)

Notified Body:

**TÜV Industrie Service
GmbH TÜV SÜD Gruppe
0036 CPD 90220 028**



Certificate number:

Designations according to EN 1856-1 standard:

0.1	Metal chimney 1.4404/316L	ND 80-300 ND 350-600	EN 1856-1 EN 1856-1	T200 T200	H1 H1	W W	V2-L50040 V2-L50050	O(00) O(00)
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Product description								
Standard number								
Temperature level								
Pressure level								
Condensate resistance (W: wet; D: dry)								
Corrosion resistance and inner wall material								
Sootfire resistance (G: yes; O: no) and distance to combustible materials (in mm)								

Compressive strength

Up to 21 m. See Annex

Flow resistance

Inner roughness: 1 mm (according to EN 13384-1 Standard)
Flow resistance coefficients ζ according to EN 13384-1 Standard

Thermal resistance

From 0,288 to 0,459 m²K/W at reference temperature depending on sizes. See the chart

Mechanical resistance and stability

Tensile strength: up to 68 m. See Annex
Non vertical installation: maximum deflection 90° and maximum length of the slope up to 3 m.
Wind load resistance:
Maximum length between supports up to 4 m. See Annex

Maximum length from the last support up to 3 m. See Annex

Wet working conditions:

Yes



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Certificate number:

Designations according to EN 1856-1 standard:

0.1	Metal chimney 1.4521/444	ND 80-300 ND 350-600	EN 1856-1 EN 1856-1	T200 T200	H1 H1	W W	V2-L99040 V2-L99050	O(00) O(00)
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Product description								
Standard number								
Temperature level								
Pressure level								
Condensate resistance (W: wet; D: dry)								
Corrosion resistance and inner wall material								
Sootfire resistance (G: yes; O: no) and distance to combustible materials (in mm)								

Compressive strength

Up to 21 m. See Annex

Flow resistance

Inner roughness: 1 mm (according to EN 13384-1 Standard)
Flow resistance coefficients ζ according to EN 13384-1 Standard

Thermal resistance

From 0,288 to 0,459 m²K/W at reference temperature depending on sizes. See the chart

Mechanical resistance and stability

Tensile strength: up to 68 m. See Annex
Non vertical installation: maximum deflection 90° and maximum length of the slope up to 3 m.
Wind load resistance:
Maximum length between supports up to 4 m. See Annex

Maximum length from the last support up to 3 m. See Annex

Wet working conditions:

Yes



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0036 CPD 90220 028**



Certificate number:

Designations according to EN 1856-1 standard:

0.1	Metal chimney 1.4162/S32101	ND 80-600	EN 1856-1	T200	H1	W	V2-L99050	O(00)
Product description								
Standard number								
Temperature level								
Pressure level								
Condensate resistance (W: wet; D: dry)								
Corrosion resistance and inner wall material								
Sootfire resistance (G: yes; O: no) and distance to combustible materials (in mm)								

Compressive strength

Up to 21 m. See Annex

Flow resistance

Inner roughness: 1 mm (according to EN 13384-1 Standard)

Flow resistance coefficients ζ according to EN 13384-1 Standard

Thermal resistance

From 0,288 to 0,459 m²K/W at reference temperature depending on sizes. See the chart

Mechanical resistance and stability

Tensile strength: up to 68 m. See Annex

Non vertical installation: maximum deflection 90° and maximum length of the slope up to 3 m.

Wind load resistance:
Maximum length between supports up to 4 m. See Annex

Maximum length from the last support up to 3 m. See Annex

Wet working conditions:

Yes



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Notified Body: **TÜV Industrie Service
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Certificate number:



Designations according to EN 1856-1 standard:

	Metal chimney 1.4301/304	ND 80-300	EN 1856-1	T200	H1	W	Vm-L20040	O(00)
		ND 350-600	EN 1856-1	T200	H1	W	Vm-L20050	O(00)
Product description								
Standard number								
Temperature level								
Pressure level								
Condensate resistance (W: wet; D: dry)								
Corrosion resistance and inner wall material								
Sootfire resistance (G: yes; O: no) and distance to combustible materials (in mm)								

Compressive strength

Up to 21 m. See Annex

Flow resistance

Inner roughness: 1 mm (according to EN 13384-1 Standard)
Flow resistance coefficients ζ according to EN 13384-1 Standard

Thermal resistance

From 0,288 to 0,459 m²K/W at reference temperature depending on sizes. See the chart

Mechanical resistance and stability

Tensile strength: up to 68 m. See Annex
Non vertical installation: maximum deflection 90° and maximum length of the slope up to 3 m.
Wind load resistance:
Maximum length between supports up to 4 m. See Annex

Maximum length from the last support up to 3 m. See Annex

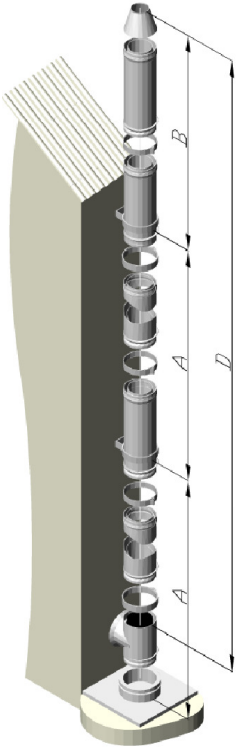
Wet working conditions:

Yes

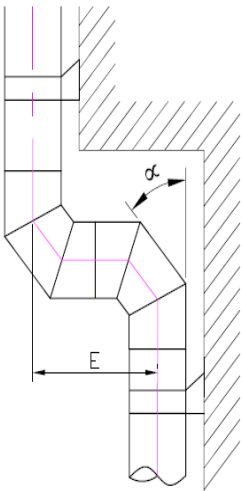
	Characteristics	Units	Ref. EN 1856-1	Values / Levels				Remarks
1.0	Nominal dimensions	mm	4, 5	80, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 550, 600				
2.0	Nominal diameter/outer diameter	mm		80/140, 100/160, 125/185, 150/210, 175/235, 200/260, 250/310, 300/360, 350/425, 400/475, 450/525, 500/575, 550/625, 600/675				
3.0	Inner diameter (minimum)	mm	4, 5	78.9, 99.7, 121.5, 146.3, 171.5, 196.3, 246.6, 295.3, 345.7, 395.4; 446.2; 496.2; 547.1; 596.7				
4.0	Inner wall material		4, 5, 6.5.2					
	Quality			1.4404 / 316L	1.4521 / 444	1.4162 / S32101	1.4301 / 304	
	Nominal thickness (minimum thickness)	mm		ND 80-300: 0,4 (0,34) ND 350-600: 0,5 (0,44)	ND 80-300: 0,4 (0,34) ND 350-600: 0,5 (0,44)	ND 80-600: 0,5 (0,44)	ND 80-300: 0,4 (0,34) ND 350-600: 0,5 (0,44)	
	Description according to EN 1856-1			ND 80-300: L50040 ND 350-600: L50050	ND 80-300: L99040 ND 350-600: L99050	ND 80-600: L99050	ND 80-300: L20040 ND 350-600: L20050	
5.0	Outer wall material		4, 5, 6.5.2					
	Quality			1.4301 / 304	1.4404 / 316L	1.4521 / 444	1.4016 / 430	
	Nominal thickness (minimum thickness)	mm		ND 80-300: 0,4 (0,34) ND 350-600: 0,5 (0,44)	ND 80-300: 0,4 (0,34) ND 350-600: 0,5 (0,44)	ND 80-300: 0,4 (0,34) ND 350-600: 0,5 (0,44)	ND 80-600: 0,4 (0,34) ND 350-600: 0,6 (0,54)	
	Description according to EN 1856-1			ND 80-300: L20040 ND 350-600: L20050	ND 80-300: L50040 ND 350-600: L50050	ND 80-300: L99040 ND 350-600: L99050	ND 80-300: L99040 ND 350-600: L99060	
6.0	Insulation		7.2					
	Type			MANTA SPINTEX 342 100 VR DN				
	Density	kg / m ³		100				
	Thermal conductivity (λ)	W / mK		< 0,06 a 200 °C				
	Working temperature	°C		700				
	Composition			SiO ₂ : 43-49%; Al ₂ O ₃ : 11-16%; Fe ₂ O ₃ : 3-9%; CaO: 18-29%; MgO: 8-13%; Na ₂ O: 1-3%; K ₂ O: 0,3-0,5%; MnO: 0,1-0,6%				
	Thickness	mm		DN 80-300: 30 DN 350-600: 37.5				
7.0	Joints		7.2					RP: IMQ-01SG00017
	Designation according to EN 14241-1 standard			T200 W 2 K2 I				
	Hardness	ShA		1.20±0.1				
	Density	g/c m ³		55-60				
	Permanent deformation	%		≤ 25				
	Tensile strength	N/m m ²		≥ 4.5				
	Lengthening strength to 100%	N/m m ²		≥ 1.2				
	Nominal dimensions			80, 100, 130, 150, 180, 200, 250, 300, 350, 400, 450, 500, 550, 600				
8.1	Sealant 1		7.2	Special sealant supplied by DINAK to apply on the outer wall joint				See installations instructions

	Characteristics	Units	Ref. EN 1856-1	Values / Levels	Remarks
	Type			SILKRON HT	
	Designation according to EN 14241-1 standard			T200 W 2 K2 I	RP: TÜV-A 1895-00/10
	Hardness	ShA		36	
	Density	g/c m ³		1,03	
	Stress at 100% elongation	%		230	
	Tensile strength	N/m m ²		1,40	
	Lengthening strength to 100%	N/m m ²		0,70	
8.2	Sealant 2		7.2	Special sealant supplied by DINAK to apply on the outer wall joint	See installations instructions
	Type			SISTA SOLYPLAST SP101	
	Hardness	ShA		53	
	Density	g/c m ³		1,37	
	Stress at 100% elongation	%		300	
	Tensile strength	N/m m ²		1,60	
	Lengthening strength to 100%	N/m m ²		1,10	
	Mechanical resistance and stability		6.1		RP: TÜV-A 1445-00/05
9.0	Compressive strength		6.1.1	Up to 21 m	See Annex
10.0	Tensile strength		6.1.2	Up to 68 m	See Annex
11.0	Wind load resistance		6.1.3.2	Maximum length from the last support: up to 3 m. Maximum length between supports: up to 4 m.	See Annex
	Non vertical installation		6.1.3.1		RP: TÜV-A 1445-00/05
12.0	Maximum deflection			90° (horizontal installation)	See Annex
13.0	Maximum length of the slope			Up to 3 m.	See Annex
14.0	Gas tightness		6.3	Pressure level: H1	RP: TÜV-A 1836-00/10
15.0	Distance to combustible materials at T200	mm	6.2	00 (O00)	RP: TÜV-A 1836-00/10
16.0	Accidental human contact at T200		6.4.2	Protection in the traffic area needed	RP: TÜV-A 1423-00/05
17.0	Thermal resistance (@ 200 °C)	m ² K / W	6.4.3	ND 80-300: 0,288-0351 ND 350-600: 0,442-0,459	RP: TÜV-A 1836-00/10
18.0	Condensate resistance		6.4.4, 6.4.5	Designation: W (wet)	RP: TÜV-A 1836-00/10
19.0	Resistance against rainwater penetration		6.4.6	The chimney is resistant against rainwater penetration	RP: TÜV-A 1423-00/05
	Flow resistance		6.4.7		
20.0	Mean value of roughness	mm	6.4.7.1	1 (according to EN 13384-1 standard)	
21.0	Coefficients of flow resistance for fittings		6.4.7.2	Values according to EN 13384-1 standard	
	Terminal				

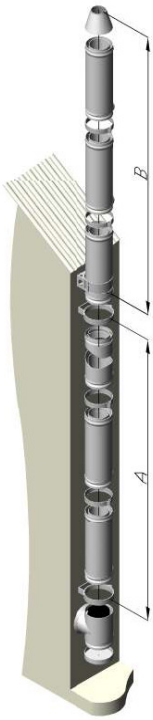
	Characteristics	Units	Ref. EN 1856-1	Values / Levels	Remarks			
22.0	Coefficient of flow resistance		6.4.7.3	Values according to EN 13384-1 standard				
23.0	Protection against rainwater		6.4.8.1	N.P.D				
24.0	Aerodynamic behavior		6.4.8.2	N.P.D				
25.0	Corrosion resistance		6.5.1	1.4404 / 316L	1.4521 / 444	1.4162 / S32101	1.4301 / 304	RP: TÜV-A 1439-00/05
				V2	V2	V2	Vm	
26.0	Freeze / thaw resistance		6.5.3	Fulfilled according to EN 1856-1				
27.0	Dangerous substances		7.2	None				
28.0	Typical installation drawing		7.2		See Annex			
29.0	Installation instructions		7.2		See Annex			
30.0	Flow direction		7.2	Installation with the outer Male at the top				
31.0	Storage instructions		7.2	No corrosive atmosphere				
32.0	Method of application of any sealant required		7.2	Special sealant supplied by DINAK to apply on the outer wall joint				



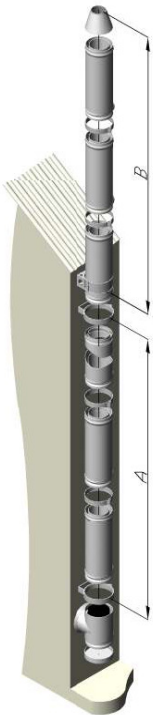
DINAK DW HP		
	COMPRESSION STRENGTH	TENSION STRENGTH
	HEIGHT – SIZE D (M)	HEIGHT (M)
Outer material	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430
ND (mm)	80	68
	100	58
	130	48
	150	43
	180	37
	200	34
	250	28
	300	24
	350	16
	400	14
	450	13
	500	11
	550	10
	600	10



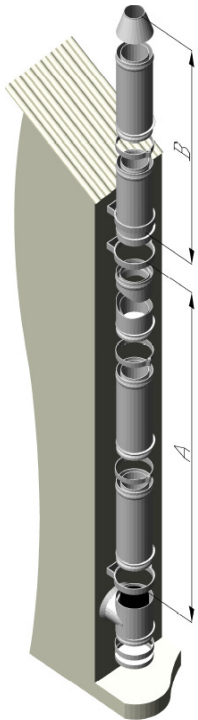
NON VERTICAL INSTALLATION		
	MAXIMUM DEFLECTION A (°)	MAX. LENGTH OF THE SLOPE – Size E (m)
Outer material	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430
ND (mm)	80	3
	100	3
	130	3
	150	3
	180	3
	200	3
	250	3
	300	3
	350	3
	400	3
	450	3
	500	3
	550	3
	600	3



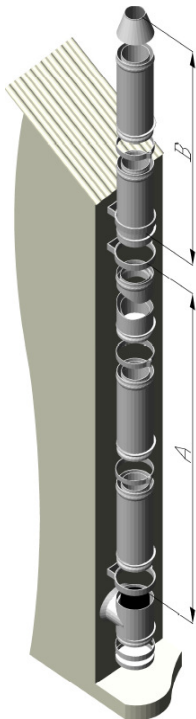
WIND LOAD RESISTANCE			
CONFIGURATION 1 (WALL SUPPORTS 080 WITH A SELF-STANDING SUPPORT 861 AT HIGHEST POSITION)			
	MAX NUMBER OF STRAIGHT ELEMENTS (020) BETWEEN SUPPORTS (SIZE A)	MAX. LENGTH FROM LAST SUPPORT. (M) (SIZE B)	
Outer material	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430	
ND (mm)	80		
	100		
	130	4	2,5
	150	4	2,5
	180	4	2,5
	200	4	2,5
	250	4	2,5
	300	4	2,5
	350	4	2,5
	400	4	2,5
	450	4	2,5
	500	4	2,5
550	4	2,5	
600	4	2,5	



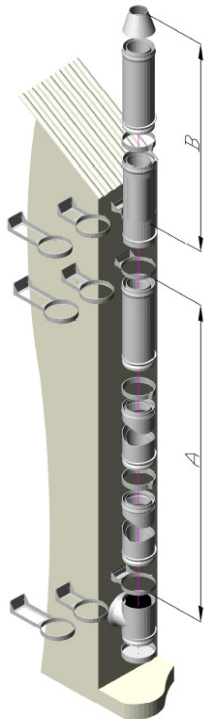
WIND LOAD RESISTANCE			
CONFIGURATION 2 (WALL SUPPORTS 080 WITH A FLAT WALL SUPPORT 086 AT HIGHEST POSITION)			
	MAX NUMBER OF STRAIGHT ELEMENTS (020) BETWEEN SUPPORTS (SIZE A)	MAX. LENGTH FROM LAST SUPPORT. (M) (SIZE B)	
Outer material	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430	
ND (mm)	80	4	1,5
	100	4	1,5
	130	4	1,5
	150	4	1,5
	180	4	1,5
	200	4	1,5
	250	4	1,5
	300	4	1,5
	350	4	1,5
	400	4	1,5
	450	4	1,5
	500	4	1,5
550	4	1,5	
600	4	1,5	



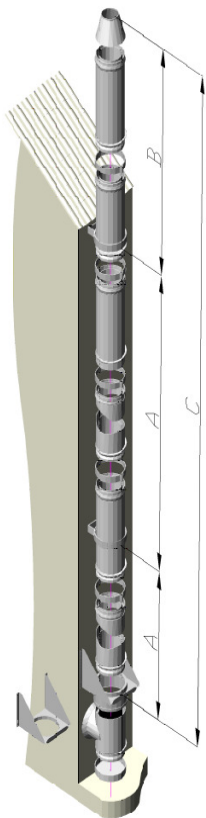
CONFIGURATION 3 (ADJUSTABLE SUPPORTS 083 AND A FLAT ADJUSTABLE SUPPORT 831 AT HIGHEST POSITION)			
DISTANCE TO WALL (083/831) : 70-120 MM			
	MAX NUMBER OF STRAIGHT ELEMENTS (020) BETWEEN SUPPORTS (SIZE A)	MAX. LENGTH FROM LAST SUPPORT. (M) (SIZE B)	
Outer material	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430	
ND (mm)	80		
	100		
	130	3	1,5
	150	3	1,5
	180	3	1,5
	200	3	1,5
	250	3	1,5
	300	3	1,5
	350		
	400		
	450		
	500		
	550		
600			



CONFIGURATION 4 (SHORT CUTTABLE SUPPORTS 835 AND A FLAT SHORT CUTTABLE SUPPORT 836 AT HIGHEST POSITION)			
DISTANCE TO WALL (835/836) : 100-250 MM			
	MAX NUMBER OF STRAIGHT ELEMENTS (020) BETWEEN SUPPORTS (SIZE A)	MAX. LENGTH FROM LAST SUPPORT. (M) (SIZE B)	
Outer material	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430	
ND (mm)	80	3	1,5
	100	3	1,5
	130	3	1,5
	150	3	1,5
	180	3	1,5
	200	3	1,5
	250	3	1,5
	300	3	1,5
	350	3	1,5
	400	3	1,5
	450	3	1,5
	500	3	1,5
	550	3	1,5
600	3	1,5	



CONFIGURATION 5 (LONG CUTTABLE SUPPORTS 845 AND A FLAT LONG CUTTABLE SUPPORT 846 AT HIGHEST POSITION)		
DISTANCE TO WALL (845/846) : 250-430 MM		
	MAX NUMBER OF STRAIGHT ELEMENTS (020) BETWEEN SUPPORTS (SIZE A)	MAX. LENGTH FROM LAST SUPPORT. (M) (SIZE B)
Outer material	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430
ND (mm)	80	2
	100	2
	130	2
	150	2
	180	2
	200	2
	250	2
	300	2
	350	2
	400	2
	450	2
	500	2
	550	2
600	2	



DINAK DW hp								
COMPRESSIVE STRENGTH OF THE SUPPORT								
Height (m)								
Outer material	1.4301 / 304 1.4404 / 316L 1.4521 / 444 1.4016 / 430							
Model	Wall support 080	Adjustable base support closed 085/853 Size (C)	Adjustable base support extended 085/853 Size (C)	Adjustable wall support 083	Short cuttable wall support 835	Long cuttable wall support 845	Adjustable floor support 856	
ND (mm)	80	17	85	46	8	26	44	
	100	14	73	39	6	22	38	
	130	37	60	32	18	18	31	
	150	33	53	29	16	16	28	
	180	28	46	25	14	14	24	
	200	26	42	22	13	13	22	
	250	21	35	19	10	10	18	
	300	18	30	16	9	9	15	
	350	12	25	17		9	4	16
	400	11	22	15		8	3	15
	450	10	20	13		7	3	13
	500	9	18	12		6	2	12
	550	8	16	11		6	2	11
600	7	15	10		5	2	10	