


## STAINLESS STEEL TWIN WALL INSULATED FLUE




*Inner wall*  
**AISI 316L (1.4404)**

*Inner wall*  
**AISI 304 (1.4301)**

EN 1856-1 T450 N1 W V2 L50040 G60  
EN 1856-1 T450 N1 W V2 L50040 O40  
EN 1856-1 T160 P1 W V2 L50040 O00

EN 1856-1 T450 N1 W Vm L20040 G60  
EN 1856-1 T450 N1 W Vm L20040 O40  
EN 1856-1 T160 P1 W Vm L20040 O00



**DW**

0036 CPD 90220 001

Standard number: \_\_\_\_\_

Temperature level: \_\_\_\_\_

Pressure level (N or P or H): \_\_\_\_\_

Condensate resistance (W: wet or D: dry): \_\_\_\_\_

Corrosion resistance (durability against corrosion): \_\_\_\_\_

Flue liner material specification: \_\_\_\_\_

Sootfire resistance (G: yes or O: no) and distance to combustible material (in mm): \_\_\_\_\_

Distances to combustible materials referring to ventilated installations

### APPLICATIONS

- DOMESTIC HEATING AND HOT WATER SYSTEMS
- INDUSTRIAL / COMMERCIAL HEATING
- BAKERY OVENS
- OPEN FIRE PLACES
- HOT AIR GENERATORS
- VENTILATION AND SMOKE EXTRACTION

### MAIN FEATURES

- SPECIALLY DESIGNED FOR CONDENSING APPLICATIONS
- THERMAL EXPANSION ABSORBED IN EACH ELEMENT. NO REQUIREMENT FOR "EXPANSION BELLOWS"
- NO THERMAL BRIDGE, INSULATION CONTINUITY THROUGHOUT THE SYSTEM
- HIGH MECHANICAL RESISTANCE TO VERTICAL AND HORIZONTAL FORCES
- OVERLAP: 40 mm
- DIAMETERS AVAILABLE FROM 80 mm TO 1000 mm.

### MATERIALS

- **Inner wall:**
  - AISI 316L (1.4404) or AISI 304 (1.4301)
- **Outer wall:**
  - AISI 304 (1.4301) or AISI 316L (1.4404)
  - Aluzinc: only for inside installation
  - Copper
  - Painted (R.A.L. range)
- **Insulation:**
  - Rockwool, 30 mm to 50 mm depending on the diameter
- **Fuel:**
  - Gas, Diesel, Wood, Coal ...

### WORKING TEMPERATURE

450 ° under continuous fire.  
For higher temperatures, contact DINAK

### OVERPRESSURE

200 Pa (with joint)

### INNER – OUTER DIAMETERS, THICKNESSES AND WEIGHT

Inside Ø (mm)	80	100	130	150	180	200	250	300	350	400	450	500	550	600
Outside Ø (mm)	140	160	190	210	240	260	310	360	425	475	525	575	625	675
Weight for a 940 mm element (kg)	3.6	4.3	5.2	5.8	6.7	7.3	8.8	10.4	15.2	17.1	19.0	20.9	22.9	24.8
Insulation (mm)	30	30	30	30	30	30	30	30	37,5	37,5	37,5	37,5	37,5	37,5
Stainless steel thickness (mm)	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,5	0,5	0,5	0,5	0,5	0,5

DINAK RESERVES THE RIGHT TO CHANGE ANY INFORMATION ON THIS BROCHURE WITHOUT NOTIFICATION

# STRAIGHT LENGTHS AND ELBOWS

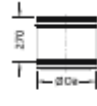
## STRAIGHT LENGTHS



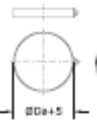
**020**  
Straight lengths  
940 mm



**024**  
Straight lengths  
440 mm



**025**  
Straight lengths  
270 mm



**001**  
Joint

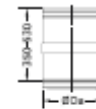
**070**  
Locking band



## ADJUSTABLE LENGTHS



**022**  
Adjustable length  
530-880 mm



**023**  
Adjustable length  
350-530 mm



## SILENCER

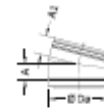
**021**  
Silencer 940 mm



## ELBOWS

### 044 15° Elbow

Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
ØDa mm	140	160	190	210	240	260	310	360	425	475	525	575	625	675
A mm	55	60	60	60	65	65	70	90	95	100	100	105	110	110
A1 mm	105	110	115	115	120	120	120	130	135	140	140	145	145	150



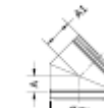
### 042 30° Elbow

Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
ØDa mm	140	160	190	210	240	260	310	360	425	475	525	575	625	675
A mm	60	65	70	75	75	80	85	110	120	130	135	140	150	155
A1 mm	110	115	120	125	130	135	140	150	160	170	180	185	190	200



### 040 45° Elbow

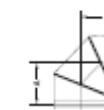
Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
ØDa mm	140	160	190	210	240	260	310	360	425	475	525	575	625	675
A mm	70	75	80	85	90	95	105	140	150	160	175	185	195	205
A1 mm	120	125	130	135	140	145	155	180	190	200	220	235	245	255



### 043 87° Elbow

### 433 90° Elbow

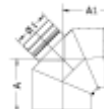
Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
ØDa mm	140	160	190	210	240	260	310	360	425	475	525	575	625	675
A mm	115	125	140	170	225	230	235	255	295	305	360	385	410	435
A1 mm	165	175	190	210	265	270	275	295	335	345	365	390	415	435



### 431 87° Inspection elbow

### 432 90° Inspection elbow

Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
ØDa mm	140	160	190	210	240	260	310	360	425	475	525	575	625	675
A mm	115	125	140	170	225	230	235	255	295	305	360	385	410	435
A1 mm	165	175	190	210	265	270	275	295	335	345	365	390	415	435
Øi mm	80	100	130	150	150	150	150	150	150	150	150	150	150	150





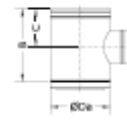
## TEES

**030** 135° Tee - Only for dry application and natural draft

Ø mm	130	150	180	200	250	300	350	400	450	500	550	600
E mm	440	440	440	610	610	690	940	940	940	940	1030	1100
F mm	115	110	110	195	145	185	265	205	185	200	210	220
G mm	215	235	255	300	320	365	420	460	505	550	575	625
ØDa mm	190	210	240	260	310	360	425	475	525	575	625	675



**312**  
90° Tee with  
reduced branch



**31B**  
93° Tee with  
reduced branch



Check available dimensions

**031** 90° Tee

**31A** 93° Tee

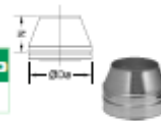
Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
B mm	270	270	270	440	440	440	440	610	610	610	940	940	940	940
C mm	150	150	150	230	230	230	230	315	315	315	485	485	485	485
D mm	100	110	125	135	150	160	185	210	245	270	320	350	370	400



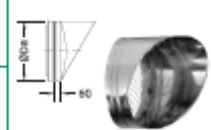
## TERMINALS

**011** Insulated open terminal

Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
N mm	115	115	115	115	115	115	115	115	280	280	280	280	280	280

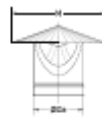


**015**  
Horizontal terminal



**010** Raincap

Ø mm	80	100	130	150	180	200	250	300	350	400
M mm	230	270	330	370	420	470	570	670	780	880



**12G**  
Weathering gas cap



**012** Weathering cap

Ø mm	80	100	130	150	180	200	250	300	350	400
M mm	230	270	330	370	420	470	570	670	780	880



## INSPECTION AND CLEANING

**052**

Inspection length 440 mm



**050**

Test unit



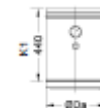
**523** Inspection tee (for condensing applications)

Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
B mm	270	270	270	440	440	440	440	610	610	610	940	940	940	940
C mm	150	150	150	230	230	230	230	315	315	315	485	485	485	485
D mm	100	110	125	135	150	160	185	210	245	270	295	325	345	395



**056** Temperature length 440 mm

Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
K1 mm	440	440	440	440	440	440	440	440	440	440	440	440	440	440



**060** Insulated soot collector



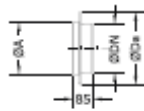
**061** Insulated soot collector with drain



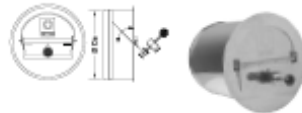
## CONNECTIONS

### 100 Boiler adaptor

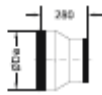
Ø	80	100	130	150	180	200	250	300	350	400
Da	140	160	190	210	240	260	310	360	425	475
ØA	82	102	132	152	182	202	252	302	352	402



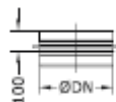
### 122 Draught stabiliser



### 026 Reduction



### 105 FK/DW Adaptor



### 106 DW/FK Adaptor



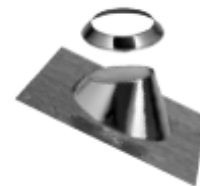
### 120 Draught regulator



## PROTECTIONS

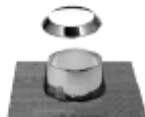
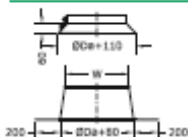
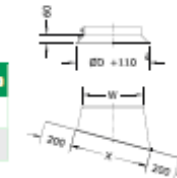
### 017 Adjustable flashing 30°/45° with storm collar

Ø	80	100	130	150	180	200	250	300	350	400	450	500	550	600
W1	170	195	220	240	270	285	345	405	475	495	545	595	645	700
Y	300	345	400	430	480	520	600	660	760	840	910	990	1.070	1.150

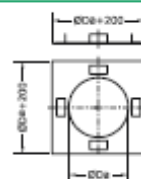


### 018 Adjustable flashing 5°/30° with storm collar

Ø	80	100	130	150	180	200	250	300	350	400	450	500	550	600
W	150	175	200	230	275	295	350	390	460	495	545	595	645	700
X	225	260	295	320	360	380	450	500	590	640	700	760	820	880



### 019 Flat flashing with storm collar



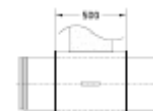
### 064 Firestop plate



### 013 Storm collar

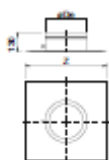


### 133 Finishing plate 0°-30° 132 Finishing plate 30°-45°



### 014 Wall sleeve

## SUPPORTS



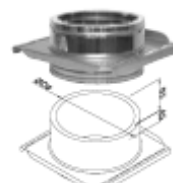
### 065 Base plate with drain



### 853 Adjustable base support + brackets



### 857 Side brackets



### 854 Console plate



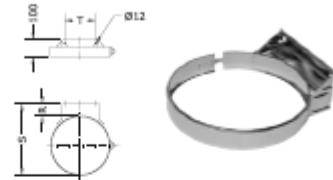
### 856 Adjustable floor support



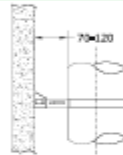
## LOCKING BANDS

### 080 Wall support

Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
R mm	30	30	30	35	40	45	25	30	35	40	20	25	25	30
S mm	175	195	220	250	280	310	340	395	465	520	550	605	655	710
T mm	60	60	120	120	120	120	190	190	190	190	270	270	270	270



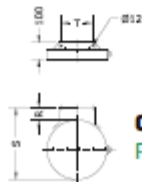
### 083 Adjustable wall support 70-120 mm (for Ø from 80 mm to 300 mm)



### 835 Cuttable short wall support 100 – 250 mm



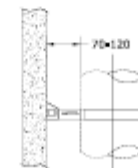
### 845 Cuttable long wall support 250 – 430 mm



### 086 Flat wall support



### 831 Flat adjustable wall support 70-120 mm (for Ø from 80 mm to 300 mm)



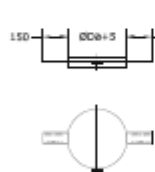
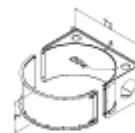
### 836 Flat cuttable short wall support 100 – 250 mm



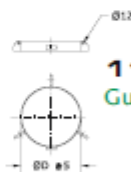
### 846 Flat cuttable long wall support 250 – 430 mm

### 861 Selfstanding wall support (for high from 2.5 to 3 m)

Ø	130	150	180	200	250	300	350	400	450
D <sub>a</sub> mm	190	210	240	260	310	360	425	475	525
Z mm	65	75	90	100	125	150	175	200	225
T <sub>1</sub> mm	265	290	315	340	390	440	505	555	605
R mm	30	35	40	45	30	30	35	40	20



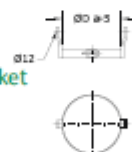
### 082 Roof support



### 110 Guy wire bracket



### 071 Location bracket



### 074 Descending kit

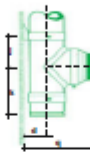


## INSTALLATION EXAMPLES INCLUDING ADJUSTABLE LENGTHS

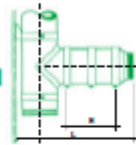
### TEES AND ELBOWS

E= Adjustable length · L= Total flue length required

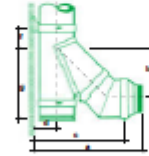
Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
d <sub>mm</sub>	100	110	125	140	160	175	180	210	253	278	283	313	338	368
j <sub>mm</sub>	150	150	150	230	230	230	230	315	315	315	485	485	485	485
k <sub>mm</sub>	225	225	225	315	315	315	315	400	400	400	560	560	560	560
q <sub>mm</sub>	300	320	350	375	410	435	465	520	598	648	703	763	808	868



$$E = L - q$$



Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
a <sub>mm</sub>	545	575	610	656	705	753	815	938	1058	1140	1219	1300	1377	1484
b <sub>mm</sub>	275	290	305	331	355	383	430	488	555	602	661	702	744	811
c <sub>mm</sub>	445	475	510	556	605	653	715	838	958	1040	1119	1200	1277	1384
d <sub>mm</sub>	100	110	125	140	160	175	180	210	253	278	283	313	338	368
f <sub>mm</sub>	115	115	115	110	110	195	145	185	265	205	185	200	210	220
g <sub>mm</sub>	405	405	430	435	435	520	570	610	780	840	860	845	925	985



$$E = L - a$$



Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
d <sub>mm</sub>	100	110	125	140	160	175	180	210	253	278	283	313	338	368
o <sub>mm</sub>	384	401	358	376	393	410	444	546	580	615	674	717	751	785
p <sub>mm</sub>	159	166	148	156	163	170	184	226	240	255	279	297	311	325



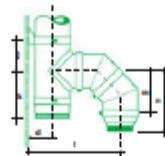
$$E = \frac{L \cdot p}{0,7071}$$



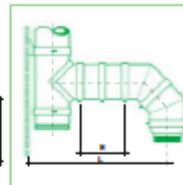
### TEES, ELBOWS AND ADJUSTABLE LENGTHS

E= Adjustable length · L= Total flue length required

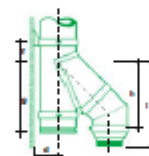
Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
d <sub>mm</sub>	100	110	125	140	160	175	180	210	253	278	283	313	338	368
i <sub>mm</sub>	150	150	150	230	230	230	230	315	315	315	485	485	485	485
k <sub>mm</sub>	225	225	225	315	315	315	315	400	400	400	560	560	560	560
l <sub>mm</sub>	494	526	528	566	613	650	704	826	928	1002	1102	1194	1264	1348
m <sub>mm</sub>	249	261	228	241	253	265	289	366	390	415	454	482	506	530
n <sub>mm</sub>	349	361	328	341	353	365	389	466	490	515	554	582	606	630



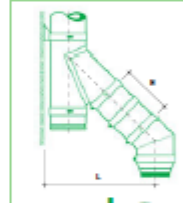
$$E = L - l$$



Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
d <sub>mm</sub>	100	110	125	140	160	175	180	210	253	278	283	313	338	368
e <sub>mm</sub>	375	400	430	471	515	558	610	698	808	880	944	1015	1082	1179
f <sub>mm</sub>	115	115	115	110	110	195	145	185	265	205	185	200	210	220
g <sub>mm</sub>	405	405	430	435	435	520	570	610	780	840	860	845	925	985
h <sub>mm</sub>	345	365	385	416	445	478	535	628	705	762	836	887	939	1016
i <sub>mm</sub>	445	465	485	516	545	578	635	728	805	862	936	987	1039	1116



$$E = \frac{L \cdot e}{0,7071}$$



Ø mm	80	100	130	150	180	200	250	300	350	400	450	500	550	600
m <sub>mm</sub>	249	261	228	241	253	265	289	366	390	415	454	482	506	530
r <sub>mm</sub>	294	306	278	291	303	315	339	406	430	455	499	532	556	580



$$E = \frac{L \cdot r}{0,7071}$$



All dimensions indicated in the drawings are in mm

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