

Insulated air-flue system <SKSPD-X>

Insulated air - flue system is used to exhaust fumes from modern condensing boilers, which use the effect of vapor condensation in the combustion process or from "Turbo" type of boilers with closed combustion chamber, that use a ventilator to exhaust fumes (positive pressure chimney duct) as well as pellet stoves. It is used for building self-standing chimneys that are resistant to destructive influence of chemical substances which are part of the fumes. In this system, air necessary for combustion process is taken from outside with the usage of the outer pipe - that is why SKSPD-X system is built with triple walled elements (two pipes axially placed and thermal insulation of 50 mm with outer casing).

Construction of the system allows fume exhaustion to be made through inner duct while air supply is made through the gap between inner and outer duct.

Triple walled air - flue system element is made of stainless steel: inner pipe - 1.4301 thickness 0.4÷0.6 mm, outer pipe - 1.4301 thickness 0.4÷0.6 mm, thermal insulation 50 mm and outer casing - 1.4301.

Maximum working temperature: 250°C

Certificate of Factory Production Control 1450-CPR-0030 issued by INiG Cracow.



Application of chimneys and recommended sheet thicknesses

Diameter DN	S, D* 1.4301	** 1.4301
60	0.4	0.4
80	0.4	0.4
100	0.4	0.4
110	0.4	0.4
120	0.4	0.4
125	0.4	0.4
130	0.4	0.4
140	0.4	0.4
150	0.5	0.5
160	0.5	0.5
180	0.5	0.5
200	0.5	0.5
225	0.6	0.5
250	0.6	0.5
280	-	0.6
300	-	0.6
350	-	0.6

Table of layouts and sizes

Diameter DN	Lr	Dz	Dw	Dk	s
60	188	60.2	59.4	60.5	0.4
80	250	80.0	79.2	81.1	
100	315	100.7	99.9	101.8	
110	350	111.8	110.0	112.9	
120	385	122.9	122.1	124.0	
125	390	124.5	123.7	125.6	
130	415	132.5	131.7	133.6	
140	440	140.5	139.7	141.7	
150	475	151.7	150.7	152.8	
160	505	161.2	160.2	162.4	
180	570	181.9	180.9	183.0	
200	630	201.0	200.0	202.1	
225	710	226.6	225.4	227.6	
250	790	252.1	250.9	253.1	
280	880	280.7	279.5	281.7	
300	945	301.4	300.2	302.4	
350	1100	350.9	349.4	352.4	

Destination

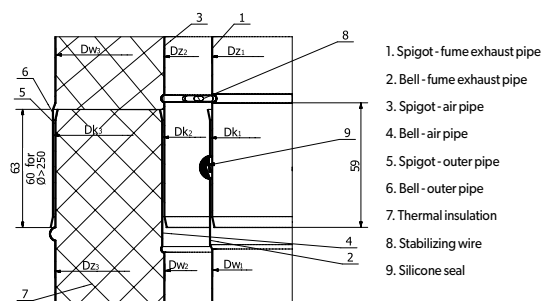
- S - flue ducts
- D* - smoke ducts from pellets burning devices
- ** - air pipe, outer wall

Measurements

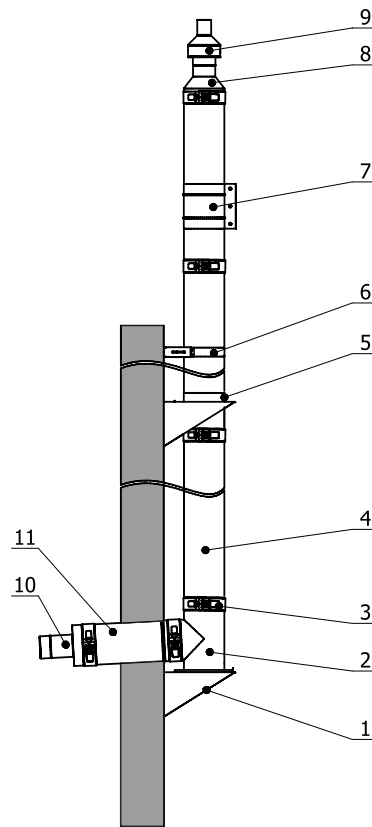
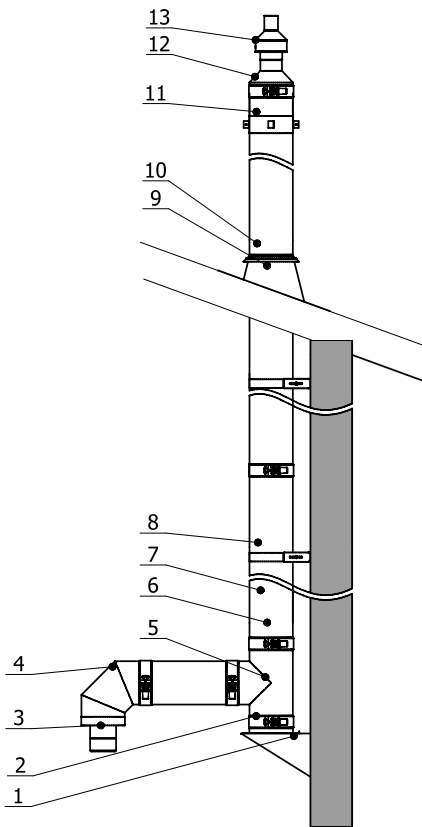
- Lr - metal sheet layout [mm]±0.1
- Dz - outer diameter of pipe [mm]
- Dw - inner diameter of pipe [mm]
- Dk - inner diameter of bell [mm]
- s - metal sheet thickness [mm]

Bell joint pipe connection

Individual elements of the chimney system are being joint by the way of pushing one part - a spigot, into the other press-formed part - a bell. Thanks to this type of pipe joining, chimney is characterized by very tight and stiff construction. It also allows proper flow of condensate, along walls of the chimney. In order to prevent chimney from rain water, outer pipe is connected bell in down. Before placing mounting bracket the elements of outer pipe should be secured with screws or rivets.



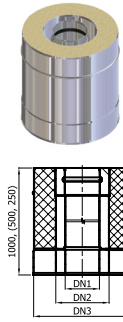
Model application of elements



No	Name	Denotation
1	Supporting console	KWD225-X/50-150
2	Bowl	MSD80/125/225-KSPD-X4
3	Bottom insulation closing	ZTD80/125/225-D-KSPD-X4
4	Elbow 90°	KSD80/125/225/90-KSPD-X4
5	Tee	TRD/80/125/225-KSPD-X4
6	Fastening clamp	OPIV225-X
7	Straight pipe 1000 mm	RPD80/125/225/1000-KSPD-X4
8	Mounting bracket	OMD-II-225-X/50-150
9	Angular roof flashing	PKD225/20-X
10	Rain collar	KPD250-X
11	Bracket for stabilizing cords	OPO225-X
12	Top insulation closing	ZTD80/125/225-G-KSPD-X4
13	Mouthpiece	USD80/125-KSP-X4

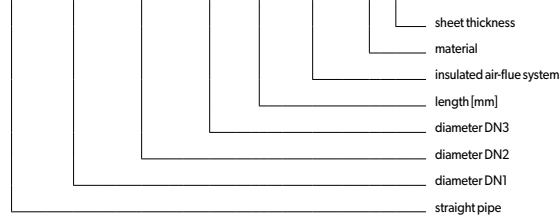
No	Name	Denotation
1	Supporting console	KWD225-X/50-150
2	Elbow with support	KSWD80/125/225/90-KSPD-X4
3	Fastening clamp	OPIV225-X
4	Straight pipe 1000 mm	RPD80/125/225/1000-KSPD-X4
5	Intermediate support	PPD80/125/225-KSPD-X4
6	Mounting bracket	OMD-II-225-X/50-150
7	Fastening clamp	OPII225-X
8	Top insulation closing	ZTD80/125/225-G-KSPD-X4
9	Mouthpiece	USD80/125-KSP-X4
10	Bottom insulation closing	ZTD80/125/225-D-KSPD-X4
11	Straight pipe 500 mm	RPD80/125/225/500-KSPD-X4

1. STRAIGHT PIPE RPD-KSPD-X



Diameter	60	80	100	110	120	130	150	160	180	200	250	for s 0.4±0.6
DN1/DN2	100	125	150	160	180	200	225	250	300	300	350	
DN3	200	225	250	260	280	300	325	350	400	400	450	

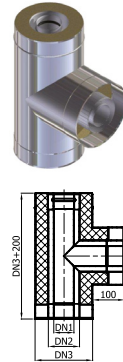
RPD DN1 / DN2 / DN3 / L - KSPD - X ...



Destination	S	S - flue ducts (gas, oil)
	*	D - smoke ducts
Material	X	X - stainless steel 1.4301
Sheet thickness s	4	4 - sheet thickness 0.4 mm
	5	5 - sheet thickness 0.5 mm
	6	6 - sheet thickness 0.6 mm

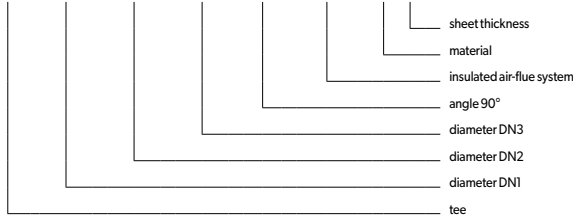
* from pellet stoves

2. TEE TRD/90-KSPD-X



Diameter	60	80	100	110	120	130	150	160	180	200	250	for s 0.4±0.6
DN1/DN2	100	125	150	160	180	200	225	250	300	300	350	
DN3	200	225	250	260	280	300	325	350	400	400	450	

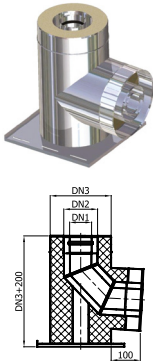
TRD DN1 / DN2 / DN3 / 90 - KSPD - X ...



Destination	S	S - flue ducts (gas, oil)
	*	D - smoke ducts
Material	X	X - stainless steel 1.4301
Sheet thickness s	4	4 - sheet thickness 0.4 mm
	5	5 - sheet thickness 0.5 mm
	6	6 - sheet thickness 0.6 mm

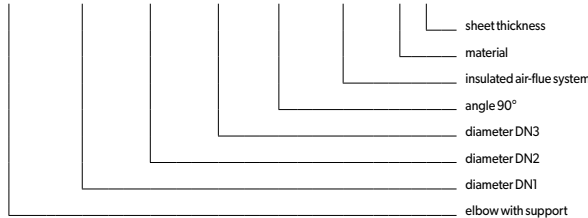
* from pellet stoves

3. ELBOW WITH SUPPORT KSDW-KSPD-X



Diameter	60	80	100	110	120	130	150	160	180	200	250	for s 0.4±0.6
DN1/DN2	100	125	150	160	180	200	225	250	300	300	350	
DN3	200	225	250	260	280	300	325	350	400	400	450	

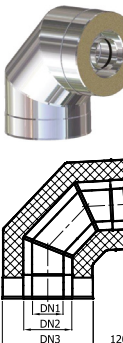
KSDW DN1 / DN2 / DN3 / 90 - KSPD - X ...



Destination	S	S - flue ducts (gas, oil)
	*	D - smoke ducts
Material	X	X - stainless steel 1.4301
Sheet thickness s	4	4 - sheet thickness 0.4 mm
	5	5 - sheet thickness 0.5 mm
	6	6 - sheet thickness 0.6 mm

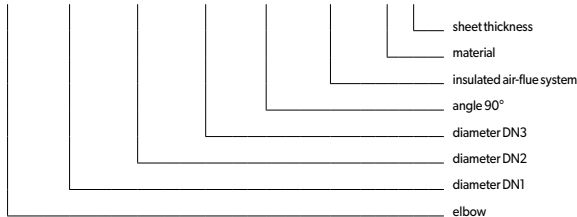
* from pellet stoves

4. ELBOW 90° KSD/90-KSPD-X



Diameter	60	80	100	110	120	130	150	160	180	200	250	for s 0.4±0.6
DN1/DN2	100	125	150	160	180	200	225	250	300	300	350	
DN3	200	225	250	260	280	300	325	350	400	400	450	

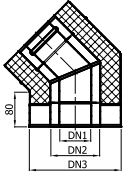
KSD DN1 / DN2 / DN3 / 90 - KSPD - X ...



Destination	S	S - flue ducts (gas, oil)
	*	D - smoke ducts
Material	X	X - stainless steel 1.4301
Sheet thickness s	4	4 - sheet thickness 0.4 mm
	5	5 - sheet thickness 0.5 mm
	6	6 - sheet thickness 0.6 mm

* from pellet stoves

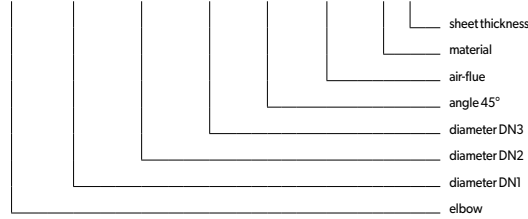
5. ELBOW 45° KSD/45-KSPD-X



Diameter DN1/DN2	60	80	100	110	120	130	150	160	180	200	250
DN3	200	225	250	260	280	300	325	350	400	400	450

for s
0.4±0.6

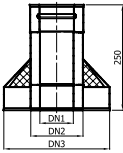
KSD DN1 / DN2 / DN3 / 45 - KSPD - X ...



Destination	S	S - flue ducts (gas, oil)
	*	D - smoke ducts
Material	X	X - stainless steel 1.4301
Sheet thickness s	4	4 - sheet thickness 0.4 mm
	5	5 - sheet thickness 0.5 mm
	6	6 - sheet thickness 0.6 mm

* from pellet stoves

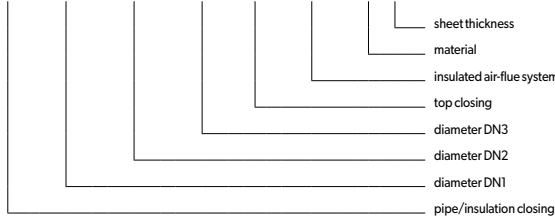
6. PIPE / TOP INSULATION CLOSING ZTD-G-KSPD-X



Diameter DN1/DN2	60	80	100	110	120	130	150	160	180	200	250
DN3	200	225	250	260	280	300	325	350	400	400	450

for s
0.4±0.6

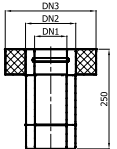
ZTD DN1 / DN2 / DN3 / G - KSPD - X ...



Destination	S	S - flue ducts (gas, oil)
	*	D - smoke ducts
Material	X	X - stainless steel 1.4301
Sheet thickness s	4	4 - sheet thickness 0.4 mm
	5	5 - sheet thickness 0.5 mm
	6	6 - sheet thickness 0.6 mm

* from pellet stoves

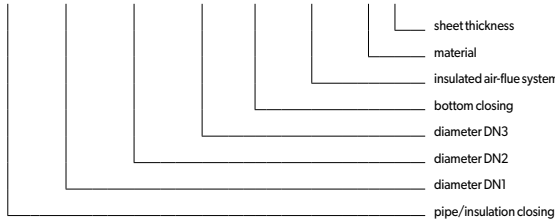
7. PIPE / BOTTOM INSULATION CLOSING ZTD-D-KSPD-X



Diameter DN1/DN2	60	80	100	110	120	130	150	160	180	200	250
DN3	200	225	250	260	280	300	325	350	400	400	450

for s
0.4±0.6

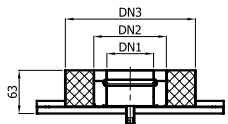
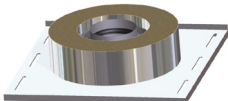
ZTD DN1 / DN2 / DN3 / D - KSPD - X ...



Destination	S	S - flue ducts (gas, oil)
	*	D - smoke ducts
Material	X	X - stainless steel 1.4301
Sheet thickness s	4	4 - sheet thickness 0.4 mm
	5	5 - sheet thickness 0.5 mm
	6	6 - sheet thickness 0.6 mm

* from pellet stoves

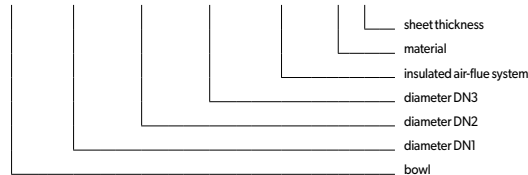
8. BOWL MSD-KSPD



Diameter DN1/DN2	60	80	100	110	120	130	150	160	180	200	250
DN3	200	225	250	260	280	300	325	350	400	400	450

for s
0.4±0.6

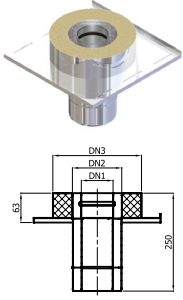
MSD DN1 / DN2 / DN3 - KSPD - X ...



Destination	S	S - flue ducts (gas, oil)
	*	D - smoke ducts
Material	X	X - stainless steel 1.4301
Sheet thickness s	4	4 - sheet thickness 0.4 mm
	5	5 - sheet thickness 0.5 mm
	6	6 - sheet thickness 0.6 mm

* from pellet stoves

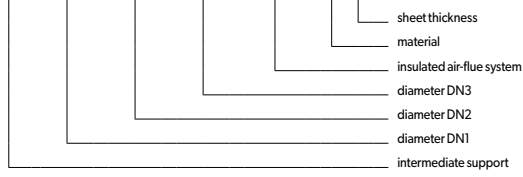
9. INTERMEDIATE SUPPORT PJD-KSPD



Diameter	60	80	100	110	120	130	150	160	180	200	250	
DN1/DN2	100	125	150	160	180	200	225	250	300	300	350	
DN3	200	225	250	260	280	300	325	350	400	400	450	

for s
0.4±0.6

PJD DN1 / DN2 / DN3 - KSPD - X ...



Destination	S	S - flue ducts (gas, oil)
	*	D - smoke ducts
Material	X	X - stainless steel 1.4301
Sheet thickness s	4	4 - sheet thickness 0.4 mm
	5	5 - sheet thickness 0.5 mm
	6	6 - sheet thickness 0.6 mm

* from pellet stoves