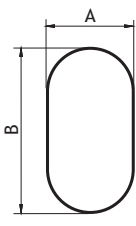


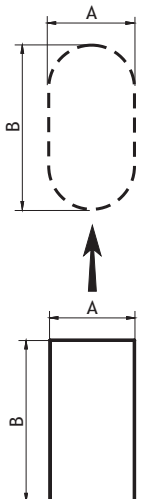
HYDRAULIC DIAMETER FOR CHIMNEYS OF OVAL SHAPE (FOR PROPER DIAMETER DESIGNATION)  
 $D_H = 4 \times (3,14 \times A \times A / 4 + (B-A) \times A) / (3,14 \times A + 2 \times (B-A))$



A \ B	120	130	140	150	160	170	180	185	200	215	230	245	250	255	275	285	300	320	350
110																			
120		126	132	136	141	145	149	151	156	160	164	168	169	170	174	176	179	182	
130			136	142	147	151	156	158	163	168	173	177	178	179	184	186	189	193	
140				146	152	157	162	164	170	176	181	185	187	188	193	196	199	203	
150					156	162	167	169	176	182	188	193	195	196	202	205	208	213	
160						166	172	174	182	189	195	200	202	204	210	213	217	222	
180								183	192	200	207	214	216	218	225	229	234	240	
200										209	217	225	227	230	239	243	248	255	
225												228	237	240	243	253	258	264	273
250															253	265	270	278	288
300																			

Hydraulic diameter for an oval shaped chimney duct  $D_H = 4S/O$  (S - cross-section, O - circumference) is a diameter equal (measured by the airflow characteristics) to the diameter of a round duct. For example, for an oval duct of 120x170 dimensions, the hydraulic diameter is 145mm. In the table above, marked with frames, there are hydraulic diameters of the oval shaped elements, that are considered as typical in DARCO offer. Other dimensions are made upon individual order.

HYDRAULIC DIAMETER FOR CHIMNEYS OF RECTANGULAR SHAPE (FOR PROPER DIAMETER DESIGNATION)  
 $D_H = 2AB/(A+B)$



A \ B	120	125	130	135	140	150	160	165	170	180	200	210	230	235	250	260	270	300	350
110																			
120	120	122	125	127	129	133	137	139	141	144	150	153	158	159	162	164	166	171	
125		125	127	130	132	136	140	142	144	148	154	157	162	163	167	169	171	176	
130			130	132	135	139	143	145	147	151	158	161	166	167	171	173	176	181	
135				135	137	142	146	149	150	154	161	164	170	171	175	178	180	186	
140					140	145	149	151	154	158	165	168	174	175	179	182	184	191	
150							155	157	159	164	171	175	182	183	188	190	193	200	
160								162	165	169	178	182	189	190	195	198	201	209	
180										180	189	194	202	204	209	213	216	225	
200											200	205	214	216	222	226	230	240	
225													227	230	237	241	245	257	
235														235	242	247	251	264	
250																255	260	273	
300																			

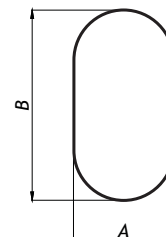
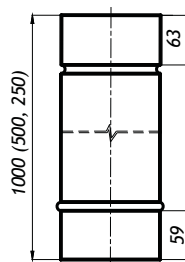
Hydraulic diameter for a rectangular shaped chimney duct  $D_H = 2AB/(A+B)$  is a diameter equal (measured by the airflow characteristics) to the diameter of a round duct. For example, for a rectangular duct of 120x165 cross-section, the hydraulic diameter is 145mm. Rectangular chimney ducts system **is not in Darco standard offer**. It is being made upon an individual order. Basing on a certain A x B cross-section and matching it with the corresponding hydraulic diameter (for example DH=139mm) it is possible to calculate the equivalent oval duct dimensions (for example 120x170mm).

## PICTURE

## MEASUREMENTS

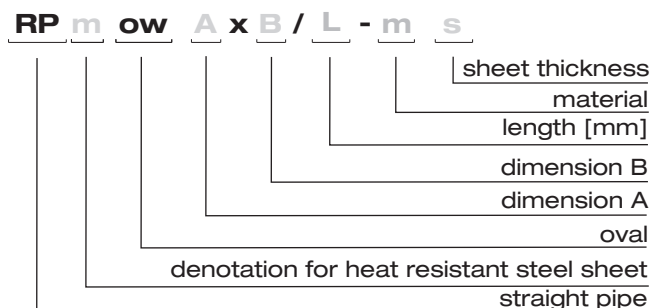
### 1. STRAIGHT PIPE RP

**RP**



Dimensions A/B	120	120	120	120	120	120	130	120	140	130	for s=0.6
Weight [kg]	2.30	2.45	2.60	2.70	2.85	3.00	3.15	3.40	3.40	3.80	

## DENOTATIONS / PRODUCT CODES



## MATERIALS

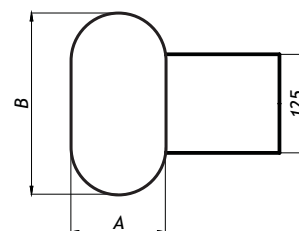
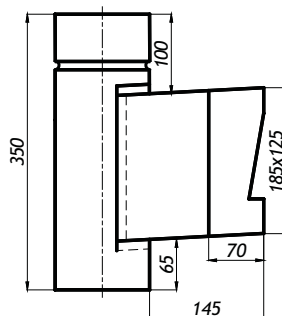
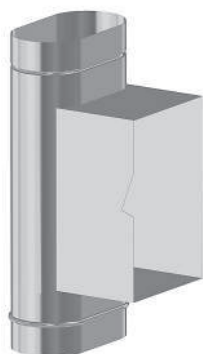
Destination	W	W	-	W - ventilation ducts
	-	-	-	S - flue (oil and gas) ducts
	-	-	D	D - smoke ducts
Material	CH	-	-	CH - stainless steel 1.4404
	-	X	-	X - stainless steel 1.4301
	-	-	Ż	Ż - heat resistant steel 1.4828
Sheet thickness s	-	-	-	5 - thickness 0,5 mm
	6	6	-	6 - thickness 0,6 mm
	8	8	8	8 - thickness 0,8 mm
	1	1	1	1 - thickness 1,0 mm

## PICTURE

## MEASUREMENTS

### 2. CLEAN OUT ELEMENT WC

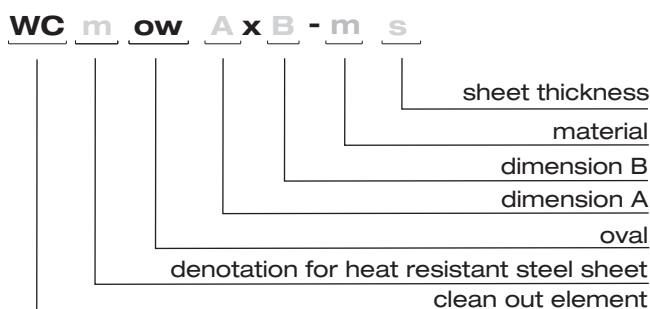
**WC**



Caution:  
Application with outlet on the narrow side - upon individual order.

Dimensions A/B	120	120	120	120	120	120	130	120	140	130	for s=0.6
Weight [kg]	1.25	1.30	1.35	1.40	1.45	1.50	1.55	1.60	1.65	1.75	

## DENOTATIONS / PRODUCT CODES

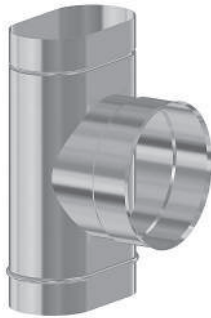


## MATERIALS

Destination	W	W	-	W - ventilation ducts
	-	-	-	S - flue (oil and gas) ducts
	-	-	D	D - smoke ducts
Material	CH	-	-	CH - stainless steel 1.4404
	-	X	-	X - stainless steel 1.4301
	-	-	Ż	Ż - heat resistant steel 1.4828
Sheet thickness s	-	-	-	5 - thickness 0,5 mm
	6	6	-	6 - thickness 0,6 mm
	8	8	8	8 - thickness 0,8 mm
	1	1	1	1 - thickness 1,0 mm

## PICTURE

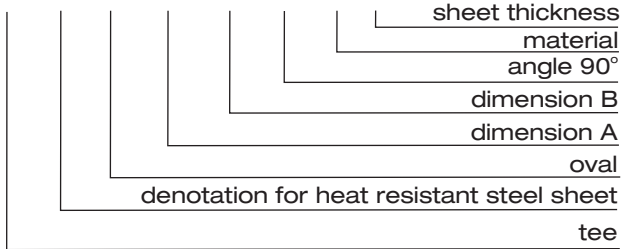
### 3. TEE 90° TR/90



Caution:  
Application with outlet on  
the narrow side - upon individual order.

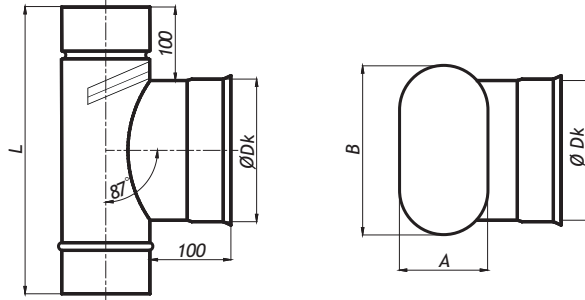
## DENOTATIONS / PRODUCT CODES

**TR m ow A x B /90-m s**



## MEASUREMENTS

**TR/90**



Dimensions A/B	120	120	120	120	120	120	130	120	140	130	for s=0.6
<b>Dk</b>	152.8	162.4	172.0	183.0	192.7	202.1	211.8	227.6	227.6	253.3	
<b>L [mm]</b>	350	360	370	380	390	400	410	425	425	450	
<b>Weight [kg]</b>	0.95	1.00	1.10	1.20	1.25	1.35	1.45	1.60	1.60	1.85	

## MATERIALS

<b>Destination</b>	W	W	-	W - ventilation ducts
	-	-	-	S - flue (oil and gas) ducts
	-	-	D	D - smoke ducts
<b>Material</b>	CH	-	-	CH - stainless steel 1.4404
	-	X	-	X - stainless steel 1.4301
	-	-	Ž	Ž - heat resistant steel 1.4828
<b>Sheet thickness s</b>	-	-	-	5 - thickness 0,5 mm
	6	6	-	6 - thickness 0,6 mm
	8	8	8	8 - thickness 0,8 mm
	1	1	1	1 - thickness 1,0 mm

## PICTURE

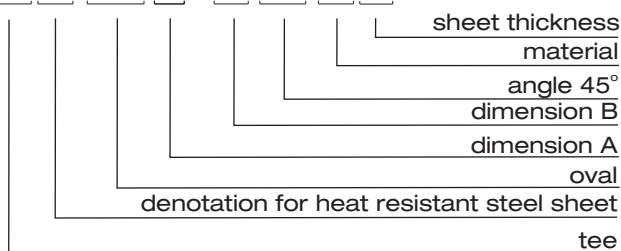
### 4. TEE 45° TR/45



Caution:  
Application with outlet on  
the narrow side - upon individual order.

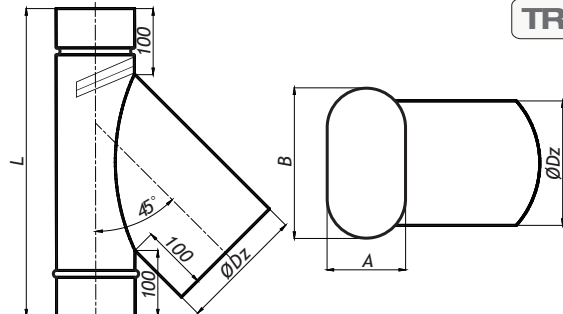
## DENOTATIONS / PRODUCT CODES

**TR m ow A x B /45-m s**



## MEASUREMENTS

**TR/45**



Dimensions A/B	120	120	120	120	120	120	130	120	140	130	for s=0.6
<b>Dz</b>	151.8	161.4	171.0	182.0	191.7	201.1	210.8	226.6	226.6	252.3	
<b>L [mm]</b>	415	425	440	455	470	480	495	520	520	555	
<b>Weight [kg]</b>	1.20	1.30	1.40	1.50	1.65	1.75	1.90	2.10	2.10	2.50	

## MATERIALS

<b>Destination</b>	W	W	-	W - ventilation ducts
	-	-	-	S - flue (oil and gas) ducts
	-	-	D	D - smoke ducts
<b>Material</b>	CH	-	-	CH - stainless steel 1.4404
	-	X	-	X - stainless steel 1.4301
	-	-	Ž	Ž - heat resistant steel 1.4828
<b>Sheet thickness s</b>	-	-	-	5 - thickness 0,5 mm
	6	6	-	6 - thickness 0,6 mm
	8	8	8	8 - thickness 0,8 mm
	1	1	1	1 - thickness 1,0 mm

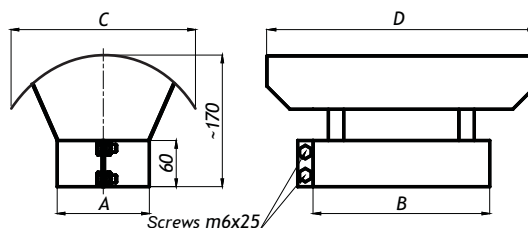
## PICTURE

### 5. CAP DK

DK

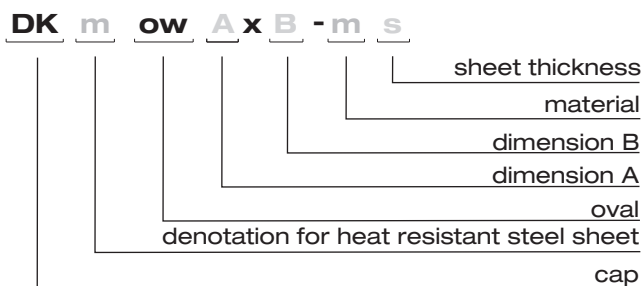


## MEASUREMENTS



Dimensions A/B	120	120	120	120	120	120	130	120	140	130	for s=0.6
<b>C</b>	230	230	230	230	230	230	230	230	230	230	
<b>D</b>	300	315	330	345	360	375	385	415	405	450	
<b>Weight [kg]</b>	0.42	0.44	0.46	0.48	0.50	0.52	0.56	0.57	0.62	0.65	

## DENOTATIONS / PRODUCT CODES



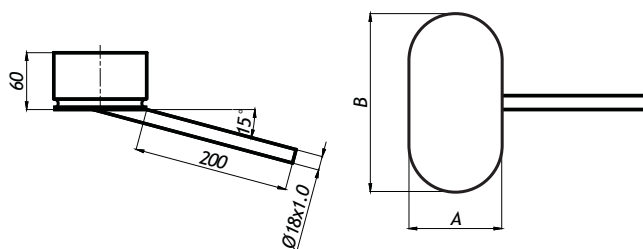
## MATERIALS

Destination	W	W	-	W - ventilation ducts
	-	-	-	S - flue (oil and gas) ducts
Material	-	-	D	D - smoke ducts
	CH	-	-	CH - stainless steel 1.4404
	-	X	-	X - stainless steel 1.4301
Sheet thickness s	-	-	Ž	Ž - heat resistant steel 1.4828
	-	-	-	5 - thickness 0,5 mm
	6	6	-	6 - thickness 0,6 mm
	8	8	8	8 - thickness 0,8 mm
1	1	1	1 - thickness 1,0 mm	

## PICTURE

### 6. CONDENSATE DRAIN BOWL MS

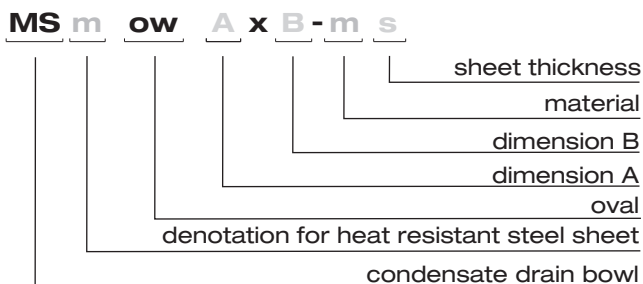
MS



Caution:  
Application with the drain pipe on the narrow side - upon individual order.

Dimensions A/B	120	120	120	120	120	120	130	120	140	130	for s=0.6
<b>Weight [kg]</b>	0.32	0.34	0.35	0.37	0.39	0.41	0.44	0.45	0.48	0.52	

## DENOTATIONS / PRODUCT CODES



## MATERIALS

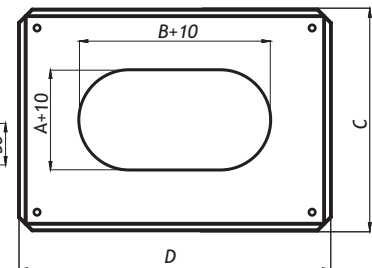
Destination	W	-	-	W - ventilation ducts
	-	-	-	S - flue (oil and gas) ducts
Material	-	-	D	D - smoke ducts
	CH	-	-	CH - stainless steel 1.4404
	-	-	-	X - stainless steel 1.4301
Sheet thickness s	-	-	Ž	Ž - heat resistant steel 1.4828
	-	-	-	5 - thickness 0,5 mm
	6	-	-	6 - thickness 0,6 mm
	8	-	8	8 - thickness 0,8 mm
1	-	1	1 - thickness 1,0 mm	

## PICTURE

### 7. ROOF PLATE PD

## MEASUREMENTS

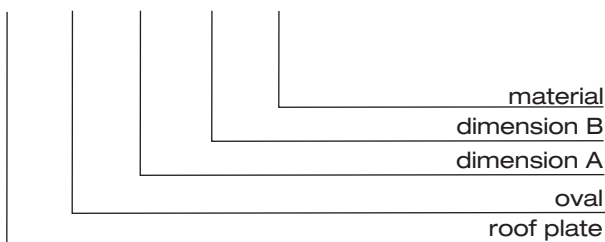
PD



Dimension A/B	120	120	120	120	120	120	130	120	140	130	for s=0.6
C	300	300	300	300	300	300	300	300	300	300	
D	360	380	380	400	400	400	400	420	420	470	
Weight [kg]	0.53	0.56	0.56	0.59	0.59	0.58	0.57	0.60	0.58	0.66	

## DENOTATIONS / PRODUCT CODES

PD ow A x B - X



## MATERIALS

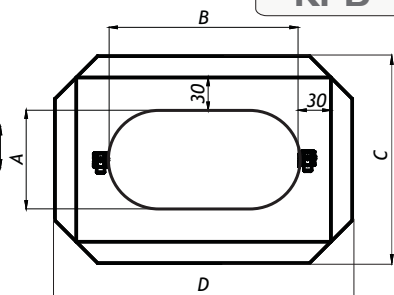
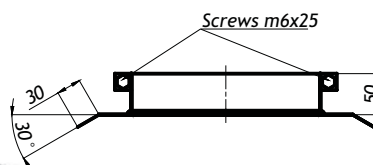
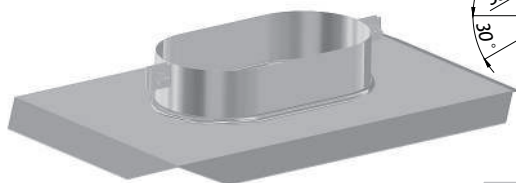
Destination	- W -	W - ventilation ducts
	- S -	S - flue (oil and gas) ducts
	- D -	D - smoke ducts
Material	- - -	CH - stainless steel 1.4404
	- X -	X - stainless steel 1.4301
	- - -	Ž - heat resistant steel 1.4828
Sheet thickness s	- - -	5 - thickness 0,5 mm
	- 6 -	6 - thickness 0,6 mm
	- - -	8 - thickness 0,8 mm
	- - -	1 - thickness 1,0 mm

## PICTURE

### 8. RAIN COLLAR KPD

## MEASUREMENTS

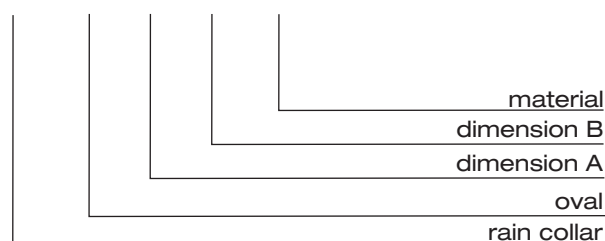
KPD



Dimension A/B	120	120	120	120	120	120	130	120	140	130	for s=0.6
C	230	230	230	230	230	230	240	230	250	240	
D	280	295	310	325	340	355	365	395	385	430	
Weight [kg]	0.42	0.44	0.45	0.47	0.49	0.50	0.53	0.55	0.56	0.60	

## DENOTATIONS / PRODUCT CODES

KPD ow A x B - X



## MATERIALS

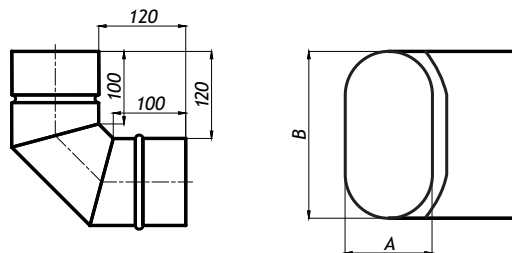
Destination	- W -	W - ventilation ducts
	- S -	S - flue (oil and gas) ducts
	- D -	D - smoke ducts
Material	- - -	CH - stainless steel 1.4404
	- X -	X - stainless steel 1.4301
	- - -	Ž - heat resistant steel 1.4828
Sheet thickness s	- - -	5 - thickness 0,5 mm
	- 6 -	6 - thickness 0,6 mm
	- - -	8 - thickness 0,8 mm
	- - -	1 - thickness 1,0 mm

**PICTURE**

**MEASUREMENTS**

**9. SOLID ELBOW 90° KS/90**

**KS/90**

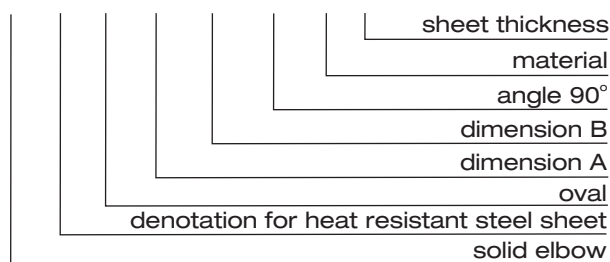


Caution:  
Application of elbow on the narrow side - upon individual order.

<b>Dimension A/B</b>	120	120	120	120	120	120	120	130	120	140	130	for s=0.6
	170	185	200	215	230	245	255	285	275	320		
<b>Weight [kg]</b>	0.65	0.70	0.75	0.80	0.85	0.87	0.90	1.00	1.00	1.10		

**DENOTATIONS / PRODUCT CODES**

**KS m ow A x B /90-m s**



**MATERIALS**

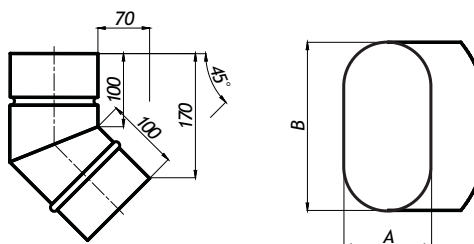
<b>Destination</b>	W	W	-	W - ventilation ducts
	-	-	-	S - flue (oil and gas) ducts
	-	-	D	D - smoke ducts
<b>Material</b>	CH	-	-	CH - stainless steel 1.4404
	-	X	-	X - stainless steel 1.4301
	-	-	Ž	Ž - heat resistant steel 1.4828
<b>Sheet thickness s</b>	-	-	-	5 - thickness 0,5 mm
	6	6	-	6 - thickness 0,6 mm
	8	8	8	8 - thickness 0,8 mm
	1	1	1	1 - thickness 1,0 mm

**PICTURE**

**MEASUREMENTS**

**10. SOLID ELBOW 45° KS/45**

**KS/45**

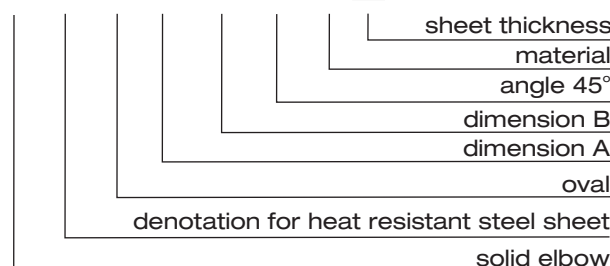


Caution:  
Application of elbow on the narrow side - upon individual order.

<b>Dimension A/B</b>	120	120	120	120	120	120	130	120	140	130	for s=0.6
	170	185	200	215	230	245	255	285	275	320	
<b>Weight [kg]</b>	0.45	0.48	0.52	0.55	0.57	0.60	0.63	0.68	0.68	0.75	

**DENOTATIONS / PRODUCT CODES**

**KS m ow A x B /45-m s**



**MATERIALS**

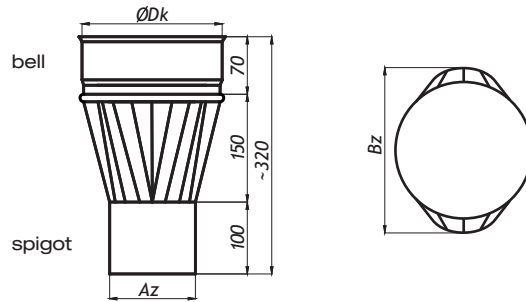
<b>Destination</b>	W	W	-	W - ventilation ducts
	-	-	-	S - flue (oil and gas) ducts
	-	-	D	D - smoke ducts
<b>Material</b>	CH	-	-	CH - stainless steel 1.4404
	-	X	-	X - stainless steel 1.4301
	-	-	Ž	Ž - heat resistant steel 1.4828
<b>Sheet thickness s</b>	-	-	-	5 - thickness 0,5 mm
	6	6	-	6 - thickness 0,6 mm
	8	8	8	8 - thickness 0,8 mm
	1	1	1	1 - thickness 1,0 mm

## PICTURE

## MEASUREMENTS

### 11. REDUCER RD-K

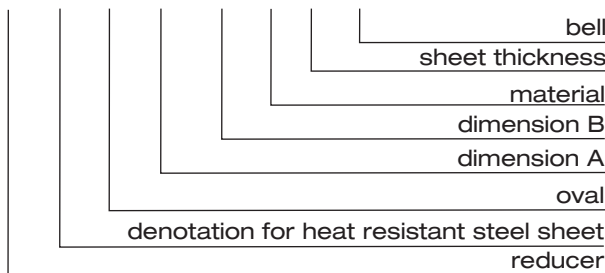
**RD-K**



Dimension	120	120	120	120	120	120	130	120	140	130	for s=0.6
Az/Bz	170	185	200	215	230	245	255	285	275	320	
<b>Dk</b>	152.8	162.4	172.0	183.0	192.7	202.1	211.8	227.6	227.6	253.3	
<b>Weight [kg]</b>	0.75	0.80	0.85	0.90	0.95	1.00	1.05	1.10	1.10	1.25	

## DENOTATIONS / PRODUCT CODES

**RD m ow A x B - m s - K**



## MATERIALS

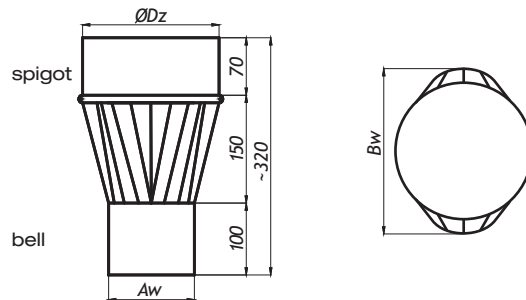
<b>Destination</b>	W	W	-	W - ventilation ducts
	-	-	-	S - flue (oil and gas) ducts
	-	-	D	D - smoke ducts
<b>Material</b>	CH	-	-	CH - stainless steel 1.4404
	-	X	-	X - stainless steel 1.4301
	-	-	Ž	Ž - heat resistant steel 1.4828
<b>Sheet thickness s</b>	-	-	-	5 - thickness 0,5 mm
	6	6	-	6 - thickness 0,6 mm
	8	8	8	8 - thickness 0,8 mm
	1	1	1	1 - thickness 1,0 mm

## PICTURE

## MEASUREMENTS

### 12. REDUCER RD-N

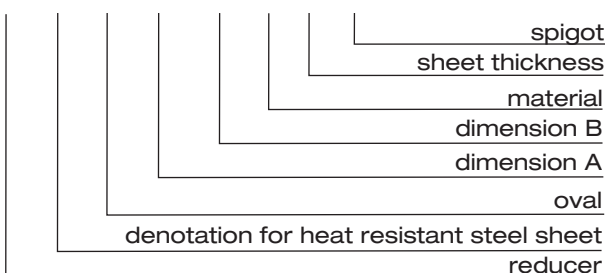
**RD-N**



Dimension	120	120	120	120	120	120	130	120	140	130	for s=0.6
Aw/Bw	170	185	200	215	230	245	255	285	275	320	
<b>Dz</b>	151.8	161.4	171.0	182.0	191.7	201.1	210.8	226.6	226.6	252.3	
<b>Weight [kg]</b>	0.75	0.80	0.85	0.90	0.95	1.00	1.05	1.10	1.10	1.25	

## DENOTATIONS / PRODUCT CODES

**RD m ow A x B - m s - N**



## MATERIALS

<b>Destination</b>	W	W	-	W - ventilation ducts
	-	-	-	S - flue (oil and gas) ducts
	-	-	D	D - smoke ducts
<b>Material</b>	CH	-	-	CH - stainless steel 1.4404
	-	X	-	X - stainless steel 1.4301
	-	-	Ž	Ž - heat resistant steel 1.4828
<b>Sheet thickness s</b>	-	-	-	5 - thickness 0,5 mm
	6	6	-	6 - thickness 0,6 mm
	8	8	8	8 - thickness 0,8 mm
	1	1	1	1 - thickness 1,0 mm