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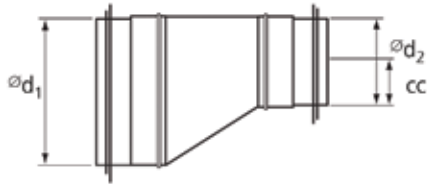
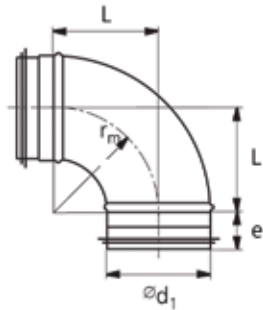
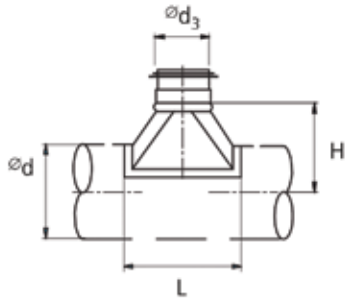
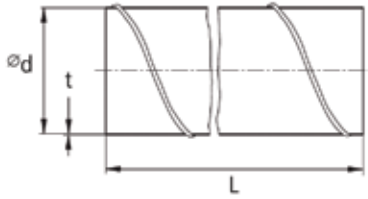
 **emek**  
Havalandirma

## İçindekiler

Ürün	Tip	Sayfa
	Yuvarlak Kanal SR .....	7-8
	Dirsek	BL 90° ..... 9 BL 60° ..... 11 BL 45° ..... 13 BL 30° ..... 15 BL 15° ..... 17 BFL 90° ..... 10 BFL 60° ..... 12 BFL 45° ..... 14 BFL 30° ..... 16 BFL 15° ..... 18
	Redüksiyon	RCPL ..... 19-22 RCLL ..... 23-28 RLL ..... 23-28
	Saplama	PSL ..... 29-31 PSVL 45° ..... 32
	Te	TCPL ..... 34-37 XCPL ..... 33-37 TCL ..... 38-42 TVL 45° ..... 43-46
	Te Çatal	YVL 45° ..... 47
	Manşon	NPL ..... 53
	Dişi Manşon	NPL ..... 54
	Gönye Manşon	ILL ..... 55
	Kör Tapa	ESL ..... 56 EPF ..... 57

Ürün	Tip	Sayfa
	Damper	DSL ..... 58
	Dairesel Susturucu	SLL ..... 54 + 55-56 SLBL ..... 54 + 57-58 SLGL ..... 54 + 59-60 SLBGL ..... 54 + 61-62
	Jet cap	HN ..... 63-64 HF ..... 63-64
	Flanşlar/ Klipsler	FL ..... 65-66 FLM ..... 67 FLKM ..... 67
	Askı Kelepçesi	UVHGM ..... 68

## Katalogda Kullanılan Adlandırma



Tüm ölçüler mm, açılar derece cinsindedir.

Nominal iç çap (kanal, soket ölçüsü) .....	d
Nominal d çap (bağlantı ölçüsü) .....	d1, d2, d3, d4.
Malzeme kalınlığı .....	t
Fittings yüksekliği .....	H
Eksantriklik .....	cc
Boğa z yarı çapı .....	rm
Montaj uzunluğu .....	L
Geçme uzunluğu .....	e

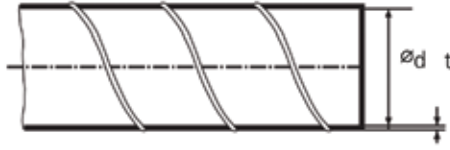
$\varnothing d_1$	$\varnothing d_2$	$L$	kg	
80	63	14	0.1	Montaj uzunluğu
100	63	25	0.2	
100	80	18	0.2	Ağırlık
125	63	38	0.2	
125	80	28	0.2	
125	100	22	0.2	Sipariş koduna eklenecek nominal çap
160	80	48	0.3	
160	100	37	0.3	
160	125	26	0.2	
630	500	68	2.7	

Sipariş örneği:

Ürün kodu RLL 630 500

## Toleranslar ve spesifikasyonlar

### Kanallar için toleranslar

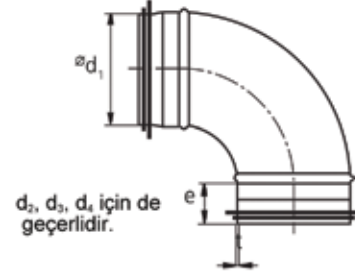


$\varnothing d$ nom	$\varnothing d$ Tol mm min. - max.
100	100.0 - 100.5
125	125.0 - 125.5
150	150.0 - 150.6
160	160.0 - 160.6
180	180.0 - 180.7
200	200.0 - 200.7
224	224.0 - 224.8
250	250.0 - 250.8
280	280.0 - 280.9
300	300.0 - 300.9
315	315.0 - 315.9
355	355.0 - 356.0
400	400.0 - 401.0
450	450.0 - 451.1
500	500.0 - 501.1
560	560.0 - 561.2
600	600.0 - 601.2
630	630.0 - 631.2
710	710.0 - 711.5
800	800.0 - 801.6
900	900.0 - 902.0
1000	1000.0 - 1002.0
1120	1120.0 - 1122.5
1250	1250.0 - 1252.5

Sz d rmaz bir sistem sa lamak üzere, SPIRO®system kanallar için yukarıdaki toleranslar baz alınmaktadır.

»« kanal çapına göre de i klik göstermektedir.

### Fittings için toleranslar



$d_2, d_3, d_4$  için de geçerlidir.

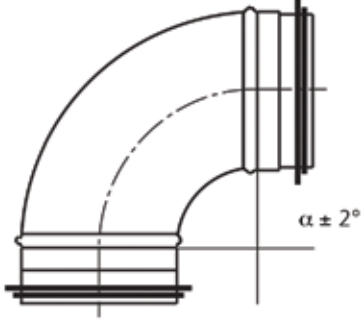
$\varnothing d_1$ nom	$\varnothing d_1$ Tol mm min. - max.	$t$ mm nom
100	98.8 - 99.3	0.6
125	123.8 - 124.3	0.6
140	138.7 - 139.3	0.6
150	148.7 - 149.3	0.6
160	158.7 - 159.3	0.6
180	178.6 - 179.3	0.6
200	198.6 - 199.3	0.6
224	222.5 - 223.3	0.6
250	248.5 - 249.3	0.6
280	278.4 - 279.3	0.6
300	298.4 - 299.3	0.6
315	313.4 - 314.3	0.6
355	353.3 - 354.3	0.6
400	398.3 - 399.3	0.6
450	448.2 - 449.3	0.7
500	498.2 - 499.3	0.7
560	558.1 - 559.3	0.7
600	598.2 - 599.3	0.7
630	628.1 - 629.3	0.9
710	708.0 - 709.3	0.9
800	798.0 - 799.3	0.9
900	897.9 - 899.3	0.9
1000	997.9 - 999.3	0.9
1120	1117.8 - 1119.3	0.9
1250	1247.8 - 1249.3	0.9

$e$  (mm)

$\varnothing 100-224$	36	+0 -5
$\varnothing 250-355$	55	+0 -5
$\varnothing 400-630$	75	+0 -10
$\varnothing 710-900$	100	+0 -10
$\varnothing 1000-1250$	115	+0 -15

## Toleranslar

### Açısal toleranslar



### Uzunluk toleranslar

Uzunluk $L, r, r_m$	Toleranslar (mm)
0 - 15	$\pm 3$
(15) - 100	$\pm 7$
(100) -	+ 10 - 15
L (kanal)	$\pm 0,5\%$

## Malzeme spesifikasyonu

Kanallar ve fittingsler galvaniz saçtan imal edilmektedir.

Sipariş üzerine imalatta kullanılan diğer malzemeler:  
Paslanmaz çelik

## Yüzey

SPIRO®system ürünleri standart olarak galvaniz saçtan imal edilmektedir.

# EPDM ve silikon lastiğin dayanım listesi

- 1 Uygun değil.
  - 2 Güçlü etki, yalnızca bazı koşullarda kullanılabilir.
  - 3 Hafif etki, birçok durumda kullanılabilir.
  - 4 Önemsiz etki, tavsiye edilen.
- Bilgi yok.

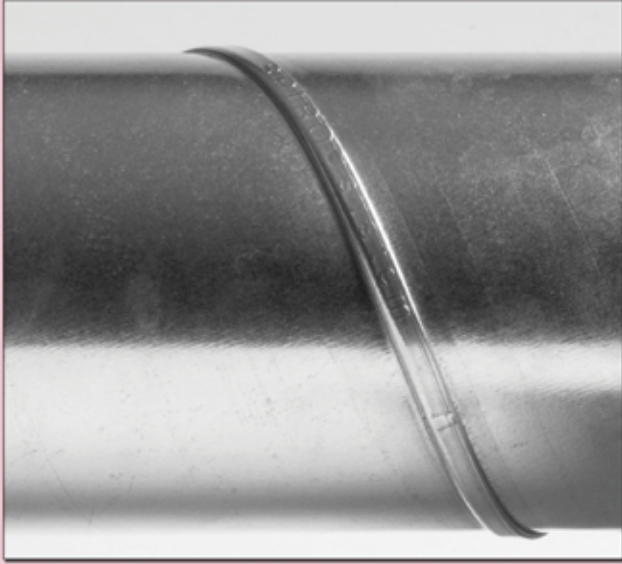
## EPDM Silicone

A	
Acetaldehyde	4 4
Acetic acid	4 3
Acetic acid anhydride	3 2
Acetic acid, diluted 30%	4 3
Acetone	4 3
Acetylene	3 3
Alum	4 4
Aluminium salts (non-oxidising)	4 4
Ammonia, liquid	4 1
Ammonia gas, 65°C	3 3
Ammonia gas, cold	4 4
Ammonia salts (non-oxidising)	4 3
Ammonia hydroxide, diluted ammonia	3 3
Amyl acetate	4 1
Aniline	3 -
Aniline dyes	4 -
Arsenic acid	4 4
Asphalt	1 1
B	
Barium salts (non-oxidising)	4 4
Benzol	1 1
Bleaching liquor, see calcium hypochlorite	
Borax	4 3
Boric acid	4 4
Bromine, liquid	- 1
Butane	1 4
Butanol, butyl alcohol	4 3
Butyl acetate	4 1
C	
Calcium hypochlorite, pH7 under 10 g/l	4 1
Calcium salts (non-oxidising)	4 3
Calcium hypochlorite, over 10 g/l	3 1
Caustic soda, Sodium hydroxide	4 2
CFC (e.g. Freon)	1 1
12	3 1
13	4 -
21	1 -
22	4 1
31	4 -
32	4 -
112	1 -
113	1 1
114	4 1
115	4 -
Chlorine solutions, 1-10 g/l free chlorine	3 -
Chlorine solutions, 0.1-1 g/l free chlorine	4 -
Chlorine solutions, 0.1 g/l free chlorine	4 -
Chlorine gas, dry	2 -
Chlorine gas, moist	2 -
Chromic acid	2 2
Citric acid	4 4
Copper salts (non-oxidising)	4 4
D	
Diesel oil	1 2
Dilutine (white spirit)	1 1
E	
Ethanol	4 4
Ether (diethyl ether, ethyl ether)	2 -
Ethyl acetate	3 2
Ethyl chloride	4 1
Ethyl glycol	3 -
Ethylene chloride	1 -
Ethylene glycol, Diethylene glycol	4 3
Ethylene, Ethane	1 -

F	
Formaldehyde, Formalin	4 -
Formic acid	4 2
Freon, see CFC	
Furan, Furfuran	2 -
Furfural	3 -
G	
Glucose	4 4
Glycerine	4 4
H	
Hydraulic oil, phosphate ester based	4 4
Hydraulic oil, mineral oil based	1 3
Hydrochloric acid, conc. 37%, room temperature	4 1
Hydrochloric acid, conc. 37%, 70°C	2 1
Hydrochloric acid, diluted	4 1
Hydrogen sulphide, dry, room temperature	4 4
Hydrogen peroxide 90%, 20°C	2 4
Hydrogen	4 4
Hydrogen sulphide, moist warm	3 1
Hydrogen sulphide, moist, room temperature	4 2
Hydrogen peroxide 30%, 20°C	4 4
Hydrogen peroxide 3%	4 4
I	
Illuminating gas	4 -
Iodine	- -
Iron salts (non-oxidising)	4 3
L	
Lactic acid	4 4
Lead salts (non-oxidising)	4 2
Linseed oil	3 4
Liquid manure	4 -
M	
Magnesium salts (non-oxidising)	4 4
Manganese salts (non-oxidising)	4 4
Mercury	4 4
Mercury salts (non-oxidising)	4 4
Methanol, Methyl alcohol, wood alcohol	4 4
Methyl ethyl ketone MEK	4 -
Methyl chloride	2 1
Methyl isobutyl ketone	3 2
Methyl isopropyl ketone	3 2
Methylene chloride	1 1
Milk	4 4
N	
Natural gas	1 4
Nickel salts (non-oxidising)	4 4
Nitric acid 20%, room temperature	4 -
20%, 50°C	3 1
40%, 50°C	3 1
50%, 50°C	2 1
60%, room temperature	2 1
70%, room temperature	1 1
Nitrobenzol	2 1
Nitrogen	4 4
Nitrous gases	2 2

O	
Olive oil	3 3
Oxalic acid	4 3
Oxygen	4 -
Ozone	4 4
P	
Palmitic acid	3 -
Paraffin	1 1
Petrol, 65 octane	1 1
Petrol, 100 octane	1 1
Petroleum ether	1 1
Phenol	3 2
Phosphoric acid, 85%	4 1
Phosphoric acid, 45%	4 1
Potassium hydroxide	4 -
Potassium salts (non-oxidising)	4 -
Propane	1 1
Propanol, Propyl alcohol	4 4
R	
Radioactive radiation	3 2
Rapeseed oil	4 4
S	
Sewage, waste water	4 3
Sodium hypochlorite, max. 10 g/l free chlorine	4 -
Sodium hypochlorite, over 10 g/l free chlorine	3 -
Sodium salts (non-oxidising)	4 4
Sodium hydroxide, Caustic soda	4 2
Sulphur chloride	1 -
Sulphur trioxide, dry gas	3 2
Sulphur dioxide, dry gas	4 3
Sulphur, melted	4 4
Sulphuric acid, up to 60%, room temperature	4 1
up to 60%, 50°C	4 1
60-75%, 50°C	3 1
75-80%, 50°C	2 1
80-96%, 50°C	1 1
Sulphurous acid	4 1
T	
Tannic acid	4 1
Tar	1 2
Toluene, Toluol	1 1
Trichloroethylene	1 2
Turpentine	1 1
W	
Water, distilled	4 4
fresh and distilled, 100°C	4 2
fresh	4 4
salt water	4 4
White spirit (Dilutine)	1 1
X	
Xylene	1 1
Z	
Zinc salts (non-oxidising)	4 4

# Yuvarlak Kanal

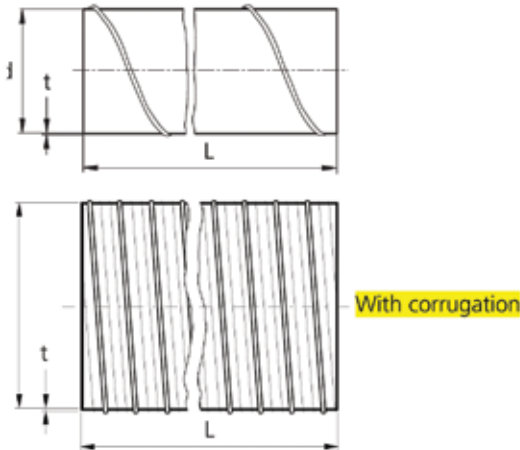


## Tanım

Tüm kanallar SPIRO INTERNATIONAL'ın orjinal kanal makinelerinde imal edilmektedir ve "SPIRO®system" tescilli markasının damgasına haizdir.

Marka ve imalat tekniği sistemin yüksek kalitesini garanti etmektedir.

## Ölçüler

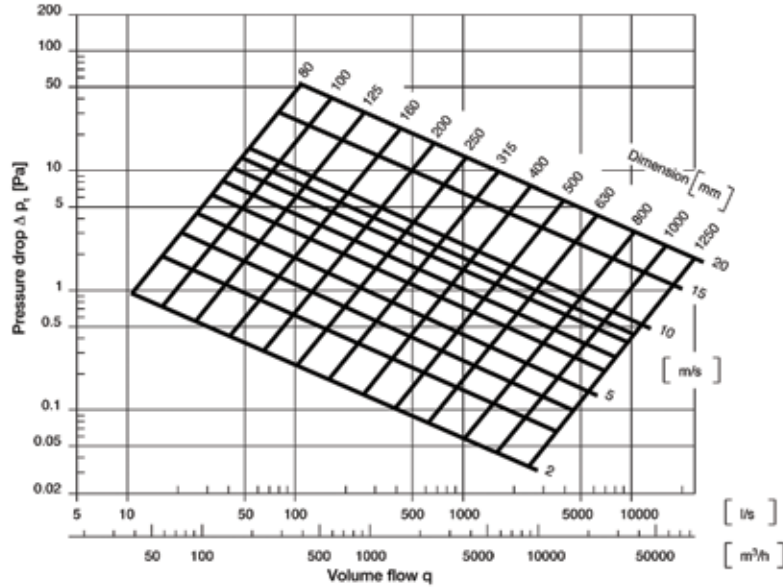
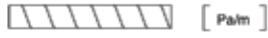


## Ölçüler

$\varnothing d$ nom mm	$\pi d$ m	$\frac{\pi d^2}{4}$ m <sup>2</sup>
100	0.314	0.008
125	0.393	0.012
140	0.440	0.015
150	0.471	0.018
160	0.502	0.020
180	0.565	0.025
200	0.628	0.031
224	0.703	0.039
250	0.785	0.049
280	0.879	0.062
300	0.942	0.071
315	0.989	0.078
355	1.115	0.099
400	1.256	0.126
450	1.413	0.159
500	1.570	0.196
560	1.758	0.246
600	1.884	0.283
630	1.978	0.312
710	2.229	0.396
800	2.512	0.503
900	2.826	0.636
1000	3.140	0.785
1120	3.517	0.985
1250	3.925	1.227

# Yuvarlak Kanal

## Teknik Bilgi



## Düşük basınç

Atmofere göre önemli derecede düşük basınçlı sistemlerde havalandırma kanallarının çökme riski vardır.

Çökme kanalın en zayıf noktasında olur, ve genellikle yükleme ya da taşıma sırasında oluşmuş bir çukıntı ya da benzer bir hasar noktasında olur. Bu nedenle, işletme basıncı kritik seviyeye yaklaşıyorsa, kanalların tamamen hasarsız olması gereklidir.

Aşağıdaki tablo kanalarda izin verilen maksimum düşük basınç değerlerini göstermektedir. (Pa).

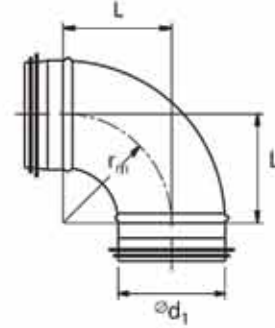
L m	Ød	t = 0.5 mm		t = 0.6 mm		t = 0.7 mm		t = 0.9 mm		t = 1.25 mm	
			Corrugated		Corrugated		Corrugated		Corrugated		Corrugated
6	80	27000		46700							
	100	21000		36300		38000		42000			
	125	15000		25900		31000		35000			
	160	8300		18000		23000		27000			
	200	5000		14500		17500		20000	23500		
	250	2300	5000	7000	16000	10000	21000	15300	23000	17000	26000
	315			2000	10500	6000	14000	10200	21000	14000	24000
	400				4500		9000		12100		16000
	500				3000		5500		7200		10000
3	630						3900		6000		8500
	800						1500		2600		5600
	1000								1000		2200
	1250								800		1200



# Dirsek BL 90°



## Ölçüler



$$r_m = 1 \times d_1$$

$\varnothing d_1$ nom	L mm	kg
100	100	0.4
125	125	0.6
140	135	0.8
150	150	0.9
160	160	1.0
180	175	1.2
200	200	1.5
224	225	2.0
250	250	2.4
280	275	3.7
300	300	3.7
315	315	3.7

## Tanım

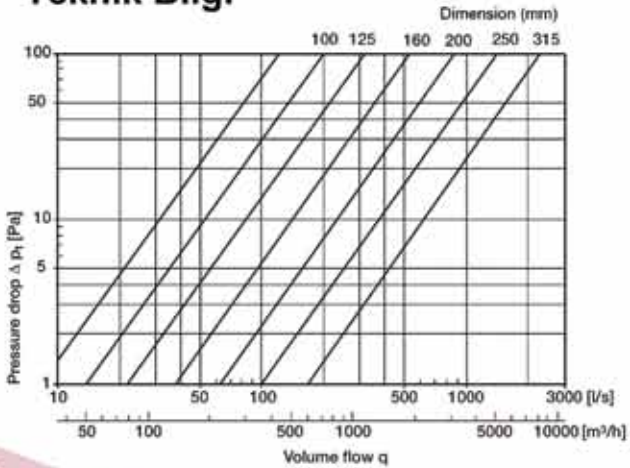
Pres olarak imal edilmiştir.  
 $r_m = 1 \times d_1$

### Sipariş

Ürün kodu: **BL aaa 90°**  
 Tip \_\_\_\_\_  
 $\varnothing d_1$  \_\_\_\_\_  
 e \_\_\_\_\_

Çantasız olarak da temin edilebilir.

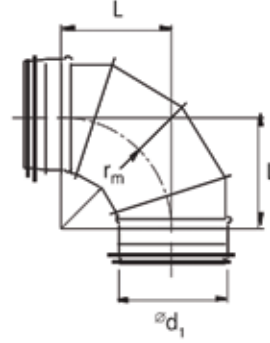
## Teknik Bilgi



# Dirsek BFL 90°



## Ölçüler



$$r_m = 1 \times d_1$$

$\varnothing d_1$ nom	L mm	kg
200	200	1.6
224	224	1.8
250	250	2.2
280	280	2.5
300	300	2.8
315	315	3.1
355	355	3.8
400	400	5.1
450	450	8.6
500	500	10.4
560	560	12.9
600	600	15.8
630	630	18.7
710	710	24.1
800	800	30.1
900	900	42.0
1000	1000	50.9
1120	1120	71.8
1250	1250	87.9

## Tanım

Segamanlı olarak imal edilmiştir.  
 $r_m = 1 \times d_1$

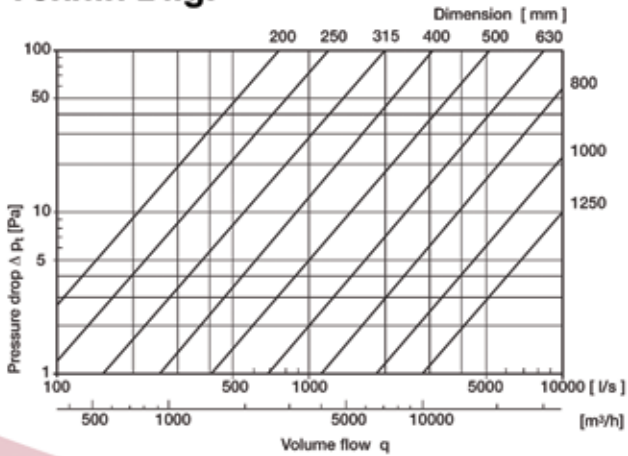
### Ordering

Ürün Kodu: **BFL aaa 90°**

Tip \_\_\_\_\_  
 $\varnothing d_1$  \_\_\_\_\_  
° \_\_\_\_\_

Contasız  
olarak da  
temin edilebilir.

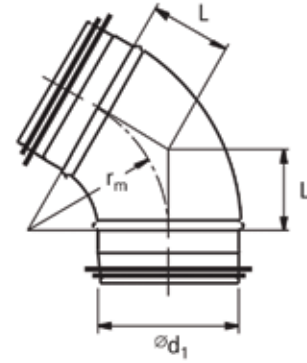
## Teknik Bilgi



# Dirsek BL 60°



## Ölçüler



$$r_m \approx 1 \times d_1$$

$\varnothing d_1$ nom	L mm	kg
100	64	0.4
125	72	0.5
140	78	0.6
150	87	0.9
160	92	1.0
180	104	1.2
200	115	1.5
224	130	1.8
250	144	2.2
280	159	2.7
300	173	3.2
315	182	3.3

## Tanım

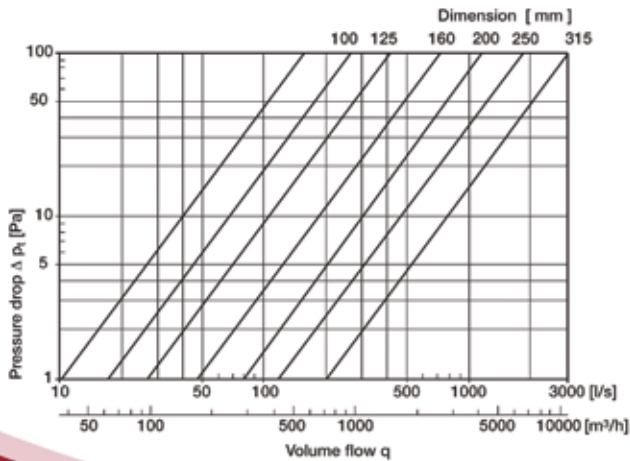
Pres olarak imal edilmiştir.  
 $r_m = 1 \times d_1$

### Sipariş

Ürün kodu: **BL aaa 60°**  
Tip \_\_\_\_\_  
 $\varnothing d_1$  \_\_\_\_\_  
° \_\_\_\_\_

Contasız  
olarak da  
temin edilebilir.

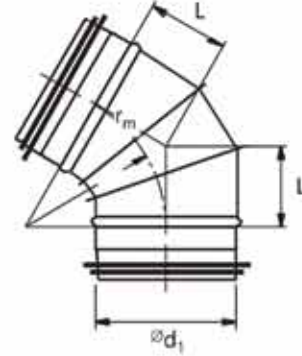
## Teknik Bilgi



# Dirsek BFL 60°



## Ölçüler



$$r_m = 1 \times d_1$$

$\varnothing d_1$ , nom	L mm	kg
200	115	1.0
224	129	1.3
250	144	1.5
280	162	1.8
300	173	2.0
315	182	2.1
355	205	2.8
400	231	3.3
450	260	6.3
500	290	7.6
560	325	9.4
600	350	11.4
630	365	13.4
710	412	17.5
800	465	21.6
900	522	30.0
1000	580	36.1
1120	650	51.1
1250	725	62.2

## Tanım

Segamnlı olarak imal edilmiştir.  
 $r_m = 1 \times d_1$

### Sipariş

Ürün kodu:

**BFL** aaa **60°**

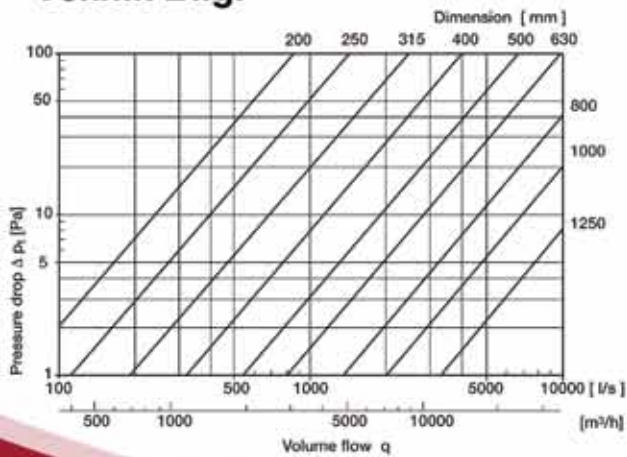
Tip

$\varnothing d_1$

a

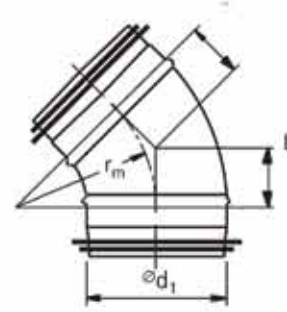
Contasız  
olarak da  
termin edilebilir

## Teknik Bilgi



# Dirsek BL 45°

## Ölçüler



$$m = 1 \times d_1$$

$\varnothing d_1$ nom	L mm	kg
100	41	0.3
125	52	0.4
140	56	0.4
150	62	0.6
160	66	0.6
180	75	0.7
200	83	0.9
224	93	1.2
250	104	1.3
280	114	2.2
300	124	2.2
315	130	2.8

## Tanım

Pres olarak imal edilmiştir.

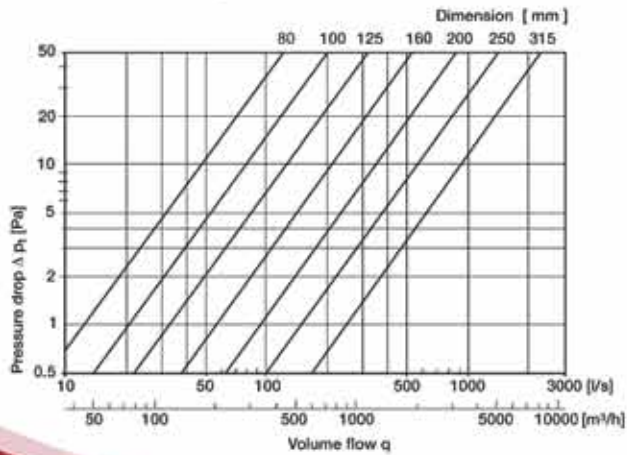
### Sipariş

Ürün kodu: **BL aaa 45°**

Tip \_\_\_\_\_  
 $\varnothing d_1$  \_\_\_\_\_  
 ° \_\_\_\_\_

Contasız  
olarak da  
temin edilebilir.

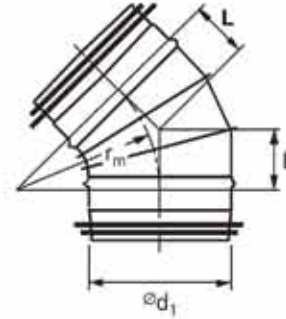
## Teknik Bilgi



# Dirsek BFL 45°



## Ölçüler



$$r_m = 1 \times d_1$$

$\varnothing d_1$ nom	L mm	kg
200	83	0.9
224	93	1.2
250	104	1.3
280	116	1.5
300	124	1.7
315	130	1.8
355	145	2.3
400	162	3.1
450	186	3.6
500	204	4.3
560	232	6.0
600	249	6.6
630	261	7.9
710	294	11.4
800	331	13.9
900	373	16.8
1000	414	29.9
1120	464	35.0
1250	518	42.1

## Tanım

Segmanlı olarak imal edilmiştir.

### Sipariş

Ürün kodu: **BFL aaa 45°**

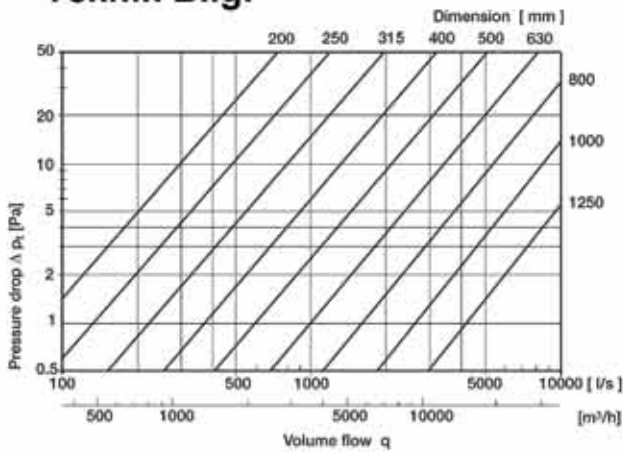
Tip \_\_\_\_\_

$\varnothing d_1$  \_\_\_\_\_

° \_\_\_\_\_

Çantasız  
olarak da  
temin edilebilir.

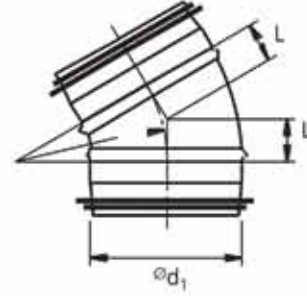
## Teknik Bilgi



# Dirsek BL 30°



## Ölçüler



$\varnothing d_1$ nom	L mm	kg
100	27	0.3
125	33	0.3
140	36	0.4
150	40	0.4
160	43	0.5
180	48	0.6
200	54	0.7
224	60	0.8
250	67	1.4
280	74	1.6
300	80	2.0
315	84	2.0

## Tanım

Pres olarak imal edilmiştir.

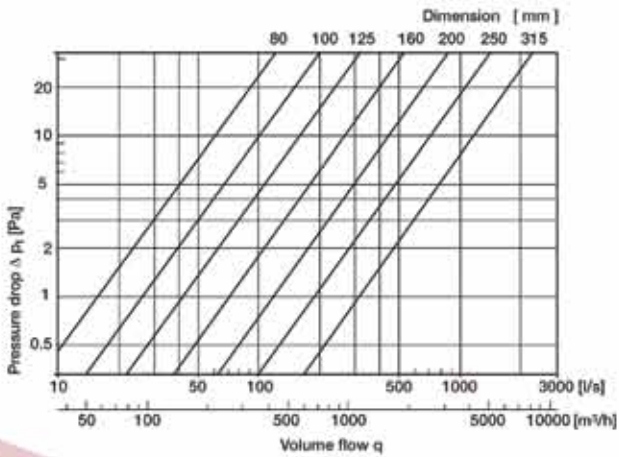
### Sipariş

Ürün kodu: **BL aaa 30°**

Tip \_\_\_\_\_  
 $\varnothing d_1$  \_\_\_\_\_  
 ° \_\_\_\_\_

Contasız  
olarak da  
temin edilebilir.

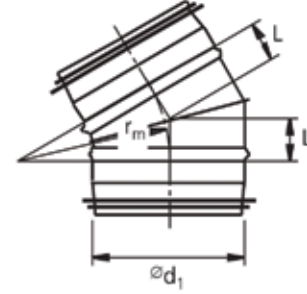
## Teknik Bilgi



# Dirsek BFL 30°



## Ölçüler



$$n = 1 \times d_1$$

$\varnothing d_1$ nom	L mm	kg
200	55	0.5
224	58	0.7
250	67	1.0
280	75	1.1
300	80	1.2
315	84	1.3
355	95	1.7
400	107	2.0
450	122	4.1
500	135	4.8
560	151	5.8
600	162	7.0
630	170	8.2
710	192	10.9
800	216	13.2
900	243	18.0
1000	270	21.4
1120	302	30.5
1250	338	36.5

## Tanım

Segmanlı olarak imal edilmiştir.

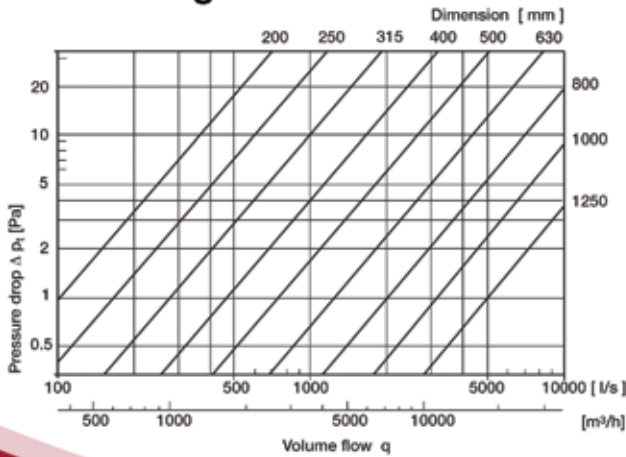
### Sipariş

Ürün kodu: **BFL aaa 30°**

Tip \_\_\_\_\_  
 $\varnothing d_1$  \_\_\_\_\_  
 ° \_\_\_\_\_

Contasız  
olarak da  
temin edilebilir.

## Teknik Bilgi

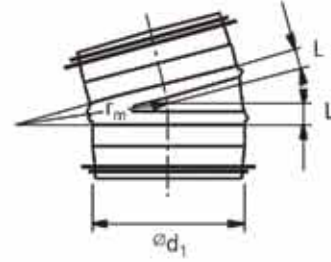




# Dirsek BL 15°



## Ölçüler



$$r_m = 1 \times d_1$$

$\varnothing d_1$ nom	L mm	kg
100	13	0.3
112	16	0.3
125	16	0.3
140	18	0.4
150	20	0.4
160	21	0.5
180	23	0.6
200	26	0.6
224	30	0.8
250	33	1.0
280	36	1.2
300	40	1.4
315	41	1.5

## Tanım

Pres olarak imal edilmiştir.

### Sipariş

Ürün kodu: **BL aaa 15°**

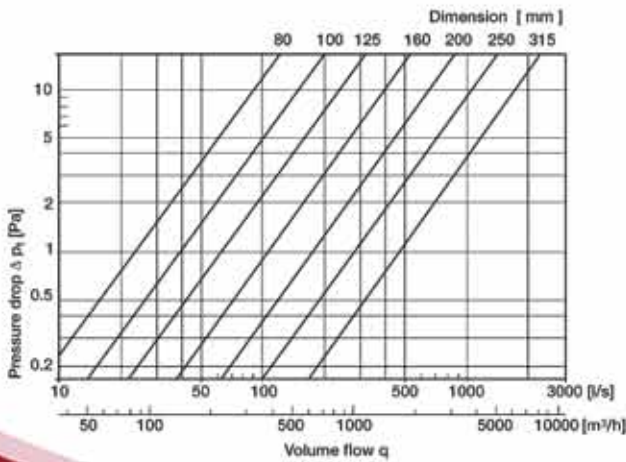
Tip \_\_\_\_\_

$\varnothing d_1$  \_\_\_\_\_

° \_\_\_\_\_

Contasız  
olarak da  
temin edilebilir.

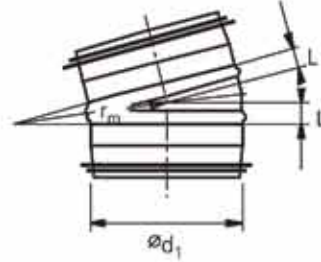
## Teknik Bilgi



# Dirsek BFL 15°



## Ölçüler



$$r_m = 1 \times d_1$$

$\varnothing d_1$ nom	L mm	kg
200	40	0.5
224	43	0.7
250	45	0.8
280	45	0.9
300	50	1.0
315	50	1.1
355	50	1.5
400	53	1.7
450	59	1.9
500	68	2.2
560	73	3.0
600	79	3.3
630	83	3.4
710	93	6.0
800	105	7.5
900	118	8.1
1000	132	9.3
1120	147	16.4
1250	165	19.0

## Tanım

Segmanlı olarak imal edilmiştir.

### Sipariş

Ürün kodu: **BFL aaa 15°**

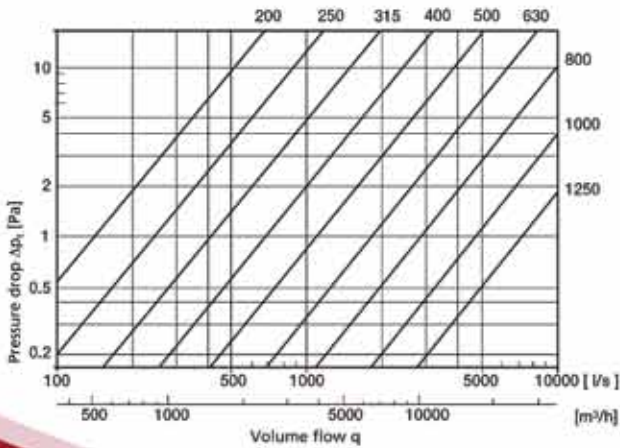
Tip \_\_\_\_\_

$\varnothing d_1$  \_\_\_\_\_

° \_\_\_\_\_

Contasız  
olarak da  
temin edilebilir.

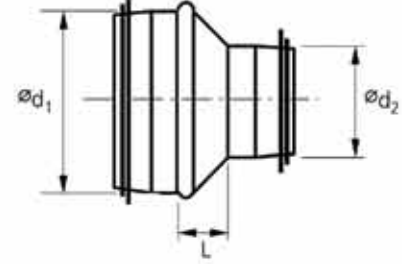
## Teknik Bilgi



# Redüksiyon RCPL



## Ölçüler



$\varnothing d_1$	$\varnothing d_2$ nom	L mm	kg
125	100	22	0.2
160	100	37	0.3
	125	26	0.2
200	100	58	0.4
	125	46	0.4
	160	26	0.3
250	125	70	0.5
	160	53	0.5
	200	31	0.6
315	160*	88	0.8
	200*	68	0.7
	250*	43	0.7
400	200*	103	1.4
	250*	78	1.3
	315*	45	1.3
500	250*	128	2.2
	315*	95	2.1
	400*	53	2.0
630	315*	160	3.2
	400*	118	3.1
	500*	68	2.7

## Tanım

RCPL = Centric

### Sipariş

Ürün kodu: RCPL aaa bbb

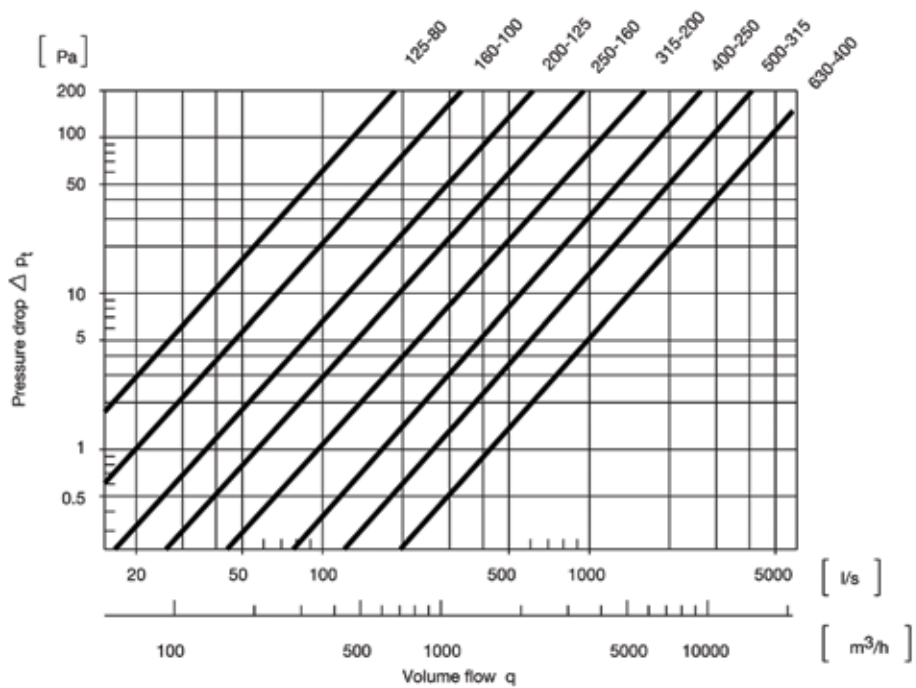
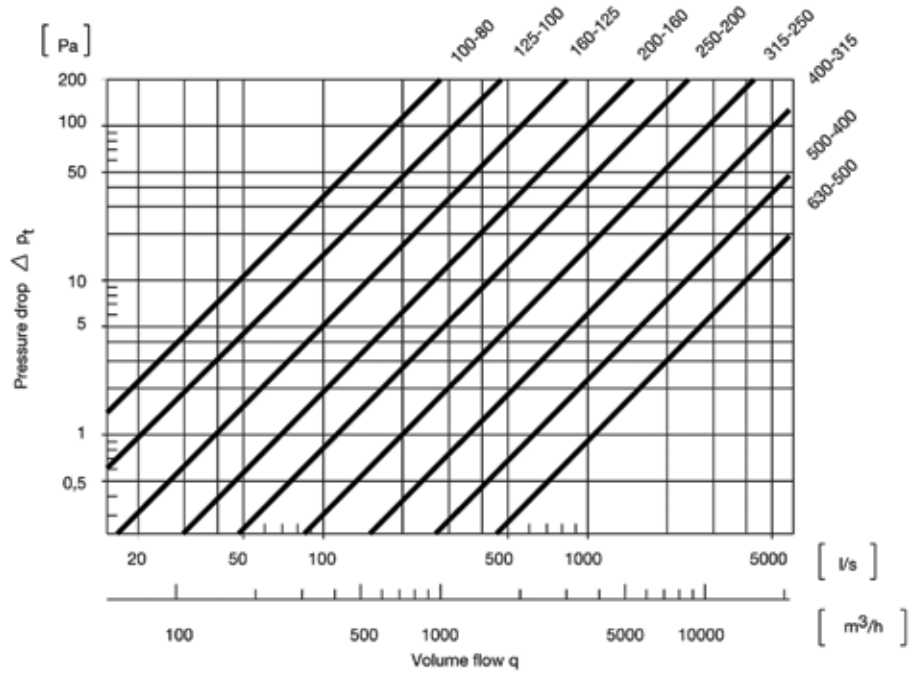
Tip \_\_\_\_\_  
 $\varnothing d_1$  \_\_\_\_\_  
 $\varnothing d_2$  \_\_\_\_\_

Contasız  
olarak da  
temin edilebilir.

\* Assembled, others fully pressed.

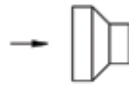
# Redüksiyon RCPL

## Teknik Bilgi

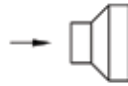
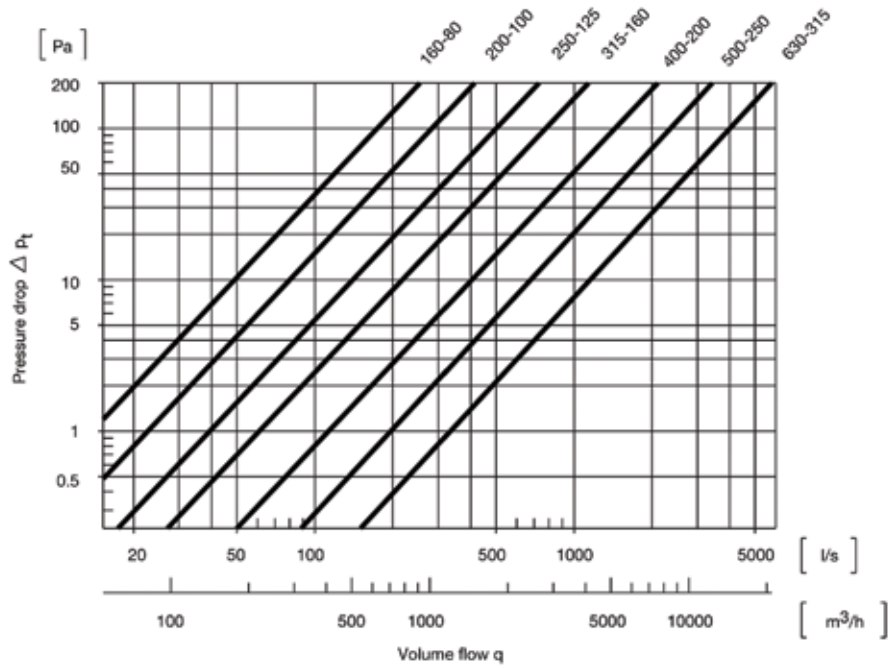


# Redüksiyon RCPL

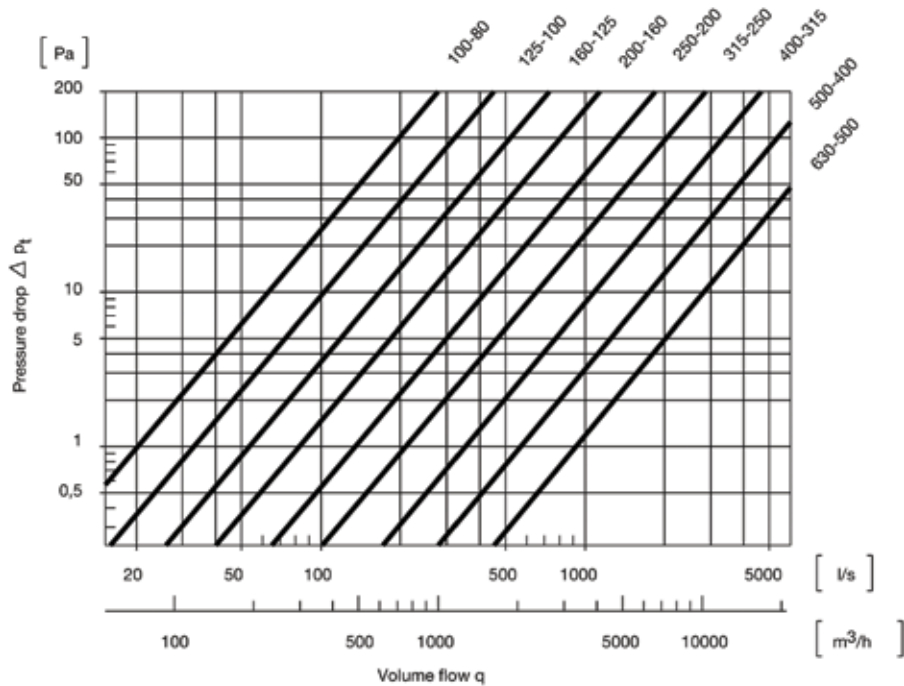
## Teknik Bilgi



RCPL 3 step reduction

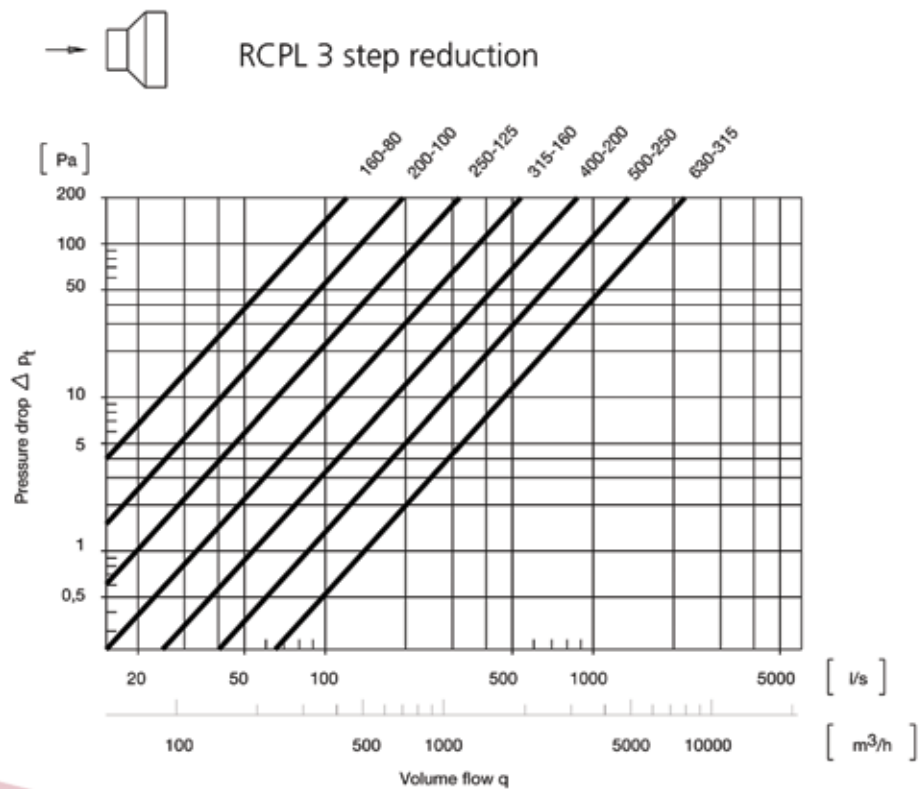
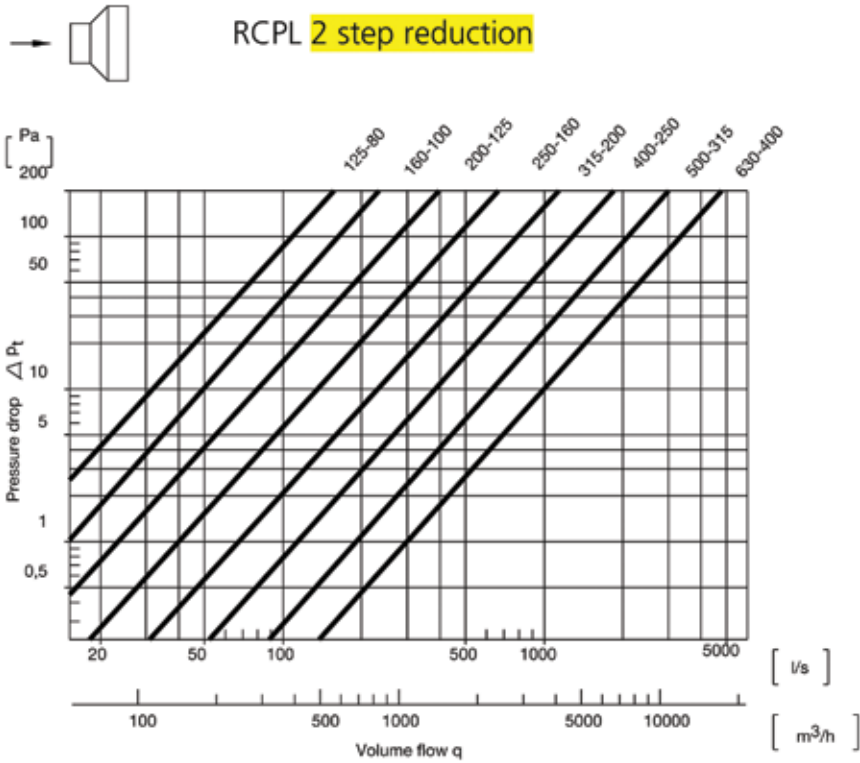


RCPL 1 step reduction



# Redüksiyon RCPL

## Teknik Bilgi



## Redüksiyon

# RCLL / RLL

### Teknik Bilgi



### Tanım

RCLL = Centric  
RLL = Eccentric

### Sipariş

Ürün kodu: **RLL** aaa bbb

Tip

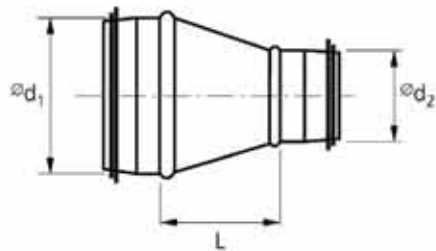
$\varnothing d_1$

$\varnothing d_2$

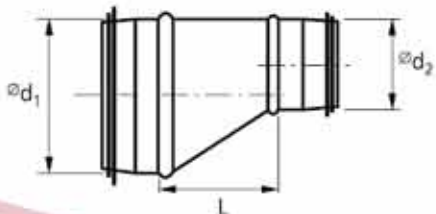
Contasız  
olarak da  
temin edilebilir.

### Ölçüler

RCLL



RLL



### Ölçüler

$\varnothing d_1$ nom	$\varnothing d_2$	L mm	kg
125	100	64	0.3
140	100	85	0.3
	125	51	0.3
150	100	99	0.4
	125	64	0.3
	140	44	0.3
160	100	112	0.5
	125	78	0.4
	140	57	0.4
	150	44	0.3
180	100	140	0.5
	125	106	0.5
	140	85	0.4
	150	71	0.4
	160	58	0.4
200	100	167	0.6
	125	133	0.6
	140	112	0.5

# Redüksiyon RCLL / RLL Ölçüler

$\alpha d_1$	$\alpha d_2$	L	kg
nom		mm	
200	150	99	0.5
	160	85	0.5
	180	58	0.4
224	100	200	0.7
	125	166	0.7
	140	145	0.7
	150	132	0.7
	160	118	0.6
	180	90	0.6
	200	63	0.5
250	100	236	1.0
	125	202	0.9
	140	181	0.9
	150	167	0.9
	160	154	0.9
	180	126	0.8
	200	99	0.8
	224	66	0.7
280	125	243	1.1
	140	222	1.1
	150	209	1.1
	160	195	1.1
	180	167	1.0
	200	140	1.0
	224	107	0.9
	250	71	0.8
300	125	270	1.3
	140	250	1.3
	150	236	1.2
	160	222	1.2
	180	195	1.2
	200	167	1.1
	224	135	1.0
	250	99	1.0
	280	58	0.9
315	125	291	1.4
	140	270	1.4
	150	257	1.4
	160	243	1.3
	180	216	1.3
	200	188	1.2
	224	155	1.1
	250	119	1.1
	280	78	1.0

$\alpha d_1$	$\alpha d_2$	L	kg
nom		mm	
315	300	51	0.9
355	160	298	1.7
	180	270	1.6
	200	243	1.6
	224	210	1.5
	250	174	1.5
	280	133	1.3
	300	106	1.2
	315	85	1.1
400	160	365	2.3
	180	337	2.2
	200	310	2.2
	224	277	2.1
	250	241	2.1
	280	200	2.0
	300	172	1.9
	315	152	1.8
	355	97	1.6
450	200	378	2.8
	224	346	2.7
	250	310	2.6
	280	269	2.5
	300	241	2.4
	315	221	2.3
450	355	166	2.1
	400	109	2.0
500	200	447	3.4
	224	414	3.3
	250	378	3.2
	280	337	3.1
	300	310	3.0
	315	289	3.0
	355	234	2.7
	400	177	2.6
	450	109	2.3
560	250	461	4.0
	280	420	3.8
	300	392	3.8
	315	371	3.7
	355	317	3.5
	400	260	3.4
	450	191	3.1
	500	122	2.7
600	250	516	4.6



## Redüksiyon

# RCLL / RLL

### Ölçüler

$^{\circ}d_1$	$^{\circ}d_2$	L	kg
nom		mm	
600	280	475	4.4
	300	447	4.3
	315	427	4.3
	355	372	4.0
	400	315	4.0
	450	246	3.6
	500	177	3.2
	560	95	2.6
630	250	557	5.6
	280	516	5.5
	300	488	5.4
	315	468	5.3
	355	413	5.0
	400	356	4.9
	450	287	4.4
	500	219	4.0
	560	136	3.3
	600	81	2.8
710	355	528	6.7
	400	471	6.6
	450	402	6.2
	500	333	5.7
	560	251	5.1
	600	196	4.6
	630	155	4.2
800	400	594	9.0
	450	526	8.5
	500	457	8.0
	560	375	7.4
	600	320	6.9
	630	279	6.5
	710	174	5.6
900	450	663	13.2
	500	594	12.6
	560	512	11.7
	600	457	11.0
900	630	416	10.5
	710	311	9.3
	800	187	7.8
1000	500	732	15.9
	560	649	15.0
	600	594	14.3
	630	553	13.8
	710	448	12.6

$^{\circ}d_1$	$^{\circ}d_2$	L	kg
nom		mm	
1000	800	325	11.1
	900	187	8.7
1120	560	814	21.2
	600	759	20.6
	630	718	20.0
	710	613	18.8
	800	490	17.3
	900	352	16.9
	1000	215	12.2
1250	600	938	26.0
	630	897	25.5
	710	792	24.4
	800	668	22.8
	900	531	20.4
	1000	393	17.7
	1120	229	15.8

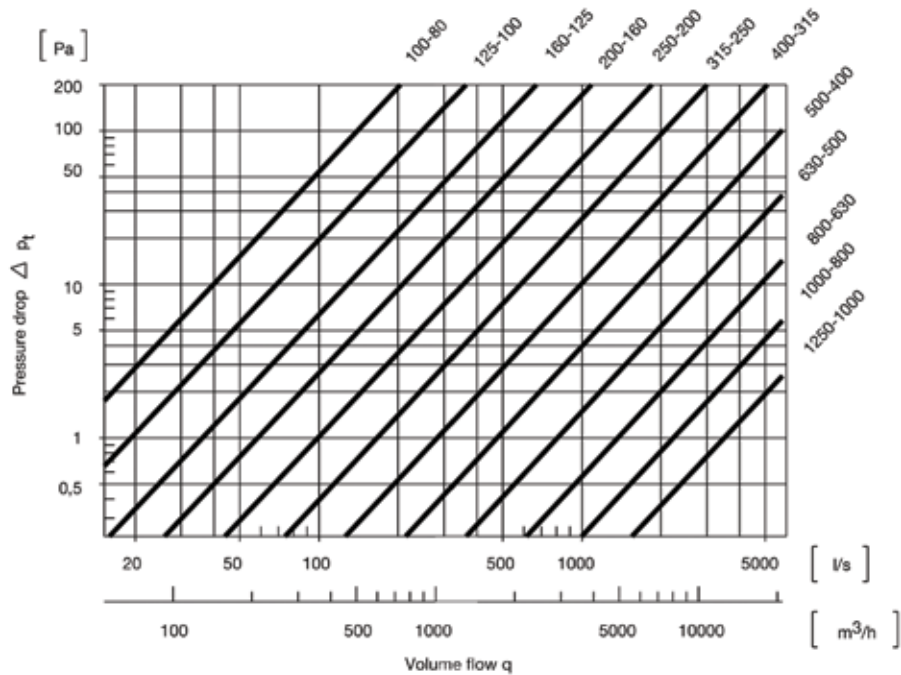
# Redüksiyon

## RCLL / RLL

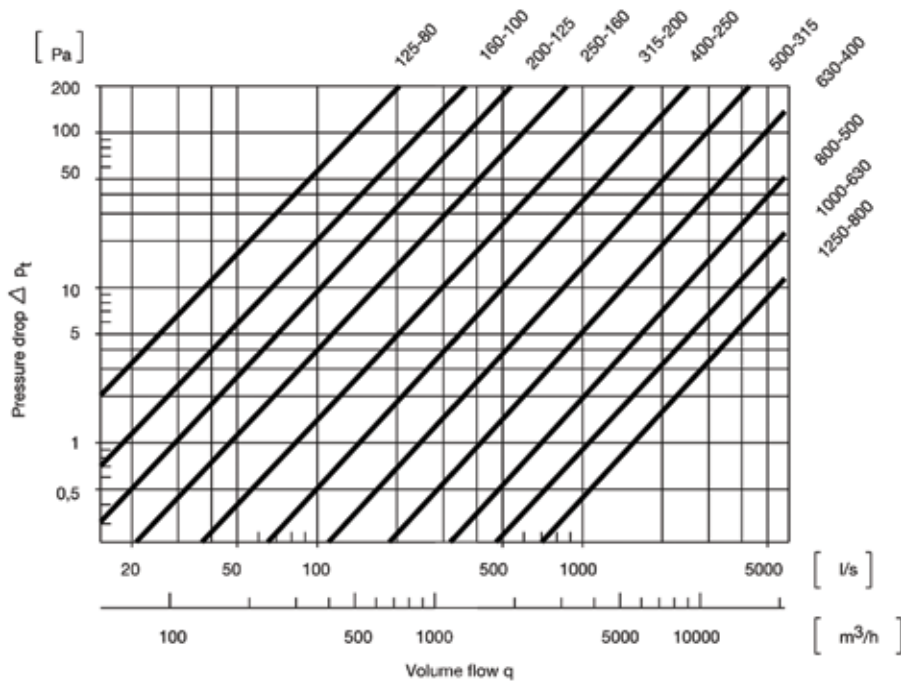
### Teknik Bilgi



RCLL 1 step reduction



RCLL 2 step reduction



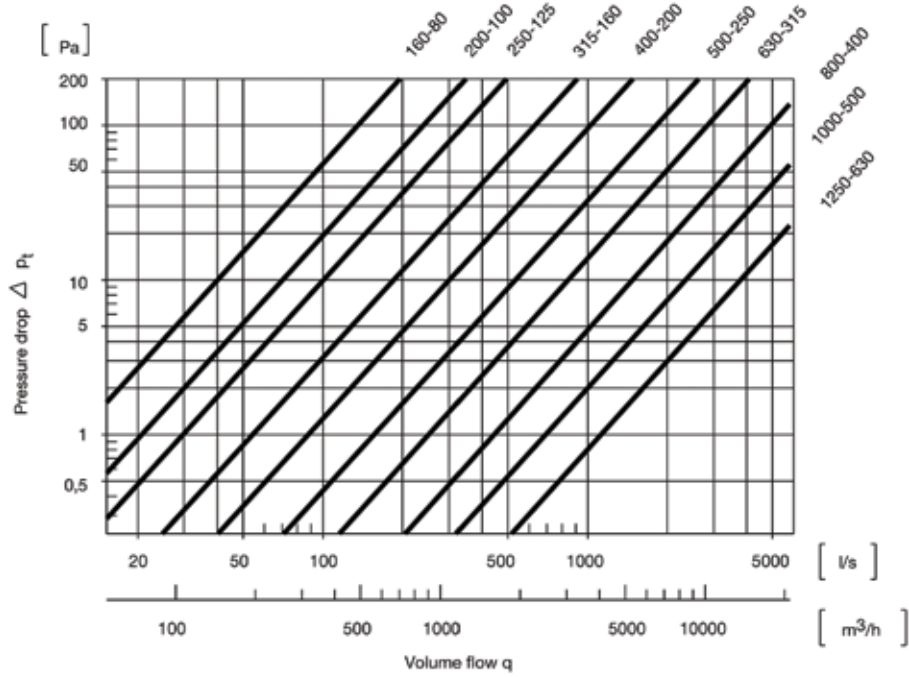
# Redüksiyon

## RCLL / RLL

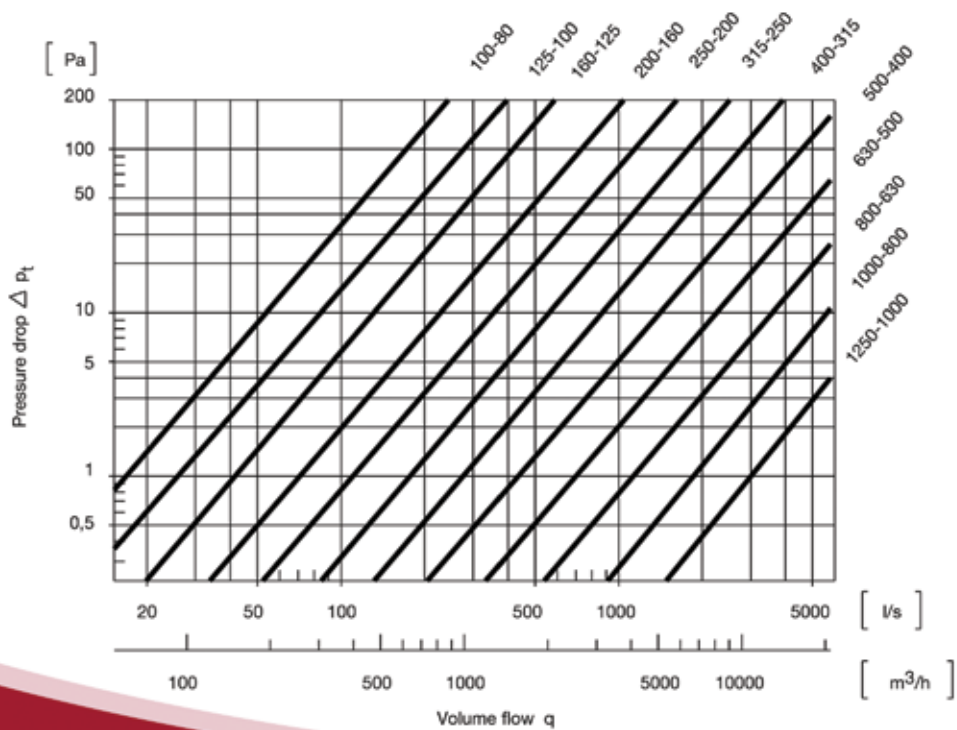
### Teknik Bilgi



RCLL 3 step reduction



RCLL 1 step reduction



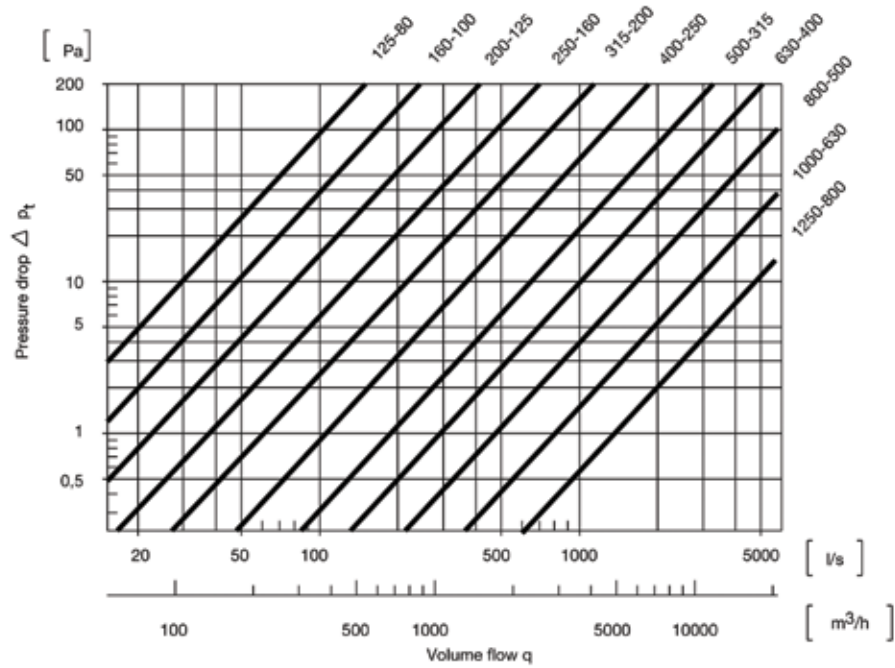
# Redüksiyon

## RCLL / RLL

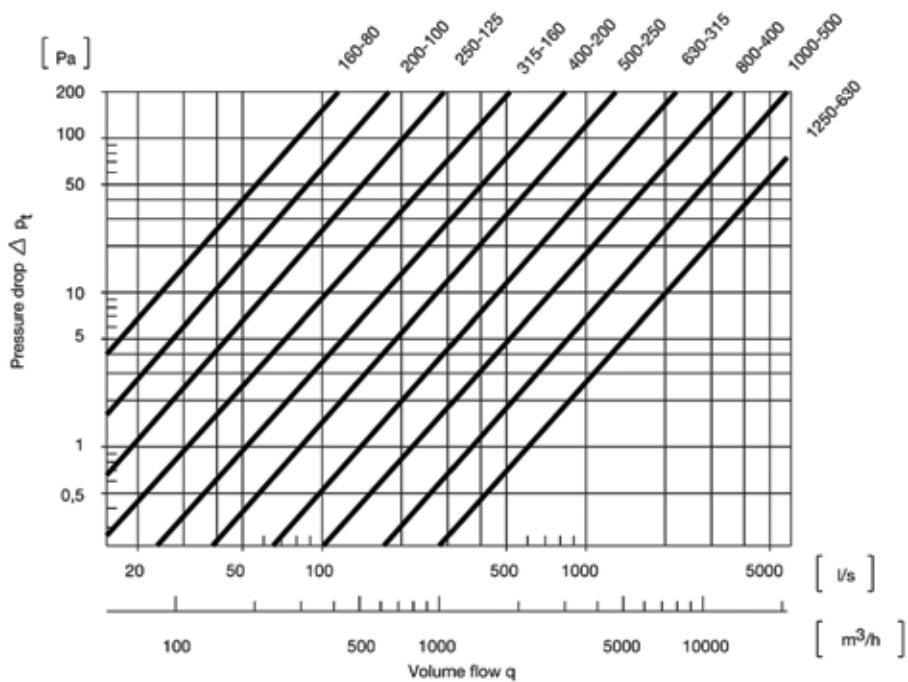
### Teknik Bilgi



RCLL 2 step reduction



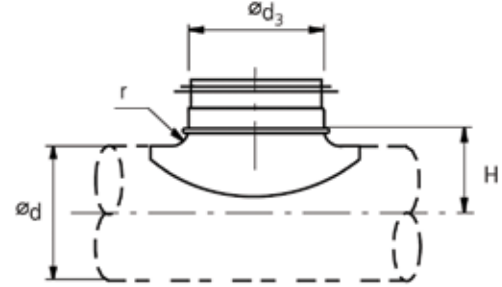
RCLL 3 step reduction



# Saplama PSL



## Ölçüler



$\varnothing d$	$\varnothing d_3$ nom	$r$ mm	$H$ mm	kg
100	100	15	65	0.2
125	100	15	78	0.2
	125	20	83	0.3
140	100	15	85	0.2
	140	20	90	0.3
150	100	15	90	0.2
	125	20	95	0.3
	140	20	95	0.3
	150	20	95	0.3
160	100	15	95	0.2
	125	20	100	0.3
	140	20	100	0.3
	150	20	100	0.3
	160	25	105	0.4
180	100	15	105	0.2
	125	20	110	0.3
	140	20	110	0.3
	150	20	110	0.3
	160	25	115	0.4
	180	25	115	0.5
200	100	15	115	0.2
	125	20	115	0.3
	140	20	120	0.3
	150	20	120	0.3
	160	25	125	0.4
	180	25	125	0.5
	200	25	125	0.5
224	100	15	127	0.2
	125	20	132	0.3
	140	20	132	0.3
	150	20	132	0.3
	160	25	137	0.4
	180	25	137	0.5
	200	25	137	0.5
	224	25	137	0.7

## Tanım

PSL = Pres olarak imal edilmiştir.

### Sipariş

Ürün Kodu: **PSL** **aaa** **bbb**

Tip \_\_\_\_\_

$\varnothing d$  \_\_\_\_\_

$\varnothing d_3$  \_\_\_\_\_

## Saplama

# PSL

### Ölçüler

$\varnothing d$ nom	$\varnothing d_3$	r mm	H mm	kg
250	100	15	140	0.2
	125	20	145	0.2
	140	20	145	0.3
	150	20	145	0.3
	160	25	150	0.4
	180	25	150	0.5
	200	25	150	0.5
	224	25	150	0.7
	250	25	150	0.9
280	100	15	155	0.2
	125	20	160	0.2
	140	20	160	0.3
	150	20	160	0.3
	160	25	165	0.4
	180	25	165	0.5
	200	25	165	0.5
	224	25	165	0.6
300	100	15	165	0.2
	100	15	165	0.2
	125	20	170	0.2
	140	20	170	0.3
	150	20	170	0.3
	160	25	175	0.3
	180	25	175	0.5
	200	25	175	0.5
	224	25	175	0.6
	250	25	175	0.7
	300	25	175	0.8
315	100	15	173	0.2
	125	20	178	0.2
	140	20	178	0.3
	150	20	178	0.3
	160	25	182	0.3
	180	25	182	0.5
	200	25	182	0.5
	224	25	182	0.6
	250	25	182	0.7
	300	25	182	1.3
	315	25	182	1.3
355	100	15	193	0.2
	125	20	198	0.2
	140	20	198	0.3
	150	20	198	0.3
	160	25	203	0.3

### Ölçüler

$\varnothing d$ nom	$\varnothing d_3$	r mm	H mm	kg
355	180	25	203	0.5
	200	25	203	0.5
	224	25	203	0.6
	250	25	203	0.7
	300	25	178	0.8
400	100	15	215	0.2
	125	20	220	0.2
	160	25	225	0.3
	200	25	225	0.5
	224	25	225	0.6
	250	25	225	0.7
	300	25	225	0.8
	315	25	225	1.0
	355	25	225	1.3
	400	25	225	2.0
450	100	15	240	0.2
	125	20	245	0.2
	160	25	250	0.3
	200	25	250	0.5
	224	25	250	0.6
	250	25	250	0.7
	300	25	225	0.8
	315	25	250	0.9
	400	25	250	1.6
500	100	15	265	0.2
	125	20	270	0.3
	160	25	275	0.3
	200	25	275	0.5
	250	25	275	0.7
	300	25	275	0.6
	315	25	275	0.9
	400	25	275	1.7
560	100	15	295	0.2
	125	20	300	0.2
	160	25	305	0.3
	200	25	305	0.5
	250	25	305	0.7
	300	25	280	0.8
	315	25	305	0.9
	400	25	305	1.7
600	100	15	315	0.2
	125	20	320	0.2
	160	25	325	0.3
	200	25	325	0.5

## Saplama

# PSL

## Ölçüler

$^{\circ}d$	$^{\circ}d_s$	$r$	$H$	$kg$
	<i>nom</i>	<i>mm</i>	<i>mm</i>	
600	250	25	325	0.5
	300	25	300	0.8
	315	25	325	0.9
	400	25	300	1.7
630	100	15	330	0.2
	125	20	335	0.2
	160	25	340	0.3
	200	25	340	0.5
	250	25	340	0.5
	300	25	315	0.8
	315	25	340	1.0
	400	25	340	1.7

## Saplama PSVL 45°



### Tanım

Yuvarlak kanala monte edilmek üzere  
45° saplama.

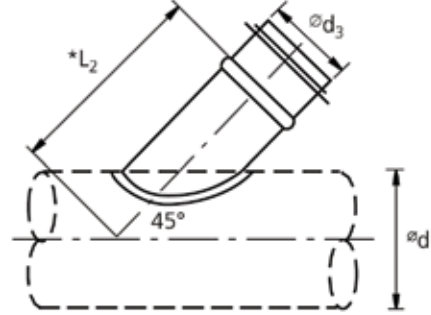
#### Sipariş

Ürün kodu: **PSVL 45°** **aaa** **bbb**

Tip \_\_\_\_\_  
 $\varnothing d$  \_\_\_\_\_  
 $\varnothing d_3$  \_\_\_\_\_

Contasız  
olarak da  
temin edilebilir.

### Ölçüler



$\varnothing d_3$	kg
100	0.3
125	0.5
140	0.5
150	0.6
160	0.7
180	0.8
200	1.1
224	1.3
250	1.6
280	2.0
300	2.3
315	2.6
355	3.0
400	3.5
450	4.8
500	5.5
560	6.2
600	6.9
630	9.7
710	11.6
800	13.4
900	15.5
1000	17.6
1120	20.3
1250	24.0

\*  $L_2$  ölçüsü için sayfa 50-53 deki TVL tablolar na bak n z.



Te

# TCPL /XCPL



## Tanım

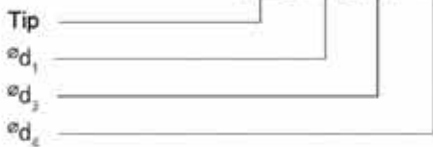
TCPL/XCPL = Assembled with pressed collar saddle.

XCPL:  $\varnothing d_4$  ,  $\varnothing d_3$  den farklı olabilir.

Basınç düşümü verileri için bkz. sayfa 42-44.

### Sipariş

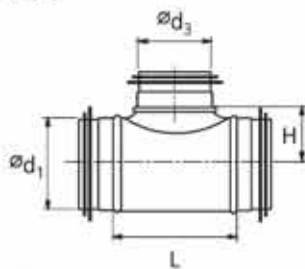
Ürün kodu: **XCPL aaa bbb ccc**



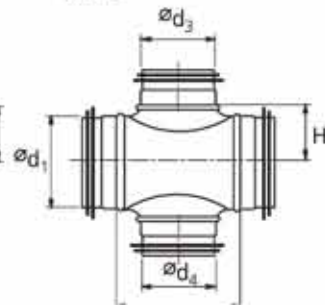
Çantasız olarak da temin edilebilir.

## Teknik Bilgi

TCPL



XCPL



## Ölçüler

$\varnothing d_1$	$\varnothing d_2 / \varnothing d_4$ nom	L mm	H mm	kg TCPL	kg XCPL
100	100	151	65	0.5	0.6
125	100	184	78	0.6	0.7
	125	184	83	0.7	0.8
140	100	175	85	0.6	0.7
	140	230	90	0.7	0.9
150	100	175	90	0.7	0.8
	125	215	95	0.8	1.0
	140	230	95	0.8	1.0
160	150	260	95	0.9	1.1
	100	184	95	0.7	0.8
	125	166	100	0.8	1.0
180	140	230	100	0.8	1.0
	150	260	100	0.9	1.1
	160	212	105	1.2	1.4
	100	175	105	0.8	0.9
200	125	215	110	0.9	1.1
	140	230	110	0.9	1.1
	150	260	110	0.9	1.1
	160	260	115	1.2	1.4
200	180	285	115	1.3	1.5
	100	175	115	1.0	1.1
	125	215	115	1.0	1.2
	140	230	120	1.0	1.2
	150	260	120	1.0	1.2
	160	212	125	1.2	1.4
	180	285	125	1.3	1.5
	200	252	125	1.4	1.6

## Te Parçası

# TCPL /XCPL

### Ölçüler

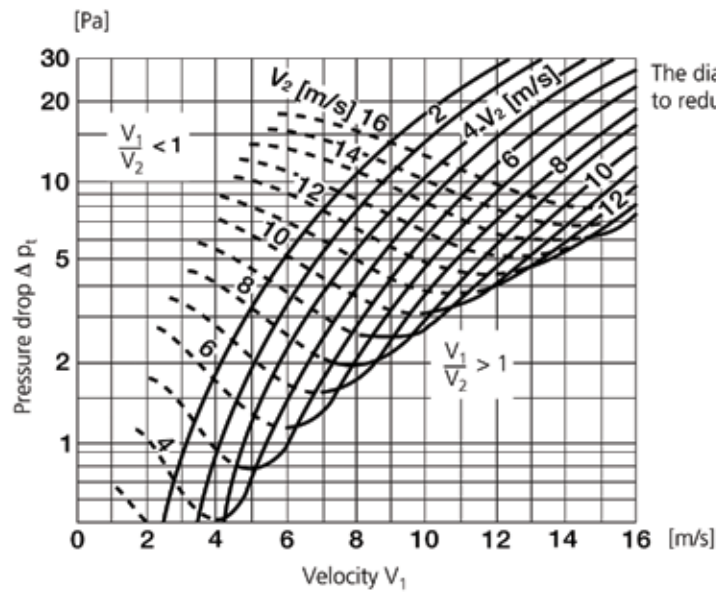
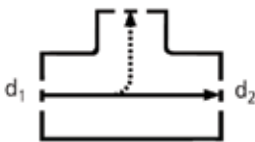
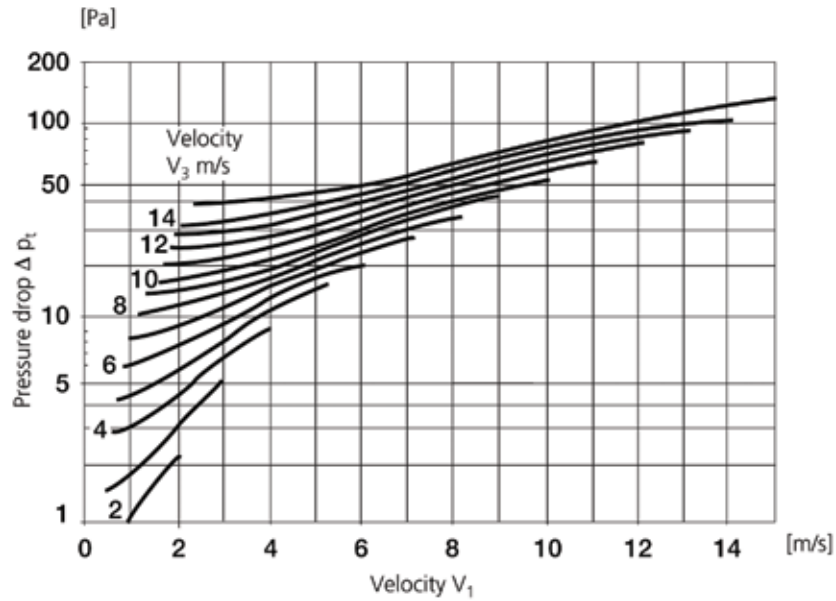
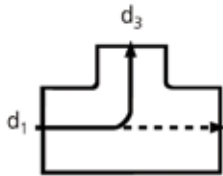
$^a d_1$	$^a d_2 / ^a d_3$	L	H	kg	kg
nom		mm	mm	TCPL	XCPL
224	100	175	127	1.1	1.2
	125	215	132	1.1	1.3
	140	230	132	1.1	1.3
	150	260	132	1.2	1.3
	160	260	137	1.2	1.4
	180	285	137	1.4	1.6
	200	346	137	1.4	1.6
	224	346	137	1.7	1.9
250	100	175	140	1.2	1.3
	125	220	145	1.3	1.5
	140	230	145	1.4	1.6
	150	255	145	1.4	1.6
	160	256	150	1.5	1.7
	180	306	150	1.7	1.9
	200	306	150	1.7	1.9
	224	350	150	2.0	2.2
	250	307	150	2.2	2.6
280	100	175	155	1.6	1.7
	125	220	160	1.6	1.8
	140	230	160	1.8	2.0
	150	255	160	1.8	2.0
	160	256	165	2.0	2.2
	180	306	165	2.1	2.3
	200	306	165	2.2	2.4
	224	350	165	2.4	2.6
300	100	175	165	1.7	1.8
	125	220	170	1.8	2.0
	140	230	170	1.9	2.1
	150	255	170	2.0	2.2
	160	256	175	2.0	2.2
	180	306	175	2.3	2.5
	200	306	175	2.3	2.5
	224	350	175	2.5	2.7
	250	350	175	2.7	3.1
315	100	175	173	1.7	1.8
	125	220	178	1.8	2.6
	140	230	178	2.0	2.2
	150	250	178	2.0	2.2
	160	256	182	2.0	2.2
	180	306	182	2.4	2.6
	200	306	182	2.4	2.6
	224	350	182	2.6	2.8
	250	350	182	2.9	3.3
	315	390	182	3.4	3.9

$^a d_1$	$^a d_2 / ^a d_3$	L	H	kg	kg
nom		mm	mm	TCPL	XCPL
355	100	175	193	1.9	2.0
	125	220	198	2.0	2.2
	160	256	203	2.2	2.4
	200	306	203	2.6	2.8
	224	350	203	2.8	3.0
	250	350	203	3.0	3.4
	315	455	203	3.5	4.0
400	100	175	215	2.4	2.5
	125	225	220	2.5	2.7
	160	266	225	2.8	3.0
	200	300	225	3.1	3.3
	224	350	225	3.3	3.5
	250	350	225	3.6	4.1
	315	415	225	4.1	4.6
	400	500	225	5.4	6.0
450	125	225	245	3.1	3.3
	160	266	250	3.5	3.7
	200	300	250	3.9	4.1
	250	350	250	4.4	4.9
	315	415	250	4.9	5.4
	400	500	250	6.0	6.6
500	125	225	270	3.5	3.7
	160	266	275	3.9	4.1
	200	300	275	4.4	4.6
	250	350	275	5.0	5.4
	315	415	275	5.8	6.3
	400	500	275	6.8	7.4
560	200	360	305	4.6	4.8
	250	400	305	5.1	5.5
	315	485	305	6.0	6.5
	400	590	305	7.2	7.8
600	200	360	325	4.8	5.0
	250	400	325	5.3	5.7
	315	485	325	6.2	6.7
	400	590	325	7.6	8.2
630	200	360	340	5.0	5.2
	250	400	340	6.0	6.4
	315	485	340	6.9	7.4
	400	590	340	8.3	8.9

# Te Parçası

## TCPL /XCPL

### Teknik Bilgi



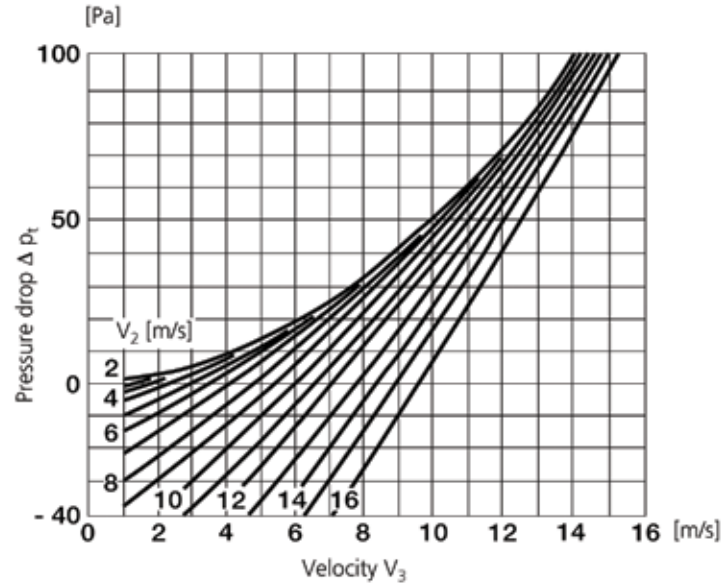
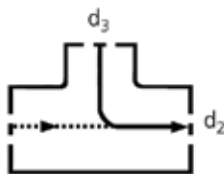
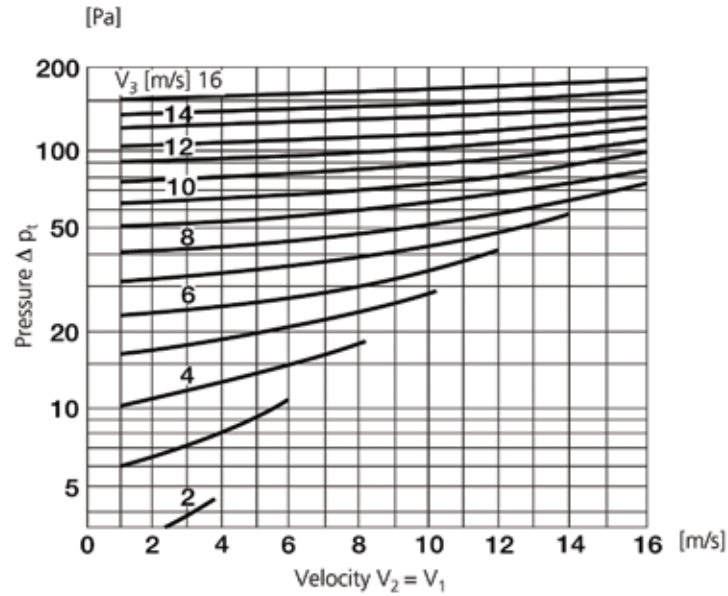
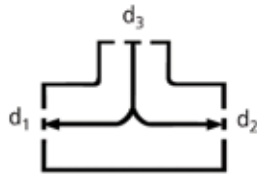
The diagram is also applicable to reduction in  $d_2$ .

$V_1$  = medium velocity in  $d_1$   
 $V_2$  = medium velocity in  $d_2$   
 $V_3$  = medium velocity in  $d_3$

# Te Parçası

## TCPL /XCPL

### Teknik Bilgi

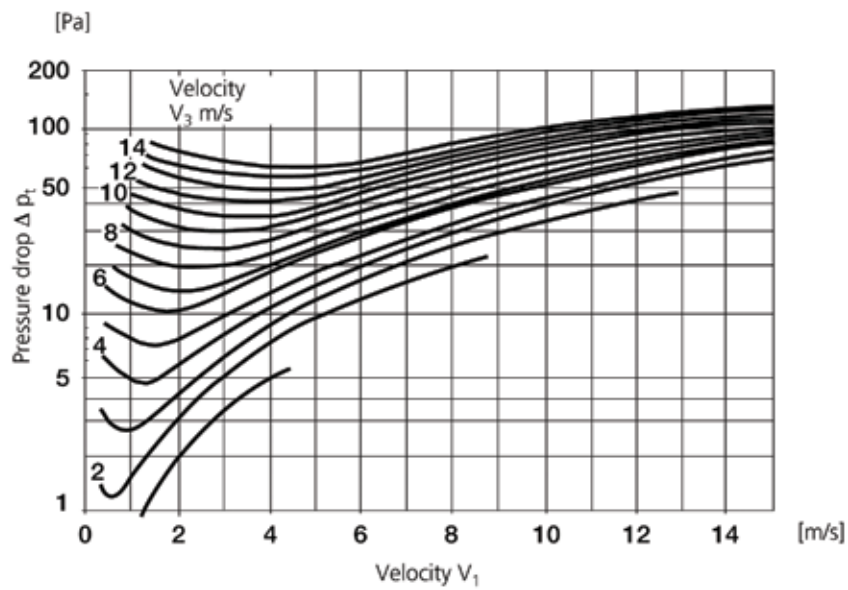
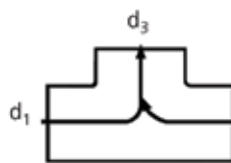
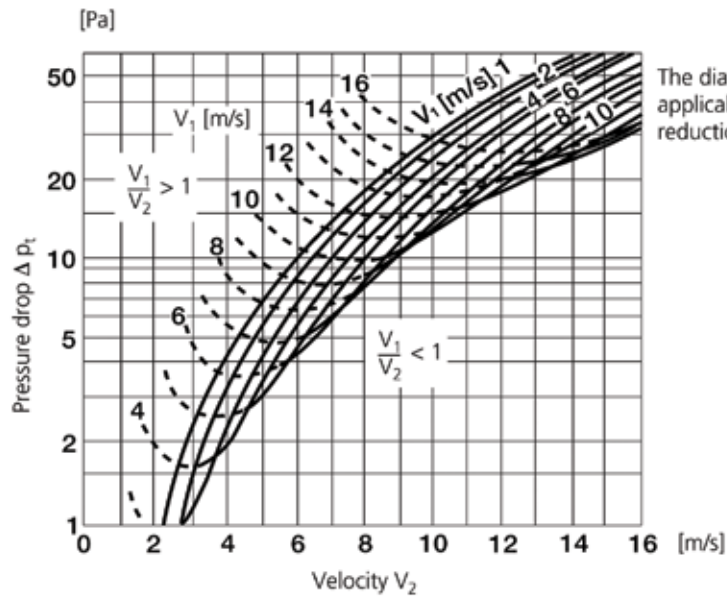
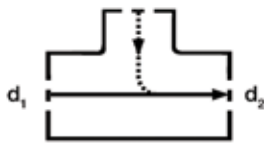


$V_1$  = medium velocity in  $d_1$   
 $V_2$  = medium velocity in  $d_2$   
 $V_3$  = medium velocity in  $d_3$

# Te Parçası

## TCPL /XCPL

### Teknik Bilgi



$V_1$  = medium velocity in  $d_1$   
 $V_2$  = medium velocity in  $d_2$   
 $V_3$  = medium velocity in  $d_3$

## Te Parçası

# TCL/TL/XCL/XL

**TCL**



**TL**



**XCL**



**XL**



### Tanım

TCL/XCL = Centric - TL/XL = Tangential  
Assembled with TSTCL/TSTL.

XCL/XL:  $\varnothing d_4$  ,  $\varnothing d_3$ 'den farklı olabilir.

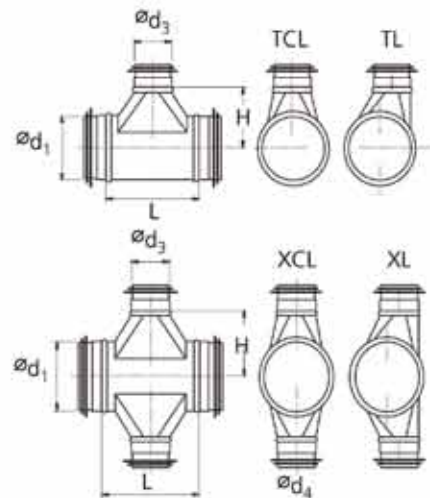
### Sipariş

Ürün kodu: **TCL** **aaa** **bbb**

Tip \_\_\_\_\_  
 $\varnothing d_1$  \_\_\_\_\_  
 $\varnothing d_3$  \_\_\_\_\_

Çantasız  
olarak da  
temin edilebilir

### Ölçüler



## Te Parçası

# TCL/TL/XCL/XL

### Ölçüler

$^{\circ}d_1$	$^{\circ}d_f^{\circ}d_2$ nom	L mm	H mm	kg TCL/TL	kg XCL/XL	
100	100	190	95	0.5	0.6	
	125	215	95	0.6	0.8	
	140	240	100	0.6	0.8	
	150	250	100	0.6	0.8	
	160	260	100	0.6	0.8	
125	100	190	110	0.6	0.7	
	125	215	110	0.7	0.8	
	140	240	115	0.7	0.8	
	150	250	115	0.7	0.8	
	160	260	115	0.8	1.0	
	180	280	115	0.8	1.0	
	200	330	130	1.0	1.3	
140	100	190	115	0.6	0.7	
	125	215	115	0.7	0.9	
	140	240	120	0.7	0.9	
	150	250	120	0.9	1.1	
	160	260	120	0.9	1.1	
	180	280	120	0.9	1.1	
	200	330	135	1.0	1.3	
	224	355	135	0.5	0.6	
	150	100	190	120	0.7	0.7
		125	215	120	0.8	0.9
140		240	125	0.8	0.9	
150		250	125	0.9	1.1	
160		260	125	0.9	1.1	
180		280	125	0.9	1.1	
200		330	140	1.1	1.3	
224		355	140	1.3	1.7	
250		380	140	1.5	2.1	
160		100	190	125	0.7	0.8
	125	215	125	0.8	1.0	
	140	240	130	0.8	0.9	
	150	250	130	0.9	1.1	
	160	260	130	0.9	1.1	
	180	280	130	1.0	1.1	
	200	330	145	1.1	1.3	
	224	355	145	1.3	1.7	
	250	380	145	1.6	2.1	
	180	100	190	135	0.8	1.0
125		215	135	0.9	1.0	
140		240	140	0.9	1.0	
150		250	140	1.0	1.2	
160		260	140	1.0	1.2	
180		280	140	1.1	1.3	

$^{\circ}d_1$	$^{\circ}d_f^{\circ}d_2$ nom	L mm	H mm	kg TCL/TL	kg XCL/XL
180	200	330	155	1.3	1.5
	224	355	155	1.4	1.7
	250	380	155	1.7	2.2
	280	430	165	1.9	2.6
	200	100	190	145	0.9
200	125	215	145	1.1	1.2
	140	240	150	1.1	1.2
	150	250	150	1.2	1.4
	160	260	150	1.2	1.4
	180	280	150	1.3	1.5
	200	330	165	1.5	1.7
	224	355	165	1.7	2.1
	250	380	165	1.8	2.3
	280	430	175	2.1	2.7
	300	450	175	2.2	2.9
224	315	465	175	2.3	2.9
	100	190	160	1.0	1.1
	125	215	160	1.2	1.3
	140	240	165	1.2	1.3
	150	250	165	1.3	1.3
	160	260	165	1.3	1.4
	180	280	165	1.4	1.6
	200	330	180	1.6	1.8
	224	355	180	1.8	2.1
	250	380	180	2.1	2.5
250	280	430	190	2.3	2.9
	300	450	190	2.3	2.9
	315	465	190	2.5	3.1
	355	525	200	2.8	3.5
	100	190	170	1.3	1.3
	125	215	170	1.4	1.5
	140	240	175	1.5	1.5
	150	250	175	1.6	1.7
	160	260	175	1.6	1.7
	180	280	175	1.7	1.9
280	200	330	190	1.8	2.0
	224	355	190	2.0	2.3
	250	380	190	2.3	2.7
	280	430	200	2.6	3.1
	300	450	200	2.7	3.3
	315	465	200	2.8	3.5
	355	525	210	3.1	3.9
	400	570	210	3.5	4.5

## Te Parçası

# TCL/TL/XCL/XL

### Ölçüler

$^{\circ}d_1$	$^{\circ}d_f^{\circ}d_s$ nom	L mm	H mm	kg TCL/TL	kg XCL/XL
280	100	190	185	1.5	1.6
	125	215	185	1.7	1.8
	140	240	190	1.8	2.0
	150	250	190	1.8	2.0
	160	260	190	1.8	2.0
	180	280	190	2.0	2.2
	200	330	205	2.1	2.4
	224	355	205	2.3	2.6
	250	380	205	2.6	3.0
	280	430	215	2.9	3.6
	300	450	215	3.1	3.7
	315	465	215	3.1	3.7
	355	525	225	3.5	4.3
	400	570	225	3.9	4.9
450	620	225	4.3	5.5	
300	100	190	195	1.6	1.7
	125	215	195	1.8	1.9
	140	240	200	1.9	2.1
	150	250	200	1.9	2.1
	160	260	200	1.9	2.1
	180	280	200	2.1	2.2
	200	330	215	2.2	2.4
	224	355	215	2.5	2.7
	250	380	215	2.8	3.3
	280	430	225	3.1	3.6
	300	450	225	3.2	3.7
	315	465	225	3.3	3.9
	355	525	235	3.6	4.3
	400	570	235	4.1	5.2
450	620	235	4.4	5.6	
315	100	190	205	1.7	1.7
	125	215	205	1.8	1.9
	140	240	210	2.0	2.1
	150	250	210	2.0	2.1
	160	260	210	2.0	2.1
	180	280	210	2.2	2.3
	200	330	225	2.3	2.5
	224	355	225	2.6	2.8
	250	380	225	2.9	3.4
	280	430	235	3.1	3.7
	300	450	235	3.3	3.8
	315	465	235	3.5	4.0
	355	525	245	3.8	4.6
	400	570	245	4.2	5.2

$^{\circ}d_1$	$^{\circ}d_f^{\circ}d_s$ nom	L mm	H mm	kg TCL/TL	kg XCL/XL	
450	620	245	4.6	5.8		
	500	680	250	5.1	6.4	
355	100	190	225	1.8	1.9	
	125	215	225	2.0	2.1	
	140	240	230	2.2	2.3	
	150	250	230	2.2	2.3	
	160	260	230	2.2	2.3	
	180	280	230	2.4	2.5	
	200	330	245	2.6	2.7	
	224	355	245	2.9	3.3	
	250	380	245	3.1	3.6	
	280	430	245	3.4	3.9	
	300	450	255	3.5	4.1	
	315	465	255	3.7	4.2	
	355	525	265	4.1	4.9	
	400	570	265	4.5	5.5	
450	620	265	5.0	6.1		
500	680	270	5.3	6.7		
560	740	270	6.0	7.5		
400	100	190	245	2.4	2.5	
	125	215	245	2.6	2.7	
	140	240	250	2.7	2.9	
	150	250	250	2.8	2.9	
	160	260	250	2.8	2.9	
	180	280	250	3.0	3.1	
	200	330	265	3.2	3.3	
	224	355	265	3.5	3.9	
	250	380	265	3.8	4.2	
	280	430	275	4.1	4.6	
	300	450	275	4.2	4.7	
	400	315	465	275	4.3	4.8
		355	525	285	4.8	5.3
		400	570	285	5.3	6.3
450		620	285	5.7	6.7	
500		680	290	6.2	7.3	
560		740	290	6.8	8.1	
600		780	290	7.1	8.6	
630		810	290	7.4	9.0	
450		125	215	270	3.3	3.4
		140	240	275	3.4	3.5
		150	250	275	3.6	3.7
		160	260	275	3.6	3.7
		180	280	275	3.8	3.8
		200	330	290	4.0	4.1



## Te Parçası

# TCL/TL/XCL/XL

### Ölçüler

$^{\circ}d_1$	$^{\circ}d_2$ <sup>nom</sup>	$^{\circ}d_3$ <sup>nom</sup>	L mm	H mm	kg TCL/TL	kg XCL/XL
450	224	355	290	4.4	4.6	
	250	380	290	4.7	5.0	
	280	430	300	5.0	5.4	
	300	450	300	5.3	5.7	
	315	465	300	5.4	5.8	
	355	525	310	5.8	6.3	
	400	570	310	6.0	7.1	
	450	620	310	6.9	7.6	
	500	680	315	7.4	8.2	
	560	740	315	8.0	9.0	
	600	780	315	8.4	9.4	
	630	810	315	8.7	9.8	
	710	890	315	9.8	11.4	
500	125	215	295	3.8	3.9	
	140	240	300	3.9	3.9	
	150	250	300	4.0	4.1	
	160	260	300	4.1	4.2	
	180	280	300	4.2	4.3	
	200	330	315	4.5	4.6	
	224	355	315	4.9	5.2	
	250	380	315	5.2	5.4	
	280	430	325	5.6	5.9	
	300	450	325	5.8	6.2	
	315	465	325	6.0	6.4	
	355	525	335	6.4	6.8	
	400	570	335	7.0	7.6	
	450	620	335	7.5	8.0	
	500	680	340	8.1	8.9	
	560	740	340	8.8	9.7	
	600	780	340	9.0	9.8	
500	630	810	340	9.5	10.5	
	710	890	340	10.7	12.1	
	800	980	340	11.7	13.4	
560	200	330	345	5.1	5.1	
	224	355	345	5.5	5.7	
	250	380	345	5.8	6.1	
	280	430	355	6.3	6.7	
	300	450	355	6.5	6.9	
	315	465	355	6.7	7.0	
	355	525	365	7.3	7.7	
	400	570	365	7.8	8.3	
	450	620	365	8.3	8.9	
	500	680	370	8.9	9.6	
	560	740	370	9.6	10.4	

$^{\circ}d_1$	$^{\circ}d_2$ <sup>nom</sup>	$^{\circ}d_3$ <sup>nom</sup>	L mm	H mm	kg TCL/TL	kg XCL/XL
560	600	780	370	10.1	11.0	
	630	810	370	12.1	13.8	
	710	890	370	13.1	15.8	
	800	980	370	14.3	17.5	
	900	1080	370	16.0	19.7	
600	200	330	365	5.5	5.5	
	224	355	365	5.9	6.1	
	250	380	365	6.2	6.4	
	280	430	375	6.7	7.0	
	300	450	375	6.9	7.2	
	315	465	375	7.0	7.4	
	355	525	385	7.7	8.1	
	400	570	385	8.2	8.7	
	450	620	385	8.8	9.3	
	500	680	390	9.5	10.2	
	560	740	390	10.1	10.8	
	600	780	390	10.6	11.3	
	630	810	390	12.3	14.3	
	710	890	390	13.7	16.4	
	800	980	390	15.1	18.0	
	900	1080	390	16.6	20.2	
630	200	330	380	5.8	5.9	
	224	355	380	6.1	6.3	
	250	380	380	6.5	6.8	
	280	430	390	7.1	7.4	
	300	450	390	7.3	7.6	
	315	465	390	7.4	7.8	
	355	525	400	8.1	8.5	
	400	570	400	8.8	9.3	
	450	620	400	9.3	9.9	
	500	680	405	10.0	10.7	
	560	740	405	10.0	11.1	
	600	780	405	11.0	14.3	
	630	810	405	14.6	15.6	
	710	890	405	16.2	17.6	
	800	980	405	17.7	19.4	
	900	1080	405	19.6	21.5	
	1000	1180	405	21.3	23.7	
710	250	380	420	7.7	8.0	
	280	430	420	8.3	8.6	
	300	450	430	8.5	8.8	
	315	465	430	8.7	9.0	
	355	525	440	9.4	9.8	
	400	570	440	10.1	10.8	

## Te Parçası

# TCL/TL/XCL/XL

### Ölçüler

$\varnothing d_1$	$\varnothing d_2/\varnothing d_3$ nom	L mm	H mm	kg TCL/TL	kg XCL/XL	
710	450	620	440	10.8	11.3	
	500	680	445	11.5	12.1	
	560	740	445	12.3	12.9	
	600	780	445	12.8	13.4	
	630	810	445	16.8	17.5	
	710	890	445	18.4	19.6	
	800	980	445	20.0	21.4	
	900	1080	445	21.9	23.4	
	1000	1180	445	23.8	25.7	
	1120	1300	445	26.8	29.7	
	800	250	380	465	8.7	9.0
		280	430	475	9.3	9.7
300		450	475	9.6	9.8	
315		465	475	9.7	10.0	
355		525	485	10.5	10.9	
400		570	485	11.3	11.8	
450		620	485	12.0	12.4	
500		680	490	12.8	13.3	
560		740	490	13.7	14.1	
600		780	490	14.2	14.7	
630		810	490	18.6	19.2	
710		890	490	20.4	21.4	
800		980	490	22.1	23.2	
900		1080	490	23.2	25.4	
1000		1180	490	26.1	27.6	
1120		1300	490	29.2	31.5	
1250		1430	490	32.0	34.9	
900		315	465	525	13.7	13.6
	355	525	535	14.6	14.4	
	400	570	535	15.6	15.4	
	450	620	535	16.4	16.1	
	500	680	540	17.5	17.1	
	560	740	540	18.4	17.8	
	600	780	540	19.2	18.5	
	630	810	540	21.2	21.6	
	710	890	540	23.0	23.9	
	800	980	540	24.8	25.7	
	900	1080	540	26.9	27.7	
	1000	1180	540	29.0	29.9	
	1120	1300	540	32.1	33.8	
	1250	1430	540	35.3	37.4	
	1000	315	465	575	15.4	15.4
355		525	585	16.4	16.3	
400		570	585	17.4	17.2	

$\varnothing d_1$	$\varnothing d_2/\varnothing d_3$ nom	L mm	H mm	kg TCL/TL	kg XCL/XL	
1000	450	620	585	18.4	18.1	
	500	680	590	19.5	19.0	
	560	740	590	20.6	19.9	
	600	780	590	21.3	20.5	
	630	810	590	23.3	23.7	
	1120	710	890	590	25.4	26.1
800		980	590	27.3	28.0	
900		1080	590	29.6	30.1	
1000		1180	590	31.8	32.5	
1120		1300	590	35.1	36.3	
1250		1430	590	38.3	39.7	
500		680	650	22.7	22.1	
		560	740	650	24.0	23.2
		600	780	650	24.8	23.8
		630	810	650	26.9	27.2
		710	890	650	29.1	29.6
		800	980	650	31.3	31.7
	900	1080	650	33.7	34.0	
	1000	1180	650	36.1	36.4	
	1120	1300	650	39.7	40.4	
	1250	1430	650	43.0	43.9	
	1250	500	680	715	25.5	24.9
		560	740	715	26.8	25.8
		600	780	715	27.8	26.7
	600	780	715	29.8	30.0	
		710	890	715	32.3	32.6
800		980	715	34.7	34.9	
900		1080	715	37.4	37.4	
1000		1180	715	40.0	39.9	
1120		1300	715	43.8	44.1	
1250	1250	1430	715	47.4	47.6	

## Te Parçası

# TVL 45°/XVL 45°



### Tanım

TVL 45°: Branch 45°  
istek üzerine : 15°, 30°, 60°  
örneğin: TVL 15° - d1- d3.  
XVL 45°: Branch 45°  
istek üzerine: 15 , 30 , 60  
örneğin: XVL 15° - d1- d3- d4.

### Sipariş

Ürün kodu: **TVL 45°** **aaa** **bbb**

Tip \_\_\_\_\_

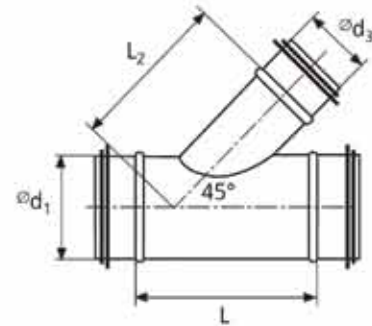
∅d<sub>1</sub> \_\_\_\_\_

∅d<sub>2</sub> \_\_\_\_\_

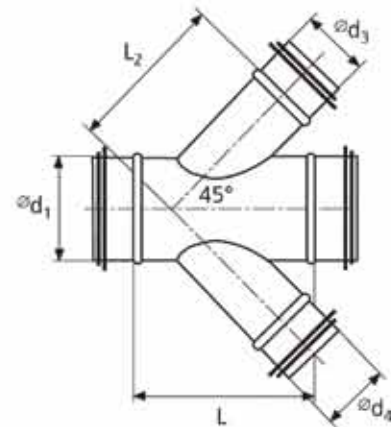
Çantasız  
olarak da  
temin edilebilir.

### Ölçüler

TVL 45°



XVL 45°



## Te Parçası

# TVL 45°/XVL 45°

### Ölçüler

$^{\circ}d_1$ nom	$^{\circ}d_2$	L mm	L <sub>2</sub> mm	kg TVL	kg XVL
80	80	250	165	0.7	0.8
100	80	250	180	0.8	0.9
	100	280	190	0.9	1.1
125	80	250	200	0.9	1.0
	100	280	210	1.1	1.3
	125	315	220	1.3	1.5
140	80	280	210	1.0	1.1
	100	305	220	1.2	1.4
	125	340	230	1.4	1.6
	140	365	250	1.6	1.9
150	80	280	215	1.1	1.2
	100	305	225	1.3	1.5
	125	340	240	1.5	1.7
	140	365	260	1.7	2.0
	150	380	265	1.8	2.1
160	80	280	220	1.1	1.2
	100	305	230	1.3	1.5
	125	340	245	1.5	1.7
	140	365	265	1.7	2.0
	150	380	270	1.8	2.1
	160	390	275	1.9	2.2
180	80	280	235	1.2	1.3
	100	305	245	1.4	1.6
	125	340	260	1.6	1.8
	140	365	280	1.9	2.2
	150	380	285	2.0	2.3
	160	390	290	2.1	2.4
	180	420	300	2.3	2.7
200	80	280	250	1.3	1.4
	100	305	260	1.5	1.7
	125	340	270	1.8	2.0
	140	365	295	2.0	2.3
	150	380	300	2.1	2.4
	160	390	305	2.2	2.5
	180	420	315	2.5	2.9
	200	450	325	2.8	3.3
224	100	305	275	1.7	1.9
	125	340	290	1.9	2.1
	140	365	310	2.2	2.5
	150	380	315	2.3	2.6
	160	390	320	2.4	2.7
	180	420	330	2.7	3.1
	200	450	340	3.0	3.5
	224	480	350	3.2	3.8

$^{\circ}d_1$ nom	$^{\circ}d_2$	L mm	L <sub>2</sub> mm	kg TVL	kg XVL
250	100	305	295	2.1	2.3
	125	340	310	2.3	2.5
	140	365	330	2.6	2.9
	150	380	335	2.8	3.1
	160	390	340	2.8	3.1
	180	420	350	3.0	3.4
	200	450	360	3.4	3.9
	224	480	370	3.6	4.2
	250	520	385	4.1	4.8
280	125	370	330	2.7	2.9
	140	390	350	2.9	3.2
	150	405	355	3.0	3.3
	160	420	360	3.1	3.4
	180	445	370	3.4	3.8
	200	475	380	3.8	4.3
	224	510	390	4.0	4.6
	250	545	405	4.5	5.2
	280	590	435	5.1	5.9
300	125	370	350	3.1	3.3
	140	390	365	3.4	3.7
	150	405	370	3.6	3.9
	160	420	375	3.7	4.0
	180	445	385	4.0	4.4
	200	475	395	4.4	4.9
	224	510	405	4.7	5.3
	250	545	420	5.2	5.9
	280	590	450	5.9	6.7
	300	615	460	6.7	7.6
	140	390	375	3.8	4.1
	150	405	380	4.0	4.3
	160	420	385	4.1	4.4
	180	445	395	4.4	4.8
315	200	475	405	4.9	5.4
	224	510	415	5.2	5.8
	250	545	430	5.8	6.5
	280	590	460	6.5	7.3
	300	615	470	7.0	7.9
	315	640	480	7.3	8.3
355	150	405	410	4.4	4.7
	160	420	415	4.5	4.8
	180	445	425	4.8	5.2
	200	475	435	5.4	5.9
	224	510	445	5.6	6.2
	250	545	460	6.3	7.0

## Te Parçası

# TVL 45°/XVL 45°

### Ölçüler

$^{\circ}d_1$ nom	$^{\circ}d_3$	L mm	L <sub>2</sub> mm	kg TVL	kg XVL
355	280	590	490	7.1	7.9
	300	615	500	7.5	8.4
	315	640	505	7.8	8.8
	355	695	525	8.8	10.0
400	160	420	445	5.3	5.6
	180	445	455	5.6	6.0
	200	475	465	6.2	6.7
	224	510	475	6.5	7.1
	250	545	490	7.1	7.8
	280	590	520	8.0	8.8
	300	615	530	8.5	9.4
	315	640	535	8.8	9.8
	355	695	555	9.8	11.0
	400	760	580	11.2	12.7
450	180	445	490	6.3	6.7
	200	475	500	6.9	7.4
	224	510	510	7.2	7.8
	250	545	525	7.9	8.6
	280	590	555	8.7	9.5
	300	615	565	9.2	10.1
	315	640	570	9.6	10.6
	355	695	590	10.6	11.8
	400	760	615	12.1	13.6
	450	830	640	13.5	15.5
500	200	475	535	7.5	8.0
	224	510	550	7.8	8.4
	250	545	560	8.6	9.3
	280	590	560	9.5	10.3
	300	615	600	10.0	10.9
	315	640	610	10.4	11.4
	355	695	630	11.5	12.7
	400	760	650	13.0	14.5
	450	830	675	14.5	16.5
	500	900	700	16.1	18.6
560	224	565	590	9.2	9.8
	250	600	605	10.0	10.7
	280	640	630	10.8	11.6
	300	665	640	11.4	12.3
	315	690	650	11.8	12.6
	355	750	670	13.0	14.2
	400	810	690	14.5	16.0
	450	880	715	16.1	18.1
	500	950	740	17.8	20.3
	560	1040	800	20.4	23.4

$^{\circ}d_1$ nom	$^{\circ}d_3$	L mm	L <sub>2</sub> mm	kg TVL	kg XVL
600	250	600	630	11.5	12.2
	280	640	655	12.5	13.3
	300	665	665	13.1	14.0
	315	690	675	13.6	14.6
	355	750	695	15.1	16.3
	400	810	715	16.7	18.2
	450	880	740	18.4	20.4
	500	950	765	20.5	23.0
	560	1040	825	23.4	26.4
	600	1090	850	25.8	29.3
630	280	640	680	14.0	14.8
	300	665	690	14.6	15.6
	315	690	700	15.1	16.1
	355	750	720	16.8	18.0
	400	810	740	18.7	20.2
	450	880	765	20.6	22.6
	500	950	790	22.7	25.2
	560	1040	850	25.8	28.8
	600	1090	870	27.8	31.3
	630	1140	885	29.2	33.4
710	300	665	745	16.9	17.8
	315	690	755	17.4	18.4
	355	750	775	19.1	20.3
	400	810	800	21.0	22.5
	450	880	825	23.2	25.2
	500	950	850	25.4	27.9
	560	1040	905	28.6	31.6
	600	1090	925	30.6	34.1
	630	1140	940	32.2	36.4
	710	1250	980	36.7	41.7
800	315	690	820	19.2	20.2
	355	750	840	21.0	22.2
800	400	810	860	23.1	24.6
	450	880	885	25.4	27.4
	500	950	910	27.7	30.2
	560	1040	970	31.2	34.2
	600	1090	990	33.9	37.4
	630	1140	1005	34.9	39.1
	710	1250	1045	39.6	44.6
	800	1380	1090	45.0	51.0
900	355	750	910	26.2	27.4
	400	810	935	28.8	30.3
	450	880	960	31.5	33.5
	500	950	985	34.4	36.9

## Te Parçası

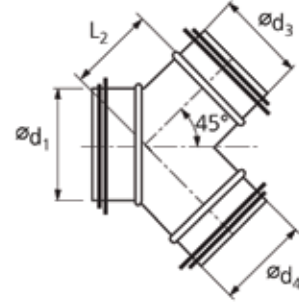
# TVL 45°/XVL 45°

### Ölçüler

$d_1$ nom	$d_2$	L mm	L <sub>2</sub> mm	kg TVL	kg XVL
900	560	1040	1040	38.6	41.6
	600	1090	1060	41.1	44.6
	630	1140	1075	43.1	47.3
	710	1250	1115	48.7	53.7
	800	1380	1160	55.2	51.2
	900	1520	1210	62.7	69.7
1000	400	810	1005	31.5	33.0
	450	880	1030	34.4	36.4
	500	950	1055	37.5	40.0
	560	1040	1110	41.8	44.8
	600	1090	1130	44.5	48.0
	630	1140	1145	46.5	50.7
	710	1250	1185	52.5	57.5
	800	1380	1230	59.3	65.3
	900	1520	1280	67.2	74.2
	1000	1660	1330	75.5	83.5
1120	500	1005	1140	49.0	51.0
	560	1090	1195	54.3	57.3
	600	1140	1215	57.4	60.9
	630	1190	1230	60.0	64.2
	710	1305	1270	67.1	72.1
	800	1430	1315	75.2	81.2
	900	1570	1365	84.6	91.6
	1000	1710	1415	94.4	102.4
	1120	1880	1505	109.0	118.0
1250	500	1005	1230	53.6	56.1
	560	1090	1290	59.3	62.3
	600	1140	1310	62.8	66.3
	630	1190	1325	65.4	69.6
	710	1305	1365	73.0	78.0
	800	1430	1410	81.5	87.5
	900	1570	1460	91.5	98.5
	1000	1710	1510	101.8	109.8
	1120	1880	1595	117.0	126.0
	1250	2065	1660	132.3	142.3

# Te Çatal YVL 45°

## Ölçüler



## Tanım

45° Te çatal  
istek üzerine: 15°, 30°, 60°  
örneğin YVL 15°- d1- d3- d4.  
Sipariş verirken aşığı ve çapı belirtiniz.

### Sipariş

Ürün kodu: **YVL45°** **aaa** **bbb** **ccc**  
Tip \_\_\_\_\_  
ød<sub>1</sub> \_\_\_\_\_  
ød<sub>3</sub> \_\_\_\_\_  
ød<sub>4</sub> \_\_\_\_\_

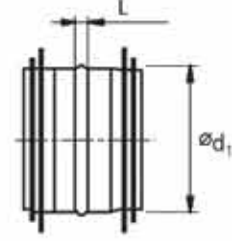
Contasız  
olarak da  
temin edilebilir.

ød <sub>1</sub> nom	ød <sub>3</sub> nom	ød <sub>4</sub> nom	L <sub>2</sub> mm	kg
100	100	100	140	1.0
125	125	125	170	1.3
140	100	100	185	1.4
150	100	100	190	1.5
160	112	112	195	1.6
160	160	160	205	1.8
180	125	125	215	1.8
200	140	140	230	2.1
250	180	180	280	3.5
280	200	200	310	3.6
300	200	200	320	4.2
315	224	224	335	4.4
355	250	250	365	5.0
400	280	280	400	6.8
400	300	300	410	7.0
450	315	315	440	8.5
500	355	355	490	9.8
560	400	400	550	12.1
600	400	400	580	13.2
630	450	450	610	15.6
710	500	500	670	18.7
800	560	560	740	22.7
900	630	630	825	24.8
1000	710	710	920	30.5
1120	800	800	1030	38.0
1250	900	900	1150	50.0

# Manşon NPL



## Ölçüler



$\varnothing d_1$ nom	L mm	kg
100	8	0.1
125	8	0.2
140	8	0.2
150	8	0.2
160	8	0.2
180	8	0.3
200	10	0.3
224	10	0.3
250	10	0.5
280	10	0.5
300	10	0.6
315	10	0.6
355	10	0.7
400	10	1.3
450	10	1.4
500	10	1.6
560	12	1.8
600	12	1.9
630	12	2.0
710	15	2.7
800	15	3.9
900	15	4.4
1000	15	4.9
1120	15	9.0
1250	15	10.0

## Tanım

NPL manşonlar ile SPIRO®system kanalları birleştirilir.

### Sipariş

Ürün kodu: **NPL** **aaa**

Tip

$\varnothing d_1$

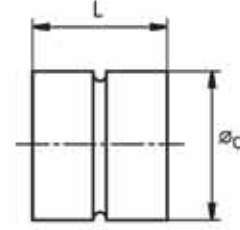
Contasız  
olarak da  
temin edilebilir.



## Dişi Manşon MF



### Ölçüler



$\varnothing d$ nom	L mm	kg
100	90	0.1
125	90	0.2
140	90	0.2
150	90	0.2
160	90	0.2
180	90	0.3
200	90	0.3
224	90	0.3
250	135	0.5
280	135	0.5
300	135	0.6
315	135	0.6
355	135	0.7
400	175	1.3
450	175	1.4
500	175	1.6
560	175	1.8
600	175	1.9
630	175	2.0
710	215	2.7
800	215	3.9
900	260	4.4
1000	260	4.9
1120	330	9.0
1250	330	10.0

### Tanım

MF fittingsleri birleştirmek için kullanılır.

#### Sipariş

Ürün kodu: MF aaa  
Tip \_\_\_\_\_  
 $\varnothing d$  \_\_\_\_\_

Çantasız  
olarak da  
temin edilebilir.

# Gönye Manşon ILL



## Tanım

ILL without radius. Fits ducts.

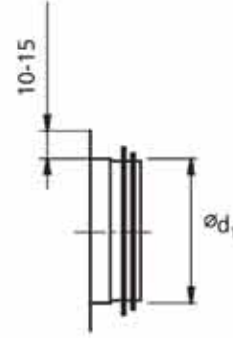
### Sipariş

Ürün kodu: **ILL aaa**

Tip \_\_\_\_\_  
Ød<sub>1</sub> \_\_\_\_\_

Çentiksiz  
olarak da  
temin edilebilir.

## Ölçüler

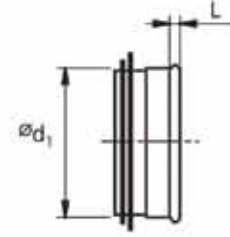


Ød <sub>1</sub> nom	kg
100	0.1
125	0.1
140	0.1
150	0.1
160	0.1
180	0.1
200	0.2
224	0.2
250	0.3
280	0.3
300	0.3
315	0.3
355	0.4
400	0.6
450	0.7
500	0.8
560	0.9
600	1.0
630	1.0
710	1.4
800	2.0
900	2.2
1000	2.4
1120	4.5
1250	5.0

## Kör Tapa ESL



## Ölçüler



$\varnothing d_1$ nom	L mm	kg
100	10	0.1
125	10	0.1
140	10	0.1
150	10	0.2
160	10	0.2
180	10	0.3
200	10	0.3
224	10	0.3
250	10	0.6
280*	4	0.6
300	10	0.7
315	10	0.9
355	10	1.2
400	12	1.2
450*	4	1.8
500	12	1.7
560*	4	2.2
600*	4	2.6
630*	4	2.8
710*	4	4.5
800*	4	5.4
900*	4	6.6
1000*	4	7.9
1120*	4	10.1
1250*	4	12.2

## Tanım

ESL kanallara monte edilir.

### Sipariş

Ürün kodu: **ESL aaa**

Tip \_\_\_\_\_

$\varnothing d_1$  \_\_\_\_\_

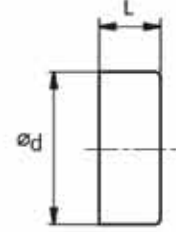
Çantasız  
olarak da  
temin edilebilir.

\*) Assembled, remaining dimensions pressed.

# Kör Tapa EPF



## Ölçüler



Ød nom	L mm	kg
100	40	0.1
125	40	0.1
140	40	0.1
150	40	0.2
160	40	0.2
180	40	0.2
200	40	0.3
224	40	0.3
250	60	0.5
280	60	0.5
300	60	0.5
315	60	0.7
355	60	1.0
400	80	1.1
450	80	1.6
500	80	2.1
560	80	2.2
600	80	2.5
630	80	2.7
710	100	4.5
800	100	5.4
900	125	6.6
1000	125	7.9
1120	160	10.1
1250	160	12.2

## Tanım

EPF fittingslerin dışına monte edilir.

### Sipariş

Ürün kodu:

EPF aaa

Tip

Ød

Çantasız  
olarak da  
temin edilebilir.

Ø100 - 400 pressed

Ø450 - 1250 assembled

## Damper DSL



### Tanım

DSL, hava akımının tamamen kesilmesi gerekmeyen durumlarda kullanılan bir kapama damperidir. Damper yuvası üzerinde, damper kanadının  $0^{\circ}$ - $90^{\circ}$  arasındaki konumunu gösteren işaretler bulunmaktadır. Damper kanadı vidalarla sabitlenebilir. Damper yuvası 50mm'ye kadar izolasyon malzemesine uygundur.

### Sipariş

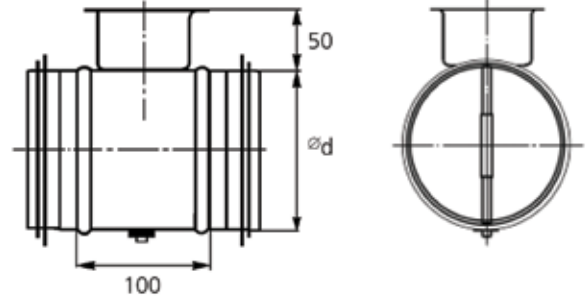
Ürün kodu: **DSL** .aaa

Tip \_\_\_\_\_

$\varnothing d_1$  \_\_\_\_\_

Contasız  
olarak da  
temin edilebilir.

### Ölçüler



$\varnothing d_1$ nom	kg
100	0.5
125	0.6
140	0.7
150	0.7
160	0.8
180	1.0
200	1.1
224	1.2
250	1.5
280	1.7
300	1.7
315	2.0
355	2.2
400	2.7
450	3.3
500	3.8
560	4.3
600	5.1
630	5.8

## Dairesel Susturucu

# SLL/SLBL/SLGL/SLBGL

## Teknik Bilgi

### Tasarım

Dairesel susturucuların dışı spiral dikişli boru ve içi perfore çelik saç keson olarak tasarlanmıştır. Aradaki boşluk ses emici cam/taş yünü wool ile doldurulmuştur. Perfore çelik saç ile akustik izolasyon malzemesi arasında cam/taş yünü kanalına girmesini engellemek için polyester bir doku bulunmaktadır.

### Bağlantı

Dairesel susturucular standart olarak SPIRO®system ile birlikte verilir. NPL tipi,  $d_1 = 315$  mm manşon verilir.

### Ölçüler

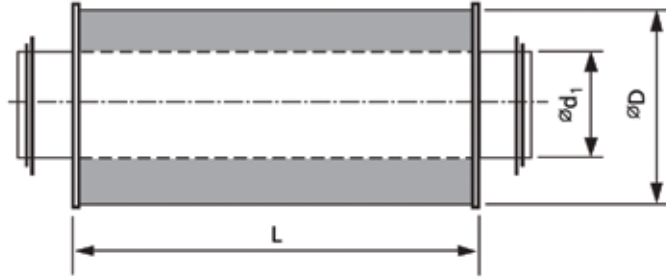
Dairesel susturucular 100-800mm arası bağlantı ölçülerinde ve bu ölçülere bağlı olarak, 300, 600, 900, 1200 ve 1500 mm gibi standart uzunluklarda mevcuttur.

### Teknik Bilgi

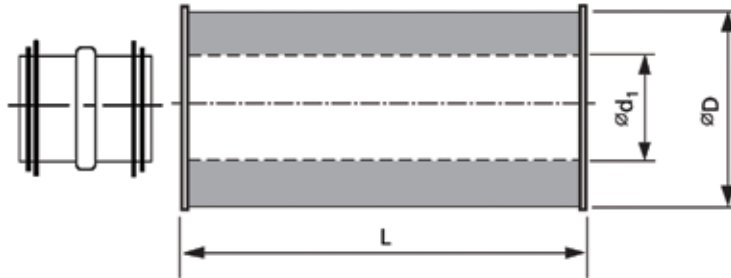
Her bir tip için, ilgili ölçü, ağırlık, ses seviyesi ve basınç düşümü bölümlerine bakınız.

## Ölçüler

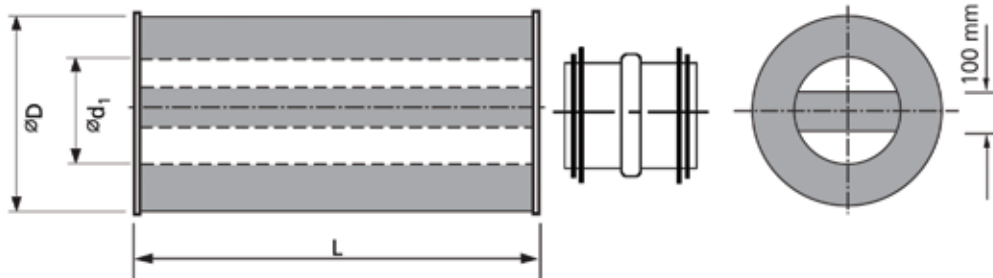
SLL, SLGL,  $d_1 < 315$  mm



SLL, SLGL,  $d_1 \geq 315$  mm



SLBL, SLBGL



## Dairesel Susturucu SLL

### Tanım

315 mm ve daha büyük çaplarda çift taraflı erkek NPL bağlantılı olarak imal edilir. Akustik izolasyon için kayayünü kullanılır.



### Sipariş

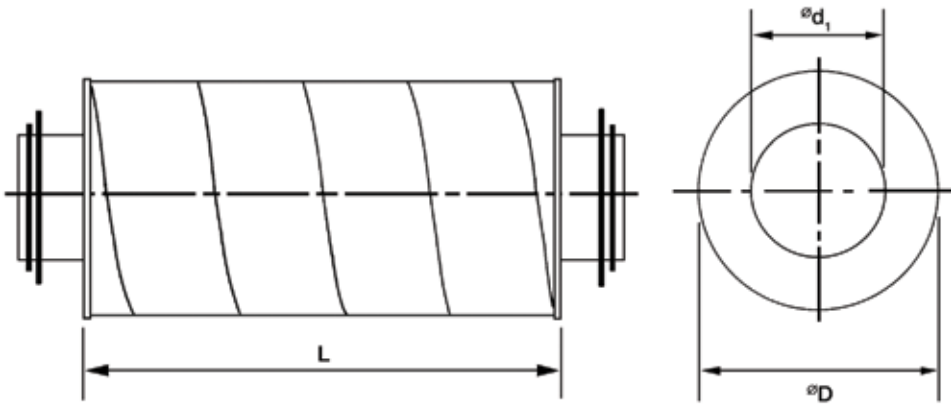
Ürün kodu: **SLL** **aaa** **bbb**

Tip \_\_\_\_\_

$\varnothing d_1$  \_\_\_\_\_

L \_\_\_\_\_

### Ölçüler



# Dairesel Susturucu

## SLL

### Ölçüler

Description	ød, nom mm	øD nom mm	L mm	attenuation (dB) in octave bands (Hz)						Weight kg
				125	250	500	1000	2000	4000	
SLL 80-300	80	180	300	5	11	15	25	28	23	2
80-600	80	180	600	7	18	26	29	29	24	3
80-900	80	180	900	9	26	38	33	30	26	5
80-1200	80	180	1200	11	30	36	37	31	27	7
SLL 100-300	100	200	300	5	9	12	20	25	17	2
100-600	100	200	600	7	15	25	33	29	24	3
100-900	100	200	900	9	22	32	36	33	31	5
100-1200	100	200	1200	11	25	36	39	37	38	7
SLL 125-300	125	224	300	3	7	14	19	16	19	3
125-600	125	224	600	5	13	21	37	37	31	4
125-900	125	224	900	7	16	28	38	38	35	7
125-1200	125	224	1200	9	20	34	39	39	36	9
SLL 160-300	160	260	300	2	8	12	15	15	14	3
160-600	160	260	600	3	11	22	33	42	29	6
160-900	160	260	900	8	14	23	39	37	25	8
160-1200	160	260	1200	11	19	35	38	47	41	10
SLL 200-300	200	315	300	2	4	8	15	18	13	4
200-600	200	315	600	4	8	15	31	28	20	7
200-900	200	315	900	8	9	20	32	35	23	10
200-1200	200	315	1200	11	17	26	34	40	26	12
SLL 250-600	250	355	600	6	9	13	24	15	15	9
250-900	250	355	900	8	11	20	33	24	18	12
250-1200	250	355	1200	10	13	25	38	29	24	15
SLL 315-600	315	500	600	5	5	11	19	12	10	12
315-900	315	500	900	7	9	16	30	18	14	18
315-1200	315	500	1200	9	12	21	36	18	17	24
SLL 400-600	400	600	600	5	6	9	13	10	7	16
400-900	400	600	900	7	7	14	22	15	13	22
400-1200	400	600	1200	7	10	14	22	18	13	32
SLL 500-900	500	710	900	6	8	14	16	13	13	26
500-1200	500	710	1200	8	11	22	24	17	16	39
SLL 630-900	630	800	900	4	7	12	12	12	10	44
630-1200	630	800	1200	5	10	16	15	15	11	56
SLL 800-1200	800	1000	1200	4	5	10	9	15	12	69
800-1500	800	1000	1500	4	7	13	12	15	12	86

Max. d çap = øD + 25 mm



## Dairesel Susturucu SLBL



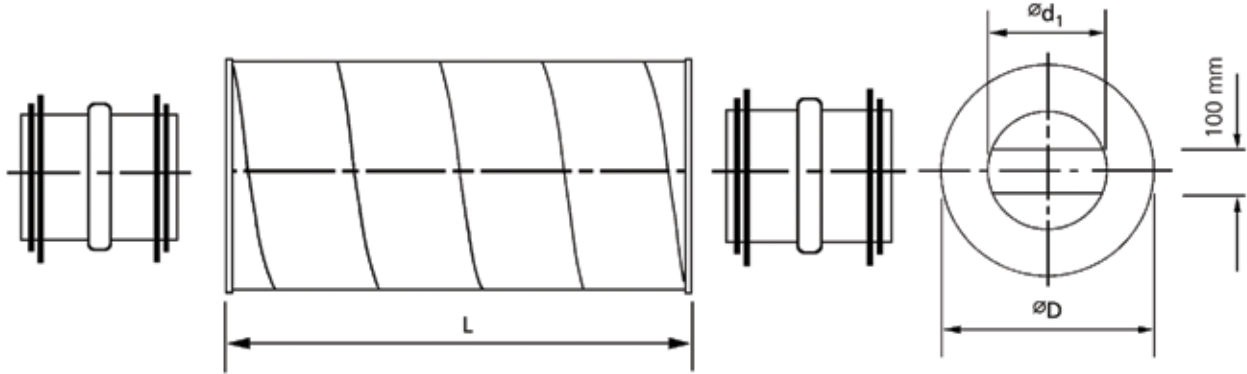
### Tanım

Çift taraflı NPL contalı olarak imal edilir.  
Akustik izolasyon için kayayünü kullanılır.

#### Sipariş

Ürün kodu: **SLBL** **aaa** **bbb**  
Tıp \_\_\_\_\_  
 $\varnothing d_1$  \_\_\_\_\_  
L \_\_\_\_\_

### Ölçüler



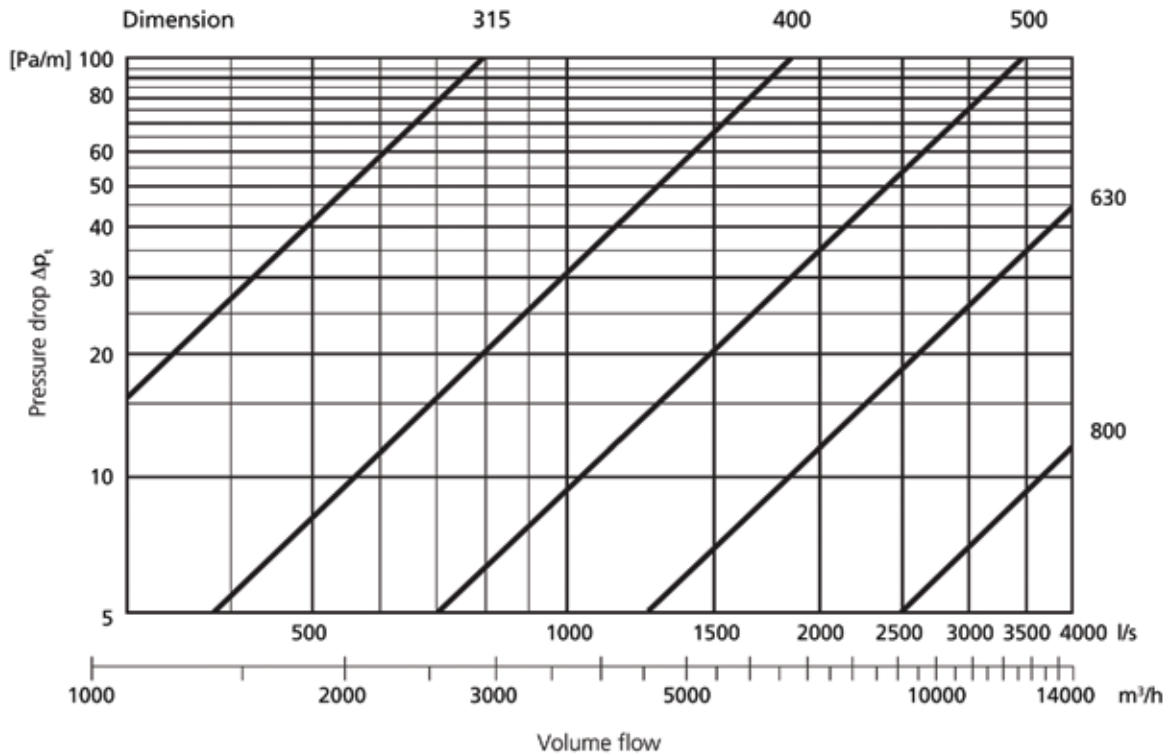
# Dairesel Susturucu SLBL

## Ölçüler

Description	Ød, nom mm	ØD nom mm	L mm	İns. attenuation (dB) in octave bands (Hz)					Weight kg	
				125	250	500	1000	2000		4000
SLBL 315-600	315	500	600	7	15	18	26	34	24	15
315-900	315	500	900	11	18	26	37	40	28	22
315-1200	315	500	1200	15	21	33	41	46	40	29
SLBL 400-600	400	600	600	8	9	16	22	24	19	20
400-900	400	600	900	11	14	22	34	32	23	30
400-1200	400	600	1200	11	21	30	38	43	28	40
SLBL 500-900	500	710	900	8	12	19	27	21	19	40
500-1200	500	710	1200	10	16	26	35	29	22	53
SLBL 630-1200	630	800	1200	8	11	23	38	23	19	62
630-1500	630	800	1500	10	15	23	39	26	20	78
SLBL 800-1200	800	1000	1200	5	9	17	23	21	16	80
800-1500	800	1000	1500	5	12	19	26	23	18	99

Max. d çap = ØD + 25 mm

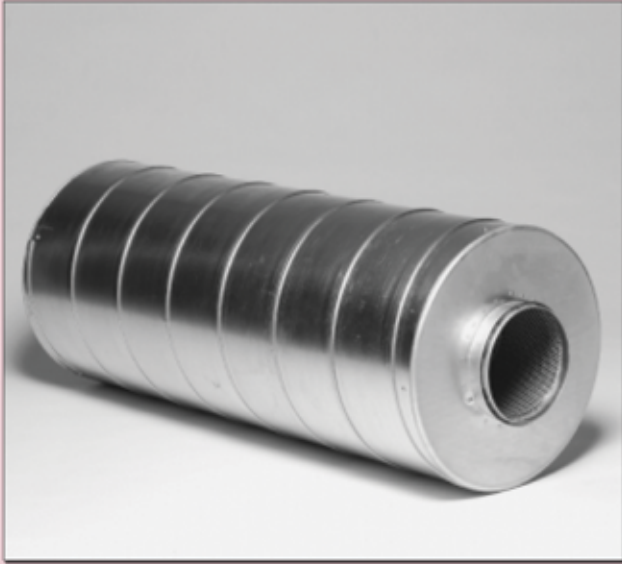
## Teknik Bilgi



## Dairesel Susturucu SLGL

### Tanım

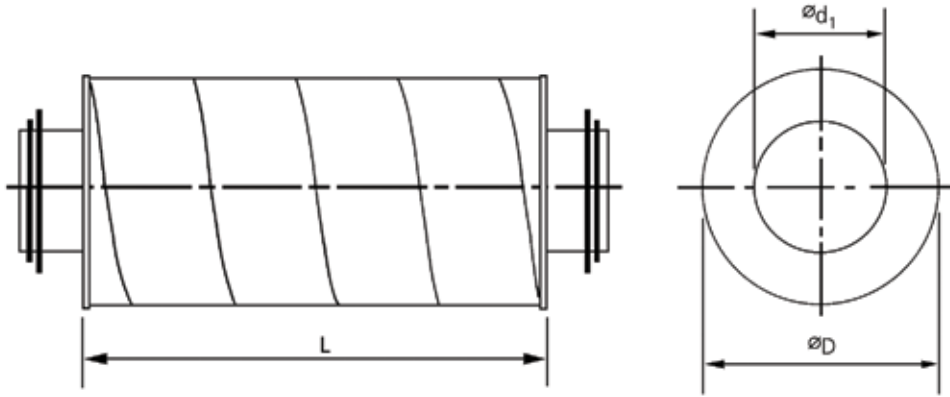
315 mm ve daha büyük çaplarda çift taraflı erkek NPL bağlantılı olarak imal edilir. Akustik izolasyon için camyünü kullanılır.



### Sipariş

Ürün kodu: **SLGL** **aaa** **bbb**  
Tip \_\_\_\_\_  
 $\varnothing d_1$  \_\_\_\_\_  
L \_\_\_\_\_

### Ölçüler



# Dairesel Susturucu SLGL

## Ölçüler

Description	ød, nom mm	øD nom mm	L mm	İns. attenuation (dB) in octave bands (Hz)					Weight kg	
				125	250	500	1000	2000		4000
SLGL 80-300	80	280	300	8	13	19	27	33	29	4
80-600	80	280	600	17	26	29	53	53	45	6
80-900	80	280	900	25	23	32	55	56	46	9
80-1000	80	280	1000	24	27	33	55	58	47	10
SLGL 100-300	100	315	300	6	12	18	23	28	23	5
100-600	100	315	600	13	23	34	46	52	40	8
100-900	100	315	900	17	30	39	54	55	46	10
100-1000	100	315	1000	19	36	39	56	51	40	11
SLGL 125-300	125	315	300	6	10	15	19	23	18	5
125-600	125	315	600	11	20	30	40	45	30	8
125-900	125	315	900	15	27	38	56	62	39	11
125-1000	125	315	1000	16	31	35	48	51	30	11
125-1200	125	315	1200	15	34	38	56	59	45	13
SLGL 160-300	160	355	300	4	8	12	16	21	14	6
160-600	160	355	600	9	16	28	33	37	21	9
160-900	160	355	900	11	24	35	49	51	27	12
160-1000	160	355	1000	12	25	38	54	54	29	14
160-1200	160	355	1200	12	29	41	56	57	33	16
SLGL 200-600	200	400	600	6	12	22	28	28	18	12
200-900	200	400	900	8	18	28	40	37	23	17
200-1000	200	400	1000	9	21	29	44	38	25	19
200-1200	200	400	1200	10	25	33	50	42	27	23
SLGL 250-600	250	450	600	5	12	20	24	23	14	14
250-900	250	450	900	6	17	30	34	28	17	20
250-1000	250	450	1000	7	18	31	36	30	18	20
250-1200	250	450	1200	9	22	35	39	33	20	26
SLGL 315-600	315	500	600	4	8	14	17	14	12	16
315-900	315	500	900	4	12	21	26	19	15	22
315-1000	315	500	1000	5	13	23	29	20	16	26
315-1200	315	500	1200	7	15	28	35	24	18	29
SLGL 400-900	400	600	900	5	12	19	22	18	13	29
400-1000	400	600	1000	5	13	22	24	20	14	31
400-1200	400	600	1200	7	16	22	29	22	15	36
400-1500	400	600	1500	9	20	32	35	24	17	43
SLGL 500-900	500	710	900	4	11	18	16	14	11	35
500-1000	500	710	1000	5	12	19	18	15	12	38
500-1200	500	710	1200	6	13	21	21	17	14	43
500-1500	500	710	1500	7	19	27	26	19	15	52
SLGL 630-900	630	900	900	5	8	14	12	13	9	44
630-1000	630	900	1000	5	10	15	13	14	10	49
630-1200	630	900	1200	6	13	18	15	15	12	56
630-1500	630	900	1500	7	15	23	18	17	13	69

Description	ød, nom mm	øD nom mm	L mm	İns. attenuation (dB) in octave bands (Hz)					Weight kg	
				125	250	500	1000	2000		4000
SLGL 800-1000	800	1000	1000	4	8	11	9	9	8	70
800-1200	800	1000	1200	5	9	13	11	11	9	80
800-1500	800	1000	1500	6	12	17	14	14	11	88

### SLGL, 150 mm izolasyon

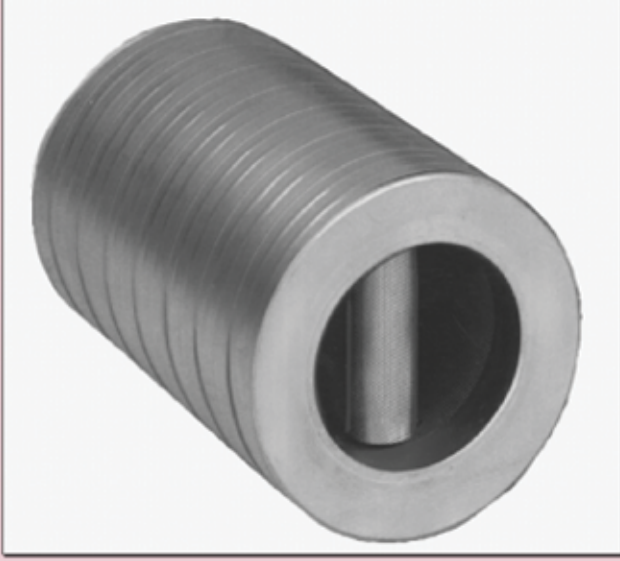
SLGL 80-1000	80	400	1000	26	22	27	50	55	47	19
SLGL 100-1000	100	400	1000	25	36	42	59	53	47	21
SLGL 125-1000	125	450	1000	22	34	38	51	50	40	22
125-1200	125	450	1200	21	36	40	62	55	46	25
SLGL 160-1000	160	450	1000	16	28	40	51	52	28	22
160-1200	160	450	1200	17	33	44	58	56	32	25
SLGL 200-1000	200	500	1000	14	24	32	45	36	24	26
200-1200	200	500	1200	15	25	36	49	42	26	31
SLGL 250-1000	250	560	1000	12	22	31	37	31	18	30
250-1200	250	560	1200	15	26	36	41	34	20	35

Max. d çap = øD + 25 mm

## Dairesel Susturucu SLBGL

### Tanım

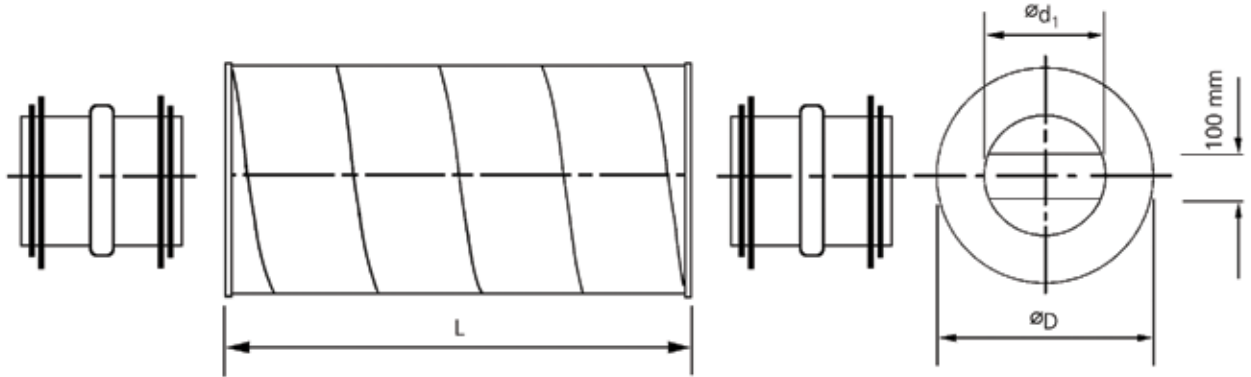
Çift taraflı NPL contalı olarak imal edilir.  
Akustik izolasyon için camyünü kullanılır.



### Sipariş

Ürün kodu: SLBGL aaa bbb  
Tip \_\_\_\_\_  
 $\varnothing d_1$  \_\_\_\_\_  
L \_\_\_\_\_

### Ölçüler



# Dairesel Susturucu

## SLBGL

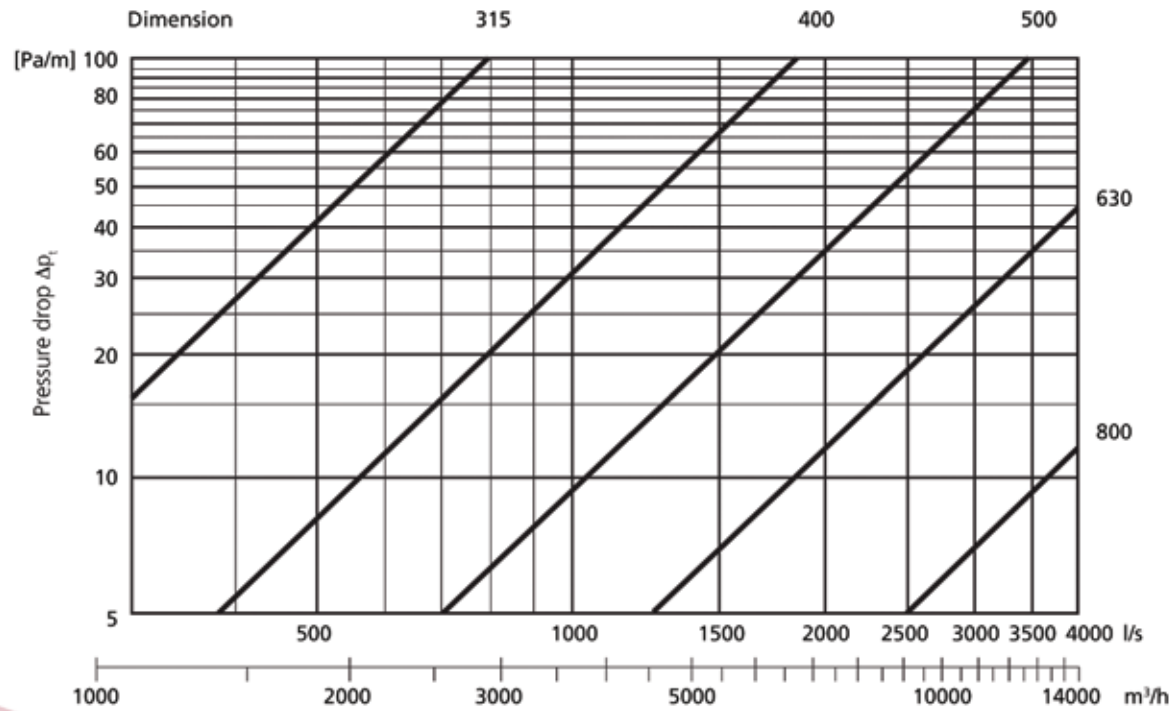
### Ölçüler

#### SLBGL, 100 mm izolasyon

Description	ød <sub>nom</sub> mm	øD <sub>nom</sub> mm	L mm	Ins. attenuation (dB) in octave bands (Hz)					Weight kg	
				125	250	500	1000	2000		4000
SLBGL 315-1000	315	500	1000	8	20	34	43	52	37	30
315-1200	315	500	1200	11	22	37	46	54	40	35
SLBGL 400-1000	400	600	1000	8	18	30	37	42	28	39
400-1200	400	600	1200	10	22	33	44	44	31	43
400-1500	400	600	1500	12	27	29	47	47	34	53
SLBGL 500-1000	500	710	1000	7	16	26	31	32	20	46
500-1200	500	710	1200	8	17	29	37	37	22	53
500-1500	500	710	1500	9	25	37	45	43	25	67
SLBGL 630-1000	630	900	1000	6	14	21	26	24	16	59
630-1200	630	900	1200	8	16	26	30	27	18	68
630-1500	630	900	1500	9	20	31	37	31	20	87
SLBGL 800-1000	800	1000	1000	5	10	17	21	20	14	84
800-1200	800	1000	1200	6	12	19	24	23	16	99
800-1500	800	1000	1500	7	16	25	30	26	18	112

Max. outside diameter = øD + 25 mm

### Teknik Bilgi



# Jet Cap HN / HF



## Tanım

HN/HF ürünleri hem endüstriyel hem de konfor havalandırması için kullanılmaktadır. Egzost havasını dikey olarak uzaklaştırmaktadır. Bu sayede çatı yüzeyinin temiz kalmasını sağlar. Etkili olması sayesinde taze hava jet cap yakınından bile alınabilmektedir.

Ürünler galvaniz, paslanmaz ya da alüminyum sac'tan imal edilebilmektedir. Yağmur ve kar suyunun uzaklaştırılması için 1/2" kes-tak boğumlu hortum kullanılmaktadır.

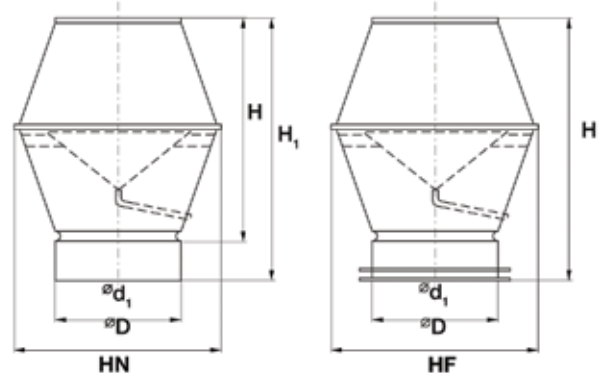
Belirtilmediği takdirde, imalatımız kanala geçme şeklinde olacaktır.

### Sipariş

Ürün kodu: **HN aaaa**  
Dişi bağlantı \_\_\_\_\_  
Ød<sub>1</sub> \_\_\_\_\_

Ürün kodu: **HF aaaa**  
Flanşlı bağlantı \_\_\_\_\_  
Ød<sub>1</sub> \_\_\_\_\_

## Ölçüler



### HN

Ød <sub>1</sub>	ØD	H mm	H <sub>1</sub> mm	kg
100	180	220	260	0.7
125	225	240	280	0.9
140	245	280	320	1.0
150	265	315	355	1.0
160	280	340	380	1.7
180	310	375	415	2.0
200	345	420	460	2.3
224	385	475	515	3.0
250	430	505	565	3.7
280	480	585	645	4.4
300	515	600	660	5.0
315	550	620	680	5.5
355	615	705	765	7.5

H = montaj ölçüleri

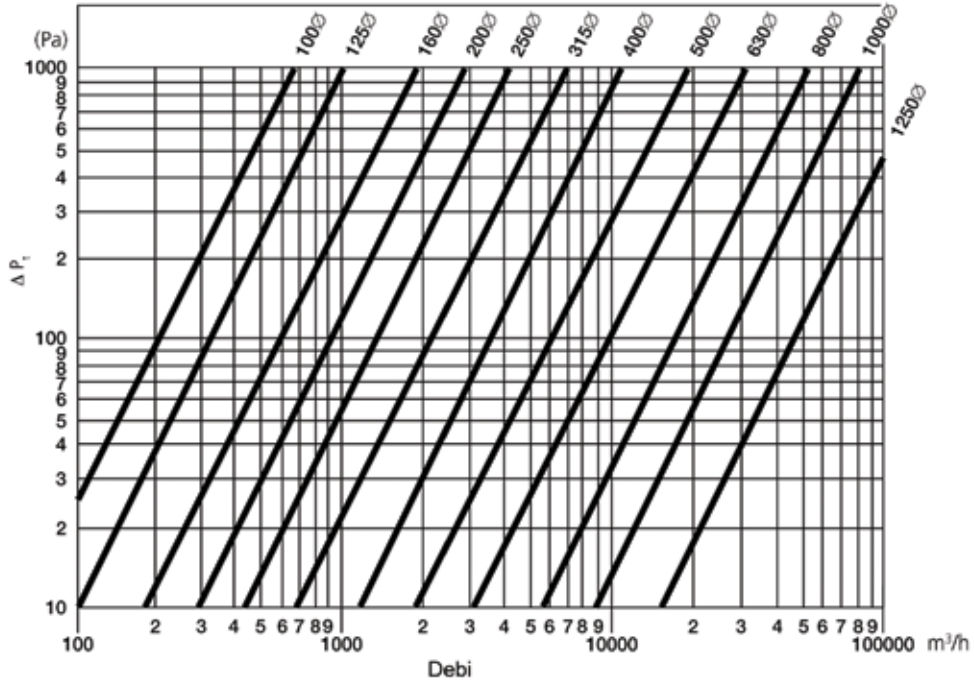
### HF

Ød <sub>1</sub>	ØD	H mm	kg
400	685	905	13.2
450	775	970	16.4
500	855	1055	19.0
560	955	1170	23.0
600	1015	1255	30.0
630	1075	1300	34.0
710	1215	1490	44.0
800	1360	1630	51.0
900	1420	1925	69.0
1000	1600	2125	82.0
1120	1820	2360	91.0
1250	2020	2660	102.0

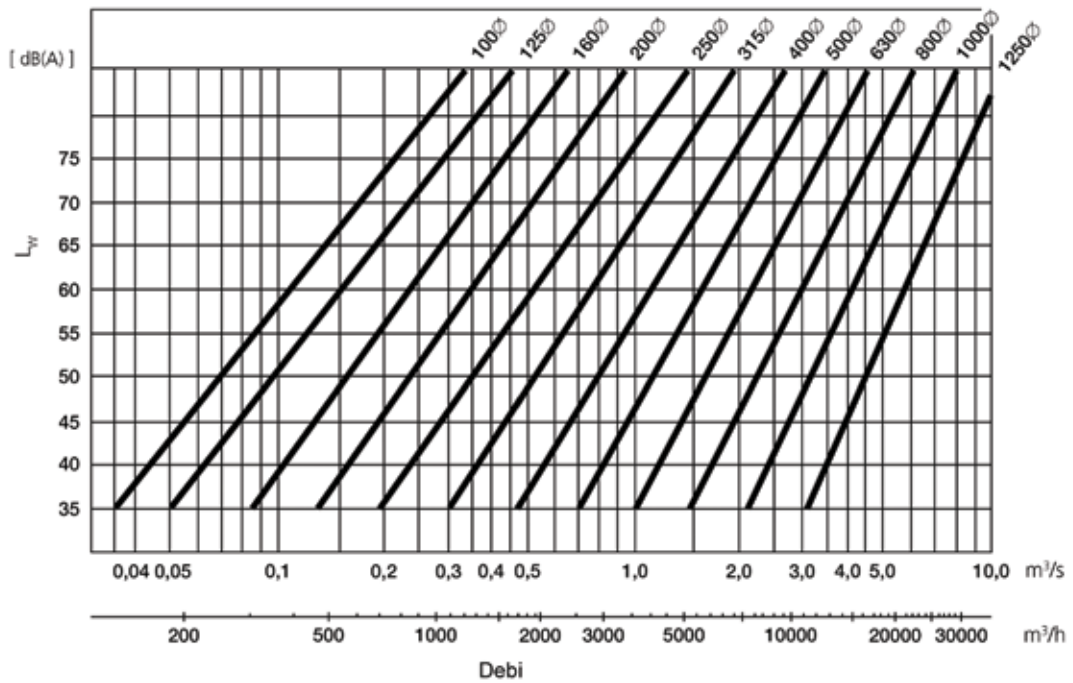
# Jet Cap HN / HF

## Teknik Bilgi

Basınç düşümü



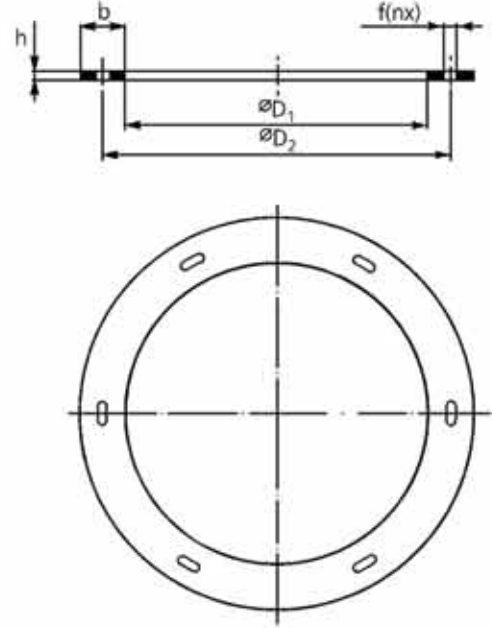
Ses seviyesi





## Flanşlar FL

### Ölçüler



### Tanım


Flanşlar galvaniz saçtan imal edilmiştir. Ø100- 1600 mm arasındaki ölçülerde mevcuttur.

#### Sipariş

Ürün kodu: **FL** **aaaa**  
Tip \_\_\_\_\_  
øD<sub>1</sub> \_\_\_\_\_

# Flanşlar FL

## Ölçüler

nom	$^{\circ}D_1$		$^{\circ}D_2$	f	 DIN 601			bxh mm	kg
	mm	Tol.			n	dim. x L			
100	102	+ 1/- 0	129	7 x 16	4	M6	16	25 x 3	0.2
125	127	+ 1/- 0	155	7 x 16	4	M6	16	25 x 3	0.3
140	142	+ 1.5/- 0	176	7 x 16	6	M6	20	30 x 4	0.5
150	152	+ 1.5/- 0	184	7 x 16	6	M6	20	30 x 4	0.5
160	162	+ 1.5/- 0	194	7 x 16	6	M6	20	30 x 4	0.5
180	182	+ 1.5/- 0	213	7 x 16	6	M6	20	30 x 4	0.6
200	203	+ 1.5/- 0	235	7 x 16	6	M6	20	30 x 4	0.6
224	227	+ 1.5/- 0	259	7 x 16	6	M6	20	30 x 4	0.7
250	253	+ 1.5/- 0	286	7 x 16	6	M6	20	30 x 4	0.8
280	283	+ 1.5/- 0	322	9.5 x 20	8	M8	20	35 x 5	1.2
300	303	+ 1.5/- 0	341	9.5 x 20	8	M8	20	35 x 5	1.3
315	318	+ 1.5/- 0	356	9.5 x 20	8	M8	20	36 x 5	1.4
355	358	+ 1.5/- 0	395	9.5 x 20	8	M8	20	36 x 5	1.6
400	404	+ 1.5/- 0	438	9.5 x 20	12	M8	20	35 x 5	1.7
450	454	+ 1.5/- 0	487	9.5 x 20	12	M8	20	35 x 5	1.9
500	504	+ 1.5/- 0	541	9.5 x 20	12	M8	20	35 x 5	2.1
560	564	+ 2/- 0	605	11.5 x 24	16	M10	20	40 x 5	2.6
600	604	+ 2/- 0	644	11.5 x 24	16	M10	20	40 x 5	2.8
630	634	+ 2/- 0	674	11.5 x 24	16	M10	20	40 x 5	2.9
650	654	+ 2/- 0	694	11.5 x 24	16	M10	20	40 x 5	3.0
710	714	+ 2/- 0	751	11.5 x 24	16	M10	20	40 x 5	3.3
750	754	+ 2/- 0	791	11.5 x 24	16	M10	20	40 x 5	3.4
800	804	+ 2/- 0	837	11.5 x 24	24	M10	20	40 x 5	3.6
900	904	+ 2/- 0	934	11.5 x 24	24	M10	20	40 x 5	4.1
1000	1005	+ 2/- 0	1043	11.5 x 24	24	M10	20	40 x 5	4.6
1120	1125	+ 2/- 0	1174	11.5 x 24	24	M10	25	50 x 6	8,0
1250	1255	+ 2/- 0	1311	11.5 x 24	24	M10	25	50 x 6	8.9
1400	1405	+ 2/- 0	1465	11.5 x 24	24	M10	25	50 x 6	10.1
1600	1605	+ 2/- 0	1637	11.5 x 24	32	M10	25	50 x 6	11.3

## Klipsler / Flanşlar FLM /FLKM

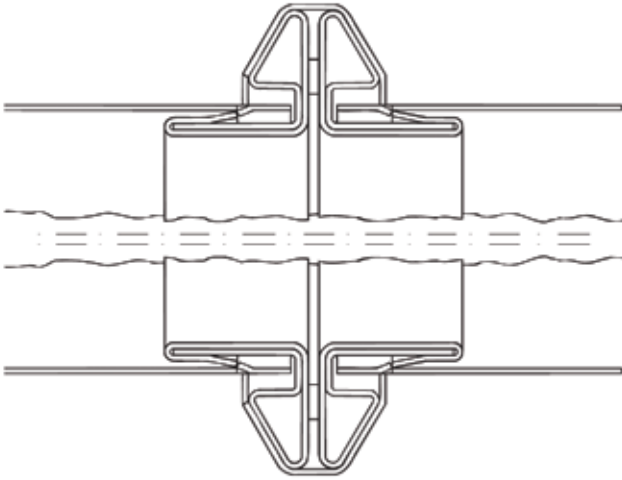
### Ölçüler

Ölçüler: Ød 560 - 900



### Tanım

FLM flanşları kanallara direkt monte edilir ve özel sıkıştırma parçası ile kilitlenir. FLKM klipsleri flanşların etrafına yerleştirilerek sıkıştırılır.



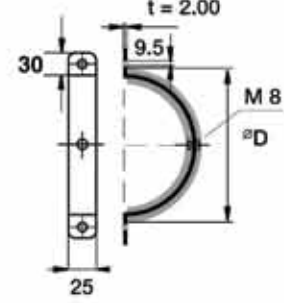
#### Sipari

Ürün kodu: **FLM** aaa  
Tip **§**  
Ød \_\_\_\_\_

# Ask Kelepçesi UVHGM



## Ölçüler



øD nom	kg	øD nom	kg
100	0.2	400	0.5
112	0.2	450	0.6
125	0.2	500	0.6
140	0.2	560	0.7
150	0.2	600	0.7
160	0.2	630	0.8
180	0.3	710	0.9
200	0.3	800	1.1
224	0.3	900	1.2
250	0.3	1000	1.3
280	0.3	1120	1.5
300	0.4	1250	1.6

## Tanım

UVHGM galvaniz saçtan mamul,  
2 parçadan oluşmaktadır.  
Anti-vibrasyon contası mevcuttur.

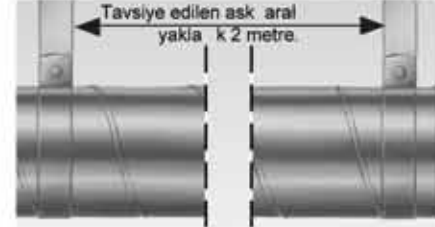
### Sipariş

Ürün kodu:

UVHGM aaa

Tip

øD



The logo for Emek Havalandırma features a stylized graphic of a building or industrial structure on the left, composed of vertical bars of varying heights and horizontal lines. To the right of this graphic, the word "emek" is written in a bold, lowercase, sans-serif font. Below "emek", the word "Havalandırma" is written in a smaller, uppercase, sans-serif font.

**emek**  
Havalandırma

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