

# SONU-Bauteile

SONU-Bauteile GmbH & CO KG  
Glasfaserarmierte Produkte  
Untere Bahnhofstraße 7  
D-77709 Wolfach Kirnbach

Telefon 07834 869900,  
Telefax 07834 869901  
info@sonu.eu

# sonulan

der schallabsorbierende Luftkanal

**sonulan**

**Die Problemlösung für viele  
Luft- und Klimaanlage**

**sonulan**

**schallabsorbierend**

**sonulan**

**wärmedämmend und dampfdiffusionsoffen**  
geringer Wärmedurchgangswert  
weitgehende Vermeidung von Kondensat

**sonulan**

**feuchtigkeitsbeständig**  
Transport von Luft mit hoher relativer Feuchte  
oder kurzzeitiger Kondensatanfall unproblematisch

**sonulan**

**montagefertiges Kanalsystem**  
bestehend aus werkseitig gefertigten geraden  
Kanalstücke, Bögen, Etagen, Reduzierungen

**sonulan**

**harte und streichfähige Oberfläche**  
Die äußere Schicht besteht aus  
weißem Glasfaserleichtbeton

**sonulan**

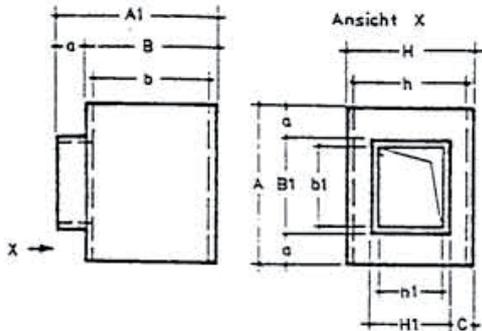
**leicht zu verarbeiten**

**sonulan**

**nichtbrennbar**

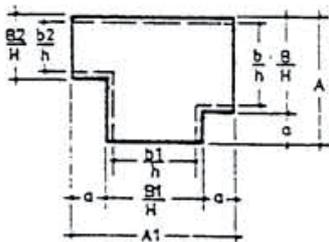


## Formteilausführungen



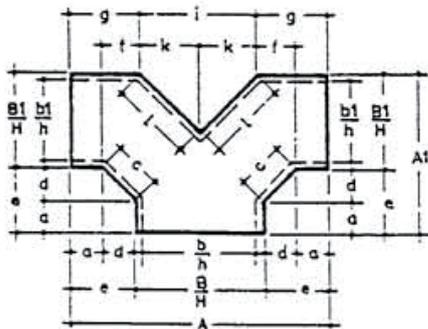
### T-Stück 1 (T1)

$$\begin{aligned}
 L_1 &= A & U_1 &= 2B + 2H \\
 L_2 &= a & U_2 &= 2B_1 + 2H_1 \\
 A &= B_1 + 2a \\
 A_1 &= B + a
 \end{aligned}$$



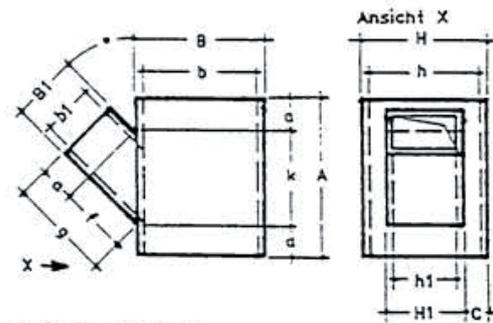
### T-Stück 2 (T2)

$$\begin{aligned}
 L_1 &= A_1 & U_1 &= 2B + 2H \\
 L_2 &= A - B_2 & U_2 &= 2B_1 + 2H \\
 A &= B + a \\
 A_1 &= B_1 + 2a
 \end{aligned}$$



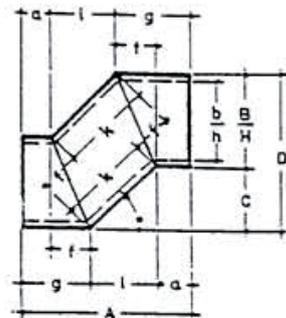
### T-Stück 3 (T3)

$$\begin{aligned}
 L_1 &= 2g + 2l & U_1 &= 2B_1 + 2H \\
 L_2 &= a + c & U_2 &= 2B + 2H \\
 A &= B + 2e \\
 A_1 &= B_1 + e \\
 f &= B_1 \cdot 0,41421 \\
 g &= a + f \\
 i &= A - 2g \\
 k &= \frac{i}{2} \\
 l &= k \cdot 1,41422
 \end{aligned}$$



### T-Stück 4 (T4)

$$\begin{aligned}
 L_1 &= A & U_1 &= 2B + 2H \\
 L_2 &= g & U_2 &= 2B_1 + 2H_1 \\
 A &= 2a + k \\
 g &= a + f \\
 L^\circ &= 30^\circ & 45^\circ & 60^\circ \\
 f &= B_1 \cdot 1,73205 & B_1 \cdot 1,0 & B_1 \cdot 0,57735 \\
 k &= B_1 \cdot 2,0 & B_1 \cdot 1,41422 & B_1 \cdot 1,15469
 \end{aligned}$$



### Etage 30°, 45°, 60° (Et...)

$$\begin{aligned}
 L &= \sqrt{A^2 + D^2} & U &= 2B + 2H & g &= a + f \\
 A &= a + g + l & D &= B + C \\
 L^\circ &= 30^\circ & 45^\circ & 60^\circ \\
 f &= B \cdot 0,26795 & B \cdot 0,41421 & B \cdot 0,57735 \\
 k &= C \cdot 2,0 & C \cdot 1,41422 & C \cdot 1,15469 \\
 l &= C \cdot 1,73205 & C \cdot 1,0 & C \cdot 0,57735
 \end{aligned}$$



## Formteilausführungen

nach DIN 18379 Ausgabe Sept. 1976

$m^2 = U \cdot L$  (U = größter Außenumfang, L = Berechnungslänge)

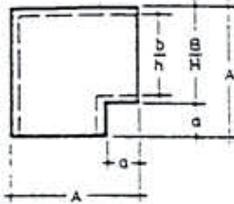
Wandstärken: Sonulan Kanal

22 mm  
32 mm

Normmaße:

a = 100 mm  
c = 70 mm  
d = 50 mm  
e = 150 mm

b, h = Kanallichtmaße  
B, H = Kanalausmaße  
(b + 2 x Wandstärke  
h + 2 x Wandstärke)

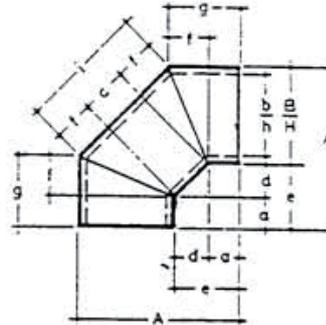


### Bogen 90° (Bo)

$$L = 2A$$

$$U = 2B + 2H$$

$$A = B + a$$



### Segmentbogen 90° 3-teilig (Sb3)

$$L = 2g + i$$

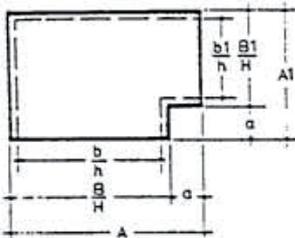
$$U = 2B + 2H$$

$$A = B + e$$

$$f = B \cdot 0,41421$$

$$g = a + f$$

$$i = c + 2f$$



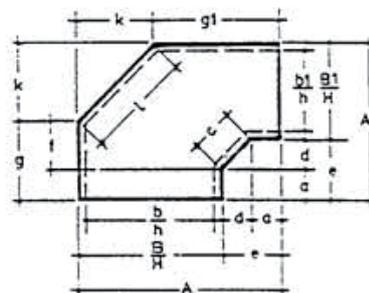
### Übergangsbogen 1 (Ub1)

$$L = A + A_1$$

$$U = 2B + 2H$$

$$A = B + a$$

$$A_1 = B_1 + a$$



### Übergangsbogen 2 (Ub2)

$$L = g + g_1 + l$$

$$U = 2B + 2H$$

$$A = B + e$$

$$A_1 = B_1 + e$$

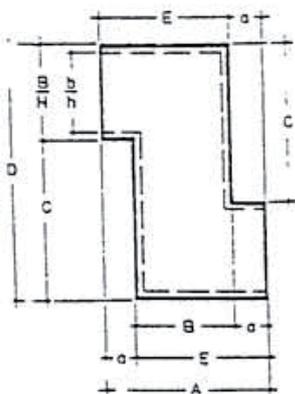
$$f = B_1 \cdot 0,41421$$

$$g = a + f$$

$$g_1 = A - k$$

$$k = A_1 - g$$

$$l = k \cdot 1,41422$$



### S-Bogen 1 (Db1)

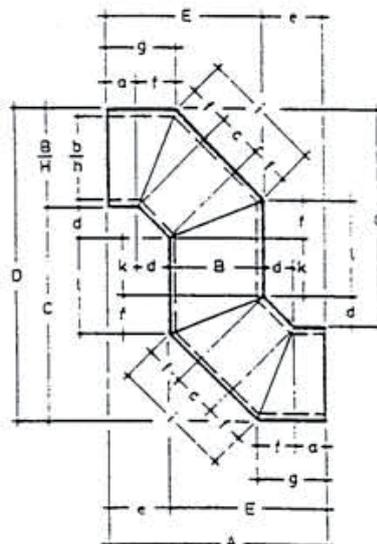
$$L = C + 2E + B$$

$$U = 2B + 2H$$

$$A = E + a$$

$$D = B + C$$

$$E = B + a$$



### S-Bogen 2 (Db2)

$$L = 2g + 2i + l +$$

$$U = 2B + 2H$$

$$A = E + e$$

$$D = B + C$$

$$E = B + e$$

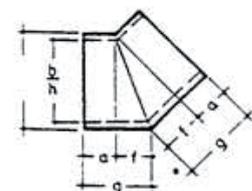
$$f = B \cdot 0,41421$$

$$g = a + f$$

$$i = c + 2f$$

$$k = C - B - 2d$$

$$l = k + f$$

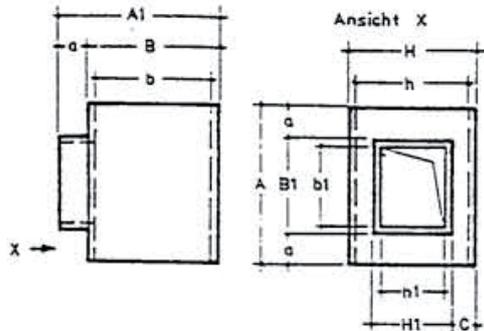


### Segmentbogen 30°, 45°, 60°, 2-teilig (Sb2 ...)

|                       |                   |                   |
|-----------------------|-------------------|-------------------|
| $L = 2g$              | $U = 2B + 2H$     | $g = a + f$       |
| $L^\circ = 30^\circ$  | $45^\circ$        | $60^\circ$        |
| $f = B \cdot 0,26795$ | $B \cdot 0,41421$ | $B \cdot 0,57735$ |

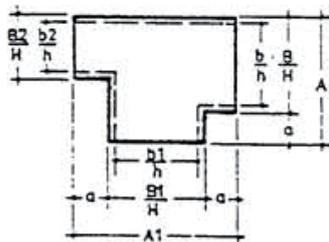


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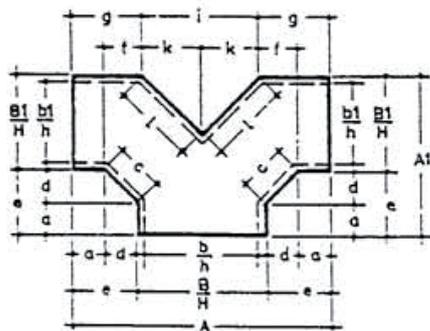
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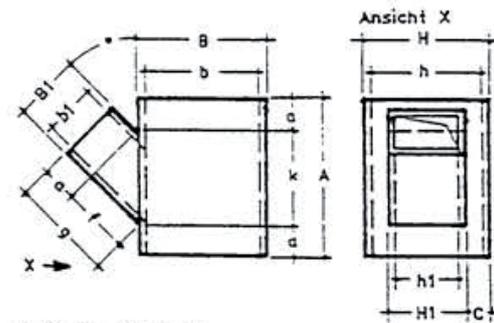
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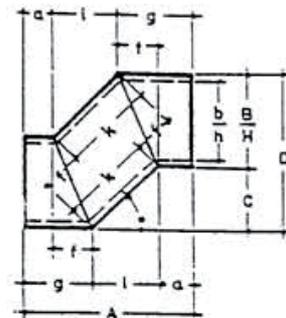
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