

# PRODUKTÜBERSICHT

## VAK.1/2

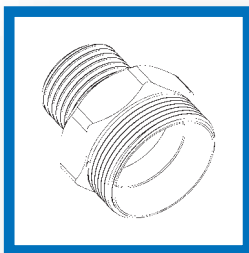
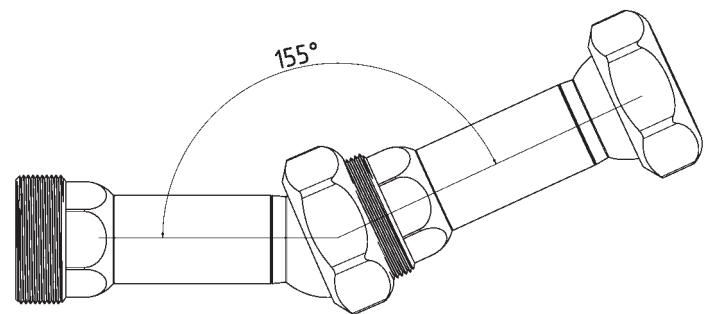
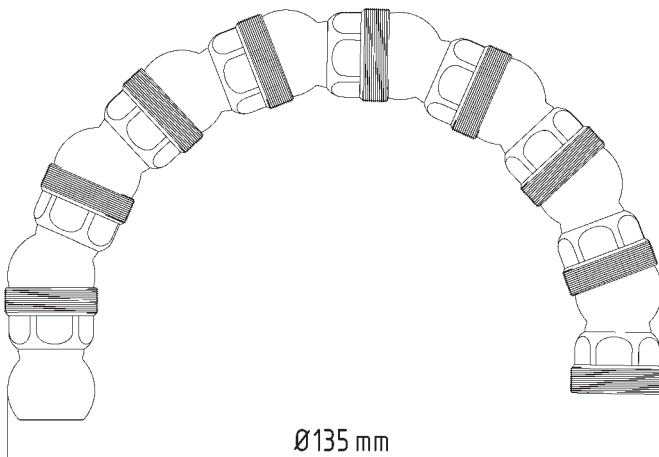


Mit dem VAK System optimieren Sie Ihren Maschinenprozess um  $\pm 12\%$ . Nutzen Sie die Vielfalt des Düsen Sortiments und passen Sie die Kühlung an Ihre Bedürfnisse an. Ob Flachdüsen, Runddüsen oder Düsen mit mehreren Auslässen, zum Schleifen, Drehen, Fräsen oder der Luftkühlung, finden Sie hier die passenden Elemente. Die VAK Grundelemente und Maschinenadapter sorgen für ein Rundes Sortiment, welches Ihnen die Sicherheit bietet, Werkzeugverschleiß zu optimieren und garantieren für eine stabile Kühlung.

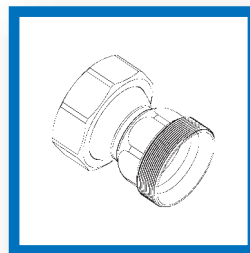


## TECHNISCHE DATEN:

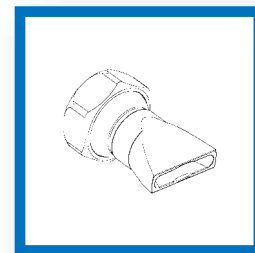
- Größe VAK.1/2 (1/2")
- Durchlass Ø 11,0 mm
- Druckbeständig über 100 bar
- Einsatzbereich -30°C bis +60°C
- Optional HT-System bis +300°C (auf Anfrage erhältlich)
- Gewinde (Elemente) M24x1
- Material 1.4305 (V2A)



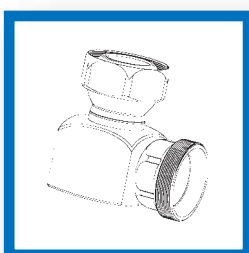
MASCHINENADAPTER



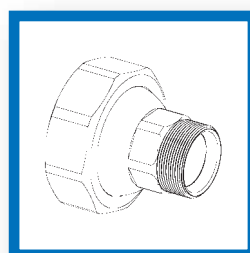
GRUNDELEMENTE



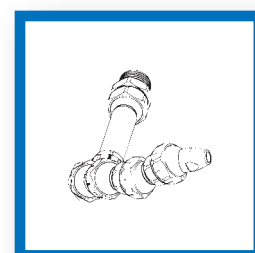
DÜSEN



WINKELEMENTE

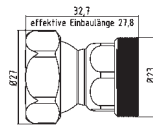
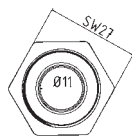


ZUBEHÖR



GRUNDSET Typ2

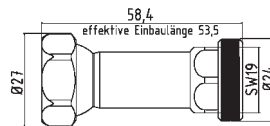
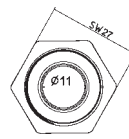
## Grundelemente | Basic Elements



**GS30 013 03 12 030**

$l = 32,7 \text{ mm}$  effektiv  $l = 27,8 \text{ mm}$

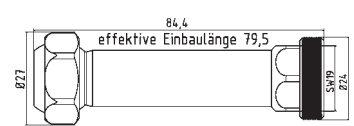
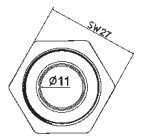
$l = 32,7 \text{ mm}$  effective  $l = 27,8 \text{ mm}$



**GS50 013 03 12 050**

$l = 58,4 \text{ mm}$  effektiv  $l = 53,5 \text{ mm}$

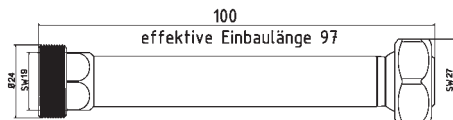
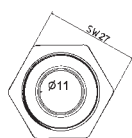
$l = 58,4 \text{ mm}$  effective  $l = 53,5 \text{ mm}$



**GS80 013 03 12 080**

$l = 84,4 \text{ mm}$  effektiv  $l = 79,5 \text{ mm}$

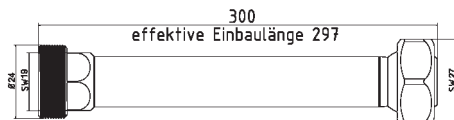
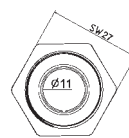
$l = 84,4 \text{ mm}$  effective  $l = 79,5 \text{ mm}$



**GS100 013 03 12 100**

$l = 100 \text{ mm}$  effektiv  $l = 97 \text{ mm}$

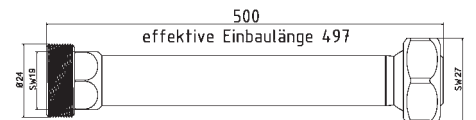
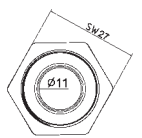
$l = 100 \text{ mm}$  effective  $l = 97 \text{ mm}$



**GS300 013 03 12 300**

$l = 300 \text{ mm}$  effektiv  $l = 297 \text{ mm}$

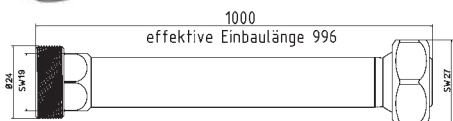
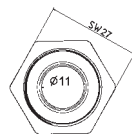
$l = 300 \text{ mm}$  effective  $l = 297 \text{ mm}$



**GS500 013 03 12 500**

$l = 500 \text{ mm}$  effektiv  $l = 497 \text{ mm}$

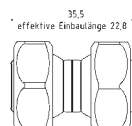
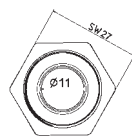
$l = 500 \text{ mm}$  effective  $l = 497 \text{ mm}$



**GS1000 013 03 12 1000**

$l = 1000 \text{ mm}$  effektiv  $l = 996$

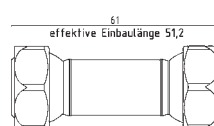
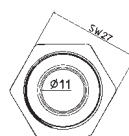
$l = 1000 \text{ mm}$  effective  $l = 996 \text{ mm}$



**GD30 013 03 12 09 030**

$l = 35,5 \text{ mm}$  effektiv  $l = 22,8 \text{ mm}$  Doppelkugel

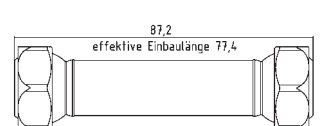
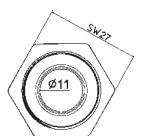
$l = 35,5 \text{ mm}$  effective  $l = 22,8 \text{ mm}$  double ball



**GD50 013 03 12 09 50**

$l = 61 \text{ mm}$  effektiv  $l = 51,2 \text{ mm}$  Doppelkugel

$l = 61 \text{ mm}$  effective  $l = 51,2 \text{ mm}$  double ball

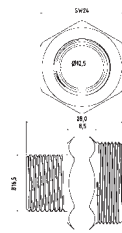


**GD80 013 03 12 09 80**

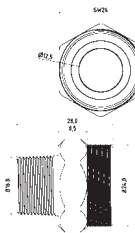
$l = 87,2 \text{ mm}$  effektiv  $l = 77,4 \text{ mm}$  Doppelkugel

$l = 87,2 \text{ mm}$  effective  $l = 77,4 \text{ mm}$  double ball

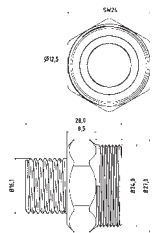
## Maschinen-/Düsenadapter | Machine-/Nozzle Adapter



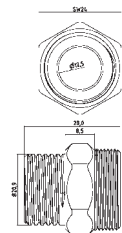
**AS3/8** 013 03 12 10 03  
Adapterstück G 3/8"  
adaptor piece thread 3/8"



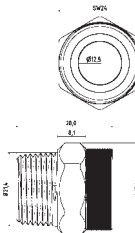
**AS3/8NPT** 013 03 12 10 83  
Adapterstück G 3/8" PT (Withworth-Gewinde)  
adaptor piece thread 3/8" PT (NPT thread)



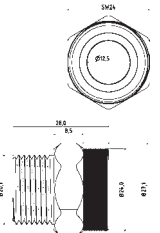
**AS3/8U** 013 03 12 10 U03  
Adapterstück G 3/8" U (Gewinde unterschritten)  
adaptor piece thread 3/8" U (Undercut thread)



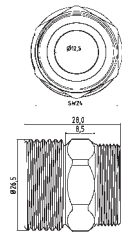
**AS1/2** 013 03 12 10 04  
Adapterstück G 1/2"  
adaptor piece thread 1/2"



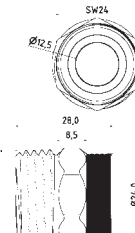
**AS1/2NPT** 013 03 12 10 84  
Adapterstück G 1/2" PT (Withworth-Gewinde)  
adaptor piece thread 1/2" PT (NPT thread)



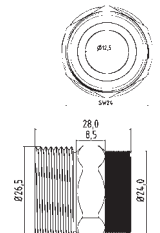
**AS1/2U** 013 03 12 10 U04  
Adapterstück G 1/2" U (Gewinde unterschritten)  
adaptor piece thread 1/2" U (Undercut thread)



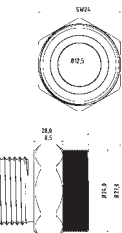
**AS3/4** 013 03 12 10 05  
Adapterstück G 3/4"  
adaptor piece thread 3/4"



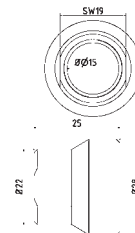
**AS3/4NPT** 013 03 12 10 85  
Adapterstück G 3/4" PT (Withworth-Gewinde)  
adaptor piece thread 3/4" PT (NPT thread)



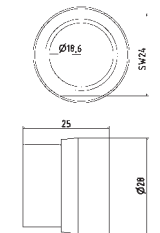
**AS3/4U** 013 03 12 10 U05  
Adapterstück G 3/4" U (Gewinde unterschritten)  
adaptor piece thread 3/4" U (Undercut thread)



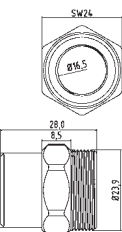
**AS20x1.5** 013 03 12 10 62  
Adapterstück M20 x 1.5"  
adaptor piece thread M20 x 1.5"



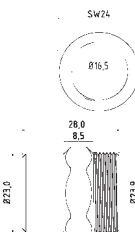
**AI3/8** 013 03 12 20 03  
Adapterstück für Fremddüsen mit  
Außengewinde, IG 2-GE auf IG 3/8"  
adaptor piece for external nozzles with  
male thread, female 2-GE to female 3/8"



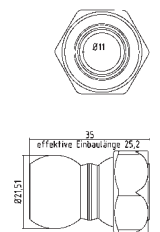
**AI1/2** 013 03 12 20 04  
Adapterstück für Fremddüsen mit  
Außengewinde, IG 2-GE auf IG 1/2"  
adaptor piece for external nozzles with  
male thread, female 2-GE to female 1/2"



**AS16x1.5i** 013 03 12 10 45i  
Adapterstück M16 x 1.5 Innengewinde auf  
Hirt-Line Typ2 Aussengewinde  
adaptor piece M16 x 1.5 female thread  
to Hirt-Line type2 male thread

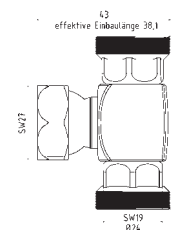
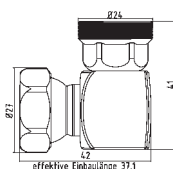
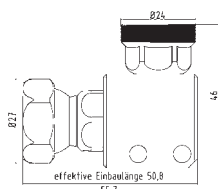
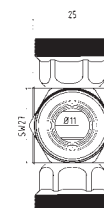
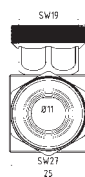
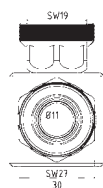


**AS18x1.5i** 013 03 12 10 61i  
Adapterstück M18 x 1.5 Innengewinde auf  
Hirt-Line Typ2 Aussengewinde  
adaptor piece M18 x 1.5 female thread  
to Hirt-Line type2 male thread



**ASLL** 013 03 12 10 LL  
Adapterstück Loc-Line Typ 2  
adaptor piece Loc-Line Type 2

## Winkelelemente | Elbows



### WEBo 013 03 12 11 02

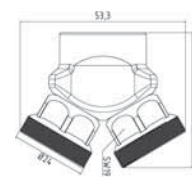
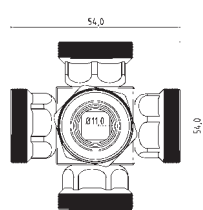
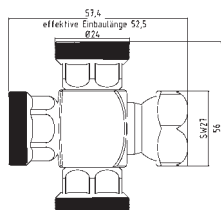
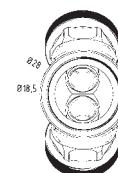
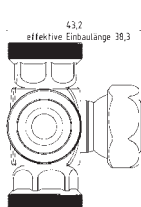
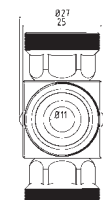
Winkelstück für Leitungen mit 2 Bohrungen  
corner piece for pipelines with 2 bore hole

### WE 013 03 12 11 01

Winkelstück  
elbow piece

### TE 013 03 12 11 03

T-Stück  
T-piece



### XE 013 03 12 11 04

Kreuz-Stück  
cross piece

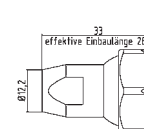
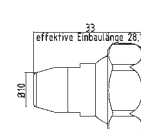
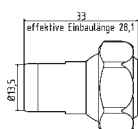
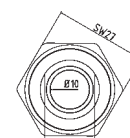
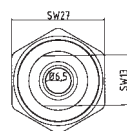
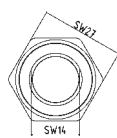
### XE5 013 03 12 11 05

Stern-Stück  
star piece

### WEY 013 03 12 11 06

Y-Stück 50°  
Y-piece 50°

## Düsen | Nozzles



### RSD.0 013 03 12 70 000

Düse ohne Bohrung (für Spezialanwendungen)  
nozzle without hole (for special applications)

### RSD.65 013 03 12 70 065

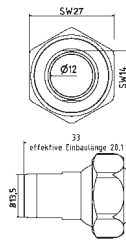
Düse gerade Bohrung Ø 6,5 mm  
nozzle straight Ø 6,5 mm

### RSD.100 013 03 12 70 100

Düse gerade Bohrung Ø 10 mm  
nozzle straight Ø 10 mm



## Düsen | Nozzles



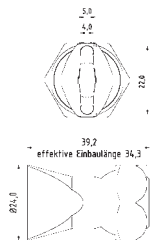
**RSD.120 013 03 12 70 120**

Düse gerade Bohrung Ø 12 mm  
nozzle straight Ø 12 mm



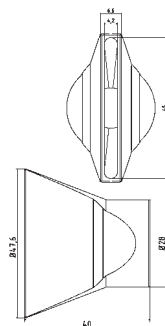
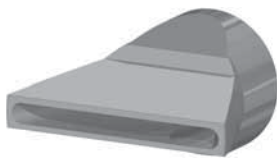
**FSSD.24.25 013 03 12 72 024 25**

Flachdüse Schlitzbreite 20 x 2,5 mm  
Streustrahl  
flat nozzle broadly with slit 20 x 2,5 mm  
scattered beam



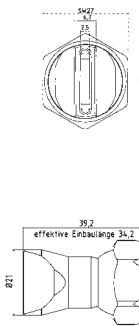
**FSSD.24.40 013 03 12 72 024 40**

Flachdüse Schlitzbreite 22 x 4,0 mm  
Streustrahl  
flat nozzle broadly with slit 22 x 4,0 mm  
scattered beam



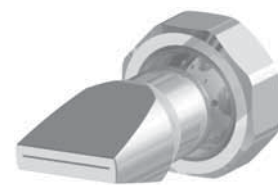
**FSSD.48.42 013 03 12 72 048 42**

Flachdüse Schlitzbreite 45 x 4,2 mm  
Streustrahl  
flat nozzle broadly with slit 45 x 4,2 mm  
scattered beam



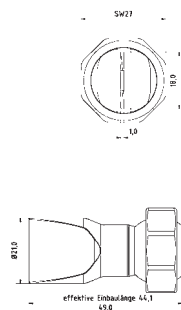
**FSD.21.25 013 03 12 71 021 25**

Flachdüse Schlitzbreite 18 x 2,5 mm  
gerader Strahl  
flat nozzle broadly with slit 18 x 2,5 mm  
straight jet



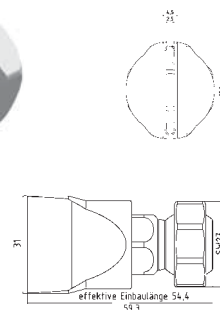
**FSD.21.04 013 03 12 71 021 04**

Flachdüse Schlitzbreite 18 x 0,4 mm  
gerader Strahl  
flat nozzle broadly with slit 18 x 0,4 mm  
straight jet



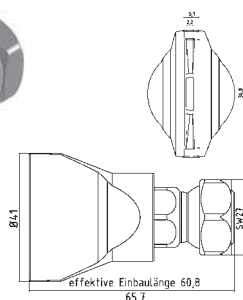
**FSD.21.10 013 03 12 71 021 10**

Flachdüse Schlitzbreite 18 x 1,0 mm  
gerader Strahl  
flat nozzle broadly with slit 18 x 1,0 mm  
straight jet



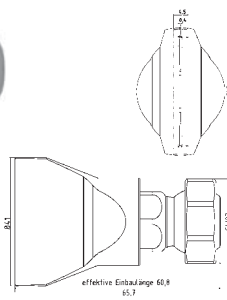
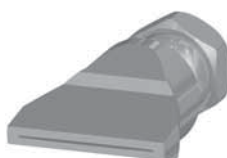
**FSD.31.25 013 03 12 71 031 25**

Flachdüse Schlitzbreite 28 x 2,5 mm  
gerader Strahl  
flat nozzle broadly with slit 28 x 2,5 mm  
straight jet



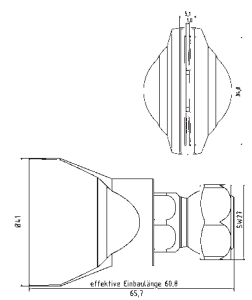
**FSD.41.22 013 03 12 71 041 22**

Flachdüse Schlitzbreite 35 x 2,2 mm  
gerader Strahl  
flat nozzle broadly with slit 35 x 2,2 mm  
straight jet



**FSD.41.04 013 03 12 71 041 04**

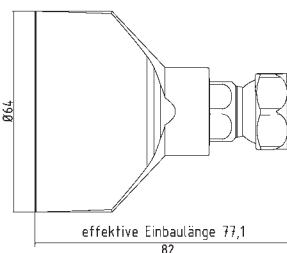
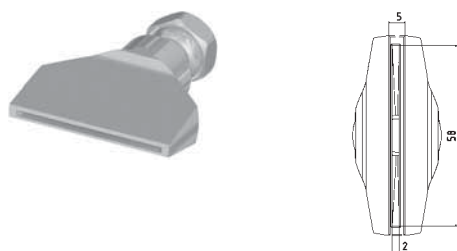
Flachdüse Schlitzbreite 35 x 0,4 mm  
gerader Strahl  
flat nozzle broadly with slit 35 x 0,4 mm  
straight jet



**FSD.41.10 013 03 12 71 041 10**

Flachdüse Schlitzbreite 35 x 1,0 mm  
gerader Strahl  
flat nozzle broadly with slit 35 x 1,0 mm  
straight jet

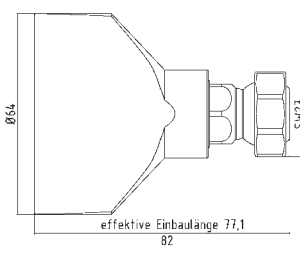
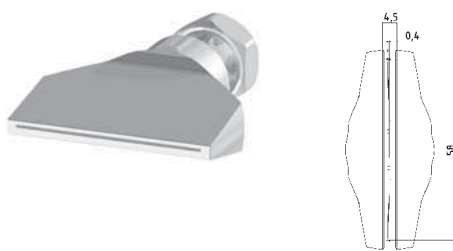
## Düsen | Nozzles



**FSD.64.20 013 03 12 71 064 20**

Flachdüse Schlitzbreite 58 x 2,0 mm  
gerader Strahl

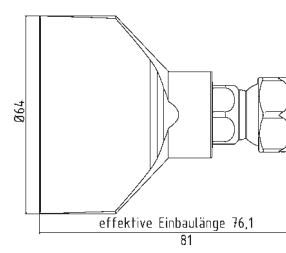
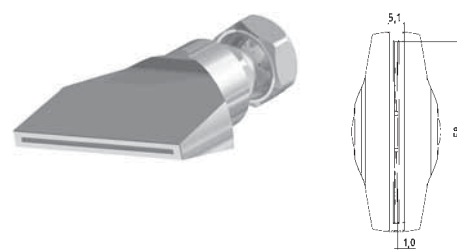
*flat nozzle broadly with slit 58 x 2,0 mm  
straight jet*



**FSD.64.04 013 03 12 71 064 04**

Flachdüse Schlitzbreite 58 x 0,4 mm  
gerader Strahl

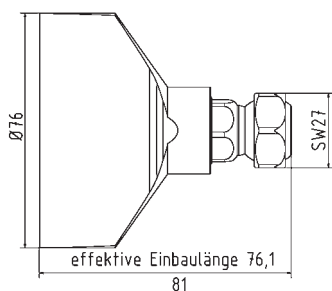
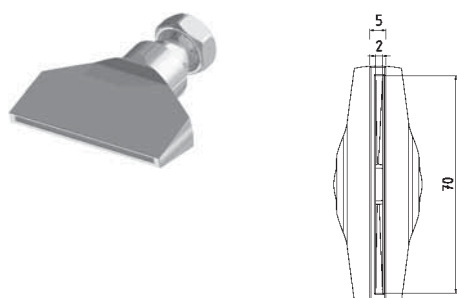
*flat nozzle broadly with slit 58 x 0,4 mm  
straight jet*



**FSD.64.10 013 03 12 71 064 10**

Flachdüse Schlitzbreite 58 x 1,0 mm  
gerader Strahl

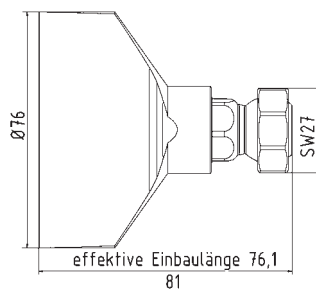
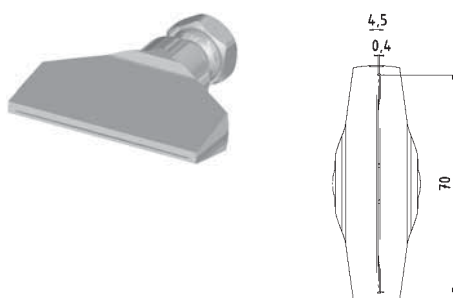
*flat nozzle broadly with slit 58 x 1,0 mm  
straight jet*



**FSD.76.20 013 03 12 71 076 20**

Flachdüse Schlitzbreite 70 x 2,0 mm  
gerader Strahl

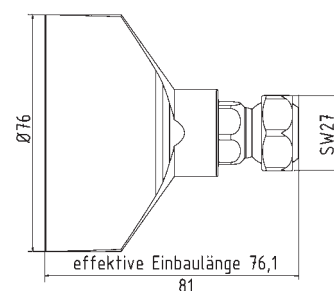
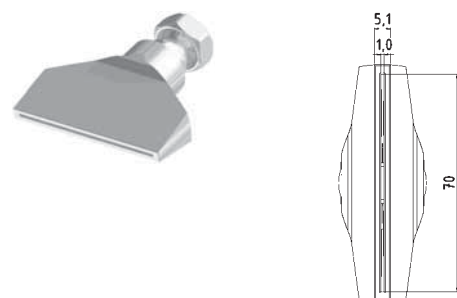
*flat nozzle broadly with slit 70 x 2,0 mm  
straight jet*



**FSD.76.04 013 03 12 71 076 04**

Flachdüse Schlitzbreite 70 x 0,4 mm  
gerader Strahl

*flat nozzle broadly with slit 70 x 0,4 mm  
straight jet*

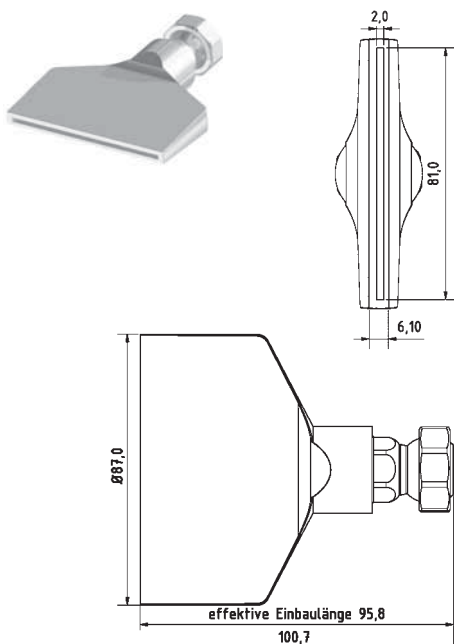


**FSD.76.10 013 03 12 71 076 10**

Flachdüse Schlitzbreite 70 x 1,0 mm  
gerader Strahl

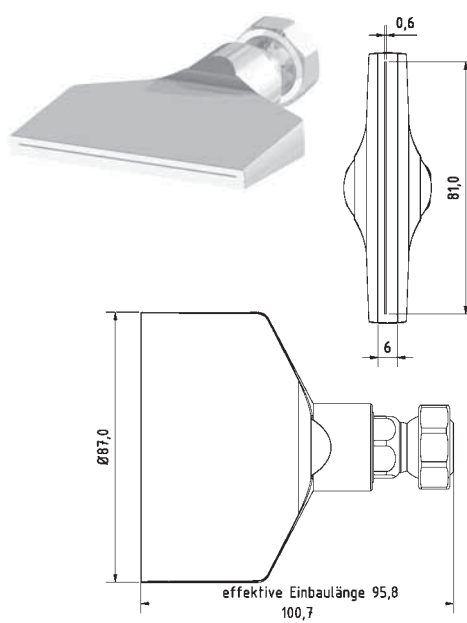
*flat nozzle broadly with slit 70 x 1,0 mm  
straight jet*

## Düsen | Nozzles



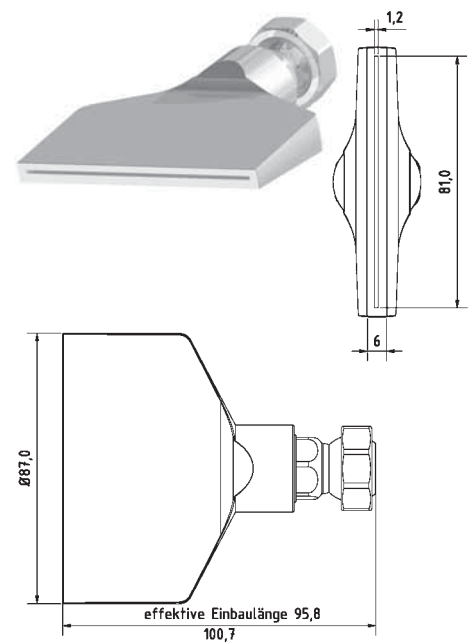
**FSD.87.20**    013 03 12 71 087 20

Flachdüse Schlitzbreite 81 x 2,0 mm  
gerader Strahl  
*flat nozzle broadly with slit 81 x 2,0 mm*  
*straight jet*



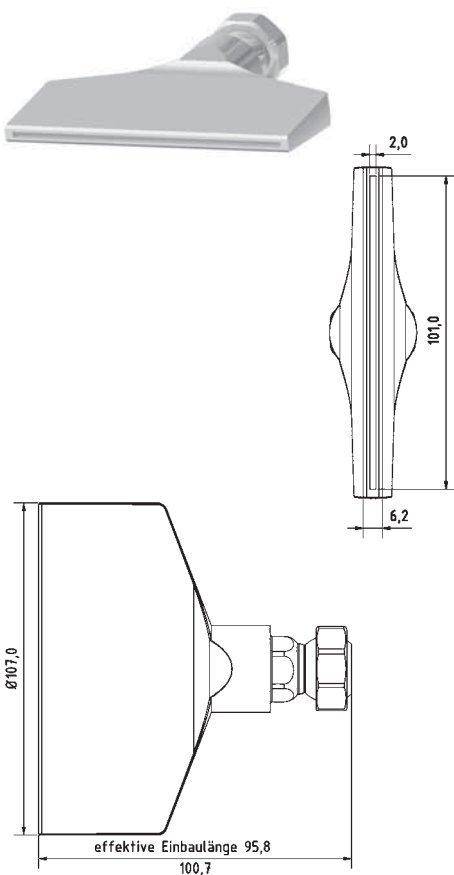
**FSD.87.06**    013 03 12 71 087 06

Flachdüse Schlitzbreite 81 x 0,6 mm  
gerader Strahl  
*flat nozzle broadly with slit 81 x 0,6 mm*  
*straight jet*



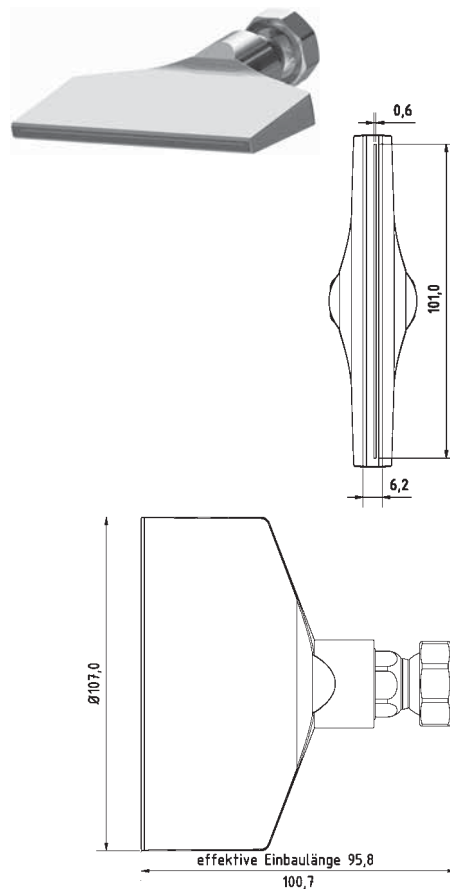
**FSD.87.12**    013 03 12 71 087 12

Flachdüse Schlitzbreite 81 x 1,2 mm  
gerader Strahl  
*flat nozzle broadly with slit 81 x 1,2 mm*  
*straight jet*



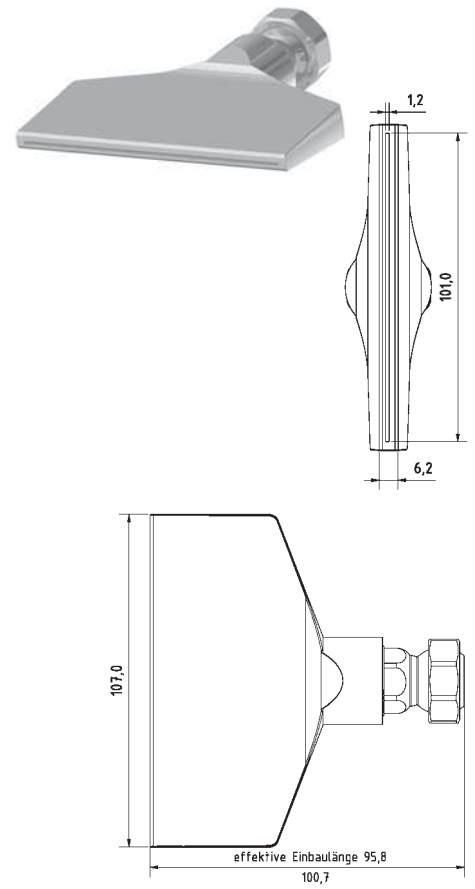
**FSD.107.20**    013 03 12 71 107 20

Flachdüse Schlitzbreite 101 x 2,0 mm  
gerader Strahl  
*flat nozzle broadly with slit 101 x 2,0 mm*  
*straight jet*



**FSD.107.06**    013 03 12 71 107 06

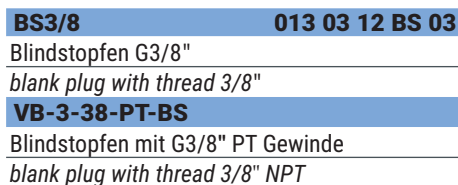
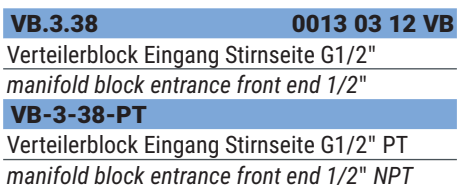
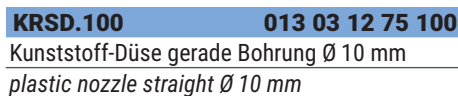
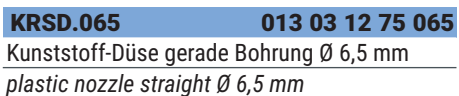
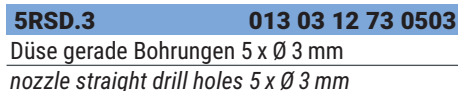
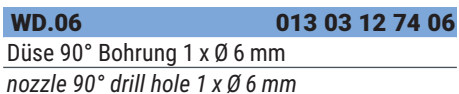
Flachdüse Schlitzbreite 101 x 0,6 mm  
gerader Strahl  
*flat nozzle broadly with slit 101 x 0,6 mm*  
*straight jet*



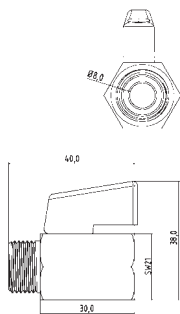
**FSD.107.12**    013 03 12 71 107 12

Flachdüse Schlitzbreite 101 x 1,2 mm  
gerader Strahl  
*flat nozzle broadly with slit 101 x 1,2 mm*  
*straight jet*





## Zubehör | Accessories

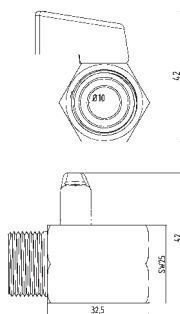


### KH.03 9924 0501 03

Mini-Kugelhahn G3/8" Messing Verchromt  
mini ball valve thread 3/8" brass chrome-plated

### KH.03VA 9924 0502 03

Mini-Kugelhahn G3/8" Edelstahl  
mini ball valve thread 3/8" stainless steel

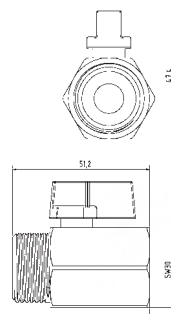


### KH.04 9924 0501 04

Mini-Kugelhahn G1/2" Messing Verchromt  
mini ball valve thread 1/2" brass chrome-plated

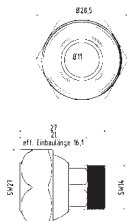
### KH.04VA 9924 0502 04

Mini-Kugelhahn G1/2" Edelstahl  
mini ball valve thread 1/2" stainless steel



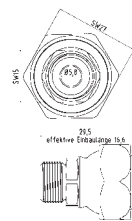
### KH.05 9924 0501 05

Mini-Kugelhahn G3/4" Messing Verchromt  
mini ball valve thread 3/4"



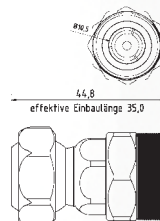
### RS1/2-1/4 013 03 12 13 01

Reduktion VAK.1/2 auf VAK.1/4  
reduction VAK.1/2 to VAK.1/4



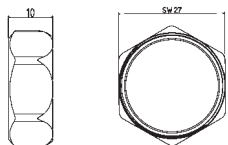
### RS1/2-G1/4" 013 03 12 13 02

Reduktion VAK.1/2 auf G 1/4" Gewinde  
reduction VAK.1/2 to G 1/4" thread



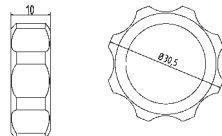
### RSV 013 03 12 13 03

Rückschlagventil (Drop-Stop)  
Check valve (Drop-Stop)



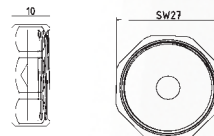
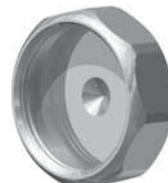
### Mutter 013 03 12 14 01

Mutter Standard  
screw nut (default)



### Handmutter 013 03 12 14 02

Mutter für Handverstellung  
screw nut (hand feed)



### VK 013 03 12 14 03

Verschlusskappe Typ 2  
cap type 2

## Grundset | Basic Set



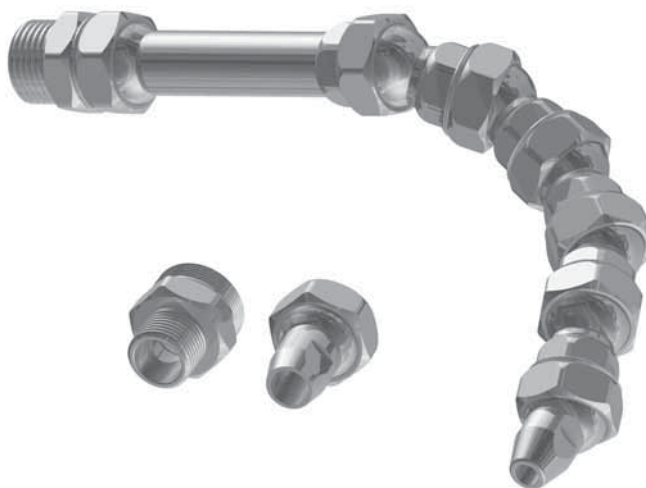
### SW-19 013 03 12 15 19

Schlüssel aus Stahl SW19  
open end wrench SW19



### SW-27 013 03 12 15 27

Schlüssel aus Stahl SW27  
open end wrench SW27



### GSVAK1/2 013 03 12 080-1

Grundset Typ VAK.1/2 L = 240 mm  
5 x GS30, 1 x GS80, 1 x AS3/8, 1 x AS1/2, 1 x RSD.065 1 x RSD.10, 1 x SW-19, 1 x SW-27  
basic set Type VAK.1/2 L = 240 mm  
5 x GS30, 1 x GS80, 1 x AS3/8, 1 x AS1/2, 1 x RSD.065, 1 x RSD.10, 1 x SW-19, 1 x SW-27

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STW - Kim Friedrich GmbH  
Fischgrubenweg 14  
74532 Ilshofen  
Service-Telefon: +49 (0)7904 9444 762

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