



Open
hot runner systems



2.3 Gate bushings

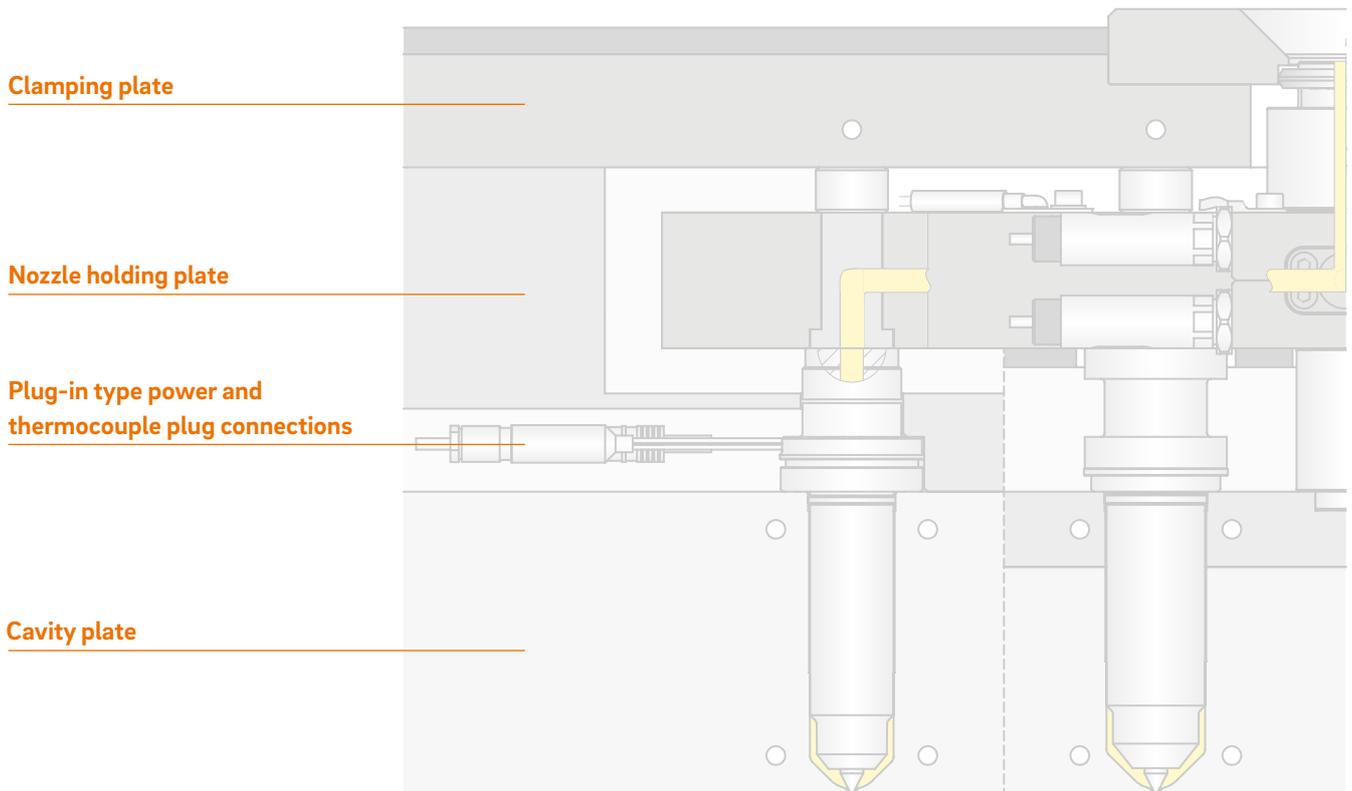
GATE BUSHINGS

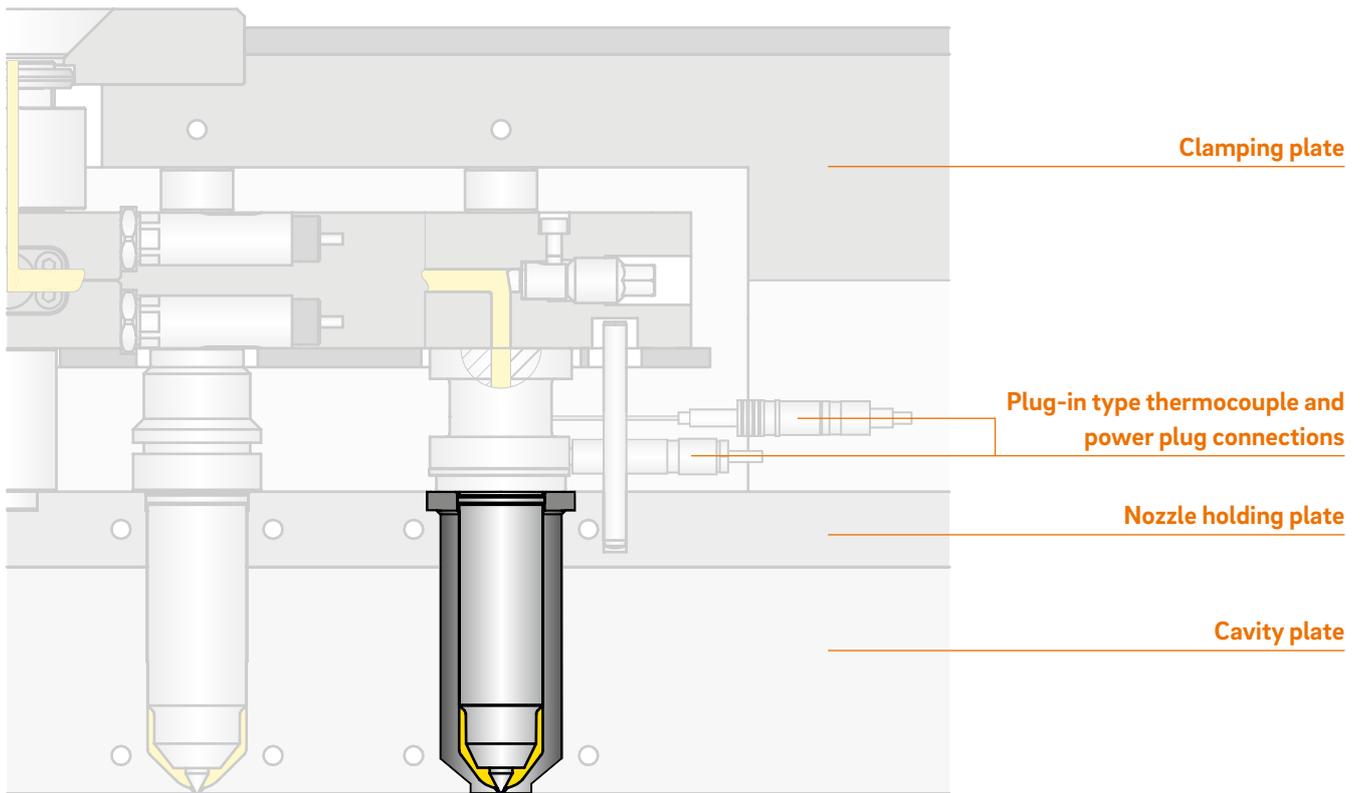
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Overview of overall design

Gate bushings







Gate bushing type LA/LAV

Version LA with extended length and

version LAV with extended length and wear protection

TECHNICAL DATA

Dimensions

	Version (mm)						
	ØA	ØS	ØT ₁	s	u	ØA ₁	R
15LA	35	15	22	5	5	36	5
20LA	35	20	28	5	15	36	5
22LA/LAV	38	22	32	5	15	39	8
26LA/LAV	45	26	36	5	15	46 ^{1,2}	8
32LA/LAV	50	32	42	9	15	56	13
38LA/LAV	59	38	48	12	20	60	16

¹ØA₁ = 49 mm with nozzle type 8SET/8DET

²ØA₁ = 56 mm with nozzle type 8SHT

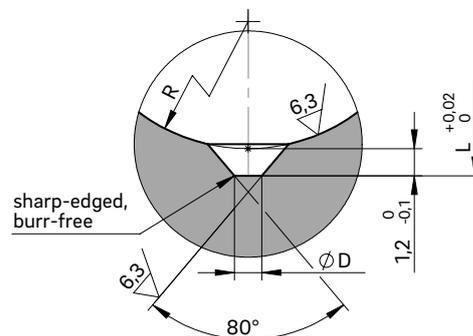
NOTE

When using a gate bushing of size ØS = 26 mm, ØS = 32 mm or ØS = 38 mm in conjunction with nozzle types _ET and _HT, we recommend consulting with the engineers.

After eroding the gate bushing, it must be annealed to remove stress (1 hour at 470 °C).



ANTECHAMBER VERSIONS A/B

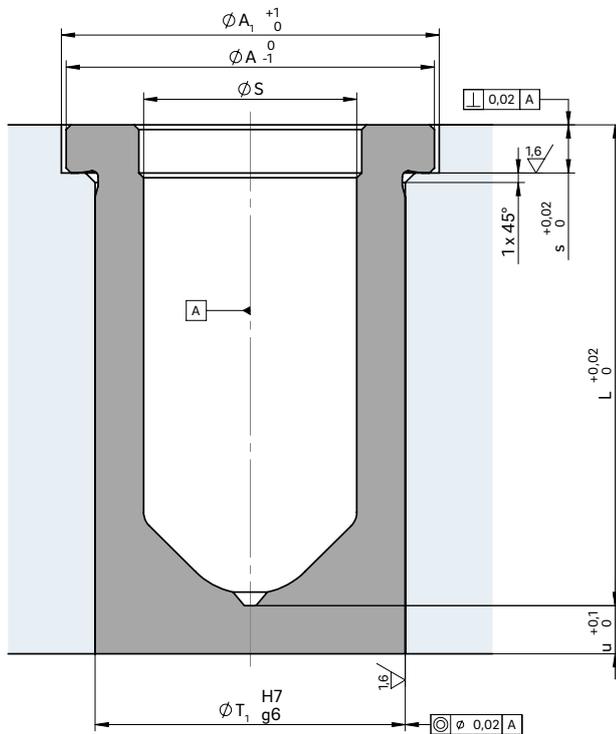


For open nozzles with a tip/open nozzles with a straight outlet for antechamber versions A/B and nozzle piece C

WEBCODE
23010



GATE BUSHING INSTALLATION



For gate bushings with an extended length, the gate contour goes through dimension "L"

Nozzle type designation	Gate bushing type/length (mm)											
	L=50		L=60		L=80		L=100		L=120			
4SHF/4DHF	■	15LA	■	15LA	■	15LA						
4STT/4DTT	■	15LA	■	15LA	■	15LA						
4SMT/4DMT	■	20LA	■	20LA	■	20LA	■	20LA				
5SHT/5DHT	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV				
5SMT/5DMT	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV
6SHF/6DHF	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV
6STT/6DTT	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV	■	22LA □ 22LAV
6SHT/6DHT	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV
6SMT/6DMT	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV
8SET/8DET	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV
8SHF/8DHF	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV
8SHT/8DHT	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV
8SMT/8DMT	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV	■	26LA □ 26LAV
10SHT/10DHT			■	32LA □ 32LAV	■	32LA □ 32LAV	■	32LA □ 32LAV	■	32LA □ 32LAV	■	32LA □ 32LAV
10SMT/10DMT			■	32LA □ 32LAV	■	32LA □ 32LAV	■	32LA □ 32LAV	■	32LA □ 32LAV	■	32LA □ 32LAV
12SET/12DET			■	38LA □ 38LAV	■	38LA □ 38LAV	■	38LA □ 38LAV	■	38LA □ 38LAV	■	38LA □ 38LAV
12SHT/12DHT			■	38LA □ 38LAV	■	38LA □ 38LAV	■	38LA □ 38LAV	■	38LA □ 38LAV	■	38LA □ 38LAV
12SMT/12DMT			■	38LA □ 38LAV	■	38LA □ 38LAV	■	38LA □ 38LAV	■	38LA □ 38LAV	■	38LA □ 38LAV

■ available □ on request



Gate bushing type LB

Version LB with extended length

TECHNICAL DATA

Dimensions

	Version (mm)						R
	$\varnothing A$	$\varnothing S$	$\varnothing T_1$	s	u	$\varnothing A_1$	
18LB	38	18	26	5	6	39 ¹	8

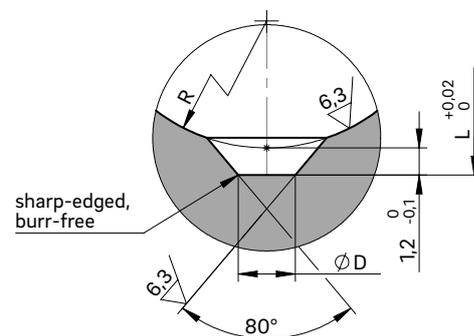
¹ $\varnothing A_1 = 43$ mm with nozzle type 5SEF/5DEF

NOTE

After eroding the gate bushing, it must be annealed to remove stress (1 hour at 470 °C).



ANTECHAMBER VERSIONS A/B

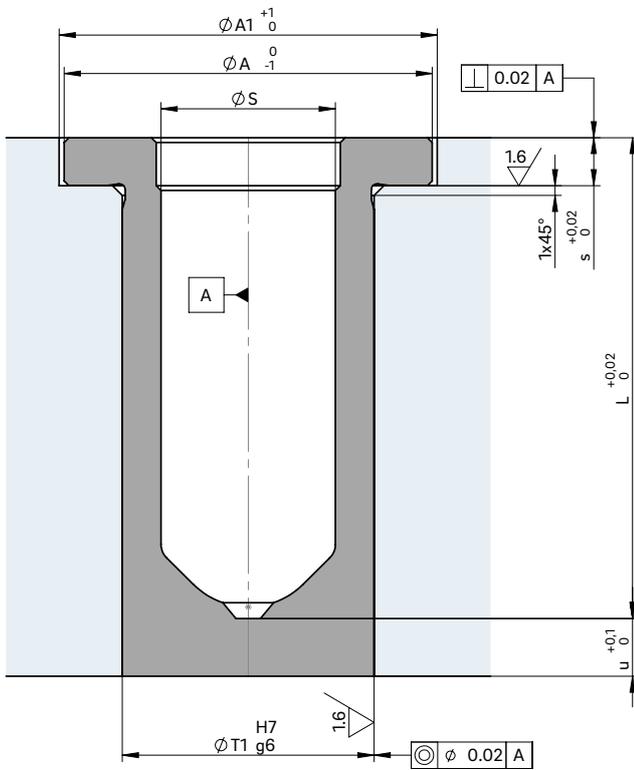


For open nozzles with a tip/open nozzles with a straight outlet for antechamber versions A/B and nozzle piece C

WEBCODE
23020



GATE BUSHING INSTALLATION



For gate bushings with an extended length, the gate contour goes through dimension "L"

Nozzle type designation	Gate bushing type/length (mm)			
	L = 50	L = 60	L = 80	L = 100
5SEF/5DEF	■ 18LB	■ 18LB	■ 18LB	
5SHF/5DHF	■ 18LB	■ 18LB	■ 18LB	■ 18LB
5STT/5DTT	■ 18LB	■ 18LB	■ 18LB	■ 18LB

■ available



Gate bushing type LC/LCV

Version LC with extended length and
version LCV with extended length and wear protection

TECHNICAL DATA

Dimensions

	Version (mm)						
	ØA	ØS	ØT ₁	s	u	ØA ₁	R
15LC	35	15	22	5	5	36	5
20LC	35	20	28	5	15	36	5
22LC/LCV	38	22	32	5	15	39	8
26LC/LCV	45	26	36	5	15	46 ^{1,2}	8
32LC/LCV	50	32	42	9	15	56	13
38LC/LCV	59	38	48	12	20	60	16

¹ØA₁ = 49 mm with nozzle type 8DET

²ØA₁ = 56 mm with nozzle type 8DHT

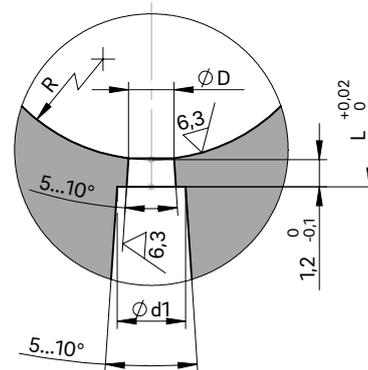
NOTE

When using a gate bushing of size ØS = 26 mm, ØS = 32 mm or ØS = 38 mm in conjunction with nozzle types _ET and _HT, we recommend consulting with the engineers.

After eroding the gate bushing, it must be annealed to remove stress (1 hour at 470 °C).



ANTECHAMBER VERSIONS C AND D



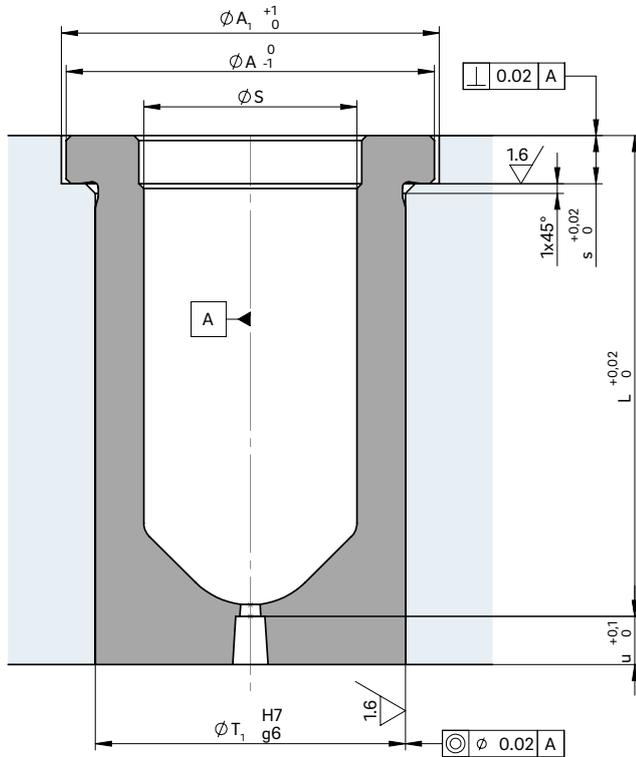
Ød1 0.5 mm larger than ØD

For open nozzles with a straight outlet
for antechamber version C and D
and nozzle piece A

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23030



GATE BUSHING INSTALLATION



For gate bushings with an extended length, the gate contour goes through dimension "L"

Nozzle type designation	Gate bushing type/length (mm)											
	L=50		L=60		L=80		L=100		L=120			
4DHF	■	15LC	■	15LC	■	15LC						
4DTT	■	15LC	■	15LC	■	15LC						
4DMT	■	20LC	■	20LC	■	20LC	■	20LC				
5DHT	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV				
5DMT	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV
6DHF	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV
6DTT	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV	■	22LC □ 22LCV
6DHT	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV
6DMT	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV
8DET	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV
8DHF	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV
8DHT	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV
8DMT	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV	■	26LC □ 26LCV
10DHT			■	32LC □ 32LCV	■	32LC □ 32LCV	■	32LC □ 32LCV	■	32LC □ 32LCV	■	32LC □ 32LCV
10DMT			■	32LC □ 32LCV	■	32LC □ 32LCV	■	32LC □ 32LCV	■	32LC □ 32LCV	■	32LC □ 32LCV
12DET			■	38LC □ 38LCV	■	38LC □ 38LCV	■	38LC □ 38LCV	■	38LC □ 38LCV	■	38LC □ 38LCV
12DHT			■	38LC □ 38LCV	■	38LC □ 38LCV	■	38LC □ 38LCV	■	38LC □ 38LCV	■	38LC □ 38LCV
12DMT			■	38LC □ 38LCV	■	38LC □ 38LCV	■	38LC □ 38LCV	■	38LC □ 38LCV	■	38LC □ 38LCV

■ available □ on request



Gate bushing type LD

Version LD with extended length

TECHNICAL DATA

Dimensions

	Version (mm)						R
	ØA	ØS	ØT ₁	s	u	ØA ₁	
18LD	38	18	26	5	6	39 ¹	8

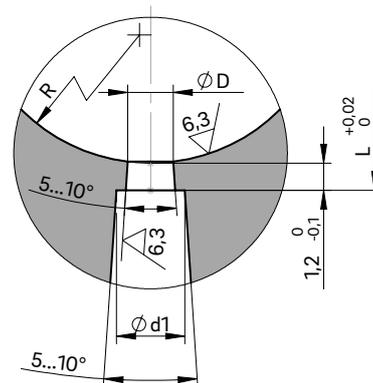
¹ØA₁ = 43 mm with nozzle type 5DEF

NOTE

After eroding the gate bushing, it must be annealed to remove stress (1 hour at 470 °C).



ANTECHAMBER VERSIONS C AND D



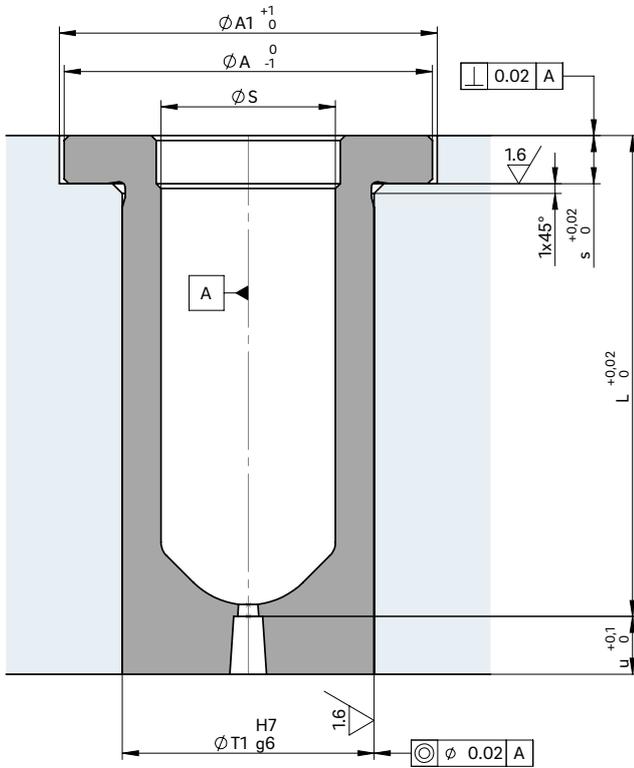
Ød1 0.5 mm larger than ØD

For open nozzles with a straight outlet
for antechamber version C and D and
nozzle piece A

WEBCODE
23040



GATE BUSHING INSTALLATION



For gate bushings with an extended length, the gate contour goes through dimension "L"

Nozzle type designation	Gate bushing type/length (mm)			
	50	60	80	100
5DEF	■ 18LD	■ 18LD	■ 18LD	
5DHF	■ 18LD	■ 18LD	■ 18LD	■ 18LD
5DTT	■ 18LD	■ 18LD	■ 18LD	■ 18LD

■ available



Gate bushing type VA/VAV

Versions VA and VAV with wear protection

TECHNICAL DATA

Dimensions

	Version (mm)									
	ØA	ØS	ØT ₁	s	ØA ₁	R	ØP	t ₁	t	
15VA	35	15	22	5	36	5	12	2.3	2.5	
20VA	35	20	28	5	36	5	16	2.3	2.5	
22VA/VAV	38	22	32	5	39	8	16	2.3	2.5	
26VA/VAV	45	26	36	5	46 ^{1,2}	8	16	2.3	2.5	
32VA/VAV	50	32	42	9	56	13	20	3.3	3.5	
38VA/VAV	59	38	48	12	60	16	26	4.3	4.5	

¹ØA₁ = 49 mm with nozzle type 8SET/8DET

²ØA₁ = 56 mm with nozzle type 8SHT

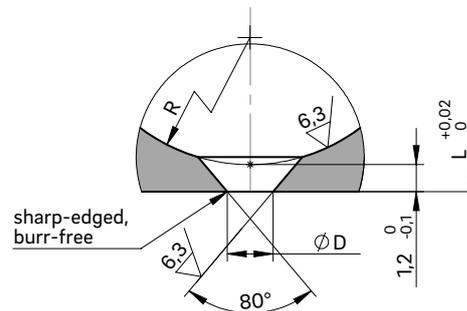
NOTE

When using a gate bushing of size ØS = 26 mm, ØS = 32 mm or ØS = 38 mm in conjunction with nozzle types _ET and _HT, we recommend consulting with the engineers.

After eroding the gate bushing, it must be annealed to remove stress (1 hour at 470 °C).



ANTECHAMBER VERSIONS A/B

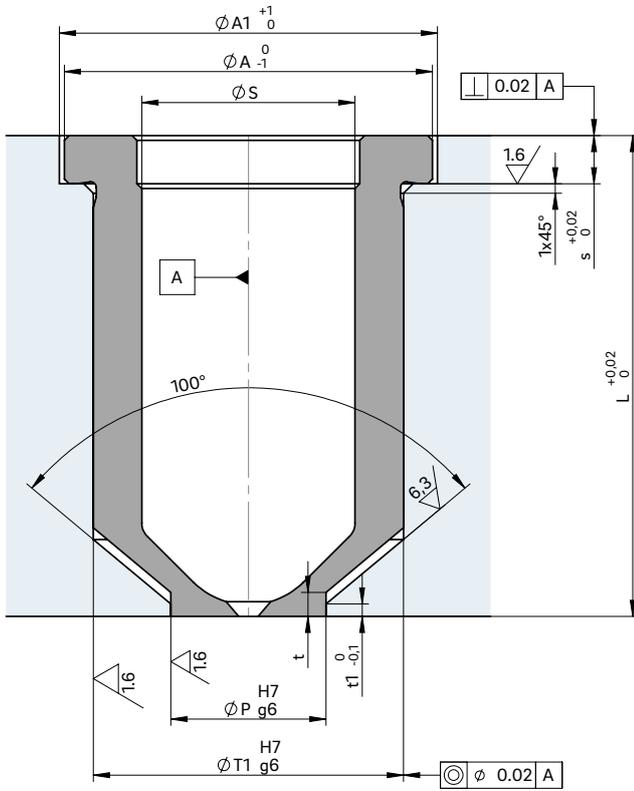


For open nozzles with a tip/open nozzles with a straight outlet for antechamber versions A/B and nozzle piece C

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23050



GATE BUSHING INSTALLATION



Nozzle type designation	Gate bushing type/length (mm)													
	L=50		L=60		L=80		L=100		L=120					
4SHF/4DHF	■	15VA	■	15VA	■	15VA								
4STT/4DTT	■	15VA	■	15VA	■	15VA								
4SMT/4DMT	■	20VA	■	20VA	■	20VA	■	20VA						
5SHT/5DHT	■	22VA	□	22VAV	■	22VA	□	22VAV	■	22VA	□	22VAV		
5SMT/5DMT	■	22VA	□	22VAV	■	22VA	□	22VAV	■	22VA	□	22VAV		
6SHF/6DHF	■	22VA	□	22VAV	■	22VA	□	22VAV	■	22VA	□	22VAV		
6STT/6DTT	■	22VA	□	22VAV	■	22VA	□	22VAV	■	22VA	□	22VAV		
6SHT/6DHT	■	26VA	□	26VAV	■	26VA	□	26VAV	■	26VA	□	26VAV		
6SMT/6DMT	■	26VA	□	26VAV	■	26VA	□	26VAV	■	26VA	□	26VAV		
8SET/8DET	■	26VA	□	26VAV	■	26VA	□	26VAV	■	26VA	□	26VAV		
8SHF/8DHF	■	26VA	□	26VAV	■	26VA	□	26VAV	■	26VA	□	26VAV		
8SHT/8DHT	■	26VA	□	26VAV	■	26VA	□	26VAV	■	26VA	□	26VAV		
8SMT/8DMT	■	26VA	□	26VAV	■	26VA	□	26VAV	■	26VA	□	26VAV		
10SHT/10DHT			■	32VA	□	32VAV	■	32VA	□	32VAV	■	32VA	□	32VAV
10SMT/10DMT			■	32VA	□	32VAV	■	32VA	□	32VAV	■	32VA	□	32VAV
12SET/12DET			■	38VA	□	38VAV	■	38VA	□	38VAV	■	38VA	□	38VAV
12SHT/12DHT			■	38VA	□	38VAV	■	38VA	□	38VAV	■	38VA	□	38VAV
12SMT/12DMT			■	38VA	□	38VAV	■	38VA	□	38VAV	■	38VA	□	38VAV

■ available □ on request



Gate bushing type VB

Versions VB

TECHNICAL DATA

Dimensions

	Version (mm)									
	ØA	ØS	ØT ₁	s	ØA ₁	R	ØP	t ₁	t	
18VB	38	18	26	5	39 ¹	8	16	2.3	2.5	

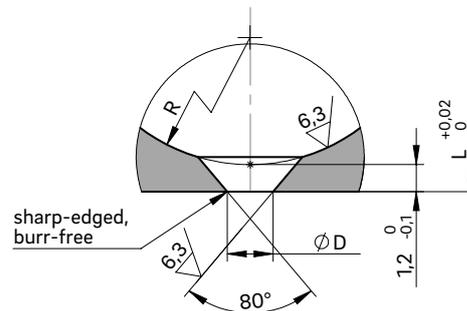
¹ØA₁ = 43 mm with nozzle type 5SEF/5DEF

NOTE

After eroding the gate bushing, it must be annealed to remove stress (1 hour at 470 °C).



ANTECHAMBER VERSIONS A/B

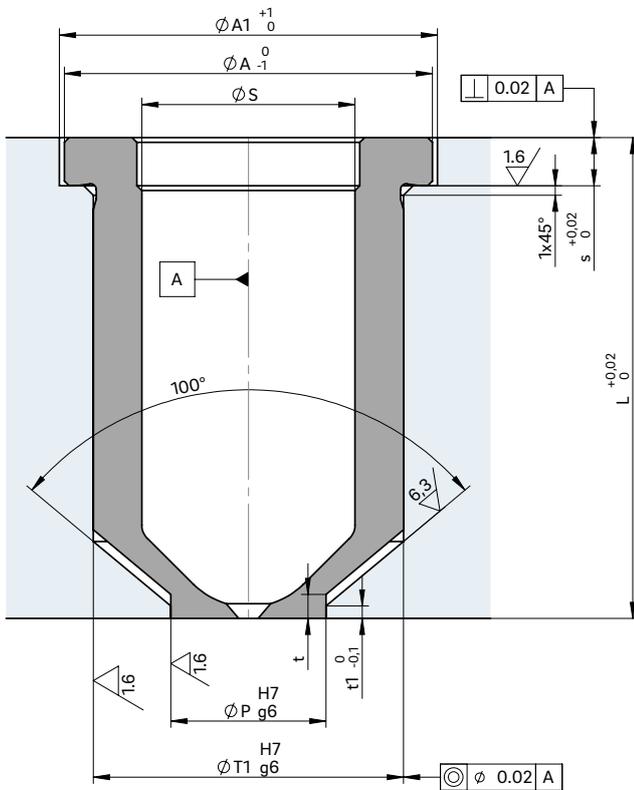


For open nozzles with a tip/open nozzles with a straight outlet for antechamber versions A/B and nozzle piece C

WEBCODE
23055



GATE BUSHING INSTALLATION



Nozzle type designation	Gate bushing type/length (mm)			
	L = 50	L = 60	L = 80	L = 100
5SEF/5DEF	■ 18VB	■ 18VB	■ 18VB	
5SHF/5DHF	■ 18VB	■ 18VB	■ 18VB	■ 18VB
5STT/5DTT	■ 18VB	■ 18VB	■ 18VB	■ 18VB

■ available



Gate bushing type VC/VCV

Versions VC and VCV with wear protection

TECHNICAL DATA

Dimensions

	Version (mm)									
	ØA	ØS	ØT ₁	s	ØA ₁	R	ØP	t ₁	t	
15VC	35	15	22	5	36	5	12	2.3	2.5	
20VC	35	20	28	5	36	5	16	2.3	2.5	
22VC/VCV	38	22	32	5	39	8	16	2.3	2.5	
26VC/VCV	45	26	36	5	46 ^{1,2}	8	16	2.3	2.5	
32VC/VCV	50	32	42	9	56	13	20	3.3	3.5	
38VC/VCV	59	38	48	12	60	16	26	4.3	4.5	

¹ØA₁ = 49 mm with nozzle type 8DET

²ØA₁ = 56 mm with nozzle type 8DHT

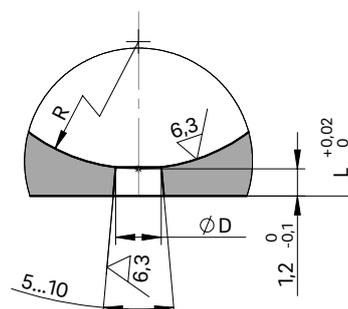
NOTE

When using a gate bushing of size ØS = 26 mm, ØS = 32 mm or ØS = 38 mm in conjunction with nozzle types _ET and _HT, we recommend consulting with the engineers.

After eroding the gate bushing, it must be annealed to remove stress (1 hour at 470 °C).



ANTECHAMBER VERSIONS C AND D

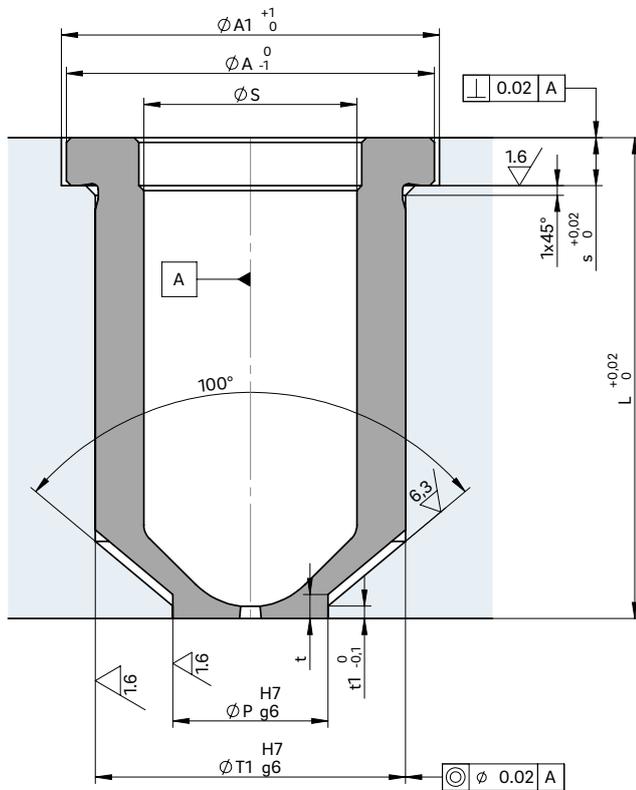


For open nozzles with a straight outlet for antechamber version C and D and nozzle piece A

WEBCODE
23060



GATE BUSHING INSTALLATION



Nozzle type designation	Gate bushing type/length (mm)											
	L=50		L=60		L=80		L=100		L=120			
4DHF	■ 15VC		■ 15VC		■ 15VC							
4DTT	■ 15VC		■ 15VC		■ 15VC							
4DMT	■ 20VC		■ 20VC		■ 20VC		■ 20VC					
5DHT	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV				
5DMT	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV
6DHF	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV
6DTT	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV	■ 22VC	□ 22VCV
6DHT	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV
6DMT	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV
8DET	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV
8DHF	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV
8DHT	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV
8DMT	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV	■ 26VC	□ 26VCV
10DHT			■ 32VC	□ 32VCV								
10DMT			■ 32VC	□ 32VCV								
12DET			■ 38VC	□ 38VCV								
12DHT			■ 38VC	□ 38VCV								
12DMT			■ 38VC	□ 38VCV								

■ available □ on request



Gate bushing type VD

Versions VD

TECHNICAL DATA

Dimensions

	Version (mm)								
	$\varnothing A$	$\varnothing S$	$\varnothing T_1$	s	$\varnothing A_1$	R	$\varnothing P$	t_1	t
18VD	38	18	26	5	39 ¹	8	16	2.3	2.5

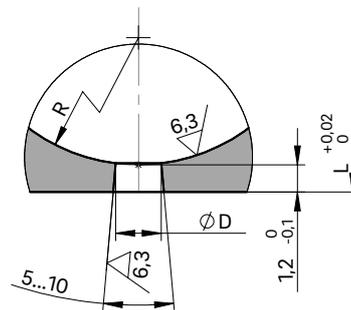
¹ $\varnothing A_1 = 43$ mm with nozzle type 5DEF

NOTE

After eroding the gate bushing, it must be annealed to remove stress (1 hour at 470 °C).



ANTECHAMBER VERSIONS C AND D

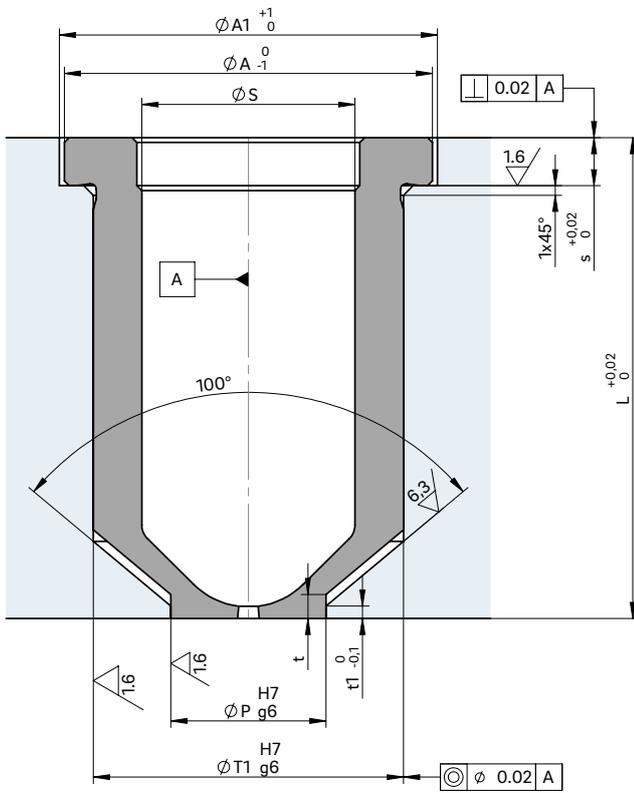


For open nozzles with a straight outlet
for antechamber version C and D and
nozzle piece A

WEBCODE
23065



GATE BUSHING INSTALLATION



Nozzle type designation	Gate bushing type/length (mm)			
	L = 50	L = 60	L = 80	L = 100
5DEF	■ 18VD	■ 18VD	■ 18VD	
5DHF	■ 18VD	■ 18VD	■ 18VD	■ 18VD
5DTT	■ 18VD	■ 18VD	■ 18VD	■ 18VD

■ available