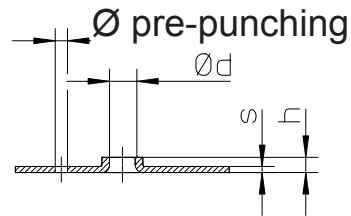
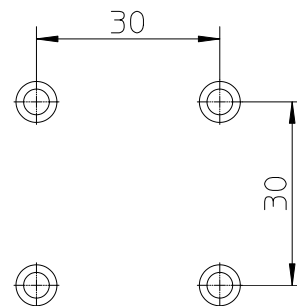




# Extrusion Tool



please inform if smaller distances are required!



<b>tool complete</b>	<b>part.-no.</b>	<b>910100.</b>
thread upform	add. part.-no.:	Y.
thread downform	add. part.-no.:	Z.
thread-forming	add. part.-no.:	0F.
thread-cutting	add. part.-no.:	0S.
M2,5	add. part.-no.:	025.
M3	add. part.-no.:	030.
M4	add. part.-no.:	040.
M5	add. part.-no.:	050.
M6	add. part.-no.:	060.
M8	add. part.-no.:	080.
s = 0,8	add. part.-no.:	08.
s = 1,0	add. part.-no.:	10.
s = 1,5	add. part.-no.:	15.
s = 2,0	add. part.-no.:	20.
s = 2,5	add. part.-no.:	25.
s = 3,0	add. part.-no.:	30.
Mild Steel	add. part.-no.:	ST
Aluminium	add. part.-no.:	AL
Stainless steel	add. part.-no.:	VA
<b>tool example:</b>	<b>part.-no.:</b>	<b>910100. Y. 0F. 040. 10. ST</b>

tool complete

upform

thread-cutting

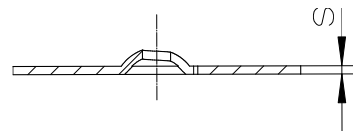
M4

s = 1,0

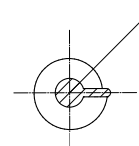
Mild Steel



# Thread Forming Tool



Pre-Punch Tool



<b>Thread Forming Tool</b>	<b>part.-no.:</b>	<b>911200.</b>
<b>Pre-Punch Tool cpl.</b>	<b>part.-no.:</b>	<b>9112A0.</b>
thread Forming - upform	add. part.-no.:	Y.
thread Forming - downform	add. part.-no.:	Z.
thread-size 3,5	add. part.-no.:	035.
thread-size 3,9	add. part.-no.:	039.
thread-size 4,2	add. part.-no.:	042.
thread-size 4,8	add. part.-no.:	048.
thread-size 5,5	add. part.-no.:	055.
thread-size 6,3	add. part.-no.:	063.
s = 0,5	add. part.-no.:	05.
s = 0,8	add. part.-no.:	08.
s = 1,0	add. part.-no.:	10.
s = 1,2	add. part.-no.:	12.
s = 1,5	add. part.-no.:	15.
Mild Steel	add. part.-no.:	ST
Aluminium	add. part.-no.:	AL
Stainless steel	add. part.-no.:	VA
<b>tool example:</b>	<b>part.-no.:</b>	<b>911200. Y. 042. 08. ST</b>

Thread Forming  
Tool

upform

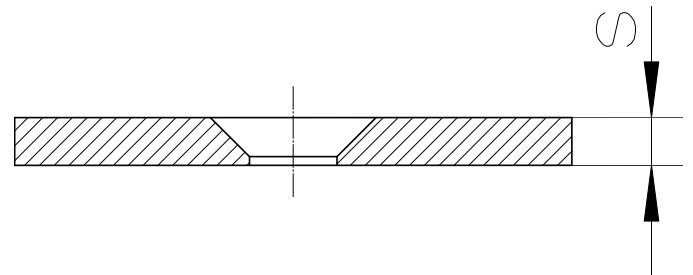
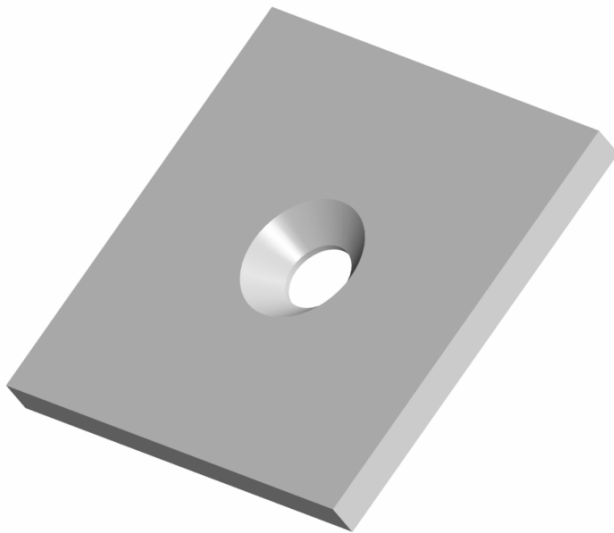
sheet-  
screw 4,2

s = 0,8

Mild Steel



# Counter Sink Tool



<b>tool complete</b>	<b>part.-no.</b>	<b>910900.</b>
shape from bottom	add. part.-no.:	Y.
shape from above	add. part.-no.:	Z.
AM-shape	add. part.-no.:	AM.
BM-shape	add. part.-no.:	BM.
M2,5	add. part.-no.:	025.
M3	add. part.-no.:	030.
M4	add. part.-no.:	040.
M5	add. part.-no.:	050.
M6	add. part.-no.:	060.
M8	add. part.-no.:	080.
s = 0,8	add. part.-no.:	08.
s = 1,0	add. part.-no.:	10.
s = 1,5	add. part.-no.:	15.
s = 2,0	add. part.-no.:	20.
s = 2,5	add. part.-no.:	25.
s = 3,0	add. part.-no.:	30.
s = 4,0	add. part.-no.:	40.
Mild Steel	add. part.-no.:	ST
Aluminium	add. part.-no.:	AL
Stainless steel	add. part.-no.:	VA
<b>tool example:</b>	<b>part.-no.:</b>	<b>910900. Y. AM. 050. 40. AL</b>

tool complete

from bottom

AM-  
shape

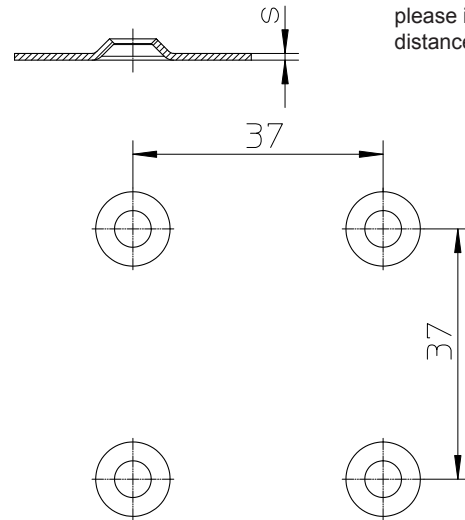
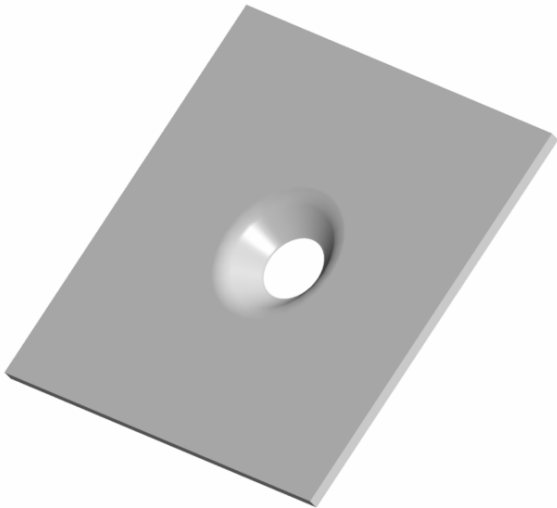
M5

s = 4,0

Aluminium



# Emboss Counter Sink Tool



please inform if smaller distances are required!

<b>tool complete</b>	<b>part.-no.</b>	<b>911700.</b>
Emboss - upform	add. part.-no.:	Y.
Emboss - downform	add. part.-no.:	Z.
M2,5	add. part.-no.:	025.
M3	add. part.-no.:	030.
M4	add. part.-no.:	040.
M5	add. part.-no.:	050.
M6	add. part.-no.:	060.
M8	add. part.-no.:	080.
M10	add. part.-no.:	100.
s = 0,8	add. part.-no.:	08.
s = 1,0	add. part.-no.:	10.
s = 1,5	add. part.-no.:	15.
s = 2,0	add. part.-no.:	20.
s = 2,5	add. part.-no.:	25.
s = 3,0	add. part.-no.:	30.
Mild Steel	add. part.-no.:	ST
Aluminium	add. part.-no.:	AL
Stainless steel	add. part.-no.:	VA
<b>tool example:</b>	<b>part.-no.:</b>	<b>911700. Y. 030. 20. ST</b>

tool complete

upform

M3

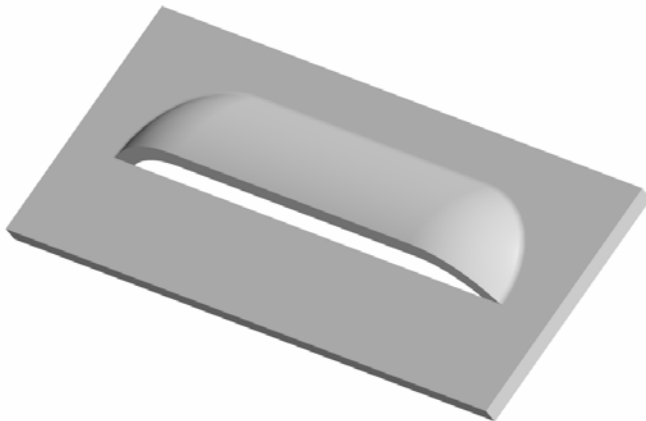
s = 2

Steel



# Louver Tool

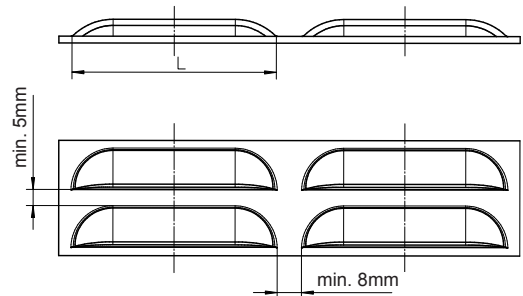
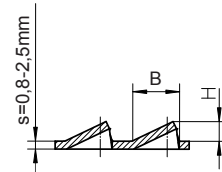
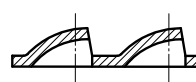
for  $s = 0,8 - 2,5 \text{ mm}$



Louver shape „A“



Louver shape „B“



<b>tool complete</b>	<b>part.-no.:</b>	<b>912200.</b>				
Emboss - upform	add. part.-no.:	Y.				
Embos - downform	add. part.-no.:	Z.				
Louver shape "A"	add. part.-no.:	A.				
Louver shape "B"	add. part.-no.:	B.				
B = 8 / H = 3	add. part.-no.:		083.			
B = 10 / H = 4	add. part.-no.:		104.			
B = 12 / H = 5	add. part.-no.:		125.			
B = 15 / H = 6	add. part.-no.:		156.			
L = 40	add. part.-no.:			40.		
L = 50	add. part.-no.:			50.		
L = 60	add. part.-no.:			60.		
Mild Steel	add. part.-no.:				ST	
Aluminium	add. part.-no.:				AL	
Stainless steel	add. part.-no.:				VA	
<b>tool example:</b>	<b>part.-no.:</b>	<b>912200.</b>	<b>Y.</b>	<b>A.</b>	<b>125.</b>	<b>60.</b>
						<b>ST</b>

tool complete

upform

Louver shape "A"

B = 12 / H = 5

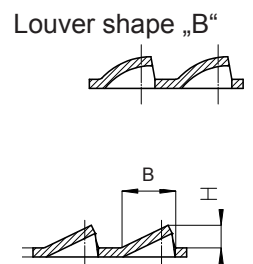
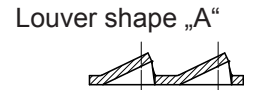
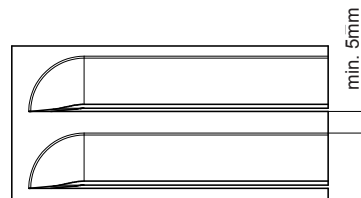
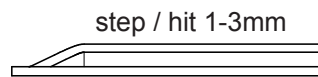
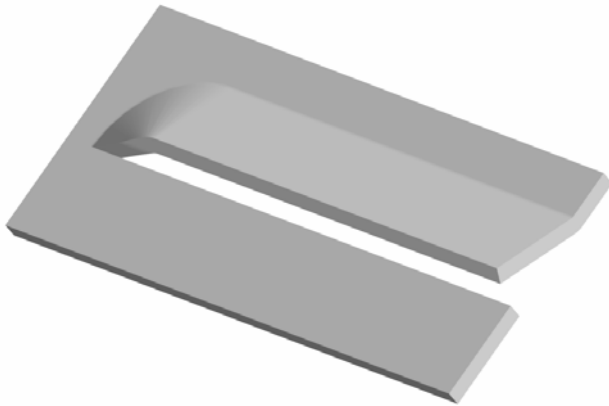
L = 60

Mild Steel



# Continuous Louver Tool

for  $s = 0,8 - 2,5 \text{ mm}$

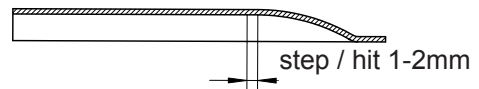
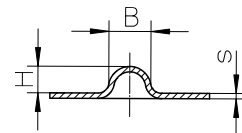
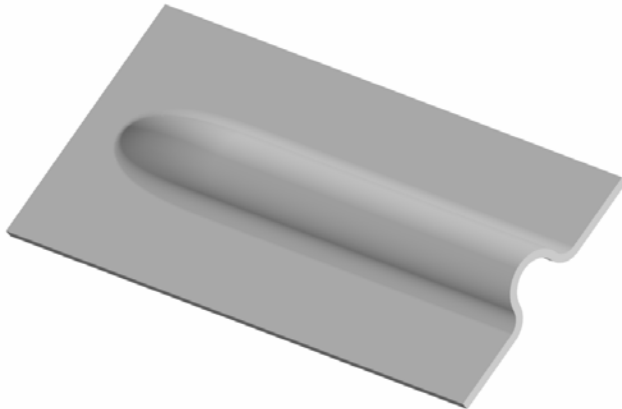


<b>tool complete</b>	<b>part.-no.:</b>	<b>912400.</b>				
Emboss - upform	add. part.-no.:	Y.				
Emboss - downform	add. part.-no.:	Z.				
Louver shape "A"	add. part.-no.:	A.				
Louver shape "B"	add. part.-no.:	B.				
B = 8 / H = 3	add. part.-no.:	083.				
B = 10 / H = 4	add. part.-no.:	104.				
B = 12 / H = 5	add. part.-no.:	125.				
Mild Steel	add. part.-no.:	ST				
Aluminium	add. part.-no.:	AL				
Stainless steel	add. part.-no.:	VA				
<b>tool example:</b>	<b>part.-no.:</b>	<b>912400.</b>	<b>Y.</b>	<b>A.</b>	<b>125.</b>	<b>ST</b>

tool complete  
upform  
Louver shape  
"A"  
B = 12 / H = 5  
Mild Steel



# Countinous Beading Tool

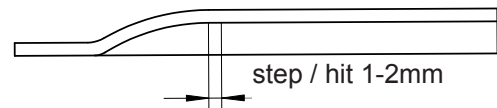
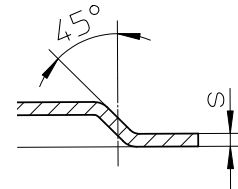
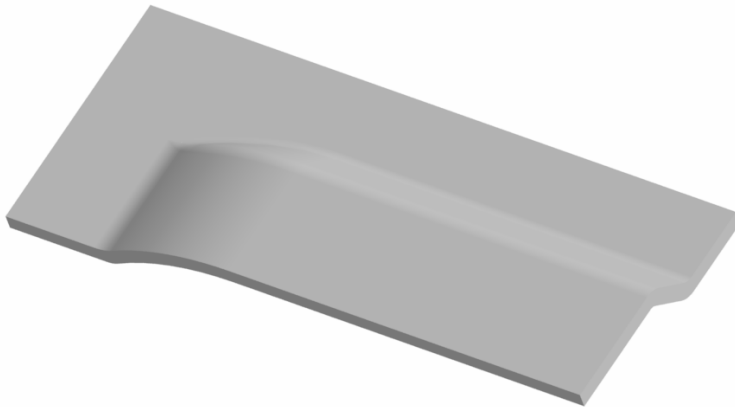


<b>tool complete</b>	<b>part.-no.:</b>	<b>912600.</b>
Emboss - upform	add. part.-no.:	Y.
Emboss - downform	add. part.-no.:	Z.
B = 4 / H = 2	add. part.-no.:	042.
B = 6 / H = 3	add. part.-no.:	063.
B = 8 / H = 4	add. part.-no.:	084.
B = 10 / H = 5	add. part.-no.:	105.
s = 0,8	add. part.-no.:	08.
s = 1,0	add. part.-no.:	10.
s = 1,5	add. part.-no.:	15.
s = 2,0	add. part.-no.:	20.
s = 2,5	add. part.-no.:	25.
s = 3,0	add. part.-no.:	30.
Mild Steel	add. part.-no.:	ST
Aluminium	add. part.-no.:	AL
Stainless steel	add. part.-no.:	VA
<b>tool example:</b>	<b>part.-no.:</b>	<b>912600. Y. 105. 10. VA</b>

tool complete  
 upform  
 B = 10 / H = 5  
 s = 1,0  
 Mild Steel



# Continuous Offset Tool



<b>tool complete</b>	<b>part.-no.:</b>	<b>912800.</b>
H = 1,0	add. part.-no.:	010.
H = 1,5	add. part.-no.:	015.
H = 2,0	add. part.-no.:	020.
H = 2,5	add. part.-no.:	025.
H = 3,0	add. part.-no.:	030.
H = 4,0	add. part.-no.:	040.
H = 5,0	add. part.-no.:	050.
s = 0,8	add. part.-no.:	08.
s = 1,0	add. part.-no.:	10.
s = 1,5	add. part.-no.:	15.
s = 2,0	add. part.-no.:	20.
s = 2,5	add. part.-no.:	25.
s = 3,0	add. part.-no.:	30.
Mild Steel	add. part.-no.:	ST
Aluminium	add. part.-no.:	AL
Stainless steel	add. part.-no.:	VA
<b>tool example:</b>	<b>part.-no.:</b>	<b>912800. 030. 15. AL</b>

tool complete

H = 3,0

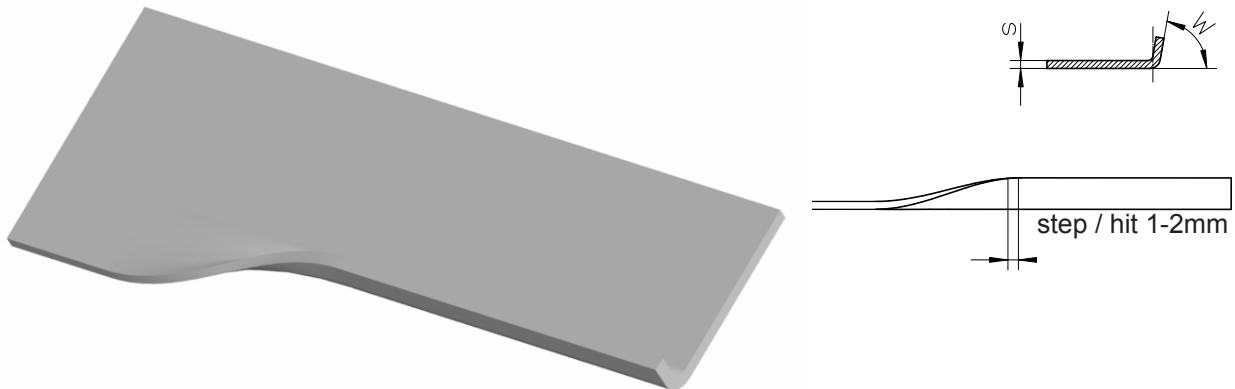
s = 1,5

Aluminium





# Continuous Bending Tool

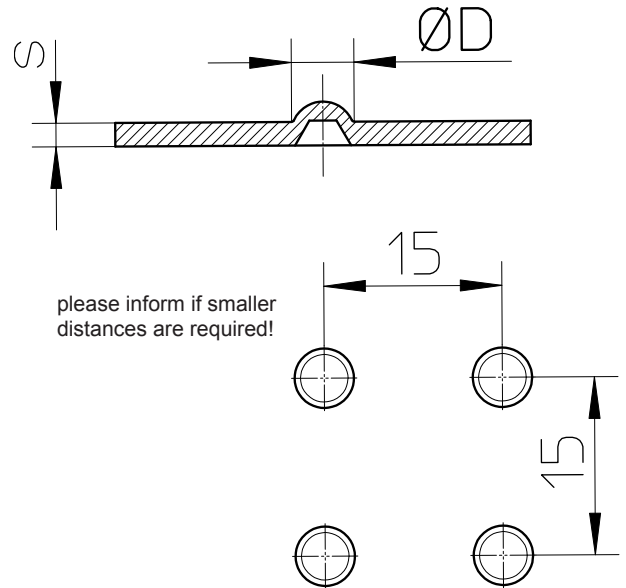
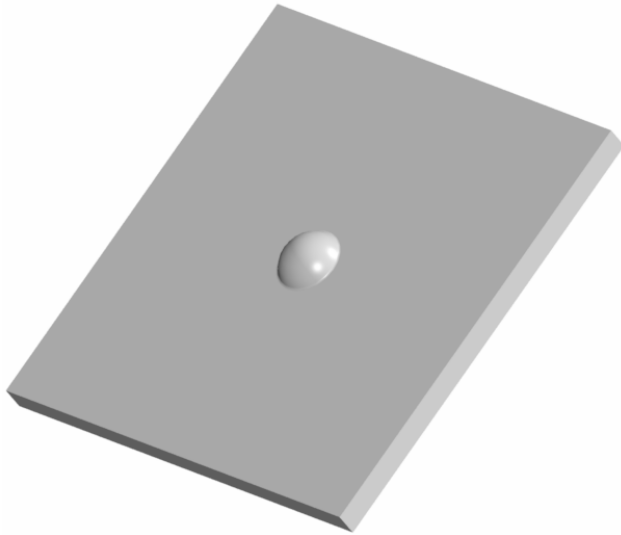


<b>tool complete</b>	<b>part.-no.:</b>	<b>912900.</b>			
Emboss - upform	add. part.-no.:	Y.			
W = 30°	add. part.-no.:	030.			
W = 45°	add. part.-no.:	045.			
W = 60°	add. part.-no.:	060.			
W = 80°	add. part.-no.:	080.			
s = 0,8	add. part.-no.:	08.			
s = 1,0	add. part.-no.:	10.			
s = 1,5	add. part.-no.:	15.			
s = 2,0	add. part.-no.:	20.			
Mild Steel	add. part.-no.:				ST
Aluminium	add. part.-no.:				AL
Stainless steel	add. part.-no.:				VA
<b>tool example:</b>	<b>part.-no.:</b>	<b>912900.</b>	<b>Y.</b>	<b>060.</b>	<b>10.</b> <b>ST</b>

tool complete  
upform  
angle = 60°  
s = 1,0  
Mild Steel



# Dimple Tool



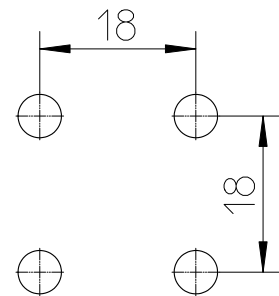
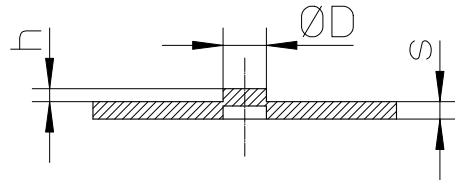
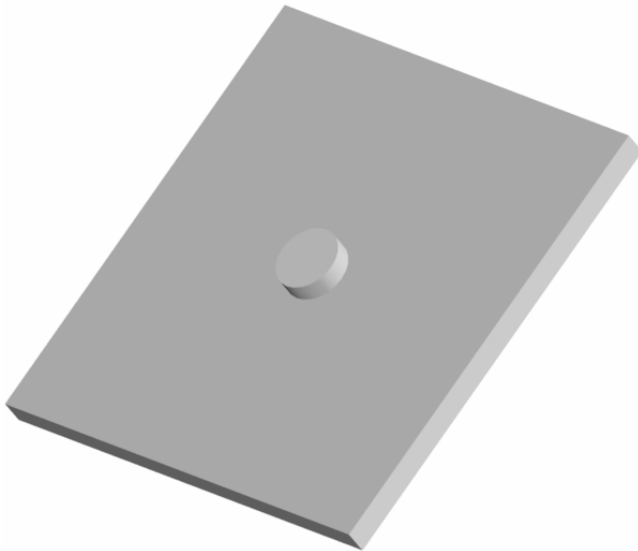
<b>tool complete</b>	<b>part.-no.:</b>	<b>911300.</b>
Emboss - upform	add. part.-no.:	Y.
Emboss - downform	add. part.-no.:	Z.
D = 1,6	add. part.-no.:	016.
D = 2,0	add. part.-no.:	020.
D = 2,5	add. part.-no.:	025.
D = 3,0	add. part.-no.:	030.
D = 3,2	add. part.-no.:	032.
D = 4,0	add. part.-no.:	040.
D = 5,0	add. part.-no.:	050.
D = 5,6	add. part.-no.:	056.
D = 6,0	add. part.-no.:	060.
s = 0,63	add. part.-no.:	063.
s = 0,8	add. part.-no.:	080.
s = 1,0	add. part.-no.:	100.
s = 1,5	add. part.-no.:	150.
s = 2,0	add. part.-no.:	200.
s = 2,5	add. part.-no.:	250.
s = 3,0	add. part.-no.:	300.
Mild Steel	add. part.-no.:	ST
Aluminium	add. part.-no.:	AL
Stainless steel	add. part.-no.:	VA
<b>tool example:</b>	<b>part.-no.:</b>	<b>911300. Y. 040. 200. VA</b>

tool complete  
upform  
D = 4,0  
s = 2,0  
Stainless Steel



# Half Shear Tool

for  $s = 0,8 - 2,5 \text{ mm}$  /  $h = 60\% \text{ of } s$



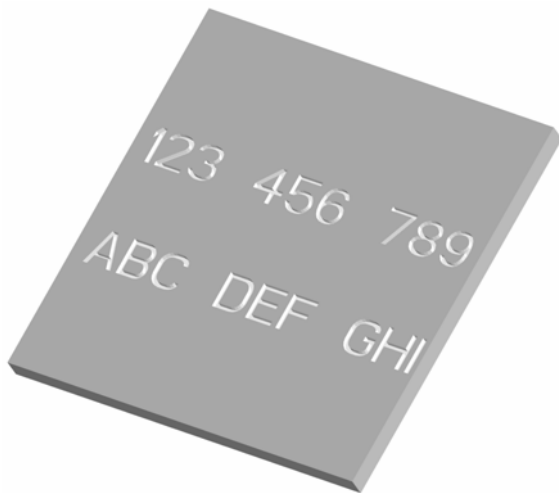
<b>tool complete</b>	<b>part.-no.:</b>	<b>911500.</b>
Emboss upform	add. part.-no.:	Y.
Emboss downform	add. part.-no.:	Z.
D = 2,0	add. part.-no.:	020.
D = 3,0	add. part.-no.:	030.
D = 4,0	add. part.-no.:	040.
D = 5,0	add. part.-no.:	050.
D = 6,0	add. part.-no.:	060.
Mild Steel	add. part.-no.:	ST
Aluminium	add. part.-no.:	AL
Stainless steel	add. part.-no.:	VA
<b>tool example:</b>	<b>part.-no.:</b>	<b>911500. Y. 020. ST</b>

tool complete  
upform  
D = 2,0  
Mild Steel



# Letter Marking Tool

(V-Line)

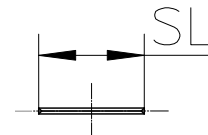
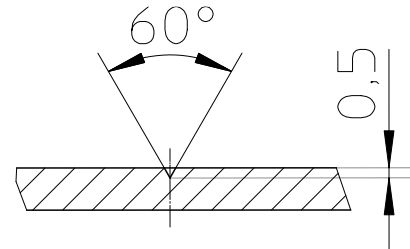
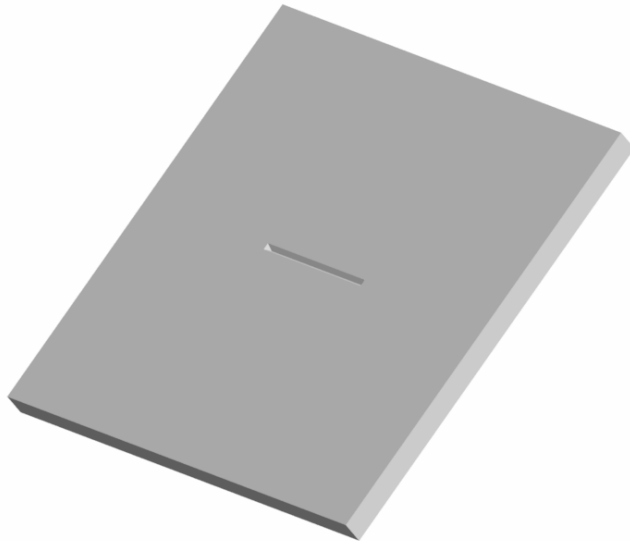


<b>Tool 1-line</b>	<b>part.-no.:</b>	<b>910700.</b>			
<b>Tool 2-line</b>	<b>part.-no.:</b>	<b>910750.</b>			
Emboss - upform	add. part.-no.:	Y.			
Emboss - downform	add. part.-no.:	Z.			
letter height 3 mm (15 pce. in row)	add. part.-no.:		030.		
letter height 4 mm (12 pce. in row)	add. part.-no.:		040.		
letter height 5 mm (10 pce. in row)	add. part.-no.:		050.		
s = 1,0 bis 4,0	add. part.-no.:			04.	
s = 4,1 bis 8,0	add. part.-no.:			08.	
<b>tool example:</b>	<b>part.-no.:</b>	<b>910700.</b>	<b>Y.</b>	<b>040.</b>	<b>04.</b>
	tool complete			letter height = 4	
	upform			s = 1,0 bis 4,0	



# Line Marking Tool

(V-Line)



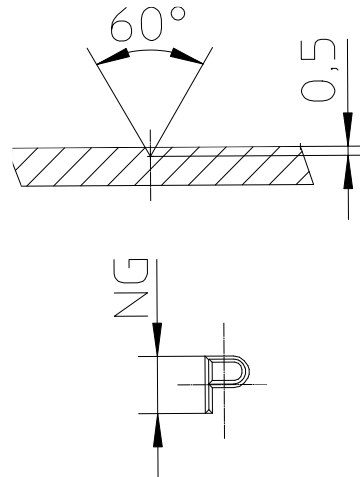
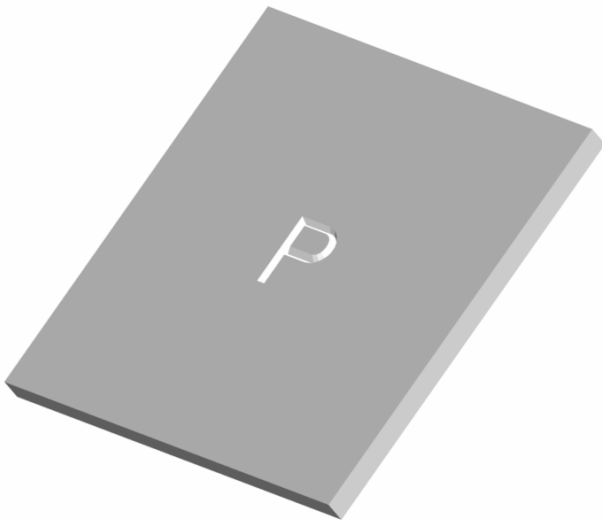
<b>tool complete</b>	<b>part.-no.:</b>	<b>910300.</b>			
Emboss - upform	add. part.-no.:	Y.			
Emboss - downform	add. part.-no.:	Z.			
line length 3 mm	add. part.-no.:	03.			
line length 4 mm	add. part.-no.:	04.			
line length 5 mm	add. part.-no.:	05.			
line length 6 mm	add. part.-no.:	06.			
line length 8 mm	add. part.-no.:	08.			
line length 10 mm	add. part.-no.:	10.			
s = 1,0 bis 4,0	add. part.-no.:	04.			
s = 4,1 bis 8,0	add. part.-no.:	08.			
Mild Steel	add. part.-no.:	ST			
Aluminium	add. part.-no.:	AL			
Stainless steel	add. part.-no.:	VA			
<b>tool example:</b>	<b>part.-no.:</b>	<b>910300.</b>	<b>Y.</b>	<b>04.</b>	<b>04.</b>

tool complete  
upform  
line length  
4 mm  
s = 1,0 bis 4,0  
mm  
(all sheet  
versions)



# Letter Marking Tool

(V-Line)



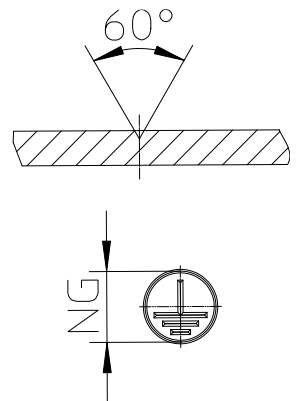
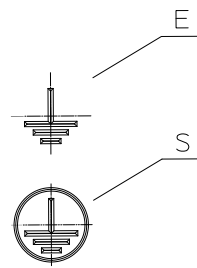
<b>tool complete</b>	<b>part.-no.:</b>	<b>910400.</b>
Emboss - upform	add. part.-no.:	Y.
Emboss - downform	add. part.-no.:	Z.
size NG 3 mm	add. part.-no.:	03.
size NG 4 mm	add. part.-no.:	04.
size NG 5 mm	add. part.-no.:	05.
size NG 6 mm	add. part.-no.:	06.
size NG 8 mm	add. part.-no.:	08.
size NG 10 mm	add. part.-no.:	10.
s = 1,0 bis 4,0	add. part.-no.:	04.
s = 4,1 bis 8,0	add. part.-no.:	08.
Mild Steel	add. part.-no.:	ST
Aluminium	add. part.-no.:	AL
Stainless steel	add. part.-no.:	VA
<b>tool example:</b>	<b>part.-no.:</b>	<b>910400. Y. 04. 04.</b>

tool complete  
upform  
size NG 4 mm  
s = 1,0 bis 4,0 mm  
(all sheet versions)



# Ground Symbol Marking Tool

(V-Line)

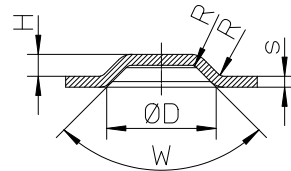
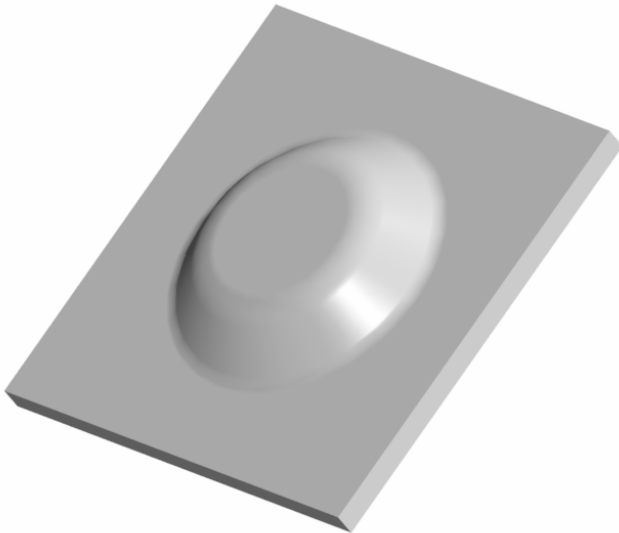


<b>tool complete</b>	<b>part.-no.:</b>	<b>910500.</b>				
Emboss - upform	add. part.-no.:	Y.				
Emboss - downform	add. part.-no.:	Z.				
ground symbol „E“	add. part.-no.:	E.				
ground symbol „S“	add. part.-no.:	S.				
size NG 4 mm	add. part.-no.:		04.			
size NG 5 mm	add. part.-no.:		05.			
size NG 6 mm	add. part.-no.:		06.			
size NG 8 mm	add. part.-no.:		08.			
size NG 10 mm	add. part.-no.:		10.			
size NG 12 mm	add. part.-no.:		12.			
s = 1,0 bis 4,0	add. part.-no.:		04.			
s = 4,1 bis 8,0	add. part.-no.:		08.			
Mild Steel	add. part.-no.:			ST		
Aluminium	add. part.-no.:			AL		
Stainless steel	add. part.-no.:			VA		
<b>tool example:</b>	<b>part.-no.:</b>	<b>910500.</b>	<b>Y.</b>	<b>E.</b>	<b>08.</b>	<b>04.</b>

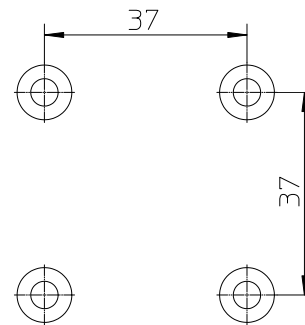
tool complete  
upform  
ground symbol „E“  
size NG 8  
s = 1,0 bis 4,0  
(all sheet versions)



# Round Emboss Tool



please inform if smaller distances are required!



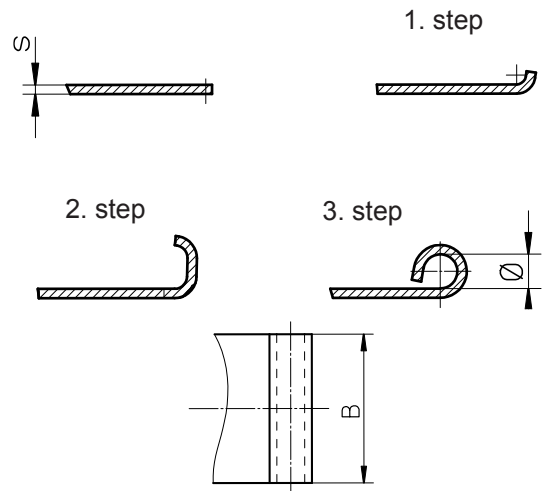
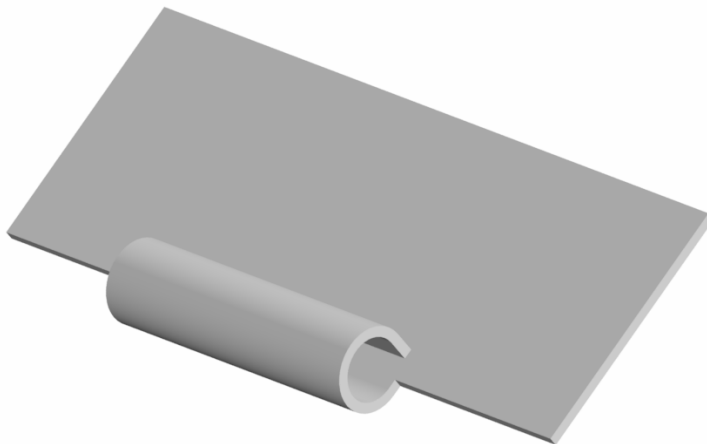
<b>tool complete</b>	<b>part.-no.:</b>	<b>911900.</b>						
Emboss - upform	add. part.-no.:	Y.						
Emboss - downform	add. part.-no.:	Z.						
D = 12	add. part.-no.:	12.						
D = 20	add. part.-no.:	20.						
D = 30	add. part.-no.:	30.						
H = 2,0	add. part.-no.:	020.						
H = 3,0	add. part.-no.:	030.						
H = 4,0	add. part.-no.:	040.						
H = 5,0	add. part.-no.:	050.						
s = 0,8	add. part.-no.:	08.						
s = 1,0	add. part.-no.:	10.						
s = 1,5	add. part.-no.:	15.						
s = 2,0	add. part.-no.:	20.						
s = 2,5	add. part.-no.:	25.						
s = 3,0	add. part.-no.:	30.						
w = 60°	add. part.-no.:	060.						
w = 90°	add. part.-no.:	090.						
w = 120°	add. part.-no.:	120.						
Mild Steel	add. part.-no.:							ST
Aluminium	add. part.-no.:							AL
Stainless steel	add. part.-no.:							VA
<b>tool example:</b>	<b>part.-no.:</b>	<b>911900.</b>	<b>Y.</b>	<b>20.</b>	<b>020.</b>	<b>10.</b>	<b>090.</b>	<b>VA</b>

tool complete  
upform  
D = 20  
H = 2,0  
s = 1,0  
Winkel = 90°  
Stainless Steel





# Hinge Tool Set

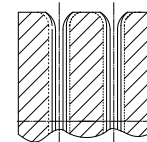
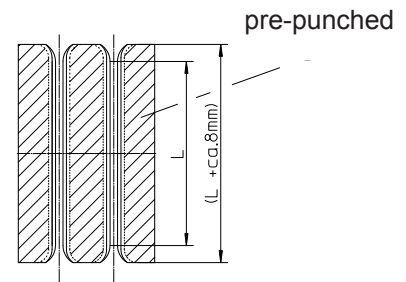
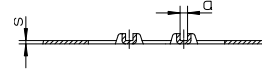
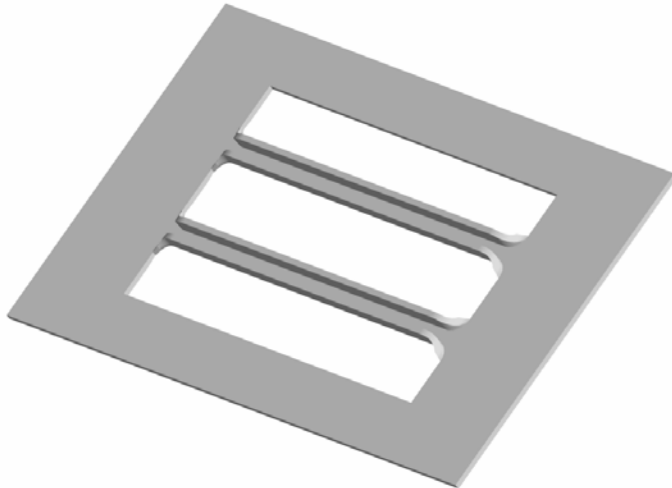


<b>tool set complete</b>	<b>part.-no.:</b>	<b>913000.</b>				
Emboss - upform			Y.			
Hinge diameter Ø 3,1	add. part.-no.:	030.				(for pin Ø 3,0)
Hinge diameter Ø 4,1	add. part.-no.:	040.				(for pin Ø 4,0)
Hinge diameter Ø 4,6	add. part.-no.:	045.				(for pin Ø 4,5)
Hinge diameter Ø 5,1	add. part.-no.:	050.				(for pin Ø 5,0)
Hinge diameter Ø 5,6	add. part.-no.:	055.				(for pin Ø 5,5)
Hinge diameter Ø 6,1	add. part.-no.:	060.				(for pin Ø 6,0)
Hinge length 20,0	add. part.-no.:		20.			
Hinge length 30,0	add. part.-no.:		30.			
Hinge length 40,0	add. part.-no.:		40.			
s = 0,5	add. part.-no.:			05.		
s = 0,8	add. part.-no.:			08.		
s = 1,0	add. part.-no.:			10.		
s = 1,2	add. part.-no.:			12.		
s = 1,5	add. part.-no.:			15.		
Mild Steel	add. part.-no.:				ST	
Aluminium	add. part.-no.:				AL	
Stainless steel	add. part.-no.:				VA	
<b>tool example:</b>	<b>part.-no.:</b>	<b>913000.</b>	<b>Y.</b>	<b>050.</b>	<b>30.</b>	<b>10.</b>
						<b>ST</b>

tool set complete  
upform  
hinge-  
for pin Ø 5,1  
hinge-  
length = 30  
s = 1,0  
Mild Steel



# Card Guide Tool



<b>tool complete</b>	<b>part-no.</b>	<b>913100.</b>
Emboss - upform	add. part.-no:	Y
guide width 2,1	add. part.-no:	020.
guide width 2,6	add. part.-no:	025.
guide width 3,1	add. part.-no:	030.
guide width 3,6	add. part.-no:	035.
guide width 4,1	add. part.-no:	040.
guide width 5,1	add. part.-no:	050.
guide length = 30,0	add. part.-no:	30.
guide length = 40,0	add. part.-no:	40.
guide length = 50,0	add. part.-no:	50.
s=0,5	add. part.-no:	05.
s=0,8	add. part.-no:	08.
s=1,0	add. part.-no:	10.
s=1,2	add. part.-no:	12.
s=1,5	add. part.-no:	15.
Mild Steel	add. part.-no:	ST
Aluminium	add. part.-no:	AL
Stainless steel	add. part.-no:	VA
<b>tool example</b>	<b>part-no.:</b>	<b>913100. Y. 030. 40. 10. ST</b>

tool complete  
upform  
guide-  
width 3,0  
guide-  
length = 40  
s = 1,0  
Mild Steel