Blank Calculations and Tolerances

Calculations

Sheet development:

$A = [(d + s) \times \pi] + O$

A = sheet development [mm]
d = Body blank inside diameter (round up to two decimal digits) [mm]
s = Sheet thickness [mm]
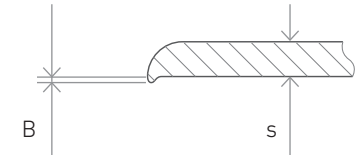π = 3.14159
O = Overlap (nosepiece overlap + 0.10 mm)

Burr:
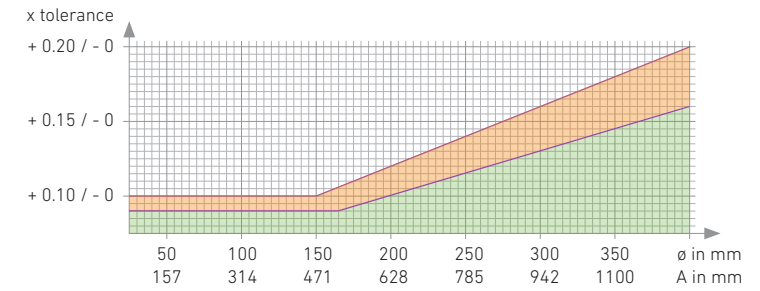
$B = \text{max. } 0.15 \times s$

Example:
s = 0.20 mm
B = 0.15 × 0.20 mm = 0.03 mm
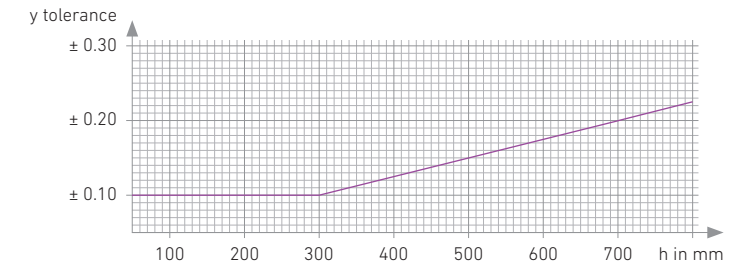
CAN MAN

Can Man AG
Switzerland

Muelisacker 221
CH-5705 Hallwil

T +41 62 777 444 0
F +41 62 777 444 1

info@canman.ch
www.canman.ch

Blank Calculations and Tolerances

Tolerances

Development tolerance

A = development

½ x   ½ x   ½ x   ½ x

x tolerance

+ 0.20 / – 0

+ 0.15 / – 0

+ 0.10 / – 0

| | 50 | 100 | 150 | 200 | 250 | 300 | 350 | ø in mm |
| | 157 | 314 | 471 | 628 | 785 | 942 | 1100 | A in mm |

Height tolerance

½ y
½ y
h = height
½ y
½ y

y tolerance

± 0.30

± 0.20

± 0.10

100   200   300   400   500   600   700   h in mm

Angular tolerance

z   z

z tolerance

± 0.30

± 0.20

± 0.10

± 0.05

100   200   300   400   500   600   700   h in mm

Can Man AG
Switzerland

Muelisacker 221
CH-5705 Hallwil

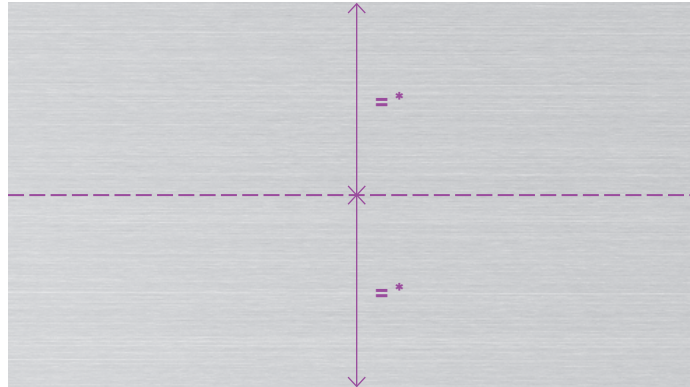T +41 62 777 444 0
F +41 62 777 444 1

info@canman.ch
www.canman.ch
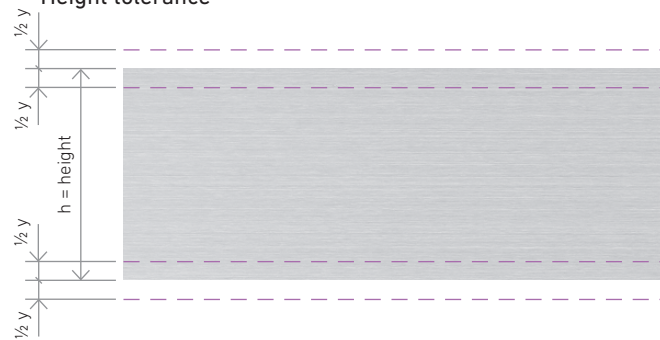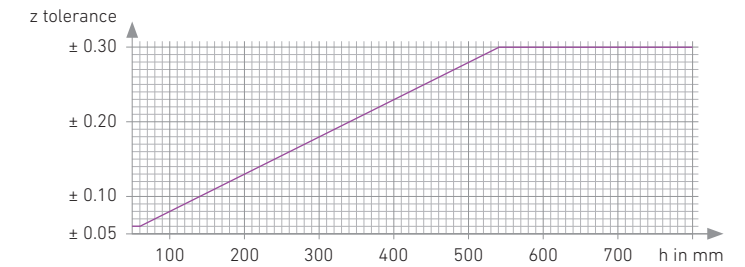
Blank Tolerances with built-in Scoring Unit

Scoring line

* The scoring line must always be exactly in the middle of the cylinder height. Both, the deviation of the score line (in height) as well as the offset at the welded seam (at the side), must be within ± 0.1 mm. Larger deviations may result in problems because the score line is no longer flush with the parter.

Wall thickness after scoring
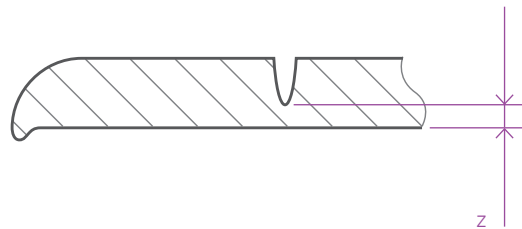
z = Residual wall thickness after scoring must be 0.05 mm with a tolerance of ± 0.005 mm and must not exceed 30% of sheet thickness. A scored blank must break when folded at an angle of 90°.