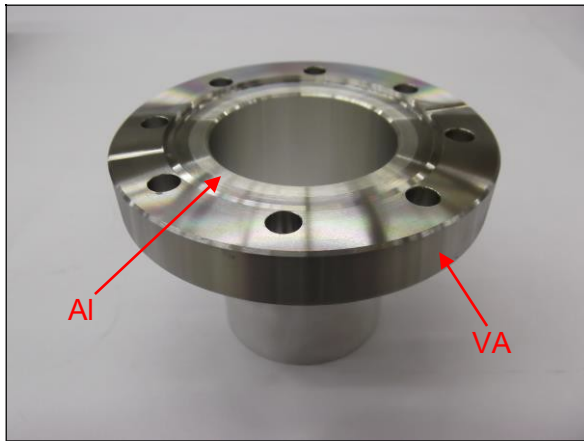


Bimetallic – CF – Flanges

for UHV Aluminum vacuum systems



DN 63



DN 200

Specification

These flanges are fully compatible with industry standard CF – Flanges. The combination of these two materials allow for welding on Aluminum vacuum chambers and features stainless steel knife-edge. Aluminum is becoming more popular in the vacuum branche: Very low outgassing rate, non magnetic and high material removing by machining. These material properties in combination with the stainless steel CF – contour creates a reliable solution for every vacuum requirement.

Material

The vacuum-proof connection between Aluminum and stainless steel is realized by a special kind of pressure welding. Following alloy combinations are possible:

- Aluminium: EN AW 5754
- Stainless Steel: 1.4301, 1.4404, 1.4429 ESU

Helium Leak Test

$Q < 1 \times 10^{-9}$ mbar l/s

Thermal

- max. bakeout temperature: +250 °C
- min. operational temperature: -196 °C

Mechanical

- Bending-Test butt joint → 170° without cracks
- Tensile-Test butt joint → Material failure in aluminum

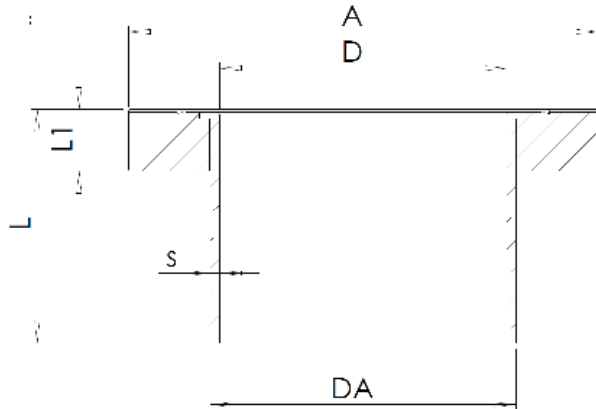
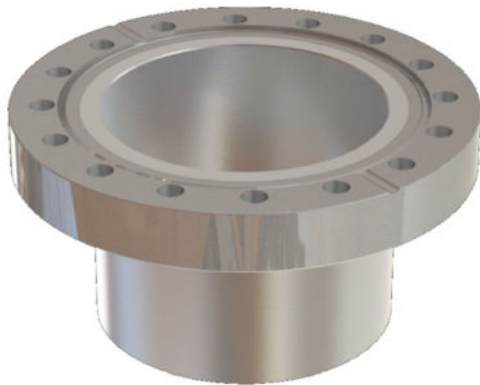
Physical

- Permeability joint → 1, 005



Bimetallic – CF – Flanges

for UHV Aluminum vacuum systems



Art.-Nr.			DN	D	L	DA	A	s	L1
304	316L	316LNS							
FSW-SW40T-304	FSW-SW40T-316L	FSW-SW40T-316LNS	40	30	40-120	33	70	1,5	13
FSW-SW63T-304	FSW-SW63T-316L	FSW-SW63T-316LNS	63	57,2	48-120	61,2	113,5	2	17,5
FSW-SW100T-304	FSW-SW100T-316L	FSW-SW100T-316LNS	100	93,4	50-120	99,3	152	2,95	20
FSW-SW150T-304	FSW-SW150T-316L	FSW-SW150T-316LNS	150	144,1	52-120	150,1	203	3	22
FSW-SW200T-304	FSW-SW200T-316L	FSW-SW200T-316LNS	200	194,9	55-120	200,9	253	3	25
FSW-SW300T-304	FSW-SW300T-316L	FSW-SW300T-316LNS	300	298,8	58-80	305	368,3	3	28

- Cleaned according to UHV
- Other dimensions on request
- Customized flanges on request
- Option: With threads

