

# User Recommendation

## NEUMO ConnectS® Flange Connection

You have purchased a high precision item, which demands special requirements on handling and welding technology during installation. In order to ensure the optimal sterile function of the system, following recommendations should be followed:

1. NEUMO ConnectS® Flange Connections are delivered pressure tested, but disassembled and single packed. In order to prevent any damage of the sealing faces, please remove the packaging directly before installation only.
2. While the items are disassembled, make sure that the sealing faces are not damaged. If necessary, cover the same with plastic protection end caps. In case of any damage, NEUMO can not guarantee the functionality of the Flange Connection anymore.
3. During welding of the flanges, make sure that the thermal influence on the sealing area is kept as low as possible. Excessive heat introduction may result in a deformation of the sealing faces. The weld ends shall not be cut back.
4. It's important that the sealing faces do not show any traces of dirt or grease during installation and assembly.
5. To avoid distortion when bolting the flanges together, the bolts should be tightened in a cross bolt tightening pattern. Tightening torques and the respective information on the individual bolt sizes can be taken out of the chart below.

	M8	M10	M12	M14	M16
Friction coefficient	Tightening torque				
0,10	14,5	30,0	50,0	79,0	121,0
0,12	16,3	33,0	56,0	89,0	136,0
0,14	17,8	36,0	62,0	98,0	150,0
0,16	19,3	39,0	66,0	105,0	162,0
0,18	20,4	41,0	70,0	112,0	173,0
0,20*	21,5	44,0	74,0	119,0	183,0
0,30	25,5	51,0	88,0	141,0	218,0
0,40	27,6	56,0	96,0	152,0	237,0

\* Recommended torque!

### Technical Information on tightening torques for bolts:

As in practice, different friction coefficients may occur, the torques listed in the above chart are considered as reference values only!  
 These torques apply to bolts EN 24014 / 24017, property class 70, at ambient temperature.  
 Before determining the ultimate torque, we recommend tests under operating conditions.

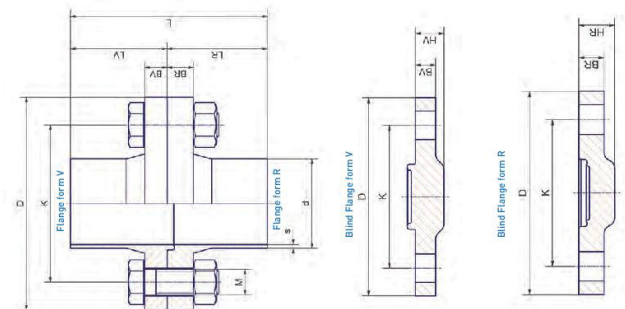
We are confident that by considering these basic guidelines you will be able to appreciate the advantages of the ConnectS® connection. We are looking forward to receive your feedback.



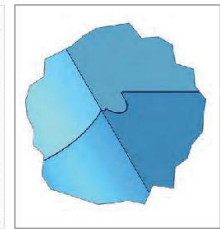
ConnectS® – Flange Connection



ConnectS® – Flange Connection



Technical Data	
Material*	1.4435/316L
Surface finish (product condition)	Ra < 0,8 µm precision turned finish
Sealing	Ethamer-free (medical)
Max. permissible pressure	PN10 (DN65/21/2 - DN100/4.1) Type PN100 (up to DN65 available as special design)
Max. operating temperature	-10°C / +200°C
Delta ferrite content max material*	< 1%
Connections*	Orbital welding ends in accordance with DIN11846 line A (DIN), line B (ISO), line C (ASME-BPE)
Tests	EHEDG01 cleanliness test
Approvals	TUV-component testing T=Air
*Alternative material grades (such as 1.4539, AL-6XN, etc.) Large dimensions, different connection surface qualities and data for evaluation are available on request	



ConnectS® Flange Connection and Blind Flanges, tube dimensions in accordance with DIN11846 line A												
DN	d	s	D	K	L	LR	BR	LV	BV	HR	HV	M
6	8	1	6,0	4,0	88	4,5	10	4,3	8	13	8	4x M 8x20
8	10	1	6,0	4,0	88	4,5	10	4,3	8	13	8	4x M 8x20
10	13	1,5	6,5	4,5	88	4,5	10	4,3	8	13	8	4x M 10x20
15	19	1,5	7,5	5,5	88	4,5	10	4,3	8	13	8	4x M 10x20
20	23	1,5	8,5	6,0	92	4,7	12	4,5	10	17	10	4x M 12x25
25	29	1,5	9,5	7,0	102	5,2	12	5,0	10	17	10	4x M 12x25
32	35	1,5	10,5	7,8	102	5,2	12	5,0	10	17	10	4x M 12x25
40	41	1,5	11,5	8,5	106	5,4	14	5,2	12	19	16	4x M 14x40
50	53	1,5	12,5	9,5	106	5,4	14	5,2	12	19	16	4x M 14x40
65	70	2	14,5	11,5	130	6,6	16	6,4	14	21	18	8x M 12x45
80	85	2	15,5	12,5	130	6,6	16	6,4	14	21	18	8x M 12x45
100	104	2	18,0	15,0	134	6,8	18	6,6	16	23	20	8x M 12x50

ConnectS® Flange Connection and Blind Flanges, tube dimensions in accordance with DIN11846 line B												
DN	d	s	D	K	L	LR	BR	LV	BV	HR	HV	M
6	10,2	1,6	6,0	4,0	88	4,5	10	4,3	8	13	8	4x M 8x20
8	13,5	1,6	6,0	4,0	88	4,5	10	4,3	8	13	8	4x M 8x20
10	17,2	1,6	6,5	4,5	88	4,5	10	4,3	8	13	8	4x M 10x20
15	21,3	1,6	7,5	5,5	88	4,5	10	4,3	8	13	8	4x M 10x20
20	26,9	1,6	8,5	6,0	92	4,7	12	4,5	10	17	10	4x M 12x25
25	33,7	2	9,7	7,0	102	5,2	12	5,0	10	17	10	4x M 12x25
32	42,4	2	10,5	7,8	102	5,2	12	5,0	10	17	10	4x M 12x25
40	48,3	2	11,5	8,5	106	5,4	14	5,2	12	19	16	4x M 14x40
50	60,3	2	12,5	9,5	106	5,4	14	5,2	12	19	16	4x M 14x40
65	76,1	2	14,5	11,5	130	6,6	16	6,4	14	21	18	8x M 12x45
80	88,9	2,3	15,5	12,5	130	6,6	16	6,4	14	21	18	8x M 12x45
100	114,3	2,3	18,0	15,0	134	6,8	18	6,6	16	23	20	8x M 12x50

ConnectS® Flange Connection and Blind Flanges, tube dimensions in accordance with DIN11846 line C												
DN	d	s	D	K	L	LR	BR	LV	BV	HR	HV	M
3/8"	9,53	0,89	6,0	4,0	88	4,5	10	4,3	8	13	8	4x M 8x20
1/2"	12,7	1,65	6,5	4,5	88	4,5	10	4,3	8	13	8	4x M 10x20
3/4"	19,05	1,65	7,5	5,5	88	4,5	10	4,3	8	13	8	4x M 10x20
1"	25,4	1,65	8,5	6,0	92	4,7	12	4,5	10	17	10	4x M 12x25
1 1/2"	38,1	1,65	10,5	7,8	102	5,2	12	5,0	10	17	10	4x M 12x25
2"	50,8	1,65	12,5	9,5	106	5,4	14	5,2	12	19	16	4x M 14x40
2 1/2"	63,5	1,65	13,5	10,5	106	5,4	14	5,2	12	19	16	4x M 14x40
3"	76,2	1,65	14,5	11,5	130	6,6	16	6,4	14	21	18	8x M 12x45
4"	101,6	2,11	18,0	15,0	134	6,8	18	6,6	16	23	20	8x M 12x50