Angst+Pfister

ASSIWELL® Metal Hoses

Technical Data Sheets

ASSIWELL® 100 - 10

Nominal size [mm]	Number of braids	Inner Ø [mm]	Outer Ø [mm]	Bending Radius Static [mm]	Bending Radius Dynamic [mm]	Working pressure at +20°C Safety factor SF 3 [bar]	Working pressure at +20°C Safety factor SF 4 [bar]	Stock
6	0	6.1	10	15	60	-	18.0	*
6	1	6.1	11	25	60	-	150.0	*
8	0	8.0	13	14	90	13.0	10.0	*
8	1	8.0	15	24	90	155.0	80.0	*
8	2	8.0	17	24	110	180.0	85.0	
10	0	10.2	16	17	100	9.0	6.0	*
10	1	10.2	18	29	100	165.0	65.0	*
10	2	10.2	20	29	125	190.0	80.0	
12	0	12.9	19	20	120	6.0	5.0	*
12	1	12.9	21	34	120	110.0	65.0	*
16	0	15.9	23	26	140	3.5	3.0	*
16	1	15.9	25	44	140	85.0	55.0	*
20	0	19.8	27	32	160	3.0	2.5	*
20	1	19.8	29	53	160	80.0	50.0	*
25	0	25.1	33	38	180	2.0	2.0	*
25	1	25.1	35	64	180	50.0	40.0	*
32	0	31.7	42	47	210	1.5	1.0	*
32	1	31.7	45	79	210	40.0	30.0	*
40	0	40.7	52	59	240	1.5	1.0	*
40	1	40.7	55	98	240	45.0	30.0	*
50	0	49.9	63	72	280	0.7	0.6	*
50	1	49.9	66	120	280	40.0	32.0	*
65	0	65.0	80	90	330	0.7	0.6	*
65	1	65.0	83	150	330	30.0	23.0	*
80	0	80.0	97	108	460	0.7	0.5	*
80	1	80.0	101	180	460	28.0	25.0	*
100	0	100.1	119	131	530	0.4	0.3	*
100	1	100.1	123	218	530	19.0	16.0	*
125	0	124.9	146	189	800	0.6	0.5	
125	1	124.9	150	315	800	20.0	10.0	
150	0	150.4	173	216	1,050	0.5	0.4	
150	1	150.4	178	360	1,050	23.0	10.0	
200	0	200.7	227	281	1,300	0.3	0.2	
200	1	200.7	232	468	1,300	15.0	5.0	
250	0	250.6	280	335	1,700	0.3	0.2	
250	1	250.6	285	558	1,700	8.0	5.0	
300	0	300.6	333	389	2,000	0.1	0.1	
300	1	300.6	338	648	2,000	6.0	4.0	

Conformity according ISO EN 10380 type 1-10
Material bellow stainless steel 1.4404
Material braid stainless steel 1.4301
Working temperature from -196 to +550 °C

Product description

- Robust stainless steel corrugated hose of high quality for applications with frequent motion
- Good flexibility at low bending forces
- Parrallel corrugation
- Medium shaft distance
- Hydraulically deformed

Note

The information for working pressure and bending radius are valid at a working temperature of + 20° C. For higher temperatures consider the reduction factors according to EN ISO 10380.

ASSIWELL® 100 - 50

Nominal size [mm]	Number of braids	Inner Ø [mm]	Outer Ø [mm]	Bending radius static [mm]	Bending radius dynamic [mm]	Working pressure at +20°C Safety factor SF 4 [bar]	Stock
10	0	10.2	16	30	100	3.0	*
10	1	10.2	18	30	150	75.0	*
10	2	10.2	19	30	160	105.0	
12	0	12.0	18	30	130	2.5	*
12	1	12.0	20	30	195	70.0	*
12	2	12.0	21	30	210	100.0	
16	0	15.5	24	35	170	2.0	*
16	1	15.5	26	35	255	65.0	*
16	2	15.5	27	35	270	90.0	
20	0	19.3	29	40	190	1.8	*
20	1	19.3	31	40	290	50.0	*
20	2	19.3	32	40	305	75.0	
25	0	25.4	35	50	210	1.8	*
25	1	25.4	36	50	320	40.0	*
25	2	25.4	37	50	330	60.0	
32	0	32.7	44	65	220	1.5	*
32	1	32.7	46	65	330	35.0	*
32	2	32.7	48	65	340	50.0	
40	0	38.9	53	80	260	1.2	*
40	1	38.9	55	80	400	30.0	*
40	2	38.9	57	80	410	40.0	
50	0	51.6	66	100	300	0.6	*
50	1	51.6	68	100	450	25.0	*
50	2	51.6	70	100	460	32.0	
65	0	65.5	86	140	360	0.6	*
65	1	65.5	89	140	540	20.0	*
65	2	65.5	91	140	550	25.0	
80	0	76.0	98	160	420	0.5	*
80	1	76.0	101	160	640	18.0	*
80	2	76.0	103	160	650	22.0	
100	0	102.0	126	200	550	0.5	
100	1	102.0	128	200	840	14.0	
100	2	102.0	131	200	860	20.0	
125	0	127.0	152	260	625	0.4	
125	1	127.0	155	260	950	12.0	
125	2	127.0	158	260	980	18.0	
150	0	151.0	178	300	750	0.4	
150	1	151.0	181	300	1,150	10.0	
150	2	151.0	184	300	1,200	15.0	

Conformity according ISO EN 10380 type 1-50
Material bellow stainless steel 1.4404
Material braid stainless steel 1.4301
Working temperature from -200 to +550 °C

Product description

- Robust stainless steel corrugated hose of high quality with high safety factor for applications with frequent motion
- Good flexibility at low bending forces
- Omega corrugation
- Low shaft distance
- Hydraulically deformed

Note

The information for working pressure and bending radius are valid at a working temperature of + 20° C. For higher temperatures consider the reduction factors according to EN ISO 10380.

ASSIWELL® 100 - HF

Nominal size [mm]	Number of braids	Inner Ø [mm]	Outer Ø [mm]	Bending radius static [mm]	Bending radius dynamic [mm]	Working pressure at +20°C Safety factor SF 3 [bar]	Stock
16	0	15.9	26	26	105	2.5	*
16	1	15.9	28	44	105	50.0	*
20	0	19.8	31	32	120	1.5	
20	1	19.8	33	53	120	30.0	
25	0	25.0	37	38	135	1.5	*
25	1	25.0	39	64	135	30.0	*
32	0	31.7	46	47	166	1.0	
32	1	31.7	48	79	166	20.0	
40	0	40.5	56	59	180	0.5	*
40	1	40.5	58	98	180	20.0	*
50	0	49.7	67	72	210	0.5	*
50	1	49.7	69	120	210	20.0	*
65	0	64.7	84	90	245	0.5	
65	1	64.7	86	150	245	16.0	
80	0	79.6	101	108	350	0.3	
80	1	79.6	103	180	350	16.0	

Material bellow stainless steel 1.4404
Material braid stainless steel 1.4301
Working temperature from -196 to +550 °C

Product description

- Robust stainless steel corrugated hose of high quality
- For applications with frequent motion
- Good flexibility at very low bending forces
- Omega-corrugation
- Low shaft distance
- Hydraulically deformed

Note

The information for working pressure and bending radius are valid at a working temperature of + 20° C. For higher temperatures consider the reduction factors according to EN ISO 10380.

ASSIWELL® 100 - W2

Nominal size [mm]	Number of braids	Inner Ø [mm]	Outer Ø [mm]	Bending radius static [mm]	Bending radius dynamic [mm]	Working pressure at +20°C Safety factor SF 3 [bar]	Stock
16	0	16.1	24	40	85	4.5	*
16	1	16.1	26	58	85	125.0	*
16	2	16.1	28	58	85	155.0	
20	0	20.0	28	45	110	3.7	*
20	1	20.0	31	70	110	160.0	*
20	2	20.0	33	70	110	210.0	
25	0	25.4	35	55	150	3.1	*
25	1	25.4	37	85	150	115.0	*
25	2	25.4	40	85	150	150.0	
32	0	32.5	43	70	210	2.5	*
32	1	32.5	46	105	210	75.0	*
32	2	32.5	48	105	210	99.0	
40	0	41.7	54	80	270	2.2	*
40	1	41.7	57	130	270	65.0	*
40	2	41.7	59	130	270	95.0	
50	0	51.1	65	100	350	1.8	*
50	1	51.1	68	160	350	53.0	*
50	2	51.1	70	160	350	73.0	
65	0	66.2	83	125	480	1.3	
65	1	66.2	85	200	480	30.0	
65	2	66.2	88	200	480	48.0	
80	0	80.7	99	150	600	1.1	
80	1	80.7	103	240	600	40.0	
80	2	80.7	106	240	600	60.0	
100	0	99.5	121	180	750	0.9	*
100	1	99.5	126	290	750	40.0	*
100	2	99.5	130	290	750	60.0	

Material bellow stainless steel 1.4404
Material braid stainless steel 1.4301
Working temperature from -196 to +550 °C

Product description

- Double-walled, robust stainless steel corrugated hose of very high quality
- For applications with constant motion (e.g. in energy chains)
- High flexibility at very low bending forces
- Parallel corrugation
- Medium shaft distance
- Hydraulically deformed

Note

The information for working pressure and bending radius are valid at a working temperature of + 20° C. For higher temperatures consider the reduction factors according to EN ISO 10380.

ASSIWELL® 110

Nominal size [mm]	Number of braids	Inner Ø [mm]	Outer Ø [mm]	Bending radius static [mm]	Bending raduis dynamic [mm]	Working pressure at +20°C Safety factor SF 3 [bar]	Stock
6	0	6.0	11	15	105	8.0	
6	1	6.0	12	22	158	130.0	
8	0	8.0	13	16	110	7.0	*
8	1	8.0	14	24	165	120.0	*
10	0	10.0	15	16	114	6.0	*
10	1	10.0	16	28	172	96.0	*
12	0	12.0	18	20	118	5.0	
12	1	12.0	19	32	175	96.0	
16	0	16.0	22	28	125	3.0	
16	1	16.0	23	44	188	76.0	
20	0	20.0	28	38	148	2.5	
20	1	20.0	29	58	222	64.0	
25	0	25.0	32	50	174	2.5	
25	1	25.0	34	75	260	50.0	

Material bellow stainless steel 1.4404
Material braid stainless steel 1.4301
Working temperature from -200 to +550 °C

Product description

- Robust stainless steel spirally corrugated hose
- Double-walled for dynamic applications
- Very low bending forces
- Omega-shaped spiral corrugation
- Extra low shaft distance
- Mechanically deformed
- Slightly enhanced resistance to torsion

Note

The information for working pressure and bending radius are valid at a working temperature of + 20° C. For higher temperatures consider the reduction factors according to EN ISO 10380.

ASSIWELL® 066

Nominal size [mm]	Number of braids	Inner Ø [mm]	Outer Ø [mm]	Bending radius static [mm]	Bending radius dynamic [mm]	Working pressure at +20°C Safety factor SF 4 [bar]	Stock
8	0	8.2	12	16	124	13.0	*
8	1	8.2	14	32	124	132.0	*
10	0	10.1	14	18	130	9.0	*
10	1	10.1	16	38	130	100.0	*
12	0	12.3	17	20	140	7.0	*
12	1	12.3	18	40	140	70.0	*
16	0	16.2	22	28	160	5.0	*
16	1	16.2	24	58	160	64.0	*
20	0	20.3	27	32	170	3.0	*
20	1	20.3	29	70	170	43.0	*
25	0	25.4	32	40	190	2.5	*
25	1	25.4	34	85	190	49.0	*
32	0	34.3	41	50	260	2.0	*
32	1	34.3	43	105	260	35.0	*
40	0	40.0	50	60	300	2.0	*
40	1	40.0	52	130	300	38.0	*
50	0	50.2	61	70	320	1.0	*
50	1	50.2	62	160	320	26.0	*
65	0	65.3	78	115	460	0.5	*
65	1	65.3	84	200	460	25.0	*
80	0	80.2	95	130	660	0.5	*
80	1	80.2	100	240	660	16.0	*
100	0	100.0	116	160	750	0.5	*
100	1	100.0	123	290	750	10.0	*
125	0	125.4	150	200	750	0.4	*
125	1	125.4	153	325	750	14.0	*

Conformity according ISO EN 10380 type 1-10
Material bellow stainless steel 1.4404
Material braid stainless steel 1.4301
Working temperature from -200 to +550 °C

Product description

- Robust stainless steel corrugated hose for mainly static applications
- Parallel corrugation
- Medium shaft distance
- Mechanically deformed

Note

The information for working pressure and bending radius are valid at a working temperature of + 20° C. For higher temperatures consider the reduction factors according to EN ISO 10380.

ASSIWELL® 066 HF

Nominal size [mm]	Number of braids	Inner Ø [mm]	Outer Ø [mm]	Bending radius static [mm]	Bending radius dynamic [mm]	Working pressure at +20°C Safety factor SF 4 [bar]	Stock
6	0	6.1	10	20	70	16.0	*
6	1	6.1	11	25	70	150.0	*
8	0	8.2	12	25	80	12.0	*
8	1	8.2	13	30	80	112.0	*
10	0	10.1	14	30	90	7.0	*
10	1	10.1	15	35	90	97.0	*
12	0	12.4	17	35	100	5.0	
12	1	12.4	18	40	100	75.0	
16	0	16.2	22	40	110	5.0	
16	1	16.2	23	50	110	60.0	
20	0	20.2	27	50	130	3.0	
20	1	20.2	28	55	130	62.0	
25	0	25.2	33	60	150	2.5	
25	1	25.2	34	65	150	43.0	
32	0	33.6	41	70	200	2.0	
32	1	33.6	43	75	200	46.0	
40	0	40.0	50	80	210	1.6	
40	1	40.0	52	90	210	42.0	

Conformity according ISO EN 10380 type 1-10
Material bellow stainless steel 1.4404
Material braid stainless steel 1.4301
Working temperature from -200 to +550 °C

Product description

- Highly flexible stainless steel corrugated hose for mainly static applications
- Very low bending forces; parallel corrugation
- Low shaft distance
- Mechanically deformed

Note

The information for working pressure and bending radius are valid at a working temperature of + 20° C. For higher temperatures consider the reduction factors according to EN ISO 10380.

ASSIWELL® 088

Nominal size [mm]	Number of braids	Inner Ø [mm]	Outer Ø [mm]	Bending radius static [mm]	Bending radius dynamic [mm]	Working pressure at +20°C Safety factor SF 3 [bar]	Working pressure at +20°C Safety factor SF 4 [bar]	Stock
8	0	8.0	12	16	130	18.0		*
8	1	8.0	14	32	130	155.0		*
10	0	10.2	16	19	150	15.0		*
10	1	10.2	18	38	150	165.0		*
12	0	12.9	19	23	165	15.0		*
12	1	12.9	21	45	165	110.0		*
16	0	15.9	23	29	195	8.0		*
16	1	15.9	25	58	195	85.0		*
20	0	19.8	27	35	225	6.0		*
20	1	19.8	29	70	225	80.0		*
25	0	25.1	33	43	260	5.0		*
25	1	25.1	35	85	260	50.0		*
32	0	31.7	42	53	300	2.0		*
32	1	31.7	44	105	300	40.0		*
40	0	39.7	52	100	320		2.0	*
40	1	39.7	54	100	480		30.0	*
50	0	51.4	66	130	360		1.0	*
50	1	51.4	68	130	550		25.0	*
65	0	66.3	85	175	450		1.0	*
65	1	66.3	88	175	675		20.0	*
80	0	76.5	98	200	500		1.0	*
80	1	76.5	100	200	750		18.0	*
100	0	102.2	125	250	600		1.0	*
100	1	102.2	128	250	920		14.0	*
125	0	127.5	152	325	750		1.0	*
125	1	127.5	155	325	1,160		12.5	*
150	0	152.0	177	375	850		0.8	*
150	1	152.0	180	375	1,320		10.0	*

Conformity DN40 to DN150 ISO EN 10380 type 1-10
Material bellow stainless steel 1.4541
Material braid stainless steel 1.4301
Working temperature from -196 to +550 °C

Product description

- Robust stainless steel corrugated hose for applications with occasional motion
- Good flexibility
- Parallel corrugation
- Medium shaft distance
- Hydraulically deformed

Note

The information for working pressure and bending radius are valid at a working temperature of + 20° C. For higher temperatures consider the reduction factors according to EN ISO 10380.

ASSIWELL® SANINOX type K & L

[K]	Nominal size	Connections	Nominal length [mm]	Permitted working pressure [bar]	Stock
K	10	G 3/8″	170	25	*
K	12	G 1/2″	190	25	*
K	20	G 3/4″	210	25	*
K	25	G 1″	230	25	*
K	32	G 1 1/4″	270	25	*
K	40	G 1 1/2″	300	25	*
K	50	G 2″	340	25	*
L	10	G 3/8″	250	25	*
L	12	G 1/2″	280	25	*
L	20	G 3/4″	310	25	*
L	25	G 1″	340	25	*
L	32	G 1 1/4″	400	25	*
L	40	G 1 1/2″	450	25	*
L	50	G 2″	500	25	*

Connections 1 and 2 3-part GF connection, flat sealing with internal thread
Material connection malleable cast iron, repeatedly annealed
Conformity according SVGW / DVGW for water 10 bar up to +95° C
Material bellow stainless steel 1.4404
Material braid stainless steel 1.4301
Working temperature from -200 to +250 °C

Product description

- Flexible connecting element for the industry and the building technology.
- Typical applications: Absorption of thermal expansion and installation tolerance for liquid and gaseous media

Note

The information for working pressure and bending radius are valid at a working temperature of + 20° C. For higher temperatures consider the reduction factors according to EN ISO 10380.

ASSIWELL® SANINOX type KF & LF

Article type [mm]	Nominal size	Connections	Nominal length [mm]	Permitted working pressure [bar]	Stock
KF	40	DN 40 / PN 16	200	16	*
KF	50	DN 50 / PN 16	240	16	*
KF	65	DN 65 / PN 16	270	16	*
KF	80	DN 80 / PN 16	320	16	*
KF	100	DN 100 / PN 16	350	16	*
KF	125	DN 125 / PN 16	400	16	*
KF	150	DN 150 / PN 16	450	10	*
LF	40	DN 40 / PN 16	400	10	*
LF	50	DN 50 / PN 16	450	10	*
LF	65	DN 65 / PN 16	500	10	*
LF	80	DN 80 / PN 16	600	10	*
LF	100	DN 100 / PN 16	650	10	*
LF	125	DN 125 / PN 16	750	10	*
LF	150	DN 150 / PN 16	850	10	*

Material stub end / weldneck stainless steel 1.4571
Material flange steel, galvanized
Conformity according SVGW / DVGW for water 10 bar up to +95° C
Material bellow stainless steel 1.4541
Material braid stainless steel 1.4301
Working temperature from -200 to +550 °C

Product description

- Flexible connecting element for the industry and the building technology.
- Typical applications: Absorption of thermal expansion and installation tolerance for liquid and gaseous media

Note

The information for working pressure and bending radius are valid at a working temperature of + 20° C. For higher temperatures consider the reduction factors according to EN ISO 10380.

ASSIWELL® SANINOX type CR

Nominal size [mm]	Connections	Nominal length [mm]	Permitted working pressure [bar]	Stock
12	G 1/2"	300	25	*
12	G 1/2"	500	25	*
12	G 1/2"	700	25	*
12	G 1/2"	1,000	25	*
16	G 3/4"	300	25	*
16	G 3/4"	500	25	*
16	G 3/4"	700	25	*
16	G 3/4"	1,000	25	*
20	G 1"	300	25	*
20	G 1"	500	25	*
20	G 1"	700	25	*
20	G 1"	1,000	25	*
25	G 1 1/4"	300	25	*
25	G 1 1/4"	500	25	*
25	G 1 1/4"	700	25	*
25	G 1 1/4"	1,000	25	*
32	G 1 1/2"	300	25	*
32	G 1 1/2"	500	25	*
32	G 1 1/2"	700	25	*
32	G 1 1/2"	1,000	25	*

Connections 1 and 2	flat sealing nipple with union nut
Material connection	nipple: stainless steel 1.4404 nut: nickel-plated brass
Conformity	according SVGW / DVGW for water 10 bar up to +95° C
Material bellow	stainless steel 1.4404
Material braid	stainless steel 1.4301
Working temperature	from -200 to +250 °C

Product description

- Flexible connecting element for the industry and the building technology.
- Typical applications: Absorption of thermal expansion and installation tolerance for liquid and gaseous media

Note

The information for working pressure and bending radius are valid at a working temperature of + 20° C. For higher temperatures consider the reduction factors according to EN ISO 10380.

ASSIWELL® boiler connecting element

Nominal size [mm]	Connections	Permitted working pressure [bar]	Bending radius static [mm]	Stock
16	G 3/4"	10	30	*
20	G 1"	10	35	*
25	G 1 1/4"	10	40	*
32	G 1 1/2"	10	55	*

Conformity according SVGW / DVGW for water 10 bar up to +95° C
according SVGW/ DVGW max. permissible nominal lenght 2.0m

Connections 1 and 2 flat sealing with union nut, without sealing
Material fitting nut brass, retaining ring stainless steel
Material bellow stainless steel 1.4404
stainless steel 1.4571

Product description
Flexible corrugated pipe connection ready for mounting without braiding for drinking water installations, heating connections.

ASSIWELL® VT

Nominal size [mm]	Connections 1 and 2 according to DIN 28403 / ISO 2861 [ISO-KF Flange]	Nominal length [mm]	Bending radius static [mm]	Bending radius dynamic [mm]	Stock
10	DN 10	250	30	100	*
10	DN 10	500	30	100	*
10	DN 10	750	30	100	*
10	DN 10	1'000	30	100	*
16	DN 16	250	40	120	*
16	DN 16	500	40	120	*
16	DN 16	750	40	120	*
16	DN 16	1'000	40	120	*
25	DN 25	250	60	150	*
25	DN 25	500	60	150	*
25	DN 25	750	60	150	*
25	DN 25	1'000	60	150	*
40	DN 40	250	80	240	*
40	DN 40	500	80	240	*
40	DN 40	750	80	240	*
40	DN 40	1'000	80	240	*
50	DN 50	250	100	250	*
50	DN 50	500	100	250	*
50	DN 50	750	100	250	*
50	DN 50	1'000	100	250	*

Nominal size [mm]	Connections 1 and 2 according to DIN 28404 / ISO 1609 [ISO-K Flange]	Nominal length [mm]	Bending radius static [mm]	Bending radius dynamic [mm]	Stock
63	DN 63	250	150	280	*
63	DN 63	500	150	280	*
63	DN 63	750	150	280	*
63	DN 63	1'000	150	280	*
100	DN 100	250	240	500	*
100	DN 100	500	240	500	*
100	DN 100	750	240	500	*
100	DN 100	1'000	240	500	*

Material flange stainless steel 1.4301
Material bellow stainless steel 1.4404
Working temperature from -200 to +550°C

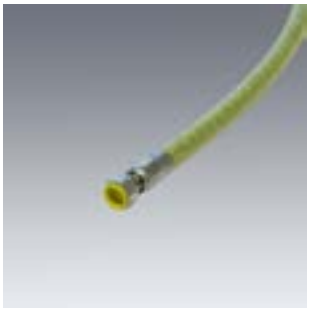
Product description

- Flexible connecting element for the vacuum technology, ready for assembly with vacuum flanges, packaged in PE bag
- All hose assemblies tested by helium leakage test

ASSIWELL® AP Gas

Nominal size [mm]	Connections	Nominal length [mm]	Permitted working pressure [bar]	Stock
12	G 1/2"	500	0.5	*
12	G 1/2"	750	0.5	*
12	G 1/2"	1,000	0.5	*
12	G 1/2"	1,250	0.5	*
12	G 1/2"	1,500	0.5	*
12	G 1/2"	2,000	0.5	*

Conformity	EN 14800
Pressure max.	0.5 bar
Connections 1 and 2	flat sealing nipple with swivel nut
Material fitting	nut brass
Material bellow	stainless steel 1.4404
Material braid	stainless steel 1.4301
Working temperature	from -40 to +100 °C



Product description
Metal hose assembly for domestic gas applicances according to the European standard EN 14800.

ASSIWELL® VARIFLEX

Nominal size [mm]	Connections	Jolted length [mm]	Stretched length [mm]	Permitted working pressure [bar]	Stock
10	G 3/8″	110	210	5.0	*
10	G 3/8″	200	410	5.0	*
12	G 1/2″	75	130	4.0	*
12	G 1/2″	110	210	4.0	*
12	G 1/2″	200	410	4.0	*
20	G 3/4″	75	130	3.0	*
20	G 3/4″	110	210	3.0	*
20	G 3/4″	200	410	3.0	*
25	G 1″	110	210	2.0	*
25	G 1″	200	410	2.0	*
32	G 1 1/4″	110	210	2.0	*
32	G 1 1/4″	200	410	2.0	*
40	G 1 1/2″	110	210	2.0	*
40	G 1 1/2″	200	410	2.0	*
50	G 2″	110	210	1.5	*
50	G 2″	200	410	1.5	*

Connection 1	flat sealing nipple with union nut
Connection 2	male thread nipple with hex.
Material swivel nut	brass, nickel-plated
Material male thread nipple	stainless steel AISI 303
Material bellow	stainless steel 1.4404
Working temperature	from -40 to +250 °C

Product description
Flexible connecting element without braiding for static assembly. The element can be bended and stretched.

Note
The information for working pressure and bending radius are valid at a working temperature of + 20° C. For higher temperatures consider the reduction factors according to EN ISO 10380.

ASSIWELL® Cathodic protection corrugated hose with insulating flange

Nominal size [mm]	Nominal length [mm]	Vacuum stability [%]	Permitted working pressure [bar]	Stock
32	180	100	2.5	*
40	80	100	2.5	*
40	100	100	2.5	*
40	120	100	2.5	*
40	180	100	2.5	*
50	120	100	2.5	*
50	180	100	2.5	*

Connection 1	oval flange DIN 5435
Connection 2	insulating flange according DIN 5435
Material connecting piece 1	steel, galvanized
Material connecting piece 2	polyamide
Material bellow	stainless steel 1.4404
Working temperature	from -200 to +550 °C

Product description
Flexible isolating element for the assembly at gas stations with oval insulating flange. Designed for suction application and low pressures.

Note
The information for working pressure and bending radius are valid at a working temperature of + 20° C. For higher temperatures consider the reduction factors according to EN ISO 10380.

Length tolerances for ASSIWELL® hoses

Length tolerances for readily made ASSIWELL® hoses with fittings.

The hose assembly is measured lying straight without pressure.

Closer length tolerances are possible, but need to be clarified beforehand.

Nominal size of the hose DN	Nominal length of the hose assembly NL		
	up to 400 mm	> 400 to 1000 mm	more than 1000 mm
6 - 50	+12 mm -3 mm	+3% -1%	+3% -1%
65 - 100	+20 mm -5 mm	+30 mm -5 mm	+3% -1%
more than 100	+25 mm -10 mm	+30 mm -10 mm	+3% -1%

Technical design of ASSIWELL® metal hoses

Pressure/temperature de-rating factor

$p_{per}=p_{max} \cdot k_p \cdot k_d$ *[bar]*

p_{per} max. permissible working pressure under operating conditions
p_{max} max. working pressure at +20°C
k_p pressure de-rating factor depending on the temperature
k_d pressure de-rating factor for dynamic applications

Pressure correction factor k_p

For metal hoses, connection fittings and their mounting the following material specific pressure de-rating factors have to be considered at higher temperatures.

	Material			
Working pressure [°C]	**1.4301**	**1.4404**	**1.4541**	**1.4571**
20	1	1	1	1
50	0.88	0.88	0.92	0.9
100	0.73	0.74	0.83	0.81
150	0.66	0.67	0.78	0.76
200	0.6	0.62	0.74	0.73
250	0.56	0.58	0.71	0.69
300	0.52	0.54	0.67	0.65
350	0.5	0.52	0.64	0.63
400	0.48	0.5	0.62	0.61
450	0.47	0.48	0.61	0.59
500	0.46	0.47	0.6	0.59
550	0.42	0.47	0.59	0.58
>600	Upon request			

Pressure de-rating factor k_d for dynamic applications

Under dyanamic stress an additional de-rating factor is to be considered depending on the operating conditions.

		movement		
		slow movement	**frequent movement**	**frequent movement**
		low vibration	**low vibration**	**strong vibration**
flow	**steady flow**	1	0.8	0.4
	pulsating flow	0.8	0.6	0.3
	pulsating flow	0.4	0.3	0.15