HANSA FLEX

Metal Hoses

Hose Replacement Service – 24h hour rapid response

Our 280 service vans from the hydraulic emergency service are always just a call away. Whether on the construction site, during the harvest or in industrial applications: in case of a machine failure the job is carried out on site – and around the clock.

Tel. 24/7: 0800 77 12345 (Int. +49 421 9897 7690)

Industrial Service – maintain and optimise

Your machines must be running, around the clock. Preventative maintenance of the HANSA-FLEX Industrial Services helps you to save money and guarantees maximum machine uptime. We will advise you from the selection of the right hydraulic components to the optimisation of your plant and machinery.

www.hansa-flex.com/en/industrial_service

Power Unit Construction – engineering from the specialist

Units are the heart of any hydraulic system. In order to produce a state of the art power unit a high degree of engineering skill is required. The HANSA-FLEX power unit construction offers all services as a single source: from planning, design to installation and commissioning at the customer site.

www.hansa-flex.com/en/unit_manufacture

Online Shop – 24/7 convenient shopping

In our online shop you will find the same variety and quality of products that our customers have been used to for over 50 years: from hydraulic hoses and hose fittings to couplings, ball valves and cylinders – “everything from a single source.”

www.hansa-flex.com/en/shop

X-CODE – hose management

Our customer portal My.HANSA-FLEX offers the perfect solution for preventative maintenance. Users can see the technical data of a hose line at a glance: Manufacturing date, period of use, proposed replacement date, as well as machine and location. Thus, inspection and maintenance intervals can be planned well ahead.

www.hansa-flex.com/en/hose_line_management

HANSA-FLEX – always close to our customers

Through our tight-knit network of branches we are always close to our customers. At each of our 400 locations we offer the complete range of hydraulics: from the standard replacement of a hose line to powerful hydraulic cylinders – personal, fast and reliable.

www.hansa-flex.com/en/subsidiaries

Metal Hoses

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2. Hose fittings

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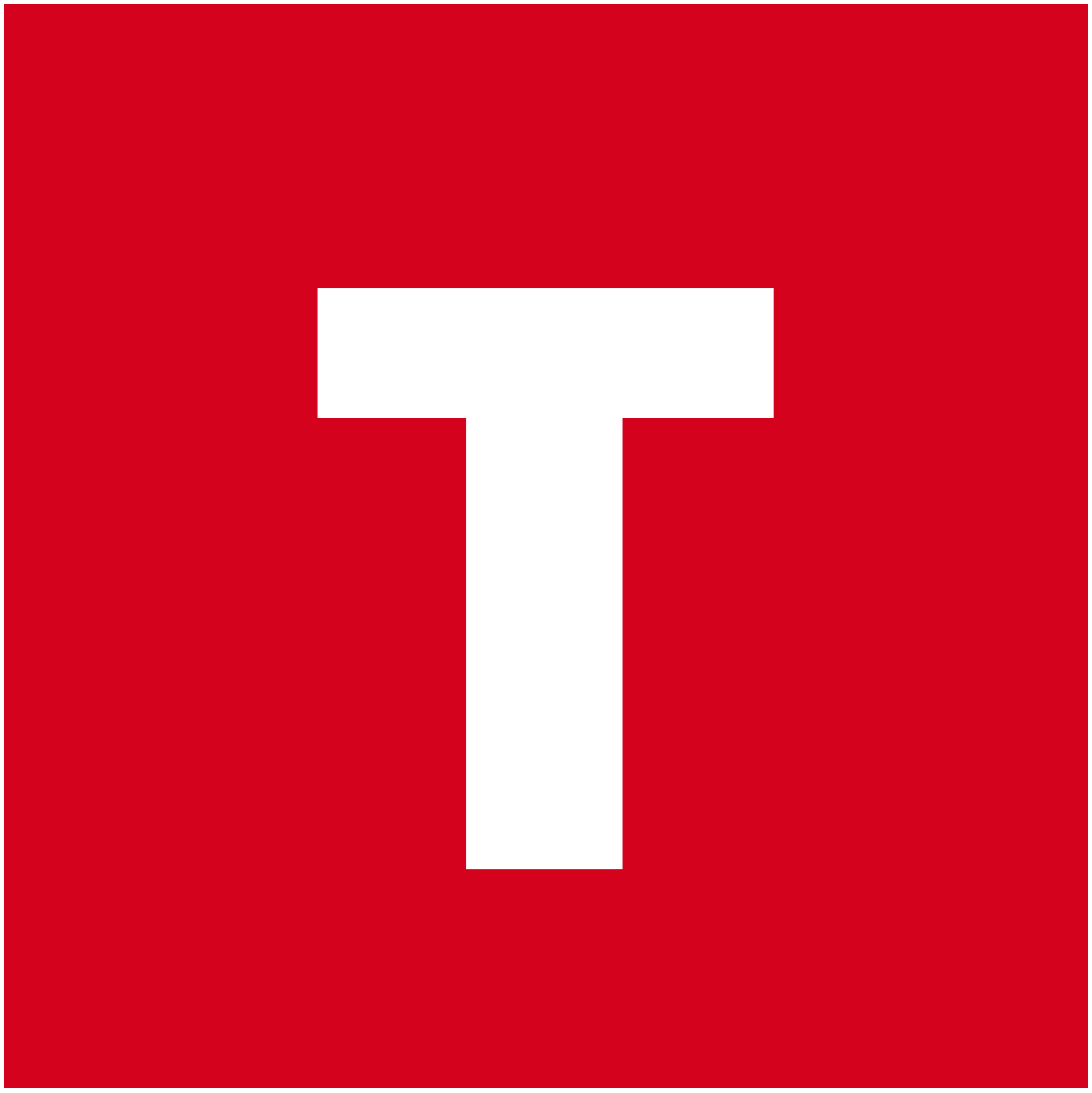

Technical Information

1. INSTRUCTION MANUAL FOR STORAGE, INSTALLATION, OPERATION & MAINTENANCE

Product description	
Pressure equipment type:	Stainless steel hose lines, PTFE hose lines in various versions (nominal sizes, lengths, materials, connection fittings etc.)
Designation:	In accordance with HANSA-FLEX nomenclature
Marking (minimum scope):	Manufacturer's marking (HF-I0)/ Manufacturing date (MM, YYYY)
Use:	Only as intended !

1.1 GENERAL

The hose lines are designed for the prevailing operating conditions. They are manufactured by expert personnel using proven and approved manufacturing methods. The hose lines undergo a final inspection, including a leak and/or pressure test. The hose lines are marked with the most important information. The hose lines comply with "sound engineering practice" according to Article 3 Section 3 of the Pressure Equipment Directive 97/23/EC or the standards specified in the order.

1.2 STORAGE

Adequate protection against damage, contamination, the weather etc. must be provided. The effects of chlorides, bromides, iodides, and extraneous and film rust must be avoided. Hose lines must be stored in a dry, strain-free and kink-free state. When stored wound up, the radius of the hose line must not be less than the minimum static bending radius.

Assuming the correct storage conditions, there are no restrictions on storage time for metal and PTFE hose lines with braiding and fittings made from chromium-nickel stainless steel. In the case of zinc-coated or painted steel fittings, storage time depends largely on the storage conditions and is usually limited.

1.3 INSTALLATION

- Hose lines may be assembled and installed only by appropriately qualified personnel.
- The guidelines for handling and fitting HANSA-FLEX hose lines must be observed. Some important points in the guidelines are highlighted below:
- No axial loads (tension or compressive buckling)
- No torsional loads (to avoid torsional loads, the longitudinal axis of the hose and the direction of motion must lie in the same plane).
- The minimum static and dynamic bending radius in accordance with the datasheet or with the information on the drawing must be observed.
- Check any separable connections for proper seating before commissioning.
- Damaged hose lines must not be installed or commissioned.
- Cover the hose lines to protect them against weld splatter and grinding dust when working on the equipment.

1.4 COMMISSIONING/ OPERATION

During commissioning and operation, the permissible limiting values (pressure, temperature, bending radii, medium concentration) must be observed. The hose lines may be used only in accordance with the designer's intention (intended pressure, temperature, medium, movement). Where flowing media are used, the lines must be bled of air during filling. Because of their compressibility, any gaseous fluids remaining in the lines represent a serious hazard and could potentially lead to a higher classification and stricter requirements becoming applicable to the product.

The resistance of the materials the medium flows through must be checked for the specific medium used. A definitive statement of the resistance of hose lines can normally be gained only by practical experience of opera-

tion. Incrustations in the medium flowing through the products can lead to corrosion damage. Incrustations also reduce the flexibility of the hose lines and lead to premature failure. A safety datasheet for the medium must be kept available.

In situations with high operating temperatures, the high thermal conductivity of metallic materials means there is a risk of burns if the hose line is touched. The appropriate measures must be put in place (protection against contact, warning notices, barriers). Safety measures against whipping hose lines must also be in place. Electrically conductive materials and adequate equipotential wiring or earthing must be used where there is risk of electrostatic discharge (PTFE hoses). The movement of the hoses must not be restricted, otherwise there is the risk of abrasive wear.

Hose lines must always be installed and operated in such a way that they present no danger to people or the environment. Protective measures must be put in place against any remaining unmitigated hazards. Technical and organisational measures for the safe use of hose lines are described in Information Sheet T 002 published by BG Chemie.

1.5 MAINTENANCE

The intervals for external and internal inspections must be determined taking into account the load and the degree of danger. A qualified person must check to see that the item is safe to use at work and must record the findings. Hose lines with damaged braiding must be replaced immediately. Repairs to rectify leaks on hose lines or at connections by welding, wrapping etc. are not permitted. Damage caused by mechanical cleaning, use of unsuitable cleaning materials etc. must be avoided.

2. INSTALLATION REQUIREMENTS FOR METAL AND PTFE HOSE LINES

The following provisions must be observed in order to ensure correct handling and installation of HANSA-FLEX metal and PTFE hose lines:

2.1 CORRECT ROLLING UP AND ROLLING OUT

Pulling on the ends of rolled-out hose lines must be avoided in order not to subject them to damaging torsional loads. In addition, the radius of the hose line must not be smaller than its smallest permissible bending radius. These mistakes can be avoided by rolling up and rolling out the hose lines correctly.

2.2 CORRECT LENGTH

If the length of the hose is too short, hose lines become kinked at the connection points. A straight length of at least 1 x DN per connection point must be added to the length calculated from the bending radius.

2.3 APPROPRIATE BENDING

The incorrect installation of hose lines can lead to excessive bending of the hose lines at the connections. This mistake can be avoided by the use of pipe bends.

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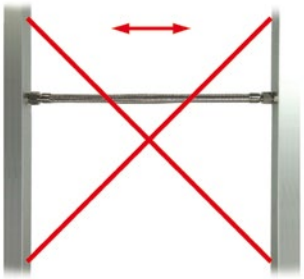
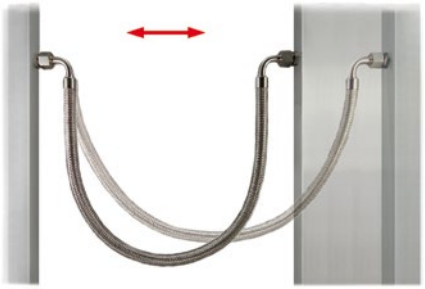
2.4 PREVENTION OF KINKS

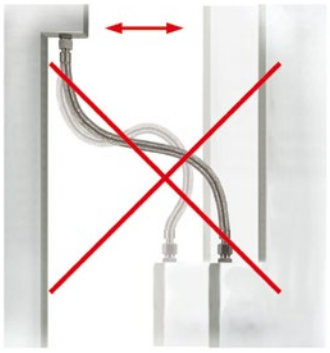
Laying the hose line over a saddle or a roller of the appropriate diameter prevents the hose line from kinking.

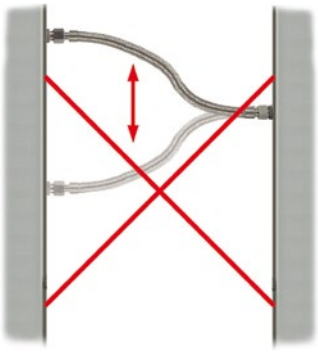
2.5 PREVENTION OF BUCKLING

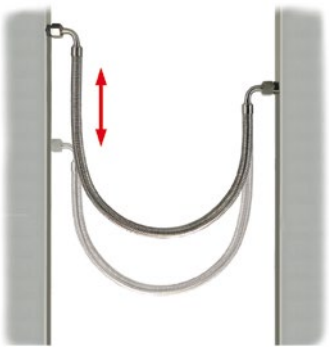
Incorrect installation can lead to compression of the hose on its longitudinal axis. This mistake can occur as a result of poor installation or the movement of the hose line and leads to the braiding separating from the hose. Once this happens, the pressure resistance of the hose cannot be guaranteed. Hose lines with braiding are therefore not suitable as a means of compensating for axial expansion. Axial expansion can be accommodated by hose lines installed in a U-shape.





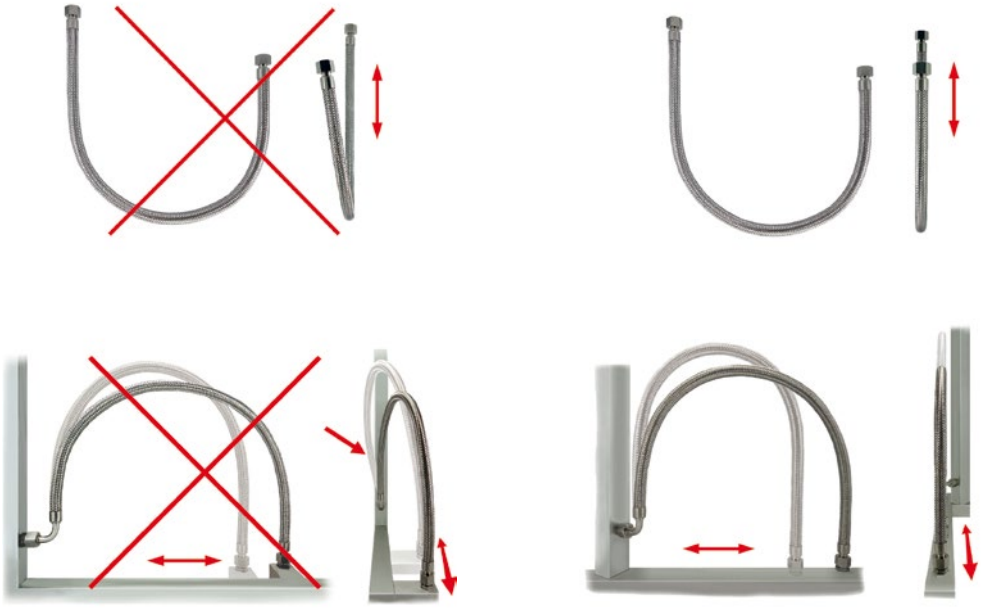




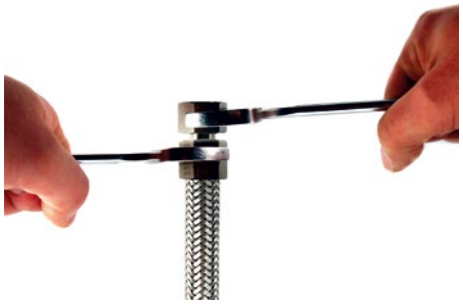


2.6 TORSIONAL MOVEMENT

The greatest mistake during installation is to end up with the hose line twisting during operation. Torsional movement leads to early failure of the hose line. Ensure that the pipe and hose axes and the direction of movement lie in the same plane.



During installation, the hose line must be held with a second spanner. This ensures that the hose line cannot be subjected to torsion during installation.



3. REDUCTION FACTORS FOR METAL HOSES

3.1 DYNAMIC REDUCTION

Table of **dynamic reduction factors k_d**:

Movement / flow	No vibration, slight, slow movement	Slight vibration, frequent, uniform movement	Significant vibration with continuous movement
Static or uniform flow	1.00	0.82	0.40
Pulsating and dynamic flow	0.80	0.65	0.33
Rhythmic and intermittent flow	0.40	0.35	0.15
Highly intermittent flow	0.30	0.20	0.10

3.2 THERMAL REDUCTION

Table of **thermal reduction factors k_t**:

Operating temp. °C	Machining steel	Steel	Stainless steels			
	9SMnPb28K	Mat. 1.0460	Mat. 1.4301	Mat. 1.4404	Mat. 1.4541	Mat. 1.4571
20	In acc. with DIN 3859-1 up to max. 120 °C, manufacturer-dependent up to 200 °C, reduction subject to separate request	1.00	1.00	1.00	1.00	1.00
50		1.00	0.90	0.90	0.93	0.92
100		0.95	0.73	0.73	0.83	0.80
150		0.86	0.66	0.67	0.78	0.76
200		0.76	0.60	0.61	0.74	0.72
250		0.68	0.55	0.58	0.70	0.68
300		0.60	0.51	0.53	0.66	0.64
350		0.52	0.49	0.51	0.64	0.62
400		0.44	0.48	0.50	0.62	0.60
450		0.36	0.46	0.49	0.60	0.59
500		---	0.46	0.47	0.59	0.58
550		---	0.46	0.47	0.58	0.58

4. DESIGN OF METAL AND PTFE HOSE LINES

4.1 GENERAL

Ensuring the safety of hose lines requires knowledge of the operating conditions and field of application. This information leads to the design, manufacture, marking, testing and documentation being appropriate for the application.

The load capacity of hose lines depends on the components and methods used. The "weakest" component of the hose line determines the nominal pressure PN of the hose line. The nominal pressure is valid at 20 °C and under static loading. The maximum permissible operating temperature depends on the materials used.

The nominal pressures of the components are reduced, depending on the operating conditions, by thermal or dynamic factors. The nominal values of the components, reduction factors etc. can be found in the associated technical datasheets.

The bursting pressure for metallic hose lines equals 4 times the highest permissible pressure PN at room temperature. The bursting pressure for PTFE hose lines equals 3 or 4 times the highest permissible pressure PN at room temperature.

If no acceptance test (pressure test) is specified, HANSA-FLEX AG performs a standard leak test on metal and PTFE hose lines at approximately 8 bar compressed air under water. Documented pressure tests are performed in accordance with official regulations, guidelines, prescriptions, standards, technical rules, customer requirements etc. The test pressure lies normally in a range of 1.1 to 2.2 times the operating pressure. In the tests, the limits of use of all the components must also be observed!

The nominal bending radii are adjusted in a similar way to the reduction of the nominal operating pressure. The permissible maximum pressures and minimum bending radii for a specific operating scenario are calculated as follows:

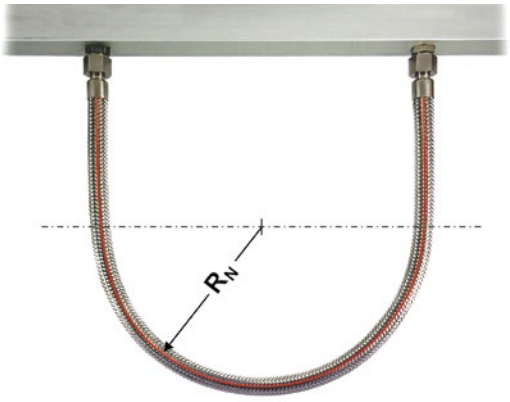
4.2 CALCULATION OF OPERATING PRESSURE AND BENDING RADIUS

The permissible operating pressure is:

$$P_U = P_N \cdot k_t \cdot k_d$$

The permissible bending radius is:

$$R_d = \frac{R_N}{2.8}\left(1.1 + \frac{P_U}{P_N} + \frac{1}{k_d} + \frac{1}{k_t}\right)$$



P_U = permissible operating pressure in bar
P_N = nominal pressure in accordance with table in bar
k_d = dynamic reduction factor
k_t = thermal reduction factor
R_d = bending radius for frequent bending
R_d = nominal bending radius for frequent bending

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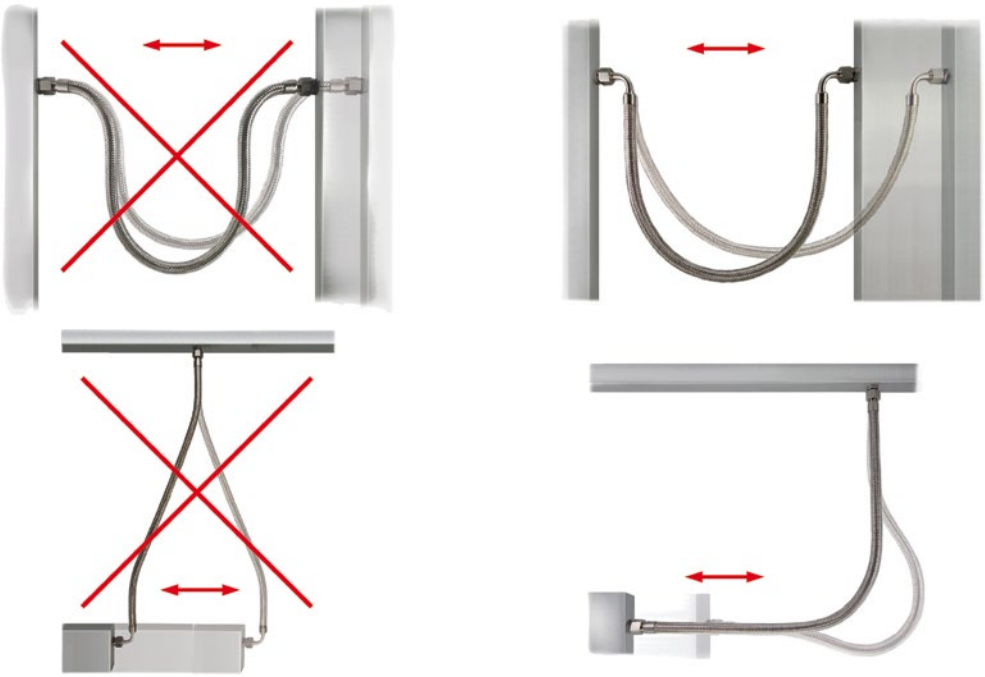
5. ACCOMMODATION OF THERMAL EXPANSION FOR METAL HOSE LINES

Components expand when heated and contract again when cooled.

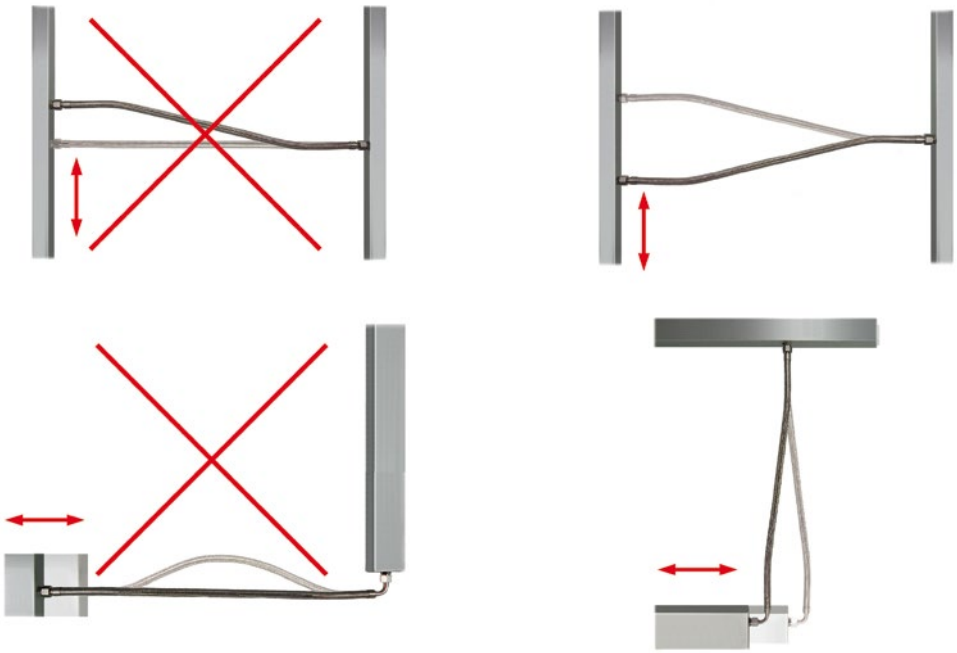
Pipelines where high temperatures can prevail in addition to high pressures place increased requirements on flexible intermediate members (e.g. metal hoses). The expansion caused by heat has to be accommodated. It is essential to ensure that metal hoses are not axially loaded or buckled. The hose must be installed if possible as a 180° U-bend in order to accommodate a large axial expansion.

⟷: shows the movement of the hose line caused by thermal expansion of the components. What is not meant here is movement caused by the operating system itself!

5.1 ACCOMMODATING AXIAL EXPANSION

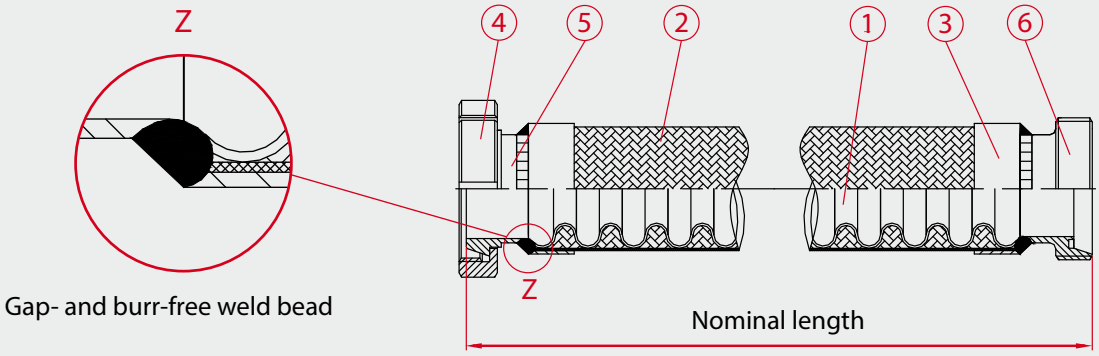


5.2 ACCOMMODATING LATERAL EXPANSION



6. FB... METAL HOSE LINES FOR THE FOOD AND CHEMICAL INDUSTRIES

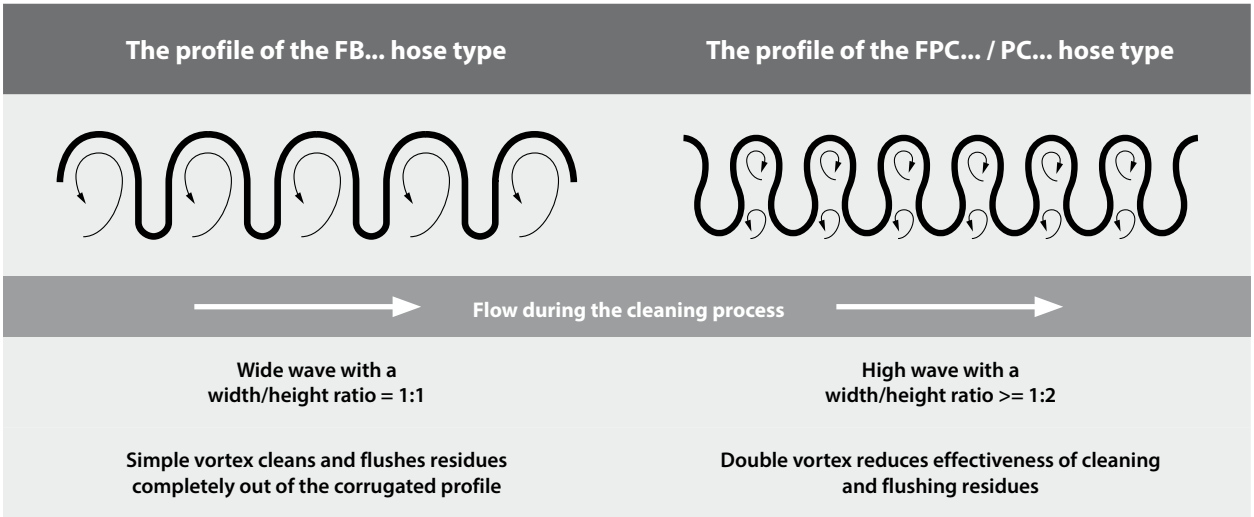
6.1 TECHNICAL DATA



Based on DIN 2827

①	HANSA-FLEX annular corrugated hose FBA	Material 1.4404
②	Braiding	Material 1.4301
③	End sleeves	Material 1.4301
④	DIN 11851 screw connection (other connections available)	Material 1.4404
⑤	Threaded element DIN 11851 screw connection (other connections available)	Material 1.4404

6.2 THE CRITICAL DIFFERENCE IN THE HANSA-FLEX FB... ANNULAR CORRUGATED HOSE



Questionnaire Choice of Expansion Joints

☐ OFFER ☐ CUST Offer No.: _____ Date: _____

☐ ORDER ☐ CUST Order No.: _____

CUSTOMER NO.: _____ Tel.: _____

Company: _____ City: _____ Fax: _____

Contact person: _____ e-mail: _____

TO BE FILLED OUT BY HANSA-FLEX

Accepted on: _____ By Ms/Mr: _____ Tel.: _____

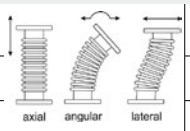
To be processed by (date): _____ e-mail: _____

Intended purpose: _____ Quantity: _____

TECHNICAL INFORMATION – EXPANSION JOINT

Nominal width (mm)	
Total length measured over all (mm)	
Type of connections	
Pumping medium	
Internal pressure value (bar pressure)	
External pressure value (bar pressure)	
Bending radius (mm)	
Pumping medium temperature (°C)	
Ambient temperature (°C)	

Movement load



Axial +/-	
Angular +/-	
Lateral +/-	
Frequency of movement	
Ind. service life (number of load cycles)	
Flow velocity (m/s)	
Flow rate (m^3/h)	

EXTERNAL INFLUENCES:

INSTALLATION / USE:

SPECIAL REQUIREMENTS:

Material of the

Bellows	
Inner guide pipe	
Connections	

General comments

Dispatch by ☐ Courier ☐ Night delivery ☐ Mail / post ☐ Freight company ☐ Truck load

Dispatch to _____

Date: _____ Signature: _____

Name in BLOCK CAPITALS: _____

Questionnaire Choice of Hose Lines (Page 1 of 2)

☐ OFFER ☐ CUST Offer No.: _____ Date: _____

☐ ORDER ☐ CUST Order No.: _____

CUSTOMER NO.: _____ Tel.: _____

Company: _____ City: _____ Fax: _____

Contact person: _____ e-mail: _____

TO BE FILLED OUT BY HANSA-FLEX

Accepted on: _____ By Ms/Mr: _____ Tel.: _____

To be processed by (date): _____ e-mail: _____

Intended purpose: _____ Quantity: _____

TECHNICAL INFORMATION – HOSE LINE

Please enter the technical information

Nominal width (mm)	
Total length measured over all (mm)	
Connection 1	
Connection 2	

MATERIAL

Please enter the applicable material of the

Hose	
Braiding	
Connections	
Hose protector	

OPERATING CONDITIONS

Please enter the operating conditions

Operating pressure, constant (bar)	
Operating pressure, intermittent (bar)	
Test pressure (bar)	
Temperature, constant (°C)	
Temperature, fluctuating (°C), from-to	
Flow medium*	
*for acidic concentrations	

MECHANICAL INFLUENCES: _____

CORROSIVE INFLUENCES: _____

→

Questionnaire Choice of Hose Lines (Page 2 of 2)

WHAT MOVEMENTS MUST BE ACCOMMODATED BY THE HOSE?

BENDING RADIUS (mm): _____

LOAD CYCLE (mm): _____

Please provide a sketch of the installation situation

MOVEMENT TYPE

Please select the corresponding movement type

- ☐ No vibration, slight, slow movement
- ☐ Slight vibration, uniform movement
- ☐ Significant vibration with rhythmic continuous movement

ADDITIONAL SERVICES

- ☐ Pressure test
- ☐ Helium leak test
- ☐ Flushing and cleaning
- ☐ Special embossing

APPROVALS

CE, DNV GL, GSI SLV, DVGW, DB etc.

General comments

Dispatch by ☐ Courier ☐ Night delivery ☐ Mail / post ☐ Freight company ☐ Truck load

Dispatch to _____

Date: _____ Signature: _____

Name in BLOCK CAPITALS: _____

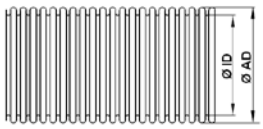
Hoses

Metal hoses	
Metal hoses	20
PTFE hoses	27
Wound hoses	35
Coolant hoses	37
Expansion joints	38

Hose protection	
Heat protection	40
Abrasion protection	42

KBO

Metal hose



Application: Standard hose for a wide range of applications
Design: parallel corrugation, single wall, flat corrugation
Properties: The related material ensures good resistance to corrosion suitable for use with aggressive media
Hose material: Stainless steel 1.4404
Braiding: without braiding
Standard: DIN EN ISO 10380
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only

Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

Ordering information: Other designs available on request

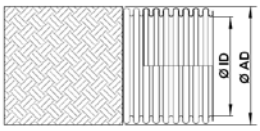
Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	bend radius stat. mm	bend radius dyn. mm	OP at 20°C (stat.) bar	Weight per m kg	Production length (m)
KBO 006	6,10	9,80	0,20	15	80	18,0	0,072	10 to 100
KBO 008	8,20	12,30	0,20	16	125	13,0	0,086	10 to 100
KBO 010	10,05	14,30	0,20	18	129	6,0	0,101	10 to 100
KBO 013	12,20	16,70	0,20	20	140	6,0	0,116	10 to 100
KBO 016	16,20	21,60	0,20	28	160	5,0	0,176	10 to 100
KBO 020	20,20	26,80	0,20	32	170	3,0	0,252	10 to 100
KBO 025	25,40	32,20	0,30	40	190	2,5	0,336	10 to 100
KBO 032	34,30	41,10	0,30	50	260	2,0	0,428	10 to 100
KBO 040	40,00	49,80	0,30	60	300	2,0	0,706	10 to 100
KBO 050	50,20	60,30	0,40	70	320	0,5	0,894	10 to 100

Web: http://cat.hansa-flex.com/en/KBO

Product versions:
KBA - Metal hose, 1 braiding with 1.4301

KBA

Metal hose



Application: Standard hose for a wide range of applications
Design: parallel corrugation, single wall, flat corrugation
Properties: The related material ensures good resistance to corrosion suitable for use with aggressive media
Hose material: Stainless steel 1.4404
Braiding: 1 braiding with 1.4301
Standard: DIN EN ISO 10380
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only
Approval: DVGW W543 Water approval up to NW 32

Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

Ordering information: Other designs available on request

Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	bend radius stat. mm	bend radius dyn. mm	OP at 20°C (stat.) bar	Weight per m kg	Production length (m)
KBA 006	6,10	10,70	0,20	25	80	100,0	0,120	10 to 100
KBA 008	8,20	13,60	0,20	32	125	100,0	0,208	10 to 100
KBA 010	10,05	15,50	0,20	38	129	100,0	0,216	10 to 100
KBA 013	12,25	18,30	0,20	45	140	65,0	0,258	10 to 100
KBA 016	16,20	23,80	0,20	58	160	64,0	0,380	10 to 100
KBA 020	20,20	28,60	0,30	70	170	43,0	0,504	10 to 100
KBA 025	25,40	34,30	0,30	85	190	49,0	0,694	10 to 100
KBA 032	34,30	43,00	0,30	105	260	35,0	1,030	10 to 100
KBA 040	40,00	52,00	0,30	130	300	38,0	1,348	10 to 100
KBA 050	50,20	62,40	0,40	160	320	25,0	1,604	10 to 100

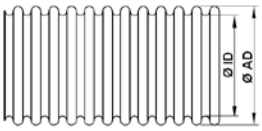
Web: http://cat.hansa-flex.com/en/KBA

Product versions:
KBO - Metal hose, without braiding

ICO

Metal hose

Application: Well suited for use in gas technology
Design: parallel corrugation, single wall, normal corrugation
Hose material: Stainless steel 1.4541
Braiding: without braiding
Standard: DIN EN ISO 10380
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only
Approval: Approval for all gases according to DVGW Worksheet G 260, DIN 3384



Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

Ordering information: Other designs available on request

Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	bend radius stat. mm	bend radius dyn. mm	OP at 20°C (stat.) bar	Weight per m kg	Production length (m)
ICO 010	10,60	16,10	0,30	35	125	5,0	0,110	upon request
ICO 013	12,30	18,00	0,30	35	140	5,0	0,115	upon request
ICO 016	15,70	23,70	0,40	45	190	4,0	0,175	upon request
ICO 020	19,80	28,80	0,40	55	215	3,0	0,260	upon request
ICO 025	25,80	34,50	0,40	70	250	3,0	0,320	upon request
ICO 032	33,00	43,70	0,40	80	270	3,0	0,500	upon request
ICO 040	40,00	52,00	0,50	100	320	2,0	0,630	10 to 12
ICO 050	51,60	65,50	0,50	130	360	1,0	0,810	10 to 12
ICO 065	66,00	85,40	0,60	175	450	1,0	1,380	10 to 12
ICO 080	76,60	97,50	0,60	200	500	1,0	1,520	10 to 12
ICO 100	103,00	125,00	1,00	250	600	1,0	2,150	10 to 12
ICO 125	127,50	151,50	1,00	325	750	1,0	3,250	10 to 12
ICO 150	151,50	177,00	1,00	375	850	0,8	4,100	10 to 12
ICO 200	200,00	227,00	0,80	260	950	0,8	7,300	10 to 12
ICO 250	250,00	282,00	0,80	340	1200	0,6	9,200	10 to 12
ICO 300	300,00	335,00	1,00	420	1600	0,5	12,700	10 to 12

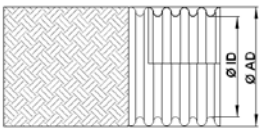
Web: http://cat.hansa-flex.com/en/ICO

Product versions:
ICA - Metal hose, 1 braiding with 1.4301
ICB - Metal hose, 2 braidings with 1.4301
IBA - Metal hose, 1 braiding with 1.4301

ICA

Metal hose

Application: Well suited for use in gas technology
Design: parallel corrugation, single wall, normal corrugation
Hose material: Stainless steel 1.4541
Braiding: 1 braiding with 1.4301
Standard: DIN EN ISO 10380
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only
Approval: Approval for all gases according to DVGW Worksheet G 260, DIN 3384



Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

Ordering information: Other designs available on request

Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	bend radius stat. mm	bend radius dyn. mm	OP at 20°C (stat.) bar	Weight per m kg	Production length (m)
ICA 010	10,60	17,50	0,30	35	190	75,0	0,250	upon request
ICA 013	12,30	19,50	0,30	35	210	70,0	0,290	upon request
ICA 016	15,70	25,20	0,40	45	285	65,0	0,370	upon request
ICA 020	19,80	30,30	0,40	55	310	50,0	0,500	upon request
ICA 025	25,80	36,00	0,40	70	375	40,0	0,640	upon request
ICA 032	33,00	45,70	0,40	80	405	35,0	1,000	upon request
ICA 040	40,00	54,00	0,50	100	480	30,0	1,200	10 to 12
ICA 050	51,60	67,50	0,50	130	550	25,0	1,540	10 to 12
ICA 065	66,00	87,90	0,60	175	675	20,0	2,550	10 to 12
ICA 080	76,60	100,00	0,60	200	750	18,0	2,900	10 to 12
ICA 100	103,00	128,00	1,00	250	920	14,0	4,200	10 to 12
ICA 125	127,50	154,50	1,00	325	1160	12,5	5,800	10 to 12
ICA 150	151,50	180,00	1,00	375	1320	10,0	6,800	10 to 12
ICA 200	200,00	232,00	1,60	260	1400	6,0	11,000	10 to 12

ICA (Continued)

Metal hose

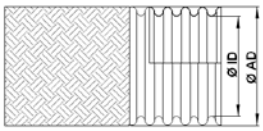
Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	bend radius stat. mm	bend radius dyn. mm	OP at 20°C (stat.) bar	Weight per m kg	Production length (m)
ICA 250	250,00	287,00	1,60	340	1650	3,5	13,500	10 to 12
ICA 300	300,00	340,00	2,00	420	2000	2,0	17,600	10 to 12

Web: http://cat.hansa-flex.com/en/ICA

Product versions:
ICO - Metal hose, without braiding
ICB - Metal hose, 2 braidings with 1.4301
IBA - Metal hose, 1 braiding with 1.4301

IBA

Metal hose



Application: Well suited for use in gas technology
Design: annular corrugation, medium-walled, single wall, normal corrugation
Properties: The related material ensures good resistance to corrosion suitable for use with aggressive media
Hose material: Stainless steel 1.4404
Braiding: 1 braiding with 1.4301
Standard: DIN EN ISO 10380
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only
Approval: Approval for all gases according to DVGW Worksheet G 260, DIN 3384

Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

Ordering information: Other designs available on request

Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	bend radius stat. mm	bend radius dyn. mm	OP at 20°C (stat.) bar	Weight per m kg	Production length (m)
IBA 006	6,30	11,10	0,30	12	140	150,0	0,164	upon request
IBA 008	8,20	13,60	0,30	32	165	135,0	0,214	upon request
IBA 010	10,60	17,50	0,80	35	190	75,0	0,250	upon request
IBA 013	12,30	19,50	0,80	35	210	70,0	0,290	upon request
IBA 016	15,70	25,20	1,00	45	285	65,0	0,370	upon request
IBA 020	19,80	30,30	1,00	55	310	50,0	0,500	upon request
IBA 025	25,80	36,00	1,00	70	375	40,0	0,640	upon request
IBA 032	33,00	45,70	1,00	80	405	35,0	1,000	upon request
IBA 040	40,00	54,00	1,20	100	480	30,0	1,200	10 to 12
IBA 050	51,60	67,50	1,20	130	550	25,0	1,540	10 to 12
IBA 065	66,00	87,90	1,40	175	675	20,0	2,550	10 to 12
IBA 080	76,60	100,00	1,40	200	750	18,0	2,900	10 to 12
IBA 100	103,00	128,00	1,40	250	920	14,0	4,200	10 to 12

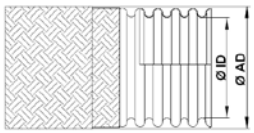
Web: http://cat.hansa-flex.com/en/IBA

Product versions:
ICA - Metal hose, 1 braiding with 1.4301
ICO - Metal hose, without braiding
ICB - Metal hose, 2 braidings with 1.4301

ICB

Metal hose

Application: Well suited for use in gas technology
Design: parallel corrugation, single wall, normal corrugation
Hose material: Stainless steel 1.4541
Braiding: 2 braidings with 1.4301
Standard: DIN EN ISO 10380
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only
Approval: Approval for all gases according to DVGW Worksheet G 260, DIN 3384, from NW 65



Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

Ordering information: Other designs available on request

Identification	Ø ID	Ø AD	Tolerances of ID/ED	bend radius stat.	bend radius dyn.	OP at 20°C (stat.)	Weight per m	Production length (m)
	mm	mm	mm	mm	mm	bar	kg	
ICB 010	10,60	19,00	1,00	35	205	105,0	0,400	upon request
ICB 013	12,30	21,00	1,00	35	225	100,0	0,470	upon request
ICB 016	15,70	26,70	1,20	45	305	90,0	0,580	upon request
ICB 020	19,80	31,80	1,20	55	330	75,0	0,760	upon request
ICB 025	25,80	37,40	1,20	70	385	60,0	0,960	upon request
ICB 032	33,00	47,70	1,20	80	415	50,0	1,520	upon request
ICB 040	40,00	56,00	1,40	100	490	40,0	1,770	upon request
ICB 050	51,60	69,50	1,40	130	570	32,0	2,300	10 to 12
ICB 065	66,00	90,40	1,60	175	685	25,0	3,800	10 to 12
ICB 080	76,50	102,50	1,60	200	770	22,0	4,350	10 to 12
ICB 100	103,00	130,00	1,60	250	960	20,0	6,300	10 to 12

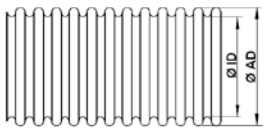
Web: http://cat.hansa-flex.com/en/ICB

Product versions:
ICO - Metal hose, without braiding
ICA - Metal hose, 1 braiding with 1.4301
IBA - Metal hose, 1 braiding with 1.4301

FBO

Metal hose

Application: Specially corrugated, suitable for use in the foodstuffs and chemical industries
Design: annular corrugation, single wall, wide corrugated
Properties: Hose line based on DIN 2827
Hose material: Stainless steel 1.4404
Braiding: without braiding
Standard: DIN EN ISO 10380
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only



Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

Ordering information: Other designs available on request

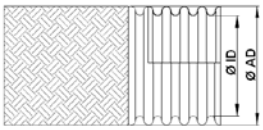
Identification	Ø ID	Ø AD	Tolerances of ID/ED	bend radius stat.	OP at 20°C (stat.)
	mm	mm	mm	mm	bar
FBO 006	6,20	9,80	0,30	10	18,0
FBO 008	8,50	13,60	0,30	14	14,0
FBO 010	10,40	16,20	0,30	16	10,0
FBO 013	12,40	18,60	0,40	24	12,0
FBO 016	15,40	22,50	0,40	29	7,5
FBO 020	20,30	28,30	0,40	35	4,3
FBO 025	25,40	34,80	0,40	42	3,0
FBO 032	32,30	43,40	0,50	51	3,3
FBO 040	40,20	52,40	0,50	61	2,2
FBO 050	50,00	64,80	0,60	73	2,1
FBO 065	64,90	80,90	0,70	89	1,3
FBO 080	79,60	99,60	0,80	108	1,4
FBO 100	101,50	126,50	0,80	126	0,5
FBO 125	126,00	152,00	1,00	147	0,4
FBO 150	149,00	174,00	1,00	169	0,3

Web: http://cat.hansa-flex.com/en/FBO

Product versions:
FBA - Metal hose, 1 braiding with 1.4301

FBA

Metal hose



Application: Specially corrugated, suitable for use in the foodstuffs and chemical industries
Design: annular corrugation, single wall, wide corrugated
Properties: Hose line based on DIN 2827
Hose material: Stainless steel 1.4404
Braiding: 1 braiding with 1.4301
Standard: DIN EN ISO 10380
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only
Approval: DVGW W543 Water approval up to NW 32

Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

Ordering information: Other designs available on request

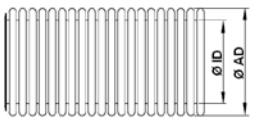
Identification	Ø ID	Ø AD	Tolerances of ID/ED	bend radius stat.	bend radius dyn.	OP at 20°C (stat.)
	mm	mm	mm	mm	mm	bar
FBA 006	6,20	11,40	0,30	23	110	140,0
FBA 008	8,50	15,20	0,30	28	130	115,0
FBA 010	10,40	17,80	0,30	32	150	100,0
FBA 013	12,40	20,20	0,40	39	165	80,0
FBA 016	15,40	24,10	0,40	50	195	63,0
FBA 020	20,30	29,90	0,40	60	225	50,0
FBA 025	25,40	36,40	0,40	73	260	40,0
FBA 032	32,30	45,40	0,50	90	300	40,0
FBA 040	40,20	54,40	0,50	115	340	32,0
FBA 050	50,00	67,30	0,60	140	390	32,0
FBA 065	64,90	83,40	0,70	175	460	25,0
FBA 080	79,60	102,60	0,80	240	660	23,0
FBA 100	101,50	129,50	0,80	290	750	15,0
FBA 125	126,00	155,00	1,00	340	1000	13,0
FBA 150	149,00	177,00	1,00	390	1250	11,0

Web: http://cat.hansa-flex.com/en/FBA

Product versions:
FBO - Metal hose, without braiding

FPCO

Metal hose



Application: The close curl suitable for small bending radii
Design: parallel corrugation, single wall, narrow corrugation
Hose material: Stainless steel 1.4541
Braiding: without braiding
Standard: DIN EN ISO 10380
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only

Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

Ordering information: Other designs available on request

Identification	Ø ID	Ø AD	Tolerances of ID/ED	bend radius stat.	OP at 20°C (stat.)
	mm	mm	mm	mm	bar
FPCO 013	12,00	18,60	0,40	21	6,0
FPCO 016	15,00	22,50	0,40	26	3,0
FPCO 020	19,90	28,30	0,40	32	2,2
FPCO 025	24,90	34,80	0,40	37	1,8
FPCO 032	31,80	43,40	0,50	46	1,6
FPCO 040	39,60	52,40	0,50	55	1,2
FPCO 050	49,40	64,80	0,60	65	1,0
FPCO 065	64,00	80,90	0,70	80	0,5
FPCO 080	78,70	99,60	0,80	97	0,7
FPCO 100	101,00	126,50	0,80	113	0,4
FPCO 150	148,20	174,00	1,00	152	0,2

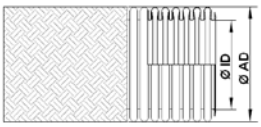
Web: http://cat.hansa-flex.com/en/FPCO

Product versions:
FPCA - Metal hose, 1 braiding with 1.4301

FPCA

Metal hose

Application: The close curl suitable for small bending radii
Design: parallel corrugation, single wall, narrow corrugation
Hose material: Stainless steel 1.4541
Braiding: 1 braiding with 1.4301
Standard: DIN EN ISO 10380
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only



Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

Ordering information: Other designs available on request

Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	bend radius stat. mm	bend radius dyn. mm	OP at 20°C (stat.) bar
FPCA 013	12,00	20,20	0,40	25	124	80,0
FPCA 016	15,00	24,10	0,40	32	146	63,0
FPCA 020	19,90	29,90	0,40	38	169	55,0
FPCA 025	24,90	36,40	0,40	45	195	40,0
FPCA 032	31,80	45,40	0,50	58	225	40,0
FPCA 040	39,60	54,40	0,50	70	255	32,0
FPCA 050	49,40	67,30	0,60	85	293	32,0
FPCA 065	64,00	83,40	0,70	105	345	25,0
FPCA 080	78,70	102,60	0,80	180	495	23,0
FPCA 100	101,00	129,50	0,80	218	563	15,0
FPCA 125	125,20	155,00	1,00	255	1000	13,0
FPCA 150	148,20	177,00	1,00	290	1250	11,0

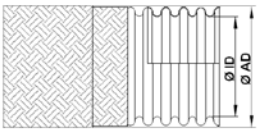
Web: http://cat.hansa-flex.com/en/FPCA

Product versions:
FPCO - Metal hose, without braiding

ABB S

Metal hose

Application: The thick-walled design of this hose makes it, ideally suited for high pressure applications.
Design: parallel corrugation, thick-walled, normal corrugation
Hose material: Stainless steel 1.4404
Braiding: 2 braidings with 1.4301
Standard: DIN EN ISO 10380
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only



Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

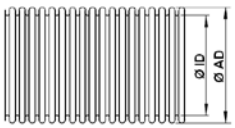
Ordering information: Other designs available on request

Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	bend radius stat. mm	bend radius dyn. mm	OP at 20°C (stat.) bar	Weight per m kg	Production length (m)
ABB 006 S	6,20	13,00	0,20	40	110	250,0	0,330	10 to 100
ABB 008 S	8,00	16,10	0,20	50	130	250,0	0,490	10 to 100
ABB 010 S	10,00	19,10	0,30	60	150	200,0	0,660	10 to 100
ABB 013 S	12,10	21,90	0,30	70	165	200,0	0,820	10 to 100
ABB 016 S	16,10	27,80	0,30	90	195	200,0	1,290	10 to 100

Web: http://cat.hansa-flex.com/en/ABBS

DCO S

Metal hose



Application: The thick-walled design of this hose makes it, ideally suited for high pressure applications.
Design: parallel corrugation, thick-walled, flat corrugation
Hose material: Stainless steel 1.4541
Braiding: without braiding
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only

Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

Ordering information: Other designs available on request

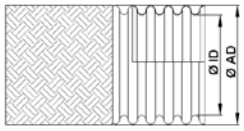
Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	bend radius stat. mm	bend radius dyn. mm	OP at 20°C (stat.) bar	Weight per m kg	Production length (m)
DCO 020 S	19,50	28,80	0,80	55	450	3,2	0,420	upon request
DCO 025 S	25,60	36,50	0,40	70	510	3,2	0,570	upon request
DCO 032 S	32,60	43,70	0,40	80	560	3,2	0,840	upon request
DCO 040 S	39,60	52,00	0,50	100	600	2,0	1,020	10 to 12
DCO 050 S	51,00	65,50	0,50	130	680	2,0	1,700	10 to 12
DCO 065 S	65,50	85,40	0,60	175	770	2,0	2,400	10 to 12
DCO 080 S	76,10	97,50	0,60	200	920	2,0	2,600	10 to 12
DCO 100 S	102,40	125,00	1,00	250	1100	2,0	4,050	10 to 12
DCO 125 S	127,50	151,50	1,00	325	750	1,0	3,250	10 to 12
DCO 150 S	151,50	177,00	1,00	375	850	0,8	4,100	10 to 12

Web: http://cat.hansa-flex.com/en/DCOS

Product versions:
DCA S - Metal hose, 1 braiding with 1.4301
DCB S - Metal hose, 2 braidings with 1.4301

DCA S

Metal hose



Application: The thick-walled design of this hose makes it, ideally suited for high pressure applications.
Design: parallel corrugation, thick-walled, flat corrugation
Hose material: Stainless steel 1.4541
Braiding: 1 braiding with 1.4301
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only

Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

Ordering information: Other designs available on request

Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	bend radius stat. mm	bend radius dyn. mm	OP at 20°C (stat.) bar	Weight per m kg	Production length (m)
DCA 020 S	19,50	30,00	0,40	55	600	75,0	0,800	upon request
DCA 025 S	25,60	38,10	0,40	70	680	60,0	1,120	upon request
DCA 032 S	32,60	45,70	0,40	80	750	50,0	1,450	upon request
DCA 040 S	39,60	54,00	0,50	100	850	45,0	1,820	10 to 12
DCA 050 S	51,00	67,50	0,50	130	950	40,0	2,900	10 to 12
DCA 065 S	65,50	87,80	0,60	175	1050	35,0	3,900	10 to 12
DCA 080 S	76,10	99,90	0,60	200	1280	25,0	4,200	10 to 12
DCA 100 S	102,40	127,40	1,00	250	1430	20,0	6,200	10 to 12
DCA 125 S	127,50	154,50	1,00	325	1160	12,5	5,800	10 to 12
DCA 150 S	151,50	180,00	1,00	375	1320	10,0	6,800	10 to 12

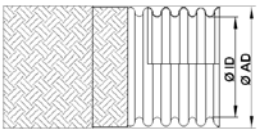
Web: http://cat.hansa-flex.com/en/DCAS

Product versions:
DCB S - Metal hose, 2 braidings with 1.4301
DCO S - Metal hose, without braiding

DCB S

Metal hose

Application: The thick-walled design of this hose makes it, ideally suited for high pressure applications.
Design: parallel corrugation, thick-walled, flat corrugation
Hose material: Stainless steel 1.4541
Braiding: 2 braidings with 1.4301
Temp. min.: -200 °C
Temp. max.: 550 °C
Temp.: applies for the hose only



Note: Please take into account the dynamic and thermal reduction factors with respect to the pressure values. The pressure values listed apply to hoses only.

Ordering information: Other designs available on request

Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	bend radius stat. mm	bend radius dyn. mm	OP at 20°C (stat.) bar	Weight per m kg	Production length (m)
DCB 020 S	19,50	31,20	0,40	55	640	120,0	1,200	upon request
DCB 025 S	25,60	39,70	0,40	70	710	100,0	1,700	upon request
DCB 032 S	32,60	47,70	0,40	80	790	90,0	2,100	upon request
DCB 040 S	39,60	56,00	0,50	100	900	80,0	2,700	10 to 12
DCB 050 S	51,00	69,50	0,50	130	1000	65,0	4,050	10 to 12
DCB 065 S	65,50	90,20	0,60	175	1100	50,0	5,400	10 to 12
DCB 080 S	76,10	102,30	0,60	200	1380	40,0	5,800	10 to 12
DCB 100 S	102,40	129,80	1,00	250	1500	32,0	8,400	10 to 12
DCB 125 S	127,50	157,50	1,00	325	1200	18,0	8,400	10 to 12
DCB 150 S	151,50	183,00	1,00	375	1400	15,0	9,600	10 to 12

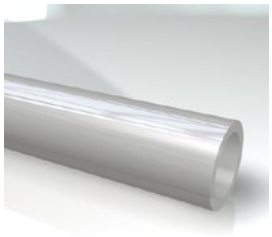
Web: http://cat.hansa-flex.com/en/DCBS

Product versions:
DCA S - Metal hose, 1 braiding with 1.4301
DCO S - Metal hose, without braiding

PTFE NATUR

PTFE-Tube

Application: Low pressure applications with hydraulic fluids and aggressive media
Application: Mainly for the chemical and food industries
Design: white PTFE smooth hose
Properties: The smooth inner liner prevents residue buildup in the hose, Suitable for use with foodstuffs
Hose material: PTFE (polytetrafluoroethylene)
Colour: Natural
Temp. min.: -200 °C
Temp. max.: 260 °C
Approval: the base material has been granted FDA approval.



Note: The pressure values listed apply to hoses only.
The tubular fabric has a safety factor (SF) 4 against bursting
From 50 °C the pressure reduction factor is to be taken into account.
(Max. operating pressure = operating pressure x factor).
Temp.: 50 °C / 75 °C / 100 °C / 150 °C / 200 °C / 250 °C
Factor: 0,87 / 0,77 / 0,68 / 0,53 / 0,39 / 0,28

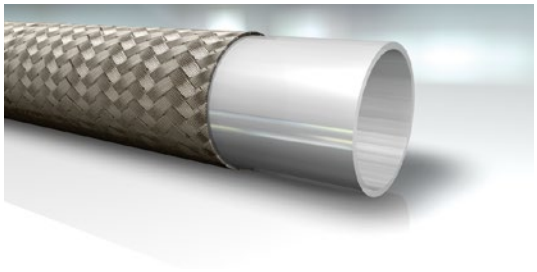
Ordering information: Other designs available on request

Identification	Ø ID mm	Ø AD mm	Wall thickness mm	OP at 20°C (stat.) bar	Production length max. m
PTFE 2/4 NATUR	2,00	4,00	1,00	20,0	300
PTFE 4/6 NATUR	4,00	6,00	1,00	12,0	500
PTFE 6/8 NATUR	6,00	8,00	1,00	8,5	100
PTFE 6/10 NATUR	6,00	10,00	2,00	15,0	50
PTFE 7/10 NATUR	7,00	10,00	1,50	10,5	50
PTFE 8/10 NATUR	8,00	10,00	1,00	7,0	50
PTFE 10/12 NATUR	10,00	12,00	1,00	5,5	100

Web: http://cat.hansa-flex.com/en/PTFENATUR

TF 100

PTFE hose, smooth, 1 braiding



Application: Medium pressure applications with hydraulic fluids and aggressive media
Application: Mainly for the chemical and food industries
Design: Smooth inliner in white PTFE
Properties: The smooth inner liner prevents residue buildup in the hose, Suitable for use with foodstuffs
Braiding: 1 braiding with 1.4301 / 1.4306
Inner layer: PTFE
Outer layer: none
Colour: metallic
Temp. min.: -70 °C
Temp. max.: 260 °C
Temp.: applies for the hose only
Material: PTFE (polytetrafluoroethylene)
Approval: the base material has been granted FDA approval.

Note: The pressure values listed apply to hoses only.
The tubular fabric has a safety factor (SF) 3 against bursting
Not recommended for high dynamic pressure loads.
From 120 °C the pressure reduction factor is to be taken into account.
(Max. operating pressure = operating pressure x factor).
Temp.: 120 °C / 140 °C / 160 °C / 180 °C / 200 °C / 220 °C
Factor: 1,00 / 0,80 / 0,60 / 0,40 / 0,20 / 0,00

Ordering information: Other designs available on request

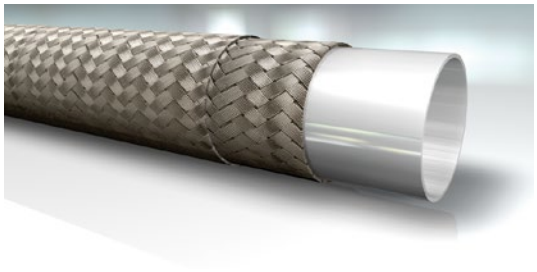
Identification	DN*	Inches	Size	Internal Ø min. mm	Internal Ø max. mm	External Ø min. mm	External Ø max. mm	Min. bending radius mm	Operating pressure bar	Test pressure bar	Burst pressure bar	Weight per m kg	Production length (m)
TF 104	5	3/16"	3	5,0	5,4	7,5	8,6	64	264,0	396	793	0,090	20 to 80
TF 106	6	1/4"	4	6,5	7,0	8,8	9,9	76	224,0	336	672	0,092	20 to 80
TF 108	8	5/16"	5	8,2	8,7	10,5	11,6	102	207,0	311	621	0,141	20 to 80
TF 110	10	3/8"	6	9,9	10,6	12,8	14,1	133	183,0	275	552	0,148	20 to 80
TF 113	12	1/2"	8	13,1	13,4	15,9	17,2	152	161,0	242	483	0,249	20 to 80
TF 116	16	5/8"	10	16,0	17,1	19,0	20,6	178	114,0	171	345	0,290	10 to 20
TF 120	19	3/4"	12	19,3	20,3	22,2	23,8	203	103,0	155	310	0,339	10 to 20
TF 125	25	1"	16	25,8	26,6	28,5	30,1	305	80,0	120	241	0,461	10 to 20

DN = Nominal diameter, nominal width

Web: http://cat.hansa-flex.com/en/TF100

TF 200

PTFE hose, smooth, 2 braidings



Application: Medium pressure applications with hydraulic fluids and aggressive media
Application: Mainly for the chemical and food industries
Design: Smooth inliner in white PTFE
Properties: The smooth inner liner prevents residue buildup in the hose, Suitable for use with foodstuffs
Braiding: 2 braidings with 1.4301 / 1.4306
Inner layer: PTFE
Outer layer: none
Colour: metallic
Temp. min.: -70 °C
Temp. max.: 260 °C
Temp.: applies for the hose only
Material: PTFE (polytetrafluoroethylene)
Approval: the base material has been granted FDA approval.

Note: The pressure values listed apply to hoses only.
The tubular fabric has a safety factor (SF) 3 against bursting
Not recommended for high dynamic pressure loads.
From 120 °C the pressure reduction factor is to be taken into account.
(Max. operating pressure = operating pressure x factor).
Temp.: 120 °C / 140 °C / 160 °C / 180 °C / 200 °C / 220 °C
Factor: 1,00 / 0,80 / 0,60 / 0,40 / 0,20 / 0,00

Ordering information: Other designs available on request

Identification	DN*	Inches	Size	Internal Ø min. mm	Internal Ø max. mm	External Ø min. mm	External Ø max. mm	Min. bending radius mm	Operating pressure bar	Test pressure bar	Burst pressure bar	Weight per m kg	Production length (m)
TF 206	6	1/4"	4	6,3	7,1	9,9	11,1	76	247,0	371	741	0,179	20 to 80
TF 208	8	5/16"	5	8,0	8,8	12,0	13,2	102	230,0	345	690	0,241	20 to 80

DN = Nominal diameter, nominal width

(Continued) TF 200

PTFE hose, smooth, 2 braidings

Identification	DN*	Inches	Size	Internal Ø min. mm	Internal Ø max. mm	External Ø min. mm	External Ø max. mm	Min. bending radius mm	Operating pressure bar	Test pressure bar	Burst pressure bar	Weight per m kg	Production length (m)
TF 210	10	3/8"	6	9,6	10,4	14,0	15,2	133	207,0	345	621	0,311	20 to 80
TF 213	12	1/2"	8	12,8	13,6	17,2	19,9	152	183,0	275	552	0,411	20 to 80
TF 216	16	5/8"	10	16,1	17,1	20,3	21,7	178	138,0	207	414	0,470	10 to 20
TF 220	19	3/4"	12	19,2	20,4	23,5	25,2	203	126,0	189	379	0,551	10 to 20
TF 225	25	1"	16	25,5	26,7	29,9	31,6	305	103,0	155	310	0,732	10 to 20

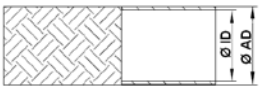
DN = Nominal diameter, nominal width

Web: http://cat.hansa-flex.com/en/TF200

ATS 100

PTFE smooth hose

Application: Medium pressure applications with hydraulic fluids and aggressive media
Application: Mainly for the chemical and food industries
Design: Smooth inliner made from multilayer, black PTFE, antistatic design
Properties: The smooth inner liner prevents residue buildup in the hose, Suitable for use with foodstuffs
Hose material: PTFE (polytetrafluoroethylene)
Braiding: 1 braiding with 1.4301 / 1.4306
Temp. min.: -70 °C
Temp. max.: 260 °C
Temp.: applies for the hose only
Approval: the base material has been granted FDA approval.



Note: The pressure values listed apply to hoses only.
The tubular fabric has a safety factor (SF) 3 against bursting
From 120 °C the pressure reduction factor is to be taken into account.
(Max. operating pressure = operating pressure x factor).
Temp.: 120 °C / 140 °C / 160 °C / 180 °C / 200 °C / 220 °C
Factor: 1,00 / 0,80 / 0,60 / 0,40 / 0,20 / 0,00

Ordering information: Other designs available on request

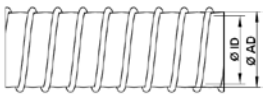
Identification	Internal Ø min. mm	Internal Ø max. mm	External Ø min. mm	External Ø max. mm	Wall thickness mm	Min. bending radius mm	OP at 20°C (stat.) bar	Weight per m kg
ATS 106	6,5	7,0	8,8	9,9	0,76	76	224,0	0,092
ATS 108	8,2	8,7	10,5	11,6	0,64	102	207,0	0,141
ATS 110	9,9	10,6	12,8	14,1	0,89	133	183,0	0,148
ATS 113	13,1	13,4	15,5	17,2	0,89	152	161,0	0,249
ATS 116	16,1	17,1	19,0	20,6	0,89	178	114,0	0,290
ATS 120	19,3	20,3	22,2	23,8	0,89	203	103,0	0,339
ATS 125	25,6	26,6	28,5	30,1	0,89	305	80,0	0,461

Web: http://cat.hansa-flex.com/en/ATS100

Product versions:
TF 100 - PTFE hose, smooth, 1 braiding, Smooth inliner in white PTFE
TF 200 - PTFE hose, smooth, 2 braidings, Smooth inliner in white PTFE

ASW

PTFE smooth hose



Application: Well suited for high and low pressure applications with small bending radii
Application: Mainly for the chemical and food industries
Design: Smooth inliner in white PTFE
Properties: The smooth inner liner prevents residue buildup in the hose, Suitable for use with foodstuffs
Hose material: PTFE (polytetrafluoroethylene)
Braiding: without braiding, outer vacuum support spiral
Temp. min.: -70 °C
Temp. max.: 260 °C
Temp.: applies for the hose only
Material: PTFE (polytetrafluoroethylene)
Approval: the base material has been granted FDA approval.

Note: The pressure values listed apply to hoses only.
The tubular fabric has a safety factor (SF) 4 against bursting
From 120 °C the pressure reduction factor is to be taken into account.
(Max. operating pressure = operating pressure x factor).
Temp.: 120 °C / 140 °C / 160 °C / 180 °C / 200 °C / 220 °C
Factor: 1,00 / 0,80 / 0,60 / 0,40 / 0,20 / 0,00

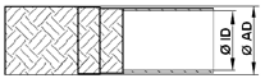
Ordering information: Other designs available on request

Identification	Internal Ø min.	External Ø min.	Wall thickness	Min. bending radius	OP at 20°C (stat.)	Weight per m
	mm	mm	mm	mm	bar	kg
ASW 013	11,5	16,2	1,25	38	7,0	0,150
ASW 016	15,5	20,2	1,25	42	5,0	0,180
ASW 020	20,0	23,2	1,00	50	5,0	0,200
ASW 025	22,8	26,0	1,00	70	5,0	0,360
ASW 032	30,5	35,7	1,50	85	5,0	0,450
ASW 040	36,5	42,5	1,50	100	5,0	0,660
ASW 050	48,5	55,1	1,65	140	5,0	0,950

Web: http://cat.hansa-flex.com/en/ASW

TF 100 S

PTFE hose, smooth, 1 braiding, heavy



Application: Medium pressure applications with hydraulic fluids and aggressive media
Application: Mainly for the chemical and food industries
Design: Smooth inliner in white PTFE, thick-walled, flexible
Properties: The smooth inner liner prevents residue buildup in the hose
Hose material: PTFE (polytetrafluoroethylene)
Braiding: 1 braiding with 1.4301
Temp. min.: -70 °C
Temp. max.: 260 °C

Note: The pressure values listed apply to hoses only.
The tubular fabric has a safety factor (SF) 3 against bursting
From 20 °C the pressure reduction factor is to be taken into account.
(Max. operating pressure = operating pressure x factor).
Temp.: 20 °C / 50 °C / 70 °C / 120 °C / 170 °C / 220 °C
Factor: 1,00 / 0,90 / 0,85 / 0,65 / 0,40 / 0,18

Ordering information: Other designs available on request

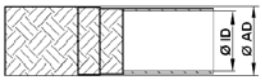
Identification	Internal Ø min.	Internal Ø max.	External Ø	Wall thickness	Min. bending radius	OP at 20°C (stat.)
	mm	mm	mm	mm	mm	bar
TF 104 S	4,8	5,2	8,7	1,00	50	333,0
TF 106 S	6,0	6,6	10,2	1,00	60	306,0
TF 108 S	7,7	8,3	11,7	1,00	100	266,0
TF 110 S	9,7	10,3	14,2	1,30	120	233,0
TF 113 S	12,6	13,4	17,2	1,30	135	200,0
TF 116 S	15,6	16,4	20,2	1,50	165	166,0
TF 120 S	19,2	20,0	23,8	1,50	190	133,0

Web: http://cat.hansa-flex.com/en/TF100S

KTF 300

PTFE hose

Application: High-pressure applications with hydraulic fluids and aggressive media
Application: Mainly for the chemical and food industries
Design: Smooth inliner in white PTFE, thick-walled
Properties: The smooth inner liner prevents residue buildup in the hose
Hose material: PTFE (polytetrafluoroethylene)
Braiding: two braids of steel wired, bronzed, one layer of steel wire galvanised.
Temp. min.: -70 °C
Temp. max.: 250 °C
Temp.: applies for the hose only



Note: The pressure values listed apply to hoses only.
The tubular fabric has a safety factor (SF) 4 against bursting
From 50 °C the pressure reduction factor is to be taken into account.
(Max. operating pressure = operating pressure x factor).
Temp.: 100 °C / 150 °C / 200 °C
Factor: 0,95 / 0,90 / 0,83

Ordering information: Other designs available on request

Identification	Internal Ø	External Ø	Min. bending radius	OP at 20°C (stat.)	Weight per m
	mm	mm	mm	bar	kg
KTF 306	6,2	11,2	60	500,0	0,262
KTF 308	8,0	13,4	85	475,0	0,345
KTF 310	10,0	15,7	110	475,0	0,442
KTF 313	12,2	18,8	150	450,0	0,600
KTF 316	15,1	21,6	175	400,0	0,700
KTF 320	20,2	27,8	200	300,0	1,055
KTF 325	24,2	31,7	240	275,0	1,205

Web: http://cat.hansa-flex.com/en/KTF300

TFW

PTFE hose

Application: Medium pressure applications with hydraulic fluids and aggressive media
Application: Mainly for the chemical and food industries
Design: helically wound, multilayer, white PTFE corrugated hose, with a fibreglass anti-slip intermediate layer
Properties: Well suited for vibrations and frequent movement due to fibreglass insert
Hose material: PTFE (polytetrafluoroethylene)
Braiding: 1 braiding with 1.4301 / 1.4306
Temp. min.: -50 °C
Temp. max.: 205 °C
Temp.: applies for the hose only

Note: The pressure values listed apply to hoses only.
The tubular fabric has a safety factor (SF) 4 against bursting
From 170 °C the pressure reduction factor is to be taken into account.
(Max. operating pressure = operating pressure x factor).
Temp.: 170 °C / 180 °C / 205 °C
Factor: 0,85 / 0,75 / 0,50

Ordering information: Other designs available on request

Identification	Internal Ø min.	Internal Ø max.	External Ø min.	External Ø max.	Min. bending radius	OP at 20°C (stat.)	Weight per m
	mm	mm	mm	mm	mm	bar	kg
TFW 010	9,7	10,3	15,2	15,8	50	125,0	0,250
TFW 013	12,9	13,5	18,4	19,0	65	105,0	0,315
TFW 016	15,7	16,3	21,7	22,3	80	100,0	0,410
TFW 020	19,2	19,8	26,6	27,2	100	90,0	0,540
TFW 025	25,0	26,0	32,4	33,4	125	80,0	0,720
TFW 032	31,5	32,5	38,9	39,9	150	64,0	0,820
TFW 040	38,0	39,0	45,4	46,4	200	53,0	1,050
TFW 050	50,4	51,6	57,8	59,0	250	35,0	1,270
TFW 065	63,5	65,5	74,0	76,0	320	25,0	1,960
TFW 080	75,5	77,5	87,0	89,0	380	20,0	2,400

Web: http://cat.hansa-flex.com/en/TFW

Product versions:
TFS - PTFE hose

TFS

PTFE hose

Application: Medium pressure applications with hydraulic fluids and aggressive media
Application: Mainly for the chemical and food industries
Design: helically wound, multilayer, black PTFE corrugated hose, with a fibreglass anti-slip intermediate layer, electrically conductive
Properties: Well suited for vibrations and frequent movement due to fibreglass insert
Hose material: PTFE (polytetrafluoroethylene)
Braiding: 1 braiding with 1.4301 / 1.4306
Temp. min.: -50 °C
Temp. max.: 205 °C
Temp.: applies for the hose only

Note: The pressure values listed apply to hoses only.
The tubular fabric has a safety factor (SF) 4 against bursting
From 170 °C the pressure reduction factor is to be taken into account.
(Max. operating pressure = operating pressure x factor).
Temp.: 170 °C / 180 °C / 205 °C
Factor: 0,85 / 0,75 / 0,50

Ordering information: Other designs available on request

Identification	Internal Ø min.	Internal Ø max.	External Ø min.	External Ø max.	Min. bending radius	OP at 20°C (stat.)	Weight per m
	mm	mm	mm	mm	mm	bar	kg
TFS 010	9,7	10,3	15,2	15,8	50	125,0	0,260
TFS 013	12,9	13,5	18,4	19,0	65	105,0	0,330
TFS 016	15,7	16,3	21,7	22,3	80	100,0	0,430
TFS 020	19,2	19,8	26,6	27,2	100	90,0	0,565
TFS 025	25,0	26,0	32,4	33,4	125	80,0	0,750
TFS 032	31,5	32,5	38,9	39,9	150	64,0	0,855
TFS 040	38,0	39,0	45,4	46,4	200	53,0	1,100
TFS 050	50,4	51,6	57,8	59,0	250	35,0	1,340
TFS 065	63,5	65,5	74,0	76,0	320	25,0	2,310
TFS 080	75,5	77,5	87,0	89,0	380	20,0	2,800

Web: http://cat.hansa-flex.com/en/TFS

Product versions:
TFW - PTFE hose,

ATWE

PTFE corrugated hose

Application: Medium pressure applications with hydraulic fluids and aggressive media
Application: Mainly for the chemical and food industries
Design: coil-corrugated PTFE inliner in white PTFE
Properties: Due to the wide curl good self-cleaning properties, Suitable for use with foodstuffs
Hose material: PTFE (polytetrafluoroethylene)
Braiding: 1 braiding with 1.4301 / 1.4306
Temp. min.: -70 °C
Temp. max.: 260 °C
Temp.: applies for the hose only
Approval: the base material has been granted FDA approval.

Note: The pressure values listed apply to hoses only.
The tubular fabric has a safety factor (SF) 3 against bursting
From 120 °C the pressure reduction factor is to be taken into account.
(Max. operating pressure = operating pressure x factor).
Temp.: 120 °C / 140 °C / 160 °C / 180 °C / 200 °C / 220 °C
Factor: 1,00 / 0,80 / 0,60 / 0,40 / 0,20 / 0,00

Ordering information: Other designs available on request

Identification	Internal Ø min.	Internal Ø max.	External Ø min.	External Ø max.	Wall thickness	Min. bending radius	OP at 20°C (stat.)	Weight per m
	mm	mm	mm	mm	mm	mm	bar	kg
ATWE 006	6,1	6,7	9,3	9,9	0,75	18	172,0	0,140
ATWE 008	7,9	8,5	12,3	12,9	0,60	20	138,0	0,160
ATWE 010	9,5	10,2	12,8	14,5	0,65	20	138,0	0,152
ATWE 013	12,5	13,1	17,8	19,2	0,80	25	103,0	0,253
ATWE 016	15,7	16,4	21,8	24,0	0,80	51	83,0	0,304
ATWE 020	19,0	19,7	24,0	27,0	1,00	64	69,0	0,374
ATWE 025	25,5	26,2	32,2	36,1	1,00	89	46,0	0,543
ATWE 032	32,0	32,5	40,2	41,3	1,00	125	34,0	0,635

→

(Continued) ATWE

PTFE corrugated hose

Identification	Internal Ø min.	Internal Ø max.	External Ø min.	External Ø max.	Wall thickness	Min. bending radius	OP at 20°C (stat.)	Weight per m
	mm	mm	mm	mm	mm	mm	bar	kg
ATWE 040	38,0	38,9	47,8	49,0	1,00	152	30,0	0,840
ATWE 050	50,9	51,9	60,5	62,3	1,10	200	23,0	1,000

Web: http://cat.hansa-flex.com/en/ATWE

Product versions:
ATSE - PTFE corrugated hose, coil-corrugated PTFE inliner in black PTFE

ATSE

PTFE corrugated hose

Application: Medium pressure applications with hydraulic fluids and aggressive media
Application: Mainly for the chemical and food industries
Design: coil-corrugated PTFE inliner in black PTFE, antistatic design
Properties: Due to the wide curl good self-cleaning properties, Suitable for use with foodstuffs
Hose material: PTFE (polytetrafluoroethylene)
Braiding: 1 braiding with 1.4301 / 1.4306
Temp. min.: -70 °C
Temp. max.: 260 °C
Temp.: applies for the hose only
Approval: the base material has been granted FDA approval.

Note: The pressure values listed apply to hoses only.
The tubular fabric has a safety factor (SF) 3 against bursting
From 120 °C the pressure reduction factor is to be taken into account.
(Max. operating pressure = operating pressure x factor).
Temp.: 120 °C / 140 °C / 160 °C / 180 °C / 200 °C / 220 °C
Factor: 1,00 / 0,80 / 0,60 / 0,40 / 0,20 / 0,00

Ordering information: Other designs available on request

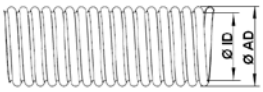
Identification	Internal Ø min.	Internal Ø max.	External Ø min.	External Ø max.	Wall thickness	Min. bending radius	OP at 20°C (stat.)	Weight per m
	mm	mm	mm	mm	mm	mm	bar	kg
ATSE 006	6,1	6,7	9,3	9,9	0,75	18	172,0	0,140
ATSE 008	7,9	8,5	12,3	12,9	0,60	20	138,0	0,160
ATSE 010	9,5	10,2	12,8	14,5	0,65	20	138,0	0,152
ATSE 013	12,5	13,1	17,8	19,2	0,80	25	103,0	0,253
ATSE 016	15,7	16,4	21,8	24,0	0,80	51	83,0	0,304
ATSE 020	19,0	19,7	24,0	27,0	1,00	64	69,0	0,374
ATSE 025	25,5	26,2	32,2	36,1	1,00	89	46,0	0,543
ATSE 032	32,0	32,5	40,2	41,3	1,00	125	34,0	0,635
ATSE 040	38,0	38,9	47,8	49,0	1,00	152	30,0	0,840
ATSE 050	50,9	51,9	60,5	62,3	1,10	200	23,0	1,000

Web: http://cat.hansa-flex.com/en/ATSE

Product versions:
ATWE - PTFE corrugated hose, coil-corrugated PTFE inliner in white PTFE

AFW

PTFE corrugated hose



Application:	Low pressure applications with hydraulic fluids and aggressive media
Application:	Mainly for the chemical and food industries
Design:	coil-corrugated PTFE inliner in white PTFE
Properties:	The inliner flanged connection fittings impart good self-cleaning properties when media are passed through the hoses, The through-led product is only in contact with the PTFE material
Hose material:	PTFE (polytetrafluoroethylene)
Braiding:	without braiding
Temp. min.:	-70 °C
Temp. max.:	260 °C
Temp.:	applies for the hose only
Approval:	the base material has been granted FDA approval.

Note: The pressure values listed apply to hoses only.
The tubular fabric has a safety factor (SF) 3 against bursting
From 120 °C the pressure reduction factor is to be taken into account.
(Max. operating pressure = operating pressure x factor).
Temp.: 120 °C / 140 °C / 160 °C / 180 °C / 200 °C / 220 °C
Factor: 1,00 / 0,80 / 0,60 / 0,40 / 0,20 / 0,00

Ordering information: AFWA design with 1.4301 / 1.4306 stainless steel braiding upon request. AFWP design with polypropylene braiding (suitable for use up to max. 90°C) upon request.

Identification	Internal Ø min.	Internal Ø max.	External Ø min.	External Ø max.	Wall thickness	Min. bending radius	OP at 20°C (stat.)	Vacuum	Weight per m
	mm	mm	mm	mm	mm	mm	bar	mbar	kg
AFW 006	5,5	6,9	9,9	11,5	0,52	25	4,0	744	0,047
AFW 010	8,5	10,5	13,2	14,7	0,62	25	4,0	744	0,058
AFW 013	11,6	13,6	16,4	18,2	0,82	50	4,0	887	0,072
AFW 016	15,1	16,4	21,2	23,2	0,88	65	3,0	887	0,097
AFW 020	19,5	20,5	26,6	29,4	1,00	55	3,0	887	0,142
AFW 025	24,5	25,5	32,2	36,2	1,10	85	3,0	887	0,194
AFW 032	31,5	32,5	39,9	44,1	1,15	100	2,5	887	0,258
AFW 040	36,5	37,5	44,6	49,4	1,45	120	2,5	887	0,377
AFW 050	49,5	50,5	57,9	64,1	1,50	165	2,0	887	0,522
AFW 065	62,5	63,5	77,9	86,1	1,60	230	1,5	887	0,654
AFW 080	73,5	74,5	87,4	96,6	1,60	260	1,3	887	0,765
AFW 100	94,5	99,5	118,1	124,5	1,82	300	1,0	887	1,310

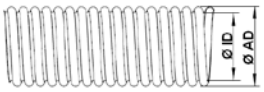
Web: http://cat.hansa-flex.com/en/AFW

Product versions:
AFS - PTFE corrugated hose, coil-corrugated PTFE inliner in black PTFE

AFS

PTFE corrugated hose

Application: Low pressure applications with hydraulic fluids and aggressive media
Application: Mainly for the chemical and food industries
Design: coil-corrugated PTFE inliner in black PTFE, antistatic design
Properties: The inliner flanged connection fittings impart good self-cleaning properties when media are passed through the hoses, The through-led product is only in contact with the PTFE material
Hose material: PTFE (polytetrafluoroethylene)
Braiding: without braiding
Temp. min.: -70 °C
Temp. max.: 260 °C
Temp.: applies for the hose only
Approval: the base material has been granted FDA approval.



Note: The pressure values listed apply to hoses only.
The tubular fabric has a safety factor (SF) 3 against bursting
From 120 °C the pressure reduction factor is to be taken into account.
(Max. operating pressure = operating pressure x factor).
Temp.: 120 °C / 140 °C / 160 °C / 180 °C / 200 °C / 220 °C
Factor: 1,00 / 0,80 / 0,60 / 0,40 / 0,20 / 0,00

Ordering information: AFSA design with 1.4301 / 1.4306 stainless steel braiding upon request. AFSP design with polypropylene braiding (suitable for use up to max. 90°C) upon request.

Identification	Internal Ø min.	Internal Ø max.	External Ø min.	External Ø max.	Wall thickness	Min. bending radius	OP at 20°C (stat.)	Vacuum	Weight per m
	mm	mm	mm	mm	mm	mm	bar	mbar	kg
AFS 006	5,5	6,9	9,9	11,5	0,52	25	4,0	744	0,047
AFS 010	8,5	10,5	13,2	14,7	0,62	25	4,0	744	0,058
AFS 013	11,6	13,6	16,4	18,2	0,82	50	4,0	887	0,072
AFS 016	15,1	16,4	21,2	23,2	0,88	65	3,0	887	0,097
AFS 020	19,5	20,5	26,6	29,4	1,00	55	3,0	887	0,142
AFS 025	24,5	25,5	32,2	36,2	1,10	85	3,0	887	0,194
AFS 032	31,5	32,5	39,9	44,1	1,15	100	2,5	887	0,258
AFS 040	36,5	37,5	44,6	49,4	1,45	120	2,5	887	0,377
AFS 050	49,5	50,5	57,9	64,1	1,50	165	2,0	887	0,522
AFS 065	62,5	63,5	77,9	86,1	1,60	230	1,5	887	0,654
AFS 080	73,5	74,5	87,4	96,6	1,60	260	1,3	887	0,765
AFS 100	94,5	99,5	118,1	124,5	1,82	300	1,0	887	1,310

Web: http://cat.hansa-flex.com/en/AFS

Product versions:
AFW - PTFE corrugated hose, coil-corrugated PTFE inliner in white PTFE

AVX

Wound hose for exhaust gases

Application: Highly suitable for conveying exhaust gases
Design: wound metal hose, with metallic seal, multi-edged polygonal design
Properties: Special winding technology assures very low leakage and exceptional flexibility
Temp. range: can be used up to 400 °C
Material: Galvanised steel band

Note: Wound hoses are stretched for measurement.

Ordering information: Other sizes on request

Identification	Ø ID	Ø AD	Tolerances of ID/ED	Bending radius (+10 %)	Weight compressed (per m)
	mm	mm	mm	mm	kg
AVX 020	20,00	23,00	0,40	115	0,46
AVX 025	25,00	28,00	0,40	140	0,58
AVX 030	30,00	33,50	0,40	150	0,70
AVX 032	32,00	35,50	0,40	160	0,84
AVX 035	35,00	38,50	0,40	173	0,92
AVX 040	40,00	43,50	0,40	182	1,05
AVX 045	45,00	48,50	0,40	192	1,18
AVX 050	50,00	54,00	0,40	205	1,63
AVX 055	55,00	59,00	0,40	225	1,80
AVX 060	60,00	64,00	0,40	234	1,94
AVX 065	65,00	69,00	0,40	254	2,15
AVX 070	70,00	74,00	0,40	273	2,30
AVX 075	75,00	79,00	0,40	293	2,43
AVX 080	80,00	84,00	0,60	312	2,62

AVX (Continued)

Wound hose for exhaust gases

Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	Bending radius (+10 %) mm	Weight compressed (per m) kg
AVX 085	85,00	89,00	0,60	332	2,76
AVX 090	90,00	94,00	0,60	351	2,90
AVX 096	96,00	100,00	0,60	375	3,10
AVX 100	100,00	104,00	0,80	390	3,25
AVX 110	110,00	114,00	0,80	429	3,55
AVX 115	115,00	119,00	0,80	449	3,74
AVX 120	120,00	124,00	0,80	468	3,92
AVX 125	125,00	129,00	0,80	488	4,06
AVX 130	130,00	135,00	0,80	620	5,08
AVX 140	140,00	145,00	1,00	680	5,48
AVX 150	150,00	155,00	1,00	715	5,88
AVX 200	200,00	205,00	1,00	950	7,80

Web: http://cat.hansa-flex.com/en/AVX

Product versions:
KAX - Wound hose for exhaust gases, Stainless steel strip 1.4301

KAX

Wound hose for exhaust gases

Application: Highly suitable for conveying exhaust gases
Design: wound hose, with metallic seal, multi-edged polygonal design
Properties: Special winding technology assures very low leakage and exceptional flexibility
Temp. range: can be used up to 650 °C
Material: Stainless steel strip 1.4301

Note: Wound hoses are stretched for measurement.

Ordering information: Other sizes on request

Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	Bending radius (+10 %) mm	Weight compressed (per m) kg
KAX 020	20,00	23,00	0,40	115	0,46
KAX 025	25,00	28,00	0,40	140	0,58
KAX 030	30,00	33,50	0,40	150	0,70
KAX 032	32,00	35,50	0,40	160	0,84
KAX 035	35,00	38,50	0,40	173	0,92
KAX 040	40,00	43,50	0,40	182	1,05
KAX 042	42,00	45,50	0,40	186	1,10
KAX 045	45,00	48,50	0,40	192	1,18
KAX 050	50,00	54,00	0,40	205	1,63
KAX 055	55,00	59,00	0,40	225	1,80
KAX 060	60,00	64,00	0,40	234	1,94
KAX 065	65,00	69,00	0,40	254	2,15
KAX 070	70,00	74,00	0,40	273	2,30
KAX 075	75,00	79,00	0,40	293	2,43
KAX 080	80,00	84,00	0,60	312	2,62
KAX 085	85,00	89,00	0,60	332	2,76
KAX 090	90,00	94,00	0,60	351	2,90
KAX 096	96,00	100,00	0,60	375	3,10
KAX 100	100,00	104,00	0,80	390	3,25
KAX 110	110,00	114,00	0,80	429	3,55
KAX 115	115,00	119,00	0,80	449	3,74
KAX 120	120,00	124,00	0,80	468	3,92
KAX 125	125,00	129,00	0,80	488	4,06
KAX 130	130,00	135,00	0,80	620	5,08
KAX 140	140,00	145,00	1,00	680	5,48
KAX 150	150,00	155,00	1,00	715	5,88

Web: http://cat.hansa-flex.com/en/KAX

Product versions:
AVX - Wound hose for exhaust gases, Galvanised steel band

UPG G

Coolant hose

Application: Coolant and lubricant lines for metal chipping processes.
Design: Steel support helix with PVC inner hose, steel screw-in taps on both sides, Surface nickel-plated
Properties: Completely tight, can be bent into almost any position by hand, tough, resistant to oils, greases etc.

Ordering information: Other sizes on request

Identification	G1	G2	ID mm	S1 mm	Nominal length (+/-5 mm)
UPG G1/8-250	R 1/8"	R 1/8"	8,0	15,0	250
UPG G1/8-320	R 1/8"	R 1/8"	8,0	15,0	320
UPG G1/8-400	R 1/8"	R 1/8"	8,0	15,0	400
UPG G1/8-500	R 1/8"	R 1/8"	8,0	15,0	500
UPG G1/4-200	R 1/4"	R 1/4"	10,0	19,0	200
UPG G1/4-250	R 1/4"	R 1/4"	10,0	19,0	250
UPG G1/4-320	R 1/4"	R 1/4"	10,0	19,0	320
UPG G1/4-400	R 1/4"	R 1/4"	10,0	19,0	400
UPG G1/4-500	R 1/4"	R 1/4"	10,0	19,0	500
UPG G1/4-630	R 1/4"	R 1/4"	10,0	19,0	630
UPG G1/4-800	R 1/4"	R 1/4"	10,0	19,0	800
UPG G3/8-200	R 3/8"	R 3/8"	10,0	24,0	200
UPG G3/8-320	R 3/8"	R 3/8"	10,0	24,0	320
UPG G3/8-400	R 3/8"	R 3/8"	10,0	24,0	400
UPG G3/8-500	R 3/8"	R 3/8"	10,0	24,0	500
UPG G3/8-630	R 3/8"	R 3/8"	10,0	24,0	630
UPG G3/8-800	R 3/8"	R 3/8"	10,0	24,0	800
UPG G1/2-500	R 1/2"	R 1/2"	10,0	27,0	500
UPG G1/2-630	R 1/2"	R 1/2"	10,0	27,0	630
UPG G1/2-800	R 1/2"	R 1/2"	10,0	27,0	800

Web: http://cat.hansa-flex.com/en/UPGG

NI AG

Coolant hose

Application: Coolant and lubricant lines for metal chipping processes.
Design: Steel support helix with PVC inner hose, Inlet side: Screw-in pin, Outlet side: Steel discharge nozzle, Surface nickel-plated
Properties: Completely tight, can be bent into almost any position by hand, tough, resistant to oils, greases etc.

Ordering information: Other sizes on request

Identification	G1	ID mm	S1 mm	Nominal length (+/-5 mm)
NIAG 1/8-200	R 1/8"	8,0	15,0	200
NIAG 1/8-250	R 1/8"	8,0	15,0	250
NIAG 1/8-320	R 1/8"	8,0	15,0	320
NIAG 1/8-400	R 1/8"	8,0	15,0	400
NIAG 1/8-500	R 1/8"	8,0	15,0	500
NIAG 1/8-630	R 1/8"	8,0	15,0	630
NIAG 1/8-800	R 1/8"	8,0	15,0	800
NIAG 1/4-200	R 1/4"	10,0	19,0	200
NIAG 1/4-250	R 1/4"	10,0	19,0	250
NIAG 1/4-320	R 1/4"	10,0	19,0	320
NIAG 1/4-400	R 1/4"	10,0	19,0	400
NIAG 1/4-500	R 1/4"	10,0	19,0	500
NIAG 1/4-630	R 1/4"	10,0	19,0	630
NIAG 1/4-800	R 1/4"	10,0	19,0	800
NIAG 3/8-250	R 3/8"	10,0	24,0	250
NIAG 3/8-300	R 3/8"	10,0	24,0	300
NIAG 3/8-320	R 3/8"	10,0	24,0	320
NIAG 3/8-400	R 3/8"	10,0	24,0	400
NIAG 3/8-500	R 3/8"	10,0	24,0	500
NIAG 3/8-630	R 3/8"	10,0	24,0	630
NIAG 3/8-800	R 3/8"	10,0	24,0	800
NIAG 1/2-250	R 1/2"	12,0	27,0	250
NIAG 1/2-320	R 1/2"	12,0	27,0	320
NIAG 1/2-400	R 1/2"	12,0	27,0	400
NIAG 1/2-500	R 1/2"	12,0	27,0	500

→

NI AG (Continued)

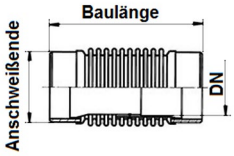
Coolant hose

Identification	G1	ID mm	S1 mm	Nominal length (+/-5 mm)
NIAG 1/2-630	R 1/2"	12,0	27,0	630
NIAG 1/2-800	R 1/2"	12,0	27,0	800

Web: http://cat.hansa-flex.com/en/NIAG

KOMP-SW VA

Stainless steel expansion joints with welding ends



Application: Expansion joint for absorbing vibrations, of axial, lateral and angular movements, for welding into a pipeline

Design: Bellows with multiple corrugations, multiple walls depending on nominal diameter and pressure rating, welding ends on both sides

Material: Stainless steel bellows, Steel / stainless steel welding ends

Temp. min.: -200 °C

Temp. max.: 550 °C

Note: Since these expansion joints are often not standard items, we refer customers to the variant selection on the expansion joint selection questionnaire (see additional documents).
With this information, of course we will then manufacture for you the expansion joint that is adapted perfectly to your needs.

Ordering information: The delivery period depends to a large degree on the material and design of the expansion joint.

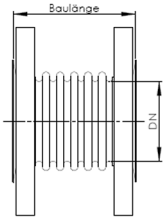
Identification
Edelstahl-Komp. m. Schweißende

Web: http://cat.hansa-flex.com/en/KOMPSWVA

KOMP-LOS VA

Stainless steel expansion joints with loose-type flanges

Application: Expansion joint for absorbing vibrations
Design: Bellows with multiple corrugations, multiple walls depending on nominal diameter and pressure rating, loose flanges on both sides
Material: Stainless steel bellows, Steel / stainless steel loose flanges
Temp. min.: -200 °C
Temp. max.: 550 °C



Note: Since these expansion joints are often not standard items, we refer customers to the variant selection on the expansion joint selection questionnaire (see additional documents).
With this information, of course we will then manufacture for you the expansion joint that is adapted perfectly to your needs.

Ordering information: The delivery period depends to a large degree on the material and design of the expansion joint.

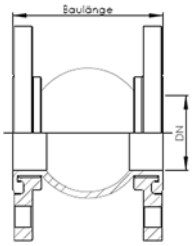
Identification
Edelstahl-Komp. m. Losflansch

Web: http://cat.hansa-flex.com/en/KOMPLOSVA

KOMP-LOS ELASTOMER

Elastomer expansion joints with loose-type flanges

Application: Expansion joint for absorbing vibrations, and noise
Design: Single corrugation bellows with steel, nylon or aramid pressure carrier inserts., attached protrusions to receive two-sided loose flanges
Material: Elastomer bellows, Steel / stainless steel loose flanges
Temp. range: from -20 °C to 180 °C depending on the material



Note: Since these expansion joints are often not standard items, we refer customers to the variant selection on the expansion joint selection questionnaire (see additional documents).
With this information, of course we will then manufacture for you the expansion joint that is adapted perfectly to your needs.

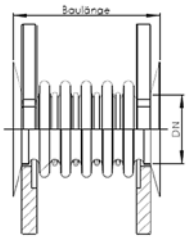
Ordering information: The delivery period depends to a large degree on the material and design of the expansion joint.

Identification
Elastomer-Komp. m. Losflansch

Web: http://cat.hansa-flex.com/en/KOMPLOSELASTOMER

KOMP-LOS PTFE

PTFE expansion joints with loose-type flanges



Application: Expansion joint to absorb expansion or as noise reducer, with low adjustment forces
Design: Bellows with multiple corrugations, with stainless steel outer reinforcing rings, PTFE formed flange with loose flanges on both sides
Material: PTFE bellows, Steel / stainless steel loose flanges
Temp. min.: -50 °C
Temp. max.: 220 °C

Note: Since these expansion joints are often not standard items, we refer customers to the variant selection on the expansion joint selection questionnaire (see additional documents).
With this information, of course we will then manufacture for you the expansion joint that is adapted perfectly to your needs.

Ordering information: The delivery period depends to a large degree on the material and design of the expansion joint.

Identification
PTFE-Komp. m. Losflanschen

Web: http://cat.hansa-flex.com/en/KOMPLOSPTFE

FBS

Silicate fabric heat protection hose

Abrasion resistant and tear proof insulating fabric, asbestos free, loss on ignition approx. 2 %, good insulating properties due to low heat storage

Application: Foundries, steelworks, glassworks, shipyards etc.
Properties: excellent resistance to liquid metals, flying sparks, dross, resistant against oils, greases and solvents
Application: as contact protection for hot and cold hoses, for protection in the high temperature range, also particularly against liquid metals and splashed metal in the iron industry
Colour: bluish
Temp. min.: -25 °C
Temp. max.: 750 °C
Material: Calcium silicate fibres

Identification	Internal Ø mm
FBS 014	14
FBS 016	16
FBS 018	18
FBS 020	20
FBS 022	22
FBS 024	24
FBS 025	25
FBS 026	26
FBS 028	28
FBS 030	30
FBS 032	32
FBS 035	35
FBS 038	38
FBS 040	40
FBS 042	42
FBS 045	45
FBS 047	47
FBS 050	50
FBS 055	55
FBS 056	56
FBS 060	60
FBS 068	70
FBS 080	80
FBS 100	100
FBS 120	100
FBS 130	130

Web: http://cat.hansa-flex.com/en/FBS

FBSB

Heat protection hose, silicate, silicone

Provides outstanding protection against liquid metals and metal sprays.

Application: Foundries, steelworks, glassworks, shipyards etc.
Application: as contact protection for hot and cold hoses
Colour: smooth, rust red
Temp. min.: -65 °C
Temp. max.: 260 °C
Temp.: from inner diameter 6 mm to 127 mm: 1090 °C for 15-20 min. ; 1650 °C for 15-30 sec..; from inner diameter 160 mm: max. 300 °C
Material: Calcium silicate fibres with a silicone cover

Note: internal diameter 13 mm to 127 mm: Approvals:Germanischer Lloyd, DIN 5510-2 & MSHA, Above internal diameter 160 mm: Approval Germanischer Lloyd

Identification	Internal Ø mm
FBSB 006	6
FBSB 008	8
FBSB 010	10
FBSB 013	13
FBSB 016	16
FBSB 019	19
FBSB 022	22
FBSB 025	25
FBSB 029	29
FBSB 032	32
FBSB 035	35
FBSB 038	38
FBSB 041	41
FBSB 044	44
FBSB 051	51
FBSB 057	57
FBSB 064	64
FBSB 070	70
FBSB 076	76
FBSB 083	83
FBSB 089	89
FBSB 095	95
FBSB 102	102
FBSB 114	114
FBSB 127	127
FBSB 160	160
FBSB 170	170
FBSB 180	180
FBSB 200	200
FBSB 220	220
FBSB 250	250
FBSB 300	300

Web: http://cat.hansa-flex.com/en/FBSB

FBSS

Heat protection hose, glass-fibre, silicone

Good resistance to UV radiation, ozone, oxygen and thermal shocks, excellent aging resistance in hot environments. Provides outstanding protection against liquid metals and metal sprays.

Application: Foundries, steelworks, glassworks, shipyards etc.
Application: as contact protection for hot and cold hoses
Colour: brown
Temp. min.: -60 °C
Temp. max.: 250 °C
Material: Glass silk fabric coated with colourless silicone lacquer

Identification	Internal Ø mm	External Ø mm	Wall thickness mm
FBSS 015	15	16,2	0,6
FBSS 018	18	18,4	0,7
FBSS 020	20	21,4	0,7
FBSS 025	25	26,4	0,7
FBSS 030	30	31,4	0,7
FBSS 035	35	36,4	0,7
FBSS 040	40	41,6	0,8
FBSS 042	42	43,6	0,8
FBSS 045	45	46,6	0,8
FBSS 050	50	51,6	0,8

Web: http://cat.hansa-flex.com/en/FBSS

FBSG

Heat protection hose, silicate, silicone

Core is braided hose of Silontex yarn, textured and twisted, wall thickness approx. 3 mm, grey silicone cover outside, flame-resistant, self-extinguishing, approx. 50° Shore

Application: Foundries, steelworks, glassworks, shipyards etc.
Application: as contact protection for hot and cold hoses
Colour: grey
Temp. max.: 300 °C
Material: Silontex yarn with a silicone cover

Note: Approval by Germanischer Lloyd

Identification	Internal Ø mm	Weight per m kg
FBSG 010	10	0,232
FBSG 015	15	0,243
FBSG 020	20	0,323
FBSG 022	22	0,335
FBSG 025	25	0,360
FBSG 030	30	0,391
FBSG 032	32	0,430
FBSG 035	35	0,471
FBSG 040	40	0,541
FBSG 050	50	0,716
FBSG 060	60	0,860

Web: http://cat.hansa-flex.com/en/FBSG

SSA

Abrasion protection, Agraff, VA

Application: as external protection for hose lines and / or for reinforcing the bending radius.
Design: hooked profile in crimped stainless steel
Temp. min.: -200 °C
Temp. max.: 550 °C
Material: Stainless steel 1.4301

Ordering information: Other sizes on request

Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	Weight per m kg	Min. bending radius mm
SSA 005	5,00	7,00	0,20	0,066	30
SSA 006	6,00	8,00	0,20	0,079	35
SSA 007	7,00	9,00	0,20	0,093	40
SSA 008	8,00	11,00	0,20	0,141	40
SSA 009	9,00	12,00	0,20	0,159	45
SSA 010	10,00	13,00	0,20	0,177	50
SSA 011	11,00	14,00	0,20	0,195	55
SSA 012	12,00	15,00	0,20	0,213	65
SSA 013	13,00	16,00	0,20	0,230	70
SSA 014	14,00	17,00	0,20	0,248	75
SSA 015	15,00	18,00	0,20	0,265	80
SSA 016	16,00	19,00	0,20	0,283	82
SSA 017	17,00	20,00	0,20	0,301	85
SSA 018	18,00	21,00	0,20	0,319	90
SSA 019	19,00	23,00	0,30	0,380	95
SSA 020	20,00	24,00	0,30	0,400	100
SSA 021	21,00	25,00	0,30	0,420	105
SSA 022	22,00	26,00	0,30	0,440	110
SSA 023	23,00	27,00	0,30	0,460	115
SSA 024	24,00	28,00	0,30	0,480	120
SSA 025	25,00	29,00	0,30	0,500	125
SSA 026	26,00	30,00	0,30	0,520	130
SSA 027	27,00	31,00	0,30	0,540	135
SSA 028	28,00	32,00	0,30	0,560	140
SSA 029	29,00	33,00	0,30	0,580	145
SSA 030	30,00	34,00	0,40	0,600	150
SSA 032	32,00	36,00	0,40	0,640	160
SSA 035	35,00	39,00	0,40	0,680	165
SSA 036	36,00	40,00	0,40	0,720	170
SSA 038	38,00	42,00	0,40	0,760	175
SSA 040	40,00	44,00	0,40	0,790	180
SSA 042	42,00	46,00	0,40	0,807	185
SSA 045	45,00	49,00	0,40	0,884	195
SSA 048	48,00	52,00	0,40	0,922	200

→

(Continued) SSA

Abrasion protection, Agraff, VA

Identification	Ø ID mm	Ø AD mm	Tolerances of ID/ED mm	Weight per m kg	Min. bending radius mm
SSA 050	50,00	54,00	0,50	0,960	205
SSA 052	52,00	56,00	0,50	0,999	215
SSA 055	55,00	59,40	0,50	1,330	270
SSA 058	58,00	62,40	0,50	1,830	272
SSA 060	60,00	66,00	0,60	1,870	200
SSA 065	65,00	71,00	0,60	2,025	210
SSA 070	70,00	76,00	0,60	2,180	240
SSA 075	75,00	81,00	0,60	2,340	260
SSA 080	80,00	86,00	0,60	2,500	270
SSA 090	90,00	98,00	0,80	2,800	300
SSA 100	100,00	108,00	0,80	3,120	340

Web: http://cat.hansa-flex.com/en/SSA

SSR

Abrasion protection, round

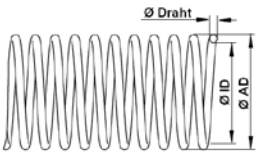
Round spring steel wire protective helix protects the hose against extreme external abrasion.

Application: Hose lines that are subjected to a shearing load during movement.

Application: as external protection for hose lines and / or for reinforcing the bending radius.

Material: Steel

Surface: electro galvanised



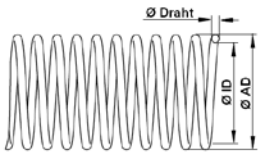
Identification	Ø ID mm	Ø AD mm	Wire Ø mm
SSR 14-2	14,00	18,00	2,0
SSR 18-2	18,00	22,00	2,0
SSR 20-2	20,00	24,00	2,0
SSR 23-2	23,00	27,00	2,0
SSR 25-2	25,00	29,00	2,0
SSR 27-2	27,00	31,00	2,0
SSR 27-2.5	27,00	32,00	2,5
SSR 30-2	30,00	34,00	2,0
SSR 34-3	34,00	40,00	3,0
SSR 41-3	41,00	47,00	3,0
SSR 48-3	48,00	54,00	3,0
SSR 51-3	51,00	57,00	3,0
SSR 52-3	52,00	58,00	3,0
SSR 54-3	54,00	60,00	3,0
SSR 56-3	56,00	62,00	3,0
SSR 68-3	68,00	74,00	3,0
SSR 73-3	73,00	79,00	3,0

Web: http://cat.hansa-flex.com/en/SSR

Product versions:
SSR VA - Abrasion protection, round, VA, Stainless steel

SSR VA

Abrasion protection, round, VA



Round spring steel wire protective helix protects the hose against extreme external abrasion.

Application: Hose lines that are subjected to a shearing load during movement.

Application: as external protection for hose lines and / or for reinforcing the bending radius.

Material: Stainless steel

Ordering information: Other sizes on request

Identification	Ø ID mm	Ø AD mm	Wire Ø mm
SSR 06-0.5 VA	6,00	7,00	0,5
SSR 11-1 VA	11,00	13,00	1,0
SSR 14-2 VA	14,00	18,00	2,0
SSR 15-2 VA	15,00	19,00	2,0
SSR 20-2 VA	20,00	24,00	2,0
SSR 23-2 VA	23,00	27,00	2,0
SSR 23.5-2.5 VA	23,50	28,50	2,5
SSR 26-2 VA	26,00	30,00	2,0
SSR 27-2 VA	27,00	31,00	2,0
SSR 35-2 VA	35,00	39,00	2,0
SSR 37-2 VA	37,00	41,00	2,0
SSR 40-2 VA	40,00	44,00	2,0
SSR 41-3 VA	41,00	47,00	3,0
SSR 45-3 VA	45,00	51,00	3,0
SSR 48-3 VA	48,00	54,00	3,0
SSR 54-2.5 VA	54,00	59,00	2,5
SSR 55-3 VA	55,00	61,00	3,0
SSR 61-4 VA	61,00	69,00	4,0
SSR 70-4.5 VA	70,00	79,00	4,5
SSR 85-3 VA	85,00	91,00	3,0
SSR 91-6 VA	91,00	103,00	6,0
SSR 93-4 VA	93,00	101,00	4,0
SSR 105-5 VA	105,00	115,00	5,0
SSR 130-4 VA	130,00	138,00	4,0
SSR 135-4 VA	135,00	143,00	4,0

Web: http://cat.hansa-flex.com/en/SSRVA

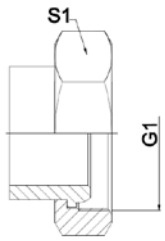
Product versions:
SSR - Abrasion protection, round, Steel

Hose fittings

Metal hose connectors	
Metric connectors	48
Imperial connectors	55
Pipe connectors	64
Fittings	67
Fittings for the food industry	77
Flange connections	80

WA A

Connector ... A, steel



Application: Connection fitting for metal hoses
Connection 1: metric nut thread
Sealing form 1: Spherical liner
Standard: DIN 3863
Short code: DKM
Construction: straight
Material: Steel

Note: Welded variant in stainless steel only Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

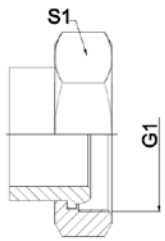
Identification	DN	PN (bar)	G1	S1 mm
WA 020 A	20	63	M 30 x 1.5	36,0
WA 025 A	25	63	M 38 x 1.5	46,0
WA 032 A	32	63	M 45 x 1.5	55,0
WA 040 A	40	40	M 52 x 1.5	60,0
WA 050 A	50	40	M 65 x 2	70,0
WA 065 A	65	40	M 78 x 2	90,0

Web: http://cat.hansa-flex.com/en/WAA

Product versions:
WA A VA - Connector ... A, VA, Stainless steel

WA A VA

Connector ... A, VA



Application: Connection fitting for metal hoses
Connection 1: metric nut thread
Sealing form 1: Spherical liner
Standard: DIN 3863
Short code: DKM
Construction: straight
Material: Stainless steel

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	S1 mm
WA 020 A VA	20	63	M 30 x 1.5	36,0
WA 025 A VA	25	63	M 38 x 1.5	46,0
WA 032 A VA	32	63	M 45 x 1.5	55,0
WA 040 A VA	40	40	M 52 x 1.5	60,0
WA 050 A VA	50	40	M 65 x 2	70,0
WA 065 A VA	65	40	M 78 x 2	90,0

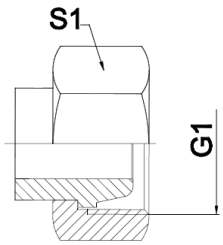
Web: http://cat.hansa-flex.com/en/WAAVA

Product versions:
WA A - Connector ... A, steel, Steel

WA AFL

Connector ... AFL, steel

Application: Connection fitting for metal hoses
Connection 1: metric nut thread
Sealing form 1: 24° outer cone
Standard: matching connector adapter according to DIN 2353 / DIN EN ISO 8434-1
Short code: DKL
Construction: straight
Series: light
Material: Steel (weldable)



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	Series	S1 mm
WA 004 AFL	4	250	M 12 x 1.5	6 L	17,0
WA 006 AFL	6	250	M 14 x 1.5	8 L	19,0
WA 008 AFL	8	250	M 16 x 1.5	10 L	22,0
WA 010 AFL	10	250	M 18 x 1.5	12 L	22,0
WA 013 AFL	13	250	M 22 x 1.5	15 L	27,0
WA 016 AFL	16	160	M 26 x 1.5	18 L	32,0
WA 020 AFL	20	160	M 30 x 2	22 L	36,0
WA 025 AFL	25	100	M 36 x 2	28 L	41,0
WA 032 AFL	32	100	M 45 x 2	35 L	50,0
WA 040 AFL	40	100	M 52 x 2	42 L	60,0

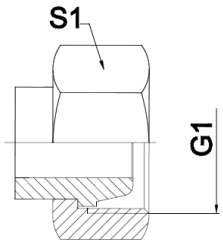
Web: http://cat.hansa-flex.com/en/WAAFL

Product versions:
WA AFL VA - Connector ... AFL, VA, Stainless steel

WA AFL VA

Connector ... AFL, VA

Application: Connection fitting for metal hoses
Connection 1: metric nut thread
Sealing form 1: 24° outer cone
Standard: matching connector adapter according to DIN 2353 / DIN EN ISO 8434-1
Short code: DKL
Construction: straight
Series: light
Material: Stainless steel



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

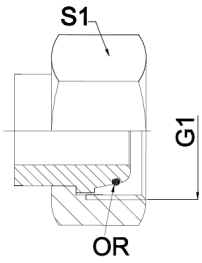
Identification	DN	PN (bar)	G1	Series	S1 mm
WA 004 AFL VA	4	250	M 12 x 1.5	6 L	14,0
WA 006 AFL VA	6	250	M 14 x 1.5	8 L	17,0
WA 008 AFL VA	8	250	M 16 x 1.5	10 L	19,0
WA 010 AFL VA	10	250	M 18 x 1.5	12 L	22,0
WA 013 AFL VA	13	250	M 22 x 1.5	15 L	27,0
WA 016 AFL VA	16	160	M 26 x 1.5	18 L	32,0
WA 020 AFL VA	20	160	M 30 x 2	22 L	36,0
WA 025 AFL VA	25	100	M 36 x 2	28 L	41,0
WA 032 AFL VA	32	100	M 45 x 2	35 L	50,0
WA 040 AFL VA	40	100	M 52 x 2	42 L	60,0

Web: http://cat.hansa-flex.com/en/WAAFLVA

Product versions:
WA AFL - Connector ... AFL, steel, Steel (weldable)

WA AOL

Connector ... AOL, steel



Application: Connection fitting for metal hoses
Connection 1: metric nut thread
Sealing form 1: 24° outer cone with O-ring
Standard: DIN 3865, ISO 8434-1
Short code: DKOL
Construction: straight
Series: light
Material: Steel (weldable)

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

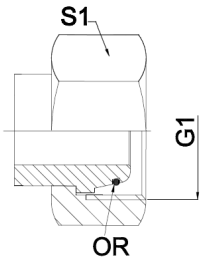
Identification	DN	PN (bar)	G1	Series	S1 mm
WA 004 AOL	4	250	M 12 x 1.5	6 L	14,0
WA 006 AOL	6	250	M 14 x 1.5	8 L	17,0
WA 008 AOL	8	250	M 16 x 1.5	10 L	19,0
WA 010 AOL	10	250	M 18 x 1.5	12 L	22,0
WA 013 AOL	13	250	M 22 x 1.5	15 L	27,0
WA 016 AOL	16	160	M 26 x 1.5	18 L	32,0
WA 020 AOL	20	160	M 30 x 2	22 L	36,0
WA 025 AOL	25	100	M 36 x 2	28 L	41,0
WA 032 AOL	32	100	M 45 x 2	35 L	50,0
WA 040 AOL	40	100	M 52 x 2	42 L	60,0

Web: http://cat.hansa-flex.com/en/WAAOL

Product versions:
WA AOL VA - Connector ... AOL, VA, Stainless steel

WA AOL VA

Connector ... AOL, VA



Application: Connection fitting for metal hoses
Connection 1: metric nut thread
Sealing form 1: 24° outer cone with O-ring
Standard: DIN 3865, ISO 8434-1
Short code: DKOL
Construction: straight
Series: light
Material: Stainless steel

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	Series	S1 mm
WA 004 AOL VA	4	250	M 12 x 1.5	6 L	14,0
WA 006 AOL VA	6	250	M 14 x 1.5	8 L	17,0
WA 008 AOL VA	8	250	M 16 x 1.5	10 L	19,0
WA 010 AOL VA	10	250	M 18 x 1.5	12 L	22,0
WA 013 AOL VA	13	250	M 22 x 1.5	15 L	27,0
WA 016 AOL VA	16	160	M 26 x 1.5	18 L	32,0
WA 020 AOL VA	20	160	M 30 x 2	22 L	36,0
WA 025 AOL VA	25	100	M 36 x 2	28 L	41,0
WA 032 AOL VA	32	100	M 45 x 2	35 L	50,0
WA 040 AOL VA	40	100	M 52 x 2	42 L	60,0

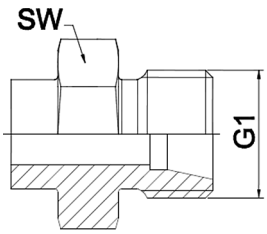
Web: http://cat.hansa-flex.com/en/WAAOLVA

Product versions:
WA AOL - Connector ... AOL, steel, Steel (weldable)

WA HL

Connector ... HL, steel

Application: Connection fitting for metal hoses
Connection 1: metric cylindrical outer thread
Sealing form 1: 24° inner cone
Standard: DIN 2353, ISO 8434-1
Short code: CEL
Construction: straight
Series: light
Material: Steel (weldable)



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	Series	AF mm
WA 004 HL	4	250	M 12 x 1.5	6 L	14
WA 006 HL	6	250	M 14 x 1.5	8 L	17
WA 008 HL	8	250	M 16 x 1.5	10 L	17
WA 010 HL	10	250	M 18 x 1.5	12 L	19
WA 013 HL	13	250	M 22 x 1.5	15 L	22
WA 016 HL	16	160	M 26 x 1.5	18 L	27
WA 020 HL	20	160	M 30 x 2	22 L	32
WA 025 HL	25	100	M 36 x 2	28 L	41
WA 032 HL	32	100	M 45 x 2	35 L	46
WA 040 HL	40	100	M 52 x 2	42 L	55

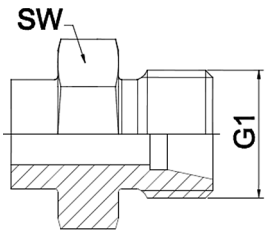
Web: http://cat.hansa-flex.com/en/WAHL

Product versions:
WA HL VA - Connector ... HL, VA, Stainless steel

WA HL VA

Connector ... HL, VA

Application: Connection fitting for metal hoses
Connection 1: metric cylindrical outer thread
Sealing form 1: 24° inner cone
Standard: DIN 2353, ISO 8434-1
Short code: CEL
Construction: straight
Series: light
Material: Stainless steel



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

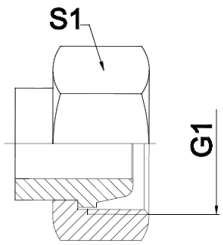
Identification	DN	PN (bar)	G1	Series	AF mm
WA 004 HL VA	4	250	M 12 x 1.5	6 L	14
WA 006 HL VA	6	250	M 14 x 1.5	8 L	17
WA 008 HL VA	8	250	M 16 x 1.5	10 L	17
WA 010 HL VA	10	250	M 18 x 1.5	12 L	19
WA 013 HL VA	13	250	M 22 x 1.5	15 L	22
WA 016 HL VA	16	160	M 26 x 1.5	18 L	27
WA 020 HL VA	20	160	M 30 x 2	22 L	32
WA 025 HL VA	25	100	M 36 x 2	28 L	41
WA 032 HL VA	32	100	M 45 x 2	35 L	46
WA 040 HL VA	40	100	M 52 x 2	42 L	55

Web: http://cat.hansa-flex.com/en/WAHLVA

Product versions:
WA HL - Connector ... HL, steel, Steel (weldable)

WA AFS

Connector ... AFS, steel



Application: Connection fitting for metal hoses
Connection 1: metric nut thread
Sealing form 1: 24° outer cone
Standard: matching connector adapter according to DIN 2353 / DIN EN ISO 8434-1
Short code: DKS
Construction: straight
Series: heavy
Material: Steel

Note: Welded variant in stainless steel only Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

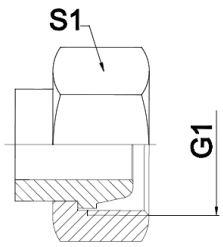
Identification	DN	PN (bar)	G1	Series	S1 mm
WA 004 AFS	4	630	M 16 x 1.5	8S	19,0
WA 006 AFS	6	630	M 18 x 1.5	10 S	22,0
WA 008 AFS	8	630	M 20 x 1.5	12 S	24,0
WA 010 AFS	10	630	M 22 x 1.5	14 S	27,0
WA 013 AFS	13	400	M 24 x 1.5	16 S	30,0
WA 016 AFS	16	400	M 30 x 2	20 S	36,0
WA 020 AFS	20	400	M 36 x 2	25 S	41,0
WA 025 AFS	25	250	M 42 x 2	30 S	50,0
WA 032 AFS	32	250	M 52 x 2	38 S	60,0

Web: http://cat.hansa-flex.com/en/WAAFS

Product versions:
WA AFS VA - Connector ... AFS, VA, Stainless steel

WA AFS VA

Connector ... AFS, VA



Application: Connection fitting for metal hoses
Connection 1: metric nut thread
Sealing form 1: 24° outer cone
Standard: matching connector adapter according to DIN 2353 / DIN EN ISO 8434-1
Short code: DKS
Construction: straight
Series: heavy
Material: Stainless steel

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	Series	S1 mm
WA 004 AFS VA	4	630	M 16 x 1.5	8S	19,0
WA 006 AFS VA	6	630	M 18 x 1.5	10 S	22,0
WA 008 AFS VA	8	630	M 20 x 1.5	12 S	24,0
WA 010 AFS VA	10	630	M 22 x 1.5	14 S	27,0
WA 013 AFS VA	13	400	M 24 x 1.5	16 S	30,0
WA 016 AFS VA	16	400	M 30 x 2	20 S	36,0
WA 020 AFS VA	20	400	M 36 x 2	25 S	46,0
WA 025 AFS VA	25	250	M 42 x 2	30 S	50,0
WA 032 AFS VA	32	250	M 52 x 2	38 S	60,0

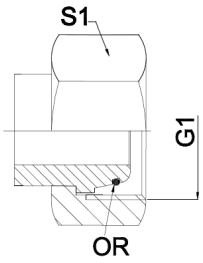
Web: http://cat.hansa-flex.com/en/WAAFSVA

Product versions:
WA AFS - Connector ... AFS, steel, Steel

WA AOS

Connector ... AOS, steel

Application: Connection fitting for metal hoses
Connection 1: metric nut thread
Sealing form 1: 24° outer cone with O-ring
Standard: DIN 3865, ISO 8434-1
Short code: DKOS
Construction: straight
Series: heavy
Material: Steel (weldable)



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	Series	S1 mm
WA 004 AOS	4	630	M 16 x 1.5	8S	19,0
WA 006 AOS	6	630	M 18 x 1.5	10 S	22,0
WA 008 AOS	8	630	M 20 x 1.5	12 S	24,0
WA 010 AOS	10	630	M 22 x 1.5	14 S	27,0
WA 013 AOS	13	400	M 24 x 1.5	16 S	30,0
WA 016 AOS	16	400	M 30 x 2	20 S	36,0
WA 020 AOS	20	400	M 36 x 2	25 S	46,0
WA 025 AOS	25	250	M 42 x 2	30 S	50,0
WA 032 AOS	32	250	M 52 x 2	38 S	60,0

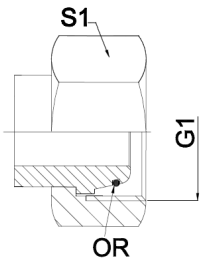
Web: http://cat.hansa-flex.com/en/WAAOS

Product versions:
WA AOS VA - Connector ... AOS, VA, Stainless steel

WA AOS VA

Connector ... AOS, VA

Application: Connection fitting for metal hoses
Connection 1: metric nut thread
Sealing form 1: 24° outer cone with O-ring
Standard: DIN 3865, ISO 8434-1
Short code: DKOS
Construction: straight
Series: heavy
Material: Stainless steel



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

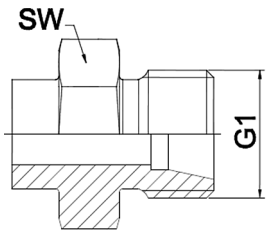
Identification	DN	PN (bar)	G1	Series	S1 mm
WA 004 AOS VA	4	630	M 16 x 1.5	8S	19,0
WA 006 AOS VA	6	630	M 18 x 1.5	10 S	22,0
WA 008 AOS VA	8	630	M 20 x 1.5	12 S	24,0
WA 010 AOS VA	10	630	M 22 x 1.5	14 S	27,0
WA 013 AOS VA	13	400	M 24 x 1.5	16 S	30,0
WA 016 AOS VA	16	400	M 30 x 2	20 S	36,0
WA 020 AOS VA	20	400	M 36 x 2	25 S	46,0
WA 025 AOS VA	25	250	M 42 x 2	30 S	50,0
WA 032 AOS VA	32	250	M 52 x 2	38 S	60,0

Web: http://cat.hansa-flex.com/en/WAAOSVA

Product versions:
WA AOS - Connector ... AOS, steel, Steel (weldable)

WA HS

Connector ... HS, steel



Application: Connection fitting for metal hoses
Connection 1: metric cylindrical outer thread
Sealing form 1: 24° inner cone
Standard: DIN 2353, ISO 8434-1
Short code: CES
Construction: straight
Series: heavy
Material: Steel (weldable)

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

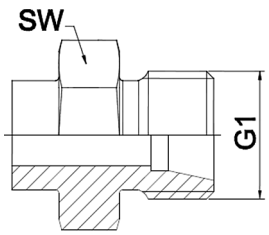
Identification	DN	PN (bar)	G1	Series	AF mm
WA 004 HS	4	630	M 16 x 1.5	8S	17
WA 006 HS	6	630	M 18 x 1.5	10 S	19
WA 008 HS	8	630	M 20 x 1.5	12 S	22
WA 010 HS	10	630	M 22 x 1.5	14 S	24
WA 013 HS	13	400	M 24 x 1.5	16 S	27
WA 016 HS	16	400	M 30 x 2	20 S	32
WA 020 HS	20	400	M 36 x 2	25 S	36
WA 025 HS	25	250	M 42 x 2	30 S	46
WA 032 HS	32	250	M 52 x 2	38 S	55

Web: http://cat.hansa-flex.com/en/WAHS

Product versions:
WA HS VA - Connector ... HS, VA, Stainless steel

WA HS VA

Connector ... HS, VA



Application: Connection fitting for metal hoses
Connection 1: metric cylindrical outer thread
Sealing form 1: 24° inner cone
Standard: DIN 2353, ISO 8434-1
Short code: CES
Construction: straight
Series: heavy
Material: Stainless steel

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	Series	AF mm
WA 004 HS VA	4	630	M 16 x 1.5	8S	17
WA 006 HS VA	6	630	M 18 x 1.5	10 S	19
WA 008 HS VA	8	630	M 20 x 1.5	12 S	22
WA 010 HS VA	10	630	M 22 x 1.5	14 S	24
WA 013 HS VA	13	400	M 24 x 1.5	16 S	27
WA 016 HS VA	16	400	M 30 x 2	20 S	32
WA 020 HS VA	20	400	M 36 x 2	25 S	36
WA 025 HS VA	25	250	M 42 x 2	30 S	46
WA 032 HS VA	32	250	M 52 x 2	38 S	55

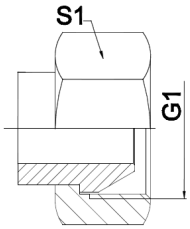
Web: http://cat.hansa-flex.com/en/WAHSVA

Product versions:
WA HS - Connector ... HS, steel, Steel (weldable)

WA AB

Connector ... AB, steel

Application: Connection fitting for metal hoses
Connection 1: BSP nut thread
Sealing form 1: 60° outer cone
Standard: ISO 228-1, ISO 8434-6, BS 5200
Short code: DKR
Construction: straight
Material: Steel (weldable)



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	S1 mm
WA 006 AB	6	350	G 1/4"	19,0
WA 010 AB	10	350	G 3/8"	22,0
WA 013 AB	13	315	G 1/2"	27,0
WA 016 AB	16	315	G 5/8"	30,0
WA 020 AB	20	250	G 3/4"	32,0
WA 025 AB	25	200	G 1"	41,0
WA 032 AB	32	160	G 1 1/4"	50,0
WA 040 AB	40	125	G 1 1/2"	55,0
WA 050 AB	50	80	G 2"	70,0

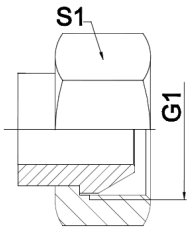
Web: http://cat.hansa-flex.com/en/WAAB

Product versions:
WA AB VA - Connector ... AB, VA, Stainless steel

WA AB VA

Connector ... AB, VA

Application: Connection fitting for metal hoses
Connection 1: BSP nut thread
Sealing form 1: 60° outer cone
Standard: ISO 228-1, ISO 8434-6, BS 5200
Short code: DKR
Construction: straight
Material: Stainless steel



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

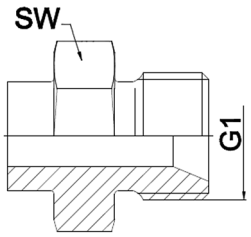
Identification	DN	PN (bar)	G1	S1 mm
WA 006 AB VA	6	350	G 1/4"	19,0
WA 010 AB VA	10	350	G 3/8"	22,0
WA 013 AB VA	13	315	G 1/2"	27,0
WA 016 AB VA	16	315	G 5/8"	30,0
WA 020 AB VA	20	250	G 3/4"	32,0
WA 025 AB VA	25	200	G 1"	41,0
WA 032 AB VA	32	160	G 1 1/4"	50,0
WA 040 AB VA	40	125	G 1 1/2"	55,0
WA 050 AB VA	50	80	G 2"	70,0

Web: http://cat.hansa-flex.com/en/WAABVA

Product versions:
WA AB - Connector ... AB, steel, Steel (weldable)

WA HB

Connector ... HB, steel



Application: Connection fitting for metal hoses
Connection 1: BSP external thread, cylindrical
Sealing form 1: 60° inner cone
Standard: ISO 228-1, ISO 8434-6, BS 5200
Short code: AGR
Construction: straight
Material: Steel

Note: Welded variant in stainless steel only Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

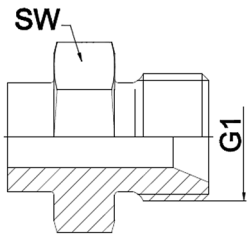
Identification	DN	PN (bar)	G1	AF mm
WA 006 HB	6	350	G 1/4"	19
WA 010 HB	10	350	G 3/8"	22
WA 013 HB	13	315	G 1/2"	27
WA 016 HB	16	315	G 5/8"	30
WA 020 HB	20	250	G 3/4"	32
WA 025 HB	25	200	G 1"	41
WA 032 HB	32	160	G 1 1/4"	50
WA 040 HB	40	125	G 1 1/2"	55
WA 050 HB	50	80	G 2"	70

Web: http://cat.hansa-flex.com/en/WAHB

Product versions:
WA HB VA - Connector ... HB, VA, Stainless steel

WA HB VA

Connector ... HB, VA



Application: Connection fitting for metal hoses
Connection 1: BSP external thread, cylindrical
Sealing form 1: 60° inner cone
Standard: ISO 228-1, ISO 8434-6, BS 5200
Short code: AGR
Construction: straight
Material: Stainless steel

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	AF mm
WA 006 HB VA	6	350	G 1/4"	19
WA 010 HB VA	10	350	G 3/8"	22
WA 013 HB VA	13	315	G 1/2"	27
WA 016 HB VA	16	315	G 5/8"	30
WA 020 HB VA	20	250	G 3/4"	32
WA 025 HB VA	25	200	G 1"	41
WA 032 HB VA	32	160	G 1 1/4"	50
WA 040 HB VA	40	125	G 1 1/2"	55
WA 050 HB VA	50	80	G 2"	70

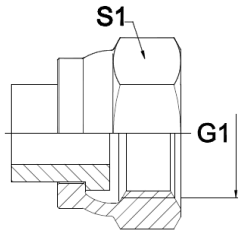
Web: http://cat.hansa-flex.com/en/WAHBVA

Product versions:
WA HB - Connector ... HB, steel, Steel

WA AR

Connector ... AR, steel

Application: Connection fitting for metal hoses
Connection 1: BSP nut thread
Sealing form 1: flat sealing
Standard: ISO 228-1
Short code: DKR flat
Construction: straight
Material: Steel (weldable)



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	S1 mm
WA 006 AR	6	350	G 1/4"	19,0
WA 010 AR	10	350	G 3/8"	22,0
WA 013 AR	13	315	G 1/2"	27,0
WA 016 AR	16	315	G 5/8"	30,0
WA 020 AR	20	250	G 3/4"	32,0
WA 025 AR	25	200	G 1"	41,0
WA 032 AR	32	160	G 1 1/4"	50,0
WA 040 AR	40	125	G 1 1/2"	55,0
WA 050 AR	50	80	G 2"	70,0

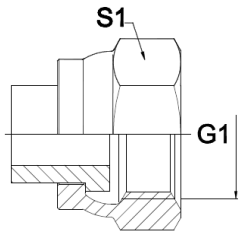
Web: http://cat.hansa-flex.com/en/WAAR

Product versions:
WA AR VA - Connector ... AR, VA, Stainless steel

WA AR VA

Connector ... AR, VA

Application: Connection fitting for metal hoses
Connection 1: BSP nut thread
Sealing form 1: flat sealing
Standard: ISO 228-1
Short code: DKR flat
Construction: straight
Material: Stainless steel



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

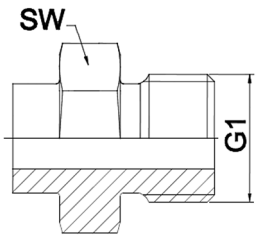
Identification	DN	PN (bar)	G1	S1 mm
WA 006 AR VA	6	350	G 1/4"	19,0
WA 010 AR VA	10	350	G 3/8"	22,0
WA 013 AR VA	13	315	G 1/2"	27,0
WA 016 AR VA	16	315	G 5/8"	30,0
WA 020 AR VA	20	250	G 3/4"	32,0
WA 025 AR VA	25	200	G 1"	41,0
WA 032 AR VA	32	160	G 1 1/4"	50,0
WA 040 AR VA	40	125	G 1 1/2"	55,0
WA 050 AR VA	50	80	G 2"	70,0
WA 065 AR VA	65	16	G 2.1/2"	85,0
WA 080 AR VA	80	16	G 3"	100,0

Web: http://cat.hansa-flex.com/en/WAARVA

Product versions:
WA AR - Connector ... AR, steel, Steel (weldable)

WA HR

Connector ... HR, steel



Application: Connection fitting for metal hoses
Connection 1: BSP external thread, cylindrical
Sealing form 1: flat sealing
Standard: ISO 228-1
Short code: AGR-Flat
Construction: straight
Material: Steel

Note: Welded variant in stainless steel only Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

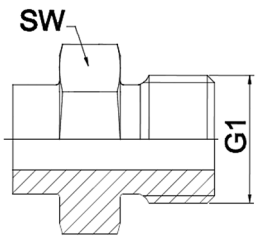
Identification	DN	PN (bar)	G1	AF mm
WA 006 HR	6	350	G 1/4"	19
WA 010 HR	10	350	G 3/8"	22
WA 013 HR	13	315	G 1/2"	27
WA 016 HR	16	315	G 5/8"	30
WA 020 HR	20	250	G 3/4"	32
WA 025 HR	25	200	G 1"	41
WA 032 HR	32	160	G 1 1/4"	50
WA 040 HR	40	125	G 1 1/2"	55
WA 050 HR	50	80	G 2"	70

Web: http://cat.hansa-flex.com/en/WAHR

Product versions:
WA HR VA - Connector ... HR, VA, Stainless steel

WA HR VA

Connector ... HR, VA



Application: Connection fitting for metal hoses
Connection 1: BSP external thread, cylindrical
Sealing form 1: flat sealing
Standard: ISO 228-1
Short code: AGR-Flat
Construction: straight
Material: Stainless steel

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	AF mm
WA 006 HR VA	6	350	G 1/4"	19
WA 010 HR VA	10	350	G 3/8"	22
WA 013 HR VA	13	315	G 1/2"	27
WA 016 HR VA	16	315	G 5/8"	30
WA 020 HR VA	20	250	G 3/4"	32
WA 025 HR VA	25	200	G 1"	41
WA 032 HR VA	32	160	G 1 1/4"	50
WA 040 HR VA	40	125	G 1 1/2"	55
WA 050 HR VA	50	80	G 2"	70
WA 065 HR VA	65	40	G 2.1/2"	85
WA 080 HR VA	80	40	G 3"	95

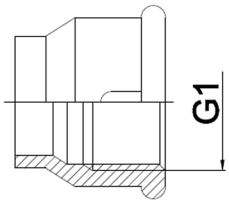
Web: http://cat.hansa-flex.com/en/WAHRVA

Product versions:
WA HR - Connector ... HR, steel, Steel

WA IR

Connector ... IR, malleable cast iron

Application: Connection fitting for metal hoses
Connection 1: Threaded bushing with cylindrical, imperial internal thread
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Material: Malleable cast iron
Application: soldered variant temperature resistant up to 200 °C



Note: The specified working pressure PN(bar) relates to the working temperature of -20 °C to 120 °C. At working temperature of 120 °C to 200 °C the working pressure PN (bar) reduces to 22,7 bar.

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1
WA 004 IR	4	25	Rp 1/8"
WA 006 IR	6	25	Rp 1/4"
WA 010 IR	10	25	Rp 3/8"
WA 013 IR	13	25	Rp 1/2"
WA 020 IR	20	25	Rp 3/4"
WA 025 IR	25	25	Rp 1"
WA 032 IR	32	25	Rp 1.1/4"
WA 040 IR	40	25	Rp 1.1/2"
WA 050 IR	50	25	Rp 2"
WA 065 IR	65	25	Rp 2.1/2"
WA 080 IR	80	25	Rp 3"
WA 100 IR	100	25	Rp 4"

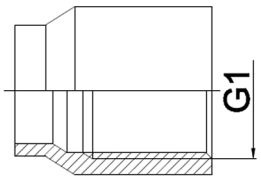
Web: http://cat.hansa-flex.com/en/WAIR

Product versions:
WA IR RG - Connector ... IR, red bronze, Red bronze
WA IR ST - Connector ... IR, steel, Steel (weldable)
WA IR VA - Connector ... IR, VA, Stainless steel

WA IR VA

Connector ... IR, VA

Application: Connection fitting for metal hoses
Connection 1: Threaded bushing with cylindrical, imperial internal thread
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Material: Stainless steel



Ordering information: Other designs available on request

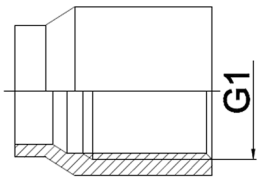
Identification	DN	PN (bar)	G1
WA 004 IR VA	4	10	Rp 1/8"
WA 006 IR VA	6	10	Rp 1/4"
WA 010 IR VA	10	10	Rp 3/8"
WA 013 IR VA	13	10	Rp 1/2"
WA 020 IR VA	20	10	Rp 3/4"
WA 025 IR VA	25	10	Rp 1"
WA 032 IR VA	32	10	Rp 1.1/4"
WA 040 IR VA	40	10	Rp 1.1/2"
WA 050 IR VA	50	10	Rp 2"
WA 065 IR VA	65	10	Rp 2.1/2"
WA 080 IR VA	80	10	Rp 3"
WA 100 IRVA	100	10	Rp 4"

Web: http://cat.hansa-flex.com/en/WAIRVA

Product versions:
WA IR - Connector ... IR, malleable cast iron, Malleable cast iron
WA IR RG - Connector ... IR, red bronze, Red bronze
WA IR ST - Connector ... IR, steel, Steel (weldable)

WA IR ST

Connector ... IR, steel



Application: Connection fitting for metal hoses
Connection 1: Threaded bushing with cylindrical, imperial internal thread
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Material: Steel (weldable)

Ordering information: Other designs available on request

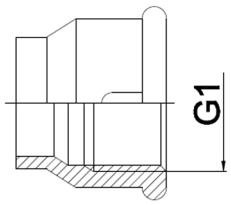
Identification	DN	G1
WA 006 IR ST	6	Rp 1/4"
WA 010 IR ST	10	Rp 3/8"
WA 013 IR ST	13	Rp 1/2"
WA 020 IR ST	20	Rp 3/4"
WA 025 IR ST	25	Rp 1"
WA 032 IR ST	32	Rp 1.1/4"
WA 040 IR ST	40	Rp 1.1/2"
WA 050 IR ST	50	Rp 2"
WA 065 IR ST	65	Rp 2.1/2"
WA 080 IR ST	80	Rp 3"

Web: http://cat.hansa-flex.com/en/WAIRST

Product versions:
WA IR - Connector ... IR, malleable cast iron, Malleable cast iron
WA IR RG - Connector ... IR, red bronze, Red bronze
WA IR VA - Connector ... IR, VA, Stainless steel

WA IR RG

Connector ... IR, red bronze



Application: Connection fitting for metal hoses
Connection 1: Threaded bushing with cylindrical, imperial internal thread
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Material: Red bronze
Application: soldered variant temperature resistant up to 200 °C

Ordering information: Other designs available on request

Identification	DN	G1
WA 013 IR RG	13	Rp 1/2"
WA 020 IR RG	20	Rp 3/4"
WA 025 IR RG	25	Rp 1"
WA 032 IR RG	32	Rp 1.1/4"
WA 040 IR RG	40	Rp 1.1/2"
WA 050 IR RG	50	Rp 2"

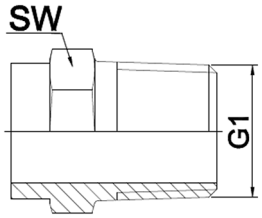
Web: http://cat.hansa-flex.com/en/WAIRRG

Product versions:
WA IR - Connector ... IR, malleable cast iron, Malleable cast iron
WA IR ST - Connector ... IR, steel, Steel (weldable)
WA IR VA - Connector ... IR, VA, Stainless steel

WA HN

Connector ... HN, malleable cast iron

Application: Connection fitting for metal hoses
Connection 1: imperial outer thread, conical
Sealing form 1: thread seal
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Material: Malleable cast iron
Application: soldered variant temperature resistant up to 200 °C



Note: Width across flats values are listed for reference purposes! The specified working pressure PN(bar) relates to the working temperature of -20 °C to 120 °C. At working temperature of 120 °C to 200 °C the working pressure PN (bar) reduces to 22,7 bar.

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	AF mm
WA 006 HN	6	25	R 1/4"	19
WA 010 HN	10	25	R 3/8"	22
WA 013 HN	13	25	R 1/2"	28
WA 020 HN	20	25	R 3/4"	32
WA 025 HN	25	25	R 1"	42
WA 032 HN	32	25	R 1.1/4"	50
WA 040 HN	40	25	R 1.1/2"	55
WA 050 HN	50	25	R 2"	70
WA 065 HN	65	25	R 2.1/2"	85
WA 080 HN	80	25	R 3"	100
WA 100 HN	100	25	R 4"	130

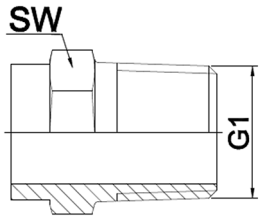
Web: http://cat.hansa-flex.com/en/WAHN

Product versions:
WA HN VA - Connector ... HN, VA, Stainless steel

WA HN VA

Connector ... HN, VA

Application: Connection fitting for metal hoses
Connection 1: imperial outer thread, conical
Sealing form 1: thread seal
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Material: Stainless steel



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

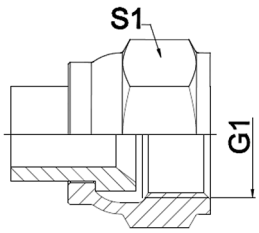
Identification	DN	PN (bar)	G1	AF mm
WA 006 HN VA	6	50	R 1/4"	19
WA 010 HN VA	10	50	R 3/8"	22
WA 013 HN VA	13	50	R 1/2"	28
WA 020 HN VA	20	50	R 3/4"	32
WA 025 HN VA	25	50	R 1"	42
WA 032 HN VA	32	40	R 1.1/4"	50
WA 040 HN VA	40	40	R 1.1/2"	55
WA 050 HN VA	50	25	R 2"	70
WA 065 HN VA	65	25	R 2.1/2"	85
WA 080 HN VA	80	25	R 3"	100
WA 100 HN VA	100	25	R 4"	130

Web: http://cat.hansa-flex.com/en/WAHNVA

Product versions:
WA HN - Connector ... HN, malleable cast iron, Malleable cast iron

WA AJ

Connector ... AJ, steel



Application: Connection fitting for metal hoses
Connection 1: UN/UNF nut threads
Sealing form 1: 74° inner cone
Standard: SAE J514
Short code: DKJ
Construction: straight
Material: Steel

Note: Welded variant in stainless steel only Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

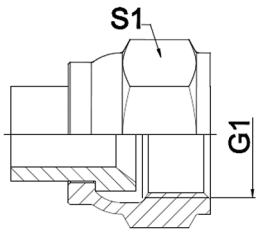
Identification	DN	PN (bar)	G1	S1 mm
WA 006 AJ	6	275	7/16"-20 UNF	14,0
WA 008 AJ	8	275	1/2"-20 UNF	17,0
WA 010 AJ	10	275	9/16"-18 UNF	19,0
WA 013 AJ	13	275	3/4"-16 UNF	24,0
WA 016 AJ	16	210	7/8"-14 UNF	27,0
WA 020 AJ	20	210	1.11/16" -12 UN	32,0
WA 025 AJ	25	170	1.5/16" -12 UN	41,0
WA 032 AJ	32	140	1.5/8" -12 UN	50,0
WA 040 AJ	40	105	1.7/8" -12 UN	60,0
WA 050 AJ	50	80	2.1/2" -12 UN	75,0

Web: http://cat.hansa-flex.com/en/WAAJ

Product versions:
WA AJ VA - Connector ... AJ, VA, Stainless steel

WA AJ VA

Connector ... AJ, VA



Application: Connection fitting for metal hoses
Connection 1: UN/UNF nut threads
Sealing form 1: 74° inner cone
Standard: SAE J514
Short code: DKJ
Construction: straight
Material: Stainless steel

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	S1 mm
WA 006 AJ VA	6	275	7/16"-20 UNF	14,0
WA 008 AJ VA	8	275	1/2"-20 UNF	17,0
WA 010 AJ VA	10	275	9/16"-18 UNF	19,0
WA 013 AJ VA	13	275	3/4"-16 UNF	24,0
WA 016 AJ VA	16	210	7/8"-14 UNF	27,0
WA 020 AJ VA	20	210	1.11/16" -12 UN	32,0
WA 025 AJ VA	25	170	1.5/16" -12 UN	41,0
WA 032 AJ VA	32	140	1.5/8" -12 UN	50,0
WA 040 AJ VA	40	105	1.7/8" -12 UN	60,0
WA 050 AJ VA	50	80	2.1/2" -12 UN	75,0

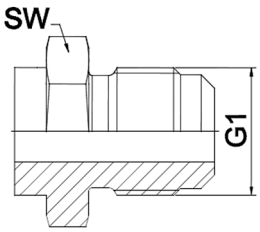
Web: http://cat.hansa-flex.com/en/WAAJVA

Product versions:
WA AJ - Connector ... AJ, steel, Steel

WA HJ

Connector ... HJ, steel

Application: Connection fitting for metal hoses
Connection 1: UN/UNF external threads
Sealing form 1: 74° outer cone
Standard: SAE J514
Short code: AGJ
Construction: straight
Material: Steel



Note: Welded variant in stainless steel only Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	AF mm
WA 006 HJ	6	345	7/16"-20 UNF	14
WA 008 HJ	8	345	1/2"-20 UNF	14
WA 010 HJ	10	345	9/16"-18 UNF	19
WA 013 HJ	13	310	3/4"-16 UNF	22
WA 016 HJ	16	240	7/8"-14 UNF	24
WA 020 HJ	20	240	1.1/16" -12 UN	27
WA 025 HJ	25	210	1.5/16" -12 UN	36
WA 032 HJ	32	170	1.5/8" -12 UN	46
WA 040 HJ	40	140	1.7/8" -12 UN	50
WA 050 HJ	50	115	2.1/2" -12 UN	65

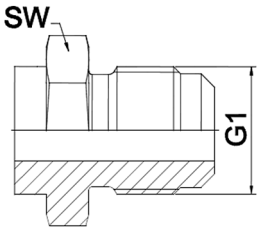
Web: http://cat.hansa-flex.com/en/WAHJ

Product versions:
WA HJ VA - Connector ... HJ, VA, Stainless steel

WA HJ VA

Connector ... HJ, VA

Application: Connection fitting for metal hoses
Connection 1: UN/UNF external threads
Sealing form 1: 74° outer cone
Standard: SAE J514
Short code: AGJ
Construction: straight
Material: Stainless steel



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

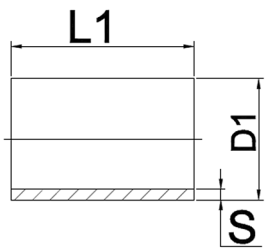
Identification	DN	PN (bar)	G1	AF mm
WA 006 HJ VA	6	345	7/16"-20 UNF	14
WA 008 HJ VA	8	345	1/2"-20 UNF	14
WA 010 HJ VA	10	345	9/16"-18 UNF	19
WA 013 HJ VA	13	310	3/4"-16 UNF	22
WA 016 HJ VA	16	240	7/8"-14 UNF	24
WA 020 HJ VA	20	240	1.1/16" -12 UN	27
WA 025 HJ VA	25	210	1.5/16" -12 UN	36
WA 032 HJ VA	32	170	1.5/8" -12 UN	46
WA 040 HJ VA	40	140	1.7/8" -12 UN	50
WA 050 HJ VA	50	115	2.1/2" -12 UN	65

Web: http://cat.hansa-flex.com/en/WAHJVA

Product versions:
WA HJ - Connector ... HJ, steel, Steel

WA FL

Connector ... FL, steel



Application: Connection fitting for metal hoses
Connection 1: Pipe sockets
Sealing form 1: Cutting ring connection
Standard: ISO 8434-1, DIN 3861
Short code: BEL
Construction: straight
Series: light
Material: Steel (weldable)

Note: Final cutting ring assembly must be carried out in the hardened pre-assembly socket (VOM...). As an alternative we recommend connector shape AFL or AOL.

Ordering information: Other designs available on request

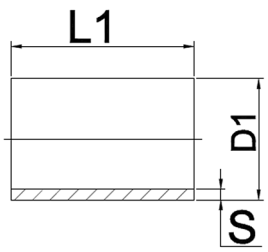
Identification	DN	PN (bar)	Series	D1 mm	s mm	L1 mm
WA 004 FL	4	250	6 L	6	1,0	25
WA 006 FL	6	250	8 L	8	1,0	30
WA 008 FL	8	250	10 L	10	1,0	30
WA 010 FL	10	219	12 L	12	1,0	30
WA 013 FL	13	250	15 L	15	1,5	32
WA 016 FL	16	160	18 L	18	1,5	32
WA 020 FL	20	160	22 L	22	1,5	36
WA 025 FL	25	100	28 L	28	2,0	40
WA 032 FL	32	100	35 L	35	2,0	45
WA 040 FL	40	100	42 L	42	2,0	45

Web: http://cat.hansa-flex.com/en/WAFL

Product versions:
WA FL CU - Connector ... FL, copper, Copper
WA FL VA - Connector ... FL, VA, Stainless steel 1.4571

WA FL VA

Connector ... FL, VA



Application: Connection fitting for metal hoses
Connection 1: Pipe sockets
Sealing form 1: Cutting ring connection
Standard: ISO 8434-1
Short code: BEL
Construction: straight
Series: light
Material: Stainless steel 1.4571

Note: Final cutting ring assembly must be carried out in the hardened pre-assembly socket (VOM...). As an alternative we recommend connector shape AFL or AOL.

Ordering information: Other designs available on request

Identification	DN	PN (bar)	Series	D1 mm	s mm	L1 mm
WA 004 FL VA	4	250	6 L	6	1,0	25
WA 006 FL VA	6	250	8 L	8	1,0	30
WA 008 FL VA	8	240	10 L	10	1,0	30
WA 010 FL VA	10	200	12 L	12	1,0	30
WA 013 FL VA	13	250	15 L	15	1,5	32
WA 016 FL VA	16	160	18 L	18	1,5	32
WA 020 FL VA	20	160	22 L	22	1,5	36
WA 025 FL VA	25	100	28 L	28	2,0	40
WA 032 FL VA	32	100	35 L	35	2,0	45
WA 040 FL VA	40	100	42 L	42	2,0	45

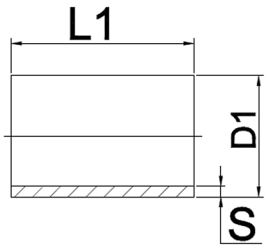
Web: http://cat.hansa-flex.com/en/WAFLVA

Product versions:
WA FL - Connector ... FL, steel, Steel (weldable)
WA FL CU - Connector ... FL, copper, Copper

WA FL CU

Connector ... FL, copper

Application: Connection fitting for metal hoses
Connection 1: Pipe sockets
Sealing form 1: Cutting ring connection
Standard: ISO 8434-1, DIN 3861
Short code: BEL
Construction: straight
Series: light
Material: Copper



Note: Final cutting ring assembly must be carried out in the hardened pre-assembly socket (VOM...). As an alternative we recommend connector shape AFL or AOL.

Ordering information: Other designs available on request

Identification	DN	Series	D1 mm	s mm	L1 mm
WA 008 FL CU	8	10 L	10	1,0	30
WA 010 FL CU	10	12 L	12	1,0	30
WA 013 FL CU	13	15 L	15	1,5	32
WA 016 FL CU	16	18 L	18	1,5	32
WA 020 FL CU	20	22 L	22	1,5	36
WA 025 FL CU	25	28 L	28	2,0	40
WA 032 FL CU	32	35 L	35	2,0	45

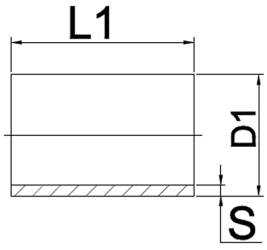
Web: http://cat.hansa-flex.com/en/WAFLCU

Product versions:
WA FL - Connector ... FL, steel, Steel (weldable)
WA FL VA - Connector ... FL, VA, Stainless steel 1.4571

WA FS

Connector ... FS, steel

Application: Connection fitting for metal hoses
Connection 1: Pipe sockets
Sealing form 1: Cutting ring connection
Standard: ISO 8434-1, DIN 3861
Short code: BES
Construction: straight
Series: heavy
Material: Steel (weldable)



Note: Final cutting ring assembly must be carried out in the hardened pre-assembly socket (VOM...). As an alternative we recommend connector shape AFS or AOS.

Ordering information: Other designs available on request

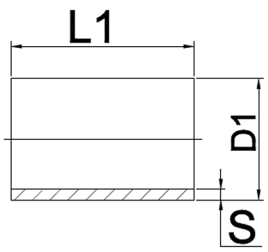
Identification	DN	PN (bar)	Series	D1 mm	s mm	L1 mm
WA 004 FS	4	320	8S	8	1,0	30
WA 006 FS	6	263	10 S	10	1,0	30
WA 008 FS	8	219	12 S	12	1,0	30
WA 010 FS	10	299	14 S	14	1,5	35
WA 013 FS	13	262	16 S	16	1,5	35
WA 016 FS	16	288	20 S	20	2,0	40
WA 020 FS	20	230	25 S	25	2,0	45
WA 025 FS	25	244	30 S	30	2,5	50
WA 032 FS	32	222	38 S	38	3,0	55

Web: http://cat.hansa-flex.com/en/WAFS

Product versions:
WA FS VA - Connector ... FS, VA, Stainless steel 1.4571

WA FS VA

Connector ... FS, VA



Application: Connection fitting for metal hoses
Connection 1: Pipe sockets
Sealing form 1: Cutting ring connection
Standard: ISO 8434-1, DIN 3861
Short code: BES
Construction: straight
Series: heavy
Material: Stainless steel 1.4571

Note: Final cutting ring assembly must be carried out in the hardened pre-assembly socket (VOM...). As an alternative we recommend connector shape AFS or AOS.

2

Ordering information: Other designs available on request

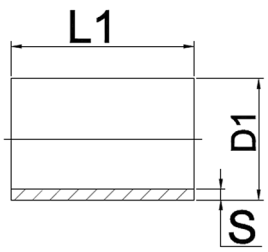
Identification	DN	PN (bar)	Series	D1 mm	s mm	L1 mm
WA 004 FS VA	4	300	8S	8	1,0	30
WA 006 FS VA	6	240	10 S	10	1,0	30
WA 008 FS VA	8	200	12 S	12	1,0	30
WA 010 FS VA	10	283	14 S	14	1,5	35
WA 013 FS VA	13	261	16 S	16	1,5	35
WA 016 FS VA	16	287	20 S	20	2,0	40
WA 020 FS VA	20	229	25 S	25	2,0	45
WA 025 FS VA	25	243	30 S	30	2,5	50
WA 032 FS VA	32	221	38 S	38	3,0	55

Web: http://cat.hansa-flex.com/en/WAFSVA

Product versions:
WA FS - Connector ... FS, steel, Steel (weldable)

WA FA

Connector ... FA, steel



Application: Connection fitting for metal hoses
Connection 1: Pipe socket, imperial with welded ends
Sealing form 1: Welded connection
Standard: DIN EN 10216-1
Construction: straight
Material: Steel P235TR2 (1.0255)

Ordering information: Other designs available on request

Identification	DN	PN (bar)	D1 mm	s mm	L1 mm
WA 013 FA	13	320	21,3	2,0	50
WA 020 FA	20	290	26,9	2,3	55
WA 025 FA	25	260	33,7	2,6	55
WA 032 FA	32	200	42,4	2,6	60
WA 040 FA	40	175	48,3	2,6	60
WA 050 FA	50	155	60,3	2,9	65
WA 065 FA	65	120	76,1	2,9	70
WA 080 FA	80	115	88,9	3,2	75
WA 100 FA	100	100	114,3	3,6	75
WA 125 FA	125	90	139,7	4,0	80
WA 150 FA	150	85	168,3	4,5	80

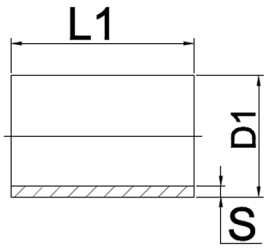
Web: http://cat.hansa-flex.com/en/WAFA

Product versions:
WA FA VA - Connector ... FA, VA, Stainless steel 1.4571

WA FA VA

Connector ... FA, VA

Application: Connection fitting for metal hoses
Connection 1: Pipe socket, imperial with welded ends
Sealing form 1: Welded connection
Standard: DIN EN 10216-5
Construction: straight
Material: Stainless steel 1.4571



Ordering information: Other designs available on request

Identification	DN	PN (bar)	D1 mm	s mm	L1 mm
WA 013 FA VA	13	260	21,3	2,0	50
WA 016 FA VA	16	260	21,3	2,0	50
WA 020 FA VA	20	235	26,9	2,3	55
WA 025 FA VA	25	210	33,7	2,6	55
WA 032 FA VA	32	165	42,4	2,6	60
WA 040 FA VA	40	140	48,3	2,6	60
WA 050 FA VA	50	125	60,3	2,9	65
WA 065 FA VA	65	100	76,1	2,9	70
WA 080 FA VA	80	90	88,9	3,2	75
WA 100 FA VA	100	80	114,3	3,6	75
WA 125 FA VA	125	70	139,7	4,0	80
WA 150 FA VA	150	65	168,3	4,5	80

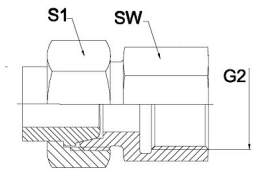
Web: http://cat.hansa-flex.com/en/WAFAVA

Product versions:
WA FA - Connector ... FA, steel, Steel P235TR2 (1.0255)

WA AFL-GAR

Connector ... AFL-GAR, steel

Application: Connection fitting for metal hoses
Connection 1: imperial internal thread, cylindrical
Sealing form 1: conical seat
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Design: 3-part threaded connection
Material: Steel



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

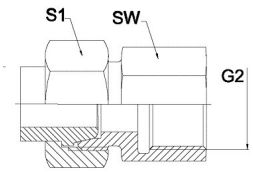
Identification	DN	PN (bar)	G2	AF mm	S1 mm
WA 006 AFL-GAR	6	250	G 1/4" -19	19	17,0
WA 008 AFL-GAR	8	250	G 1/4" -19	19	19,0
WA 010 AFL-GAR	10	250	G 3/8" -19	22	22,0
WA 013 AFL-GAR	13	250	G 1/2" -14	27	27,0
WA 016 AFL-GAR	16	160	G 1/2" -14	27	32,0
WA 020 AFL-GAR	20	160	G 3/4" -14	32	36,0
WA 025 AFL-GAR	25	100	G 1" -11	41	41,0
WA 032 AFL-GAR	32	100	G 1.1/4" -11	50	50,0
WA 040 AFL-GAR	40	100	G 1.1/2" -11	55	60,0

Web: http://cat.hansa-flex.com/en/WAAFLGAR

Product versions:
WA AFL-GAR VA - Connector ... AFL-GAR, VA, Stainless steel

WA AFL-GAR VA

Connector ... AFL-GAR, VA



Application: Connection fitting for metal hoses
Connection 1: imperial internal thread, cylindrical
Sealing form 1: conical seat
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Design: 3-part threaded connection
Material: Stainless steel

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

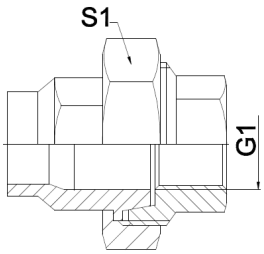
Identification	DN	PN (bar)	G2	AF mm	S1 mm
WA 006 AFL-GAR VA	6	250	G 1/4" -19	19	17,0
WA 008 AFL-GAR VA	8	250	G 1/4" -19	19	19,0
WA 010 AFL-GAR VA	10	250	G 3/8" -19	22	22,0
WA 013 AFL-GAR VA	13	250	G 1/2" -14	27	27,0
WA 016 AFL-GAR VA	16	160	G 1/2" -14	27	32,0
WA 020 AFL-GAR VA	20	160	G 3/4" -14	32	36,0
WA 025 AFL-GAR VA	25	100	G 1" -11	41	41,0
WA 032 AFL-GAR VA	32	100	G 1.1/4" -11	50	50,0
WA 040 AFL-GAR VA	40	100	G 1.1/2" -11	55	60,0

Web: http://cat.hansa-flex.com/en/WAAFLGARVA

Product versions:
WA AFL-GAR - Connector ... AFL-GAR, steel, Steel

WA VB

Connector ... VB, malleable cast iron



Application: Connection fitting for metal hoses
Connection 1: imperial internal thread, cylindrical
Sealing form 1: conical seat
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Application: soldered variant temperature resistant up to 200 °C
Design: 3-part threaded connection
Material: Malleable cast iron

Note: Width across flats values are listed for reference purposes! The specified working pressure PN(bar) relates to the working temperature of -20 °C to 120 °C. At working temperature of 120 °C to 200 °C the working pressure PN (bar) reduces to 22,7 bar.

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	S1 mm
WA 006 VB	6	25	Rp 1/4"	28,0
WA 010 VB	10	25	Rp 3/8"	32,0
WA 013 VB	13	25	Rp 1/2"	39,0
WA 020 VB	20	25	Rp 3/4"	48,0
WA 025 VB	25	25	Rp 1"	55,0
WA 032 VB	32	25	Rp 1.1/4"	67,0
WA 040 VB	40	25	Rp 1.1/2"	74,0
WA 050 VB	50	25	Rp 2"	90,0
WA 065 VB	65	25	Rp 2.1/2"	111,0
WA 080 VB	80	25	Rp 3"	130,0
WA 100 VB	100	25	Rp 4"	151,0

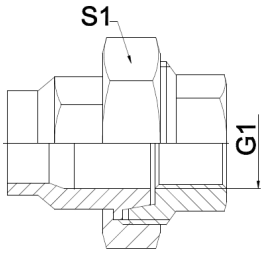
Web: http://cat.hansa-flex.com/en/WAVB

Product versions:
WA VB RG - Connector ... VB, red bronze, Red bronze
WA VB VA - Connector ... VB, VA, Stainless steel

WA VB VA

Connector ... VB, VA

Application: Connection fitting for metal hoses
Connection 1: imperial internal thread, cylindrical
Sealing form 1: conical seat
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Design: 3-part threaded connection
Material: Stainless steel



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	S1 mm
WA 004 VB VA	4	50	Rp 1/8"	27,0
WA 006 VB VA	6	50	Rp 1/4"	27,0
WA 010 VB VA	10	50	Rp 3/8"	32,0
WA 013 VB VA	13	50	Rp 1/2"	41,0
WA 020 VB VA	20	50	Rp 3/4"	50,0
WA 025 VB VA	25	50	Rp 1"	55,0
WA 032 VB VA	32	40	Rp 1.1/4"	70,0
WA 040 VB VA	40	40	Rp 1.1/2"	75,0
WA 050 VB VA	50	40	Rp 2"	90,0
WA 065 VB VA	65	25	Rp 2.1/2"	110,0
WA 080 VB VA	80	25	Rp 3"	130,0
WA 100 VB VA	100	25	Rp 4"	130,0

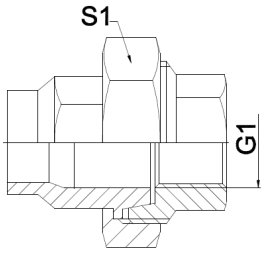
Web: http://cat.hansa-flex.com/en/WAVBVA

Product versions:
WA VB - Connector ... VB, malleable cast iron, Malleable cast iron
WA VB RG - Connector ... VB, red bronze, Red bronze

WA VB RG

Connector ... VB, red bronze

Application: Connection fitting for metal hoses
Connection 1: imperial internal thread, cylindrical
Sealing form 1: conical seat
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Application: soldered variant temperature resistant up to 200 °C
Design: 3-part threaded connection
Material: Red bronze



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

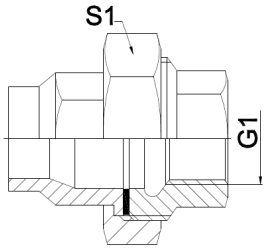
Identification	DN	G1	S1 mm
WA 010 VB RG	10	Rp 3/8"	32,0
WA 013 VB RG	13	Rp 1/2"	41,0
WA 020 VB RG	20	Rp 3/4"	50,0
WA 025 VB RG	25	Rp 1"	55,0
WA 032 VB RG	32	Rp 1.1/4"	70,0
WA 040 VB RG	40	Rp 1.1/2"	75,0
WA 050 VB RG	50	Rp 2"	90,0

Web: http://cat.hansa-flex.com/en/WAVBRG

Product versions:
WA VB - Connector ... VB, malleable cast iron, Malleable cast iron
WA VB VA - Connector ... VB, VA, Stainless steel

WA VBF

Connector ... VBF, malleable cast iron



Application: Connection fitting for metal hoses
Connection 1: imperial internal thread, cylindrical
Sealing form 1: flat sealing
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Application: soldered variant temperature resistant up to 200 °C
Material: Malleable cast iron

Note: Width across flats values are listed for reference purposes! The specified working pressure PN(bar) relates to the working temperature of -20 °C to 120 °C. At working temperature of 120 °C to 200 °C the working pressure PN (bar) reduces to 22,7 bar.

Ordering information: Other designs available on request

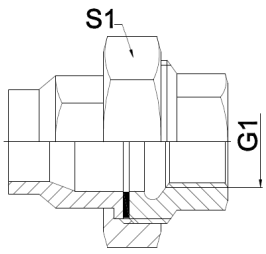
Identification	DN	PN (bar)	G1	S1 mm
WA 006 VBF	6	25	Rp 1/4"	28,0
WA 010 VBF	10	25	Rp 3/8"	32,0
WA 013 VBF	13	25	Rp 1/2"	39,0
WA 020 VBF	20	25	Rp 3/4"	48,0
WA 025 VBF	25	25	Rp 1"	55,0
WA 032 VBF	32	25	Rp 1.1/4"	67,0
WA 040 VBF	40	25	Rp 1.1/2"	74,0
WA 050 VBF	50	25	Rp 2"	90,0
WA 065 VBF	65	25	Rp 2.1/2"	111,0
WA 080 VBF	80	25	Rp 3"	130,0

Web: http://cat.hansa-flex.com/en/WAVBF

Product versions:
WA VBF RG - Connector ... VBF, red bronze, Red bronze
WA VBF VA - Connector ... VBF, VA, Stainless steel

WA VBF VA

Connector ... VBF, VA



Application: Connection fitting for metal hoses
Connection 1: imperial internal thread, cylindrical
Sealing form 1: flat sealing
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Design: 3-part threaded connection
Material: Stainless steel

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	S1 mm
WA 004 VBF VA	4	25	Rp 1/8"	27,0
WA 006 VBFVA	6	25	Rp 1/4"	27,0
WA 010 VBF VA	10	25	Rp 3/8"	32,0
WA 013 VBF VA	13	25	Rp 1/2"	41,0
WA 020 VBF VA	20	25	Rp 3/4"	50,0
WA 025 VBF VA	25	25	Rp 1"	55,0
WA 032 VBF VA	32	16	Rp 1.1/4"	70,0
WA 040 VBF VA	40	16	Rp 1.1/2"	75,0
WA 050 VBF VA	50	16	Rp 2"	90,0
WA 065 VBF VA	65	10	Rp 2.1/2"	110,0

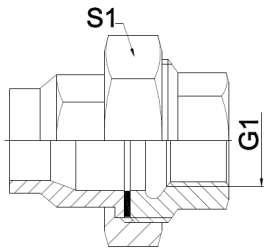
Web: http://cat.hansa-flex.com/en/WAVBFVA

Product versions:
WA VBF - Connector ... VBF, malleable cast iron, Malleable cast iron
WA VBF RG - Connector ... VBF, red bronze, Red bronze

WA VBF RG

Connector ... VBF, red bronze

Application: Connection fitting for metal hoses
Connection 1: imperial internal thread, cylindrical
Sealing form 1: flat sealing
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Application: soldered variant temperature resistant up to 200 °C
Design: 3-part threaded connection
Material: Red bronze



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	G1	S1 mm
WA 013 VBF RG	13	Rp 1/2"	30,0
WA 020 VBF RG	20	Rp 3/4"	37,0
WA 025 VBF RG	25	Rp 1"	46,0

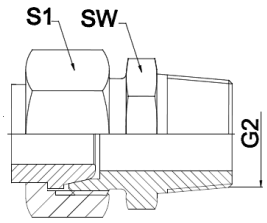
Web: http://cat.hansa-flex.com/en/WAVBFRG

Product versions:
WA VBF - Connector ... VBF, malleable cast iron, Malleable cast iron
WA VBF VA - Connector ... VBF, VA, Stainless steel

WA AFL-VRK

Connector ... AFL-VRK, steel

Application: Connection fitting for metal hoses
Connection 1: imperial outer thread, conical
Sealing form 1: conical seat
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Design: 3-part threaded connection
Material: Steel



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

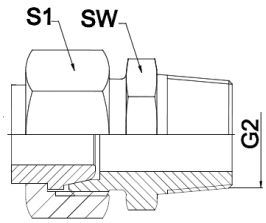
Identification	DN	PN (bar)	G2	AF mm	S1 mm
WA 006 AFL-VRK	6	250	R 1/4"	17	17,0
WA 008 AFL-VRK	8	250	R 1/4"	17	19,0
WA 010 AFL-VRK	10	250	R 3/8"	24	22,0
WA 013 AFL-VRK	13	250	R 1/2"	27	27,0
WA 016 AFL-VRK	16	160	R 1/2"	27	32,0
WA 020 AFL-VRK	20	160	R 3/4"	36	36,0
WA 025 AFL-VRK	25	100	R 1"	41	41,0
WA 032 AFL-VRK	32	100	R 1.1/4"	50	50,0
WA 040 AFL-VRK	40	100	R 1.1/2"	60	60,0

Web: http://cat.hansa-flex.com/en/WAAFLVRK

Product versions:
WA AFL-VRK VA - Connector ... AFL-VRK, VA, Stainless steel

WA AFL-VRK VA

Connector ... AFL-VRK, VA



Application: Connection fitting for metal hoses
Connection 1: imperial outer thread, conical
Sealing form 1: conical seat
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Design: 3-part threaded connection
Material: Stainless steel

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

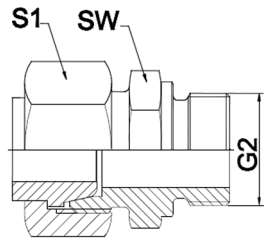
Identification	DN	PN (bar)	G2	AF mm	S1 mm
WA 006 AFL-VRK VA	6	250	R 1/4"	17	17,0
WA 008 AFL-VRK VA	8	250	R 1/4"	17	19,0
WA 010 AFL-VRK VA	10	250	R 3/8"	24	22,0
WA 013 AFL-VRK VA	13	250	R 1/2"	27	27,0
WA 016 AFL-VRK VA	16	160	R 1/2"	27	32,0
WA 020 AFL-VRK VA	20	160	R 3/4"	36	36,0
WA 025 AFL-VRK VA	25	100	R 1"	41	41,0
WA 032 AFL-VRK VA	32	100	R 1.1/4"	50	50,0
WA 040 AFL-VRK VA	40	100	R 1.1/2"	60	60,0

Web: http://cat.hansa-flex.com/en/WAAFLVRKVA

Product versions:
WA AFL-VRK - Connector ... AFL-VRK, steel, Steel

WA AFL-VR

Connector ... AFL-VR, steel



Application: Connection fitting for metal hoses
Connection 1: BSP external thread, cylindrical
Sealing form 1: conical seat
Standard: ISO 228-1
Construction: straight
Design: 3-part threaded connection
Material: Steel

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G2	AF mm	S1 mm
WA 006 AFL-VR	6	250	G 1/4" -19	19	17,0
WA 008 AFL-VR	8	250	G 1/4" -19	19	19,0
WA 010 AFL-VR	10	250	G 3/8" -19	22	22,0
WA 013 AFL-VR	13	250	G 1/2" -14	27	27,0
WA 016 AFL-VR	16	160	G 1/2" -14	27	32,0
WA 020 AFL-VR	20	160	G 3/4" -14	32	36,0
WA 025 AFL-VR	25	100	G 1" -11	41	41,0
WA 032 AFL-VR	32	100	G 1.1/4" -11	50	50,0
WA 040 AFL-VR	40	100	G 1.1/2" -11	55	60,0

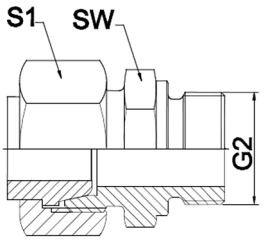
Web: http://cat.hansa-flex.com/en/WAAFLVR

Product versions:
WA AFL-VR VA - Connector ... AFL-VR, VA, Stainless steel

WA AFL-VR VA

Connector ... AFL-VR, VA

Application: Connection fitting for metal hoses
Connection 1: BSP external thread, cylindrical
Sealing form 1: conical seat
Standard: ISO 228-1
Construction: straight
Design: 3-part threaded connection
Material: Stainless steel



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G2	AF mm	S1 mm
WA 006 AFL-VR VA	6	250	G 1/4" -19	19	17,0
WA 008 AFL-VR VA	8	250	G 1/4" -19	19	19,0
WA 010 AFL-VR VA	10	250	G 3/8" -19	22	22,0
WA 013 AFL-VR VA	13	250	G 1/2" -14	27	27,0
WA 016 AFL-VR VA	16	160	G 1/2" -14	27	32,0
WA 020 AFL-VR VA	20	160	G 3/4" -14	32	36,0
WA 025 AFL-VR VA	25	100	G 1" -11	41	41,0
WA 032 AFL-VR VA	32	100	G 1.1/4" -11	50	50,0
WA 040 AFL-VR VA	40	100	G 1.1/2" -11	55	60,0

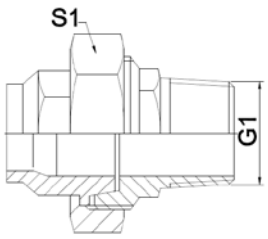
Web: http://cat.hansa-flex.com/en/WAAFLVRVA

Product versions:
WA AFL-VR - Connector ... AFL-VR, steel, Steel

WA VC

Connector ... VC, malleable cast iron

Application: Connection fitting for metal hoses
Connection 1: imperial outer thread, conical
Sealing form 1: conical seat
Standard: DIN EN 10226 / ISO 7-1
Application: soldered variant temperature resistant up to 200 °C
Construction: straight
Design: 3-part threaded connection
Material: Malleable cast iron



Note: Width across flats values are listed for reference purposes! The specified working pressure PN(bar) relates to the working temperature of -20 °C to 120 °C. At working temperature of 120 °C to 200 °C the working pressure PN (bar) reduces to 22,7 bar.

Ordering information: Other designs available on request

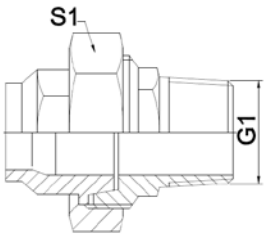
Identification	DN	PN (bar)	G1	S1 mm
WA 006 VC	6	25	R 1/4"	28,0
WA 010 VC	10	25	R 3/8"	32,0
WA 013 VC	13	25	R 1/2"	39,0
WA 020 VC	20	25	R 3/4"	48,0
WA 025 VC	25	25	R 1"	55,0
WA 032 VC	32	25	R 1.1/4"	67,0
WA 040 VC	40	25	R 1.1/2"	74,0
WA 050 VC	50	25	R 2"	90,0

Web: http://cat.hansa-flex.com/en/WAVC

Product versions:
WA VC RG - Connector ... VC, red bronze, Red bronze
WA VC VA - Connector ... VC, VA, Stainless steel

WA VC VA

Connector ... VC, VA



Application: Connection fitting for metal hoses
Connection 1: imperial outer thread, conical
Sealing form 1: conical seat
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Design: 3-part threaded connection
Material: Stainless steel

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

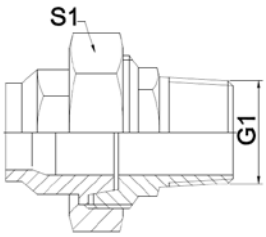
Identification	DN	PN (bar)	G1	S1 mm
WA 006 VC VA	6	50	R 1/4"	27,0
WA 010 VC VA	10	50	R 3/8"	32,0
WA 013 VC VA	13	50	R 1/2"	41,0
WA 020 VC VA	20	50	R 3/4"	50,0
WA 025 VC VA	25	50	R 1"	55,0
WA 032 VC VA	32	40	R 1.1/4"	70,0
WA 040 VC VA	40	40	R 1.1/2"	75,0
WA 050 VC VA	50	40	R 2"	90,0
WA 065 VC VA	65	25	R 2.1/2"	110,0
WA 080 VC VA	80	25	R 3"	130,0

Web: http://cat.hansa-flex.com/en/WAVCVA

Product versions:
WA VC - Connector ... VC, malleable cast iron, Malleable cast iron
WA VC RG - Connector ... VC, red bronze, Red bronze

WA VC RG

Connector ... VC, red bronze



Application: Connection fitting for metal hoses
Connection 1: imperial outer thread, conical
Sealing form 1: conical seat
Standard: DIN EN 10226 / ISO 7-1
Application: soldered variant temperature resistant up to 200 °C
Construction: straight
Design: 3-part threaded connection
Material: Red bronze

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	G1	S1 mm
WA 013 VC RG	13	R 1/2"	28,0
WA 020 VC RG	20	R 3/4"	32,0
WA 025 VC RG	25	R 1"	42,0
WA 032 VC RG	32	R 1.1/4"	50,0
WA 040 VC RG	40	R 1.1/2"	55,0
WA 050 VC RG	50	R 2"	70,0

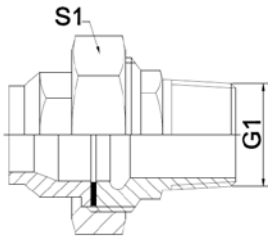
Web: http://cat.hansa-flex.com/en/WAVCRG

Product versions:
WA VC - Connector ... VC, malleable cast iron, Malleable cast iron
WA VC VA - Connector ... VC, VA, Stainless steel

WA VCF

Connector ... VCF, malleable cast iron

Application: Connection fitting for metal hoses
Connection 1: imperial outer thread, conical
Sealing form 1: flat sealing
Standard: DIN EN 10226 / ISO 7-1
Application: soldered variant temperature resistant up to 200 °C
Construction: straight
Design: 3-part threaded connection
Material: Malleable cast iron



Note: Width across flats values are listed for reference purposes! The specified working pressure PN(bar) relates to the working temperature of -20 °C to 120 °C. At working temperature of 120 °C to 200 °C the working pressure PN (bar) reduces to 22,7 bar.

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1	S1 mm
WA 006 VCF	6	25	R 1/4"	28,0
WA 013 VCF	13	25	R 1/2"	39,0
WA 020 VCF	20	25	R 3/4"	48,0
WA 025 VCF	25	25	R 1"	55,0
WA 032 VCF	32	25	R 1.1/4"	67,0
WA 040 VCF	40	25	R 1.1/2"	74,0
WA 050 VCF	50	25	R 2"	90,0

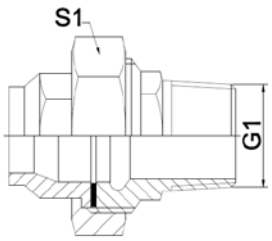
Web: http://cat.hansa-flex.com/en/WAVCF

Product versions:
WA VCF RG - Connector ... VCF, red bronze, Red bronze
WA VCF VA - Connector ... VCF, VA, Stainless steel

WA VCF VA

Connector ... VCF, VA

Application: Connection fitting for metal hoses
Connection 1: imperial outer thread, conical
Sealing form 1: flat sealing
Standard: DIN EN 10226 / ISO 7-1
Construction: straight
Design: 3-part threaded connection
Material: Stainless steel



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

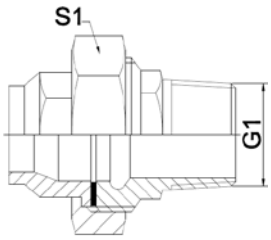
Identification	DN	PN (bar)	G1	S1 mm
WA 006 VCFVA	6	25	R 1/4"	27,0
WA 010 VCFVA	10	25	R 3/8"	32,0
WA 013 VCF VA	13	25	R 1/2"	41,0
WA 020 VCF VA	20	25	R 3/4"	50,0
WA 025 VCF VA	25	25	R 1"	55,0
WA 032 VCF VA	32	16	R 1.1/4"	70,0
WA 040 VCF VA	40	16	R 1.1/2"	75,0
WA 050 VCF VA	50	16	R 2"	90,0
WA 065 VCF VA	65	10	R 2.1/2"	110,0

Web: http://cat.hansa-flex.com/en/WAVCFVA

Product versions:
WA VCF - Connector ... VCF, malleable cast iron, Malleable cast iron
WA VCF RG - Connector ... VCF, red bronze, Red bronze

WA VCF RG

Connector ... VCF, red bronze



Application: Connection fitting for metal hoses
Connection 1: imperial outer thread, conical
Sealing form 1: flat sealing
Standard: DIN EN 10226 / ISO 7-1
Application: soldered variant temperature resistant up to 200 °C
Construction: straight
Design: 3-part threaded connection
Material: Red bronze

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

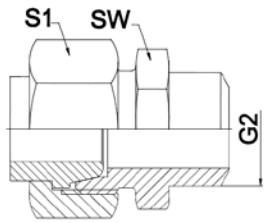
Identification	DN	G1	S1 mm
WA 013 VCF RG	13	R 1/2"	28,0
WA 020 VCF RG	20	R 3/4"	32,0
WA 025 VCF RG	25	R 1"	42,0

Web: http://cat.hansa-flex.com/en/WAVCFRG

Product versions:
WA VCF - Connector ... VCF, malleable cast iron, Malleable cast iron
WA VCF VA - Connector ... VCF, VA, Stainless steel

WA AFL-SA

Connector ... AFL-SA, steel



Application: Connection fitting for metal hoses
Connection 1: Welded on socket for metric pipe
Sealing form 1: conical seat
Construction: straight
Design: 3-part threaded connection
Material: Steel (weldable)

Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G2 mm	AF mm	S1 mm
WA 006 AFL-SA	6	250	12	14	17,0
WA 008 AFL-SA	8	250	14	17	19,0
WA 010 AFL-SA	10	250	16	19	22,0
WA 013 AFL-SA	13	250	19	22	27,0
WA 016 AFL-SA	16	160	22	27	32,0
WA 020 AFL-SA	20	160	27	32	36,0
WA 025 AFL-SA	25	100	32	41	41,0
WA 032 AFL-SA	32	100	40	46	50,0
WA 040 AFL-SA	40	100	46	55	60,0

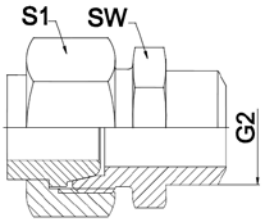
Web: http://cat.hansa-flex.com/en/WAAFLSA

Product versions:
WA AFL-SA VA - Connector ... AFL-SA, VA, Stainless steel

WA AFL-SA VA

Connector ... AFL-SA, VA

Application: Connection fitting for metal hoses
Connection 1: Welded on socket for metric pipe
Sealing form 1: conical seat
Construction: straight
Design: 3-part threaded connection
Material: Stainless steel



Note: Width across flats values are listed for reference purposes!

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G2 mm	AF mm	S1 mm
WA 006 AFL-SA VA	6	250	12	14	17,0
WA 008 AFL-SA VA	8	250	14	17	19,0
WA 010 AFL-SA VA	10	250	16	19	22,0
WA 013 AFL-SA VA	13	250	19	22	27,0
WA 016 AFL-SA VA	16	160	22	27	32,0
WA 020 AFL-SA VA	20	160	27	32	36,0
WA 025 AFL-SA VA	25	100	32	41	41,0
WA 032 AFL-SA VA	32	100	40	46	50,0
WA 040 AFL-SA VA	40	100	46	55	60,0

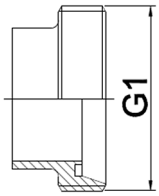
Web: http://cat.hansa-flex.com/en/WAAFLSAVA

Product versions:
WA AFL-SA - Connector ... AFL-SA, steel, Steel (weldable)

WA LMH VA

Connector ... LMH, VA

Application: Connection fitting for metal hoses
Connection 1: Thread socket form SC with Rd external thread
Sealing form 1: conical seat with O-ring
Standard: DIN 11851, DIN 405-1
Construction: straight
Material: Stainless steel



Note: Connector type LMH VA is supplied without a sealing ring.

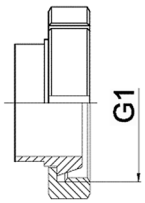
Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1
WA 010 LMH VA	10	40	Rd 28 x 1/8"
WA 013 LMH VA	13	40	Rd 34 x 1/8"
WA 020 LMH VA	20	40	Rd 44 x 1/6"
WA 025 LMH VA	25	40	Rd 52 x 1/6"
WA 032 LMH VA	32	40	Rd 58 x 1/6"
WA 040 LMH VA	40	40	Rd 65 x 1/6"
WA 040 025 LMH VA	40	40	Rd 52 x 1/6"
WA 050 LMH VA	50	25	Rd 78 x 1/6"
WA 065 LMH VA	65	25	Rd 95 x 1/6"
WA 080 LMH VA	80	25	Rd 110 x 1/4"
WA 100 LMH VA	100	25	Rd 130 x 1/4"
WA 125 LMH VA	125	16	Rd 160 x 1/4"
WA 150 LMH VA	150	16	Rd 190 x 1/4"

Web: http://cat.hansa-flex.com/en/WALMHVA

WA LMA VA

Connector ... LMA, VA



Application: Connection fitting for metal hoses
Connection 1: Conical coupling, form SD with NUT- union nut form F
Sealing form 1: conical seat with O-ring
Standard: DIN 11851, DIN 405-1
Construction: straight
Material: Stainless steel

Ordering information: Other designs available on request

Identification	DN	PN (bar)	G1
WA 010 LMAVA	10	40	Rd 28 x 1/8"
WA 013 LMAVA	13	40	Rd 34 x 1/8"
WA 020 LMAVA	20	40	Rd 44 x 1/6"
WA 025 LMAVA	25	40	Rd 52 x 1/6"
WA 032 LMAVA	32	40	Rd 58 x 1/6"
WA 040 LMAVA	40	40	Rd 65 x 1/6"
WA 050 LMAVA	50	25	Rd 78 x 1/6"
WA 065 LMAVA	65	25	Rd 95 x 1/6"
WA 080 LMAVA	80	25	Rd 110 x 1/4"
WA 100 LMAVA	100	25	Rd 130 x 1/4"
WA 125 LMAVA	125	16	Rd 160 x 1/4"
WA 150 LMAVA	150	16	Rd 190 x 1/4"

Web: http://cat.hansa-flex.com/en/WALMAVA

NMHAS GVA

Slotted nut hook wrench with hinge, stainless steel

Application: For screwing nuts for food fittings
Standard: DIN 1810-A
Material: Stainless steel 1.4301

Ordering information: Other designs available on request

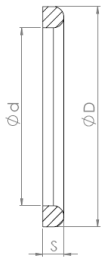
Identification	slotted round nut DN	slotted round nut Ø
NMHAS DN10-20 GVA	10 - 20	38 - 54 mm
NMHAS DN25-50 GVA	25 - 50	63 - 92 mm
NMHAS DN65-100 GVA	65 - 100	112 - 148 mm

Web: http://cat.hansa-flex.com/en/NMHASGVA

LM-DI PT

PTFE gasket for use with foodstuffs

Application: Sealing ring for thread sockets for use with foodstuffs
Design: flattened sealing ring on one side
Standard: DIN 11851
Material: PTFE
Temp. range: from -200 °C to 260 °C



Ordering information: Other designs available on request

Identification	DN	D	d	S
		mm	mm	mm
LM-DI 010 PT	10	20,0	12,0	4,5
LM-DI 013 PT	13	26,0	18,0	4,5
LM-DI 020 PT	20	33,0	23,0	4,5
LM-DI 025 PT	25	40,0	30,0	5,0
LM-DI 032 PT	32	46,0	36,0	5,0
LM-DI 040 PT	40	52,0	42,0	5,0
LM-DI 050 PT	50	64,0	54,0	5,0
LM-DI 065 PT	65	81,0	71,0	5,0
LM-DI 080 PT	80	95,0	85,0	5,0
LM-DI 100 PT	100	114,0	104,0	6,0

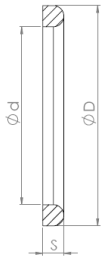
Web: http://cat.hansa-flex.com/en/LMDIPT

Product versions:
LM-DI NBR - NBR gasket for use with foodstuffs, NBR

LM-DI NBR

NBR gasket for use with foodstuffs

Application: Sealing ring for thread sockets for use with foodstuffs
Design: flattened sealing ring on one side
Standard: DIN 11851
Material: NBR
Temp. range: from -25 °C to 110 °C



Ordering information: Other designs available on request

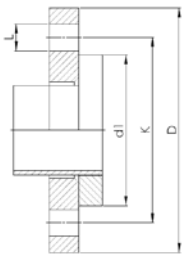
Identification	DN	D	d	S
		mm	mm	mm
LM-DI 010 NBR	10	20,0	12,0	4,5
LM-DI 013 NBR	13	26,0	18,0	4,5
LM-DI 020 NBR	20	33,0	23,0	4,5
LM-DI 025 NBR	25	40,0	30,0	5,0
LM-DI 032 NBR	32	46,0	36,0	5,0
LM-DI 040 NBR	40	52,0	42,0	5,0
LM-DI 050 NBR	50	64,0	54,0	5,0
LM-DI 065 NBR	65	81,0	71,0	5,0
LM-DI 080 NBR	80	95,0	85,0	5,0
LM-DI 100 NBR	100	114,0	104,0	6,0

Web: http://cat.hansa-flex.com/en/LMDINBR

Product versions:
LM-DI PT - PTFE gasket for use with foodstuffs, PTFE

WA LF PN6

Connector ... LF, PN 6, steel



Application: Connection fitting for metal hoses
Connection 1: plain collar with loose flange, at pressure rating PN6
Sealing form 1: flat sealing
Standard: DIN 2641, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Stainless steel pipe socket, Steel collar, Steel loose flange

Ordering information: Other designs available on request

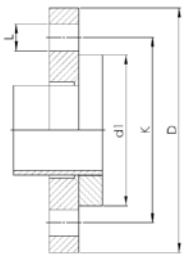
Identification	DN	PN (bar)	D	d1	K	L
			mm	mm	mm	mm
WA 010 LF PN6	10	6	75	35	50	11
WA 013 LF PN6	13	6	80	40	55	11
WA 020 LF PN6	20	6	90	50	65	11
WA 025 LF PN6	25	6	100	60	75	11
WA 032 LF PN6	32	6	120	70	90	14
WA 040 LF PN6	40	6	130	80	100	14
WA 050 LF PN6	50	6	140	90	110	14
WA 065 LF PN6	65	6	160	110	130	14
WA 080 LF PN6	80	6	190	128	150	18
WA 100 LF PN6	100	6	210	148	170	18
WA 125 LF PN6	125	6	240	178	200	18
WA 150 LF PN6	150	6	265	202	225	18

Web: http://cat.hansa-flex.com/en/WALFPN6

Product versions:
WA LF PN6 VA - Connector ... LF, PN 6, VA, Stainless steel pipe socket

WA LF PN6 VA

Connector ... LF, PN 6, VA



Application: Connection fitting for metal hoses
Connection 1: plain collar with loose flange, at pressure rating PN6
Sealing form 1: flat sealing
Standard: DIN 2641, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Stainless steel pipe socket, Stainless steel collar, Stainless steel loose flange

Ordering information: Other designs available on request

Identification	DN	PN (bar)	D	d1	K	L
			mm	mm	mm	mm
WA 010 LF PN6 VA	10	6	75	35	50	11
WA 013 LF PN6 VA	13	6	80	40	55	11
WA 020 LF PN6 VA	20	6	90	50	65	11
WA 025 LF PN6 VA	25	6	100	60	75	11
WA 032 LF PN6 VA	32	6	120	70	90	14
WA 040 LF PN6 VA	40	6	130	80	100	14
WA 050 LF PN6 VA	50	6	140	90	110	14
WA 065 LF PN6 VA	65	6	160	110	130	14
WA 080 LF PN6 VA	80	6	190	128	150	18
WA 100 LF PN6 VA	100	6	210	148	170	18
WA 125 LF PN6 VA	125	6	240	178	200	18
WA 150 LF PN6 VA	150	6	265	202	225	18

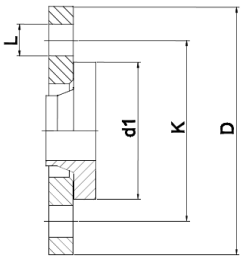
Web: http://cat.hansa-flex.com/en/WALFPN6VA

Product versions:
WA LF PN6 - Connector ... LF, PN 6, steel, Stainless steel pipe socket

WA LF PN10

Connector ... LF, PN 10, steel

Application: Connection fitting for metal hoses
Connection 1: Short stub end with loose flange, at pressure rating PN10
Sealing form 1: flat sealing
Standard: DIN 2673, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Steel collar, Steel loose flange



Ordering information: Other designs available on request

Identification	DN	PN (bar)	D mm	d1 mm	K mm	L mm
WA 010 LF PN10	10	10	90	40	60	14
WA 013 LF PN10	13	10	95	45	65	14
WA 020 LF PN10	20	10	105	58	75	14
WA 025 LF PN10	25	10	115	68	85	14
WA 032 LF PN10	32	10	140	78	100	18
WA 040 LF PN10	40	10	150	88	110	18
WA 050 LF PN10	50	10	165	102	125	18
WA 065 LF PN10	65	10	185	122	145	18
WA 080 LF PN10	80	10	200	138	160	18
WA 100 LF PN10	100	10	220	158	180	18
WA 125 LF PN10	125	10	250	188	210	18
WA 150 LF PN10	150	10	285	212	240	22

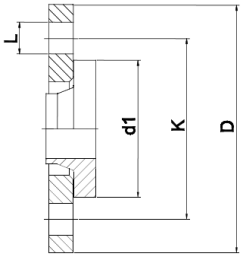
Web: http://cat.hansa-flex.com/en/WALFPN10

Product versions:
WA LF PN10 VA - Connector ... LF, PN 10, VA, Stainless steel collar

WA LF PN10 VA

Connector ... LF, PN 10, VA

Application: Connection fitting for metal hoses
Connection 1: Short stub end with loose flange, at pressure rating PN10
Sealing form 1: flat sealing
Standard: DIN 2673, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Stainless steel collar, Stainless steel loose flange



Ordering information: Other designs available on request

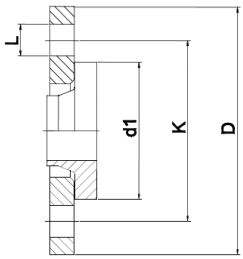
Identification	DN	PN (bar)	D mm	d1 mm	K mm	L mm
WA 010 LF PN10 VA	10	10	90	40	60	14
WA 013 LF PN10 VA	13	10	95	45	65	14
WA 020 LF PN10 VA	20	10	105	58	75	14
WA 025 LF PN10 VA	25	10	115	68	85	14
WA 032 LF PN10 VA	32	10	140	78	100	18
WA 040 LF PN10 VA	40	10	150	88	110	18
WA 050 LF PN10 VA	50	10	165	102	125	18
WA 065 LF PN10 VA	65	10	185	122	145	18
WA 080 LF PN10 VA	80	10	200	138	160	18
WA 100 LF PN10 VA	100	10	220	158	180	18
WA 125 LF PN10 VA	125	10	250	188	210	18
WA 150 LF PN10 VA	150	10	285	212	240	22

Web: http://cat.hansa-flex.com/en/WALFPN10VA

Product versions:
WA LF PN10 - Connector ... LF, PN 10, steel, Steel collar

WA LF PN16

Connector ... LF, PN 16, steel



Application: Connection fitting for metal hoses
Connection 1: Short stub end with loose flange, at pressure rating PN16
Sealing form 1: flat sealing
Standard: DIN 2674, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Steel collar, Steel loose flange

Ordering information: Other designs available on request

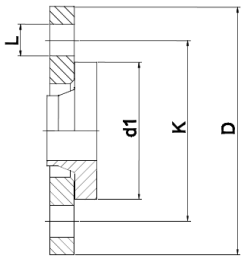
Identification	DN	PN (bar)	D mm	d1 mm	K mm	L mm
WA 010 LF PN16	10	16	90	40	60	14
WA 013 LF PN16	13	16	95	45	65	14
WA 020 LF PN16	20	16	105	58	75	14
WA 025 LF PN16	25	16	115	68	85	14
WA 032 LF PN16	32	16	140	78	100	18
WA 040 LF PN16	40	16	150	88	110	18
WA 050 LF PN16	50	16	165	102	125	18
WA 065 LF PN16	65	16	185	122	145	18
WA 080 LF PN16	80	16	200	138	160	18
WA 100 LF PN16	100	16	220	158	180	18
WA 125 LF PN16	125	16	250	188	210	18
WA 150 LF PN16	150	16	285	212	240	22

Web: http://cat.hansa-flex.com/en/WALFPN16

Product versions:
WA LF PN16 VA - Connector ... LF, PN 16, VA, Stainless steel collar

WA LF PN16 VA

Connector ... LF, PN 16, VA



Application: Connection fitting for metal hoses
Connection 1: Short stub end with loose flange, at pressure rating PN16
Sealing form 1: flat sealing
Standard: DIN 2674, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Stainless steel collar, Stainless steel loose flange

Ordering information: Other designs available on request

Identification	DN	PN (bar)	D mm	d1 mm	K mm	L mm
WA 010 LF PN16 VA	10	16	90	40	60	14
WA 013 LF PN16 VA	13	16	95	45	65	14
WA 020 LF PN16 VA	20	16	105	58	75	14
WA 025 LF PN16 VA	25	16	115	68	85	14
WA 032 LF PN16 VA	32	16	140	78	100	18
WA 040 LF PN16 VA	40	16	150	88	110	18
WA 050 LF PN16 VA	50	16	165	102	125	18
WA 065 LF PN16 VA	65	16	185	122	145	18
WA 080 LF PN16 VA	80	16	200	138	160	18
WA 100 LF PN16 VA	100	16	220	158	180	18
WA 125 LF PN16 VA	125	16	250	188	210	18
WA 150 LF PN16 VA	150	16	285	212	240	22

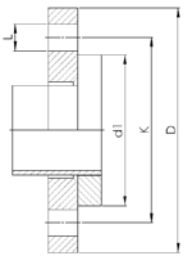
Web: http://cat.hansa-flex.com/en/WALFPN16VA

Product versions:
WA LF PN16 - Connector ... LF, PN 16, steel, Steel collar

WA LF PN40

Connector ... LF, PN 40, steel

Application: Connection fitting for metal hoses
Connection 1: plain collar with loose flange, at pressure rating PN40
Sealing form 1: flat sealing
Standard: DIN 2656, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Stainless steel pipe socket, Steel collar, Steel loose flange



Ordering information: Other designs available on request

Identification	DN	PN (bar)	D mm	d1 mm	K mm	L mm
WA 010 LF PN40	10	40	90	40	60	14
WA 013 LF PN40	13	40	95	45	65	14
WA 020 LF PN40	20	40	105	58	75	14
WA 025 LF PN40	25	40	115	68	85	14
WA 032 LF PN40	32	40	140	78	100	18
WA 040 LF PN40	40	40	150	88	110	18
WA 050 LF PN40	50	40	165	102	125	18
WA 065 LF PN40	65	40	185	122	145	18
WA 080 LF PN40	80	40	200	138	160	18
WA 100 LF PN40	100	40	235	162	190	22
WA 125 LF PN40	125	40	270	188	220	26
WA 150 LF PN40	150	40	300	218	250	26

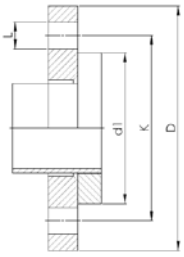
Web: http://cat.hansa-flex.com/en/WALFPN40

Product versions:
WA LF PN40 VA - Connector ... LF, PN 40, VA, Stainless steel pipe socket

WA LF PN40 VA

Connector ... LF, PN 40, VA

Application: Connection fitting for metal hoses
Connection 1: plain collar with loose flange, at pressure rating PN40
Sealing form 1: flat sealing
Standard: DIN 2656, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Stainless steel pipe socket, Stainless steel collar, Stainless steel loose flange



Ordering information: Other designs available on request

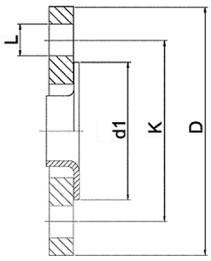
Identification	DN	PN (bar)	D mm	d1 mm	K mm	L mm
WA 010 LF PN40 VA	10	40	90	40	60	14
WA 013 LF PN40 VA	13	40	95	45	65	14
WA 020 LF PN40 VA	20	40	105	58	75	14
WA 025 LF PN40 VA	25	40	115	68	85	14
WA 032 LF PN40 VA	32	40	140	78	100	18
WA 040 LF PN40 VA	40	40	150	88	110	18
WA 050 LF PN40 VA	50	40	165	102	125	18
WA 065 LF PN40 VA	65	40	185	122	145	18
WA 080 LF PN40 VA	80	40	200	138	160	18
WA 100 LF PN40 VA	100	40	235	162	190	22
WA 125 LF PN40 VA	125	40	270	188	220	26
WA 150 LF PN40 VA	150	40	300	218	250	26

Web: http://cat.hansa-flex.com/en/WALFPN40VA

Product versions:
WA LF PN40 - Connector ... LF, PN 40, steel, Stainless steel pipe socket

WA LB PN6

Connector ... LB, PN 6, steel



Application: Connection fitting for metal hoses
Connection 1: Welding neck flange with loose flange, at pressure rating PN6
Sealing form 1: flat sealing
Standard: DIN 2641, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Stainless steel formed flange, Steel loose flange

Ordering information: Other designs available on request

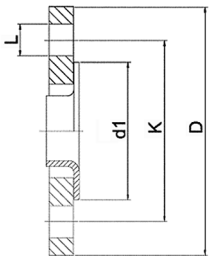
Identification	DN	PN (bar)	D	d1	K	L
			mm	mm	mm	mm
WA 010 LB PN6	10	6	75	35	50	11
WA 013 LB PN6	13	6	80	40	55	11
WA 020 LB PN6	20	6	90	50	65	11
WA 025 LB PN6	25	6	100	60	75	11
WA 032 LB PN6	32	6	120	70	90	14
WA 040 LB PN6	40	6	130	80	100	14
WA 050 LB PN6	50	6	140	90	110	14
WA 065 LB PN6	65	6	160	110	130	14
WA 080 LB PN6	80	6	190	128	150	18
WA 100 LB PN6	100	6	210	148	170	18
WA 125 LB PN6	125	6	240	178	200	18
WA 150 LB PN6	150	6	265	202	225	18

Web: http://cat.hansa-flex.com/en/WALBPN6

Product versions:
WA LB PN6 VA - Connector ... LB, PN 6, VA, Stainless steel formed flange

WA LB PN6 VA

Connector ... LB, PN 6, VA



Application: Connection fitting for metal hoses
Connection 1: Welding neck flange with loose flange, at pressure rating PN6
Sealing form 1: flat sealing
Standard: DIN 2641, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Stainless steel formed flange, Stainless steel loose flange

Ordering information: Other designs available on request

Identification	DN	PN (bar)	D	d1	K	L
			mm	mm	mm	mm
WA 010 LB PN6 VA	10	6	75	35	50	11
WA 013 LB PN6 VA	13	6	80	40	55	11
WA 020 LB PN6 VA	20	6	90	50	65	11
WA 025 LB PN6 VA	25	6	100	60	75	11
WA 032 LB PN6 VA	32	6	120	70	90	14
WA 040 LB PN6 VA	40	6	130	80	100	14
WA 050 LB PN6 VA	50	6	140	90	110	14
WA 065 LB PN6 VA	65	6	160	110	130	14
WA 080 LB PN6 VA	80	6	190	128	150	18
WA 100 LB PN6 VA	100	6	210	148	170	18
WA 125 LB PN6 VA	125	6	240	178	200	18
WA 150 LB PN6 VA	150	6	265	202	225	18

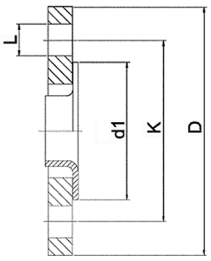
Web: http://cat.hansa-flex.com/en/WALBPN6VA

Product versions:
WA LB PN6 - Connector ... LB, PN 6, steel, Stainless steel formed flange

WA LB PN10

Connector ... LB, PN 10, steel

Application: Connection fitting for metal hoses
Connection 1: Welding neck flange with loose flange, at pressure rating PN10
Sealing form 1: flat sealing
Standard: DIN 2642, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Stainless steel formed flange, Steel loose flange



Ordering information: Other designs available on request

Identification	DN	PN (bar)	D mm	d1 mm	K mm	L mm
WA 010 LB PN10	10	10	90	40	60	14
WA 013 LB PN10	13	10	95	45	65	14
WA 020 LB PN10	20	10	105	58	75	14
WA 025 LB PN10	25	10	115	68	85	14
WA 032 LB PN10	32	10	140	78	100	18
WA 040 LB PN10	40	10	150	88	110	18
WA 050 LB PN10	50	10	165	102	125	18
WA 065 LB PN10	65	10	185	122	145	18
WA 080 LB PN10	80	10	200	138	160	18
WA 100 LB PN10	100	10	220	158	180	18
WA 125 LB PN10	125	10	250	188	210	18
WA 150 LB PN10	150	10	285	212	240	22

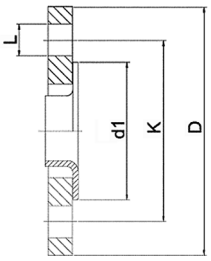
Web: http://cat.hansa-flex.com/en/WALBPN10

Product versions:
WA LB PN10 VA - Connector ... LB, PN 10, VA, Stainless steel formed flange

WA LB PN10 VA

Connector ... LB, PN 10, VA

Application: Connection fitting for metal hoses
Connection 1: Welding neck flange with loose flange, at pressure rating PN10
Sealing form 1: flat sealing
Standard: DIN 2642, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Stainless steel formed flange, Stainless steel loose flange



Ordering information: Other designs available on request

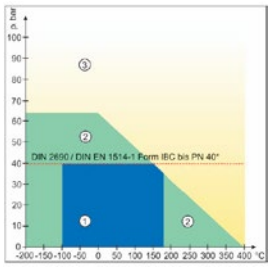
Identification	DN	PN (bar)	D mm	d1 mm	K mm	L mm
WA 010 LB PN10 VA	10	10	90	40	60	14
WA 013 LB PN10 VA	13	10	95	45	65	14
WA 020 LB PN10 VA	20	10	105	58	75	14
WA 025 LB PN10 VA	25	10	115	68	85	14
WA 032 LB PN10 VA	32	10	140	78	100	18
WA 040 LB PN10 VA	40	10	150	88	110	18
WA 050 LB PN10 VA	50	10	165	102	125	18
WA 065 LB PN10 VA	65	10	185	122	145	18
WA 080 LB PN10 VA	80	10	200	138	160	18
WA 100 LB PN10 VA	100	10	220	158	180	18
WA 125 LB PN10 VA	125	10	250	188	210	18
WA 150 LB PN10 VA	150	10	285	212	240	22

Web: http://cat.hansa-flex.com/en/WALBPN10VA

Product versions:
WA LB PN10 - Connector ... LB, PN 10, steel, Stainless steel formed flange

FD C4400

Flat seal



Technical values for 2 mm thickness:
- compressibility ASTM F36 A = 11%
- resilience ASTM F36 A = 55 %
- creep resistance under load DIN 52913 = 25 MPA (50 MPA, 16 h / 300 °C)
- creep resistance under load BS 7531 = 23 MPA
- Thinning at 23 °C = 10 %
- Thinning at 300 °C = 22 %
- leak tightness according to DIN 3535/6 = 0.2 ml/min
- anti-corrosion aptitude (chloride content soluble) = 150 ppm
- Thickness change according to ASTM F 146 (oil JRM 903: 5 h / 23 °C) = 3 %
- Thickness change according to ASTM F 146 (fuel B: 5 h / 23 °C) = 5 %
- density = 1.6 g/cm3

Design: Universal high-pressure seal for a wide range of sectors
Application: food processing, drinking water supply, Chemical industry
Construction type: ultra high-performance standard
Approval: DIN-DVGW approval, BAM-, HTB approved, KTW recommended, WRC approval
Media: Oil, Water, Steam, Gases, Saline solutions, Fuels, Alcohols, organic and inorganic acids, hydrocarbons, Lubricants, Refrigerants
Material: aramid fibres, bonded with NBR

Note: Tolerances:
longitudinal dimension according to DIN 7715 - Part 5 P2,
thickness according to DIN 7715 - Part 5 P3,
surface seals according to DIN 2690 are only standardized to PN 40 bar

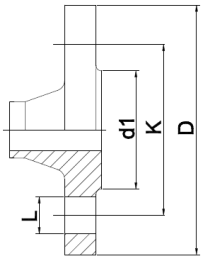
Identification	D	d	S
	mm	mm	mm
FD 15-11-1 C4400	15,0	11,00	1,00
FD 41-33.2-2 C4400	41,0	33,20	3,00
FD 55-41-1.5 C4400	55,0	41,00	1,50
FD 60-20-3 C4400	60,0	20,00	3,00
FD 62-45-2 C4400	62,0	45,00	2,00
FD 70-45-3 C4400	70,0	45,00	3,00
FD 77-60-2 C4400	77,0	60,00	2,00
FD 82-66-1 C4400	82,0	66,00	3,00
FD 85-70-0.5 C4400	85,0	70,00	0,50
FD 90-40-3 C4400	90,0	40,00	3,00
FD 100-50-3 C4400	100,0	50,00	3,00
FD 105-65-3 C4400	105,0	65,00	3,00
FD 110-75-2 C4400	110,0	75,00	2,00
FD 110-85-3 C4400	110,0	85,00	3,00
FD 140-121-1.5 C44	140,0	121,00	1,50
FD 140-121-1.5 C4400	140,0	121,00	1,50
FD 152-115-2 C4400	152,0	115,00	2,00

Identification	D	d	S
	mm	mm	mm
FD 190-125-3 C4400	190,0	125,00	3,00
FD 220-150-3 C4400	220,0	150,00	3,00
FD 270-200-3 C4400	270,0	200,00	3,00
FD 280-162-2 C4400	280,0	162,00	2,00
FD 310-295-0.5 C44	310,0	295,00	0,50
FD 310-295-0.5 C4400	310,0	295,00	0,50
FD 320-250-3 C4400	320,0	250,00	3,00
FD 380-300-3 C4400	380,0	300,00	3,00
FD 380-325-2 C4400	380,0	325,00	3,00
FD 485-400-3 C4400	485,0	400,00	3,00
FD 540-490-3 C4400	540,0	490,00	3,00
FD 570-500-3 C4400	570,0	500,00	3,00
FD 590-500-3 C4400	590,0	500,00	3,00
FD 680-600-3 C4400	680,0	600,00	3,00
FD 800-670-3 C4400	800,0	670,00	3,00
FD 1080-1010-3 C44	1080,0	1010,00	3,00
FD 1080-1010-3 C4400	1080,0	1010,00	3,00

Web: http://cat.hansa-flex.com/en/FDC4400

WA LV PN6

Connector ... LV, PN 6, steel



Application: Connection fitting for metal hoses
Connection 1: Welding neck flange, at pressure rating PN6
Sealing form 1: flat sealing
Standard: DIN 2631, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Steel

Ordering information: Other designs available on request

Identification	DN	PN (bar)	D	d1	K	L
			mm	mm	mm	mm
WA 010 LV PN6	10	6	75	35	50	11
WA 013 LV PN6	13	6	80	40	55	11
WA 020 LV PN6	20	6	90	50	65	11
WA 025 LV PN6	25	6	100	60	75	11
WA 032 LV PN6	32	6	120	70	90	14
WA 040 LV PN6	40	6	130	80	100	14
WA 050 LV PN6	50	6	140	90	110	14
WA 065 LV PN6	65	6	160	110	130	14
WA 080 LV PN6	80	6	190	128	150	18
WA 100 LV PN6	100	6	210	148	170	18

(Continued) WA LV PN6

Connector ... LV, PN 6, steel

Identification	DN	PN (bar)	D mm	d1 mm	K mm	L mm
WA 125 LV PN6	125	6	240	178	200	18
WA 150 LV PN6	150	6	265	202	225	18

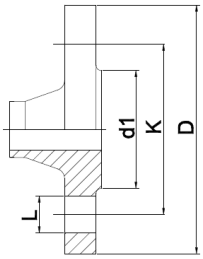
Web: http://cat.hansa-flex.com/en/WALVPN6

Product versions:
WA LV PN6 VA - Connector ... LV, PN 6, VA, Stainless steel

WA LV PN6 VA

Connector ... LV, PN 6, VA

Application: Connection fitting for metal hoses
Connection 1: Welding neck flange, at pressure rating PN6
Sealing form 1: flat sealing
Standard: DIN 2631, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Stainless steel



Ordering information: Other designs available on request

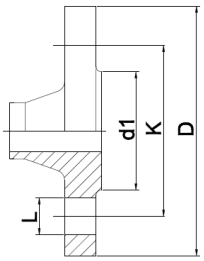
Identification	DN	PN (bar)	D mm	d1 mm	K mm	L mm
WA 010 LV PN6 VA	10	6	75	35	50	11
WA 013 LV PN6 VA	13	6	80	40	55	11
WA 020 LV PN6 VA	20	6	90	50	65	11
WA 025 LV PN6 VA	25	6	100	60	75	11
WA 032 LV PN6 VA	32	6	120	70	90	14
WA 040 LV PN6 VA	40	6	130	80	100	14
WA 050 LV PN6 VA	50	6	140	90	110	14
WA 065 LV PN6 VA	65	6	160	110	130	14
WA 080 LV PN6 VA	80	6	190	128	150	18
WA 100 LV PN6 VA	100	6	210	148	170	18
WA 125 LV PN6 VA	125	6	240	178	200	18
WA 150 LV PN6 VA	150	6	265	202	225	18

Web: http://cat.hansa-flex.com/en/WALVPN6VA

Product versions:
WA LV PN6 - Connector ... LV, PN 6, steel, Steel

WA LV PN16

Connector ... LV, PN 16, steel



Application: Connection fitting for metal hoses
Connection 1: Welding neck flange, at pressure rating PN16
Sealing form 1: flat sealing
Standard: DIN 2633, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Steel

Ordering information: Other designs available on request

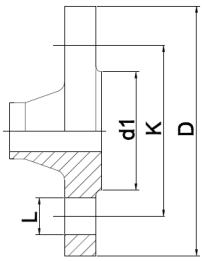
Identification	DN	PN (bar)	D	d1	K	L
			mm	mm	mm	mm
WA 010 LV PN16	10	16	90	40	60	14
WA 013 LV PN16	13	16	95	45	65	14
WA 020 LV PN16	20	16	105	58	75	14
WA 025 LV PN16	25	16	115	68	85	14
WA 032 LV PN16	32	16	140	78	100	18
WA 040 LV PN16	40	16	150	88	110	18
WA 050 LV PN16	50	16	165	102	125	18
WA 065 LV PN16	65	16	185	122	145	18
WA 080 LV PN16	80	16	200	138	160	18
WA 100 LV PN16	100	16	220	158	180	18
WA 125 LV PN16	125	16	250	188	210	18
WA 150 LV PN16	150	16	285	212	240	22

Web: http://cat.hansa-flex.com/en/WALVPN16

Product versions:
WA LV PN16 VA - Connector ... LV, PN 16, VA, Stainless steel

WA LV PN16 VA

Connector ... LV, PN 16, VA



Application: Connection fitting for metal hoses
Connection 1: Welding neck flange, at pressure rating PN16
Sealing form 1: flat sealing
Standard: DIN 2633, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Stainless steel

Ordering information: Other designs available on request

Identification	DN	PN (bar)	D	d1	K	L
			mm	mm	mm	mm
WA 010 LV PN16 VA	10	16	90	40	60	14
WA 013 LV PN16 VA	13	16	95	45	65	14
WA 020 LV PN16 VA	20	16	105	58	75	14
WA 025 LV PN16 VA	25	16	115	68	85	14
WA 032 LV PN16 VA	32	16	140	78	100	18
WA 040 LV PN16 VA	40	16	150	88	110	18
WA 050 LV PN16 VA	50	16	165	102	125	18
WA 065 LV PN16 VA	65	16	185	122	145	18
WA 080 LV PN16 VA	80	16	200	138	160	18
WA 100 LV PN16 VA	100	16	220	158	180	18
WA 125 LV PN16 VA	125	16	250	188	210	18
WA 150 LV PN16 VA	150	16	285	212	240	22

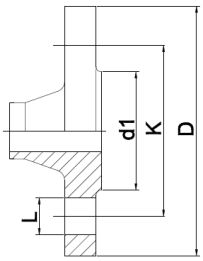
Web: http://cat.hansa-flex.com/en/WALVPN16VA

Product versions:
WA LV PN16 - Connector ... LV, PN 16, steel, Steel

WA LV PN40

Connector ... LV, PN 40, steel

Application: Connection fitting for metal hoses
Connection 1: Welding neck flange, at pressure rating PN40
Sealing form 1: flat sealing
Standard: DIN 2635, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Steel



Ordering information: Other designs available on request

Identification	DN	PN (bar)	D mm	d1 mm	K mm	L mm
WA 010 LV PN40	10	40	90	40	60	14
WA 013 LV PN40	13	40	95	45	65	14
WA 020 LV PN40	20	40	105	58	75	14
WA 025 LV PN40	25	40	115	68	85	14
WA 032 LV PN40	32	40	140	78	100	18
WA 040 LV PN40	40	40	150	88	110	18
WA 050 LV PN40	50	40	165	102	125	18
WA 065 LV PN40	65	40	185	122	145	18
WA 080 LV PN40	80	40	200	138	160	18
WA 100 LV PN40	100	40	235	162	190	22
WA 125 LV PN40	125	40	270	188	220	26
WA 150 LV PN40	150	40	300	218	250	26

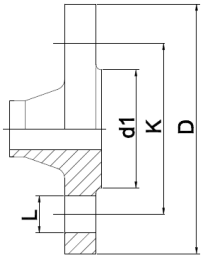
Web: http://cat.hansa-flex.com/en/WALVPN40

Product versions:
WA LV PN40 VA - Connector ... LV, PN 40, VA, Stainless steel

WA LV PN40 VA

Connector ... LV, PN 40, VA

Application: Connection fitting for metal hoses
Connection 1: Welding neck flange, at pressure rating PN40
Sealing form 1: flat sealing
Standard: DIN 2635, DIN EN 1092-1
Application: soldered variant temperature resistant up to 200 °C, welded variant in stainless steel temperature resistant up to 550 °C
Construction: straight
Material: Stainless steel



Ordering information: Other designs available on request

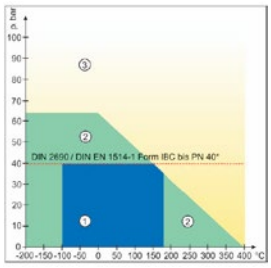
Identification	DN	PN (bar)	D mm	d1 mm	K mm	L mm
WA 010 LV PN40 VA	10	40	90	40	60	14
WA 013 LV PN40 VA	13	40	95	45	65	14
WA 020 LV PN40 VA	20	40	105	58	75	14
WA 025 LV PN40 VA	25	40	115	68	85	14
WA 032 LV PN40 VA	32	40	140	78	100	18
WA 040 LV PN40 VA	40	40	150	88	110	18
WA 050 LV PN40 VA	50	40	165	102	125	18
WA 065 LV PN40 VA	65	40	185	122	145	18
WA 080 LV PN40 VA	80	40	200	138	160	18
WA 100 LV PN40 VA	100	40	235	162	190	22
WA 125 LV PN40 VA	125	40	270	188	220	26
WA 150 LV PN40 VA	150	40	300	218	250	26

Web: http://cat.hansa-flex.com/en/WALVPN40VA

Product versions:
WA LV PN40 - Connector ... LV, PN 40, steel, Steel

FD C4400

Flat seal



Technical values for 2 mm thickness:
- compressibility ASTM F36 A = 11%
- resilience ASTM F36 A = 55 %
- creep resistance under load DIN 52913 = 25 MPA (50 MPA, 16 h / 300 °C)
- creep resistance under load BS 7531 = 23 MPA
- Thinning at 23 °C = 10 %
- Thinning at 300 °C = 22 %
- leak tightness according to DIN 3535/6 = 0.2 ml/min
- anti-corrosion aptitude (chloride content soluble) = 150 ppm
- Thickness change according to ASTM F 146 (oil JRM 903: 5 h / 23 °C) = 3 %
- Thickness change according to ASTM F 146 (fuel B: 5 h / 23 °C) = 5 %
- density = 1.6 g/cm3

Design: Universal high-pressure seal for a wide range of sectors
Construction type: ultra high-performance standard
Approval: DIN-DVGW approval, BAM-, HTB approved, KTW recommended, WRC approval
Media: Oil, Water, Steam, Gases, Saline solutions, Fuels, Alcohols, organic and inorganic acids, hydrocarbons, Lubricants, Refrigerants
Material: aramid fibres, bonded with NBR
Application: food processing, drinking water supply, Chemical industry

Note: Tolerances:
longitudinal dimension according to DIN 7715 - Part 5 P2,
thickness according to DIN 7715 - Part 5 P3,
surface seals according to DIN 2690 are only standardized to PN 40 bar

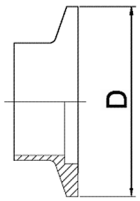
Identification	D	d	S
	mm	mm	mm
FD 15-11-1 C4400	15,0	11,00	1,00
FD 41-33.2-2 C4400	41,0	33,20	3,00
FD 55-41-1.5 C4400	55,0	41,00	1,50
FD 60-20-3 C4400	60,0	20,00	3,00
FD 62-45-2 C4400	62,0	45,00	2,00
FD 70-45-3 C4400	70,0	45,00	3,00
FD 77-60-2 C4400	77,0	60,00	2,00
FD 82-66-1 C4400	82,0	66,00	3,00
FD 85-70-0.5 C4400	85,0	70,00	0,50
FD 90-40-3 C4400	90,0	40,00	3,00
FD 100-50-3 C4400	100,0	50,00	3,00
FD 105-65-3 C4400	105,0	65,00	3,00
FD 110-75-2 C4400	110,0	75,00	2,00
FD 110-85-3 C4400	110,0	85,00	3,00
FD 140-121-1.5 C44	140,0	121,00	1,50
FD 140-121-1.5 C4400	140,0	121,00	1,50
FD 152-115-2 C4400	152,0	115,00	2,00

Identification	D	d	S
	mm	mm	mm
FD 190-125-3 C4400	190,0	125,00	3,00
FD 220-150-3 C4400	220,0	150,00	3,00
FD 270-200-3 C4400	270,0	200,00	3,00
FD 280-162-2 C4400	280,0	162,00	2,00
FD 310-295-0.5 C44	310,0	295,00	0,50
FD 310-295-0.5 C4400	310,0	295,00	0,50
FD 320-250-3 C4400	320,0	250,00	3,00
FD 380-300-3 C4400	380,0	300,00	3,00
FD 380-325-2 C4400	380,0	325,00	3,00
FD 485-400-3 C4400	485,0	400,00	3,00
FD 540-490-3 C4400	540,0	490,00	3,00
FD 570-500-3 C4400	570,0	500,00	3,00
FD 590-500-3 C4400	590,0	500,00	3,00
FD 680-600-3 C4400	680,0	600,00	3,00
FD 800-670-3 C4400	800,0	670,00	3,00
FD 1080-1010-3 C44	1080,0	1010,00	3,00
FD 1080-1010-3 C4400	1080,0	1010,00	3,00

Web: http://cat.hansa-flex.com/en/FDC4400

WA KF VA

Connector ... KF, VA



Application: Vacuum systems that function in a rough, fine and high vacuum, (10–9 mbar depending on the seals), for positive pressure applications up to 2.5 bar
Application: Connection fitting for metal hoses
Connection 1: Small flanges for vacuum technology
Sealing form 1: flat seal with O-ring .
Material: Stainless steel
Standard: DIN 28403, ISO 2861
Construction: straight

Ordering information: Other designs available on request

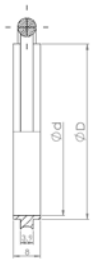
Identification	DN	D
		mm
WA 010 KF VA	10	30,0
WA 016 KF VA	16	30,0
WA 020 KF VA	20	40,0
WA 025 KF VA	25	40,0
WA 032 KF VA	32	55,0
WA 040 KF VA	40	55,0
WA 050 KF VA	50	75,0

Web: http://cat.hansa-flex.com/en/WAKFVA

KF-DI

O-ring, Aluminium/FKM (FPM)

Application: Sealing components for small flange connections
Design: Aluminium centering ring with FKM (FPM) O-ring
Standard: DIN 28403, ISO 2861
Material: Aluminium eccentric ring, O-Ring: FKM (FPM)
Temp. range: Aluminium from -156 °C to 150 °C, FKM (FPM) von -20 °C bis 200 °C



Note: Pressure range from 10–7 mbar to 2.5 bar

Ordering information: Other designs available on request

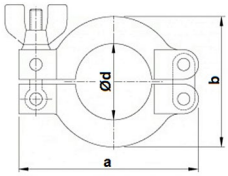
Identification	DN	D mm	d mm
KF-DI 010	10	12,0	10,0
KF-DI 016	16	17,0	16,0
KF-DI 020	20	22,0	20,0
KF-DI 025	25	26,0	25,0
KF-DI 032	32	34,0	32,0
KF-DI 040	40	41,0	40,0
KF-DI 050	50	52,0	50,0

Web: http://cat.hansa-flex.com/en/KFDI

KLEMMSCHEL

Clamp, Aluminium

Application: Clamping components for small flange connections
Design: Clamp aluminum
Standard: DIN 28403, ISO 2861
Material: Aluminium
Temp. range: Aluminium from -156 °C to 150 °C



Note: Pressure range from 10–7 mbar to 2.5 bar

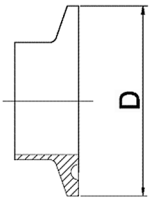
Ordering information: Other designs available on request

Identification	Width mm	a mm	b mm	Ø d mm
KLEMMSCHEL 010/16	17,0	63,0	45,0	22,0
KLEMMSCHEL 020/25	17,0	73,0	52,0	32,0
KLEMMSCHEL 032/40	17,0	93,0	70,0	47,0
KLEMMSCHEL 050	22,0	114,0	95,0	62,0

Web: http://cat.hansa-flex.com/en/KLEMMSCHEL

WA TRI VA

Connector ... TRI-Clamp connector, VA



Application: Connection fitting for metal hoses
Application: Use in the food-, chemical and pharmaceutic areas
Connection 1: Clamp socket
Sealing form 1: O-ring seal
Standard: DIN 32676
Construction: straight
Material: Stainless steel

Note: The permissible pressures are designed for temperatures from -10 °C to 140 °C when suitable brackets and sealing materials are used.

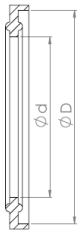
Ordering information: Other designs available on request

Identification	DN	PN (bar)	D mm
WA 008 TRI-25 VA	8	25	25,0
WA 010 TRI-34 VA	10	25	34,0
WA 013 TRI-25 VA	13	25	25,0
WA 013 TRI-34 VA	13	25	34,0
WA 020 TRI-34 VA	20	25	34,0
WA 025 TRI-50.5 VA	25	25	50,5
WA 032 TRI-50.5 VA	32	25	50,5
WA 040 TRI-50.5 VA	40	25	50,5
WA 050 TRI-64 VA	50	16	64,0
WA 050 TRI-77.5 VA	50	16	77,5
WA 065 TRI-91 VA	65	16	91,0
WA 080 TRI-106 VA	80	10	106,0
WA 100 TRI-119 VA	100	10	119,0
WA 125 TRI-155 VA	125	10	155,0
WA 150 TRI-183 VA	150	10	183,0

Web: http://cat.hansa-flex.com/en/WATRIVA

DIRITRI-PTFE

Sealing ring for TRI-Clamp connector



Application: Sealing ring for TRI-Clamp connector
Standard: DIN 32676
Design: PTFE form sealing ring
Material: PTFE
Temp. range: from -200 °C to 260 °C

Ordering information: Other designs available on request

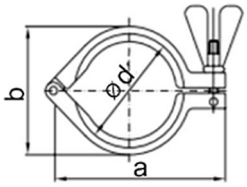
Identification	DN	D mm	d mm
DIRITRI DN10 D34 PT	10	34,0	10,2
DIRITRI DN15 D34 PT	15	34,0	16,2
DIRITRI DN20 D34 PT	20	34,0	20,2
DIRITRI DN25 D50.5 PT	25	50,5	26,2
DIRITRI DN32 D50.5 PT	32	50,5	32,2
DIRITRI DN40 D50.5 PT	40	50,5	38,2
DIRITRI DN50 D64 PT	50	64,0	50,2
DIRITRI DN65 D91 PT	65	91,0	66,2
DIRITRI DN80 D106 PT	80	106,0	81,2
DIRITRI DN100 D119 PT	100	119,0	100,2
DIRITRI DN125 D133 PT	125	155,0	125,2
DIRITRI DN150 D183 PT	150	183,0	150,2

Web: http://cat.hansa-flex.com/en/DIRITRIPTFE

TRI KLAMMER VA

Clamp bracket, VA

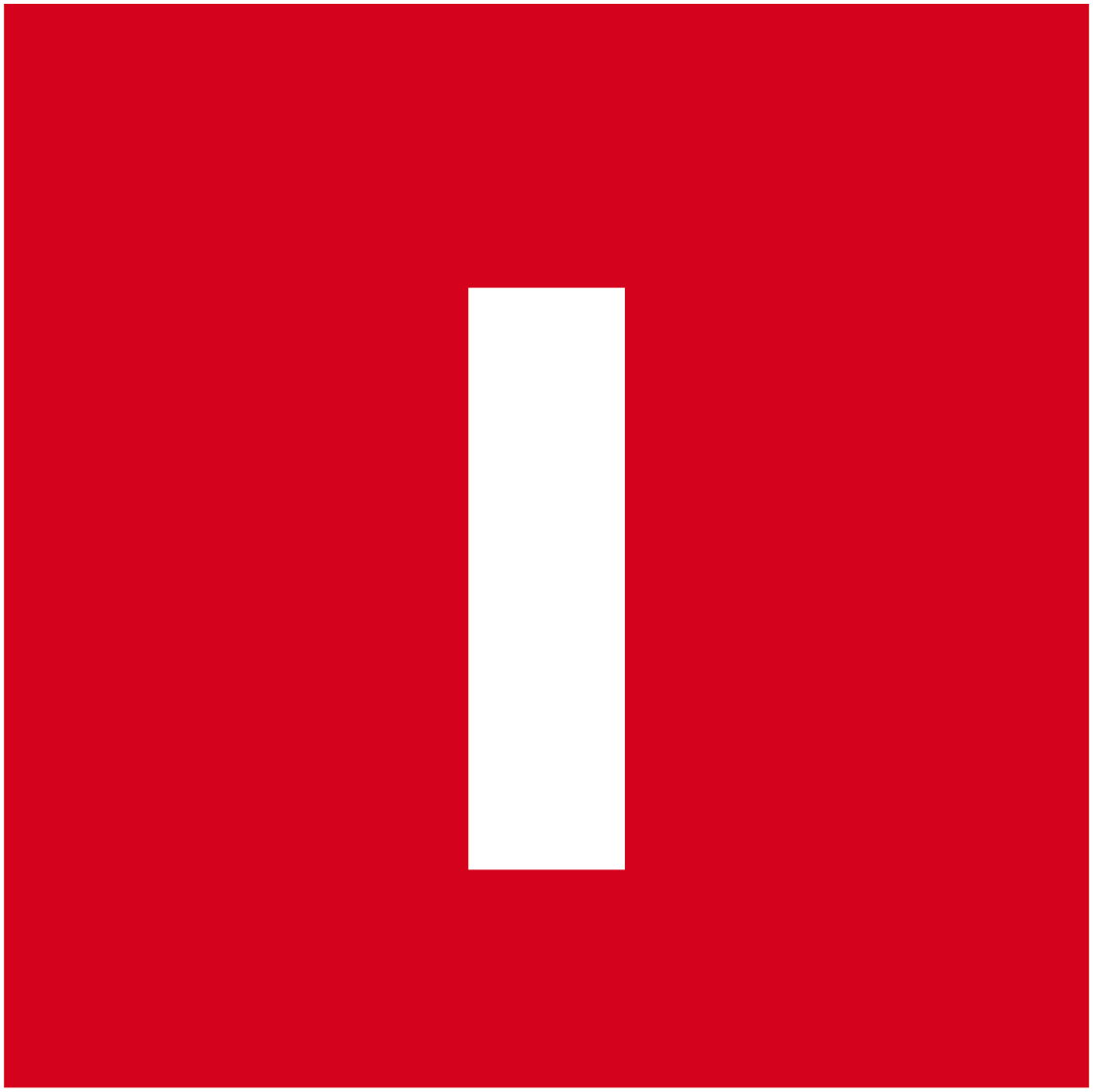
Application: Clamping components for TRI-clamp connections
Standard: DIN 32676
Design: Clamp stainless steel
Material: Stainless steel



Ordering information: Other designs available on request

Identification	a mm	b mm	Ø d mm
TRI KLAMMER 34 VA	63,0	45,0	34,0
TRI KLAMMER 50.5 VA	88,0	64,0	50,5
TRI KLAMMER 64 VA	105,0	77,0	64,0
TRI KLAMMER 91 VA	137,0	104,0	91,0
TRI KLAMMER 119 VA	168,0	132,0	119,0

Web: http://cat.hansa-flex.com/en/TRIKLAMMERVA



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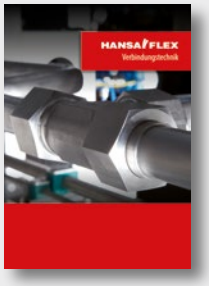

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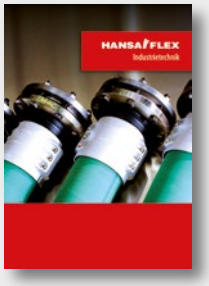

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Water technology	

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Hose couplings	Service units
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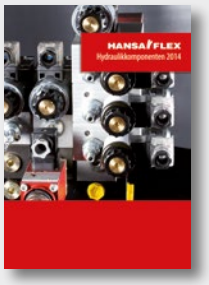

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