

FLEXIBLE HOSES FOR FLUIDS AND GASES:

ANACONDA CORRUGATED HOSES TYPE BW656, BW756, BW856, BW956, BW673 & ANAFLEX®





YOUR PARTNER IN FLEXIBLE SYSTEMS

HOSE SELECTION TABLE

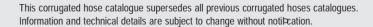
Hose	Material	Material		ze nm)		mp.	Pressure Rating	Page
Туре	Hose	Braid	Min.	Max.	Min.	Max.		
DDDDDDDAAAAAAD	Stainless steel	Stainless steel	6	150	-70	+600	Standard up to medium	1-05
BW 656	AISI-316L	AISI-304					mediam	
DDDDDDDWAKKKH	Stainless steel	Stainless steel	32	350	-70	+600	Medium	1-06
BW 756	AISI-316L	AISI-304						
	Stainless steel	Stainless steel	6	150	-70	+600	High	1-07
BW 856	AISI-316L	AISI-304						
	Stainless steel	Stainless steel	6	100	-70	+600	Extra High	1-08
BW 956	AISI-316L	AISI-304						
BW 673	Monel 400	Monel 400	6	100	-50	+540	Standard up to medium	1-09
LOOSE BRAID	-	Stainless steel AISI-304	6	100	-70	+600	Standard / Heavy	1-10
ANAFLEX	Stainless steel AISI-316L	Stainless steel AISI-304	12	25	0	+250	Standard	1-32

The end connections for hoses BW656, BW756, BW856, BW956 and BW673 are described on pages 1-11 till 1-24. The self-mountable Ettings for ANAFLEX are described on page 1-33.

In addition, and on request, we also can supply:

- GMA gas meter connection
- Fully interlocked (UI) Casing as mechanical hose protection.
- Hiprojacket heat protection products.
- Rubber hoses for Buids.
- Teßon hoses for Buids.
- Vibration eliminators.
- Expansion joints.







ENGINEERING DATA GENERAL

INTRODUCTION

ANACONDA metal hose is the leader in the Bexible hose Feld since our beginning in 1908. ANACONDA stands for a complete line of Bexible products, such as corrugated metal hose, stripwound hose, metal bellows and expansion joints, vibration eliminators, Sealtite electrical wiring conduit and specially designed Bexible connectors for many applications.

Our leadership in the Feld was made possible by years of dedication to producing only the highest quality metal hose products available. Strict quality control guidelines, coupled with modern manufacturing practices and an expert team of engineers and research and development personnel, assures the best possible products and technical services. Special hose assemblies for unique applications can be designed by our engineering department and manufactured to meet specific customer requirements. Highly-trained sales representatives located in offices all over the world are only part of our dedicated customer service network. Contact your nearest ANAMET representative for assistance.

ANACONDA products are manufactured by ANAMET Electrical, Inc., Mattoon, Illinois, USA; ANAMET Canada Inc., Frankfort, Ontario, Canada and ANAMET EUROPE B.V., Amsterdam, The Netherlands.



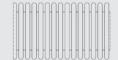
CORRUGATED METAL HOSE - what it is..., how it is made ..., where it is used...

Open pitch may be used where high Bexibility is not essential. Pitch can affect Bexibility and it varies from one manufacturer to another. SpeciFcations on open pitch are available by contacting your ANAMET representative.

For higher pressure applications, one or more wire braid coverings are applied to the corrugated hose. Braiding prevents hose elongation under pressure, dampens vibration and provides some mechanical protection for the inner core. Two or more braids are available to increase pressure capabilities of certain corrugated product lines; however, the deformation pressure (a point where corrugation material would



Open Pitch



Closed Pitch

yield or elastically deform) governs the maximum working pressure regardless of the number of braid layers. A corrugated metal hose is de Fried as a length of tubing made Bexible by forming convolutions so that it may be readily bent while remaining liquid- and gas-tight.

ANACONDA corrugated hose is made by thin wall tubing, corrugated into annular proHes. The annular hose proHe is designed so that each convolution is a complete circle or ring in itself.

Corrugated hose is pressure tight and is particularly adapted to continuous Bexing or vibration. It is available in closed pitch or open pitch. Closed pitch is standard, unless otherwise specifed.

HOSE ASSEMBLY DESIGN CONSIDERATIONS

Flow velocity

Extremely high conveyant velocities in corrugated hose should be avoided as the corrugations could be forced into resonant vibration resulting in premature fatigue failure.

Consult your ANAMET representative for applications involving flow velocities in excess of 35 m/s for braided hose and 6 m/s for unbraided hose.

Pressure

Pressure capabilities shown in the various hose tables are based on constant pressures.

For pulsating or shock pressures consult your ANAMET representative.





ENGINEERING DATA GENERAL

HOSE ASSEMBLY DESIGN CONSIDERATIONS - CONTINUED

Temperature

As the temperature of metal hose increases, the pressure capability decreases. The factors shown below should be used to adjust the pressure capabilities at higher temperatures

Temperature correction factors

As the service temperature increases, a hose assembly maximum pressure rate decreases. The maximum allowable pressure of the hose assembly shall be the lowest of any method of assembly (mechanical, soldered, welded, silver brazed).

By using the factors given in the table on the right, the approximate safe working pressure, at elevated temperatures, can be calculated for assemblies with welded or mechanically attached Htings.

Example

Given: Maximum operating temperature 350°C

Maximum operating pressure 30 bar.

Determine: Is 20 mm BW656-1S (hose AISI 316L with

braid AISI 304) with welded steel Htings satisfactory for the given operating

conditions?

From the hose capability chart the working pressure for 20 mm BW656-1S is 70 bar. The largest correction factor at 350°C is now determined, in this case 0,49 for the

AISI 304 braid (see table).

Calculation: 70 bar x 0,49 indicates an allowable work-

ing pressure of 34,3 bar at 350°C.

Solution: The hose BW656-1S will meet the required

conditions outlined above.

Temp. in °C	Steel	AISI-304	AISI-321	AISI-316	L Monel	Bronze
20/-200	-	1	1	1	1	1
20	1	1	1	1	1	1
50	0,98	0,90	0,93	0,90	0,96 0	,95
100	0,90	0,73	0,83	0,73	0,87 0,	86
150	0,89	0,66	0,78	0,67	0,83 0,	82
200	0,86	0,60	0,74	0,61	0,80 0,	75
250	0,82	0,55	0,70	0,58	0.79	-
300	0,76	0,51	0,66	0,53	0.79	
350	0,73	0,49	0,64	0,51	0.79	
400	0,70	0,48	0,62	0,50	0.79	1
450	0,41	0,46	0,60	0,49	-	-
500	0,24	0,46	0,59	0,47	-	-
550	-	0,46	0,58	0,47	a.	-
600	-		0,34	0,25	1.70	-
650		-	0,19	-	-	-

Corrosion

Recommended alloy selection to provide satisfactory performance with various media can be found in the corrosion resistance table on page 1-26.





ANACONDA CORRUGATED METAL HOSE ENGINEERING DATA GENERAL

HOSE ASSEMBLY DESIGN CONSIDERATIONS - CONTINUED

Motion movement

Length

The active or exposed length of a hose assembly must be sufficient to meet the conditions of movement. Lengths shorter than suggested can result in premature fatigue failure. Length tolerances as per our Quality Assurance Programme.

Bend Radius

The bend radius shown in the various hose tables are adequate to meet most industrial Bexing requirements. Consideration should be given to those applications involving levels of high frequency or large amounts of travel by increasing the bend radius. Avoid sharp bends except where the installation is permanent and no additional Bexing is expected. To prevent overbending of the hose, an overall casing can be used.

Installation Precautions

Hose assemblies must be installed so that all motion/movement is in the bending plane. Metal hose when ßexed out of its bending plane will be subjected to torsion/twisting which develops a shear stress that can result in produce early hose failure. Braided hose must not be subjected to axial motion. Extension will result in preloading the braid. Compression will cause braid slack and can result in squirm of the corrugated core.

Abrasion

Allow for sufficient clearance so that hose in motion will not come in contact with adjacent objects. Where abrasion cannot be avoided, an overall casing is required to protect the hose from external damage.

Safety factor

We suggest that the maximum working pressures be no more than 25% of the rated burst pressure of the hose assembly after correcting for service temperature. Circumstances may require safety factors greater than 4:1.

Testing

Depending on diameter, length, pressure, type of hose and end Pating design, hose assemblies are tested in various ways. It is ANAMET's standard practice to test assemblies by using one or more of the following methods: vacuum, hydrostatic, pneumatic or dye penetrant. Test media include: air, nitrogen, helium, water or oil.

If special testing is required, it must be detailed at the time of an inquiry.

Tolerances

The standard tolerances used by ANAMET are found to be acceptable by most users. When tolerance considerations are critical, consult your ANAMET representative.

Cleaning

Depending on the medium being conveyed, special cleaning practices are sometimes necessary. ANAMET has special cleaning procedures where cleaning to standard commercial levels is not acceptable. Where special cleaning is necessary, requirements must be clearly specified.

End connections

The use of ßexible metal hose is complimented by the extensive range of end connections that are available. Such end connections may be male or female pipe threads, unions, ßanges, ßared tube Ettings or other specially designed connectors. End connections are attached by welding, silver brazing, soldering and occasionally by mechanical means, depending on the type of hose and the alloy. In this catalogue a selection of various end connections are mentioned. For further detail or end connections that are not listed in the catalogue, please consult your ANAMET representative.





STANDARD UP TO MEDIUM PRESSURE

BW 656

Anaconda butt welded corrugated stainless steel hose type BW656 is designed for conveying chemicals, gases, steam, etc. It is suitable for use under full vacuum and has a temperature range of cryogenic to ca. +600°C*. Type BW656 is designed for general purpose service and will meet most pressure requirements. It has a good ß exibility and a good ß exural strength, suitable for normal industrial vibrations.

Burst pressure: The burst pressure of hose with braid is at least 4 times the working pressure.

Material specifications: The core is manufactured from stainless steel AISI 316L (1.4404) with a standard stainless steel AISI 304 (1.4301) wire braid covering. Other alloys are available; consult your Anamet representative.

Types:

BW656-0 corrugated stainless steel hose, unbraided BW656-1S corrugated stainless steel hose, with one standard braid BW656-2S corrugated stainless steel hose, with two standard braids

Nomir	nal I.D.	Туре	Max	Min c/l Bend	ing Radius**	Min. exposed	Rated pressure	Rated pressure data at 20 °C***	
			O.D.	Flexing	Permanent	length for normal	Max working	Max test	weight
(mm)	(inch)		(mm)	bend (mm)	bend (mm)	vibration (mm)	pressure (bar)	pressure (bar)	(Kg/m)
6	1/4"	BW656-0	9,8	100	25	115	18	18	0,07
0	1/4	BW656-1S	11,0	100	23	110	172	258	0,16
8	5/16"	BW656-0	12,4	100	25	125	18	18	0,09
	0/10	BW656-1S	13,6	100	20	120	120	180	0,19
10	3/8"	BW656-0	14,4	150	30	125	15	15	0,10
	3.3	BW656-1S	15,6				105	158	0,21
12	1/2"	BW656-0	16,9	180	35	140	12	12	0,11
11.00	11/1-20	BW656-1S	18,5	10.00	7/7:	* * * * * * * * * * * * * * * * * * * *	95	143	0,31
15	1/2"	BW656-0	20,2	180	35	140	10	10	0,18
	***	BW656-1S	21,8		2000	8 88	85	128	0,39
20	3/4"	BW656-0	27,0	190	40	150	7	7	0,25
-		BW656-1S	28,6				70	105	0,54
25	1"	BW656-0	32,6	215	70	180	6	6	0,34
		BW656-1S	34,6			P.	62	93	0,71
32	1.1/4"	BW656-0	41,4	230	90	205	4	4	0,50
		BW656-1S	44,2				48	72	0,99
40	1 1/2"	BW656-0	50,1	255	105	215			0,71
40	1.1/2"	BW656-1S	52,9 55,7	255	125	215	34 55	51 83	1,20
-		BW656-2S BW656-0	60,8				1	1	1,70 0,85
50	2"	BW656-1S	63,6	280	190	240	28	42	1,47
30		BW656-2S	66,4	200	190	240	35	53	2,09
-		BW656-0	78,9				0,7	0,7	1,12
65	2.1/2"	BW656-1S	82,4	510	205	255	19	29	1,12
05	2.1/2	BW656-2S	85,9	310	203	255	34	51	2,86
		BW656-0	96,0				0,7	0,7	1,50
75	3"	BW656-1S	100,3	560	230	280	25	38	3,00
/3	J	BW656-2S	100,5	300	230	200	32	48	4,50
		BW656-0	117,3				0,5	0,5	2,25
100	4"	BW656-1S	121,6	770	330	305	20	30	4,25
100	7	BW656-2S	125,9	770	330	303	30	45	6,25
		BW656-0	146,3				0,4	0,4	2,60
125	5"	BW656-1S	150,6	1050	650	330	14	21	4,85
123		BW756-2S	159,8	1000	000	000	20	30	7,10
		BW656-0	171,5				0,3	0,3	3,20
150	6"	BW656-1S	175,8	1325	860	370	10	15	5,80
100		BW756-2S	184,4	1020	000	0,0	16	24	8,40
			,			II. dHr			57.5

Note: for bigger sizes see type BW756 (page 1-06)

^{**} For temperatures higher than room temperature use the applicable temperature correction factor.



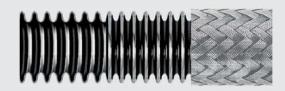


^{*} For working temperatures above 400°C environmental conditions are to be considered - consult your Anamet representative.

^{**} It is recommended to increase the minimum bend radius with 25% when high pressures or temperatures are involved.

MEDIUM PRESSURE & LARGER SIZES

BW 756



Anaconda butt welded corrugated stainless steel hose type BW756 is designed for conveying chemicals, gases, steam, etc. It is suitable for use under full vacuum and has a temperature range of cryogenic to ca. +600°C*. Type BW756 will meet most pressure requirements and is also available in the bigger sizes up to 14". It has a good ßexibility and a good ßexure life, suitable for normal industrial vibrations.

Burst pressure: The burst pressure of hose with braid is at least 4 times the working pressure.

Material specipcations: The core is manufactured from stainless steel AISI 316L (1.4404) with a heavy stainless steel AISI 304 (1.4301) wire braid covering. Other alloys are available; consult your Anamet representative.

Types

BW756-0 corrugated stainless steel hose, unbraided BW756-1H corrugated stainless steel hose, with one heavy braid

Nomir	nal I.D.	Туре	Max	Min c/l Bend	ing Radius**	Min. exposed	Rated pressure	data at 20 °C***	Approx.
			O.D.	Flexing	Permanent	length for normal	Max working	Max test	weight
(mm)	(inch)		(mm)	bend (mm)	bend (mm)	vibration (mm)	pressure (bar)	pressure (bar)	(Kg/m)
32	1.1/4"	BW756-0 BW756-1H	47,8 50,6	270	90	205	2 55	2 83	1,13 1,88
40	1.1/2"	BW756-0 BW756-1H	56,4 59,9	305	105	215	1 52	1 78	1,25 2,29
50	2"	BW756-0 BW756-1H	66,9 70,4	380	130	240	1 50	1 75	1,34 2,72
65	2.1/2"	BW756-0 BW756-1H	83,0 87,3	510	205	255	0,7 38	0,7 57	1,73 3,31
75	3"	BW756-0 BW756-1H	97,0 101,3	560	230	280	0,7 34	0,7 51	1,80 3,67
100	4"	BW756-0 BW756-1H	124,2 128,5	685	330	305	0,5 24	0,5 36	2,51 4,67
125	5"	BW756-0 BW756-1H	151,2 155,3	790	455	330	0,4 20	0,4 30	3,72 6,42
150	6"	BW756-0 BW756-1H	175,8 180,1	915	485	370	0,3 18	0,3 27	5,16 9,04
200	8"	BW756-0 BW756-1H	234,1 238,4	1015	510	490	0,3 16	0,3 24	8,27 14,04
250	10"	BW756-0 BW756-1H	286,5 292,0	1270	635	670	0,3 16	0,3 24	10,12 19,19
300	12"	BW756-0 BW756-1H	339,0 345,0	1525	765	940	0,2 11	0,2 17	13,42 22,06
350	14"	BW756-0 BW756-1H	376,0 383,0	1780	890	1350	0,2 8	0,2 12	20,98 32,28

^{*} For working temperatures above 400°C environmental conditions are to be considered - consult your Anamet representative.



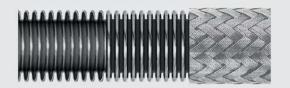


^{**} It is recommendet to increase the minimum bend radius with 25% when high pressures or temperatures are involved.

^{***} For temperatures higher than room temperature use the applicable temperature correction factor.

HIGH PRESSURE

BW 856



Anaconda butt welded corrugated stainless steel hose type BW856 is designed for conveying chemicals, gases, steam, etc. It is suitable for use under full vacuum and as a temperature range of cryogenic to ca. +600°C*. Type BW856 engineered design and construction allows it to operate at higher pressures than the standard and medium series. Its durable construction makes it suitable for severe applications, vibrations and high pressures.

Burst pressure: The burst pressure of hose with braid is at least 4 times the working pressure.

Material specipcations: The core is manufactured from AISI 316 L (1.4404) stainless steel with a heavy stainless steel AISI 304 (1.4301) wire braid covering. Other alloys are available; consult your Anamet representative.

Types:

BW856-0 corrugated stainless steel hose, unbraided BW856-1H corrugated stainless steel hose, with one heavy braid

BW856-2H corrugated stainless steel hose, with two heavy braids

Nomir	nal I.D.	Туре	Max	Min c/l Bend	ing Radius**	Min. exposed	Rated pressure	data at 20 °C***	Approx.
			O.D.	Flexing	Permanent	length for normal	Max working	Max test	weight
(mm)	(inch)		(mm)	bend (mm)	bend (mm)	vibration (mm)	pressure (bar)	pressure (bar)	(Kg/m)
		BW856-0	10,5		,	All and the second seco	12	12	0,15
6	1/4"	BW856-1H	11,9	140	25	115	230	345	0,26
		BW856-2H	13,3				275	413	0,37
		BW856-0	16,4				7	7	0,30
10	3/8"	BW856-1H	18,4	205	40	125	150	225	0,50
		BW856-2H	20,4				190	285	0,70
		BW856-0	21,4				6	6	0,58
12	1/2"	BW856-1H	24,0	205	40	140	132	198	0,89
2220		BW856-2H	26,6	788.07800		*****	225	338	1,20
		BW856-0	31,3				5	5	1,07
20	3/4"	BW856-1H	34,1	205	55	150	90	135	1,51
		BW856-2H	36,9				145	218	1,95
		BW856-0	38,7				3	3	1,37
25	1"	BW856-1H	41,5	230	80	180	85	128	2,03
		BW856-2H	44,3	ļ.			118	177	2,69
		BW856-0	47,8				2	2	1,89
32	1.1/4"	BW856-1H	50,6	255	85	205	64	96	2,64
		BW856-2H	53,4				112	168	3,39
		BW856-0	56,4				1	1	1,92
40	1.1/2"	BW856-1H	59,9	255	85	215	60	90	2,96
		BW856-2H	63,4				96	144	4,00
		BW856-0	64,8				1	1	1,90
50	2"	BW856-1H	68,3	295	140	240	55	83	3,36
		BW856-2H	71,8				85	128	4,74
		BW856-0	83,0				0,7	0,7	3,19
65	2.1/2"	BW856-1H	87,3	610	180	255	38	57	4,77
		BW856-2H	91,6		Washes.	1111000000	64	96	6,35
		BW856-0	97,0				0,7	0,7	5,12
75	3"	BW856-1H	101,3	715	195	280	34	51	7,01
		BW856-2H	105,6				55	83	8,90
		BW856-0	123,2				0,5	0,5	4,65
100	4"	BW856-1H	127,5	1020	510	305	24	36	6,81
		BW856-2H	131,8				35	53	8,97
ĺ		BW856-0	176,6				0,3	0,3	5,38
150	6"	BW856-1H	180,9	1220	610	370	18	27	9,26
		BW856-2H	185,2				28	42	13,14

^{*} For working temperatures above 400°C environmental conditions are to be considered - consult your Anamet representative.

^{***} For temperatures higher than room temperature use the applicable temperature correction factor.





^{**} It is recommendet to increase the minimum bend radius with 25% when high pressures or temperatures are involved.

EXTRA HIGH PRESSURE

BW 956



ANACONDA butt welded corrugated stainless steel hose type BW 956 is designed for conveying chemicals, gases, steam, etc. It is suitable for use under full vacuum and has a temperature range of cryogenic to ca. +600°C*. The engineered design and construction allows it to operate at higher pressures than the BW856 type. Its extra durable construction makes it suitable for severe applications, vibrations and extreme high pressures.

Burst pressure: The burst pressure of hose with braid is at least 4 times the working pressure.

Material specifications: The core is manufactured from AISI 316L (1.4404) stainless steel with an extra heavy stainless steel AISI 304 (1.4301) wire braid covering. Other alloys are available; consult your Anamet representative.

Types:

BW956-0 corrugated stainless steel hose, unbraided BW956-1E corrugated stainless steel hose,

with one extra heavy braid

BW956-2E corrugated stainless steel hose, with two extra heavy braids

Nomir	nal I.D.	Туре	Max	Min c/l Bend	ing Radius**	Min. exposed	Rated pressure	data at 20 °C***	Approx.
			O.D.	Flexing	Permanent	length for normal	Max working	Max test	weight
(mm)	(inch)		(mm)	bend (mm)	bend (mm)	vibration (mm)	pressure (bar)	pressure (bar)	(Kg/m)
6	1/4"	BW956-0 BW956-2E	13,1 17,9	305	155	115	12 310	12 465	0,30 0,61
10	3/8"	BW956-0 BW956-2E	17,4 22,6	305	155	125	7 270	7 405	0,46 0,97
12	1/2"	BW956-0 BW956-2E	21,4 27,0	330	180	140	6 255	6 383	0,73 1,48
20	3/4"	BW956-0 BW956-2E	31,3 36,9	380	190	150	5 185	5 278	1,35 2,45
25	1"	BW956-0 BW956-2E	38,7 44,3	410	205	180	3 158	3 237	1,66 3,07
32	1.1/4"	BW956-0 BW956-2E	47,8 53,8	460	220	205	2 132	2 198	2,58 4,37
40	1.1/2"	BW956-0 BW956-2E	56,4 63,4	485	245	215	1 120	1 180	3,84 6,26
50	2"	BW956-0 BW956-2E	64,2 71,8	610	305	240	1 92	1 138	4,98 7,94
65	2.1/2"	BW956-0 BW956-2E	83,0 91,6	690	340	255	0,7 70	0,7 105	5,07 8,54
75	3"	BW956-0 BW956-3E	97,0 110,0	815	435	280	0,7 65	0,7 98	6,53 12,20
100	4"	BW956-0 BW956-3E	123,2 136,2	1220	560	305	0,5 45	0,5 68	7,07 13,55

^{*} For working temperatures above 400°C environmental conditions are to be considered - consult your Anamet representative.



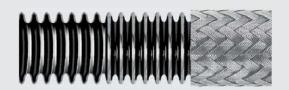


^{**} It is recommended to increase the minimum bend radius with 25% when high pressures or temperatures are involved.

^{***} For temperatures higher than room temperature use the applicable temperature correction factor.

EXTREME CORROSION RESISTANT

BW 673



ANACONDA type BW673 is extremely resistant to corrosion, and is used to convey corrosive liquids and gases for applications that involve high pressure, temperatures up to +540 $^{\circ}\text{C}^{*}$, vibration and ßexure. Type BW673 is designed for Chlorine applications. Applicable as transfer hose for tankcar, cargotank, tankbarge, etc.

Burst pressure: The burst pressure of hose with braid is at least 4 times the working pressure.

Material speciPcations: The hose and braid are manufactured from Monel 400. For other alloys please consult your Anamet representative.

Types:

BW673-0 corrugated Monel hose, unbraided BW656-1S corrugated Monel hose, with one Monel braid BW656-2S corrugated Monel hose, with two Monel braids

Nomir	nal I.D.	Туре	Max	Min c/l Bend	ling Radius**	Min. exposed	Rated pressure	data at 20 °C***	Approx.
		198816	O.D.	Flexing	Permanent	length for normal	Max working	Max test	weight
(mm)	(inch)		(mm)	bend (mm)	bend (mm)	vibration (mm)	pressure (bar)	pressure (bar)	(Kg/m)
		BW673-0	11,9				9	13,4	0,19
6	1/4"	BW673-1S	13,4	155	50	115	117	176	0,31
		BW673-2S	14,7				167	250	0,43
		BW673-0	15,7				6,2	9,3	0,23
10	3/8"	BW673-1S	17,2	155	50	125	88	132	0,40
		BW673-2S	18,7	2000		72.50	135	202	0,60
0.		BW673-0	19,5				4,5	6,8	0,28
12	1/2"	BW673-1S	20,8	180	65	140	59	88	0,46
		BW673-2S	22,3				93	139	0,64
		BW673-0	27,0				3,4	5,2	0,41
20	3/4"	BW673-1S	28,2	205	65	150	49	73	0,64
		BW673-2S	29,7				80	120	0,89
		BW673-0	34,5				2,4	3,6	0,74
25	1"	BW673-1S	36,3	230	75	180	48	72	1,15
		BW673-2S	38,4	55,000			78	117	1,61
		BW673-0	44,7				1,4	2,1	0,95
32	1.1/4"	BW673-1S	47,5	255	105	205	42	63	1,46
		BW673-2S	49,5				68	102	2,02
		BW673-0	53,3				1	1,5	1,16
40	1.1/2"	BW673-1S	55,2	255	105	215	29	43	1,76
		BW673-2S	57,3				53	79	2,41
		BW673-0	64,9				0,7	1	1,44
50	2"	BW673-1S	67,2	280	155	240	22	32	2,16
		BW673-2S	69,7				42	64	2,96
		BW673-0	98,3				0,5	0,7	2,63
75	3"	BW673-1S	102,4	510	255	280	21	31	3,97
		BW673-2S	105,4				34	52	5,46
		BW673-0	122,3				0,3	0,4	3,10
100	4"	BW673-1S	127,3	610	305	305	18	27	5,27
		BW673-2S	132,3				30	45	7,69

^{*} For working temperatures above 400°C environmental conditions are to be considered - consult your Anamet representative.

^{***} For temperatures higher than room temperature use the applicable temperature correction factor.





^{**} It is recommendet to increase the minimum bend radius with 25% when high pressures or temperatures are involved.

STAINLESS STEEL BRAIDING

BRAID



Anaconda braid type S (standard braid) and H (heavy braid) are mainly supplied in combination with our Anaconda butt-welded corrugated hoses type BW656, BW756, BW856 and BW956. However they can also be obtained as loose braids.

Burst pressure: The burst pressure of hose with braid is at least 4 times the working pressure.

Material speciPcations: The braids are manufactured from stainless steel AISI 304 (1.4301) wire. Other alloys are available; consult your Anamet representative.

Types:

S Standard braid H Heavy braid

E Extra heavy braid (on demand)

For ho	se I.D.	Туре	Core	Bra	aid construct	tion	Coverage	Rated pressure	data at 20 °C***	Approx.
			diametre	Number	Wires	Wire	grade	Max. working	Max. test	weight
(mm)	(inch)		(mm)	of Strands	per Strand	diam. (mm)	%	pressure (bar)	pressure (bar)	(Kg/m)
6	1/4"	1S	9,8	32	4	0,3	89	172	258	0,09
8	5/16"	1S	12,4	32	4	0,3	83	120	180	0,10
10	3/8"	1S	14,4	32	5	0,3	83	105	158	0,11
15	1/2"	1S	20,2	32	5	0,4	88	85	128	0,21
20	3/4"	1S	27,0	32	7	0,4	87	70	105	0,29
25	1"	1S	32,6	48	6	0,4	92	62	93	0,37
32	1.1/4"	1S	41,4	48	8	0,4	93	48	72	0,49
40	1.1/2"	1S	50,1	48	8	0,4	87	34	51	0,49
50	2"	1S	60,8	48	10	0,4	83	28	42	0,62
65	2.1/2"	1S	78,9	48	8	0,5	80	19	29	0,87
75	3"	1S	96,0	48	9	0,63	86	25	38	1,50
100	4"	1S	117,3	48	12	0,63	86	20	30	2,00
125	5"	1S	146,3	72	8	0,63	74	14	21	2,25
150	6"	1S	171,5	72	10	0,63	74	10	15	2,60

For ho	se I.D.	Туре	Core	Bra	aid construct	tion	Coverage	Rated pressure data at 20 °C***		Approx.
			diametre	Number	Wires	Wire	grade	Max working	Max test	weight
(mm)	(inch)		(mm)	of Strands	per Strand	diam. (mm)	%	pressure (bar)	pressure (bar)	(Kg/m)
6	1/4"	1H	10,5	32	5	0,3	95	230	345	0,11
10	3/8"	1H	16,4	32	5	0,4	94	150	225	0,20
12	1/2"	1H	21,4	32	5	0,5	96	132	198	0,31
20	3/4"	1H	31,4	32	7	0,5	95	90	135	0,44
25	1"	1H	38,9	48	7	0,5	99	85	128	0,66
32	1.1/4"	1H	47,8	48	8	0,5	99	64	96	0,75
40	1.1/2"	1H	56,4	48	7	0,63	98	60	90	1,04
50	2"	1H	64,8	48	9	0,63	97	55	83	1,38
65	2.1/2"	1H	83,0	48	10	0,63	96	38	57	1,58
75	3"	1H	97,0	48	12	0,63	96	34	51	1,89
100	4"	1H	123,4	72	9	0,63	89	24	36	2,16
150	6"	1H	176,6	96	13	0,63	89	18	27	3,88

^{***} The rated pressure data are based onh the combination with Anaconda hoses. For other combinations or other applications, please contact Anamet Europe B.V. for specific braid calculation.





END CONNECTIONS





Standard end connections Equres:

Figure 1 to 14 show the standard Anamet hose end connections.

All connections are TIG-welded onto our corrugated hoses.

Weld oxides can be removed by brushing with a plastic wire brush or by electrolytic cleaning (to be specified on order).

Next to our standard program, Anamet can supply their hose assemblies with a great variety of trade Atings, couplings,

and custom designed Htings. Frequently used hose Extures are:
DIN 2353 L- and S-series Ettings, SAE J/514 JIC 37° Ettings, SAE 3000 and 6000 lbs Banges,

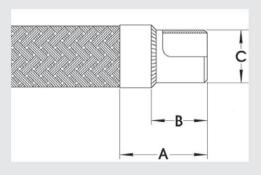
DIN 11851 food couplings, Camlock coupling, Mann-tek Dry disconnect couplings and custom Htings according to drawing.

Please contact our Fluid and Gases sales team for our comprehensive service.

Fig. 1

Welding end, hose ld. 1/4" to 4".

- Carbon steel / Stainless steel

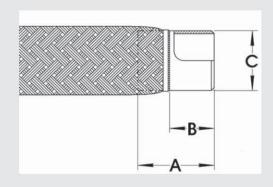


Hose No	ominal ID	Dimer	nsions	in mm	*C ANSI	*C ISO
(mm)	(inch)	А	В	С		
6	1/4"	59	50	-	13,7 x 2,2	10,2 x 1,6 / 13,5 x 1,8
10	3/8"	60	50	-	17,2 x 2,3	17,2 x 1,8
12	1/2"	62	50	-	21,3 x 2,8	21,3 x 2,0
20	3/4"	65	50	-	26,7 x 2,9	26,9 x 2,3
25	1"	70	50	-	33,4 x 3,4	33,7 x 2,6
32	1.1/4"	70	50	-	42,2 x 3,6	42,4 x 2,6
40	1.1/2"	85	60	-	48,3 x 3,7	48,3 x 2,6
50	2"	90	60	-	60,3 x 3,9	60,3 x 2,9
65	2.1/2"	90	60	-	73,0 x 5,2	76,1 x 2,9
75	3"	95	65	-	88,9 x 5,5	88,9 x 3,2
100	4"	105	75	-	114,3 x 6,0	114,3 x 3,6

^{*} If Atings with other dimension "C" are required please specify when ordering.

Hose No	minal ID	Dimer	sions	in mm	*C ANSI	*C ISO
(mm)	(inch)	А	В	С		
125	5"	125	75	-	141,3 x 6,5	139,7 x 4,0
150	6"	125	75	-	168,3 x 7,1	168,3 x 4,5
200	8"	135	75	-	219,1 x 8,2	219,1 x 5,9

Welding end, hose ld. 5" to 8". - Carbon steel / Stainless steel





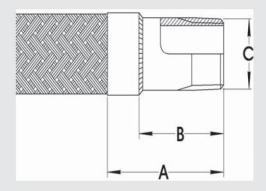


END CONNECTIONS

Fig. 2

Pipe nipple male (tapered thread).

- BSPT Stainless steel
- NPT Carbon steel / Stainless steel

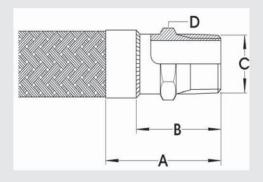


Hose No	minal ID		Dime	nsions in mm		Dimensions in mm			
(mm)	(inch) A B C		А	В	С				
6	1/4"	38	29	1/4" BSPT	45	36	1/4" NPT		
10	3/8"	39	29	3/8" BSPT	46	36	3/8" NPT		
12	1/2"	52	40	1/2" BSPT	54	42	1/2" NPT		
20	3/4"	55	40	3/4" BSPT	61	46	3/4" NPT		
25	1"	70	50	1" BSPT	73	53	1" NPT		
32	1.1/4"	75	55	1.1/4" BSPT	75	55	1.1/4" NPT		
40	1.1/2"	85	60	1.1/2" BSPT	84	59	1.1/2" NPT		
50	2"	95	65	2" BSPT	87	57	2" NPT		
65	2.1/2"	105	75	2.1/2" BSPT	120	90	2.1/2" NPT		
75	3"	105	75	3" BSPT	120	90	3" NPT		
100	4"	125	95	4" BSPT	125	95	4" NPT		

Fig. 3

Hexagon nipple male (tapered thread).

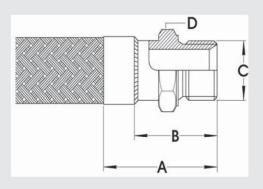
- BSPT Stainless steel
- NPT Carbon steel / Stainless steel



Hose No	ominal ID	[Dimens	ions in mm		Dim	ensions in mm	
(mm)	(inch)	А	В	С	А	В	С	D
6	1/4	33	24	1/4" BSPT	39	27	1/4" NPT	14
10	3/8	38	28	3/8" BSPT	43	33	3/8" NPT	19
12	1/2	46	34	1/2" BSPT	50	38	1/2" NPT	22
20	3/4	55	40	3/4" BSPT	59	44	3/4" NPT	27
25	1	66	46	1" BSPT	69	49	1" NPT	36
32	1 1/4	72	52	1.1/4" BSPT	75	55	1.1/4" NPT	42
40	1 1/2	79	54	1.1/2" BSPT	81	56	1.1/2" NPT	50
50	2	92	62	2" BSPT	89	59	2" NPT	65
65	2 1/2	103	73	21/2" BSPT				
75	3	120	90	3" BSPT				
100	4	130	100	4" BSPT				

Fig. 4

Hexagon nipple male. (parallel thread). 60° cone seat + βat seat on hexagon,



Hose No	ominal ID		Dim	mensions in mm			
(mm)	(inch)	А	В	С	D		
6	1/4	33	24	1/4" BSPP	17		
10	3/8	39	29	3/8" BSPP	22		
12	1/2	44	32	1/2" BSPP	27		
20	3/4	55	40	3/4" BSPP	32		
25	1	65	45	1" BSPP	41		
32	1 1/4	65	45	1.1/4" BSPP	50		
40	1 1/2	72	47	1.1/2" BSPP	55		
50	2	81	51	2" BSPP	70		
65	2 1/2	95	65	2.1/2" BSPP	85		
75	3	110	80	3" BSPP	100		
100	4	120	90	4" BSPP	135		

 $^{^{\}ast}$ Hexagon nipple male is also available with $\mbox{\it B}{}$ at seat instead of 60° cone seat.



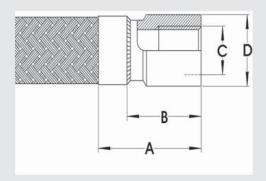


END CONNECTIONS

Fig. 5

Round socket female.

- BSPP Stainless steel
- NPT Carbon steel / Stainless steel

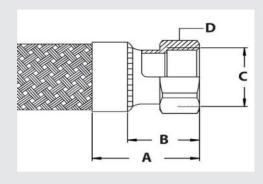


Hose No	ominal ID		Dim	ensions in mm		
(mm)	(inch)	А	В	С	D	С
6	1/4	36	27	1/4" BSPP	17	1/4" NPT
10	3/8	40	35	3/8" BSPP	22	3/8" NPT
12	1/2	52	40	1/2" BSPP	27	1/2" NPT
20	3/4	55	40	3/4" BSPP	33	3/4" NPT
25	1	70	50	1" BSPP	40	1" NPT
32	1.1/4	75	55	1.1/4" BSPP	50	1.1/4" NPT
40	1.1/2	85	60	1.1/2" BSPP	58	1.1/2" NPT
50	2	95	65	2" BSPP	70	2" NPT
65	2 1/2	104	74	2.1/2" BSPP	85	
75	3	110	80	3" BSPP	100	
100	4	124	94	4" BSPP	125	

Fig. 6

Hexagon socket female.

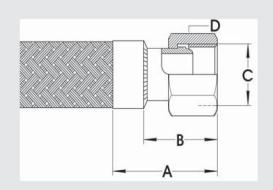
- BSPP Stainless steel
- NPT Stainless steel



Hose No	ominal ID		Dim	ensions in mm		
(mm)	(inch)	А	В	С	D	
6	1/4"	40,5	28,5	1/4" BSPP	30	
10	3/8"	46	31	3/8" BSPP	35	
12	1/2"	53	38	1/2" BSPP	42	
20	3/4"	56	41	3/4" BSPP	47	
25	1"	66	46	1" BSPP	53	
32	1.1/4"	69	49	1.1/4" BSPP	71	
40	1.1/2"	76	51	1.1/2" BSPP	78	
50	2"	86	56	2" BSPP	92	

Fig. 7

Sphere cone nipple with hexagon swivel nut.



Hose No	ominal ID		Dim	ensions in mm			
(mm)	(inch)	А	В	С	D		
6	1/4	37	28	1/4" BSPP	19		
10	3/8	38	28	3/8" BSPP	22		
12	1/2	40	28	1/2" BSPP	27		
20	3/4	45	30	3/4" BSPP	32		
25	1	54	34	1" BSPP	41		
32	1.1/4	54	34	1.1/4" BSPP	50		
40	1.1/2	59	34	1.1/2" BSPP	60		
50	2	68	38	2" BSPP	70		

^{*} Spherical cone nipple standard is AISI-316L. Unless specited otherwise.



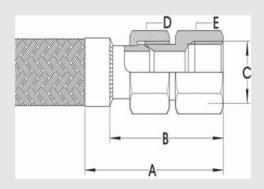


END CONNECTIONS

Fig. 7A

Sphere cone nipple with hexagon swivel nut (Fg.7) with hexagon adapter BSPP female.

- Carbon steel / Stainless steel

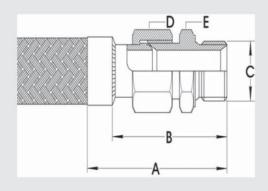


Hose No	ominal ID		Dim	ensions in mm			
(mm)	(inch)	А	В	С	D	Е	
6	1/4	64	55	1/4" BSPP	19	17	
10	3/8	66	56	3/8" BSPP	22	22	
12	1/2	71	59	1/2" BSPP	27	27	
20	3/4	80	65	3/4" BSPP	32	32	
25	1	93	73	1" BSPP	41	41	
32	1.1/4	95	75	1.1/4" BSPP	50	50	
40	1.1/2	102	77	1.1/2" BSPP	60	55	
50	2	113	83	2" BSPP	70	70	

Fig. 7B

Sphere cone nipple with hexagon swivel nut (Eg.7) with hexagon adapter BSPP male (parallel thread).

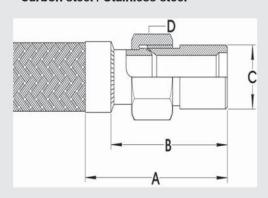
- Carbon steel / Stainless steel



Hose No	ominal ID		Dimensions in mm				
(mm)	(inch)	А	В	С	D	Е	
6	1/4	59	50	1/4" BSPP	19	17	
10	3/8	64	54	3/8" BSPP	22	22	
12	1/2	72	60	1/2" BSPP	27	27	
20	3/4	85	70	3/4" BSPP	32	32	
25	1	97	77	1" BSPP	38	38	
32	1.1/4	90	70	1.1/4" BSPP	50	50	
40	1.1/2	97	72	1.1/2" BSPP	60	55	
50	2	110	80	2" BSPP	70	70	

Fig. 7C

Sphere cone nipple with hexagon swivel nut (Þg.7) with welding adapter.



Hose No	ominal ID			Dimensions	in mm	
(mm)	(inch)	А	В	C-ISO	C-ANSI	D
6	1/4	62	53	10,2 x 1,6		19
6	1/4	62	53	13,5 x 1,8	13,7 x 2,2	19
10	3/8	63	53	17,2 x 1,8	17,2 x 2,3	22
12	1/2	70	58	21,3 x 2,0	21,3 x 2,8	27
20	3/4	78	63	26,9 x 2,3	26,7 x 2,9	32
25	1	90	70	33,7 x 2,6	33,4 x 3,4	41
32	1.1/4	94	74	42,4 x 2,6	42,2 x 3,6	50
40	1.1/2	99	74	48,3 x 2,6	48,3 x 3,7	60
50	2	112	82	60,3 x 2,9	60,3 x 3,9	70



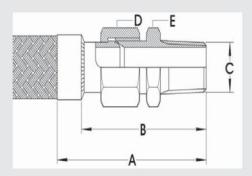


END CONNECTIONS

Fig. 7D

Spherical cone nipple with hexagon swivel nut (Þg.7) with Hexagon adapter BSPT male (tapered thread).

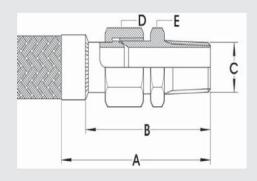
- Carbon steel / Stainless steel



Hose No	minal ID		Dim	ensions in mm			
(mm)	(inch)	А	В	С	D	Е	ı
6	1/4	67	58	1/4" BSPT	19	18	
10	3/8	72	62	3/8" BSPT	22	23	
12	1/2	83	71	1/2" BSPT	27	26	
20	3/4	90	75	3/4" BSPT	32	33	
25	1	109	89	1" BSPT	41	42	
32	1.1/4	115	95	1.1/4" BSPT	50	52	
40	1.1/2	117	97	1.1/2" BSPT	60	56	
50	2	149	119	2" BSPT	70	70	

Fig. 7E

Spherical cone nipple with hexagon swivel nut (Fg.7) with hexagon adapter NPT male (tapered thread).



Hose No	ominal ID		Dime	ensions in mm			
(mm)	(inch)	А	В	С	D	Е	
6	1/4	67	58	1/4" NPT	19	18	
10	3/8	72	62	3/8" NPT	22	23	
12	1/2	83	71	1/2" NPT	27	26	
20	3/4	90	75	3/4" NPT	32	33	
25	1	109	89	1" NPT	41	42	
32	1.1/4	115	95	1.1/4" NPT	50	52	
40	1.1/2	117	97	1.1/2" NPT	60	56	
50	2	149	119	2" NPT	70	70	



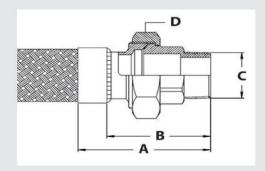


END CONNECTIONS

Fig. 9B

Hexagon union BSPT male (tapered thread). EN ISO 4144 - BW / cone seat / Male

- Stainless steel



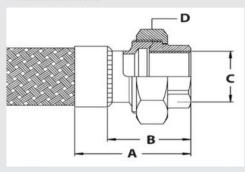
Hose Nominal ID			Dim	ensions in mm			
(mm)	(inch)	А	В	С	D	Е	
6	1/4"	62	50	1/4" BSPT	30	18	
10	3/8"	65	50	3/8" BSPT	35	23	
12	1/2"	74	59	1/2" BSPT	42	26	
20	3/4"	81	66	3/4" BSPT	47	33	
25	1"	85	65	1" BSPT	53	42	
32	1.1/4"	103	83	1.1/4" BSPT	71	52	
40	1.1/2"	112	87	1.1/2" BSPT	78	56	
50	2"	124	94	2" BSPT	92	70	

Fig. 10B

Hexagon Union BSPP Female. (parallel thread).

EN ISO 4144 - BW / cone seat / Female

- Stainless steel

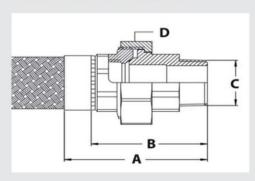


Hose No	ominal ID		Dime	ensions in mm		
(mm)	(inch)	А	В	С	D	
6	1/4"	47,5	35,5	1/4" BSPP	30	
10	3/8"	53	38	3/8" BSPP	35	
12	1/2"	57	42	1/2" BSPP	42	
20	3/4"	66	51	3/4" BSPP	47	
25	1"	68	48	1" BSPP	53	
32	1.1/4"	79	59	1.1/4" BSPP	71	
40	1.1/2"	89	64	1.1/2" BSPP	78	
50	2"	99	69	2" BSPP	92	

Fig. 11

Hexagon union 3000 lbs NPT male (tapered thread).

ANSI B16.11, forged to ASTM A182



Hose No	ominal ID		Dime	ensions in mm			
(mm)	(inch)	А	В	С	D		
6	1/4"	73	61	1/4" NPT	36		
10	3/8"	84	69	3/8" NPT	41		
12	1/2"	90	75	1/2" NPT	46		
20	3/4"	100	80	3/4" NPT	56		
25	1"	110	90	1" NPT	65		
32	1.1/4"	118	98	1.1/4" NPT	80		
40	1.1/2"	125	100	1.1/2" NPT	87		
50	2"	150	120	2" NPT	100		



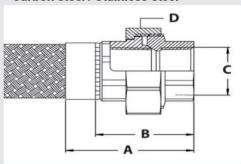


END CONNECTIONS

Fig. 12

Hexagon Union 3000 lbs NPT female (tapered thread).

ANSI B16.11, forged to ASTM A182



Hose No	ominal ID		Dim	ensions in mm			
(mm)	(inch)	А	В	С	D		
6	1/4"	57	45	1/4" NPT	36		
10	3/8"	66	51	3/8" NPT	41		
12	1/2"	67	52	1/2" NPT	46		
20	3/4"	72	57	3/4" NPT	56		
25	1"	83	63	1" NPT	65		
32	1.1/4"	86	66	1.1/4" NPT	80		
40	1.1/2"	103	78	1.1/2" NPT	87		
50	2"	121	91	2" NPT	100		



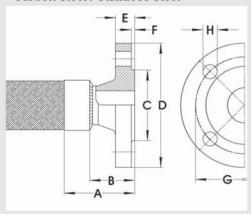


END CONNECTIONS

Fig. 13

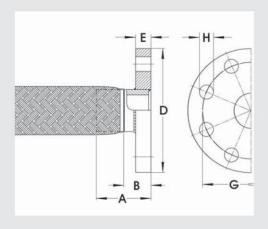
Fixed Bange NW 06 to NW 100 EN1092-1 type 11 PN06 to PN40

- Carbon steel / Stainless steel



Fixed ßange NW 125 to NW 250 EN1092-1 type 01 PN06 to PN40

- Carbon steel / Stainless steel



FIXED FLANGES ACCORDING TO EN 1092-1

PN 06 (DIN 2631*)

Hose No	ominal ID			[Dimensi	ons in n	nm			Number
(mm)	(inch)	А	В	С	D	E	F	G	Н	of holes
10	3/8"	38	28	35	75	12	2	50	11	4
15	1/2"	42	30	40	80	12	2	55	11	4
20	3/4"	47	32	50	90	14	2	65	11	4
25	1"	55	35	60	100	14	2	75	11	4
32	1.1/4"	55	35	70	120	14	2	90	14	4
40	1.1/2"	63	38	80	130	14	3	100	14	4
50	2"	68	38	90	140	14	3	110	14	4
65	2.1/2"	68	38	110	160	14	3	130	14	4
80	3"	72	42	128	190	16	3	150	18	4
100	4"	75	45	148	210	16	3	170	18	4
125	5"	105	54	-	240	20	-	200	18	8
150	6"	105	54	-	265	20	-	225	18	8
200	8"	120	57	-	320	22	-	280	18	8
250	10"	120	57	-	375	24	-	335	18	12

PN 10 (DIN 2632*)

Hose No	minal ID		Dimensions in mm							Number	
(mm)	(inch)	А	A B C D E F G H								
10 to 40				Use	PN 40	dimens	sions				
50 to 150				Use	PN 16	dimens	ions				
200	8"	120	57		340	24		295	22	8	
250	10"	120	57		395	26		350	22	12	

PN 16 (DIN 2633*)

Hose No	ominal ID		Dimensions in mm								
(mm)	(inch)	А	A B C D E F G H								
10 to 40			Use PN 40 dimensions								
50	2"	75	45	102	165	18	3	125	18	4	
65	2.1/2"	75	45	122	185	18	3	145	18	4 / 8*	
80	3"	80	50	138	200	20	3	160	18	8	
100	4"	82	52	158	220	20	3	180	18	8	
125	5"	105	54	-	250	22	-	210	18	8	
150	6"	105	54	-	285	24	-	240	22	8	
200	8"	120	57	-	340	26	-	295	22	12	
250	10"	120	57	-	405	29	-	355	26	12	

PN 25 (DIN 2634*)

Hose No	minal ID		Dimensions in mm								
(mm)	(inch)	А	В	С	D	Е	F	G	Н	of holes	
10 to 150			Use PN 40 dimensions								
200	8"	120	57		360	32		310	26	12	
250	10"	120	57		425	35		370	30	12	





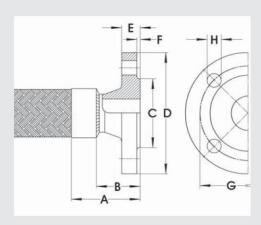
^{*} The European standard EN 1092-1 is based on the old DIN- standard. However, there are a few small differences.

END CONNECTIONS

Fig. 13

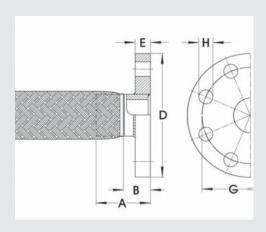
Fixed Bange NW 06 to NW 100 EN1092-1 type 11 PN06 to PN40

- Carbon steel / Stainless steel



Fixed range NW 125 to NW 250 EN1092-1 type 01 PN06 to PN40

- Carbon steel / Stainless steel



FIXED FLANGES ACCORDING TO EN 1092-1

PN 40 (DIN 2635*)

Hose N	ominal ID			Dimensions in mm							
(mm)	(inch)	Α	В	С	D	Е	F	G	Н	of holes	
10	3/8"	45	35	40	90	16	2	60	14	4	
15	1/2"	50	38	45	95	16	2	65	14	4	
20	3/4"	55	40	58	105	18	2	75	14	4	
25	1"	60	40	68	115	18	2	85	14	4	
32	1.1/4"	62	42	78	140	18	2	100	18	4	
40	1.1/2"	70	45	88	150	18	3	110	18	4	
50	2"	78	48	102	165	20	3	125	18	4	
65	2.1/2"	82	52	122	185	22	3	145	18	8	
80	3"	88	58	138	200	24	3	160	18	8	
100	4"	95	65	162	235	24	3	190	22	8	



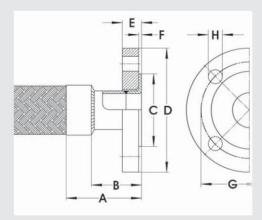
^{*} The European standard EN 1092-1 is based on the old DIN- standard. However, there are a few small differences.

END CONNECTIONS

Fig. 14

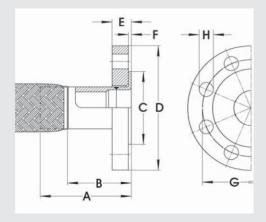
Floating Bange NW 06 to NW 100 EN1092-1 type 02/33 (thin plate collar) PN10

Carbon steel / Stainless steel



Floating Bange NW 125 to NW 200 EN1092-1 type 02/33 (thin plate collar) PN10

Carbon steel / Stainless steel



FLOATING FLANGES ACCORDING TO EN 1092-1

PN 10 (DIN 2641 FORM G*)

Hose N	ominal ID		Dimensions in mm									
(mm)	(inch)	А	В	С	D	E	F	G	Н	of holes		
10	3/8"	62	52	40	90	14	2,5	60	14	4		
15	1/2"	64	52	45	95	14	2,5	65	14	4		
20	3/4"	67	52	58	105	16	3	75	14	4		
25	1"	72	52	68	115	16	3	85	14	4		
32	1.1/4"	72	52	78	140	18	3	100	18	4		
40	1.1/2"	87	62	88	150	18	3	110	18	4		
50	2"	92	62	102	165	20	4	125	18	4		
65	2.1/2"	92	62	122	185	20	4	145	18	8		
80	3"	98	68	138	200	20	4	160	18	8		
100	4"	108	78	158	220	22	4	180	18	8		
125	5"	177	126	188	250	22	4	210	18	8		
150	6"	177	126	212	285	24	4	240	22	8		
200	8"	203	139	268	340	24	4	295	22	8		

^{*} For pressure ratings PN16 and PN40 Type 37,35 and 34 collars are available upon request.





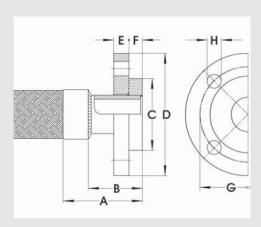
^{*} The European standard EN 1092-1 is based on the old DIN- standard. However, there are a few small differences.

END CONNECTIONS

Fig. 14

Floating Bange NW 06 to NW 100 EN1092-1 type 02/32 (thick collar) PN06 to PN40

- Carbon steel / Stainless steel



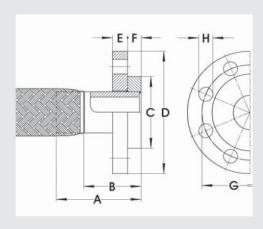
FLOATING FLANGES ACCORDING TO EN 1092-1

PN 06 (DIN 2641*)

Hose N	ominal ID			[Dimensi	ons in n	nm			Number
(mm)	(inch)	А	В	С	D	Е	F	G	Н	of holes
10	3/8"	62	52	35	75	12	10	50	11	4
15	1/2"	64	52	40	80	12	10	55	11	4
20	3/4"	67	52	50	90	14	10	65	11	4
25	1"	72	52	60	100	14	10	75	11	4
32	1.1/4"	72	52	70	120	16	10	90	14	4
40	1.1/2"	87	62	80	130	16	10	100	14	4
50	2"	92	62	90	140	16	12	110	14	4
65	2.1/2"	92	62	110	160	16	12	130	14	4
80	3"	98	68	128	190	18	12	150	18	4
100	4"	108	78	148	210	18	14	170	18	4
125	5"	170	119	178	240	20	14	200	18	8
150	6"	170	119	202	265	20	14	225	18	8
200	8"	195	131	258	320	22	16	280	18	8
250	10"	200	136	312	375	24	18	335	18	12

Floating Bange NW 125 to NW 250 EN1092-1 type 02/32 (thick collar) PN06 to PN40

- Carbon steel / Stainless steel



PN 10 (DIN 2642*)

Hose No	minal ID		Dimensions in mm							Number	
(mm)	(inch)	А	A B C D E F G H								
10 to 40				Us	e PN 40	dimen	sions	.,,,,			
50 to 150				Use	PN 16	dimens	ions				
200	8"	203	139	268	340	24	20	295	22	8	
250	10"	207	207 143 320 395 26 22 350 22								

PN 16 (DIN 2643*)

Hose No	minal ID		Dimensions in mm								
(mm)	(inch)	А	В	С	D	Е	F	G	Н	of holes	
10 to 40				Us	e PN 40	dimen	sions				
50	2"	92	62	102	165	20	16	125	18	4	
65	2.1/2	92	62	122	185	20	16	145	18	4 / 8*	
80	3"	98	68	138	200	20	16	160	18	8	
100	4"	108	78	158	220	22	18	180	18	8	
125	5"	177	126	188	250	22	18	210	18	8	
150	6"	177	126	212	285	24	20	240	22	8	
200	8"	203	139	268	340	26	20	295	22	12	
250	10"	207	143	320	405	29	22	355	26	12	



^{*} The European standard EN 1092-1 is based on the old DIN- standard. However, there are a few small differences.

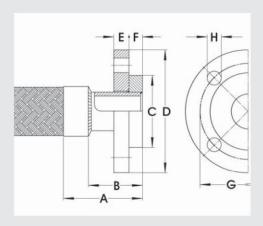


END CONNECTIONS

Fig. 14

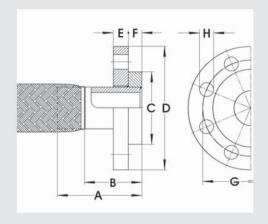
Floating Bange NW 06 to NW 100 EN1092-1 type 02/32 (thick collar) PN06 to PN40

- Carbon steel / Stainless steel



Floating Bange NW 125 to NW 250 EN1092-1 type 02/32 (thick collar) PN06 to PN40

- Carbon steel / Stainless steel



FLOATING FLANGES ACCORDING TO EN 1092-1

PN 25 (DIN 2644*)

Hose No	minal ID		Dimensions in mm								
(mm)	(inch)	А	В	С	D	Е	F	G	Н	of holes	
10 to 150			Use PN 40 dimensions								
200	8"	213	149	278	360	32	26	310	26	12	
250	10"	219	155	335	425	35	26	370	30	12	

PN 40 (DIN 2635*)

Hose No	ominal ID			[Dimensi	ons in n	nm			Number
(mm)	(inch)	А	В	С	D	Е	F	G	Н	of holes
10	3/8"	62	52	40	90	14	12	60	14	4
15	1/2"	64	52	45	95	14	12	65	14	4
20	3/4"	67	52	58	105	16	14	75	14	4
25	1"	72	52	68	115	16	14	85	14	4
32	1.1/4"	72	52	78	140	18	14	100	18	4
40	1.1/2"	87	62	88	150	18	14	110	18	4
50	2"	92	62	102	165	20	16	125	18	4
65	2.1/2"	92	62	122	185	22	16	145	18	8
80	3"	98	68	138	200	24	18	160	18	8
100	4"	108	78	162	235	26	20	190	22	8



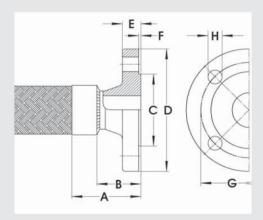


^{*} The European standard EN 1092-1 is based on the old DIN- standard. However, there are a few small differences.

END CONNECTIONS

Fig. 13

Fixed Bange 1/2" to 4"
ANSI welding neck / RF
Pressure class 150 lbs, 300 lbs
Carbon steel / Stainless steel

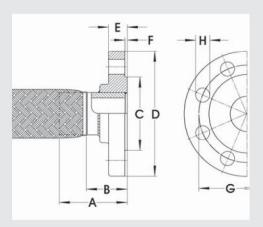


Fixed Bange 5" to 10"

ANSI Slip-on / RF

Pressure class 150 lbs, 300 lbs

Carbon steel / Stainless steel



FIXED FLANGES ACCORDING TO ANSI / ASME B16.5

ANSI 150 lbs.

Hose No	ominal ID		Dimensions in mm							Number
(mm)	(inch)	Α	В	С	D	Е	F	G	Н	of holes
12	1/2"	60	48	35,0	89,0	11,2	1,6	60,5	16,0	4
20	3/4"	67	52	43,0	98,5	12,7	1,6	70,0	16,0	4
25	1"	76	56	51,0	108,0	14,2	1,6	79,5	16,0	4
32	1.1/4"	77	57	63,5	117,5	15,7	1,6	89,0	16,0	4
40	1.1/2"	87	62	73,0	127,0	17,5	1,6	98,5	16,0	4
50	2"	94	64	92,0	152,5	19,1	1,6	120,5	19,0	4
65	2.1/2"	100	70	105,0	178,0	22,4	1,6	139,5	19,0	4
75	3"	100	70	127,0	190,5	23,9	1,6	152,5	19,0	4
100	4"	106	76	157,0	228,5	23,9	1,6	190,5	19,0	8
125	5"	127	77	185,5	254,0	23,9	1,6	216,0	22,0	8
150	6"	130	80	216,0	279,5	25,4	1,6	241,5	22,0	8
200	8"	150	90	270,0	343,0	28,4	1,6	298,5	22,0	8
250	10"	156	96	324,0	406,5	30,2	1,6	362,0	25,5	12

ANSI 300 lbs.

Hose No	ominal ID			D	imensio	ns in m	m			Number
(mm)	(inch)	А	В	С	D	E	F	G	Н	of holes
12	1/2"	64	52	35,0	95,0	14,2	1,6	66,5	16,0	4
20	3/4"	72	57	43,0	117,5	15,7	1,6	82,5	19,0	4
25	1"	82	62	51,0	124,0	17,5	1,6	89,0	19,0	4
32	1.1/4"	85	65	63,5	133,5	19,0	1,6	98,5	19,0	4
40	1.1/2"	93	68	73,0	155,5	20,6	1,6	114,5	22,0	4
50	2"	100	70	92,0	165,0	22,3	1,6	127,0	19,0	8
65	2.1/2"	106	76	105,0	190,5	25,4	1,6	149,0	22,0	8
75	3"	109	79	127,0	209,5	28,4	1,6	168,5	22,0	8
100	4"	116	86	157,0	254,0	31,7	1,6	200,0	22,0	8
125	5"	127	77	185,5	279,5	35,0	1,6	235,0	22,0	8
150	6"	130	80	216,0	317,5	36,5	1,6	270,0	22,0	12
200	8"	150	90	270,0	381,0	41,1	1,6	330,0	25,5	12
250	10"	156	96	324,0	444,5	47,7	1,6	387,5	28,5	16

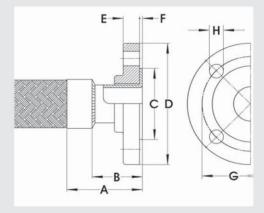




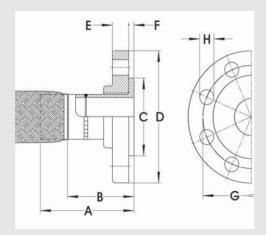
END FITTINGS

Fig. 14

Floating Bange 1/2" to 4"
ANSI lap joint with stub-end.
Pressure class 150 lbs, 300 lbs
Carbon steel / Stainless steel



Floating Bange 5" to 10"
ANSI lap joint with stub-end.
Pressure class 150 lbs, 300 lbs
Carbon steel / Stainless steel



FLOATING FLANGES ACCORDING TO ANSI / ASME B16.5

ANSI 150 lbs.

Hose No	ominal ID			D	imensio	ns in m	m			Number
(mm)	(inch)	А	В	С	D	Е	F	G	Н	of holes
12	1/2"	64	51	35,0	89,0	9,6	2,11	60,5	16,0	4
20	3/4"	67	51	43,0	98,5	11,1	2,11	70,0	16,0	4
25	1"	72	51	51,0	108,0	12,6	2,77	79,5	16,0	4
32	1.1/4"	72	51	63,5	117,5	14,1	2,77	89,0	16,0	4
40	1.1/2"	77	51	73,0	127,0	15,9	2,77	98,5	16,0	4
50	2"	94	64	92,0	152,5	17,5	2,77	120,5	19,0	4
65	2.1/2"	94	64	105,0	178,0	20,8	3,05	139,5	19,0	4
75	3"	98	64	127,0	190,5	22,3	3,05	152,5	19,0	4
100	4"	108	76	157,0	228,5	22,3	3,05	190,5	19,0	8
125	5"	200	150	185,5	254,0	22,3	3,40	216,0	22,0	8
150	6"	200	150	216,0	279,5	23,8	3,40	241,5	22,0	8
200	8"	235	175	270,0	343,0	26,8	3,80	298,5	22,0	8
250	10"	270	210	324,0	406,5	28,6	4,20	362,0	25,5	12

ANSI 300 lbs.

Hose No	ominal ID			D	imensio	ns in m	m			Number
(mm)	(inch)	А	В	С	D	Е	F	G	Н	of holes
12	1/2"	64	51	35,0	95,0	12,6	2,11	66,5	16,0	4
20	3/4"	67	51	43,0	117,5	14,1	2,11	82,5	19,0	4
25	1"	72	51	51,0	124,0	15,9	2,77	89,0	19,0	4
32	1.1/4"	72	51	63,5	133,5	17,4	2,77	98,5	19,0	4
40	1.1/2"	87	51	73,0	155,5	19,0	2,77	114,5	22,0	4
50	2"	92	64	92,0	165,0	20,7	2,77	127,0	19,0	8
65	2.1/2"	92	64	105,0	190,5	23,8	3,05	149,0	22,0	8
75	3"	98	64	127,0	209,5	26,8	3,05	168,5	22,0	8
100	4"	108	76	157,0	254,0	30,1	3,05	200,0	22,0	8
125	5"	200	150	185,5	279,5	33,4	3,40	235,0	22,0	8
150	6"	200	150	216,0	317,5	34,9	3,40	270,0	22,0	12
200	8"	235	175	270,0	381,0	39,5	3,80	330,0	25,5	12
250	10"	270	210	324,0	444,5	46,1	4,20	387,5	28,5	16





ENGINEERING DATA

IMPORTANT POINTS WHEN INSTALLING HOSE ASSEMBLIES

AXIAL LOAD

Axial compression may lead to squirm of the corrugated hose. Axial tension lowers the pressure capacity of braided hose.

BENDING

Install a hose in its most natural loop. Overbending lowers the pressure capacity and the cycle life

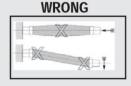
WEIGHT

The weight of the hose and the medium must be supported adequately.

TORSION

Torsion must be avoided. Torsion occurs when the movements are not in the same plane as the Etings.

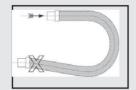
RIGHT

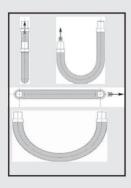


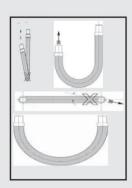












INSTRUCTIONS FOR SELECTING, INSTALLATING AND MOUNTING

The life time of metal hoses will increase when the following instructions are implemented:

- 1. Select the right Atings
 Whenever possible select at least one swivel Ating or a Boating Bange. This avoids torsion problems during installation.
- Do not overbend the hose (check technical data)
 Avoid overbending, specially close to the Patings. Install the hose in its most natural position, free of kinks and sharp bends.
- Do not torque a corrugated metal hose
 Torsion can have dramatic consequences on the life of a corrugated metal hose. Torsion occurs when the movements are not in the same plane as the Atings. Use two keys when Exing swivel nuts.

 Note: Stripwound hose can absorb some torsion.
- 4. Avoid scratching over rough surfaces
 The braiding is the essential part of a hose assembly to withstand the internal pressure. A damaged braid diminishes the pressure capacity of the assembly and is detrimental to its function.
- 5. Avoid exposure to weld or grinding splatters
 Weld or grind splatters may lead to corrosion of the stainless steel parts. Use a heat proof shield (no plastic!) during welding
 or grinding in the proximity of metal hoses.

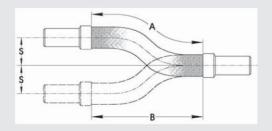




ENGINEERING DATA

DETERMINING MINIMUM OVERALL LENGTH FOR INTERMITTENT FLEXURE

From the "minimum c/l bend radius for ßexing bend" column in the hose specilications, obtain the proper bend radius for the type and size of hose chosen. Use the formulae below to calculate the length "A" of the exposed hose required. Determine the overall length of Htings from Hting specilication pages and add to the exposed length of hose "A" to arrive at the assembly overall length. Distance between end connections should be such that there is no stress on the hose in the extreme offset position.



FOR INTERMITTENT FLEXURE

Use formulae and table for "K" below to determine the required hose length "A".

Formula

$$A = 2.8 \sqrt{R_h \times 2S}$$

B = K x A

* When S≤0,5R, otherwise another installation is required.

In order to 1nd the overall length, add the length of the 1nd the calculated length "A".

Example

Hose nominal I.D. 32 mm.

Type BW656-1S, min. c/l bend radius for Bexing bend $R_h = 230$ mm from table. Desired movement S = 80 mm, $0.5R_h = 0.5 \times 230 = 115$ $\Rightarrow S(=80) \le 115 \Rightarrow \text{ is allowed.}$

Calculation

$$A = 2.8\sqrt{230 \times 2 \times 80} = 537 \text{ mm}$$

$$A/S = 537 / 80 = 6,71$$
 K = 0,988 (see table "K")

 $B = 0.988 \times 537 = 531 \text{ mm}$

FOR NON-MOVING OFFSET INSTALLATIONS

Use formulae and table for "K" below to determine the required hose length "A".

Formula

$$A = 2\sqrt{R_e \times 2S}$$

B = K x A

* When S≤1,5R_a, otherwise another installation is required.

In order to Find the overall length, add the length of the Fitings to the calculated length "A".

Example

Hose nominal I.D. 50 mm.

Type BW856-1H, min. c/l bend radius for permanent bend $R_{\rm a}$ = 140 mm from table.

Desired movement S = 120 mm, $1.5R_e = 1.5 \text{ x } 140 = 210 \Rightarrow S(=120) \le 210 \Rightarrow \text{ is allowed.}$

Calculation

$$A = 2\sqrt{140 \times 2 \times 120} = 366 \text{ mm}$$

$$A/S = 366 / 120 = 3,05$$
 K = 0,930 (see table "K")

 $B = 0.930 \times 366 = 340 \text{ mm}$

EXPLANATION OF FORMULA

A = Exposed length of hose

B = Installed length of hose (as illustrated)

S = Lateral movement

K = Factor, see table below

R_b = min. c/l bend radius for Bexing bend

R_a = min. c/l bend radius for permanent bend

TABLE FOR K

A/S	2	2,5	3	3,5	4	4,5	5	6	7	8	9	10	11	12	13	≥ 14
K	0,825	0,897	0,928	0,947	0,960	0,970	0,975	0,985	0,990	0,993	0,994	0,995	0,996	0,997	0,997	0,998





ENGINEERING DATA

VERTICAL LOOP FOR MAXIMUM VERTICAL TRAVEL

The illustration on the right shows the proper method **Example** of installing hose in vertical loops.

The formula and the table for "B" will aid in determining the overall length of an assembly.

Formula

Overall length= B + 0/15 . A + 0,5S

Data

Using 25 mm type BW856-1H hose with Etings attached.

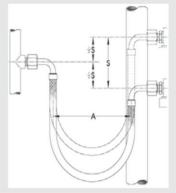
 $A = 230 \times 2 = 460 \text{ mm} (2 \times \text{minimum} \text{ c/l})$ bend radius for Bexing bend", see table type BW856).

B = 410 mm (from table "B")

S = 200 mm (desired movement)

Overall length=

 $410 + 0.5 \Gamma$. 460 + 100 = 1232.6 mmor appr. 1235 mm.



VERTICAL LOOP FOR SHORT HORIZONTAL TRAVEL

The formula and the table for "B" will aid in determining the overall length for an assembly when installed as illustrated in the drawing on the right.

Formula

Overall length = $B + 0.5 \Gamma (A + S)$

$$C = \frac{A + B + (0,5 \, \Gamma \cdot S)}{2}$$

Data

Using 10 mm type BW656-1S, with Pttings attached.

Example

 $A = 150 \times 2 = 300 \text{ mm}$ (2x min. c/l bend radius for Bexing bend, see type BW 656).

B = 280 mm (from table "B")

S = 250 mm (desired movement)

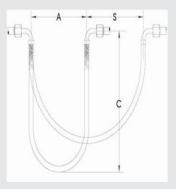
Overall length =

 $280 + 0.5 \Gamma (300 + 250) = 1143.9 \text{ mm or}$

appr. 1145 mm.

$$C = \frac{300 + 280 + (0.5 \, \mathbb{F} \cdot 250)}{2}$$

C = 486,3 mm or appr. 490 mm.



HORIZONTAL LOOP FOR MAXIMUM HORIZONTAL TRAVEL

The illustration on the right is another example of a typical installation of hose in which the movement is horizontal. The purpose of the support is to prevent the hose from sagging and causing failure near the Ettings.

Formula

Overall length= B + 0,5 **Γ** . A + 0,5S

Using 12 mm type BW856-1H hose with Pttings attached.

Example

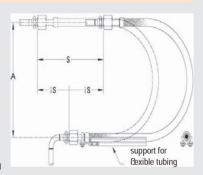
A = 2 x 205 = 410 mm (2x "minimum c/l bendradius for Bexing bend", see type BW856)

B = 310 (from table "B")

S = desired movement 550 mm

Overall length=

 $310+(0.5 \Gamma.410)+(0.5 \times 550)=1229 \text{ mm}$ or appr. 1230 mm.



EXPLANATION OF FORMULA

 $A = Bend diameter (2 x R_b)$

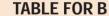
B = Factor including the length of Pttings and allowance for straight sections beyond each Ptting.

S = Movement

Required free height

= min. c/l bend radius for Bexing bend

R = min. c/l bend radius for permanent bend



Inside hose	mm	5-8	10	12-15	20	25	32	40	50	65	75	100	125	150	200	250
Diameter	inch	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	4"	5"	6"	8"	10"
В	mm	230	280	310	360	410	460	510	560	610	660	760	840	910	1020	1170



ENGINEERING DATA

MISALIGNMENT AND OFFSET MOVEMENTS

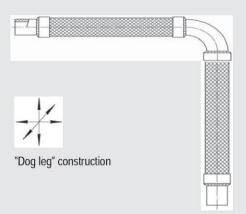
For intermittent offset movement consult offset formula on page 9 and the "minimum c/l bend radius for Bexing bend" columns in speciFcations for each type and size of corrugated hose.

For misalignment and ease of installation where there is no signite and movement or vibration, consult offset formula on page 9 and "minimum c/l bend radius for permanent bend" columns in specite ations for each type and size of corrugated hose.



MULTIPLE MOVEMENTS

To absorb movements in several directions and at several planes, a 90° Bexible hose assembly is recommended, made up out of two short Bexibles which are connected by a 90° pipe angle. At both ends of the assembly swivel Banges are used for connection to the piping system. This is important in order to avoid tension of the Bexible hoses during installation. The required length of the hoses is determined by various movements. Torsion on account of these movements will then be absorbed by both hoses.



VIBRATION

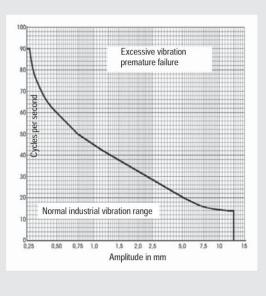
Normal vibration encountered in average industrial applications is illustrated in the chart on the right.

Under these conditions the exposed length of hose (Dimension L, drawing at right), should never be shorter than length given in "min. exposed length for normal vibration" in specilications for each type and size of corrugated hose.

DeFnitions

Amplitude equals lateral displacement from c/l of hose. Double amplitude equals lateral displacement on both sides of hose or 2 times the amplitude.









CORROSION RESISTANCE TABLE

The following tables may be used only as a guide in the selection of the most suitable hose and Eting material for a given medium. The listed media are in general considered to be pure, at room temperature and, unless otherwise specified, dry. A change in any one of these conditions may change the rating. No attempt has been made to account for variations in service conditions since these variables are too innumerable and complex.

Additional information on service life, etc., is keyed to the notes behind the rating code A, B or C.

"Dry" can also be referred to as "anhydrous".

When there is a question about this reference table or you have unusual service conditions or media, contact us before ordering.

RATING CODE

- A Suitable (normal condition)
- B Limited Service
- C Unsuitable

NOTES

- ¹ Susceptible to intergranular corrosion
- ² May cause explosive reaction
- ³ Susceptible to stress corrosion cracking
- ⁴ Susceptible to pitting type corrosion
- ⁵ Discolors
- ⁶ Concentration over 50% and/or temperature over 95°C, refer to our engineering department.

	Monel	Carbon	Stainless	Stainless
	IVIOLICI	steel	304L/321	316L
Acetaldehyde	А	В	Α	Α
Acetanilide	В	В	В	В
Acetic acid	В	С	B ¹	A ¹
Acetic anhydride	В	С	В	В
Acetone	A	С	В	В
Acetophenone	A	Α	В	В
Acetylene	A	A	A	A
Acrylates	В	В	В	В
Acrylic acid	В	C	В	В
Acrylonitrile	A	Ā	A	A
Alcohols	A	A ⁵	Ä	A
Alum	B	Ċ	B	B
Alumina	A	Ä	A	Ā
Aluminum acetate	B	C	В	B
Aluminum chloride - dry	A	В	A	Ā
Aluminum chloride - moist	B	C ³	C ^{3,4}	C ³
Aluminum Buoride	В	В	C	C
Aluminum hydroxide	В	В	Ä	A
Aluminum sulfate	B	C	B ^{1,3}	A ³
	A	A	A	A
Ammonia - dry	C	C ³	A	A
Ammonia - moist				
Ammonium acetate	A	A	A	A C4
Ammonium bromide	В	C	C ⁴	C ⁴
Ammonium chloride - dry	A	В	A C ^{3,4}	A 03
Ammonium chloride - moist	В	С		C ³
Ammonium hydroxide 6	A	В	A	A
Ammonium nitrate	C ²	C ³	A	A
Ammonium sulfate	В	C	C ¹	В
Amyl acetate	A	A	A	A
Amyl alcohol	A	Α	Α	Α
Amyl chloride - dry	A	В	A	A
Amyl chloride - moist	В	С	C ^{3,4}	C ³
Aniline	A	С	В	В
Aniline dyes	A	C	В	В
Asphalt	A	A	Α	Α
Atmosphere - industrial	Α	С	B ⁴	A ⁴
Atmosphere - marine	A	С	B ⁴	B ⁴
Atmosphere - rural	А	С	А	А
Barium carbonate	В	В	В	В
Barium chloride - dry	A	A	A	A
Barium chloride - moist	В	В	C ^{3,4}	C ³
Barium hydroxide	В	В	В	Ā
Barium sulfate	В	В	В	B
Barium sulide	C	C	В	В
Beer	A	C	A	A
Beet sugar syrups	A	В	A	A
	B	C	B	B
Benzaldehyde				
Benzene (Benzol)	A	A	A	A
Benzoic acid	В	С	A	A
Benzylamine	В	В	В	В
Benzyl chloride - dry	A	В	A	A
Benzyl chloride - moist	В	C	C ^{3,4}	C ³
Black liquor sulfate process	A	L C	R	R

	Manal	Carbon	Stainless	Stainless
	Monel	steel	304L/321	316L
Bleaching powder - dry	Α	С	A C ^{1,3,4}	Α
Bleaching powder - moist	В	С	C1,3,4	C ^{3,4}
Borax	Α	В	Α	Α
Bordeaux mixture	Α	В	A	Α
Boric acid	В	С	А	А
Boron trichloride - dry	В	Α	В	В
Boron trichloride - moist	В	В	C ^{3,4}	C ³
Boron trißuoride - dry	В	Α	В	В
Brines	В	С	C ^{3,4}	C ³
Bromic acid	С	С	С	С
Bromine - dry	Α	С	В	В
Bromine - moist	В	С	С	С
Butadiene	Α	Α	A	Α
Butane	Α	Α	Α	Α
Butanol (butyl alcohol)	Α	A ⁵	A	A
Butyl phenols	Α	B ⁵	В	В
Butylamine	Α	Α	A	Α
Butyric acid	В	С	В	В
Cadmium chloride - moist	В	С	C ^{3,4}	C ³
Cadmium chloride - dry	Α	Α	A	Α
Cadmium sulfate	Α	В	A	Α
Calcium bisulte	В	В	B ¹	В
Calcium bromide	В	С	C ³	C ³
Calcium chloride - moist	В	С	C ^{3,4}	C ³
Calcium chloride - dry	A	Α	А	A
Calcium Buoride	В	С	С	С
Calcium hydroxide	В	С	В	В
Calcium hypochlorite - moist	В	С	C ^{3,4}	C3,4
Calcium hypochlorite - dry	A	В	A	A
Calcium nitrate	В	C ¹	B ¹	В
Calcium oxide	A	A	A	A
Cane sugar syrups	A	В	A	A
Carbolic acid (phenol)	В	C	В	A
Carbon dioxide - dry	A	A	A	A
Carbon dioxide - moist	A	C	A	A
Carbonated beverages	A	С	A	A
Carbonated water	A	C	A	A
Carbon disulade	В	В	В	В
Carbon tetrachloride - dry	A	В	A 034	A
Carbon tetrachloride - moist	В	C	C ^{3,4}	C4
Castor oil	A	A	A	A
Chlorine - dry	A	В	A C ^{3,4}	A
Chlorine - moist	В	C	C ^{3,4}	C ³
Chloroacetic acid	В	C	C3,4	C ³
Chloric acid	C	C	C ³	C ³
Chlorine dioxide - dry	A	В	A C ^{3,4}	A O3
Chlorine dioxide - moist	В	C		C ₃
Chloroform - dry	A	A	A C ^{3,4}	A C3
Chloroform - moist	В	C C ³	C ^{1,4}	C ³
Chromic acid	В		Civ	В
Chromic Buorides	В	С	С	С
Chromic hydroxide	B B	B C	B	B B
Chromium sulfate	В	L	В	В





CORROSION RESISTANCE TABLE

RATING CODE

A - Suitable (normal condition)

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NOTES

¹ Susceptible to intergranular corrosion

May cause explosive reaction
 Susceptible to stress corrosion cracking

⁴ Susceptible to pitting type corrosion

Discolors

⁶ Concentration over 50% and/or temperature over 95°C, refer to our engineering department.

		Carbon	Stainless	Stainless
	Monel	steel	304L/321	316L
Cider	Α	С	А	Α
Citric acid	В	С	В	В
Coffee	A	C	A	A
Copper chloride - dry	A	В	A 034	A
Copper chloride - moist	В	C	C ^{3,4}	C ³
Copper nitrate Copper sulfate	B	C	A B ¹	A B
Corn oil	A	Ä	A	A
Cottonseed oil	A	A	A	A
Creosole	A	A	A	A
Crude oil	Α	С	C ¹	В
Cyclohexane	В	В	В	В
DDT	B⁴	С	A	Α
Dichloroethane - dry	A	A	A	A
Dichloroethane - moist	В	C	C ⁴	C ⁴
Dichloroethylene - dry	A	В	A C4	A C4
Dichloroethylene - moist	В	C	C ⁴ B ³	C ⁴ B ³
Dichlorophenol Diisocyanate	B A	C B	A	A B
Dimethyl sulfate	B	В	В	B
Epichlorohydrin - dry	A	C ⁴	A	A
Epichlorohydrin - moist	В	C ⁴	C ^{3,4}	C ³
Ethane	A	A	A	A
Ethers	Α	В	А	А
Ethyl acetate	В	В	В	В
Ethyl alcohol	Α	A	Α	A
Ethyl benzene	В	В	B ³	В
Ethyl chloride - dry	A	A	A	A
Ethyl chloride - moist	В	C	C ^{3,4}	C ³
Ethylene chlorobydrin dry	A	A B	A	A
Ethylene chlorohydrin - dry Ethylene chlorohydrin - moist	B	C	C ⁴	C ⁴
Ethylene diamine	В	В	В	В
Ethylene glycol	A	A	A	A
Ethylene oxide	В	В	A	A
Fatty acids	В	С	B ^{1,4}	Α
Ferric chloride - dry	Α	В	А	Α
Ferric chloride - moist	В	С	C1,3,4	C ^{3,4}
Ferric nitrate	C	C	B	В
Ferric sulfate	C	C	B ¹	A
Ferrous chloride - dry	A B	B C	A C ^{3,4}	A C ³
Ferrous chloride - moist Ferrous sulfate	A	C	B ⁴	В
Fluorine - dry	A	Ā	A	A
Fluorine - moist	В	C	C	Ĉ
Formaldehyde	A ⁵	B ⁵	В	В
Formic acid	В	С	B ¹	А
Freon	Α	А	Α	А
Fruitjuices	Α	С	Α	Α
Fuel oil	A	С	A	A
Furfural	A	В	A	A
Gasoline	A	B C	A	A
Glucoso	A	В	A	A
Glucose Glue	Δ	C	A	A
Glutamic acid	A E ³	C	B ^{3,4}	B ^{3,4}
Glycerin (glycerol)	A	B ⁵	A	A
Heptane	Α	A	A	A
Hexachloroethane - dry	Α	В	A	l A
Hexachloroethane - moist	В	С	C ⁴	C ⁴
Hydrazine	С	С	A	A
Hydrobromic acid	С	C	C ⁴	С
Hydrocarbons, pure	A	A	A	A
Hydrochloric acid	В	C	C ⁴ C ^{1,3}	C ⁴
Hydrocyanic acid	В	C ³	C1,3	C ³
Hydroßioric acid	B B	C	C	C
Hydroßuorsilicic acid	D			

	Monel	Carbon	Stainless 304L/321	Stainless 316L
Hydrogen	A	A	A	A
Hydrogen chloride - dry	A	B	A	A
Hydrogen chloride - moist	B	C	C ⁴	C ⁴
Hydrogen peroxide	C	Č	В	В
Hydrogen sulPde - dry	A	В	A	A
Hydrogen sulPde - moist	E ³	C ³	B ⁴	A
Hydroquinone	В	B ⁵	В	B
Kerosine (kerosene)	A	В	A	A
Lacquers	A	A	A	A
Lacquer solvents	A	A	A	A
Lactic acid	В	C	B ^{1,4}	B ¹
Lime	A	В	A	A
Lime - sulfur	В	C	В	В
Linseed oil	A	В	A	Ā
Lithium chloride - dry	A	В	A	A
Lithium chloride - moist	B	В	C ^{3,4}	C ³
Lithium hydroxide	В	В	В	В
Magnesium chloride - dry	A	В	A	Α
Magnesium chloride - moist	B	C	C3,4	C ³
Magnesium hydroxide	A	Ā	A	A
Magnesium sulfate	A	B	B	A
Maleic acid	B	В	B ¹	В
Mercuric chloride - dry	A	В	A	A
Mercuric chloride - moist	B	C	C3,4	C ³
Mercurous nitrate	B ³	В	В	В
Mercury	B ³	В	В	В
Methyl alcohol	A	A	A	A
Methane	A	A	A	A
Methyl chloride - dry	A	A	A	A
Methyl chloride - moist	B	Ĉ	C ^{3,4}	C ³
Methyl ethyl ketone	В	В	В	В
Milk	A	C	A	A
Mine water	B	Č	B	B
Napthalene	В	A	A	A
Natural gas	A	A	A	A
Nickel chloride - dry	A	В	A	A
Nickel chloride - moist	B	C	C ^{3,4}	C ³
Nitric acid	C	č	A	A
Nitrotoluene	В	B	B	В
Nitrogen	A	A	A	A
Oleic acid	A	C	B ⁴	В
Oleum (fuming H2S04)	C	B ³	В	В
Axalic acid	В	C	C ¹	B ¹
Oxygen	A	Č	A	A
Palmitic acid	A	Č	A	A
ParaPn	A	В	A	A
Pentane	B	В	В	В
Phenol (carbolic acid)	В	C	В	A
Phosphoric acid	В	Č	C ¹	B ¹
Phthalic acid	В	C	B ¹	В
Pitric acid	C	C	В	В
Potassium bromide	В	Č	C	C
Potassium carbonate	A	В	Ä	Ä
Potassium chloride - dry	A	A	A	A
Potassium chloride - moist	B	C	A C ^{3,4}	A C ³
Potassium chromate	В	Č	В	В
Potassium cyanide	A	В	В	В
Potassium dichromate	A	C	A	A
Potassium Buoride	В	Č	C	C
Potassium hydroxide	A ³	B ³	B ³	Ā
Potassium nitrate	B	В	В	A
Potassium permanganate	В	В	В	В
Potassium sulfate	В	C	В	В
Propane	A	Ā	A	A
Propylene	A	A	A	A
	1 /1			
Propylene oxide	С	С	Α	Α





CORROSION RESISTANCE TABLE

RATING CODE

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NOTES

Susceptible to intergranular corrosion
 May cause explosive reaction
 Susceptible to stress corrosion cracking
 Susceptible to pitting type corrosion

⁵ Discolors

⁶ Concentration over 50% and/or temperature over 95°C, refer to our engineering department.

						асрагансі			
		Carbon	Stainless	Stainless			Carbon	Stainless	Stainless
	Monel					Monel		304L/321	And and a second
		steel	304L/321	316L			steel		316L
Propylene dichloride - moist	В	C	C ⁴	C⁴	Trichloroacetic acid	В	C	C3,4	C ⁴
Pyridine	В	B ⁵	В	В	Trichloroethane - dry	A	A	A C4	A C4
Pyrrolidine	В	В	B B	A B	Trichloroethane - moist Trichloroethylene - dry	В	C	C ⁴	C ⁴
Quinine Rosin	B A	C C ⁵	A	A	Trichloroethylene - moist	A B	A C	A C ⁴	A C ⁴
Sea water	B	C	C3,4	C ³	Turpentine	A	В	A	A
Sewage	A	В	A	A	Varnish	A	В	A	A
Silver salts	A	Č	В	В	Vinegar	B	C	A	A
Silver nitrate	Ĉ	C ³	В	A	Water, potable	A	Č	A	A
Soap solutions	Ā	В	A	A	Xylene	A	В	A	A
Sodium	Α	Α	Α	Α	Zinc chloride - dry	Α	Α	Α	Α
Sodium acetate	В	В	B ⁴	В	Zinc chloride - moist	В	С	C3,4	C ³
Sodium bicarbonate	A	С	A	A	Zinc sulfate	В	С	В	Α
Sodium bisulfate	В	С	B ^{1,4}	Α					
Sodium bisulite	B ⁴	С	В	В					
Sodium bromide	В	В	C	C					
Sodium carbonate	A	В	A	A					
Sodium chlorate - dry	A	A	A C ^{3,4}	A C3					
Sodium chlorate - moist	В	С		C ₃					
Sodium chloride - dry	A	В	A C ^{3,4}	A C ³					
Sodium chloride - moist Sodium chromate	B A	C B	A A	A					
Sodium citrate	B	В	B	В					
Sodium cyanide	В	В	В	В					
Sodium dichromate	В	C	A	A		-			
Sodium Guoride	A	В	C ⁴	C					
Sodium hydroxide 6	A	B ³	B ³	B ³					
Sodium hypochlorite - dry	A	В	A	A					
Sodium hypochlorite - moist	В	C	C1,4	C ⁴					
Sodium metasilicate	A	В	А	А					
Sodium nitrate	А	B ³	А	Α					
Sodium nitrite	В	В	В	В					
Sodium peroxide	В	С	Α	Α					
Sodium phosphate	Α	С	A	A					
Sodium silicate	A	В	A	A					
Sodium sulfate	A	В	B ³	В					
Soldium sulPde	A	C	B ⁴	В					
Sodium sulfte	A	C	В	В					
Sodium thiosulfate	A	С	В	В		1			
Stannic chloride - dry	A	B C	A C ^{3,4}	A C ³					
Stannic chloride - moist Stannous chloride - dry	B A	В	A	A	-				
Stannous chloride - moist	B	C	C3,4	C ³	-	+			
Steam	A ³	C	A	A					
Stearic acid	В	C ⁵	B	В					
Strontium nitrate	В	C	В	В					
Sulfate black liquor	В	В	В	В					
Sulfate green liquor	В	В	B ³	В					
Sugar solutions	A	В	A	A					
Sulfur - dry	Α	В	Α	Α					
Sulfur - molten	С	С	С	В					
Sulfur chloride - dry	А	С	A	A					
Sulfur chloride - moist	В	С	C ^{3,4}	C ³					
Sulfur dioxide - dry	В	С	C ¹	В					
Sulfur dioxide - moist	C	С	C ¹	В					
Sulfur trioxide - dry	A	C	A	A					
Sulfuric acid, 95-100%	В	В	A	A					8
Sulfuric acid, 80- 95%	В	C	B	B					
Sulfuric acid, 40- 80%	C	C	C ¹	C ¹					
Sulfuric acid, 40% Sulfurous acid	C	С	C1,4	C1,4					
Tail oil	B B	C B	В	В					
Tannic acid	В	C ⁵	В	В					
Tarinic acid	A	В	A	A					
Tartaric acid	В	C	B	В					
Tetraphosphoric acid	C	C	В	В					
Toluene	A	A	A	A					





ANAFLEX® CORRUGATED HOSE: Quick and perfect solution for every HVAC installation



ANAFLEX® from Anamet Europe B.V. is the perfect ßexible solution for HVAC installations. The ideal solution for a great number of applications. The ANAFLEX® system has been designed as a self-mounting ßexible hose system for heating, steam-tracing, cooling-ceilings, watersupply, boiler-connection, machine-ßuid-connection and solar-panel-connection applications. The ßexible ANAFLEX® corrugated hose is made of high quality stainless steel (AISI-316L), does not age and is diffusion-tight. ANAFLEX® solves the problem of rubber and plastic hoses, which due to oxygen-diffusion and ageing can damage the installation. The ßexible stainless steel hose is easy to handle and easy to cut to the desired length, which saves installation time.

Material & Construction:

Construction: Flexible parallel corrugated hose, made of thin wall

stainless steel AISI-316L

Temperature range: 0 °C tot +110 °C (for higher temperatures till

+250 °C please consult Anamet Europe B.V.).

Colour: Metal.



Product advantages:

- No oxygen diffusion, prevents damage and does not block the installation.
- Does not kink.
- Durable and does not age.
- Is corrosion resistant.

Mounting advantages:

- You decide the length on the spot.
- Quick and efficient mounting.
- Smooth installation.
- Very long life time.



Standard corrugation

Anaßex*	Diar	netre	Working-	Bending-	Standa	ard carton	Small carton		Reel		Weight
Size	Inside	Outside	Pressure	radius	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
DN	(mm)	(mm)	(Bar)	Static (mm) *							
DN 12	12,2	16,7	12	45	30	465.012.1	10	465.012.3	120	465.012.5	0,12
DN 16	16,2	21,5	10	60	30	465.016.1	10	465.016.3	90	465.016.5	0,20
DN 20	20,3	26,7	8	70	30	465.020.1	10	465.020.3	60	465.020.5	0,28
DN 25	25,4	32,3	6	100	30	465.025.1	10	465.025.3	-	-	0,39

^{*} For dynamic applications, please consult your Anamet representative.

The ANAFLEX* stainless steel hoses can be used in combination with the unique ANAFLEX*-CLICK Pttings, as mentioned on the next page.

This combination gives you many advantages:

- You can install the Littings yourself.
- Quick and eflicient working method.
- SigniPcant installation time reduction.
- Smooth and perfect result.



Anaßex*	-	-		12	16	20	25	-	-	-		-
Male BSPT Female BSPP Pipe compression		-	-	3/8"-1/2"	1/2"-3/4"	3/4"-1"	1"	-	-	-	-	
		-		3/8"-1/2"	1/2"-3/4"	3/4"-1"	1"	-	-	-	-	
	-	-	-	-	15-18 mm	18-22 mm	-	-	2	-	-	-





ANAFLEX® -CLICK FITTINGS: Nickel plated brass Ettings with unique click-system.



For the stainless steel ANAFLEX® corrugated hose an unique mounting Ptting has been developed. The major advantage of the ANAFLEX® -CLICK Ptting is the quick-mounting directly on the hose. After turning the backnut (2 till 3 full turns) a tensile strong and liquid-tight connection is made. The nickel plated brass Pttings are suitable for cold and hot water as well as steam.



Construction: Nickel plated brass Etting, consisting of 6 parts



(body, counter nut, retaining ring and Aler ring are nickel plated brass, internal sealing sleeve is from PTFE and the internal Bat seal is from silicone rubber). **Special approvals:** Click system tested and approved by the "Institut für Solartechnik SPF" (Switzerland). **Temperature range:** 0 °C till +110 °C (for higher temperatures please consult Anamet Europe B.V.).

Colour: metal.



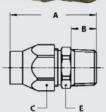


Figure C3, nickel plated brass click Etting, male, BSPT

Thread	Anaßex	ID Hose		Dimer	nsions	in mm	Standard	Article	Weight	
size	Size (DN)	(mm)	Α	В	С	D	Е	Package	Number	(Kg/100)
3/8" BSPT	DN 12	12,2	49	14	24	-	22	10	400.010.3	6,1
1/2" BSPT	DN 12	12,2	50	15	24	-	22	10	400.012.3	6.3
1/2" BSPT	DN 16	16,2	58	17	29	-	27	10	400.016.3	9,7
3/4" BSPT	DN 16	16,2	59	17	29	-	27	10	400.018.3	10,5
3/4" BSPT	DN 20	20,3	62	17	36	-	34	10	400.020.3	16,0
1" BSPT	DN 20	20,3	66	18	36	_	34	10	400.022.3	18,3
1" BSPT	DN 25	24,0	63	18	42	-	40	5	400.025.3	22,8



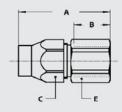


Figure C6, nickel plated brass click Etting, female, BSPP

Thread	Anaßex	ID Hose		Dimer	nsions	in mm	Standard	Article	Weight	
size	Size (DN)	(mm)	Α	В	С	D	Е	Package	Number	(Kg/100)
3/8" BSPP	DN 12	12,2	45	13	24	-	22	10	400.010.6	6,5
1/2" BSPP	DN 12	12,2	48	15	24	-	27	10	400.012.6	7,8
1/2" BSPP	DN 16	16,2	54	15	29	-	27	10	400.016.6	9,9
3/4" BSPP	DN 16	16,2	55	17	29	-	32	10	400.018.6	11,8
3/4" BSPP	DN 20	20,3	58	17	36	-	34	10	400.020.6	16,6
1" BSPP	DN 20	20,3	62	20	36	-	41	10	400.022.6	22,1
1" BSPP	DN 25	24,0	65	20	42	-	40	5	400.025.6	22,8



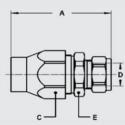


Figure C8, nickel plated brass click Etting, pipe compression.

Pipe	Anaßex	ID Hose		Dime	nsions	in mm	Standard	Article	Weight	
diameter	Size (DN)	(mm)	Α	В	С	D	Е	Package	Number	(Kg/100)
Ø 15 mm	DN 16	16,2	60	-	29	15	27	10	400.015.8	9,9
Ø 18 mm	DN 16	16,2	61	-	29	18	32	10	400.018.8	11,8
Ø 18 mm	DN 20	20,3	66	-	36	18	34	10	400.020.8	16,6
Ø 22 mm	DN 20	20,3	67	-	36	22	41	10	400.022.8	22,1





ENGINEERING DATA

QUALITY ASSURANCE

Within ANAMET EUROPE B.V. quality assurance is integrated in the corporate philosophy and adopted at all levels within the company.

The objective of the company's Quality Assurance Programme is to operate a quality level conform to ISO-9001.

In addition to the requirements and specilications of end-users ANAMET produces conform international regulatory standards of independent classification authorities.

ANAMET EUROPE B.V. is since 2002 certified by "Stoomwezen B.V." to produce Bexible hoses according to the Pressure Equipment Directive (PED) 97/23/EG, even up to category II.



European HQ: Amsterdam



Production



Welding zone



Laboratory



Warehouse & Logistics



Hose preparation zone



Testing zone



Warehouse facilities



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