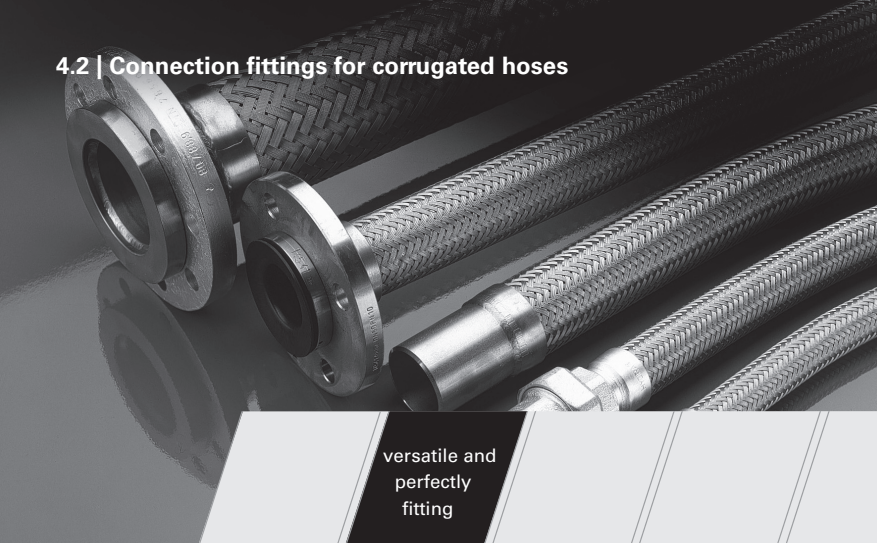


## 4.2 | Connection fittings for corrugated hoses



versatile and  
perfectly  
fitting

A multitude of different connections ensures that our metal hoses have a broad range of applications. Depending on the operating conditions and materials used, the connections are either welded or brazed to the hose. Below is a selection of common connection types. The first letter of the type designation indicates the respective connection type.

### Flange connection

- A Loose flange with welding collar  
Swivel flange
- B Loose flange with collar connection  
piece  
Swivel flange
- C Loose flange with welding rim  
Swivel flange
- G Welding neck flange  
Fixed flange

### Threaded connection

- L Fixed, internal thread
- M Fixed, external thread
- N Swivel, internal thread

### Threaded fitting

- Q Internal thread
- R External thread
- S Pipe end

### Pipe fitting

- U Pipe fittings of all kinds

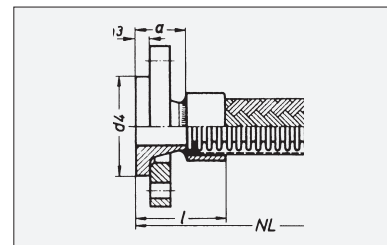
### Other

- W Couplings

## 4.2 | Connection fittings for corrugated hoses

Type AB12, Type AB22, Type AB82

HYDRA



### Flange connection, swivelling

Welding collar of steel or stainless steel 1.4541 or 1.4571  
loose flange of steel or stainless steel 1.4541 or 1.4571  
welded or brazed

PN 10	Fitting type				Material		Maximum operating temperature
	PN 16	PN 25	PN 40	Welding collar	Flange		
AB12D	AB12E	AB12F	AB12G	Steel	Steel	480 °C*	
AB82D	AB82E	AB82F	AB82G	Stainless steel	Steel	480 °C*	
AB22D	AB22E	AB22F	AB22G	Stainless steel	Stainless steel	550 °C	

Dimensions in mm, weight G in kg

DN	10	16	20	25	32	40	50	65	80	100	125	150	200	250	300
d4 / d1	40	45	58	68	78	88	102	122	138	158	188	212	268	320	370
h3 (DIN 2673)	10	10	12	12	12	12	14	14	16	16	18	18	20	22	22
F (DIN EN 1092)	12	12	14	14	14	14	16	16	16	18	18	20	20	22	22
a (DIN 2673)	35	35	40	40	40	40	45	45	50	50	50	50	55	60	60
a (DIN EN 1092)	35	38	40	40	42	45	45	45	50	52	55	55	62	68	68
l (DIN 2673)	45	49	56	58	60	62	70	73	80	82	86	90	100	110	115
l (DIN EN 1092)	45	52	56	58	62	67	70	73	80	84	91	95	107	118	123
G approx.	0.70	0.80	1.06	1.43	2.05	2.40	3.02	3.77	4.84	5.60	7.35	8.90	12.9	17.7	23.3

### Connection dimensions PN 10 acc. to DIN 2501 / DIN EN 1092

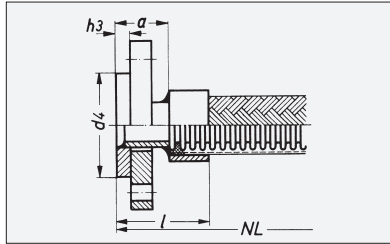
\* For choice of steel materials: see "Appendix A – Materials"

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

Type BB12, Type BB22, Type BB82

HYDRA



### Flange connection, swivelling

Collar pipe of steel or stainless steel 1.4541 or 1.4571

loose flange of steel or stainless steel 1.4541 or 1.4571

welded or brazed

PN 10	Fitting type				Collar pipe	Material Flange	Maximum operating temperature
	PN 16	PN 25	PN 40				
BB12D	BB12E	BB12F	BB12G	Steel	Steel	480 °C*	
BB82D	BB82E	BB82F	BB82G	Stainless steel	Steel	480 °C*	
BB22D	BB22E	BB22F	BB22G	Stainless steel	Stainless steel	550 °C	

Dimensions in mm, weight G in kg

DN	10	16	20	25	32	40	50	65	80	100	125	150	200	250	300
d4 / d1	40	45	58	68	78	88	102	122	138	158	188	212	268	320	370
h3 (DIN 2642)	10	10	12	12	12	12	14	14	16	16	18	18	20	22	22
F (DIN EN 1092)	12	12	14	14	14	14	16	16	16	18	18	20	20	22	22
a (DIN 2642)	45	45	46	51	51	51	57	57	63	68	79	79	85	85	90
a (DIN EN 1092)	46	46	47	52	52	52	58	58	63	69	79	80	85	85	90
l (DIN 2642)	55	59	62	69	71	73	82	85	93	100	115	119	130	135	145
l (DIN EN 1092)	56	60	63	70	72	74	83	86	93	101	115	120	130	135	145
G approx.	0.72	0.84	1.08	1.48	2.13	2.46	3.08	3.90	5.00	5.75	8.00	9.80	13.5	18.4	24.3

### Connection dimensions PN 10 acc. to DIN 2501 / DIN EN 1092

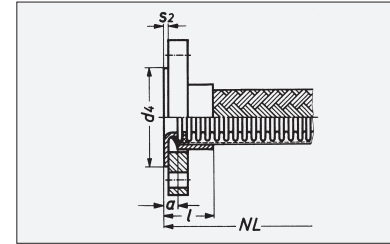
\* For choice of steel materials: see "Appendix A – Materials"

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

Type CA22, Type CA82

HYDRA



### Flange connection, swivelling

Welding rim of stainless steel 1.4541 or 1.4571

loose flange of steel or stainless steel 1.4541 or 1.4571

welded or brazed

PN 10	Fitting type		Welding rim	Material Flange	Maximum operating temperature
	PN 16	PN 16 ( up to DN 150)			
CA82D	CA82E	CA82E	Stainless steel	Steel	480 °C*
CA22D	CA22E	CA22E	Stainless steel	Stainless steel	550 °C

Dimensions in mm, weight G in kg

DN	10	16	20	25	32	40	50	65	80	100	125	150	200	250	300
d4 / d1	40	45	58	68	78	88	102	122	138	158	188	212	268	320	370
s2 (DIN 2642)	3	3	3	3	3.5	3.5	3.5	3.5	4	4	4	4	4	5	5
s2** (DIN EN 1092)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
a (DIN 2642)	9	9	12	15	15	17	23	23	23	28	30	30	30	30	35
a** (DIN EN 1092)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
l (DIN 2642)	19	23	28	33	35	39	48	51	53	60	66	70	75	80	90
l** (DIN EN 1092)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G approx.	0.63	0.71	0.84	1.15	1.68	1.90	2.21	2.88	3.55	3.86	4.95	6.00	8.2	11.0	13.7

### Connection dimensions PN 10 acc. to DIN 2501 / DIN EN 1092

\* For choice of steel materials: see "Appendix A – Materials"

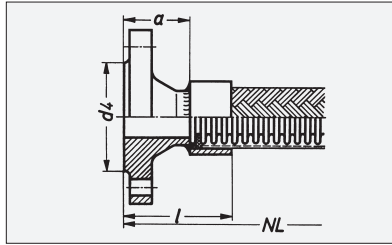
\*\* Dimension not standardized in DIN EN 1092

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

### Type GB12, Type GB22

HYDRA



#### Flange connection, fixed

Welding neck flange of steel or stainless steel 1.4541 or 1.4571 welded or brazed

PN 10	Fitting type			Material Flange	Maximum operating temperature
	PN 16	PN 25	PN 40		
GB12D	GB12E	GB12F	GB12G	Steel	480 °C*
GB22D	GB22E	GB22F	GB22G	Stainless steel	550 °C

Dimensions in mm, weight G in kg

DN	10	16	20	25	32	40	50	65	80	100	125	150	200	250	300
d4 / d1	40	45	58	68	78	88	102	122	138	158	188	212	268	320	370
a (DIN 2632)	35	35	38	38	40	42	45	45	50	52	55	55	62	68	68
a (DIN EN 1092)	35	38	40	40	42	45	45	45	50	52	55	55	62	68	68
l (DIN 2632)	45	49	54	56	60	64	70	73	80	84	91	95	107	118	123
l (DIN EN 1092)	45	52	56	58	62	67	70	73	80	84	91	95	107	118	123
G approx.	0.60	0.67	1.00	1.20	1.76	2.00	2.66	3.30	3.95	4.95	6.75	8.35	12.4	16.1	20.0

#### Connection dimensions PN 10 acc. to DIN 2501 / DIN EN 1092

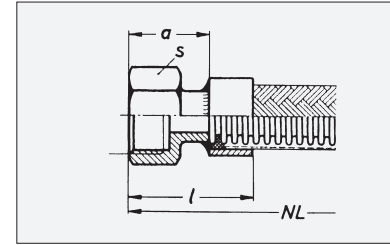
\* For choice of steel materials: see "Appendix A – Materials"

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

### Type LA12S, Type LA22S, Type LA52S

HYDRA



#### Threaded connection, fixed

Hexagon socket with Whitworth pipe thread DIN EN 10226 (ISO 7/1) of steel, stainless steel 1.4541 or 1.4571 or brass welded or brazed

Fitting type	Material	Maximum operating temperature
LA12S	Steel	300 °C
LA22S	Stainless steel	550 °C
LA52S	Brass	250 °C

Dimensions in mm, weight G in kg

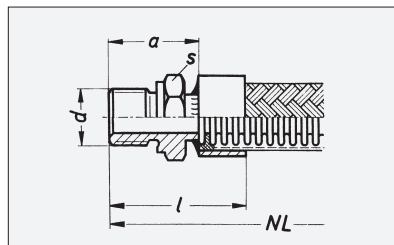
PN	100						63				40	
	6	8	10	12	16	20	25	32	40	50	65	80
DN	Rp <sup>1</sup> / <sub>4</sub>	Rp <sup>1</sup> / <sub>4</sub>	Rp <sup>3</sup> / <sub>8</sub>	Rp <sup>1</sup> / <sub>2</sub>	Rp <sup>1</sup> / <sub>2</sub>	Rp <sup>3</sup> / <sub>4</sub>	Rp1	Rp1 <sup>1</sup> / <sub>4</sub>	Rp1 <sup>1</sup> / <sub>2</sub>	Rp2	Rp2 <sup>1</sup> / <sub>2</sub>	Rp3
d	19	19	21	24	24	27	31	34	36	42	49	54
a	19	19	21	24	24	27	31	34	36	42	49	54
l	27	29	31	36	38	43	49	54	58	67	77	84
s	17	17	22	24	24	32	41	46	55	65	85	100
G approx.	0.02	0.03	0.04	0.06	0.07	0.10	0.19	0.22	0.31	0.41	0.86	1.22

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

Type MA12S, Type MA22S, Type MA52S

HYDRA



### Threaded connection, fixed

Hexagon nipple with Whitworth pipe thread ISO 228/1 of steel, stainless steel 1.4541 or 1.4571 or brass welded or brazed

Fitting type	Material	Maximum operating temperature
<b>MA12S</b>	Steel	300 °C
<b>MA22S</b>	Stainless Steel	550 °C
<b>MA52S</b>	Brass	250 °C

Dimensions in mm, weight G in kg

PN	250				160		100			63	40		
DN	6	8	10	12	16	20	25	32	40	50	65	80	100
d	G1/4A	G1/4A	G3/8A	G1/2A	G1/2A	G3/4A	G1A	G1 1/4A	G1 1/2A	G2A	G2 1/2A	G3A	G4A
a	24	25	25	29	29	32	38	40	43	45	52	54	64
l	32	35	35	41	43	48	56	60	65	70	78	84	96
s	19	19	22	27	27	32	41	50	55	70	85	100	120
G approx.	0.04	0.04	0.06	0.08	0.08	0.12	0.2	0.29	0.32	0.47	0.75	0.85	1.35

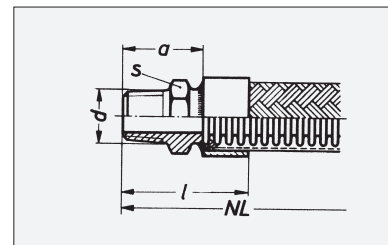
Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

On request, also available with metric fine-pitch thread

## 4.2 | Connection fittings for corrugated hoses

Type MH02S

HYDRA



### Threaded connection, fixed

Hexagon nipple with Whitworth pipe thread DIN EN 10226 (ISO 7/1) of malleable cast iron brazed

Fitting type	Maximum operating temperature	Max. operating pressure
<b>MH02S</b>	see page 330	see page 330

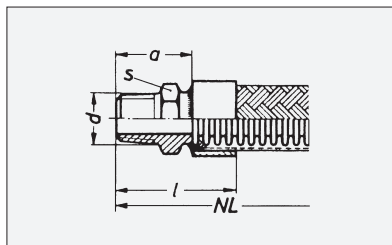
Dimensions in mm, weight G in kg

DN	10	12	16	20	25	32	40	50	65	80
d	R3/8	R1/2	R1/2	R3/4	R1	R1 1/4	R1 1/2	R2	R2 1/2	R3
a	32	35	35	39	42	45	48	52	55	60
l	42	47	49	55	60	65	70	77	83	90
s	22	28	28	32	42	50	55	70	85	100
G approx.	0.06	0.08	0.08	0.12	0.18	0.26	0.29	0.49	0.85	1.26

## 4.2 | Connection fittings for corrugated hoses

Type MH12S, Type MH22S, Type MH52S

HYDRA



### Threaded connection, fixed

Hexagon nipple with Whitworth pipe thread DIN EN 10226 (ISO 7/1) of steel, stainless steel 1.4541 or 1.4571 or brass welded or brazed

Fitting type	Material	Maximum operating temperature
<b>MH12S</b>	Steel	300 °C
<b>MH22S</b>	Stainless steel	550 °C
<b>MH52S</b>	Brass	250 °C

Dimensions in mm, weight G in kg

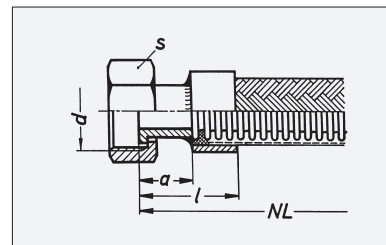
PN	100							63				40	
	6	8	10	12	16	20	25	32	40	50	65	80	
<b>d</b>	R1/4	R1/4	R3/8	R1/2	R1/2	R3/4	R1	R11/4	R11/2	R2	R21/2	R3	
<b>a</b>	24	24	25	29	29	32	38	40	40	47	52	56	
<b>l</b>	32	34	35	41	43	48	56	60	62	72	80	86	
<b>s</b>	14	14	17	22	22	27	36	46	50	60	80	90	
<b>G approx.</b>	0.02	0.03	0.04	0.05	0.06	0.09	0.14	0.23	0.25	0.43	0.65	0.75	

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

Type NA12S, Type NA22S, Type NA52S

HYDRA



### Threaded connection, swivelling

Collar pipe, flat sealing union nut with Whitworth pipe thread ISO 228/1 of steel, stainless steel 1.4541 or 1.4571 or brass welded or brazed

Fitting type	Material	Maximum operating temperature
<b>NA12S</b>	Steel	300 °C
<b>NA22S</b>	Stainless steel	550 °C
<b>NA52S</b>	Brass	250 °C

Dimensions in mm, weight G in kg

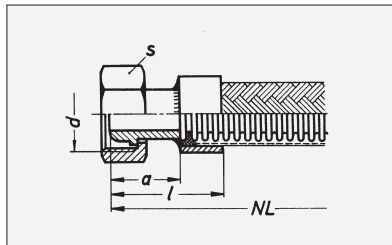
PN	25									
	6	8	10	12	16	20	25	32	40	50
<b>d</b>	G1/4	G3/8	G1/2	G5/8	G3/4	G1	G11/4	G11/2	G13/4	G21/4
<b>a</b>	20	21	21	24	24	24	26	26	29	29
<b>l</b>	28	31	31	36	38	40	44	46	51	54
<b>s</b>	17	22	27	27	32	41	50	55	65	75
<b>G approx.</b>	0.03	0.04	0.07	0.08	0.10	0.15	0.25	0.28	0.49	0.54

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

Type NF12S, Type NF22S, Type NF52S

HYDRA



### Threaded connection, swivelling

Ball-type bushing to DIN 3863

union nut with Whitworth pipe thread ISO 228/1 of steel, stainless steel 1.4541 or 1.4571 or brass welded or brazed

Fitting type	Material	Maximum operating temperature
NF12S	Steel	300 °C
NF22S	Stainless steel	550 °C
NF52S	Brass	250 °C

Dimensions in mm, weight G in kg

PN	25									
DN	6	8	10	12	16	20	25	32	40	50*
d	G1/4	G3/8	G1/2	G5/8	G3/4	G1	G1 1/4	G1 1/2	G1 3/4	G2 1/4
a	24	24	24	29	29	29	31	31	31	34
l	32	34	34	41	43	45	49	51	53	59
s	17	22	27	27	32	41	50	55	65	75
G approx.	0.03	0.04	0.07	0.08	0.10	0.15	0.28	0.29	0.47	0.58

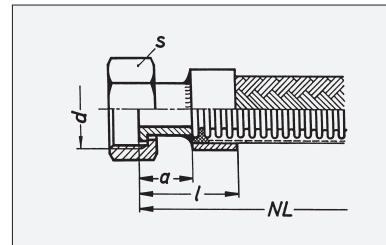
\*\*DN 50 is not standardized!

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

Type NI12S, Type NI22S, Type NI52S

HYDRA



### Threaded connection, swivelling

Collar pipe, flat sealing

union nut with metric thread DIN 3870, series LL of steel, stainless steel 1.4541 or 1.4571 or brass welded or brazed

Fitting type	Material	Maximum operating temperature
NI12S	Steel	300 °C
NI22S	Stainless steel	550 °C
NI52S	Brass	250 °C

Dimensions in mm, weight G in kg

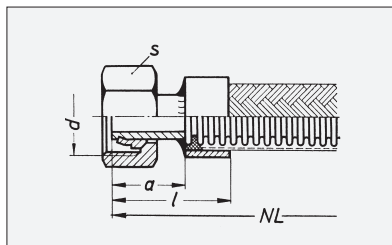
PN	25									
DN	6	8	10	12	16	20	25	32	40	50
d	M14x1.5	M16x1.5	M18x1.5	M22x1.5	M26x1.5	M30x1.5	M38x1.5	M45x1.5	M52x1.5	M65x2
a	20	21	21	24	24	24	26	26	29	29
l	28	31	31	36	38	40	44	46	51	54
s	17	19	22	27	32	36	46	50	60	75
G approx.	0.03	0.04	0.05	0.07	0.10	0.12	0.19	0.28	0.34	0.45

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

Type NL12Q, Type NL22Q

HYDRA



### Threaded connection, swivelling

Precision pipe connection with tapping ring DIN 3861, DIN EN ISO 8434-1 union nut with metric thread to DIN EN ISO 8434-1, series L of steel or stainless steel 1.4541 or 1.4571 (union nut 1.4571), welded or brazed

Fitting type	Material	Maximum operating temperature
NL12Q	Steel	300 °C
NL22Q	Stainless steel	550 °C

Dimensions in mm, weight G in kg

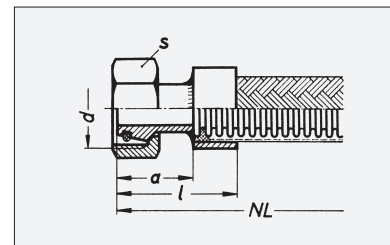
PN	250			160			100		
	6	8	10	12	16	20	25	32	40
DN	6	8	10	12	16	20	25	32	40
Pipe dimensions	8x1	10x1.5	12x1.5	15x2	18x1.5	22x2	28x2	35x2	42x3
d	M14x1.5	M16x1.5	M18x1.5	M22x1.5	M26x1.5	M30x2	M36x2	M45x2	M52x2
a	28	30	30	32	32	36	40	45	45
l	36	40	40	44	46	52	58	65	67
s	17	19	22	27	32	36	41	50	60
G approx.	0.04	0.04	0.06	0.09	0.11	0.16	0.21	0.31	0.44

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

Type NN12Q, Type NN22Q

HYDRA



### Threaded connection, swivelling

24° sealing cone with O-ring, union nut DIN ISO 12151-2, series L of steel or stainless steel 1.4541 or 1.4571 (union nut 1.4571), welded or brazed

Fitting type	Material		Maximum operating temperature
	Threaded connection	O-ring	
NN12Q	Steel	NBR (Perbunan)	-20 to +90 °C
NN22Q	Stainless steel	or FPM (Viton)	-20 to +200 °C

Dimensions in mm, weight G in kg

PN	250				160			100		
	6	8	10	12	16	20	25	32	40	
DN	6	8	10	12	16	20	25	32	40	
d	M14x1.5	M16x1.5	M18x1.5	M22x1.5	M26x1.5	M30x2	M36x2	M45x2	M52x2	
a	32	35	35	35	38	40	44	46	50	
l	40	45	45	47	52	56	62	66	72	
s	17	19	22	27	32	36	41	55	60	
G approx.	0.03	0.04	0.05	0.07	0.11	0.15	0.21	0.31	0.48	

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material for O-ring, material no. if stainless steel

Associated pipe outside diameter	8	10	12	15	18	22	28	35	42

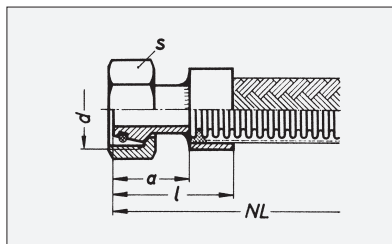
### Note:

This threaded connection is suitable for the tapping ring connection to DIN EN ISO 8434-1, series L or for connection to threaded pins with bore shape W (24°), series L to DIN 3861.

## 4.2 | Connection fittings for corrugated hoses

Type NN12R, Type NN22R

HYDRA



### Threaded connection, swivelling

24° sealing cone with O-ring, union nut DIN ISO 12151-2, series S of steel or stainless steel 1.4541 or 1.4571 (union nut 1.4571), welded or brazed

Fitting type	Material		Maximum operating temperature
	Threaded connection	O-ring	
<b>NN12R</b>	Steel	NBR (Perbunan)	-20 to +90 °C
<b>NN22R</b>	Stainless steel	or FPM (Viton)	-20 to +200 °C

Dimensions in mm, weight G in kg

PN	630			400			250	
	6	8	10	12	16	20	25	32
<b>d</b>	M18x1.5	M20x1.5	M22x1.5	M24x1.5	M30x2	M36x2	M42x2	M52x2
<b>a</b>	35	35	35	35	40	44	48	50
<b>l</b>	43	45	45	47	54	60	66	70
<b>s</b>	22	24	27	30	36	46	50	60
<b>G approx.</b>	0.05	0.06	0.08	0.1	0.16	0.30	0.37	0.58

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material for O-ring, material no. if stainless steel

Associated pipe outside diameter	10	12	14	16	20	25	30	38

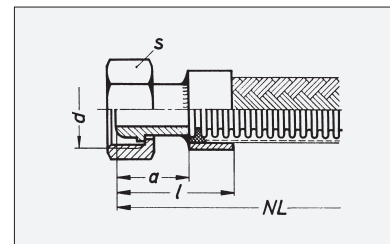
#### Note:

This threaded connection is suitable for the tapping ring connection to DIN EN ISO 8434-1, series S or for connection to threaded pins with bore shape W (24°), series S to DIN 3861.

## 4.2 | Connection fittings for corrugated hoses

Type NO12S, Type NO22S, Type NO52S

HYDRA



### Threaded connection, swivelling

Ball-type bushing to DIN 3863

union nut with metric thread DIN 3870, series LL of steel, stainless steel 1.4541 or 1.4571 or brass welded or brazed

Fitting type	Material	Maximum operating temperature
<b>NO12S</b>	Steel	300 °C
<b>NO22S</b>	Stainless steel	550 °C
<b>NO52S</b>	Brass	250 °C

Dimensions in mm, weight G in kg

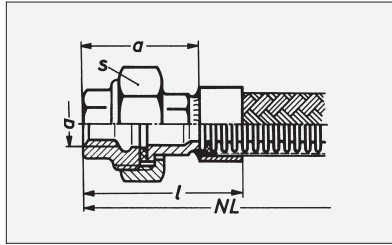
PN	25										
	6	8	10	12	16	20	25	32	40	*50	*65
<b>d</b>	M14x1.5	M16x1.5	M18x1.5	M22x1.5	M26x1.5	M30x1.5	M38x1.5	M45x1.5	M52x1.5	M65x2	M78x2
<b>a</b>	24	24	24	29	29	29	31	31	31	34	40
<b>l</b>	32	34	34	41	43	45	49	51	53	59	68
<b>s</b>	17	19	22	27	32	36	46	50	60	75	90
<b>G approx.</b>	0.03	0.04	0.05	0.08	0.10	0.12	0.22	0.30	0.31	0.48	0.72

\*DN 50 + 65 are not standardized!

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

#### Note:

This threaded connection is suitable for the connection to bore shapes U and Y (60°) to DIN 3863.



**Threaded fitting, internal thread**

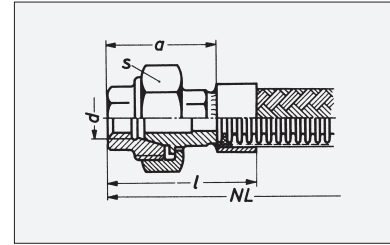
flat sealing,  
with Whitworth pipe thread DIN EN 10226 (ISO 7/1)  
of malleable cast iron, brazed

Fitting type	Maximum operating temperature	Max. operating pressure
<b>QA02S</b>	see page 330	see page 330

Dimensions in mm, weight G in kg

DN	6	8	10	12	16	20	25	32	40	50
<b>d</b>	Rp1/4	Rp1/4	Rp3/8	Rp1/2	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2
<b>a</b>	52	52	54	59	59	65	70	78	85	94
<b>l</b>	60	62	64	71	73	81	88	98	107	119
<b>s</b>	28	28	32	39	39	48	55	67	74	90
<b>G approx.</b>	0.11	0.12	0.14	0.18	0.19	0.31	0.42	0.68	0.87	1.31

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature



**Threaded fitting, internal thread**

conically sealing,  
with Whitworth pipe thread DIN EN 10226 (ISO 7/1)  
of malleable cast iron, brazed

Fitting type	Maximum operating temperature	Max. operating pressure
<b>QB02S</b>	see page 330	see page 330

Dimensions in mm, weight G in kg

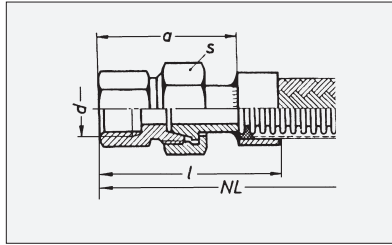
DN	6	8	10	12	16	20	25	32	40	50
<b>d</b>	Rp1/4	Rp1/4	Rp3/8	Rp1/2	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2
<b>a</b>	52	52	54	59	59	65	70	78	85	94
<b>l</b>	60	62	64	71	73	81	88	98	107	119
<b>s</b>	28	28	32	39	39	48	55	67	74	90
<b>G approx.</b>	0.11	0.12	0.14	0.19	0.20	0.33	0.44	0.72	0.88	1.37

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature

## 4.2 | Connection fittings for corrugated hoses

Type QB12W, Type QB22W, Type QB52W

HYDRA



### Threaded fitting, internal thread

conically sealing with 24° cone angle  
suitable for bore shape W DIN 3861 L, DIN EN ISO 8434-1  
with Whitworth pipe thread DIN EN 10226 (ISO 7/1)  
of steel, stainless steel 1.4541 or 1.4571 (union nut 1.4301 in each case) or brass,  
welded or brazed

Fitting type	Material	Maximum operating temperature
<b>QB12W</b>	Steel	300 °C
<b>QB22W</b>	Stainless steel	550 °C
<b>QB52W</b>	Brass	250 °C

Dimensions in mm, weight G in kg

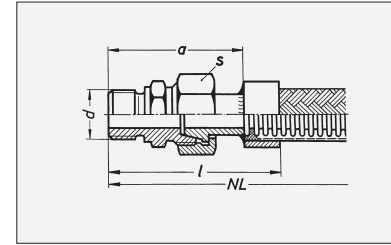
PN	100										63		
	6	8	10	12	16	20	25	32	40	50			
DN	6	8	10	12	16	20	25	32	40	50			
d	Rp1/4	Rp1/4	Rp3/8	Rp1/2	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2			
a	43	44	47	52	53	60	66	71	75	83			
l	51	54	57	64	67	76	84	91	97	108			
s	17	19	22	27	32	36	41	50	60	70			
G approx.	0.05	0.06	0.08	0.13	0.16	0.21	0.31	0.48	0.61	0.81			

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

Type RB12W, Type RB22W, Type RB52W

HYDRA



### Threaded fitting, external thread

conically sealing with 24° cone angle  
suitable for bore shape W to DIN 3861 L, DIN EN ISO 8434-1 L  
with Whitworth pipe thread ISO 228/1  
of steel, stainless steel 1.4541 or 1.4571 (union nut 1.4301) or brass,  
welded or brazed

Fitting type	Material	Maximum operating temperature
<b>RB12W</b>	Steel	300 °C
<b>RB22W</b>	Stainless steel	550 °C
<b>RB52W</b>	Brass	250 °C

Dimensions in mm, weight G in kg

PN	100								63				
	6	8	10	12	16	20	25	32	40	50			
DN	6	8	10	12	16	20	25	32	40	50			
d	G1/4A	G1/4A	G3/8A	G1/2A	G1/2A	G3/4A	G1A	G1 1/4A	G1 1/2A	G2A			
a	49	51	54	59	60	68	74	79	83	92			
l	57	61	64	71	74	84	92	99	105	117			
s	17	19	22	27	32	36	41	50	60	70			
G approx.	0.05	0.06	0.08	0.13	0.16	0.21	0.32	0.5	0.68	0.93			

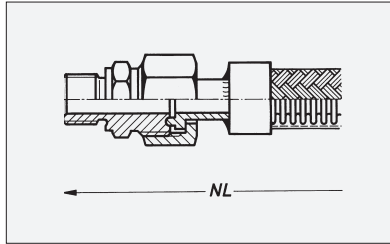
Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

### Type RD16, Type RD26

special applications

HYDRA



**High-pressure threaded fitting, external thread**  
without intermediate seal, metallic sealing  
with Whitworth pipe thread ISO 228/1  
of steel C22 or stainless steel,  
welded

Fitting type		Material	Maximum operating temperature
PN 100	PN 200		
<b>RD16S</b>	<b>RD16W</b>	Steel	350 °C
<b>RD26S</b>	<b>RD26W</b>	Stainless steel	400 °C

#### Application:

- high pressure  
(also for pulsations, vibrations)
- vacuum
- critical media  
(e.g. superheated steam, thermal oil)
- high temperatures

#### Operating pressure:

as per table  
Higher pressure levels on request

#### Operating temperature:

as per table  
Higher operating temperatures on request

#### Nominal diameter:

DN 6 to DN 50

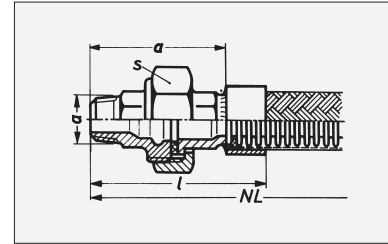
#### Please quote when ordering:

- fitting type
- nominal diameter (DN)
- operating temperature

## 4.2 | Connection fittings for corrugated hoses

### Type RE02S

HYDRA



**Threaded fitting, external thread**  
flat sealing

with Whitworth pipe thread DIN EN 10226 (ISO 7/1)  
of malleable cast iron  
brazed

Fitting type	Maximum operating temperature	Max. operating pressure
<b>RE02S</b>	see page 330	see page 330

Dimensions in mm, weight G in kg

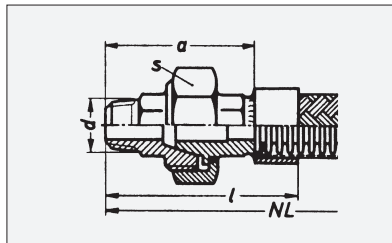
DN	12	16	20	25	32	40	50
<b>d</b>	R <sup>1</sup> / <sub>2</sub>	R <sup>1</sup> / <sub>2</sub>	R <sup>3</sup> / <sub>4</sub>	R1	R <sup>1</sup> / <sub>4</sub>	R <sup>1</sup> / <sub>2</sub>	R2
<b>a</b>	77	77	86	93	103	111	123
<b>l</b>	89	91	102	111	123	133	148
<b>s</b>	39	39	48	55	67	74	90
<b>G approx.</b>	0.21	0.22	0.33	0.48	0.74	0.91	1.43

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature

## 4.2 | Connection fittings for corrugated hoses

### Type RF02S

HYDRA



#### Threaded fitting, external thread

conically sealing

with Whitworth pipe thread DIN EN 10226 (ISO 7/1)

of malleable cast iron

brazed

Fitting type	Maximum operating temperature	Max. operating pressure
<b>RF02S</b>	see page 330	see page 330

Dimensions in mm, weight G in kg

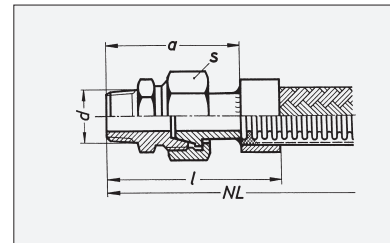
DN	6	8	10	12	16	20	25	32	40	50
<b>d</b>	R <sup>1</sup> / <sub>4</sub>	R <sup>1</sup> / <sub>4</sub>	R <sup>3</sup> / <sub>8</sub>	R <sup>1</sup> / <sub>2</sub>	R <sup>1</sup> / <sub>2</sub>	R <sup>3</sup> / <sub>4</sub>	R1	R1 <sup>1</sup> / <sub>4</sub>	R1 <sup>1</sup> / <sub>2</sub>	R2
<b>a</b>	66	66	69	77	77	86	93	103	111	123
<b>l</b>	74	76	79	89	91	102	111	123	133	148
<b>s</b>	28	28	32	39	39	50	55	67	74	90
<b>G approx.</b>	0.11	0.11	0.15	0.22	0.23	0.35	0.51	0.78	0.99	1.50

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature

## 4.2 | Connection fittings for corrugated hoses

### Type RF12W, Type RF22W, Type RF52W

HYDRA



#### Threaded fitting, external thread

conically sealing with 24° cone angle

suitable for bore shape W DIN 3861L, DIN EN ISO 8434-1

with Whitworth pipe thread DIN EN 10226 (ISO 7/1)

of steel, stainless steel 1.4541 or 1.4571 or brass

welded or brazed

Fitting type	Material	Maximum operating temperature
<b>RF12W</b>	Steel	300 °C
<b>RF22W</b>	Stainless steel	550 °C
<b>RF52W</b>	Brass	250 °C

Dimensions in mm, weight G in kg

PN	100							63		
	6	8	10	12	16	20	25	32	40	50
<b>DN</b>	6	8	10	12	16	20	25	32	40	50
<b>d</b>	R <sup>1</sup> / <sub>4</sub>	R <sup>1</sup> / <sub>4</sub>	R <sup>3</sup> / <sub>8</sub>	R <sup>1</sup> / <sub>2</sub>	R <sup>1</sup> / <sub>2</sub>	R <sup>3</sup> / <sub>4</sub>	R1	R1 <sup>1</sup> / <sub>4</sub>	R1 <sup>1</sup> / <sub>2</sub>	R2
<b>a</b>	47	49	52	59	60	67	74	80	82	93
<b>l</b>	55	59	62	71	74	83	92	100	104	118
<b>s</b>	17	19	22	27	32	36	41	50	60	70
<b>G approx.</b>	0.05	0.06	0.08	0.13	0.16	0.21	0.32	0.5	0.68	0.93

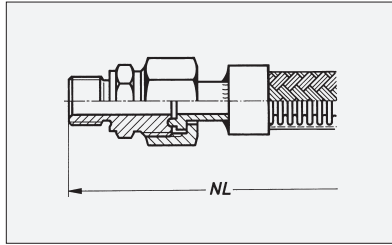
Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

### Type RM16, Type RM26

special applications

HYDRA



**High-pressure threaded fitting, external thread**  
without intermediate seal, metallic sealing  
with metric ISO thread to DIN 13  
of steel C22 or stainless steel,  
welded

Fitting type		Material	Maximum operating temperature
PN 100	PN 200		
<b>RM16S</b>	<b>RM16W</b>	Steel	350 °C
<b>RM26S</b>	<b>RM26W</b>	Stainless steel	400 °C

**Application:**

- high pressure  
(also for pulsations, vibrations)
- vacuum
- critical media  
(e.g. superheated steam, thermal oil)
- high temperatures

**Nominal diameter:**

DN 6 to DN 50

**Operating pressure:**

as per table.  
Higher pressure levels on request

**Operating temperature:**

as per table.  
Higher operating temperatures on request

**Please quote when ordering:**

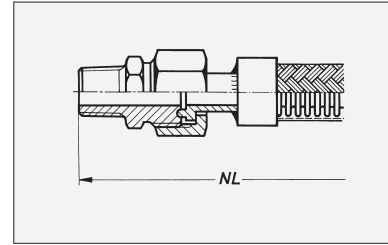
- fitting type
- nominal diameter (DN)
- operating temperature

## 4.2 | Connection fittings for corrugated hoses

### Type RN16, Type RN26

special applications

HYDRA



**High-pressure threaded fitting, external thread**  
without intermediate seal, metallic sealing  
with conical NPT thread ANSI B1.20.1  
of steel C22 or stainless steel,  
welded

Fitting type		Material	Maximum operating temperature
PN 100	PN 200		
<b>RN16S</b>	<b>RN16W</b>	Steel	350 °C
<b>RN26S</b>	<b>RN26W</b>	Stainless steel	400 °C

**Application:**

- high pressure  
(also for pulsations, vibrations)
- vacuum
- high temperatures

**Nominal diameter:**

DN 6 to DN 50

**Operating pressure:**

as per table.  
Higher pressure levels on request

**Operating temperature:**

as per table.  
Higher operating temperatures on request

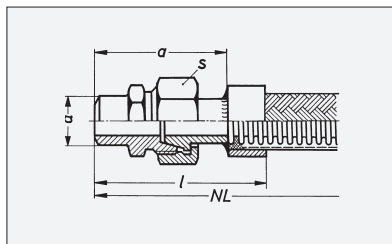
**Please quote when ordering:**

- fitting type
- nominal diameter (DN)
- operating temperature

## 4.2 | Connection fittings for corrugated hoses

Type SS12W, Type SS22W

HYDRA



### Threaded fitting, welding end

conically sealing with 24° cone angle  
suitable for bore shape W DIN 3861 L, DIN EN ISO 8434-1L  
with welding end, pipe dimensions ISO  
of steel, stainless steel 1.4541 or 1.4571  
welded or brazed

Fitting type	Material	Maximum operating temperature
<b>SS12W</b>	Steel	300 °C
<b>SS22W</b>	Stainless steel	550 °C

Dimensions in mm, weight G in kg

PN	100							63		
	6	8	10	12	16	20	25	32	40	50
<b>d</b>	10.2	13.5	17.2	21.3	21.3	26.9	33.7	42.4	48.3	60.3
<b>a</b>	45	47	49	52	53	61	65	70	74	83
<b>l</b>	53	57	59	64	67	77	83	90	96	108
<b>s</b>	17	19	22	27	32	36	41	50	60	70
<b>G approx.</b>	0.04	0.05	0.07	0.11	0.13	0.23	0.29	0.44	0.64	1.01

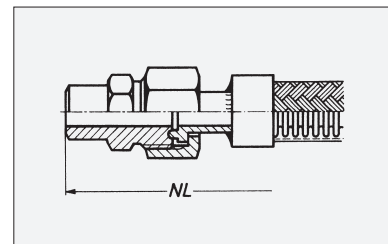
Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

Type ST16, Type ST26

special applications

HYDRA



### High-pressure threaded fitting, welding end

without intermediate seal, metallic sealing  
of steel C22 or stainless steel,  
welded

Fitting type		Material	Maximum operating temperature
PN 100	PN 200		
<b>ST16S</b>	<b>ST16W</b>	Steel	350 °C
<b>ST26S</b>	<b>ST26W</b>	Stainless steel	400 °C

### Application:

- high pressure  
(also for pulsations, vibrations)
- vacuum
- critical media  
(e.g. superheated steam, thermal oil)
- high temperatures

### Nominal diameter:

DN 6 to DN 50

### Operating pressure:

as per table.  
Higher pressure levels on request

### Operating temperature:

as per table.  
Higher operating temperatures on request

### Please quote when ordering:

- fitting type
- nominal diameter (DN)
- operating temperature

## 4.2 | Connection fittings for corrugated hoses

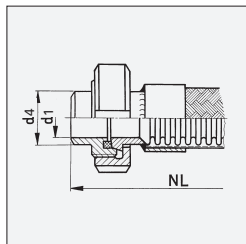
Type SY22S, Type SY22U, Type SY22V

special applications

HYDRA

### Threaded fitting, DIN 11851 for liquid foodstuffs

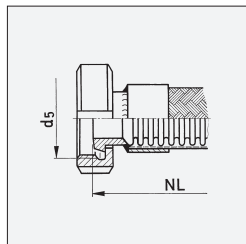
of stainless steel 1.4301, welded without burr and gap sterilizable



#### Type SY22S

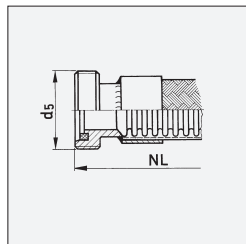
Ball-type socket with grooved union nut with round thread DIN 405.

Threaded pipe socket with welding end.



#### Type SY22U

Ball-type socket with grooved union nut with round thread DIN 405.



#### Type SY22V

Threaded pipe socket with sealing ring.

Fitting type	Material		Maximum operating temperature
	Threaded fitting	Sealing ring	
SY22S	Stainless steel 1.4301	NBR (Perbunan)	-20 to +230 °C depending on seal material and flow medium
SY22U	Other material no. on request	FPM (Viton)	
SY22V		MVQ (Silicone) or PTFE (Teflon)	

Dimensions in mm

PN	40								25		
	10	16	20	25	32	40	50	65	80	100	
DN	10	16	20	25	32	40	50	65	80	100	
d4*	13	19	23	29	35	41	53	70	85	104	
d1*	10	16	20	26	32	38	50	66	81	100	
d5	Rd28x1/8	Rd34x1/8	Rd44x1/6	Rd52x1/6	Rd58x1/6	Rd65x1/6	Rd78x1/6	Rd95x1/6	Rd110x1/4	Rd130x1/4	

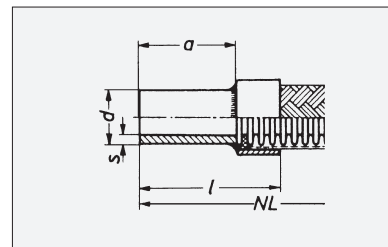
\*If required, also with ISO pipe dimensions, see page 95

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, sealing ring material or medium and pressure.

## 4.2 | Connection fittings for corrugated hoses

Type UA12S, Type UA22S

HYDRA



### Pipe fitting

Welding end with ISO pipe dimensions of steel or stainless steel 1.4541 or 1.4571 welded or brazed

Fitting type	Material	Maximum operating temperature
UA12S	Steel	480 °C
UA22S	Stainless steel	550 °C

Dimensions in mm, weight G in kg

PN	160				100				40						16		
	8	10	12	16	20	25	32	40	50	65	80	100	125	150	200	250	300
DN	8	10	12	16	20	25	32	40	50	65	80	100	125	150	200	250	300
d	10.0 <sup>2)</sup>	13.5	17.2	21.3	26.9	33.7	42.4	48.3	60.3	76.1	88.9	114.3	139.7	168.3	219.1	273	323.9
s	1.5 <sup>2)</sup>	1.8 <sup>1)</sup>	1.8 <sup>1)</sup>	2	2.3	2.6	2.6	2.6	2.9	2.9	3.2	3.6	4	4.5	6.3	6.3	7.1
a	50	55	55	60	60	65	65	70	70	75	80	85	85	90	100	100	120
l	60	65	67	74	76	83	85	92	95	103	110	117	121	130	145	150	175
G approx.	0.04	0.05	0.06	0.08	0.13	0.18	0.26	0.30	0.41	0.55	0.74	1.10	1.54	2.14	3.83	5.13	7.95

\*1) if stainless steel: s = 1.6

2) if steel: 10.2 x 1.6

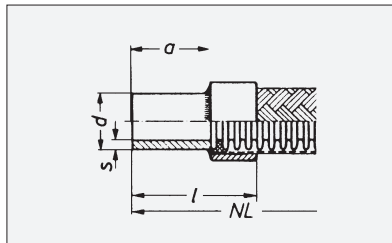
For choice of steel materials: see "Appendix A – Materials"

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

Type UD12Q, Type UD22Q

HYDRA



### Pipe fitting

Precision pipe socket for tapping ring fitting DIN 3861 (series L), DIN EN ISO 8434-1 of steel or stainless steel 1.4541 or 1.4571, welded or brazed

Fitting type	Material	Maximum operating temperature
UD12Q	Steel	300 °C
UD22Q	Stainless steel	550 °C

Dimensions in mm, weight G in kg

PN	250				160		100		
	6*	8*	10*	12*	16*	20*	25	32	40
d	8	10	12	15	18	22	28	35	42
s	1	1.5	1.5	2	1.5	2	2	2	3
a	28	30	30	32	32	36	40	45	45
l	36	40	40	44	46	52	58	65	67
G approx.	0.02	0.02	0.03	0.04	0.04	0.06	0.10	0.14	0.18

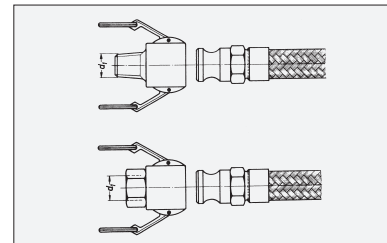
\* also suitable for Swagelok® threaded fittings for metric pipe dimensions

Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, material no. if stainless steel

## 4.2 | Connection fittings for corrugated hoses

Type WA22S, Type WA32S

HYDRA



### Quick-release coupling

Lever arm coupling DIN EN 14420-7 with internal Whitworth pipe thread ISO 228/1 or external Whitworth thread DIN 10226 (ISO 7/1) of brass or stainless steel welded or brazed

This quick-release coupling is characterised by simple handling, quick installation, robust construction and long service life. Offering safe and pressure-proof coupling, the connection is made by plugging the two halves of the coupling together then locking them by flipping the two cam levers. Because the inserted sealing ring is compressed and not subjected to rotational movement during the coupling action, the connection is made with no damaging twisting of the hose.

### Applications

Lever arm couplings to DIN EN 14420-7 are designed for joining hoses with connection fittings that are intended to carry liquids, solids and gases, except liquid

gas and steam. Use for substances falling under the Hazardous Substances Regulations (GefStoffV) must be specifically checked. The couplings can be used in the pressure range -800 mbar to 16 bar within a range of operating temperatures from -20 °C to +65 °C. **WARNING:** Reduce internal pressure before decoupling.

**Please state when ordering:** fitting type, nominal diameter (DN), operating temperature, internal and external thread, seal material or medium and pressure. If only one half of the coupling is required (male or female part), this must be specifically stated. Other DN on request.

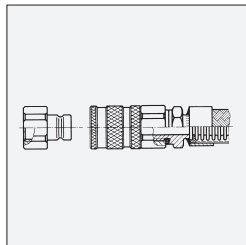
Fitting type	Material		Maximum operating pressure	Maximum operating temperature
	Quick-release coupling	Sealing ring		
WA22S	Stainless steel	NBR (Perbunan)	16 bar	65 °C (NBR) FPM on request
WA32S	Brass	FPM (Viton)		

DN	20	25	32	40	50	65	80	100
d1 R/G	¾	1	1 ¼	1 ½	2	2 ½	3	4

## 4.2 | Connection fittings for corrugated hoses

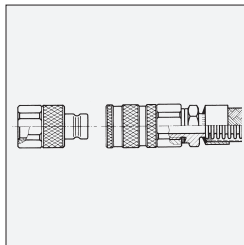
Type WB12S, Type WB22S, Type WB52S

HYDRA



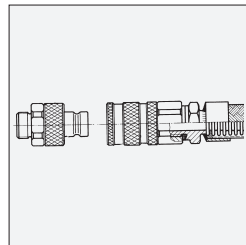
**Version 1**  
Sealing coupling (female part) – self-sealing after uncoupling

Coupling nipple (male part) with internal thread – free inner surface



**Version 2**  
Sealing coupling (female part) – self-sealing after uncoupling

Coupling nipple (male part) with internal thread – self-sealing after uncoupling



**Version 3**  
Sealing coupling (female part) – self-sealing after uncoupling

Coupling nipple (male part) with external thread – self-sealing after uncoupling

### Quick-sealing coupling

connected at hose end with thread fitting Type MA ... (page 72) consisting of sealing coupling (female part) and coupling nipple (male part)  
Thread: Whitworth pipe thread ISO 228/1

Fitting type P <sub>zul</sub> bar and. vacuum	Coupling	Material		Max. operating temperature
		Coupling	Sealing ring	
<b>WB12S</b>	Steel, galvanized		NBR (Perbunan)	-50 to +200 °C depending on seal material and flow medium
<b>WB22S</b>	Stainless steel		FPM (Viton)	
<b>WB52S</b>	Brass		EP (Ethylene-propylene)	

Nominal diameter: DN 6 to DIN 50, larger sizes on request

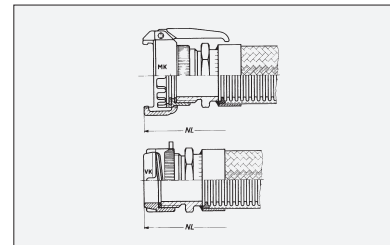
Please quote when ordering: fitting type, nominal diameter (DN), operating temperature, version for male part and/or female part, seal material or medium and pressure.

Other materials and versions on request.

## 4.2 | Connection fittings for corrugated hoses

Type WC22S, Type WC52S

HYDRA



### Quick-release coupling for fuel vehicles DIN 28450

connected at hose end with thread fitting Type MA ... (page 72) consisting of swivelling female part (MK coupling) with coupling levers or fixed male part (VK coupling)

Both male part and female part can be fitted to the hose.  
Thread: Whitworth pipe thread ISO 228/1

Fitting type PN 10	Coupling	Material		Max. operating temperature
		Coupling	Sealing ring	
<b>WC22S</b>	Stainless steel		AU, EU (Vulkollan) NBR (Perbunan) FPM (Viton) CSM (Hypalon) or PTFE (Teflon)	100 °C
<b>WC52S</b>	Brass			

DN	50	80	100
Nominal diameter designation for:			
Male part	VK50	VK80	VK100
Female part	MK50	MK80	MK100

\*Please quote when ordering: fitting type, operating temperature, nominal diameter designation for male part and/or female part, seal material or medium and pressure.

Higher temperatures on request