



100

quick,
safe,
pressure-tight

In real life, it is sometimes impossible to determine in advance the exact length of a metal hose and the connection fittings that are needed. In these cases, it makes sense to buy the hose by the metre. This can then be cut to size at the place of use and the appropriate fittings attached. The connection components are available in various types, are easy to fit, seal reliably and can be separated again without difficulty. Annularly corrugated hoses for self-assembly are designed for various applications:

Type RS 341:
annularly corrugated hose with long corrugation for flexible connections with small radii, e.g. appliance pipework, radiator connection, etc.

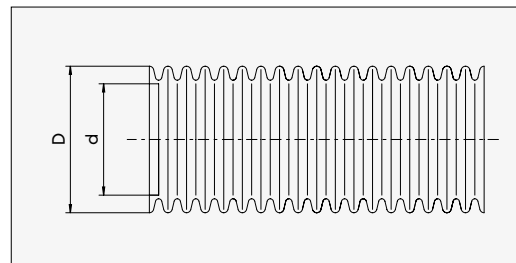
Particular characteristic: they are ideal for taking up heat expansion and for preventing the transmission of vibration and noise.

Type RS 331S12:
braided corrugated hose with high corrugation. The braiding prevents elongation under pressure loading and also serves to protect the annularly corrugated hose. Particular characteristic: suitable for pipe-work operating at pressures up to 16 bar.

Note:
Metal hoses with connection fittings for self-assembly are not suitable for dynamic loads and frequent movement. They are also unsuitable for hazardous media (Group 1 – PED) and thermal oils.

Annularly corrugated hoses for self-assembly Type RS 341S00

without braiding



Construction:

Annularly corrugated hose of stainless steel, medium version, long corrugation, without braiding

Material:

Material no. 1.4404 or 1.4541

Temperature range:

-20° C to +200° C (for the system)
At temperatures > 20° C, the reduction factors on page 245 must be applied.

Connection fittings for self-assembly:

-> see page 102 – 104 (please choose)

DN	Type	Inside diameter	Outside diameter	Maximum deviation	Minimum bending radius one bending process	Permissible operating pressure at 20° C*	Weight	Production length	Order no. 1.4404	Order no. 1.4541
–	–	d	D	d, D	r _{min}	P _{zul}	–	–	–	–
–	–	mm	mm	mm	mm	bar	kg/m	m	–	–
10	RS 341S00	10.3	14.1	± 0.3	18	20	0.086	10-100	378242	461982
12	RS 341S00	12.5	16.5	± 0.2	20	20	0.102	10-100	378243	461983
16	RS 341S00	16.3	21.4	± 0.3	25	20	0.153	10-100	378244	461984
20	RS 341S00	20.7	26.5	± 0.3	30	20	0.311	10-100	378245	461985
25	RS 341S00	25.8	31.7	± 0.4	35	20	0.388	10-100	378246	461986
32	RS 341S00	34.6	41.0	± 0.5	40	2.5	0.355	10-100	378247	461987

* applies to complete systems: corrugated hose with connection fitting / max. length expansion 2%

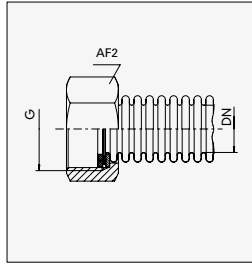
Note:

If using Hydra Quick threaded coupling: P_{zul} = 6 bar (DN 12 - 25)

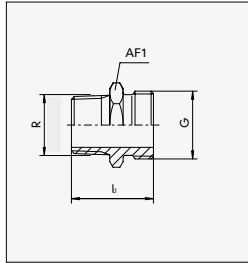
Connection fittings for self-assembly

threaded fitting, separable, suitable for RS 341S00

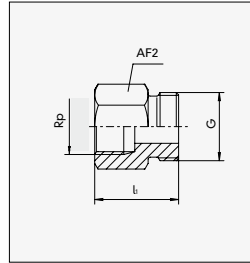
Type NA50S



Type NA50S – union nut



Type MA50S – male thread



Type MA50S – female thread

Set consisting of: union nut of brass, flat sealing, **clamp ring** (DBGM – German registered design) of stainless steel, **seal** (AFM 34)

DN	Type	Set threaded fitting DIN EN ISO 228-1	AF2	Weight approx.	Order no.
–	–	–	mm	kg	–
12	NA50S	G 1/2	24	0.026	377093
16	NA50S	G 3/4	30	0.037	377094
20	NA50S	G 1	38	0.075	377095
25	NA50S	G 1 1/4	46	0.091	377096
32	NA50S	G 1 1/2	55	0.146	377097

Connection fittings for self-assembly

threaded fitting, separable, suitable for RS 341S00

Type MA50S

Threaded insert of brass, **male thread** suitable for threaded fitting type NA50S

DN	Type	Threaded insert DIN EN 10226-1	Male thread DIN EN ISO 228-1	l1	AF1	Weight approx.	Order no.
–	–	–	–	mm	mm	kg/Set	–
12	MA50S	R 1/2	G 1/2	33.0	22	0.058	275487
16	MA50S	R 1/2	G 3/4	34.0	27	0.070	284264
20	MA50S	R 3/4	G 1	38.0	36	0.125	275489
25	MA50S	R 1	G 1 1/8	45.5	46	0.243	275490
25	MA50S	R 1	G 1 1/4	45.5	46	0.246	080142
32	MA50S	R 1 1/4	G 1 1/2	48.0	50	0.298	086459

Threaded insert of brass, **female thread** suitable for threaded fitting type NA50S

DN	Type	Threaded insert DIN EN 10226-1	Female thread DIN EN ISO 228-1	l1	AF2	Weight approx.	Order no.
–	–	–	–	mm	mm	kg	–
12	MA50S	Rp 1/2	G 1/2	29.0	27	0.070	275495
16	MA50S	Rp 1/2	G 3/4	29.0	27	0.074	275496
20	MA50S	Rp 3/4	G 1	33.0	36	0.154	275497
25	MA50S	Rp 1	G 1 1/8	37.0	41	0.308	275498
25	MA50S	Rp 1	G 1 1/4	37.0	41	0.308	328006
32	MA50S	Rp 1 1/4	G 1 1/2	42.0	50	0.311	315474

Connection fittings for self-assembly

Connector types, suitable for RS 341S00

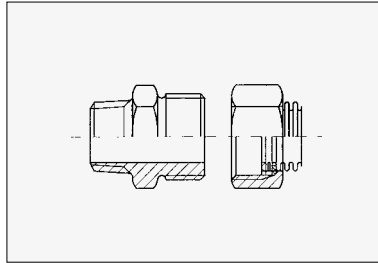


Fig. 1
Threaded coupling
Threaded insert with male thread.

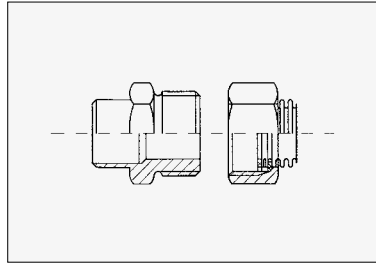


Fig. 2
Threaded coupling, threaded insert with ISO welding end or precision pipe section for tapping ring and swagelok threaded coupling.

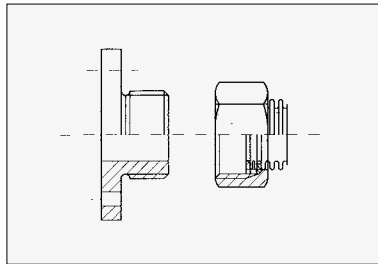


Fig. 3
Threaded coupling
Threaded insert with threaded flange
PN 16-1.4541.

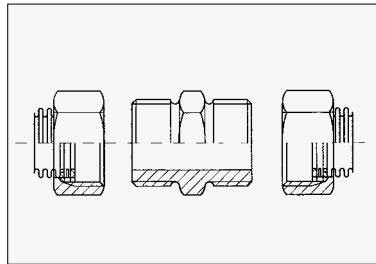


Fig. 4
Connection fitting:
- 1 double nipple
- 2 union nuts

Note:

All sets are supplied with the necessary number of clamp washers (single-piece) and seals (graphite Sigraflex for VA or AFM 34 for brass).

Annularly corrugated hoses for self-assembly

Connector types, suitable for RS 341S00

Threaded coupling

DN	Threaded coupling Fig. 1 Order no.		Threaded coupling Fig. 2 Order no.		Threaded coupling Fig. 3 Order no.
	Stainless steel 1.4301 RE20S	Brass RE50S	Welding end SS20S	Precision pipe SS20S	Stainless steel 1.4301/1.4541 KB20E
12	340 287	294 708	340 289	393 001	—
16	340 210	294 709	340 213	393 000	340 203
20	340 211	295 004	340 215	393 002	340 204
25	340 212	295 005	340 216	393 003	340 206

Connection fitting

DN	Connection fitting Fig. 4 Order no.		Reduction Order no.	
	Stainless steel 1.4301 WN20S	Brass WN50S	DN —	Stainless steel 1.4301 WN20S
12	340 286	319 947	—	—
16	340 207	319 948	16/12	426 120
20	340 208	319 949	—	—
25	340 209	319 950	20/25	426122

Dimensions for connection parts

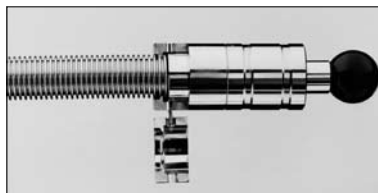
DN	Union nut		Threaded inserts male thread	Threaded inserts welding end	Precision pipe	AF size
	Thread	AF size				
—	—	AF	—	mm	mm	AF
12	G 1/2	24	R 1/2	17.2 x 1.8	12 x 1.5 x 32 15 x 2 x 32	22
16	G 3/4	30	R 1/2	21.3 x 2.0	18 x 1.5 x 32	27
20	G 1	41	R 3/4	26.9 x 2.3	22 x 2 x 36	36
25	G 1 1/4	46	R 1	33.7 x 2.6	28 x 2 x 40	46



1. Cut hose to required length in the corrugation groove using a pipe cutter.



2. Slip on union nut.



3. Open clamping jaws with striking pin pulled back. Position hose so that second corrugation groove is in clamping jaw.



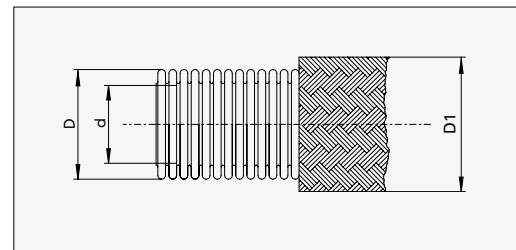
4. Close clamping jaws. Move the striking pin to compress the corrugation into a flange.



5. Use the swaging rod to push the burr inwards.



6. Insert clamp ring in the first corrugation groove and press together to form a closed ring. Insert seal, position threaded insert and use two spanners to tighten.



Construction:

Annularly corrugated hose, medium version, normal corrugation, with single stainless steel, wire braiding

Material:

Hose: material no. 1.4404 or 1.4541
Braiding: material no. 1.4301

Connection fittings for self-assembly:

-> see page 108 – 109 (please choose)

Temperature range:

-20° C to max. +250° C for the system

Note on reduced pressures:

> 120° C to 200° C = 13 bar

> 200° C to 250° C = 11 bar

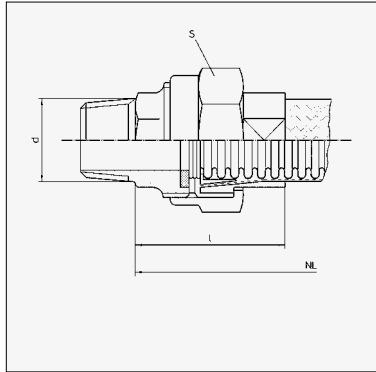
DN	Type	Inside diameter	Outside diameter	Maximum deviation	Minimum bending radius one bending process	Permissible operating pressure at 20° C*	Weight	Production length	Order no.	Order no.
-		d	D	d, D, D1	r _{min}	P _{zul}	-	-	1.4404	1.4541
-		mm	mm	mm	mm	bar	kg/m	m	-	-
6	RS 331S12	6.2	10.8	± 0.2	25	16	0.14	10 - 100	378291	81515
8	RS 331S12	8.3	13.7	± 0.2	35	16	0.21	10 - 100	378292	81516
10	RS 331S12	10.2	15.7	± 0.2	40	16	0.23	10 - 100	378293	81517
12	RS 331S12	12.2	18.2	± 0.2	45	16	0.25	10 - 100	378294	81518
16	RS 331S12	16.2	23.3	± 0.2	60	16	0.40	10 - 100	378295	81519
20	RS 331S12	20.2	28.3	± 0.3	70	16	0.49	10 - 100	378296	72020
25	RS 331S12	25.5	34.2	± 0.3	85	16	0.79	10 - 100	378297	72021
32	RS 331S12	34.2	43.0	± 0.3	105	16	0.96	10 - 100	378298	72022
40	RS 331S12	40.1	52.0	± 0.3	130	16	1.46	10 - 100	378299	72023
50	RS 331S12	50.4	62.6	± 0.4	160	16	1.67	10 - 100	378300	72024

* applies to complete systems: corrugated hose with connection fitting

Connection fittings for self-assembly

Threaded coupling, separable, suitable for RS 331S12

Type RE58W



Type RE58W

Threaded coupling, male thread, brass, flat sealing

Set consists of threaded insert, union nut, insert, clamp ring and seal (AFM 34)

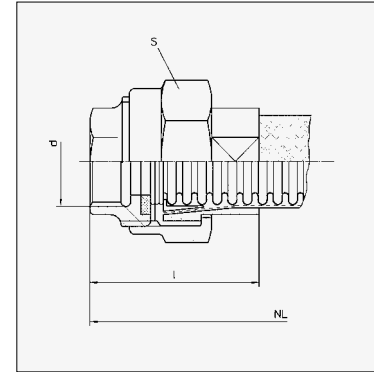
DN	Type	Male thread d	Dimensions s	l	Weight approx.	Order no.
–	–	DIN EN 10226-1	mm	mm	kg/each	–
6	RE58W	R 1/4	24	41	0.09	87542
8	RE58W	R 1/4	27	43	0.10	87543
10	RE58W	R 3/8	30	47	0.11	87544
12	RE58W	R 1/2	32	55	0.15	87545
16	RE58W	R 1/2	41	59	0.25	87546
20	RE58W	R 3/4	46	62	0.37	87547
25	RE58W	R 1	55	68	0.50	87548
32	RE58W	R 1 1/4	65	71	0.76	87549

Connection fittings for self-assembly

Threaded coupling, separable, suitable for RS 331S12

Type QA58W

Type QA08W



Type QA58W

Threaded coupling, female thread, brass, flat sealing, *DN 40–50 of malleable cast iron

Set consists of threaded insert, union nut, insert, clamp ring and seal (AFM 34)

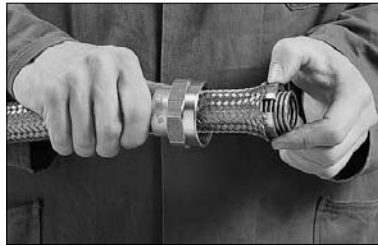
DN	Type	Female thread d	Dimensions s	l	Weight approx.	Order no.
–	–	DIN EN 10226-1	mm	mm	kg/each	–
6	QA58W	Rp 1/4	24	31	0.08	87522
8	QA58W	Rp 1/4	27	34	0.09	87523
10	QA58W	Rp 3/8	30	37	0.10	87524
12	QA58W	Rp 1/2	32	42	0.14	87525
16	QA58W	Rp 1/2	41	45	0.24	87526
20	QA58W	Rp 3/4	46	46	0.31	87527
25	QA58W	Rp 1	55	50	0.42	87528
32	QA58W	Rp 1 1/4	65	52	0.59	87529
40*	QA08W	Rp 1 1/2	75	64	0.75	87538
50*	QA08W	Rp 2	90	70	1.08	87539



1. Slip insert and union nut for both connector sides onto the braided hose. Measure off the required length of hose and cut the braiding all round at this point using a wire snip.



2. Push the braid back a little and saw off the corrugated hose to the required length. This should be done in the corrugation groove and at right angles to the hose axis. The best tool for this is a fine-toothed high-speed circular saw. Remove any burrs that may occur.



3. At the end of the hose, open up the braiding a little and insert the two halves of the hose ring between the third and fourth corrugation.



4. Slide the insert forwards until it sits snugly against the hose ring. At the same time, flatten down the braid so that it lies smoothly along the hose. Using a wire snip, trim the braid ends flush with the face of the hose ring.



5. Clamp the hose in the vice at the faces provided on the insert (do not clamp the hose!). With light strokes of the hammer, compress the three exposed corrugations of the hose to form a sealing ring. The best tool for this is a pin turned to match the inside diameter of the hose.



6. Slip the union nut over the insert and clamp in the vice. Position the threaded insert with seal fitted and tighten with a spanner, without using excessive force. The union nut can be fully tightened once assembled with the pipework. Protect the hose assembly from being damaged by twisting by bracing on the insert.