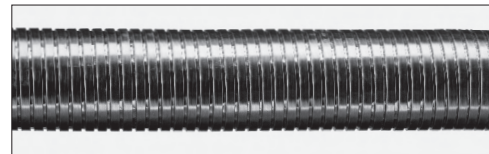


For solid and
gaseous
substances

Suction and fan hoses are stripwound metal hoses with polygonal or round cross-sections, engaged or interlocked profiles. Highly flexible, lightweight and easy to install, their heat resistance depends on the materials chosen for both hose and sealing. Fields of application: carrying warm and cold air, fumes, exhaust gases and smoke; conveying dust, wood and metal shavings, granulates, grains, etc; in ventilation engineering; in wood- and metalworking; and in the textile, chemical and automotive industries.

Type FA

**Types:**

FA 330S, galvanised steel
or stainless steel

Materials:

- Steel, galvanised (1.0330 / 1.0333)
- Stainless steel (1.4301)

Application:

Exhaust hose for mobile and stationary applications; also useable as extraction hose or conveying hose.

Operating temperature:

- Galvanised steel: 400 °C
- Stainless steel: 600 °C

Properties:

- High mechanical strength
- Vibration-resistant
- Good flexibility
- Self-supporting in its bending behaviour
- at high temperatures, owing to metallic sealing

Production lengths:

- In extended position
- Up to DN 55, max. 20 m
 - DN 60 and above: max. 10 m

Supplied in the following forms:

Bundled in rings

Design:

- Stripwound metal hose
- Engaged profile
- Polygonal cross-section

Order specifications:

- Exhaust hose, galvanised steel
Type FA 330S
- Exhaust hose, stainless steel
Type FA 330S

5.2 | Extraction, exhaust and conveying hoses

Type FA 330S

Galvanised steel or stainless steel, metallic sealing

HYDRA

DN	Inside diameter	Outside diameter	Permissible tolerance	Minimum bending radius	Weight approx.
–	d	D	d, D	r _{min}	–
–	mm	mm	mm	mm	kg/m
20	20.0	22.5	±0.4	135	0.318
23	23.0	25.5	±0.4	155	0.363
25	25.0	27.5	±0.4	165	0.394
28	28.0	30.5	±0.4	185	0.439
30	30.0	33.1	±0.4	180	0.582
32	32.0	35.1	±0.4	195	0.619
35	35.0	38.1	±0.4	210	0.674
38	38.0	41.0	±0.4	230	0.728
40	40.0	43.1	±0.5	240	0.766
42	42.0	45.1	±0.5	250	0.799
45	45.0	48.1	±0.5	270	0.859
50	50.0	53.1	±0.5	300	0.953
55	55.0	58.1	±0.5	325	1.04
60	60.0	64.0	±0.6	335	1.55
65	65.0	69.0	±0.6	360	1.67
70	70.0	74.0	±0.6	390	1.80
75	75.0	79.0	±0.6	415	1.92
80	80.0	84.0	±0.7	440	2.04
84	84.0	88.0	±0.7	460	2.10
90	90.0	94.0	±0.7	495	2.30
100	100.0	104.0	±0.8	550	2.55
110	110.0	115.0	±0.8	605	2.81
120	120.0	125.0	±0.8	660	3.06
125	125.0	130.0	±0.8	685	3.18

5.2 | Extraction, exhaust and conveying hoses

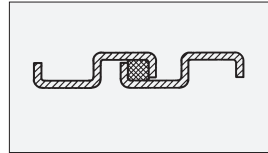
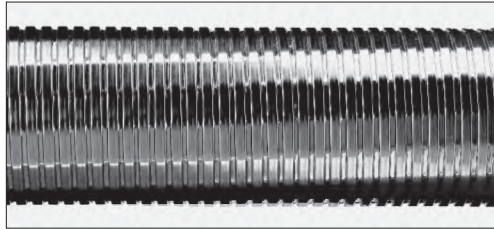
Type FA 330S

Galvanised steel or stainless steel, metallic sealing

HYDRA

DN	Inside diameter	Outside diameter	Permissible tolerance	Minimum bending radius	Weight approx.
–	d	D	d, D	r _{min}	–
–	mm	mm	mm	mm	kg/m
130	130.0	137.0	±1.0	600	4.05
140	140.0	147.0	±1.0	645	4.34
150	150.0	157.0	±1.0	690	4.65
160	160.0	167.0	±1.0	735	4.96
175	175.0	182.0	±1.0	800	5.42
180	180.0	187.0	±1.0	825	5.56
185	185.0	192.0	±1.0	995	5.70
200	200.0	208.0	±1.5	1085	7.74
225	225.0	233.0	±1.5	1215	8.68
250	250.0	258.0	±1.5	1350	9.60
275	275.0	283.0	±1.5	1480	10.59
300	300.0	308.0	±2.0	1615	11.49

Please quote when ordering: type of hose, material, nominal diameter (DN), length

**Types:**

FG-S-O
 FG-S-G
 FG-S-B
 FG-S-K
 FG-E-K

Application:

Universal exhaust air, extraction and conveying hose, e.g. for smoke, shavings and waste gases

Properties:

- Flexible
- Resistant to torsion

Design:

- Stripwound metal hose
- Interlocked profile
- Polygonal cross-section

Materials:

- Steel, hot-dip galvanised (1.0226)
- Stainless steel (1.4301)

Versions:

- Without seal – O
- With rubber seal – G
- With cotton seal – B
- With ceramic seal – K

Operating temperature:

- Galvanised, with rubber seal: 60 °C
- Galvanised, with cotton seal: 120 °C
- Galvanised, with ceramic seal: 400 °C
- Stainless steel, with ceramic seal: 600 °C

Production lengths:

- In extended position
- Up to DN 180: max. 25 m
 - DN 200 and above: max. 20 m
 - DN 350 and above: max. 8 m

Supplied in the following forms:

Bundled in rings

Order specifications:

- Extraction hose, galvanised steel, without seal
Type FG-S-O
- Extraction hose, galvanised steel, with cotton seal
Type FG-S-B
- Extraction hose, galvanised steel, with rubber seal
Type FG-S-G
- Extraction hose, galvanised steel, with ceramic seal
Type FG-S-K
- Extraction hose, stainless steel, with ceramic seal
Type FG-E-K

5.2 | Extraction, exhaust and conveying hoses

Type FG-S-O, FG-S-G, FG-S-B, FG-S-K, FG-E-K

Galvanised steel or stainless steel, with choice of seals

HYDRA

DN	Inside diameter	Outside diameter	Permissible tolerance		Minimum bending radius	Weight approx.
			d	D		
–	d	D	d	D	r _{min}	–
–	mm	mm	mm	mm	mm	kg/m
20	20.0	24.0	±0.3	±0.5	100	0.350
25	25.0	29.0	±0.3	±0.5	110	0.430
30	30.0	34.0	±0.4	±0.6	130	0.510
32	32.0	36.0	±0.4	±0.6	140	0.545
35	35.0	39.0	±0.4	±0.6	150	0.590
38	38.0	42.0	±0.4	±0.6	155	0.645
40	40.0	44.5	±0.4	±0.5	155	0.675
45	45.0	49.5	±0.4	±0.5	165	0.755
50	50.0	54.5	±0.5	±0.6	180	0.835
60	60.0	65.5	±0.5	±0.8	215	1.01
63	63.0	68.5	±0.6	±1.0	225	1.06
65	65.0	70.5	±0.6	±1.0	230	1.09
70	70.0	75.5	±0.6	±1.0	240	1.17
71	71.0	76.5	±0.6	±1.0	245	1.19
75	75.0	80.5	±0.6	±1.0	255	1.25
80	80.0	85.5	±0.8	±1.2	270	1.34
81	81.5	87.0	±0.8	±1.2	275	1.36
85	85.0	90.5	±0.8	±1.2	275	1.42
90	90.0	97.0	±0.8	±1.2	280	1.85
100	100.0	107.0	±0.8	±1.2	300	2.04
102	102.0	109.0	±0.8	±1.2	300	2.08
110	110.0	117.0	±0.8	±1.2	330	2.24
112	112.0	119.0	±0.8	±1.2	340	2.28

Please quote when ordering: type of hose, material, nominal diameter (DN), length

5.2 Extraction, exhaust and conveying hoses

Type FG-S-O, FG-S-G, FG-S-B, FG-S-K, FG-E-K

Galvanised steel or stainless steel, with choice of seals

HYDRA

DN	Inside diameter	Outside diameter	Permissible tolerance		Minimum bending radius	Weight approx.
			d	D		
–	d	D	d	D	r _{min}	–
–	mm	mm	mm	mm	mm	kg/m
120	120.0	127.0	±0.8	±1.2	380	2.44
122	122.5	129.5	±0.8	±1.2	390	2.49
125	125.0	132.0	±0.8	±1.2	400	2.54
130	130.0	138.5	±1.0	±1.5	410	2.92
140	140.0	148.5	±1.0	±1.5	430	3.13
150	150.0	158.5	±1.0	±1.5	460	3.35
160	160.0	168.5	±1.0	±1.5	490	3.57
175	175.0	184.0	±1.0	±1.5	530	3.90
180	180.0	189.0	±1.0	±1.5	540	4.01
200	200.0	210.5	±1.5	±2.0	560	5.51
210	210.0	220.5	±1.5	±2.0	585	5.78
224	224.0	234.5	±1.5	±2.0	625	6.15
225	225.0	235.5	±1.5	±2.0	630	6.18
250	250.0	260.5	±1.5	±2.0	700	6.85
275	275.0	285.5	±1.5	±2.0	770	7.52
280	280.0	291.0	±1.5	±2.0	800	7.66
300	300.0	311.0	±2.0	±2.5	850	8.20
315	315.0	326.0	±2.0	±2.5	890	8.60
350	350.0	367.5	±2.0	±2.5	1420	14.0
355	355.0	327.5	±2.0	±2.5	1440	14.2
400	400.0	417.5	±3.0	±3.5	1620	16.0
450	450.0	467.5	±3.0	±3.5	1820	17.9
500	500.0	517.5	±3.0	±3.5	2020	19.9

Larger nominal diameters available on request

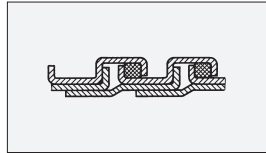
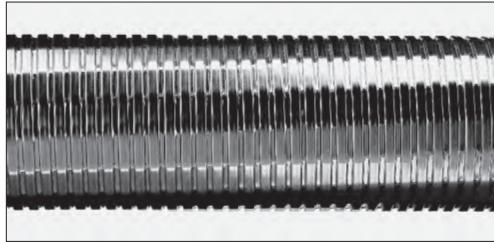
Please quote when ordering: type of hose, material, nominal diameter (DN), length

5.2 | Conveying hoses

Type FS

With interior abrasion protection

HYDRA



Types:

FS-S-G
FS-S-B
FS-S-K
FS-E-K

Application:

Conveying hose with smooth interior surface, e.g. suitable for granulates, grain and abrasive materials

Properties:

- Flexible
- Resistant to torsion
- Low wear and tear
- Good tightness

Design:

- Stripwound metal hose
- Interlocked profile
- Polygonal cross-section
- With inserted coil as abrasion protection

Materials:

- Hot-dip galvanised steel (1.0226)
- Stainless steel (1.4301)

Versions:

- Also available on request in the combination: galvanised steel with stainless-steel interior helix
- With rubber seal – G
- With cotton seal – B
- With ceramic seal – K

5.2 | Conveying hoses

Type FS

With interior abrasion protection

HYDRA

Operating temperature:

- Galvanised, with rubber seal: 60 °C
- Galvanised, with cotton seal: 120 °C
- Galvanised, with ceramic seal: 400 °C
- Stainless steel, with ceramic seal: 600 °C

Production lengths:

- In extended position
- Up to DN 180: max. 25 m
 - DN 200 and above: max. 20 m
 - DN 350 and above: max. 8 m

Supplied in the following forms:

Bundled in rings

Order specifications:

- Conveying hose, galvanised steel, with rubber seal
Type FS-S-G
- Conveying hose, galvanised steel, with cotton seal
Type FS-S-B
- Conveying hose, galvanised steel, with ceramic seal
Type FS-S-K
- Conveying hose, stainless steel, with ceramic seal
Type FS-E-K

5.2 | Conveying hoses

HYDRA

Type FS-S-G, FS-S-B, FS-S-K, FS-E-K

With interior abrasion protection, galvanised steel or stainless steel with choice of seals

Inside diameter	Outside diameter	Permissible tolerance	Bending radius ± 20 %	Weight ± 10 %		
				With cotton seal	With ceramic seal	With rubber seal
d ₁	D ₂	±	-	kg/m	kg/m	kg/m
mm	mm	mm	mm	kg/m	kg/m	kg/m
45	53.5	0.5	200	2.030	2.070	2.060
50	58.5	0.5	215	2.255	2.300	2.290
55	63.5	0.5	230	2.480	2.530	2.520
60	68.5	0.5	240	2.705	2.760	2.750
65	73.5	0.7	250	2.920	2.980	2.970
70	78.5	0.7	260	3.155	3.220	3.205
75	83.5	0.7	275	3.360	3.430	3.415
80	89.0	0.7	285	3.595	3.670	3.655
90	99.5	1.0	345	4.230	4.280	4.390
100	109.5	1.0	380	4.700	4.750	4.870
105	114.5	1.0	400	4.880	4.970	4.915
110	120.0	1.0	410	5.260	5.320	5.450
120	130.0	1.0	450	5.640	5.710	5.850
125	135.0	1.0	470	6.080	6.160	6.100
130	140.0	1.0	485	6.110	6.180	6.350
140	150.0	1.0	515	6.580	6.660	6.840
150	162.5	1.5	545	6.960	7.160	7.460
160	172.5	1.5	570	7.390	7.600	7.910
170	182.5	1.5	590	7.840	8.060	8.390
180	192.5	1.5	620	8.300	8.540	8.900
190	202.5	1.5	650	8.770	9.020	9.400
200	212.5	1.5	680	9.230	9.490	9.890
210	223.0	1.5	715	9.690	9.970	10.380

5.2 | Conveying hoses

HYDRA

Type FS-S-G, FS-S-B, FS-S-K, FS-E-K

With interior abrasion protection, galvanised steel or stainless steel with choice of seals

Inside diameter	Outside diameter	Permissible tolerance	Bending radius ± 20 %	Weight ± 10 %		
				With cotton seal	With ceramic seal	With rubber seal
d ₁	D ₂	±	-	kg/m	kg/m	kg/m
mm	mm	mm	mm	kg/m	kg/m	kg/m
225	238.0	1.5	765	10.400	10.700	11.150
250	265.0	2.0	880	15.470	15.680	16.330
275	290.0	2.0	1010	17.030	17.260	17.980
280	295.0	2.0	1040	17.340	17.570	18.340
300	315.0	2.0	1145	18.590	18.840	19.640
310	325.0	2.0	1200	19.210	19.460	20.270
350	365.0	2.0	1410	21.730	22.020	22.940
380	395.0	2.0	1565	23.580	23.900	24.930
400	415.0	2.0	1670	24.880	25.210	26.260
450	470.0	2.0	1930	28.010	28.420	29.600

Please quote when ordering: type of hose, material, nominal diameter (DN), length

5.2 | Connection fittings

HYDRA

Type VA20S

For extraction, exhaust and conveying hoses type FA, FG, FS, SD

Design:

Cylindrical sleeve

Installation type:

Sealed by compression and riveted, soldered or clamped

Materials:

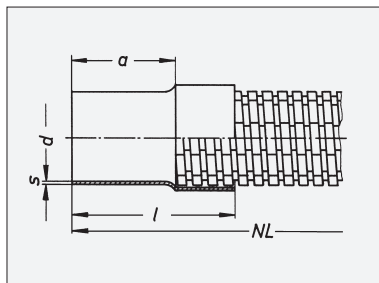
Stainless steel (1.4301)

Operating temperature:

600 °C

Order specifications:

Connection fitting type VA20S



DN	d mm	s mm	a mm	l mm	Weight approx. kg
40	40	1.0	50	80	0.09
50	50	1.0	70	100	0.13
60	60	1.0	70	110	0.18
70	70	1.0	80	120	0.22
80	80	1.0	80	120	0.25
100	100	1.0	100	150	0.39
120	120	1.0	100	150	0.46
125	125	1.0	100	150	0.48
150	150	1.0	100	160	0.77
180	180	1.0	120	180	1.03
200	200	1.0	140	210	1.33
250	250	1.0	180	250	1.97
300	300	1.0	200	280	3.18
315	315	1.0	200	280	3.33
350	350	1.0	200	290	3.84

Please quote when ordering:

type of fitting, nominal diameter (DN), installation type. Other sizes available on request.

5.2 | Connection fittings

HYDRA

Type VB20S

For extraction, exhaust and conveying hoses type FA, FG, FS, SD

Design:

Sleeve with 2 slots, cylindrical

Installation type:

Sealed by compression and riveted, soldered or clamped

Materials:

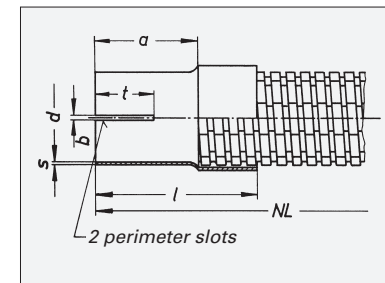
Stainless steel (1.4301)

Operating temperature:

600 °C

Order specifications:

Connection fitting type VB20S



DN	d mm	s mm	b mm	t mm	a mm	l mm	Weight approx. kg
40	40	1.0	3	30	50	80	0.09
50	50	1.0	3	40	70	100	0.13
60	60	1.0	3	40	70	110	0.18
70	70	1.0	3	40	80	120	0.22
80	80	1.0	3	40	80	120	0.25
100	100	1.0	3	50	100	150	0.39
120	120	1.0	3	50	100	150	0.46
125	125	1.0	3	50	100	150	0.48
150	150	1.0	3	55	100	160	0.77
180	180	1.0	3	60	120	180	1.03
200	200	1.0	3	70	140	210	1.33
250	250	1.0	3	80	180	250	1.97
300	300	1.0	3	80	200	280	3.18
315	315	1.0	3	80	200	280	3.33
350	350	1.0	3	80	200	290	3.84

Please quote when ordering:

type of fitting, nominal diameter (DN). Other sizes available on request.

5.2 | Connection fittings

HYDRA

Type VF20S

Sleeve for extraction, exhaust and conveying hoses type FA, FG, FS, SD

Design:

Sleeve with L-slot, cylindrical

Installation type:

Sealed by compression and riveted, soldered or clamped

Materials:

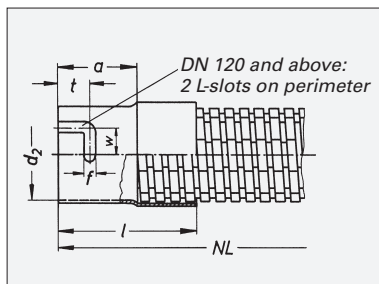
Stainless steel (1.4301)

Operating temperature:

600 °C

Order specifications:

Fitting type VF20S



DN	d ₂ mm	f mm	t mm	w mm	a mm	l mm	Weight approx. kg
50	53	9	20	15	50	80	0.10
60	63	9	20	15	50	90	0.15
70	73	9	20	15	50	90	0.17
80	83	9	20	15	50	90	0.19
100	103	9	25	25	60	110	0.29
120	123	9	25	25	60	110	0.34
125	128	9	25	25	60	110	0.36
140	144	9	30	25	70	130	0.71
150	154	9	30	25	70	130	0.75
180	184	9	30	25	70	130	0.89
200	204	11	40	30	90	160	1.29
250	255	11	40	30	90	160	2.11
300	305	11	40	30	100	180	2.81
315	320	11	40	30	100	180	2.94
350	355	11	45	30	110	200	3.64

Please quote when ordering:

type of fitting, nominal diameter (DN), installation type. Other sizes available on request.

5.2 | Connection fittings

HYDRA

Type VF20S

Sleeve for extraction, exhaust and conveying hoses type FA, FG, FS, SD

Design:

Sleeve with pin, cylindrical

Installation type:

Sealed by compression and riveted, soldered or clamped

Materials:

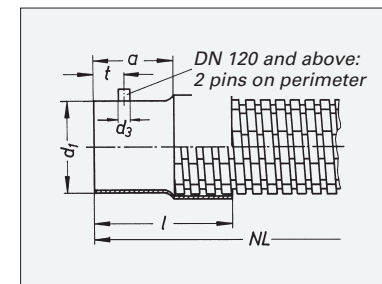
Stainless steel (1.4301)

Operating temperature:

600 °C

Order specifications:

Fitting type VF20S



DN	d ₁ mm	d ₃ mm	t mm	a mm	l mm	Weight approx. kg
50	52	8	20	50	80	0.11
60	62	8	20	50	90	0.16
70	72	8	20	50	90	0.18
80	82	8	20	50	90	0.20
100	102	8	25	60	110	0.30
120	122	8	25	60	110	0.35
125	127	8	25	60	110	0.37
140	142	8	30	70	130	0.73
150	152	8	30	70	130	0.77
180	182	8	30	70	130	0.91
200	202	10	40	90	160	1.33
250	252	10	40	90	160	2.16
300	302	10	40	100	180	2.87
315	317	10	40	100	180	3.00
350	352	10	45	110	200	3.71

Please quote when ordering:

type of fitting, nominal diameter (DN), installation type. Other sizes available on request.

5.2 | Connection fittings

Type EA

Swivel-type flange joint for extraction, exhaust and conveying hoses, Type FA, FG, FS, SD

HYDRA

Design:
Swivel-type flange joint

- EA80S: Stainless-steel sleeve (1.4301), flange, galvanised steel

Installation type:

Sealed by compression and riveted, soldered or clamped

Materials:

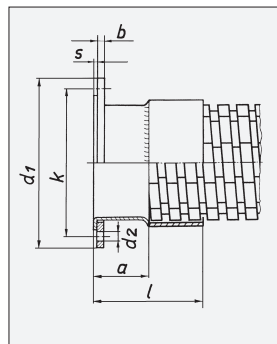
- EA20S: Stainless-steel sleeve, stainless-steel flange (1.4301)

Operating temperature:

- EA20S: 600 °C
- EA80S: 480 °C

Order specifications:

Fitting type EA20S or EA80S



DN	Outside diameter d1	b	k	Number of holes	d2	s	a	l	Weight approx.
	mm	mm	mm	-	mm	mm	mm	mm	kg
50	115	6	89	4	9.5	1	40	70	0.11
60	125	6	99	4	9.5	1	40	80	0.16
70*	133	6	110	4	9.5	1	40	80	0.18
80*	142	6	118	4	9.5	1	40	80	0.20
100*	162	6	139	4	9.5	1	50	100	0.30
120*	187	6	165	4	9.5	1	50	100	0.35
125*	187	6	165	4	9.5	1	50	100	0.37
140*	212	6	182	8	11.5	1	60	120	0.73
150*	252	6	219	8	11.5	1	60	120	0.91
200*	273	6	241	8	11.5	1	60	130	1.33
250*	323	6	292	8	11.5	1	60	130	2.16
300	383	8	349	8	11.5	1	60	140	2.87
315*	398	8	366	8	11.5	1	60	140	3.00
350*	438	8	405	8	11.5	1	60	150	3.71
400*	484	8	448	12	11.5	1	70	170	6.28
500*	584	8	551	12	11.5	1	70	170	8.86

*Flange dimensions to DIN 24154-2, edition July 1990. Other sizes available on request.

Please quote when ordering: type of fitting, nominal diameter (DN), installation type.

5.2 | Connection fittings

Type WE, WK

Quick-release coupling for extraction, exhaust and conveying hoses, Type FA, FG, FS, SD

HYDRA

Design:

Type WE80S

- Coupling element with guide and clamp lock
- DN 200 and above: comes with 2 wooden handles

Materials:

Stainless steel

Operating temperature:

600 °C

Type WK20S

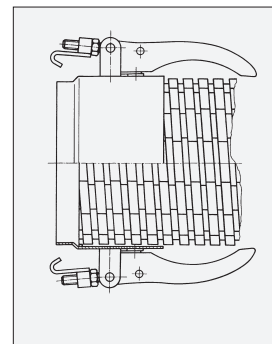
Flange element with guide suitable for coupling element

Available accessories:

- Screen, galvanised steel
- Lid with chain, galvanised steel
- Handles, 1 pair, wood

Installation type:

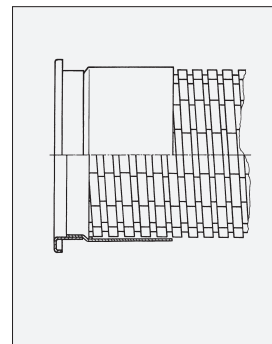
Sealed by compression and riveted, soldered or clamped



DN	Clamp lock	Wooden handles
100	2 units	-
125	2 units	-
150	2 units	-
200	3 units	2 units
250	3 units	2 units
300	3 units	2 units
315	3 units	2 units

Please quote when ordering: fitting type, nominal diameter (DN), installation type.

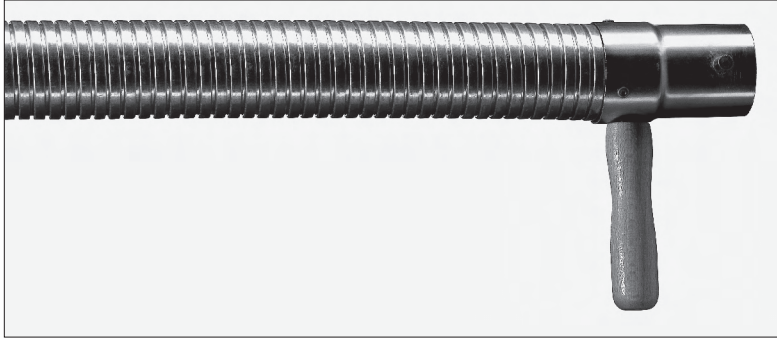
Other sizes available on request.



5.2 | Special versions

Type SD370L, FG370L

Exhaust hoses to DIN 14572



Application:

Exhaust hoses to DIN 14572 are used for carrying away exhaust gas from portable fire pumps (DIN 14410), from fire brigade vehicles (DIN 14502 part 1) and from power-generating aggregates (DIN 14685). The hoses prevent operating personnel from being hampered by exhaust gases.

Design:

- Round or polygonal cross-section
- Wooden handles
- Sleeve with pin on one side; sleeve with L-slot on the other side

Materials:

Galvanised steel with glass fibre seal
Hot-dip galvanised steel (1.0226):
DN 20 and above

Operating temperature:

400 °C

Supply:

On stock, prior sale reserved

Order specifications:

Hose, galvanised steel
DN 47: type SD370L
DN 80, 100 and 125: type FG370L

5.2 | Special versions

Type SD370L, FG370L

Exhaust hoses to DIN 14572

DN	Inside diameter	Outside diameter	Nominal length extended NL	Weight approx.
–	d ₁	d ₂	mm	–
–	mm	mm		kg/m
47	50	52	1500 2500	2.50 4.00
80	85	87	2500	6.50
100	102	104	2500	10.00
125	130	132	2500	11.50

Please quote when ordering: type of hose, nominal diameter (DN), nominal length (NL).
Other sizes available on request.