



Pre-PUR®



NORPLAST®

AIRDUC®

CP

PROTAPPE®

INOX

IH 2018

NORRES INDUSTRIAL HOSES

FOOD AND PHARMA



simply flexible

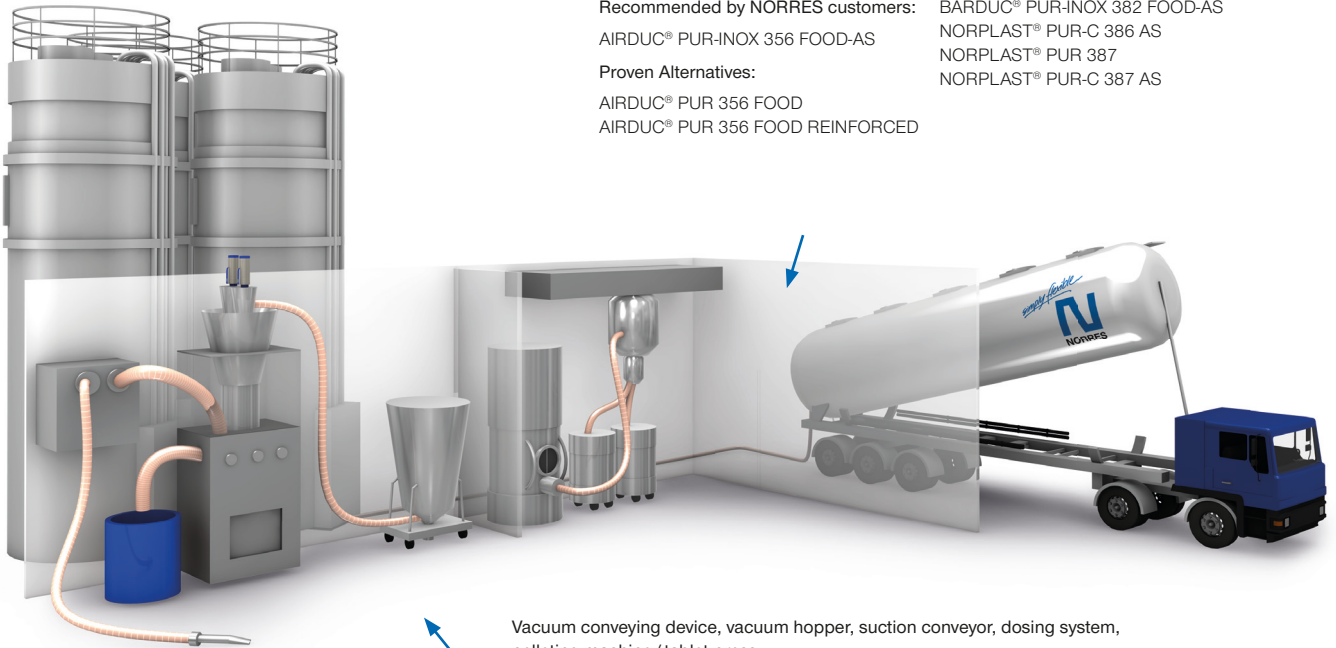


Silo, silo vehicle/ silo truck, tanker/ tank truck: Conveying of dry foods, e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods

Recommended by NORRES customers: BARDUC® PUR-INOX 382 FOOD-AS
 AIRDUC® PUR-INOX 356 FOOD-AS NORPLAST® PUR-C 386 AS

Proven Alternatives: NORPLAST® PUR 387
 NORPLAST® PUR-C 387 AS

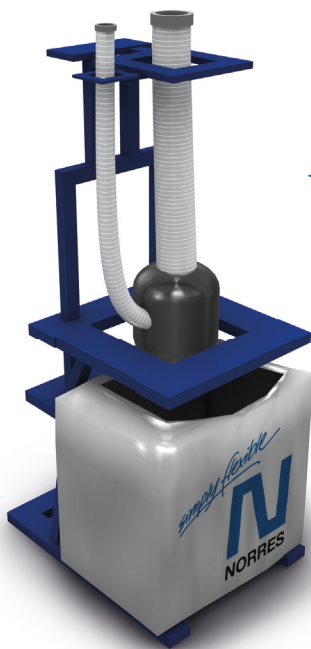
AIRDUC® PUR 356 FOOD
 AIRDUC® PUR 356 FOOD REINFORCED



Vacuum conveying device, vacuum hopper, suction conveyor, dosing system, pelleting machine/tablet press

Recommended by NORRES customers: AIRDUC® PUR 355 FOOD
 AIRDUC® PUR 356 FOOD
 AIRDUC® PUR-INOX 356 FOOD-AS
 BARDUC® PUR-INOX 382 FOOD-AS
 BARDUC® PVC 381 FOOD

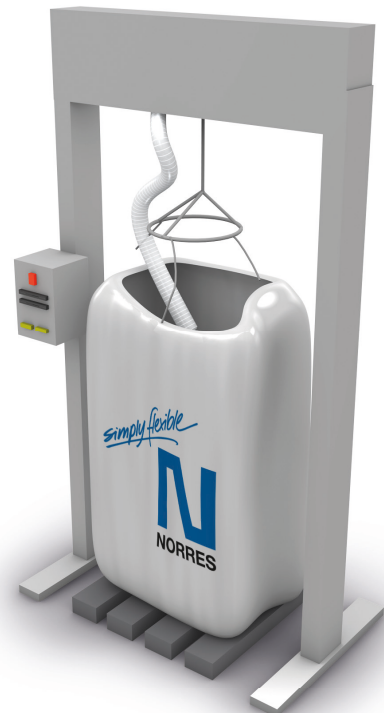
Proven Alternatives:
 AIRDUC® PUR 351 FOOD
 AIRDUC® PUR-INOX 351 FOOD-AS

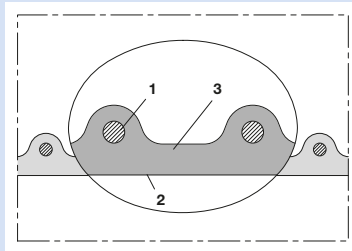
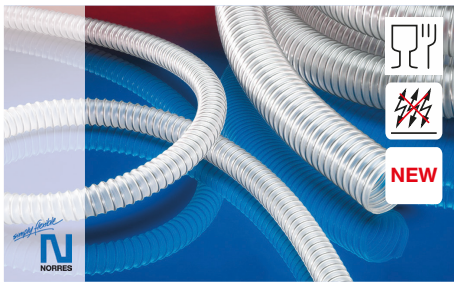


Mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill

Recommended by NORRES customers:
 PROTAPE® PUR-C 335 FOOD-AS FLAT
 AIRDUC® PUR-INOX 355 FOOD-AS

Proven Alternatives:
 CP PUR 455 FOOD
 PROTAPE® PUR 330 FOOD
 AIRDUC® PUR 350 FOOD-AS
 AIRDUC® PUR 351 FOOD
 AIRDUC® PUR-INOX 351 FOOD-AS
 AIRDUC® PUR 355 FOOD
 AIRDUC® PUR 356 FOOD
 AIRDUC® PUR-INOX 356 FOOD-AS
 AIRDUC® PE 362 FOOD
 CP PTFE-INOX 475 FOOD





Antistatic food hose and pharmaceutical hose, heavy, stainless steel (INOX)

Applications

- flexible hose/ ducting for high throughput of abrasive powder, bulk material, granulate and for gases
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- vacuum conveying equipment, vacuum hopper, suction conveyor, dosing system
- pelleting machines/ tablet presses
- mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill
- industrial vacuum cleaners, vacuum cleaners
- explosion hazard area
- animal stall, animal shed: feedstuff conveying, feedstuff plant, animal feed transport

Properties

- heavy duty
- highly abrasion resistant
- increased pressure and vacuum resistance

- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600
- Approval acc. to EU-Directive 10/2011 (food simulant E) and EC 1935/2004
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- permanently antistatic wall: in accordance with ISO 8031 electrical and surface resistance $<10^9 \Omega$ and in accordance with TRGS 727 $<2,5 * 10^8 \Omega$
- in accordance with ATEX 2014/34/EU (1999/92/EC) and German TRGS 727: pneumatic transport of flammable dusts and bulk materials (Zone 20, 21, 22 inside), aspiration of combustible dusts (Zone 22 inside), for conveying for flammable liquids (inside zone 0, 1, 2), for conveying for non-flammable liquids, for use in zone 1 and 2 (gases), for use in zone 0 (gases)
- according to DIN 26057 Type 3

- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

Temperature Range

- 40°C to 90°C

Design, Material

AIRDUC® profile hose

- spring steel wire firmly embedded in wall; spiral: stainless steel wire (INOX)
- wall: permanently antistatic premium ether-polyurethane (Pre-PUR®)
- wall thickness 1,4 - 1,5 mm approx.

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- customer-specific branding

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
1 / 25	32	3,565	1,000	20	0,280	5 10	355-0025-1018
1,25 / 32	42	3,490	1,000	26	0,440	5 10	355-0032-1018
1,5 / 38	48	2,975	0,985	29	0,520	5 10	355-0038-1018
- / 40	50	2,835	0,935	30	0,540	5 10	355-0040-1018
2 / 50-51	60	2,300	0,750	35	0,660	5 10	355-0050-1018
- / 55	65	2,100	0,680	38	0,720	5 10	355-0055-1018
2,36 / 60	70	1,930	0,625	40	0,780	5 10	355-0060-1018
2,5 / 63-65	75	1,790	0,575	43	0,840	5 10	355-0065-1018
- / 70	81	1,665	0,505	62	0,980	5 10	355-0070-1018
3 / 75-76	86	1,560	0,475	66	1,050	5 10	355-0075-1018
- / 80	91	1,465	0,450	69	1,110	5 10	355-0080-1018
3,5 / 89-90	101	1,305	0,395	76	1,300	5 10	355-0090-1018
4 / 100-102	111	1,180	0,385	83	1,490	5 10	355-0100-1018
5 / 125-127	136	0,950	0,305	101	1,840	5 10	355-0125-1018
6 / 150-152	161	0,795	0,285	118	2,410	5 10	355-0150-1018
6,3 / 160	172	0,745	0,265	125	2,560	5 10	355-0160-1018
7 / 178-180	191	0,665	0,235	139	2,900	5 10	355-0180-1018
8 / 200-203	213	0,600	0,145	156	3,120	5 10	355-0200-1018

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Accessories



CLAMP 212



CLAMP 216



CLAMP 212 EC



CLAMP 217



CLAMP 213



CONNECT 228



CONNECT SAFETY
CLAMP ASSEMBLY
231



CONNECT PRESS
ASSEMBLY 232



CONNECT MOULD
ASSEMBLY 233



CONNECT THREAD
FITTING 234



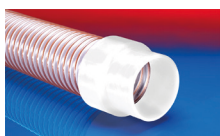
CONNECT TRI-CLAMP
FITTING 245



CONNECT DAIRY
FITTING 247



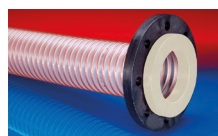
CONNECT ASEPTIC
FITTING 249



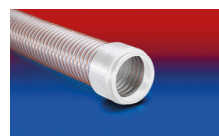
CONNECT 240 + 241
FOOD



CONNECT 243 FOOD



CONNECT 244 FOOD



CONNECT 245 FOOD



CONNECT 246 FOOD

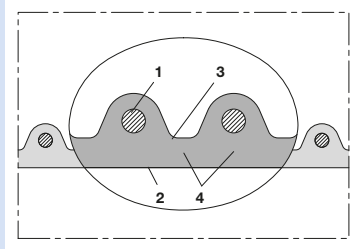
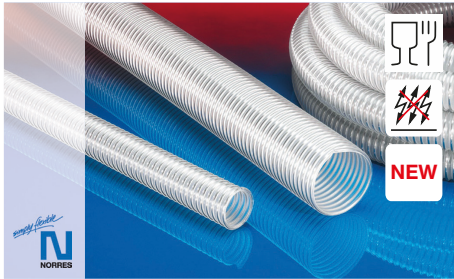


CONNECT 223



CONNECT 270-271

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Antistatic food hose and pharmaceutical hose, super-heavy, stainless steel (INOX)

Applications

- hose/ ducting for high throughput of extremely abrasive bulk material, granulate and stone
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- vacuum conveying equipment, vacuum hopper, suction conveyor, dosing system
- pelleting machines/ tablet presses
- mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill
- agricultural industry: pneumatic grain conveyor
- animal stall, animal shed: feedstuff conveying, feedstuff plant, animal feed transport
- paper mill, paper and pulp industry: waste water, air extraction
- silo, silo vehicle/ silo truck, tanker/ tank truck: silo charging, silo discharging

Properties

- super-heavy duty
- extremely abrasion-resistant with reinforcement underneath wire and narrow hose pitch

- very high pressure, vacuum and compression resistance
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600 and 178.2010
- Approval acc. to EU-Directive 10/2011 (food simulant E) and EC 1935/2004
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- permanently antistatic wall: in accordance with ISO 8031 electrical and surface resistance $<10^9 \Omega$ and in accordance with TRGS 727 $<2,5 * 10^8 \Omega$
- in accordance with ATEX 2014/34/EU (1999/92/EC) and German TRGS 727: pneumatic transport of flammable dusts and bulk materials (Zone 20, 21, 22 inside), aspiration of combustible dusts (Zone 22 inside), for conveying for flammable liquids (inside zone 0, 1, 2), for conveying for non-flammable liquids, for use in zone 1 and 2 (gases), for use in zone 0 (gases)

- according to DIN 26057 Type 4
- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

Temperature Range

- -40°C to 90°C

Design, Material

AIRDUC® profile hose

1. spring steel wire firmly embedded in wall; spiral: stainless steel wire (INOX)
2. wall: permanently antistatic premium ether-polyurethane (Pre-PUR®)
3. wall thickness 2,0 to 2,5 mm approx.
4. reinforcement of the primary abrasion areas

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- customer-specific branding

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
1,25 / 32	43	5,180	1,000	90	0,680	5 10	356-0032-1018
1,5 / 38	49	4,425	1,000	104	0,790	5 10	356-0038-1018
- / 40	51	4,225	1,000	109	0,820	5 10	356-0040-1018
- / 50	61	3,430	1,000	134	1,000	5 10	356-0050-1018
2 / 51	62	3,155	1,000	134	1,020	5 10	356-0051-1018
2,36 / 60	71	2,890	1,000	156	1,180	5 10	356-0060-1018
2,5 / 63-65	74	2,780	1,000	163	1,230	5 10	356-0063-1018
- / 65	76	2,675	1,000	169	1,270	5 10	356-0065-1018
- / 70	82	2,495	1,000	186	1,370	5 10	356-0070-1018
- / 75	87	2,335	1,000	195	1,460	5 10	356-0075-1018
3 / 76	88	2,330	1,000	195	1,480	5 10	356-0076-1018
- / 80	92	2,195	1,000	205	1,550	5 10	356-0080-1018
3,5 / 89-90	101	2,170	1,000	250	1,700	5 10	356-0089-1018
- / 90	103	2,170	1,000	250	2,060	5 10	356-0090-1018
- / 100	113	1,960	1,000	272	2,270	5 10	356-0100-1018
4 / 102	115	1,890	1,000	272	2,310	5 10	356-0102-1018
- / 125	138	1,580	0,880	336	2,800	5 10	356-0125-1018
5 / 127	140	1,450	0,870	336	2,850	5 10	356-0127-1018
- / 150	163	1,320	0,735	435	3,680	5 10	356-0150-1018
6 / 152	165	1,375	0,725	435	3,730	5 10	356-0152-1018

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



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Accessories



CLAMP 216



CLAMP 211



CONNECT 228



CONNECT SAFETY
CLAMP ASSEMBLY
231



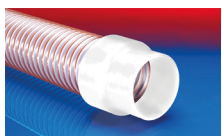
CONNECT PRESS
ASSEMBLY 232



CONNECT MOULD
ASSEMBLY 233



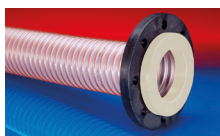
CONNECT THREAD
FITTING 234



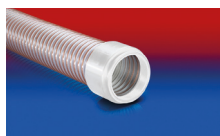
CONNECT 240 + 241
FOOD



CONNECT 243 FOOD



CONNECT 244 FOOD

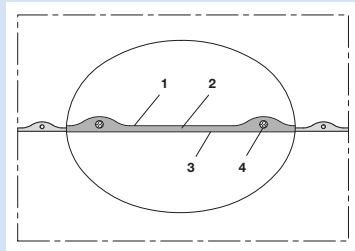
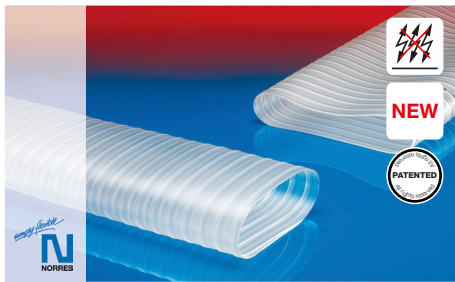


CONNECT 245 FOOD



CONNECT 246 FOOD

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Screening machine hose and compensator, vibration resistant

Applications

- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill
- explosion hazard area
- screening machine/ sifting machine, vibration screening machine, tumbler screening machine, plansifter, windsifter
- bellows, compensators

Properties

- highly flexible
- abrasion-resistant
- vibration resistant

- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004, incl. the latest EU-Directive 2015/174, FDA 21 CFR 177.2600
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- permanently antistatic wall: in accordance with ISO 8031 electrical and surface resistance <math><10^9 \Omega</math>
- in accordance with ATEX 2014/34/EU (1999/92/EC) and German TRGS 727: aspiration of combustible dust (zone 22 inside), for conveying of non-flammable liquids, for use in zone 1 and 2 (gases)
- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

- short time to 125°C

Design, Material

- patented PROTAPE® tape hose
1. wall interior and exterior smooth
 2. wall: permanently antistatic premium ether-polyurethane (Pre-PUR®)
 3. wall thickness 1,0 mm approx.; wall interior smooth
 4. grounding wire

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- customer-specific branding

Temperature Range

- -40°C to 90°C

I.D.	O.D.	Over-pressure	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	kg/m	m	
2 / 50-51	55	0,580	0,310	2	335-0050-0000
2,36 / 60	65	0,560	0,370	2	335-0060-0000
- / 80	85	0,510	0,470	2,5 5	335-0080-0000
- / 85	90	0,480	0,500	2,5 5	335-0085-0000
4 / 100-102	105	0,410	0,590	2,5 5	335-0100-0000
- / 110	115	0,375	0,650	2,5 5	335-0110-0000
4,5 / 114-115	120	0,355	0,670	2,5 5	335-0115-0000
4,72 / 120	125	0,340	0,700	2,5 5	335-0120-0000
5 / 125-127	130	0,330	0,730	2,5 5	335-0125-0000
6 / 150-152	155	0,275	0,880	2,5 5	335-0150-0000
- / 155	160	0,265	0,900	2,5 5	335-0155-0000
6,3 / 160	165	0,255	0,930	2,5 5	335-0160-0000
6,5 / 165	170	0,250	0,960	2,5 5	335-0165-0000
7 / 178-180	185	0,230	1,050	2,5 5	335-0180-0000
8 / 200-203	205	0,205	1,140	2,5 5	335-0200-0000
- / 205	210	0,200	1,190	2,5 5	335-0205-0000
- / 220	225	0,185	1,280	2,5 5	335-0220-0000
- / 250	255	0,165	1,450	2,5 5	335-0250-0000
- / 275	280	0,150	1,590	2,5 5	335-0275-0000
12 / 305	310	0,135	1,770	2,5 5	335-0305-0000
- / 350	355	0,115	2,030	2,5 5	335-0350-0000
16 / 405-406	410	0,105	2,340	2,5 5	335-0405-0000

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Accessories



CLAMP 208



CLAMP 211

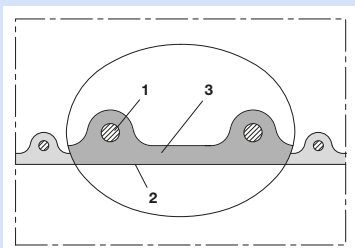
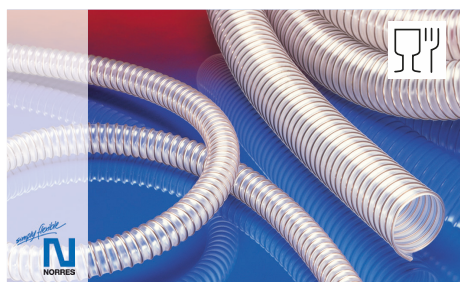


CONNECT 228



CONNECT 270-271

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Food hose and pharmaceutical hose, heavy

Applications

- flexible hose/ ducting for high throughput of abrasive powder, bulk material, granulate and for gases
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- vacuum conveying equipment, vacuum hopper, suction conveyor, dosing system
- pelleting machines/ tablet presses
- mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill
- airport, airplane, rail vehicle, train, railway, boat, ship/ vessel, yacht: toilet discharging/ disposal
- industrial vacuum cleaners, vacuum cleaners
- agricultural industry: pneumatic grain conveyer
- animal stall, animal shed: feedstuff conveying, feedstuff plant, animal feed transport

- paper mill, paper and pulp industry: waste water, air extraction
- industrial washing machine: washing water hose

Properties

- heavy duty
- highly abrasion resistant
- increased pressure and vacuum resistance
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600 and 178.2010
- Approval acc. to EU-Directive 10/2011 (food simulants A, B, C or E and D2) and EC 1935/2004
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- flame-retardant according to: UL94-V2
- according to DIN 26057 Type 3

- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

Temperature Range

- 40°C to 90°C
- short time to 125°C

Design, Material

AIRDUC® profile hose

- spring steel wire firmly embedded in wall
- wall: special premium ether-polyurethane (Pre-PUR®)
- wall thickness 1,4 - 1,5 mm approx.

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- customer-specific branding

I.D.	O.D.	Pressure DIN 26057 (50% Elongation)	Vacuum DIN 26057 (axially fixed)	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
- / 13	20	4,500 (8,59)	1,000 (1,00)	14	0,140	5 10 15	355-0013-1001
5/8 / 16	23	4,410 (7,14)	1,000 (1,00)	15	0,160	5 10 15	355-0016-1001
- / 20	27	4,250 (6,88)	1,000 (1,00)	17	0,230	5 10 15	355-0020-1001
- / 22	29	3,900 (6,31)	0,950 (1,00)	18	0,250	5 10 15	355-0022-1001
1 / 25	32	3,470 (5,61)	0,900 (1,00)	20	0,280	5 10 15	355-0025-1001
- / 30	40	3,600 (5,82)	0,880 (1,00)	25	0,420	5 10 15	355-0030-1001
1,25 / 32	42	3,395 (5,49)	0,875 (1,00)	26	0,440	5 10 15	355-0032-1001
1,36 / 35	45	3,125 (5,05)	0,870 (1,00)	28	0,480	5 10 15	355-0035-1001
1,5 / 38	48	2,895 (4,68)	0,865 (1,00)	29	0,520	5 10 15 20	355-0038-1001
- / 40	50	2,760 (4,46)	0,855 (1,00)	30	0,540	5 10 15	355-0040-1001
1,75 / 44-45	55	2,470 (3,99)	0,845 (1,00)	33	0,600	5 10 15	355-0045-1001
2 / 50-51	60	2,235 (3,61)	0,835 (1,00)	35	0,660	5 10 15	355-0050-1001
- / 55	65	2,045 (3,30)	0,790 (1,00)	38	0,720	5 10 15	355-0055-1001
2,36 / 60	70	1,880 (3,03)	0,730 (1,00)	40	0,780	5 10 15	355-0060-1001
2,5 / 63-65	75	1,740 (2,81)	0,675 (1,00)	43	0,840	5 10 15	355-0065-1001
- / 70	81	1,620 (2,61)	0,605 (1,00)	62	0,980	5 10 15	355-0070-1001
3 / 75-76	86	1,515 (2,45)	0,555 (1,00)	66	1,050	5 10	355-0075-1001
- / 80	91	1,425 (2,30)	0,505 (1,00)	69	1,110	5 10	355-0080-1001
3,5 / 89-90	101	1,270 (2,05)	0,385 (0,89)	76	1,250	5 10 15	355-0090-1001
4 / 100-102	111	1,150 (1,85)	0,355 (0,95)	83	1,490	5 10 15	355-0100-1001
- / 110	121	1,045 (1,69)	0,325 (0,78)	90	1,630	5 10 15	355-0110-1001
4,5 / 114-115	126	1,000 (1,61)	0,300 (0,71)	94	1,680	5 10 15	355-0115-1001
4,72 / 120	131	0,960 (1,55)	0,280 (0,65)	97	1,770	5 10 15	355-0120-1001

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



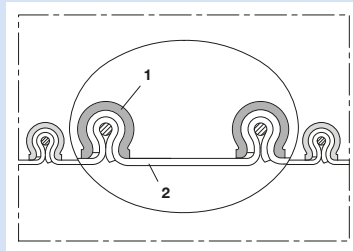
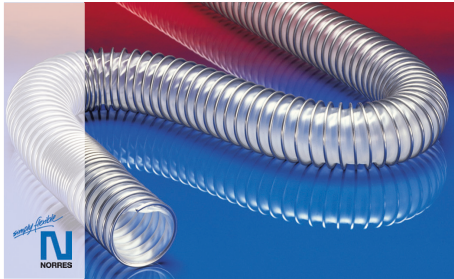
I.D. in / mm	O.D. mm	Pressure DIN 26057 (50% Elongation) bar	Vacuum DIN 26057 (axially fixed) bar	Bending Radius mm	Weight kg/m	Dimensions in Stock m	Order No.
5 / 125-127	136	0,925 (1,49)	0,265 (0,60)	101	1,840	5 10 15	355-0125-1001
- / 130	141	0,890 (1,43)	0,240 (0,56)	104	1,910	5 10 15	355-0130-1001
5,5 / 140	151	0,825 (1,33)	0,215 (0,48)	111	2,030	5 10 15	355-0140-1001
6 / 150-152	161	0,770 (1,24)	0,180 (0,56)	118	2,410	5 10 15	355-0150-1001
6,3 / 160	171	0,725 (1,17)	0,165 (0,49)	125	2,560	5 10 15	355-0160-1001
6,5 / 165	176	0,705 (1,13)	0,160 (0,46)	129	2,640	5 10 15	355-0165-1001
7 / 178-180	191	0,645 (1,04)	0,135 (0,39)	139	2,870	5 10 15	355-0180-1001
8 / 200-203	213	0,580 (0,94)	0,120 (0,35)	156	3,120	5 10	355-0200-1001
- / 250	263	0,465 (0,75)	0,075 (0,21)	191	3,880	5 10	355-0250-1001
- / 300	313	0,390 (0,63)	0,065 (0,19)	226	5,160	5 10	355-0300-1001

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Accessories



Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Food hose and pharmaceutical hose, super-light

Applications

- flexible hose/ ducting for gases and for abrasive dust, powder, fibres
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill
- bellows, compensators

Properties

- abrasion protection via external clamp profile
- secure clamping of the wall within the clamp profile

- highly flexible + compressible 5:1
- abrasion-resistant
- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004, incl. the latest EU-Directive 2015/174, FDA 21 CFR 177.2600
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

Temperature Range

- 40°C to 90°C
- short time to 125°C

Design, Material

CP construction

- clamp profile supporting spiral: galvanised steel
- wall: special premium ether-polyurethane (Pre-PUR®)

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- stainless steel (INOX) clamp profile
- double-layer

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
2 / 50-51	62	0,280	0,270	25	0,660	6	455-0050-0000
- / 55	67	0,255	0,250	27	0,720	6	455-0055-0000
2,36 / 60	72	0,235	0,220	28	0,770	6	455-0060-0000
2,5 / 63-65	77	0,215	0,200	30	0,830	6	455-0065-0000
- / 70	82	0,200	0,180	31	0,890	6	455-0070-0000
3 / 75-76	87	0,190	0,160	33	0,950	6	455-0075-0000
- / 80	92	0,175	0,140	34	1,010	6	455-0080-0000
3,5 / 89-90	102	0,155	0,100	37	1,130	6	455-0090-0000
4 / 100-102	112	0,140	0,085	40	1,070	6	455-0100-0000
- / 110	122	0,130	0,075	43	1,170	3 6	455-0110-0000
4,5 / 114-115	127	0,125	0,070	45	1,220	3 6	455-0115-0000
4,72 / 120	132	0,120	0,065	46	1,270	3 6	455-0120-0000
5 / 125-127	137	0,110	0,060	48	1,320	3 6	455-0125-0000
- / 130	142	0,110	0,055	49	1,370	3 6	455-0130-0000
5,5 / 140	152	0,100	0,040	52	1,470	3 6	455-0140-0000
6 / 150-152	162	0,095	0,035	55	1,630	3 6	455-0150-0000
6,3 / 160	172	0,090	0,030	58	1,740	3 6	455-0160-0000
6,5 / 165	177	0,085	0,030	60	1,790	3 6	455-0165-0000
- / 170	182	0,080	0,030	61	1,840	3 6	455-0170-0000
- / 175	187	0,080	0,030	63	1,890	3 6	455-0175-0000
7 / 178-180	192	0,080	0,025	64	1,950	3 6	455-0180-0000
8 / 200-203	212	0,070	0,020	70	2,150	3 6	455-0200-0000
- / 215	227	0,065	0,020	75	2,310	3 6	455-0215-0000
- / 225	237	0,060	0,020	78	2,420	3 6	455-0225-0000
9 / 228-229	240	0,060	0,019	79	2,460	3 6	455-0228-0000
- / 250	262	0,055	0,015	85	2,680	3 6	455-0250-0000
10 / 254	266	0,050	0,015	87	2,720	3 6	455-0254-0000

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
- / 275	287	0,050	0,015	93	2,940	3 6	455-0275-0000
11 / 280	292	0,045	0,015	95	3,000	3 6	455-0280-0000
- / 300	312	0,045	0,010	100	3,200	3 6	455-0300-0000
12 / 305	317	0,045	0,010	102	3,250	3 6	455-0305-0000
- / 315	327	0,045	0,010	105	3,360	3 6	455-0315-0000
- / 325	337	0,045	0,010	107	3,460	3 6	455-0325-0000
13 / 330	342	0,045	0,010	109	3,510	3 6	455-0330-0000
- / 350	362	0,040	0,010	115	3,720	3 6	455-0350-0000
14 / 356	368	0,040	0,010	117	3,790	3 6	455-0356-0000
- / 375	387	0,040	0,010	123	3,990	3 6	455-0375-0000
- / 400	412	0,035	0,005	130	4,250	3 6	455-0400-0000
16 / 405-406	418	0,030	0,005	132	4,330	3 6	455-0406-0000
- / 450	462	0,030	0,005	145	4,770	3 6	455-0450-0000
18 / 457	469	0,030	0,005	148	4,850	3 6	455-0457-0000
- / 500	512	0,030	0,005	160	5,290	3 6	455-0500-0000
20 / 508	520	0,030	0,005	163	5,400	3 6	455-0508-0000
- / 600	612	0,025	0,005	190	6,340	3 6	455-0600-0000
24 / 610	622	0,025	0,005	195	6,500	3 6	455-0610-0000
- / 700	712	0,020	0,002	220	7,380	3 6	455-0700-0000
28 / 712	724	0,020	0,002	225	7,550	3 6	455-0712-0000
- / 750	762	0,020	0,001	235	7,910	3 6	455-0750-0000
- / 800	812	0,020	0,001	250	8,430	3 6	455-0800-0000
32 / 813-815	827	0,020	0,001	255	8,590	3 6	455-0815-0000
- / 900	912	0,015	0,001	280	9,480	3 6	455-0900-0000
36 / 915	927	0,015	0,001	285	9,640	3 6	455-0915-0000
- / 1000	1012	0,015	0,001	310	10,540	3 6	455-1000-0000
40 / 1016	1028	0,015	0,001	315	10,710	3 6	455-1016-0000

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Accessories



CLAMP 212



CLAMP 217



CLAMP 213

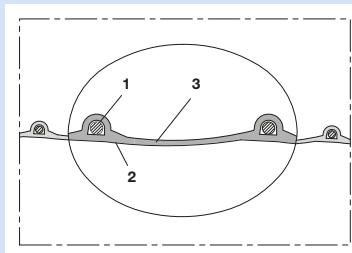
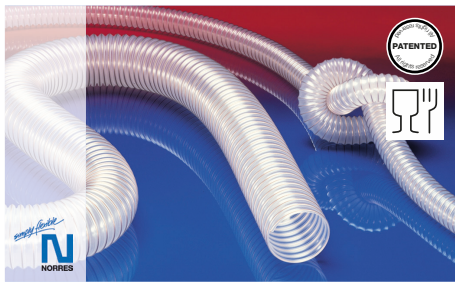


CONNECT 228



CONNECT 270-271

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Food hose and pharmaceutical hose, light

Applications

- flexible hose/ ducting for gases and for abrasive dust, powder, fibres
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill
- extraction arm
- clean room ventilation, semiconductor production machine
- medical equipment/ medical technology, health-care sector: cable protection conduit, air supply hose, extraction hose

- highly flexible + compressible 3:1
- abrasion-resistant
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600 and 178.2010
- Approval acc. to EU-Directive 10/2011 (food simulants A, B, C or E and D2) and EC 1935/2004
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

- short time to 125°C

Design, Material

- patented PROTAPE® tape hose
- spring steel wire integrated in wall
 - wall: special premium ether-polyurethane (Pre-PUR®)
 - wall thickness 0,6 mm approx.

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- customer-specific branding

Properties

- lightweight and reinforced

Temperature Range

- 40°C to 90°C

I.D.	O.D.	Pressure DIN 26057 (50% Elongation)	Vacuum DIN 26057 (axially fixed)	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
1 / 25	32	1,605 (4,18)	0,540 (1,00)	20	0,15	5 10 15	330-0025-0000
- / 30	37	1,350 (3,50)	0,450 (1,00)	22	0,18	5 10 15	330-0030-0000
1,25 / 32	39	1,265 (3,29)	0,420 (1,00)	23	0,19	5 10 15	330-0032-0000
1,5 / 38	45	1,075 (2,78)	0,355 (0,77)	26	0,22	5 10 15	330-0038-0000
- / 40	47	1,020 (2,64)	0,335 (0,69)	27	0,23	5 10 15	330-0040-0000
1,75 / 44-45	52	0,910 (2,35)	0,300 (0,55)	30	0,26	10 15	330-0045-0000
2 / 50-51	58	0,820 (2,12)	0,220 (0,87)	33	0,37	5 10 15	330-0050-0000
2,36 / 60	68	0,685 (1,77)	0,180 (0,61)	38	0,43	5 10 15	330-0060-0000
2,5 / 63-65	73	0,635 (1,64)	0,165 (0,52)	41	0,46	5 10 15	330-0065-0000
- / 70	78	0,590 (1,52)	0,155 (0,45)	43	0,5	5 10 15	330-0070-0000
3 / 75-76	83	0,550 (1,42)	0,145 (0,40)	46	0,53	5 10 15	330-0075-0000
- / 80	88	0,515 (1,33)	0,135 (0,35)	48	0,57	5 10 15	330-0080-0000
3,5 / 89-90	98	0,460 (1,19)	0,120 (0,28)	53	0,63	5 10 15	330-0090-0000
4 / 100-102	108	0,415 (1,07)	0,080 (0,31)	58	0,67	5 10 15	330-0100-0000
- / 110	118	0,375 (0,97)	0,070 (0,26)	63	0,73	5 10 15	330-0110-0000
4,5 / 114-115	123	0,360 (0,93)	0,070 (0,24)	66	0,76	5 10 15	330-0115-0000
4,72 / 120	128	0,345 (0,89)	0,065 (0,22)	68	0,79	5 10 15	330-0120-0000
5 / 125-127	133	0,335 (0,86)	0,065 (0,20)	71	0,83	5 10 15	330-0125-0000
- / 130	138	0,320 (0,82)	0,060 (0,19)	73	0,85	5 10 15	330-0130-0000
5,5 / 140	148	0,295 (0,76)	0,055 (0,16)	78	0,92	5 10 15	330-0140-0000
6 / 150-152	158	0,275 (0,71)	0,055 (0,14)	83	0,99	5 10 15	330-0150-0000
6,3 / 160	168	0,260 (0,67)	0,050 (0,12)	88	1,04	5 10 15	330-0160-0000
- / 170	178	0,245 (0,63)	0,045 (0,11)	93	1,11	5 10 15	330-0170-0000
- / 175	183	0,240 (0,61)	0,045 (0,10)	96	1,14	5 10 15	330-0175-0000
7 / 178-180	188	0,230 (0,59)	0,045 (0,10)	98	1,17	5 10 15	330-0180-0000

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



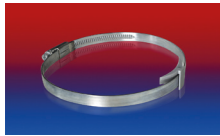
I.D.	O.D.	Pressure DIN 26057 (50% Elongation) bar	Vacuum DIN 26057 (axially fixed) bar	Bending Radius mm	Weight kg/m	Dimensions in Stock m	Order No.
in / mm	mm						
8 / 200-203	208	0,210 (0,54)	0,030 (0,11)	108	1,33	5 10	330-0200-0000
- / 225	233	0,185 (0,48)	0,025 (0,09)	121	1,47	5 10 15	330-0225-0000
- / 250	258	0,165 (0,43)	0,025 (0,07)	133	1,63	5 10	330-0250-0000
10 / 254	262	0,165 (0,42)	0,025 (0,06)	135	1,66	5 10	330-0254-0000
11 / 280	288	0,150 (0,38)	0,020 (0,05)	148	1,82	5 10	330-0280-0000
- / 300	309	0,140 (0,36)	0,020 (0,05)	159	2,13	5 10	330-0300-0000
- / 315	324	0,135 (0,34)	0,020 (0,05)	167	2,23	5 10	330-0315-0000
- / 325	334	0,130 (0,33)	0,020 (0,04)	172	2,3	5 10	330-0325-0000
- / 350	359	0,120 (0,31)	0,020 (0,04)	184	2,48	5 10	330-0350-0000
- / 400	409	0,105 (0,27)	0,015 (0,02)	209	2,83	5 10	330-0400-0000
- / 450	459	0,095 (0,24)	0,015 (0,02)	234	3,18	5 10	330-0450-0000
- / 500	510	0,085 (0,21)	0,015 (0,02)	260	4,38	5 10	330-0500-0000

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Accessories



CLAMP 212



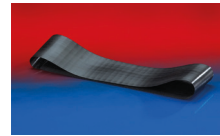
CLAMP 210 BRIDGE
CLAMP



CLAMP 217



CLAMP 213



CONNECT 228

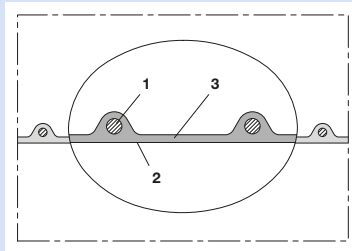
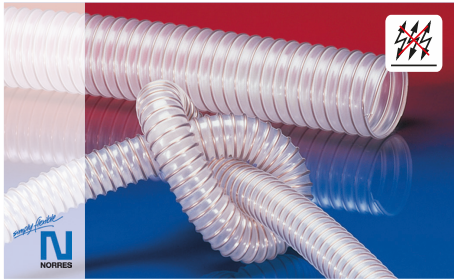


CONNECT 223



CONNECT 270-271

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Antistatic food hose and pharmaceutical hose, medium-heavy

Applications

- flexible hose/ ducting for abrasive powder, bulk material, granulate and for gases
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill
- explosion hazard area
- clean room ventilation, semiconductor production machine
- paper mill, paper and pulp industry: waste water, air extraction
- medical equipment/ medical technology, health-care sector: cable protection conduit, air supply hose, extraction hose
- municipal vehicle: lawn mower, slope mower, leaf blower/ leaf collector

Properties

- medium-heavy duty
- highly abrasion resistant
- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004, incl. the latest EU-Directive 2015/174, FDA 21 CFR 177.2600
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- permanently antistatic wall: in accordance with ISO 8031 electrical and surface resistance $<10^9 \Omega$ and in accordance with TRGS 727 $<2,5 * 10^6 \Omega$
- in accordance with ATEX 2014/34/EU (1999/92/EC) and German TRGS 727: pneumatic transport of flammable dusts and bulk materials (Zone 20, 21, 22 inside), aspiration of combustible dusts (Zone 22 inside), for conveying for flammable liquids (inside zone 0, 1, 2), for conveying for non-flammable liquids, for use in zone 1 and 2 (gases), for use in zone 0 (gases)
- according to DIN 26057 Type 2

- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

Temperature Range

- 40°C to 90°C
- short time to 125°C

Design, Material

AIRDUC® profile hose

- spring steel wire firmly embedded in wall
- wall: permanently antistatic premium ether-polyurethane (Pre-PUR®)
- wall thickness 0,7 mm approx.

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- customer-specific branding

I.D.	O.D.	Pressure DIN 26057 (50% Elongation) bar	Vacuum DIN 26057 (axially fixed) bar	Bending Radius mm	Weight kg/m	Dimensions in Stock m	Order No.
1 / 25	32	2,445 (5,45)	0,755 (1,00)	23	0,190	5 10 15	350-0025-0000
- / 30	37	2,055 (4,57)	0,630 (1,00)	26	0,250	5 10 15	350-0030-0000
1,25 / 32	39	1,930 (4,29)	0,590 (1,00)	27	0,270	5 10 15	350-0032-0000
1,36 / 35	42	1,770 (3,94)	0,540 (1,00)	29	0,290	5 10 15	350-0035-0000
1,5 / 38	45	1,635 (3,64)	0,495 (1,00)	31	0,310	5 10 15	350-0038-0000
- / 40	47	1,555 (3,46)	0,470 (1,00)	32	0,330	5 10 15	350-0040-0000
1,75 / 44-45	52	1,390 (3,08)	0,420 (1,00)	35	0,370	5 10 15	350-0045-0000
2 / 50-51	57	1,250 (2,78)	0,380 (1,00)	38	0,400	5 10 15 20	350-0050-0000
- / 55	62	1,140 (2,53)	0,345 (0,99)	41	0,440	5 10 15	350-0055-0000
2,36 / 60	67	1,050 (2,33)	0,315 (0,83)	44	0,480	5 10 15	350-0060-0000
2,5 / 63-65	70	0,970 (2,15)	0,290 (0,71)	47	0,520	5 10 15	350-0065-0000
- / 70	77	0,900 (2,00)	0,185 (0,83)	50	0,560	5 10 15	350-0070-0000
3 / 75-76	82	0,840 (1,87)	0,175 (0,72)	53	0,590	5 10 15	350-0075-0000
- / 80	87	0,790 (1,75)	0,160 (0,64)	56	0,640	5 10 15	350-0080-0000
3,5 / 89-90	97	0,705 (1,56)	0,145 (0,51)	62	0,720	5 10 15	350-0090-0000
4 / 100-102	107	0,635 (1,41)	0,135 (0,66)	68	0,800	5 10 15	350-0100-0000
- / 110	117	0,575 (1,28)	0,125 (0,55)	74	0,870	5 10 15	350-0110-0000
4,5 / 114-115	122	0,550 (1,22)	0,120 (0,50)	77	0,900	5 10 15	350-0115-0000
4,72 / 120	127	0,530 (1,17)	0,115 (0,46)	80	0,950	5 10 15	350-0120-0000
5 / 125-127	132	0,510 (1,13)	0,110 (0,42)	83	0,980	5 10 15	350-0125-0000
- / 130	137	0,490 (1,08)	0,105 (0,39)	86	1,010	5 10 15	350-0130-0000
5,5 / 140	147	0,455 (1,01)	0,095 (0,33)	92	1,090	5 10 15	350-0140-0000
6 / 150-152	157	0,425 (0,94)	0,075 (0,36)	98	1,400	5 10 15	350-0150-0000

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



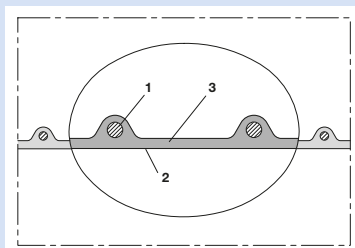
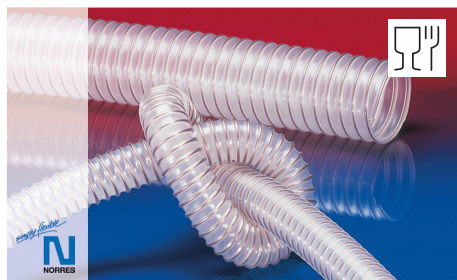
I.D.	O.D.	Pressure DIN 26057 (50% Elongation) bar	Vacuum DIN 26057 (axially fixed) bar	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm			mm	kg/m	m	
6,3 / 160	167	0,400 (0,88)	0,070 (0,31)	104	1,500	5 10 15	350-0160-0000
- / 170	177	0,375 (0,83)	0,065 (0,28)	108	1,580	5 10 15	350-0170-0000
- / 175	182	0,365 (0,81)	0,065 (0,26)	113	1,630	5 10 15	350-0175-0000
7 / 178-180	187	0,355 (0,78)	0,060 (0,24)	116	1,670	5 10 15	350-0180-0000
8 / 200-203	207	0,320 (0,71)	0,055 (0,19)	128	1,860	5 10 15	350-0200-0000
- / 225	232	0,285 (0,63)	0,050 (0,15)	143	2,080	5 10	350-0225-0000
- / 250	257	0,255 (0,57)	0,045 (0,12)	158	2,310	5 10	350-0250-0000
10 / 254	261	0,250 (0,56)	0,045 (0,11)	160	2,350	5 10 15	350-0254-0000
- / 275	282	0,230 (0,51)	0,040 (0,09)	173	2,540	5 10	350-0275-0000
11 / 280	287	0,230 (0,51)	0,040 (0,09)	176	2,590	5 10	350-0280-0000
- / 300	307	0,215 (0,47)	0,035 (0,08)	188	2,770	5 10	350-0300-0000
12 / 305	312	0,210 (0,46)	0,035 (0,07)	191	2,810	5 10	350-0305-0000
- / 350	357	0,185 (0,40)	0,030 (0,05)	218	3,220	5 10	350-0350-0000
14 / 356	363	0,180 (0,40)	0,030 (0,06)	222	3,340	5 10	350-0356-0000
- / 400	407	0,160 (0,35)	0,030 (0,05)	248	4,170	5 10	350-0400-0000
- / 450	457	0,140 (0,32)	0,025 (0,04)	281	4,690	5 10	350-0450-0000
- / 500	507	0,130 (0,28)	0,025 (0,03)	313	5,200	5 10	350-0500-0000

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Accessories



Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Food hose and pharmaceutical hose, medium-heavy and reinforced

Applications

- flexible hose/ ducting for abrasive powder, bulk material, granulate and for gases
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- vacuum conveying equipment, vacuum hopper, suction conveyor, dosing system
- mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill
- industrial vacuum cleaners, vacuum cleaners

Properties

- medium-heavy duty
- highly abrasion resistant

- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600 and 178.2010
- Approval acc. to EU-Directive 10/2011 (food simulants A, B, C or E and D2) and EC 1935/2004
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- flame-retardant according to: UL94-HB
- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

Temperature Range

- 40°C to 90°C

- short time to 125°C

Design, Material

AIRDUC® profile hose

- spring steel wire firmly embedded in wall
- wall: special premium ether-polyurethane (Pre-PUR®)
- wall thickness 1,0 mm approx.

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- customer-specific branding

I.D.	O.D.	Pressure DIN 26057 (50% Elongation) bar	Vacuum DIN 26057 (axially fixed) bar	Bending Radius mm	Weight kg/m	Dimensions in Stock m	Order No.
in / mm	mm						
1 / 25	32	2,715 (5,85)	0,680 (1,00)	23	0,200	5 10 15 20	351-0025-0000
- / 30	38	2,290 (4,92)	0,470 (1,00)	27	0,260	5 10 15	351-0030-0000
1,25 / 32	40	2,155 (4,63)	0,440 (1,00)	28	0,280	5 10 15 20	351-0032-0000
1,36 / 35	43	1,975 (4,25)	0,405 (1,00)	30	0,300	5 10 15	351-0035-0000
1,5 / 38	46	1,830 (3,93)	0,370 (1,00)	32	0,320	5 10 15 20	351-0038-0000
- / 40	48	1,740 (3,74)	0,355 (1,00)	33	0,340	5 10 15 20	351-0040-0000
1,75 / 44-45	53	1,555 (3,33)	0,315 (1,00)	36	0,380	5 10 15	351-0045-0000
2 / 50-51	58	1,405 (3,01)	0,285 (1,00)	39	0,410	5 10 15 20	351-0050-0000
- / 55	63	1,280 (2,74)	0,255 (0,98)	42	0,450	5 10 15 20	351-0055-0000
2,36 / 60	68	1,175 (2,52)	0,235 (0,82)	45	0,490	5 10 15 20	351-0060-0000
2,5 / 63-65	73	1,090 (2,33)	0,220 (0,70)	48	0,530	5 10 15	351-0065-0000
- / 70	79	1,010 (2,17)	0,150 (0,84)	52	0,590	5 10 15	351-0070-0000
3 / 75-76	84	0,945 (2,03)	0,140 (0,73)	55	0,640	5 10 15 20	351-0075-0000
- / 80	89	0,890 (1,90)	0,130 (0,64)	58	0,680	5 10 15	351-0080-0000
3,5 / 89-90	99	0,790 (1,69)	0,115 (0,51)	64	0,750	5 10 15	351-0090-0000
4 / 100-102	109	0,715 (1,53)	0,110 (0,66)	70	0,970	5 10 15 20	351-0100-0000
- / 110	119	0,650 (1,39)	0,100 (0,54)	76	1,060	5 10 15	351-0110-0000
4,5 / 114-115	124	0,620 (1,33)	0,095 (0,50)	79	1,110	5 10 15	351-0115-0000
4,72 / 120	129	0,595 (1,28)	0,090 (0,45)	82	1,160	5 10 15	351-0120-0000
5 / 125-127	134	0,575 (1,23)	0,090 (0,42)	85	1,200	5 10 15	351-0125-0000
- / 130	139	0,550 (1,18)	0,085 (0,39)	88	1,250	5 10 15	351-0130-0000
5,5 / 140	149	0,510 (1,10)	0,080 (0,33)	94	1,340	5 10 15	351-0140-0000
6 / 150-152	159	0,480 (1,02)	0,065 (0,36)	100	1,520	5 10 15	351-0150-0000
6,3 / 160	169	0,450 (0,96)	0,065 (0,32)	106	1,610	5 10 15	351-0160-0000
- / 170	179	0,425 (0,90)	0,060 (0,28)	110	1,710	5 10 15	351-0170-0000
- / 175	184	0,410 (0,88)	0,060 (0,26)	115	1,760	5 10 15	351-0175-0000

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



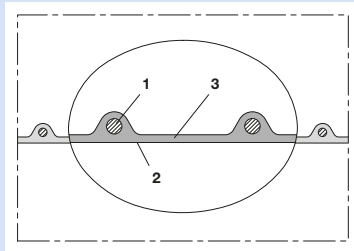
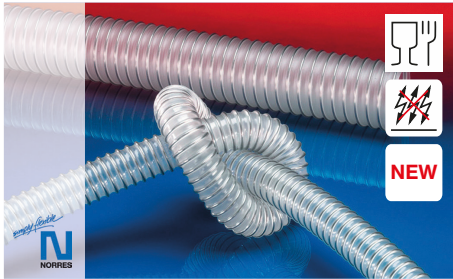
I.D. in / mm	O.D. mm	Pressure DIN 26057 (50% Elongation) bar	Vacuum DIN 26057 (axially fixed) bar	Bending Radius mm	Weight kg/m	Dimensions in Stock m	Order No.
7 / 178-180	189	0,400 (0,85)	0,055 (0,24)	118	1,810	5 10 15	351-0180-0000
8 / 200-203	209	0,360 (0,77)	0,050 (0,19)	130	2,000	5 10 15	351-0200-0000
- / 225	234	0,320 (0,68)	0,040 (0,14)	145	2,160	5 10	351-0225-0000
- / 250	259	0,290 (0,62)	0,035 (0,11)	160	2,390	5 10 15	351-0250-0000
- / 275	284	0,260 (0,56)	0,035 (0,09)	175	2,630	5 10	351-0275-0000
11 / 280	289	0,260 (0,55)	0,030 (0,08)	178	2,670	5 10	351-0280-0000
- / 300	309	0,240 (0,51)	0,030 (0,07)	190	2,860	5 10	351-0300-0000
- / 315	324	0,230 (0,49)	0,030 (0,06)	199	3,000	5 10	351-0315-0000
- / 325	334	0,220 (0,47)	0,030 (0,06)	205	3,100	5 10	351-0325-0000
- / 350	359	0,205 (0,44)	0,025 (0,05)	220	3,330	5 10	351-0350-0000
- / 375	384	0,195 (0,41)	0,025 (0,05)	237	3,900	5 10	351-0375-0000
- / 400	409	0,180 (0,39)	0,025 (0,04)	250	4,270	5 10	351-0400-0000
- / 450	459	0,160 (0,34)	0,020 (0,03)	283	4,800	5 10	351-0450-0000
- / 500	509	0,145 (0,31)	0,020 (0,03)	315	5,330	5 10	351-0500-0000

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Accessories



Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Antistatic food hose and pharmaceutical hose, medium-heavy and reinforced, stainless steel (INOX)

Applications

- flexible hose/ ducting for abrasive powder, bulk material, granulate and for gases
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- vacuum conveying equipment, vacuum hopper, suction conveyor, dosing system
- pelleting machines/ tablet presses
- mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill
- explosion hazard area

Properties

- medium-heavy duty
- highly abrasion resistant
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest

EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600

- Approval acc. to EU-Directive 10/2011 (food simulant E) and EC 1935/2004
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- permanently antistatic wall: in accordance with ISO 8031 electrical and surface resistance $<10^9 \Omega$ and in accordance with TRGS 727 $<2,5 * 10^8 \Omega$
- in accordance with ATEX 2014/34/EU (1999/92/EC) and German TRGS 727: pneumatic transport of flammable dusts and bulk materials (Zone 20, 21, 22 inside), aspiration of combustible dusts (Zone 22 inside), for conveying for flammable liquids (inside zone 0, 1, 2), for conveying for non-flammable liquids, for use in zone 1 and 2 (gases), for use in zone 0 (gases)
- manufacturing process acc. GMP EC 2023/2006

- conforms to RoHS guideline

Temperature Range

- 40°C to 90°C

Design, Material

AIRDUC® profile hose

- spring steel wire firmly embedded in wall; spiral: stainless steel wire (INOX)
- wall: permanently antistatic premium ether-polyurethane (Pre-PUR®)
- wall thickness 1,0 mm approx.

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- customer-specific branding

I.D.	O.D.	Pressure DIN 26057 (50% Elongation) bar	Vacuum DIN 26057 (axially fixed) bar	Bending Radius mm	Weight kg/m	Dimensions in Stock m	Order No.
in / mm	mm						
1 / 25	33	2,640 (4,49)	0,680 (1,00)	22	0,220	5 10	351-0025-1018
1,25 / 32	40	2,090 (3,56)	0,440 (1,00)	28	0,280	5 10	351-0032-1018
1,5 / 38	46	1,775 (3,02)	0,370 (1,00)	32	0,320	5 10	351-0038-1018
- / 40	48	1,690 (2,87)	0,355 (1,00)	33	0,340	5 10	351-0040-1018
2 / 50-51	58	1,365 (2,32)	0,285 (1,00)	39	0,410	5 10	351-0050-1018
2,36 / 60	68	1,145 (1,94)	0,235 (0,82)	45	0,490	5 10	351-0060-1018
2,5 / 63-65	73	1,055 (1,79)	0,220 (0,70)	48	0,590	5 10	351-0065-1018
- / 70	79	0,985 (1,67)	0,145 (0,83)	52	0,590	5 10	351-0070-1018
3 / 75-76	84	0,920 (1,56)	0,135 (0,72)	55	0,640	5 10	351-0075-1018
- / 80	89	0,865 (1,46)	0,125 (0,64)	58	0,680	5 10	351-0080-1018
3,5 / 89-90	99	0,770 (1,30)	0,110 (0,50)	64	0,750	5 10	351-0090-1018
4 / 100-102	109	0,695 (1,18)	0,105 (0,66)	70	0,970	5 10	351-0100-1018
- / 110	119	0,630 (1,07)	0,095 (0,54)	76	1,060	5 10	351-0110-1018
5 / 125-127	134	0,555 (0,94)	0,085 (0,42)	85	1,200	5 10	351-0125-1018
5,5 / 140	149	0,500 (0,84)	0,075 (0,33)	94	1,340	5 10	351-0140-1018
6 / 150-152	159	0,465 (0,79)	0,075 (0,37)	100	1,520	5 10	351-0150-1018
6,3 / 160	169	0,435 (0,74)	0,070 (0,32)	106	1,610	5 10	351-0160-1018
7 / 178-180	189	0,390 (0,66)	0,060 (0,25)	118	1,810	5 10	351-0180-1018
8 / 200-203	209	0,350 (0,59)	0,055 (0,2,0)	133	2,030	5 10	351-0200-1018
- / 225	234	0,310 (0,53)	0,040 (0,14)	145	2,160	5 10	351-0225-1018

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

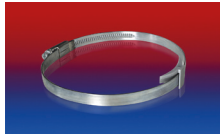
Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Accessories



CLAMP 212



CLAMP 210 BRIDGE CLAMP



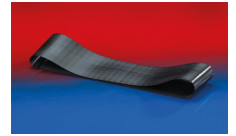
CLAMP 212 EC



CLAMP 217



CLAMP 213



CONNECT 228



CONNECT MOULD ASSEMBLY 233



CONNECT THREAD FITTING 234



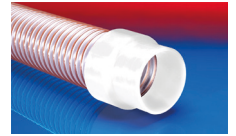
CONNECT TRI-CLAMP FITTING 245



CONNECT DAIRY FITTING 247



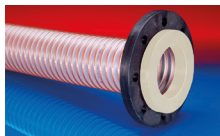
CONNECT ASEPTIC FITTING 249



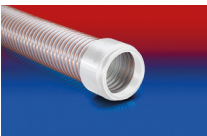
CONNECT 240 + 241 FOOD



CONNECT 243 FOOD



CONNECT 244 FOOD



CONNECT 245 FOOD



CONNECT 246 FOOD

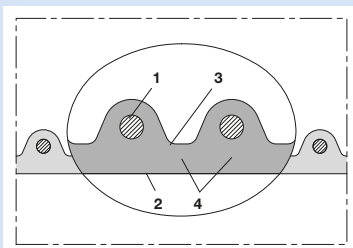


CONNECT 223



CONNECT 270-271

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Food hose and pharmaceutical hose, super-heavy

Applications

- hose/ ducting for high throughput of extremely abrasive bulk material, granulate and stone
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- vacuum conveying equipment, vacuum hopper, suction conveyor, dosing system
- pelleting machines/ tablet presses
- mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill
- agricultural industry: pneumatic grain conveyer
- animal stall, animal shed: feedstuff conveying, feedstuff plant, animal feed transport
- paper mill, paper and pulp industry: waste water, air extraction
- silo, silo vehicle/ silo truck, tanker/ tank truck: silo charging, silo discharging
- silo, silo vehicle/ silo truck, tanker/ tank truck: conveying of e.g. rice, dry food, cereals, sugar,

milk powder, powders, coffee, tea, grains, flour, frozen foods

Properties

- super-heavy duty
- extremely abrasion-resistant with reinforcement underneath wire and narrow hose pitch
- very high pressure, vacuum and compression resistance
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600 and 178.2010
- Approval acc. to EU-Directive 10/2011 (food simulants A, B, C or E and D2) and EC 1935/2004
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- according to DIN 26057 Type 4

- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

Temperature Range

- -40°C to 90°C
- short time to 125°C

Design, Material

- AIRDUC® profile hose
1. spring steel wire firmly embedded in wall
 2. wall: special premium ether-polyurethane (Pre-PUR®)
 3. wall thickness 2,0 to 2,5 mm approx.
 4. reinforcement of the primary abrasion areas

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- customer-specific branding

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
1,25 / 32	43	4,900	1,000	90	0,680	5 10 15	356-0032-1001
1,5 / 38	49	4,190	1,000	104	0,790	5 10 15	356-0038-1001
- / 40	51	3,995	1,000	109	0,820	5 10 15	356-0040-1001
- / 50	61	3,245	1,000	134	1,000	5 10 15	356-0050-1001
2 / 51	62	3,155	1,000	134	1,020	5 10 15	356-0051-1001
2,36 / 60	71	2,735	1,000	156	1,180	5 10 15	356-0060-1001
2,5 / 63	74	2,635	1,000	163	1,230	5 10 15	356-0063-1001
- / 65	76	2,535	1,000	169	1,270	5 10 15	356-0065-1001
- / 70	82	2,360	1,000	186	1,370	5 10 15	356-0070-1001
- / 75	87	2,210	1,000	195	1,460	5 10 15	356-0075-1001
3 / 76	88	2,205	1,000	195	1,480	5 10 15	356-0076-1001
- / 80	92	2,075	1,000	205	1,550	5 10 15	356-0080-1001
- / 100	113	1,855	1,000	272	2,270	5 10 15	356-0100-1001
4 / 102	115	1,70	1,000	272	2,310	5 10 15	356-0102-1001
- / 125	138	1,495	0,835	336	2,800	5 10 15	356-0125-1001
5 / 127	140	1,370	0,825	336	2,840	5 10 15	356-0127-1001
- / 150	163	1,250	0,695	435	3,680	5 10 15	356-0150-1001
6 / 152	165	1,210	0,685	435	3,720	5 10 15	356-0152-1001

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Accessories



CLAMP 216



CLAMP 211



CONNECT 228



CONNECT SAFETY
CLAMP ASSEMBLY
231



CONNECT PRESS
ASSEMBLY 232



CONNECT MOULD
ASSEMBLY 233



CONNECT THREAD
FITTING 234



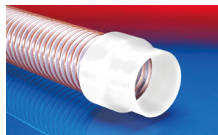
CONNECT TRI-CLAMP
FITTING 245



CONNECT DAIRY
FITTING 247



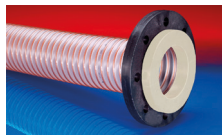
CONNECT ASEPTIC
FITTING 249



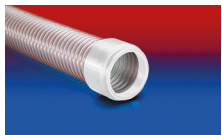
CONNECT 240 + 241
FOOD



CONNECT 243 FOOD
FOOD



CONNECT 244 FOOD

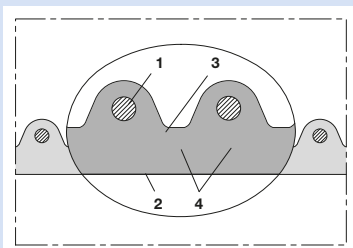


CONNECT 245 FOOD



CONNECT 246 FOOD

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Food hose and pharmaceutical hose, super-heavy and reinforced

Applications

- hose/ ducting for high throughput of extremely abrasive bulk material, granulate and stone
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- animal stall, animal shed: feedstuff conveying, feedstuff plant, animal feed transport
- raw material conveying hose for powders, granulates, sand, quartz, gravel, shards and chips/shavings
- silo, silo vehicle/ silo truck, tanker/ tank truck: silo charging, silo discharging
- silo, silo vehicle/ silo truck, tanker/ tank truck: conveying of wood pellets, plastic granulate, plastic powder
- silo, silo vehicle/ silo truck, tanker/ tank truck: conveying of e.g. rice, dry food, cereals, sugar,

milk powder, powders, coffee, tea, grains, flour, frozen foods

Properties

- super-heavy duty and reinforced
- extremely abrasion-resistant with reinforcement underneath wire and narrow hose pitch
- very high pressure, vacuum and compression resistance
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600 and 178.2010
- Approval acc. to EU-Directive 10/2011 (food simulants A, B, C or E and D2) and EC 1935/2004
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- manufacturing process acc. GMP EC 2023/2006

- conforms to RoHS guideline

Temperature Range

- -40°C to 90°C
- short time to 125°C

Design, Material

AIRDUC® profile hose

1. spring steel wire firmly embedded in wall
2. wall: special premium ether-polyurethane (Pre-PUR®)
3. wall thickness 3,0 to 3,5 mm approx.
4. reinforcement of the primary abrasion areas

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- customer-specific branding

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
- / 50	67	4,065	1,000	189	1,490	10	356-0050-5100
2 / 51	68	3,850	1,000	192	1,500	10	356-0051-5100
2,36 / 60	77	3,455	1,000	216	1,760	10	356-0060-5100
2,5 / 63-65	80	3,330	1,000	224	1,810	10	356-0063-5100
- / 65	82	3,210	1,000	230	1,890	10	356-0065-5100
- / 75	92	2,815	1,000	257	2,040	10	356-0075-5100
3 / 76	87	2,800	1,000	259	2,080	10	356-0076-5100
- / 80	97	2,655	1,000	270	2,300	10	356-0080-5100
3,5 / 89-90	106	2,380	1,000	295	2,840	10	356-0089-5100
- / 90	107	2,380	1,000	297	2,900	10	356-0090-5100
- / 100	117	2,155	1,000	324	3,200	10	356-0100-5100
4 / 102	119	2,005	1,000	330	3,260	10	356-0102-5100
4,5 / 114-115	132	1,890	0,920	365	3,640	10	356-0115-5100
- / 125	142	1,745	0,845	392	3,950	10	356-0125-5100
5 / 127	144	1,715	0,840	398	4,010	10	356-0127-5100
- / 150	167	1,465	0,760	460	5,050	10	356-0150-5100
6 / 152	169	1,355	0,750	465	5,110	10	356-0152-5100

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Accessories

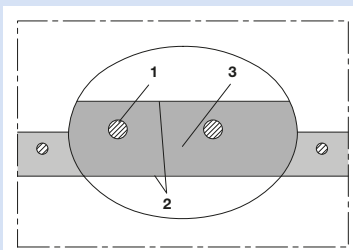
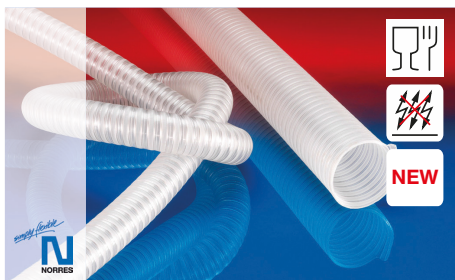


CLAMP 211



CONNECT 230

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Antistatic food hose and pharmaceutical hose, super-heavy and reinforced, smooth interior and exterior, stainless steel (INOX)

Applications

- hose/ ducting for high throughput of extremely abrasive bulk material, granulate and stone
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- vacuum conveying equipment, vacuum hopper, suction conveyor, dosing system
- pelleting machines/ tablet presses
- explosion hazard area
- animal stall, animal shed: feedstuff conveying, feedstuff plant, animal feed transport
- silo, silo vehicle/ silo truck, tanker/ tank truck: silo charging, silo discharging
- silo, silo vehicle/ silo truck, tanker/ tank truck: conveying of e.g. rice, dry food, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods

Properties

- super-heavy duty

- highly abrasion resistant
- very high pressure, vacuum and compression resistance
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600
- Approval acc. to EU-Directive 10/2011 (food simulant E) and EC 1935/2004
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- permanently antistatic wall: in accordance with ISO 8031 electrical and surface resistance $<10^9 \Omega$ and in accordance with TRGS 727 $<2,5 * 10^8 \Omega$
- in accordance with ATEX 2014/34/EU (1999/92/EC) and German TRGS 727: pneumatic transport of flammable dusts and bulk materials (Zone 20, 21, 22 inside), aspiration of combustible dusts (Zone 22 inside), for conveying for flammable liquids (inside zone 0, 1, 2), for con-

- veying for non-flammable liquids, for use in zone 1 and 2 (gases), for use in zone 0 (gases)
- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

Temperature Range

- -40°C to 90°C

Design, Material

BARDUC® design

1. spring steel wire spiral embedded in wall; spiral: stainless steel wire (INOX)
2. smooth interior and exterior; wall: permanently antistatic premium ether-polyurethane (Pre-PUR®)
3. wall thickness 4 to 6 mm approx., depending on diameter

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- customer-specific branding

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
1,25 / 32	40	5,500	1,000	144	0,450	10	382-0032-1014
1,5 / 38	46	5,500	1,000	171	0,590	10	382-0038-1014
- / 40	48	5,500	1,000	180	0,650	10 15	382-0040-1014
2 / 50-51	58	5,000	1,000	225	0,960	10 15	382-0050-1014
2,36 / 60	68	5,000	1,000	270	1,120	10 15	382-0060-1014
2,5 / 63-65	73	5,000	1,000	293	1,210	10 15	382-0065-1014
- / 70	78	5,000	1,000	315	1,290	10 15	382-0070-1014
3 / 75-76	83	5,000	1,000	338	1,380	10 15	382-0075-1014
- / 80	88	4,000	0,900	360	1,460	10	382-0080-1014
4 / 100-102	110	4,000	0,800	500	1,800	10	382-0100-1014

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.

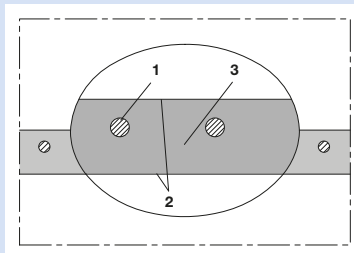


Accessories



CLAMP 211

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



PVC hose, heavy, smooth interior and exterior, vacuum-proof

Applications

- hose/ ducting for liquids and for powder, bulk material, granulate and for gases
- vacuum conveying equipment, vacuum hopper, suction conveyor, dosing system
- plastic industry, conveying of granulates and powders: granulate conveying equipment, vacuum hopper/ conveyor, suction conveyor, dosing system, bulk-bag (big bag)-charging and discharging, shredder, mill, extruder, injection moulding machine
- airport, airplane, rail vehicle, train, railway, boat, ship/ vessel, yacht: toilet discharging/ disposal
- agricultural industry: irrigation, fertilizers, insecticides
- animal stall, animal shed: feedstuff conveying, feedstuff plant, animal feed transport
- construction industry: lowering groundwater
- caravan/ trailer, mobile home/ camper/ RV, boat, ship/ vessel, yachts: sanitary installation, water supply

- compressor, side channel blower, vacuum pump, pressure pump, pump
- paper mill, paper and pulp industry: waste water, air extraction
- industrial washing machine: washing water hose
- vacuum lifting equipment, vacuum handling system

Properties

- heavy duty
- very high pressure, vacuum and compression resistance
- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, according to FDA 21 CFR, according to FDA 21 CFR, 177.1210
- good resistance to alkalis and acids
- good resistance to chemicals
- phthalate-free
- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

Temperature Range

- -20°C to 70°C
- short time to 80°C

Design, Material

- BARDUC® design
1. spring steel wire spiral embedded in wall
 2. smooth interior and exterior; wall: high grade soft PVC
 3. wall thickness 3 to 8 mm approx., depending on diameter

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- special colours: full coloured
- customer-specific branding

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Further Production Lengths	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	m	
- / 10	16	7,000	0,850	25	0,150	30 60	-	381-0010-0000
- / 12	18	6,000	0,850	30	0,210	30 60	-	381-0012-0000
- / 13	19	6,000	0,850	32	0,225	30 60	-	381-0013-0000
- / 14	20	6,000	0,850	33	0,250	30 60	-	381-0014-0000
5/8 / 16	22	6,000	0,850	37	0,265	30 60	-	381-0016-0000
- / 18	25	5,000	0,850	39	0,290	30 60	-	381-0018-0000
3/4 / 19	26	5,000	0,850	41	0,310	30 60	-	381-0019-0000
- / 20	27	5,000	0,850	45	0,320	30 60	-	381-0020-0000
- / 22	29	5,000	0,850	49	0,350	30 60	-	381-0022-0000
1 / 25	32	5,000	0,850	73	0,490	30 60	-	381-0025-0000
- / 30	37	4,000	0,850	75	0,575	30 60	-	381-0030-0000
1,25 / 32	40	4,000	0,850	79	0,695	30 60	-	381-0032-0000
1,36 / 35	43	4,000	0,850	83	0,750	30 60	-	381-0035-0000
1,5 / 38	46	4,000	0,850	91	0,810	15 30	-	381-0038-0000
- / 40	49	4,000	0,850	100	0,945	15 30	-	381-0040-0000
- / 42	51	4,000	0,800	104	0,970	15 30	-	381-0042-0000
1,75 / 44-45	54	4,000	0,800	118	1,105	15 30	-	381-0045-0000
- / 48	57	4,000	0,800	126	1,250	-	15 30	381-0048-0000
2 / 50-51	59	4,000	0,800	135	1,140	15 30	-	381-0050-0000
2,36 / 60	70	3,600	0,800	170	1,680	15 30	-	381-0060-0000

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Further Production Lengths	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	m	
2,5 / 63-65	76	3,600	0,800	228	1,795	15 30	-	381-0065-0000
- / 70	81	3,600	0,700	245	2,095	15 30	-	381-0070-0000
3 / 75-76	88	3,600	0,700	262	2,250	15 30	-	381-0076-0000
- / 80	93	3,600	0,700	275	2,540	10 20	-	381-0080-0000
3,5 / 89-90	103	3,600	0,700	315	2,840	10 20	-	381-0090-0000
4 / 100-102	115	3,600	0,700	413	3,350	10 20	-	381-0102-0000

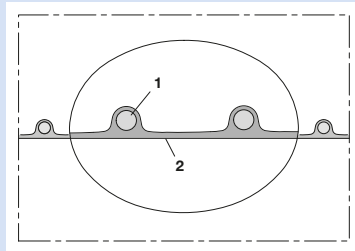
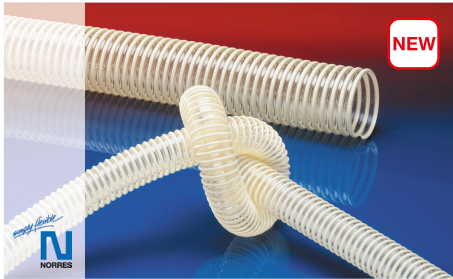
Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Accessories



CLAMP 211

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Food hose and pharmaceutical hose, light

Applications

- flexible hose/ ducting for abrasive powder, bulk material, granulate and for gases
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- vacuum conveying equipment, vacuum hopper, suction conveyor, dosing system
- pelleting machines/ tablet presses
- mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill
- animal stall, animal shed: feedstuff conveying, feedstuff plant, animal feed transport
- X-ray machine: cable protection conduit (special type on request)

- medical equipment/ medical technology, health-care sector: cable protection conduit, air supply hose, extraction hose

Properties

- light weight
- abrasion-resistant
- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174
- food grade wall, complies with: FDA 21 CFR 177.2600
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- phthalate-free
- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

Temperature Range

- 20°C to 70°C
- short time to 80°C

Design, Material

- NORPLAST® full plastic hose
- hard plastic spiral integrated in wall; spiral: rigid PVC
 - smooth interior; wall: special premium ether-polyurethane (Pre-PUR®)

Delivery variants

- further diameters and lengths available on request
- customer-specific branding

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Further Production Lengths	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	m	
- / 20	26	1,000	0,250	15,0	0,100	10 20	-	385-0020-1001
1 / 25	31	1,000	0,250	17,5	0,130	10 20	-	385-0025-1001
- / 30	36	0,900	0,250	20,0	0,140	10 20	-	385-0030-1001
1,25 / 32	38	0,850	0,200	19,0	0,160	10 20	-	385-0032-1001
1,36 / 35	41	0,800	0,200	27,5	0,170	10 20	-	385-0035-1001
- / 38	45	0,750	0,200	31,0	0,200	10 20	-	385-0038-1001
- / 40	47	0,750	0,200	40,0	0,210	10 20	-	385-0040-1001
1,75 / 44-45	52	0,650	0,200	42,5	0,250	10 20	-	385-0045-1001
2 / 50-51	58	0,500	0,200	45,0	0,290	10 20	-	385-0050-1001
2,36 / 60	68	0,500	0,160	50,0	0,430	10 20	-	385-0060-1001
2,5 / 63-65	71	0,450	0,160	48,5	0,460	10 20	-	385-0063-1001
- / 70	79	0,400	0,160	60,0	0,500	10 20	-	385-0070-1001
3 / 75-76	84	0,375	0,160	65,0	0,555	10 20	-	385-0075-1001
- / 80	89	0,350	0,160	70,0	0,590	10 20	-	385-0080-1001
3,5 / 89-90	100	0,300	0,140	80,0	0,670	10 20	-	385-0090-1001
4 / 100-102	110	0,280	0,130	90,0	0,750	10 20	-	385-0100-1001
- / 110	121	0,250	0,120	95,0	0,900	-	20	385-0110-1001
4,72 / 120	131	0,250	0,100	100,0	1,000	-	20	385-0120-1001
5 / 125-127	136	0,250	0,100	107,5	1,100	-	20	385-0125-1001
- / 130	141	0,200	0,090	105,0	1,200	-	20	385-0130-1001
5,5 / 140	152	0,200	0,090	110,0	1,300	-	20	385-0140-1001
6 / 150-152	162	0,180	0,080	125,0	1,500	-	20	385-0150-1001

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/



Accessories



CLAMP 208



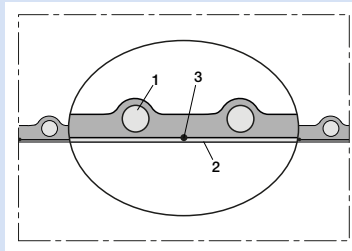
CONNECT 228



CONNECT 223



CONNECT 270-271



Antistatic polyurethane hose, heavy, grounding wire

Applications

- flexible hose/ ducting for high throughput of abrasive powder, bulk material, granulate and for gases
- vacuum conveying equipment, vacuum hopper, suction conveyor, dosing system
- plastic industry, conveying of granulates and powders: granulate conveying equipment, vacuum hopper/ conveyor, suction conveyor, dosing system, bulk-bag (big bag)-charging and discharging, shredder, mill, extruder, injection moulding machine
- explosion hazard area
- raw material conveying hose for powders, granulates, sand, quartz, gravel, shards and chips/shavings
- silos, silo vehicle/ silo truck, tanker/ tank truck: silo charging, silo discharging
- silos, silo vehicle/ silo truck, tanker/ tank truck: conveying of wood pellets, plastic granulate, plastic powder

- wood pellet heating system: conveying of wood pellets

Properties

- heavy duty
- highly abrasion resistant
- increased pressure and vacuum resistance
- good resistance to chemicals
- phthalate-free
- grounding wire for discharging of electrostatic charging
- electrical and surface resistance of the inliner <math><10^9 \Omega</math>
- in accordance with ATEX 2014/34/EU (1999/92/EC) and German TRGS 727: aspiration of combustible dust (zone 22 inside), for conveying of non-flammable liquids, for use in zone 1 and 2 (gases)
- conforms to RoHS guideline

Temperature Range

- 20°C to 70°C
- short time to 80°C

Design, Material

- NORPLAST® full plastic hose
- hard plastic spiral integrated in wall; spiral: rigid PVC
 - smooth interior; Wall: antistatic polyurethane inside layer 2,0 mm approx., exterior soft PVC
 - grounding wire

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- special colours: coloured spiral, full coloured
- customer-specific branding

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Further Production Lengths	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	m	
1,25 / 32	39,0	5,000	0,700	165,4	0,450	-	15 30	386-0032-0000
1,5 / 38	46,0	5,000	0,700	195,7	0,590	15 30	-	386-0038-0000
- / 40	48,8	5,000	0,700	205,0	0,620	15 20 30	-	386-0040-0000
1,75 / 44-45	53,0	5,000	0,700	228,3	0,750	15 30	-	386-0045-0000
2 / 50-51	59,0	5,000	0,700	254,0	0,880	15 20 30	-	386-0050-0000
2,36 / 60	69,0	5,000	0,700	300,6	1,060	15 20 30	-	386-0060-0000
2,5 / 63-65	72,0	5,000	0,700	314,6	1,130	15 30	-	386-0063-0000
- / 70	79,0	5,000	0,700	347,2	1,280	15 30	-	386-0070-0000
3 / 75-76	85,0	5,000	0,700	375,1	1,460	15 30	-	386-0076-0000
- / 80	90,0	4,000	0,700	396,1	1,630	15 30	-	386-0080-0000
3,5 / 89-90	100,0	4,000	0,700	442,7	1,940	15 30	-	386-0090-0000
4 / 100-102	112,0	4,000	0,700	498,6	2,310	15 30	-	386-0102-0000

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Accessories

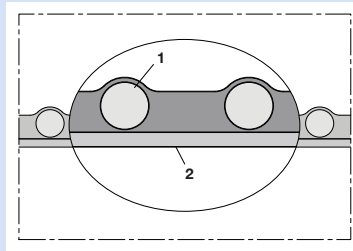
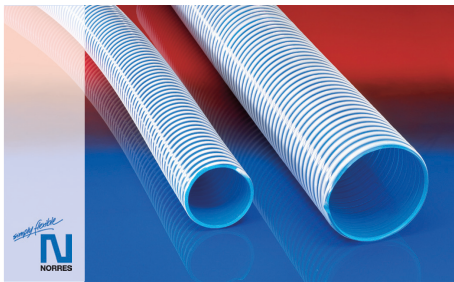


CLAMP 211



CONNECT 270-271

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Polyurethane hose, super-heavy

Applications

- hose/ ducting for high throughput of extremely abrasive bulk material, granulate and stone
- suction vehicles: roof gravelling, roof gravel conveying
- vacuum truck, suction vehicle, dry suction truck: industrial cleaning, furnace cleaning
- animal stall, animal shed: feedstuff conveying, feedstuff plant, animal feed transport
- raw material conveying hose for powders, granulates, sand, quartz, gravel, shards and chips/shavings
- silo, silo vehicle/ silo truck, tanker/ tank truck: silo charging, silo discharging
- silo, silo vehicle/ silo truck, tanker/ tank truck: conveying of wood pellets, plastic granulate, plastic powder

Properties

- external abrasion protection via external helix (saves floor space, prolong service life, easy to use)
- super-heavy duty
- extremely abrasion resistant
- very high pressure, vacuum and compression resistance
- good resistance to chemicals
- very good low temperature flexibility
- conforms to RoHS guideline

Temperature Range

- -20°C to 70°C
- short time to 80°C

Design, Material

NORPLAST® full plastic hose

1. hard plastic spiral integrated in wall; spiral: rigid PVC
2. smooth interior; wall: premium polyurethane (Pre-PUR®), inside layer 2,0 mm approx. exterior soft PVC

Delivery variants

- further diameters and lengths available on request
- blue inner tube + transparent exterior wall (standard)
- special colours: coloured spiral, full coloured
- customer-specific branding

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
standard type, inliner blue							
3 / 75-76	90	6,000	0,900	512,0	2,200	13,5 30	387-0076-0000
3,5 / 89-90	105	5,500	0,900	595,0	2,600	13,5 30	387-0090-0000
4 / 100-102	118	4,000	0,900	799,0	3,300	13,5 30	387-0102-0000
5 / 125-127	145	3,000	0,900	1036,5	4,200	13,5 30	387-0127-0000
6 / 150-152	173	3,000	0,900	1324,0	6,400	13,5 20	387-0152-0000
flexible type, inliner yellow							
5 / 125-127	145	3,000	0,900	1036,5	4,200	13,5 30	387-0127-6007
smooth exterior type, inliner red							
5 / 125-127	145	3,000	0,900	1036,5	4,200	13,5 30	387-0127-6008

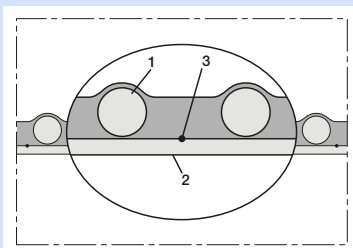
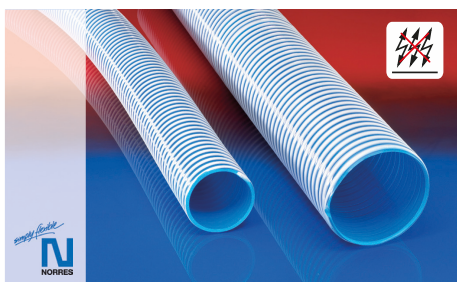
Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Accessories



CLAMP 211

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Antistatic polyurethane hose, super-heavy, grounding wire

Applications

- hose/ ducting for high throughput of extremely abrasive bulk material, granulate and stone
- vacuum truck, suction vehicle, dry suction truck: industrial cleaning, furnace cleaning
- explosion hazard area
- raw material conveying hose for powders, granulates, sand, quartz, gravel, shards and chips/shavings
- silo, silo vehicle/ silo truck, tanker/ tank truck: silo charging, silo discharging
- silo, silo vehicle/ silo truck, tanker/ tank truck: conveying of wood pellets, plastic granulate, plastic powder

Properties

- external abrasion protection via external helix (saves floor space, prolong service life, easy to use)
- extremely abrasion resistant

- very high pressure, vacuum and compression resistance
- good resistance to chemicals
- very good low temperature flexibility
- grounding wire for discharging of electrostatic charging
- electrical and surface resistance of the inliner <math><10^9 \Omega</math>
- in accordance with ATEX 2014/34/EU (1999/92/EC) and German TRGS 727: pneumatic transport of flammable dusts and bulk materials (Zone 20, 21, 22 inside), aspiration of combustible dusts (Zone 22 inside), for conveying for flammable liquids (inside zone 0, 1, 2), for conveying for non-flammable liquids, for use in zone 1 and 2 (gases), for use in zone 0 (gases)
- conforms to RoHS guideline

Temperature Range

- -20°C to 70°C

- short time to 80°C

Design, Material

- NORPLAST® full plastic hose
1. hard plastic spiral integrated in wall; spiral: rigid PVC
 2. smooth interior; Wall: antistatic polyurethane inside layer 2,0 mm approx., exterior soft PVC
 3. grounding wire

Delivery variants

- further diameters and lengths available on request
- blue inner tube + transparent exterior wall (standard)
- special colours: coloured spiral, full coloured
- customer-specific branding

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
3 / 75-76	92	6,0	0,9	512,0	2,200	13,5 30	387-0076-2878
3,5 / 89-90	107	5,5	0,9	595,0	2,600	13,5 30	387-0090-2878
4 / 100-102	120	4,0	0,9	799,0	3,300	13,5 30	387-0102-2878
5 / 125-127	147	3,0	0,9	1036,5	4,200	13,5 30	387-0127-2878
6 / 150-152	175	3,0	0,9	1324,0	6,400	13,5 20	387-0152-2878

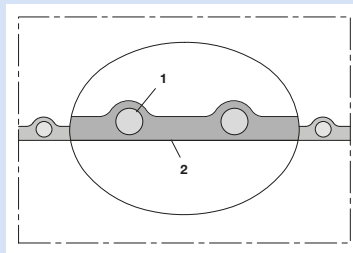
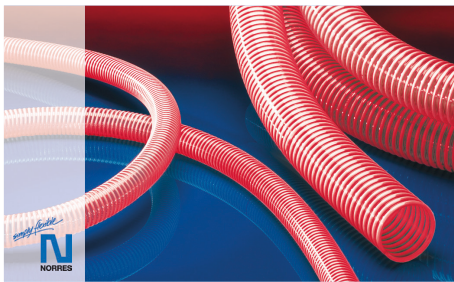
Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Accessories



CLAMP 211

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



PVC hose, food hose and pharmaceutical hose, heavy

Applications

- hose/ ducting for liquids and for powder, bulk material, granulate and for gases
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- vacuum conveying equipment, vacuum hopper, suction conveyor, dosing system
- animal stall, animal shed: feedstuff conveying, feedstuff plant, animal feed transport
- silo, silo vehicle/ silo truck, tanker/ tank truck: silo charging, silo discharging
- silo, silo vehicle/ silo truck, tanker/ tank truck: conveying of e.g. rice, dry food, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods

Properties

- heavy duty
- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004
- good resistance to alkalis and acids
- good resistance to chemicals
- phthalate-free
- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

Temperature Range

- -5°C to 70°C
- short time to 80°C

Design, Material

NORPLAST® full plastic hose

1. hard plastic spiral integrated in wall; spiral: rigid PVC
2. smooth interior and exterior; wall: high grade soft PVC

Delivery variants

- further diameters and lengths available on request
- transparent + partially red coloured (standard)
- special colours: coloured spiral, full coloured
- customer-specific branding

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Further Production Lengths	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
- / 20	26	5,000	0,700	105,8	0,250	25 50	384-0020-1001
1 / 25	31	5,000	0,700	128,8	0,300	25 50	384-0025-1001
- / 30	36	5,000	0,700	151,8	0,360	25 50	384-0030-1001
1,25 / 32	39	5,000	0,700	163,3	0,390	25 50	384-0032-1001
1,36 / 35	42	5,000	0,700	177,1	0,440	25 50	384-0035-1001
1,5 / 38	45	5,000	0,700	190,9	0,520	25 50	384-0038-1001
- / 40	48	5,000	0,700	202,4	0,550	25 50	384-0040-1001
1,75 / 44-45	53	5,000	0,700	225,4	0,670	25 50	384-0045-1001
2 / 50-51	60	5,000	0,700	253,0	0,800	25 50	384-0051-1001
2,36 / 60	69	5,000	0,700	296,7	0,970	25 50	384-0060-1001
2,5 / 63-65	72	5,000	0,700	310,5	1,040	25 50	384-0063-1001
- / 70	80	5,000	0,700	345,0	1,200	25 50	384-0070-1001
3 / 75-76	86	5,000	0,700	349,6	1,380	25 50	384-0076-1001
- / 80	91	4,000	0,700	393,3	1,550	25 50	384-0080-1001
3,5 / 89-90	102	4,000	0,700	441,6	1,850	25 50	384-0090-1001
4 / 100-102	114	4,000	0,700	496,8	2,200	25 50	384-0102-1001
- / 110	123	4,000	0,700	535,9	2,550	30	384-0110-1001
4,72 / 120	133	3,000	0,550	581,9	2,800	30	384-0120-1001
5 / 125-127	138	3,000	0,550	604,9	3,000	30	384-0125-1001
6 / 150-152	165	3,000	0,500	719,9	4,300	20	384-0150-1001

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.

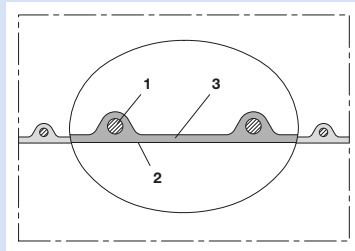
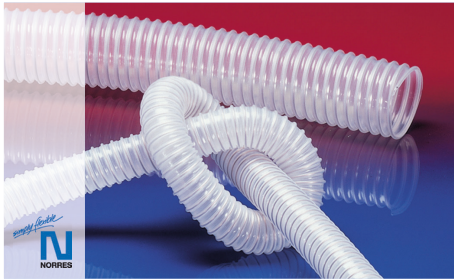
Accessories



CLAMP 211



CONNECT 270-271



Polyethylene food hose and pharmaceutical hose, medium-heavy

Applications

- flexible hose/ ducting for gases and for dust, powder, fibres
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- conveying of dry foods e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods
- mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill
- tobacco industry: cigarette machine, tobacco conveying
- galvanic extraction
- chemical industry: chemical vapours, vapour return hose at loading arm, paint steam, spray mist extraction

Properties

- medium-heavy duty
- Food grade wall, complies with: FDA 21 CFR 177.1520 3.1 and 3.2, EU-Directive 10/2011 and EC 1935/2004
- odourless and tasteless
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

Temperature Range

- 35°C to 80°C

Design, Material

AIRDUC® profile hose

- spring steel wire firmly embedded in wall

- wall: special polyethylene (PE)
- wall thickness 0,8 mm approx.

Delivery variants

- further diameters and lengths available on request
- transparent (standard)
- special colours: full coloured
- customer-specific branding

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
1 / 25	30	1,455	0,570	17	0,210	10 15	362-0025-0000
- / 28	34	1,375	0,540	20	0,250	10	362-0028-0000
- / 30	37	0,980	0,520	22	0,210	10	362-0030-0000
1,25 / 32	39	0,920	0,505	23	0,230	10	362-0032-0000
1,5 / 38	45	0,780	0,475	26	0,260	10	362-0038-0000
- / 40	47	0,740	0,460	27	0,280	10	362-0040-0000
1,75 / 44-45	52	0,660	0,430	30	0,310	10	362-0045-0000
2 / 50-51	57	0,595	0,395	32	0,340	10	362-0050-0000
- / 55	62	0,540	0,350	35	0,370	10	362-0055-0000
2,36 / 60	67	0,500	0,320	37	0,400	10	362-0060-0000
2,5 / 63-65	72	0,460	0,275	40	0,440	10	362-0065-0000
- / 70	79	0,430	0,230	44	0,560	10	362-0070-0000
3 / 75-76	84	0,400	0,210	47	0,600	10	362-0075-0000
- / 80	89	0,375	0,200	49	0,640	10	362-0080-0000
3,5 / 89-90	99	0,335	0,170	54	0,710	10	362-0090-0000
4 / 100-102	109	0,300	0,135	59	0,790	10	362-0100-0000
- / 110	119	0,275	0,120	64	0,860	10	362-0110-0000
4,72 / 120	129	0,250	0,115	69	0,940	10	362-0120-0000
5 / 125-127	134	0,240	0,090	72	0,980	10	362-0125-0000
6 / 150-152	159	0,200	0,090	84	1,160	10	362-0150-0000
6,3 / 160	169	0,190	0,075	89	1,240	10	362-0160-0000
8 / 200-203	210	0,150	0,060	110	1,550	10	362-0200-0000
- / 250	260	0,120	0,025	135	1,920	10	362-0250-0000

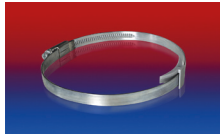
Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.

Accessories



CLAMP 212



CLAMP 210 BRIDGE CLAMP



CLAMP 212 EC



CLAMP 217



CLAMP 213



CONNECT 228

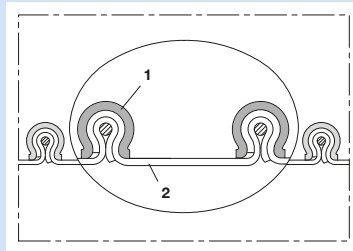


CONNECT 223



CONNECT 270-271

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



Clamp profile hose (clip hose), food hose and pharmaceutical hose, highly chemical resistant (up to +270°C)

Applications

- flexible hose/ ducting for hot and cold gases and for dust, powder, fibres
- food industry, pharmaceutical industry: foodstuff, pharmaceutical
- mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill
- extraction arm
- chemical industry: chemical vapours, vapour return hose at loading arm, paint steam, spray mist extraction
- paper mill, paper and pulp industry: waste water, air extraction

- secure clamping of the wall within the clamp profile
- highly flexible + compressible 4:1
- very good heat resistance
- Inside layer food quality complies with: EU-Directive 10/2011 and EC 1935/2004
- food grade wall, complies with: FDA 21 CFR 177.1550, German guideline XV BfR
- odourless and tasteless
- anti-adhesive
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- manufacturing process acc. GMP EC 2023/2006
- conforms to RoHS guideline

Temperature Range

- 150°C to 250°C
- short time to 270°C

Design, Material

- CP construction
- clamp profile supporting spiral: all-stainless steel (INOX)
 - wall: PTFE coated glass fabric

Delivery variants

- further diameters and lengths available on request
- double-layer

Properties

- abrasion protection via external clamp profile

I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
2 / 50-51	62	0,410	0,270	18	0,570	6	475-0050-0000
- / 55	67	0,390	0,250	20	0,620	6	475-0055-0000
2,36 / 60	72	0,370	0,220	20	0,640	6	475-0060-0000
2,5 / 63-65	77	0,355	0,200	22	0,720	6	475-0065-0000
- / 70	82	0,340	0,180	22	0,770	6	475-0070-0000
3 / 75-76	87	0,325	0,160	24	0,820	6	475-0075-0000
- / 80	92	0,315	0,140	24	0,880	6	475-0080-0000
3,5 / 89-90	102	0,290	0,100	26	0,980	6	475-0090-0000
4 / 100-102	112	0,195	0,085	28	0,820	6	475-0100-0000
- / 110	122	0,185	0,075	30	0,900	36	475-0110-0000
4,5 / 114-115	127	0,180	0,070	32	0,940	36	475-0115-0000
4,72 / 120	132	0,175	0,065	32	0,980	36	475-0120-0000
5 / 125-127	137	0,170	0,060	34	1,020	36	475-0125-0000
- / 130	142	0,165	0,055	34	1,060	36	475-0130-0000
5,5 / 140	152	0,160	0,040	36	1,140	36	475-0140-0000
6 / 150-152	162	0,110	0,035	38	0,760	36	475-0150-0000
6,3 / 160	172	0,105	0,030	40	0,810	36	475-0160-0000
6,5 / 165	177	0,100	0,030	41	0,830	36	475-0165-0000
- / 170	182	0,100	0,030	42	0,850	36	475-0170-0000
- / 175	187	0,100	0,030	44	0,880	36	475-0175-0000
7 / 178-180	192	0,095	0,025	44	0,900	36	475-0180-0000
8 / 200-203	212	0,090	0,020	48	1,000	36	475-0200-0000
- / 215	227	0,085	0,020	52	1,070	36	475-0215-0000
- / 225	237	0,085	0,020	54	1,120	36	475-0225-0000
9 / 228-229	240	0,085	0,020	54	1,135	36	475-0228-0000
- / 250	262	0,065	0,015	58	1,240	36	475-0250-0000
10 / 254	266	0,065	0,015	59	1,260	36	475-0254-0000

Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. Additional technical data at www.norres.com. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data.



I.D.	O.D.	Over-pressure	Under-pressure	Bending Radius	Weight	Dimensions in Stock	Order No.
in / mm	mm	bar	bar	mm	kg/m	m	
- / 275	287	0,060	0,015	64	1,360	3 6	475-0275-0000
11 / 280	292	0,060	0,015	65	1,385	3 6	475-0280-0000
- / 300	312	0,055	0,010	68	1,480	3 6	475-0300-0000
12 / 305	317	0,055	0,010	69	1,505	3 6	475-0305-0000
- / 315	327	0,055	0,010	71	1,560	3 6	475-0315-0000
- / 325	337	0,055	0,010	74	1,650	3 6	475-0325-0000
13 / 330	342	0,050	0,010	75	1,665	3 6	475-0330-0000
- / 350	362	0,040	0,010	78	1,730	3 6	475-0350-0000
14 / 356	368	0,040	0,010	79	1,785	3 6	475-0356-0000
- / 375	387	0,040	0,010	83	1,950	3 6	475-0375-0000
- / 400	412	0,040	0,005	88	1,970	3 6	475-0400-0000
16 / 405-406	418	0,040	0,005	89	2,000	3 6	475-0406-0000
- / 450	462	0,035	0,005	98	2,210	3 6	475-0450-0000
18 / 457	469	0,035	0,005	100	2,245	3 6	475-0457-0000
- / 500	512	0,030	0,005	108	2,450	3 6	475-0500-0000
20 / 508	520	0,025	0,005	110	2,490	3 6	475-0508-0000
- / 600	612	0,020	0,005	128	2,940	3	475-0600-0000
24 / 610	622	0,020	0,005	130	2,990	3	475-0610-0000
- / 700	712	0,015	0,002	148	3,420	3	475-0700-0000
28 / 712	724	0,015	0,001	151	3,480	3	475-0712-0000
- / 750	762	0,015	0,001	158	3,660	3	475-0750-0000
- / 800	812	0,015	0,001	168	3,910	3	475-0800-0000
32 / 813-815	827	0,015	0,001	171	4,010	3	475-0815-0000
- / 900	912	0,015	0,001	188	4,580	3	475-0900-0000
36 / 915	927	0,015	0,001	191	4,625	3	475-0915-0000
- / 1000	1012	0,015	0,001	208	4,880	3	475-1000-0000
40 / 1016	1028	0,010	0,001	211	4,930	3	475-1016-0000

TEFLON® is a registered trademark of DuPont; Overpressure and underpressure are recommended threshold operating values, products can be subjected to higher loads upon request. The bending radius is measured through the inside of the hose arch. The right to make technical modifications is reserved. All values determined at 20°C and are approx. data. Additional technical data at www.norres.com/en/technology/

Accessories



CLAMP 212



CLAMP 217



CLAMP 213



CONNECT 228



CONNECT 270-271

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● Manufacture, warehouse, distribution ● Warehouse, distribution



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