

ENGINEERING
TOMORROW


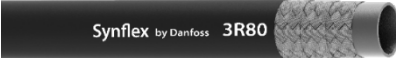



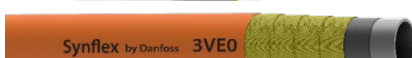



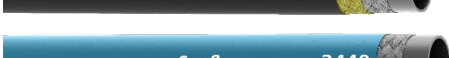



Danfoss

Brochure | Specialty Hose & Tubing

Synflex® by Danfoss Specialty Hose and Tubing



Synflex
by Danfoss

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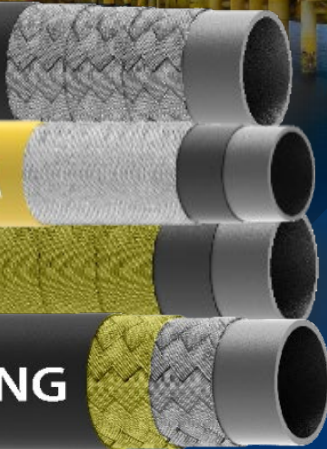
Thermoplastic Hose

Synflex by Danfoss **3R80**

Synflex by Danfoss **34BA**

Synflex by Danfoss **3VE0**

Synflex by Danfoss **35NG**





UV/Ozone protection

The thermoplastic polyurethane and polyester outer-cover resists ozone, ultraviolet light, and aging



Long length

Continues length 500 m or longer. Precise length for application needs without additional connecting elements



Chemical resistance

Thermoplastic composition paired with nylon lining prevents absorption of most oils and hydraulic fluids



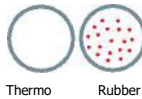
Abrasion resistance

The new TPU and polyester cover increases abrasion resistant by 10%



Temperature resistance

Improved hose functionality over a wide temperature range from 40°C (-40°F) to +100°C (212°F)



System cleanliness

Thermoplastic hose will not degrade or create contaminants in filters and valves helping you maintain a clean system



Light weight

Synthetic reinforced thermoplastic hoses are about 2x lighter than equivalent wire-braided rubber hoses



Bonding capabilities

Synflex thermoplastic hoses can be permanently joined without the use of any mechanical devices



Custom thermoforming

Ability to mold into configurations that match system design



Flexible design

Lightweight hose design drives performance efficiencies, reducing vehicle power requirements



Permeation resistance

Due to specific compound of the inner tube used and its design the strong barrier it is created to molecular penetration of gases or fluids through that barrier



Noise reduction

Special reinforcements on the thermoplastic hoses help reduce machine noise



General Hydraulic



Healthcare



Water



Recreation



Forestry



Marine



Food and Beverage



Air & Multipurpose



Chemical



Material Handling



Oil and Petroleum



Agriculture



Rescue Tools & Equipment



Construction Machinery



General Industrial



3R30

Meets or exceeds: **SAE 100R3**

Size -3 to -6



Size -8



Hose construction:	Inner tube: Nylon-lined	Reinforcement: Spiral synthetic fiber (-03 to -06) Braided synthetic fiber (-08)	Cover: Polyurethane
Operating temperature:	For oil-based fluids: -40 °C to +100 °C (-40 °F to +212 °F) For water-based fluids: -40 °C to +66 °C (-40 °F to +150 °F)		
Hose color(s):	Black perforated		
Approved Fitting:	4T		

Part #	Size Dimensions				Pressure				Bend		Weight		Length			
	Hose Size	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Min. Bend Radius		Weight		Length		
		DN	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs./ft	m	ft
3R30-03	-03	5	4,8	0.19	9,8	0.38	120	1,750	480	7,000	25,0	1.00	0,05	0.04	76,2	250
3R30-04	-04	6	6,4	0.25	12,4	0.49	103	1,500	412	6,000	32,0	1.25	0,08	0.05	76,2	250
3R30-06	-06	10	9,5	0.38	16,2	0.64	86	1,250	344	5,000	51,0	2.00	0,12	0.08	76,2	250
3R30-08	-08	12	12,7	0.50	20,8	0.82	70	1,000	280	4,000	76,0	3.00	0,21	0.14	76,2	250



General Hydraulic



Healthcare

- Wheelchair lift
- Surgical beds/tables



Water

- Water jetter drain/sewer
- Car wash



Air & Multipurpose

- Air tools
- Cooling/misting
- Dust suppression



Chemical

- Chemical transfer



Agriculture



Recreation

- Recreational vehicle

3R80

Meets or exceeds: **SAE 100R8**



Hose construction:	Inner tube: Nylon-lined	Reinforcement: Spiral synthetic fiber Braided synthetic fiber	Cover: Polyurethane
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Operating temperature:	For oil-based fluids: -40 °C to +100 °C (-40 °F to +212 °F) For water-based fluids: -40 °C to +66 °C (-40 °F to +150 °F)
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Hose color(s):	Black perforated
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Approved Fitting:	1A/Z/90H/336E/90H/90L
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Part #	Size Dimensions						Pressure				Bend		Weight		Length	
	Hose Size	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Min. Bend Radius		Weight		Length		
		DN	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs./ft	m	ft
3R80-03	-03	5	4,8	0.19	13,1	0.52	350	5,100	1,400	20,400	38,0	1.50	0,11	0.08	76,0	250
3R80-04	-04	6	6,4	0.25	15,9	0.63	350	5,100	1,400	20,400	51,0	2.00	0,18	0.12	76,0	250
3R80-06	-06	10	9,5	0.38	19,4	0.77	280	4,050	1,120	16,200	64,0	2.50	0,22	0.15	76,0	250
3R80-08	-08	12	12,7	0.50	22,7	0.90	245	3,550	980	14,200	102,0	4.00	0,28	0.19	76,0	250



General Hydraulic



Chemical



Oil and Petroleum



Material Handling



Forestry



Rescue Equipment

- Hydraulic applications
- Breathing air


- Chemical transfer

- Rental construction equipment

3800

Meets or exceeds: **SAE 100R8**



Hose construction:	Inner tube: Nylon-lined	Reinforcement: Braided high-tensile aramid fiber	Cover: Polyurethane
Operating temperature:	For oil-based fluids: -40 °C to +100 °C (-40 °F to +212 °F) For water-based fluids: -40 °C to +66 °C (-40 °F to +150 °F)		
Hose color(s):	Black perforated		
Approved Fitting:	903/90A 		

Part #	Size Dimensions						Pressure				Bend		Weight		Length	
	Hose Size	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Min. Bend Radius		Weight		Length		
	DN	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs./ft	m	ft	
3800-02	-02	3	3,2	0.13	8,5	0.34	413	6,000	1,655	24,000	20,0	0.81	0,04	0.03	76,2	250
3800-03	-03	5	4,8	0.19	11,0	0.43	345	5,000	1,379	20,000	38,0	1.50	0,09	0.06	76,2	250
3800-04	-04	6	6,4	0.25	13,5	0.53	345	5,000	1,379	20,000	51,0	2.00	0,12	0.08	76,2	250
3800-06	-06	10	9,5	0.38	16,9	0.67	276	4,000	1,103	16,000	64,0	2.50	0,16	0.11	76,2	250
3800-08	-08	12	12,7	0.50	21,3	0.84	240	3,500	965	14,000	102,0	4.00	0,22	0.15	76,2	250



General Hydraulic

- Hydraulic applications
- Breathing air



Chemical

- Chemical transfer



Water

- Pressure waters
- Water Jeter/Sewer



Material Handling

- Construction equipment



Recreation

- Recreational vehicle



Rescue Equipment

43GW



Hose construction:	Inner tube: Polyamide	Reinforcement: Braided synthetic fiber	Cover: Polyurethane
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Operating temperature: For water-based fluids: -30 °C to +80 °C (-22 °F to +179 °F)

Hose color(s): Black perforated

Approved Fitting: 9M3



Benefits for customers:

- Long life for impulse cycling and flexing
- Replace rigid nylon and/or steel pipes
- Very flexible
- Weather rugged design
- Light weight due to thermoplastic hose design
- Easy to assemble with reusable fittings

Part #	Size Dimensions						Pressure				Bend		Weight		Length	
	Hose Size	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Min. Bend Radius		Weight		Length		
	DN	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs./ft	m	ft	
43GW-DN4MA	4	4,0	0.16	8,75	0.34	325	4,716	840	12,188	20,0	0.79	0,05	0.03	76.2	250	



Construction Machinery



General Industrial

- Hand-held grease guns
- Central lubrication systems

3V10



Hose construction: **Inner tube:** Nylon-lined **Reinforcement:** Spiral, high-tensile aramid fiber **Cover:** Polyurethane

Operating temperature: For water-based fluids: -40 °C to +66 °C (-40 °F to +150 °F)

Hose color(s): Black perforated

Approved Fitting: 90V/9AV/9CV



Part #	Size Dimensions						Pressure				Bend		Weight		Length	
	Hose Size	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Min. Bend Radius		Weight		Length		
		DN	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs./ft	m	ft
3V10-03	-03	5	4,8	0.19	13,2	0.52	689	10,000	2,758	40,000	38,0	1.50	0,11	0.08	76,2	250
3V10-04	-04	6	6,4	0.25	15,1	0.60	689	10,000	2,758	40,000	64,0	2.50	0,16	0.11	76,2	250
3V10-06	-06	10	9,5	0.38	19,8	0.78	552	8,000	2,205	32,000	76,0	3.00	0,23	0.16	76,2	250



General Hydraulic



Oil and Petroleum

- Used in sub sea & hydraulic application



Rescue Equipment

3VE0



Hose construction:

Inner tube:	Reinforcement:	Cover:
Nylon-lined	Spiral, high-tensile aramid fiber	Polyurethane

Operating temperature: For water-based fluids: -40 °C to +66 °C (-40 °F to +150 °F)

Hose color(s): Orange perforated

Approved Fitting: 90V/9AV/9CV



Part #	Size Dimensions						Pressure				Bend		Weight		Length	
	Hose Size	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Min. Bend Radius		Weight		Length		
		DN	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs./ft	m	ft
3VE0-03	-03	5	4,8	0.19	13,2	0.52	689	10,000	2,758	40,000	38,0	1.50	0,11	0.08	76,2	250
3VE0-04	-04	6	6,4	0.25	15,1	0.60	689	10,000	2,758	40,000	64,0	2.50	0,16	0.11	76,2	250
3VE0-06	-06	10	9,5	0.38	19,8	0.78	551	8,000	2,206	32,000	76,0	3.00	0,23	0.16	76,2	250



General Hydraulic



Oil and Petroleum

- Used in sub sea & hydraulic application



Rescue Equipment



Forestry

34PW

Meets or exceeds: **NSF-61**



Hose construction:	Inner tube: Polyolefin	Reinforcement: Synthetic fiber	Cover: Polyurethane
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Operating temperature: For water-based fluids: -23 °C to +66 °C (-10 °F to +150 °F)

Hose color(s): Blue, non- perforated

Approved Fitting: 4T

Part #	Size Dimensions						Pressure				Bend		Weight		Length	
	Hose Size	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Min. Bend Radius		Weight		Length		
		DN	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs./ft	m	ft
34PW-04	-04	6	6,4	0.25	13,2	0.52	190	2,750	758	11,000	32,0	1.25	0,09	0.06	76,2	250
34PW-06	-06	10	9,5	0.38	16,6	0.66	155	2,250	620	9,000	51,0	2.00	0,13	0.09	76,2	250
34PW-08	-08	12	12,7	0.50	20,6	0.81	138	2,000	552	8,000	76,0	3.00	0,24	0.16	76,2	250
34PW-12	-12	19	19,0	0.75	29,0	1.14	103	1,500	414	6,000	127,0	5.00	0,36	0.24	76,2	250
34PW-16	-16	25	25,4	1.00	37,0	1.46	103	1,500	414	6,000	203,0	8.00	0,55	0.37	76,2	250



Food and Beverage



Water

34BA



Hose construction: **Inner tube:** Polyolefin **Reinforcement:** Synthetic fiber **Cover:** Polyvinylchloride

Operating temperature: For water-based fluids: -26 °C to +66 °C (-15 °F to +150 °F)

Hose color(s): Yellow perforated

Approved Fitting: 90L

Part #	Size Dimensions						Pressure				Bend		Weight		Length	
	Hose Size	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Min. Bend Radius		Weight		Length		
		DN	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs./ft	m	ft
34BA-06	-06	10	9,5	0.38	17,7	0.70	17	250	69	1000	38,0	1.50	0.20	0.13	91,4	300



Oil and Petroleum



Marine



Healthcare



Rescue Tools and Equipment

35NG

Meets or exceeds: **NNSI/IAS NGV 4.2 and CSA 12.52**

Size -4



Size -3; -6 and -8



Hose construction:	Inner tube: Nylon-lines	Reinforcement: Synthetic fiber	Cover: Polyurethane
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Operating temperature: For water-based fluids: -40 °C to +66 °C (-40 °F to +150 °F)

Hose color(s): Black perforated

Approved Fitting: 90H/9MH/90L



Part #	Size Dimensions						Pressure				Bend		Weight		Length	
	Hose Size	Hose I.D.		Hose O.D.		Max Operating Pressure	Burst Pressure		Min. Bend Radius		Weight		Length			
		DN	mm	in	mm		in	bar	psi	bar	psi	mm	in	Kg/m	lbs./ft	m
35NG-03	-03	5	5,2	0.19	13,0	0.51	345	5,000	1,379	20,000	38,0	1.50	0,12	0.08	76,2	250
35NG-04	-04	6	6,4	0.25	16,0	0.63	345	5,000	1,379	20,000	51,0	2.00	0,16	0.11	76,2	250
3GNG-06	-06	10	9,7	0.38	19,5	0.77	345	5,000	1,379	20,000	102,0	4.00	0,22	0.15	76,2	250
35NG-08	-08	12	12,8	0.50	22,5	0.89	345	5,000	1,379	20,000	140,0	5.50	0,31	0.21	76,2	250

- Twin hose on request



Oil and Petroleum

- CNG dispensing application

3440



Hose construction: **Inner tube:** Polyolefin **Reinforcement:** Synthetic fiber **Cover:** Polyvinylchloride

Operating temperature: For water-based fluids: -23 °C to +66 °C (-10 °F to +150 °F)

Hose color(s): Blue perforated

Approved Fitting: 4T

Part #	Size Dimensions						Pressure				Bend		Weight		Length	
	Hose Size	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Min. Bend Radius		Weight		Length		
	DN	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs./ft	m	ft	
3440-04	-04	6	6,4	0.25	13,2	0.52	190	2,750	758	11,000	32,0	1.25	0,09	0.06	76,2	250
3440-06	-06	10	9,5	0.38	16,6	0.66	155	2,250	620	9,000	51,0	2.00	0,13	0.09	76,2	250
3440-08	-08	12	12,7	0.50	20,6	0.81	138	2,000	552	8,000	76,0	3.00	0,18	0.12	76,2	250
3440-12	-12	19	19,0	0.75	29,0	1.14	103	1,500	414	6,000	127,0	5.00	0,36	0.24	76,2	250
3440-16	-16	25	25,4	1.00	37,0	1.46	103	1,500	414	6,000	203,0	8.00	0,55	0.37	76,2	250



Chemical

- Chemical transfer
- Foam system

34AG



Hose construction: Inner tube: Polyolefin Reinforcement: Synthetic fiber Cover: Elastomer

Benefits for customers:

- Abrasion resistance cover
- Prevents absorption of most oils and fluids
- 2 x lighter than equivalent wire braided rubber hose

Operating temperature: -23 °C to +66 °C (-10 °F to +150 °F)

Hose color(s): Black perforated

Approved Fitting: 4T

Part #	Size Dimensions						Pressure				Bend		Weight		Length	
	Hose Size	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Min. Bend Radius		Weight		Length		
		DN	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs./ft	m	ft
34AG-04	-04	6	6,4	0.25	14,47	0.57	190	2,750	758	11,000	32,0	1.25	0,09	0.06	76,2	250



General Industrial

- Industrial installation

Tubing

Synflex by Danfoss 1300

Synflex by Danfoss 1201

1300

Synflex by Danfoss 1300

Hose construction:	Inner tube: Aluminum composite	Cover: Polyurethane
Operating temperature:	For water-based fluids: -40 °C to +80 °C (-40 °F to +179 °F)	
Hose color(s):	Black perforated	

Benefits for customers:

- No clamps and ties required – assembly time reduction
- Combines the advantages of both metal and plastic tubing
- Tubing can be used in very wet or moist environments
- Bending of the tube does not require any tools (can be done by hand)
- Can be used inside the earth without additional protection sleeve

Part #	Size Dimensions	Pressure				Bend		Weight				
		Tube I.D.	Tube O.D.	Max Operating Pressure		Burst Pressure		Min. Bend Radius		Weight		
		in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs./ft
1300-044	4.32	0.17	6.30	0.25	28.8	418	115	1668	19	0.75	0.024	0.016
1300-066	6.35	0.25	9.48	0.37	28.8	418	115	1668	32	1.26	0.051	0.034
1300-086	9.65	0.38	12.65	0.50	24.5	355	90	1305	50	1.97	0.069	0.046
1300-M06	4.00	0.16	6.00	0.24	28.8	418	115	1668	19	0.75	0.024	0.016
1300-M08	5.30	0.21	8.00	0.31	28.8	418	115	1668	25	0.98	0.039	0.026
1300-M10	6.20	0.24	10.00	0.39	28.8	418	115	1668	32	1.26	0.058	0.039
1300-M12	8.13	0.32	12.00	0.47	24.5	355	98	1421	40	1.57	0.075	0.050
1300-M14	9.75	0.38	14.00	0.55	24.5	355	90	1305	50	1.97	0.096	0.065
1300-M15	10.75	0.42	15.00	0.59	20.0	290	65	943	50	1.97	0.10	0.069

Typical application:

- Pneumatic instrumentation and control lines located in the very wet or moist environment
- Air and gas sampling

1201

Synflex by Danfoss 1201

Hose construction: Inner tube: Polyurethane Cover: Polyurethane

Operating temperature: For water-based fluids: -40 °C to +80 °C (-40 °F to +179 °F)

Hose color(s): Black perforated

Part #	Size Dimensions	Pressure				Bend		Weight				
		Tube I.D.	Tube O.D.	Max Operating Pressure	Burst Pressure	Min. Bend Radius	Weight					
		in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs./ft
1201-M04	2.5	0.10	4.0	0.16	11.3	163	45	653	20	0.79	0.72	0.48
1201-M04	2.0	0.08	4.0	0.16	15.5	225	62	900	20	0.79	0.88	0.59
1201-M06	4.0	0.16	6.0	0.24	9.0	131	36	522	30	1.18	1.47	0.99
1201-M08	6.0	0.24	8.0	0.31	6.5	94	26	377	40	1.57	2.05	1.38
1201-M10	8.0	0.31	10.0	0.39	5.0	73	20	290	50	1.97	2.64	1.77
1201-M10	7.0	0.28	10.0	0.39	8.8	127	35	508	50	1.97	3.74	2.51
1201-M10	6.0	0.24	10.0	0.39	11.3	163	45	653	50	1.97	4.70	3.15
1201-M12	10.0	0.39	12.0	0.47	4.5	65	18	261	60	2.36	3.23	2.17
1201-M12	9.0	0.35	12.0	0.47	6.8	98	27	392	55	2.17	4.62	3.11

Typical application:

- Pneumatic instrumentation and control lines
- Low pressure hydraulic or pneumatic supply lines
- Process sampling lines



Synflex by Danfoss

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