



## PTFE lined, flexible hoses for industry

Highly flexible

Kink resistant

High flow

Excellent chemical resistance

Wide temperature range

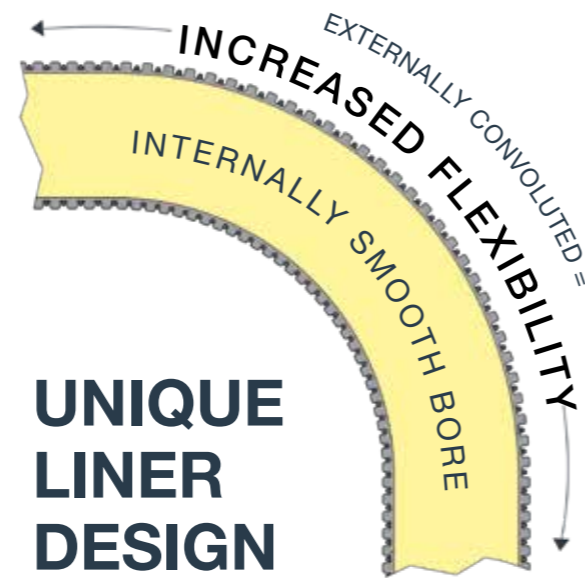


# THE WORLD'S LEADING MANUFACTURER OF PTFE LINED FLEXIBLE HOSE

For more than 40 years, we have been producing the most technically advanced range of PTFE lined flexible hose products in the world.

From our factories in the UK and USA, we design, develop and manufacture our hoses from raw materials to finished products. This comprehensive approach gives us an unrivalled ability to meet specific needs.

Our dedication to developing quality products and becoming a trusted partner, has meant our chemical and automotive customers have standardised on our hose products as the most reliable choice in their manufacturing plants.



## UNIQUE LINER DESIGN

## LINED AND NON-LINED END FITTINGS



Aflex hose products are created through a combination of expert engineering and material knowledge.

Lined with polytetrafluorethylene (PTFE), our hoses offer excellent chemical resistance. Their structure provides a smooth bore to ensure clean, fast performance, resistant to high pressures and temperatures up to 260C.

PTFE is proven to outperform rubber, silicone and PVC in similar applications. Cleanability and steam resistance ensures compliance to the highest hygiene standards. Hoses are constructed without the use of adhesives, eliminating the risk of contamination.

- Highly flexible and kink-resistant
- Available with either natural or anti-static patented PTFE liner
- Industry leading 24 month guarantee
- No adhesives in hose manufacture eliminates the risk of contamination
- Up to 80mm bore and hose lengths of up to 30 metres

**24**  
Month  
MANUFACTURER'S  
GUARANTEE

**-0.9 Bar**  
USABLE AT  
VACUUM FOR  
ALL SIZES

**PTFE**  
will outperform  
RUBBER, SILICONE,  
STAINLESS STEEL

# Corroflon

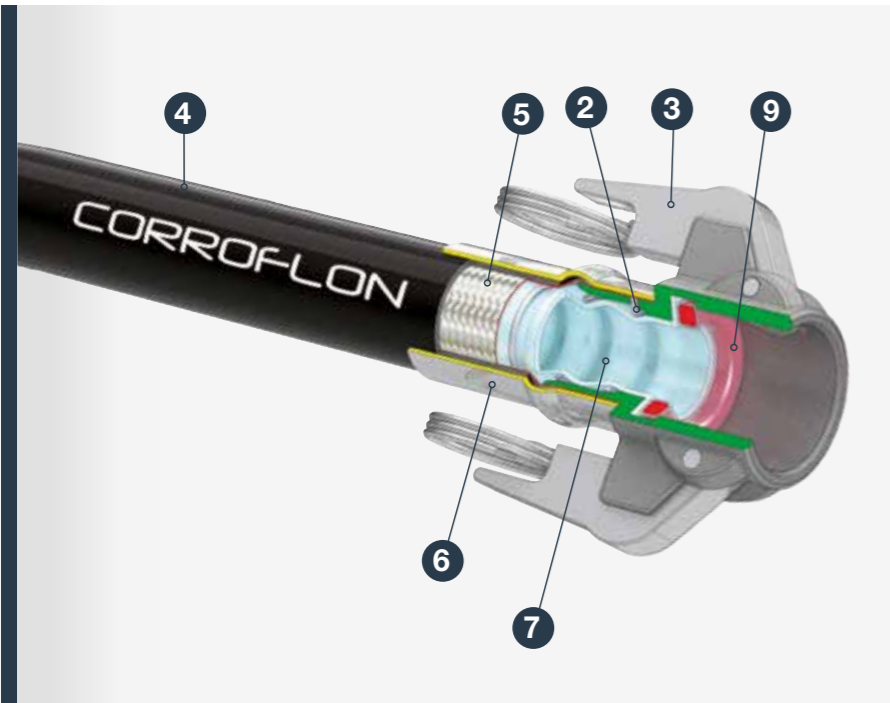
Corroflon hose sets the standard for fluoroplastic hose designs which have a very flexible convoluted liner.

- PTFE lined end-fittings ensure only PTFE comes into contact with process fluids
- Resistant to temperatures from -150C to 260C
- Excellent chemical suction and discharge hose for process fluid transfer
- Usable at vacuum up to -0.9bar
- Up to 150mm bore and hose lengths of up to 30 metres
- Choose from six external hose cover options (See page 10)

EN 16643:2016  
OHSAS 18001:2015  
EU 10/2011  
EC 1935/2004



**24**  
Month  
MANUFACTURER'S  
GUARANTEE



- |   |   |   |
|---|---|---|
| 1. PTFE liner tube, smooth bore inside, convoluted outside                  | 5. Stainless steel braid  | 10. Smooth black anti-static fire resistant EPDM rubber cover |
| 2. Helically wound stainless steel wire                                     | 6. Ferrule, crimped to secure braid to spigot   |   |
| 3. Locking arm cam & groove end fitting                                     | 7. PTFE liner tube extended through the end fitting, then flared out to form sealing face |   |
| 4. EPDM rubber cover (optional, other cover material available see page 10) | 8. PTFE lined and flared Swivel Flange end fitting  |   |
|   | 9. SEAL, (e.g FEP encapsulated silicone)  |   |

# Corroline+

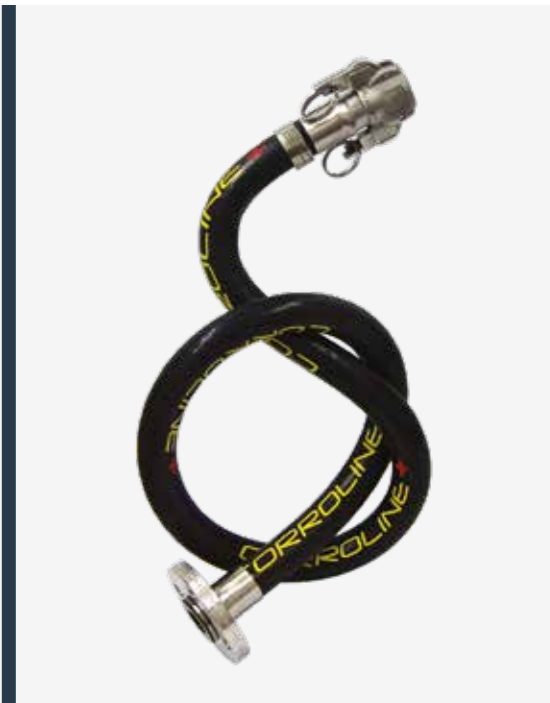
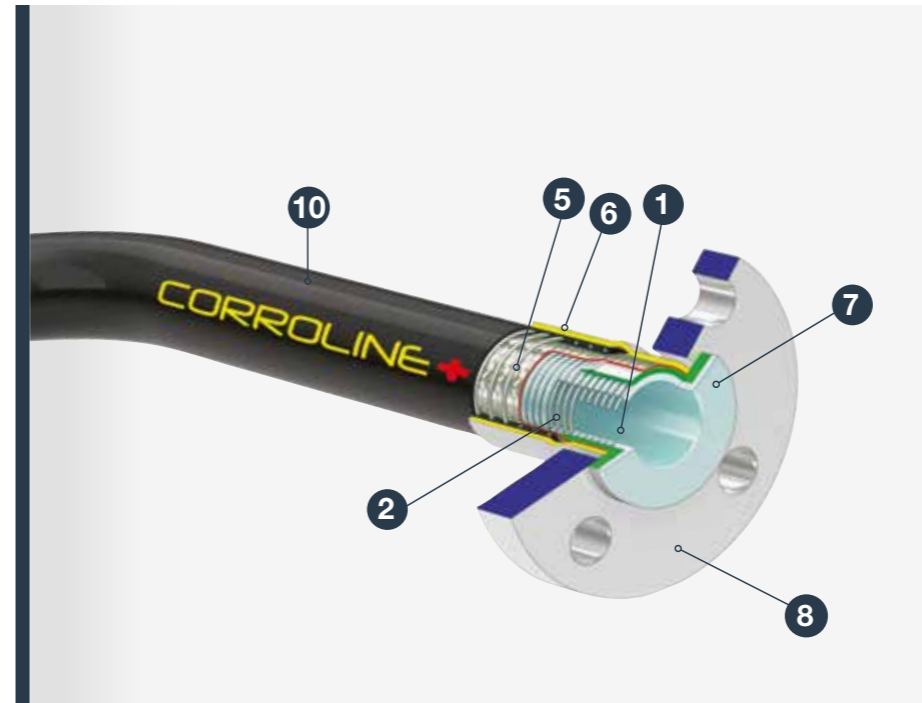
Corroline+ hose was designed and developed to provide customers with a universal chemical hose product.

- Corroline+ hose is fireproof to BS5173 section 103.13 part 6.2 and 6.3
- A smooth black anti-static EPDM rubber cover finish
- Resistant to temperatures from -40C to 150C
- Useable at vacuum up to 0.9bar
- Up to 80mm bore and hose lengths of up to 30 metres

EN 16643:2016  
EU 10/2011  
EC 1935/2004  
FIREPROOF TO  
BS5173



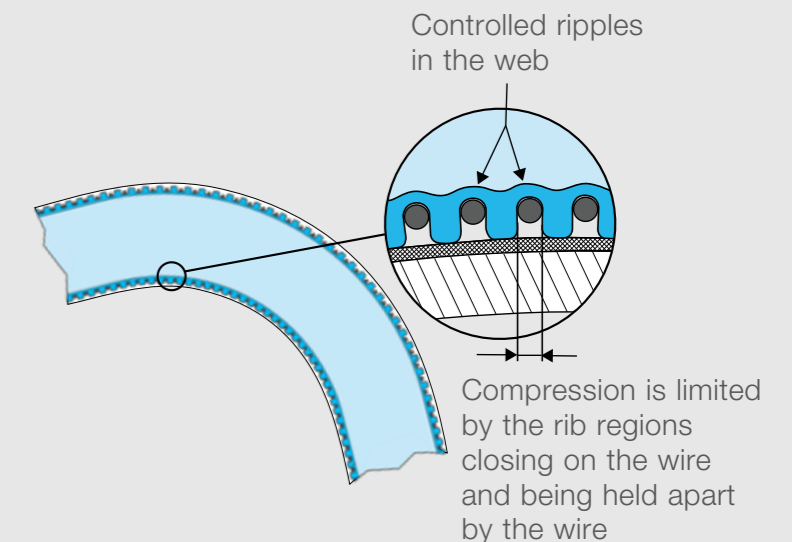
**24**  
Month  
MANUFACTURER'S  
GUARANTEE



## Aflex hose unique PTFE liner

The patented design of the PTFE liner used in Corroline+ allows the liner to expand around the outside and compress around the inside of a bend. This helps to retain a smooth circular bore throughout the hose, without distortion.

- General purpose or anti-static options
- No entrapment zones
- Minimal turbulence means a faster flow rate
- Excellent internal cleanability
- Longer service life



# Applications

## Lithium-ion battery production

A globally recognised battery manufacturer in South Korea was using a locally produced PTFE hose in their process. The hoses were used to transfer N-Methyl-2-Pyrrolidone in the manufacture of small lithium-ion batteries. The customer was experiencing problems of limited flexibility, leakage and fatigue failure of the locally-made product. Corroline+ with its internally smooth PTFE liner, offered not only the chemical resistance needed but, due to its unique construction, provided excellent flexibility and kink resistance.



## Hot oil transfer

A well-known vegetable oil recycling company was suffering frequent hose failure due to the high temperatures and rigorous cleaning conditions used in their process. Aflex introduced the customer to Corroflon stainless steel, reinforced silicone covered hose as the ideal solution for this challenging application. The result for the customer is less downtime, quicker and easier process cleaning, increased safety and years of trouble-free operation across the site.



## Stirling Pharma

Using metal, composite, and convoluted PTFE hoses, Stirling Pharma started to have problems. The convoluted PTFE hosing were deforming the convolutions within the inner bore of the hose, as well as lots of vibration and pulsating leading to premature failure. Aflex provided Stirling Pharma, Corroline+ with its internal smoothbore direct crimped end fitting giving them the perfect solution to their issues.



## Paper and pulp manufacturer

A paper and pulp manufacturer in South Africa used stainless steel pipes for their fluid transfer, frequently cracked or ruptured due to vibration in the process. Corroflon hose was installed and has eliminated premature breaks and production downtime. Corroflon's helical wire reinforcing enables fluid transfer at full vacuum and excellent kink resistance.

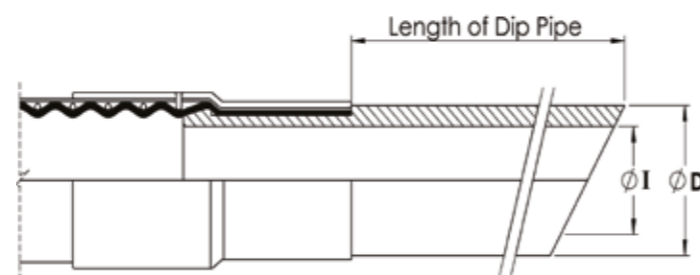


# End fittings

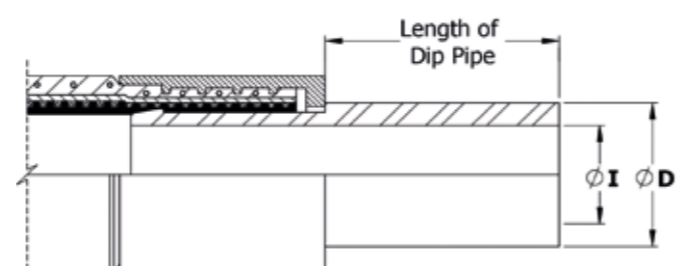
	Flanges						NPT or BSPT			
	Non-lined fittings		Lined fittings		Non-lined fittings		Lined fittings		Non-lined fittings	
	ASA 150	PN10-16	ASA 150	PN10-16	ASA 150	PN10-16	ASA 150	PN10-16	BSPT/NPT	BSPT/NPT
Size	CFLN	COLP	CFLN	COLP	CFLN	COLP	CFLN	COLP	CFLN	COLP
1/2	54	42	56	46	53	57	53	58	67	61
3/4	76	47	79	54	58	48	60	49	89	68
1	75	60	88	62	58	61	64	63	98	78
1 1/4	96	68	101	69	63	57	64	59	110	91
1 1/2	108	70	119	74	61	60	67	62	130	97
2	112	81	119	89	64	69	81	74	140	116
2 1/2	134	94	132	92	79	124	79	124	170	135
3	138	95	134	95	79	131	132	131	170	137
4	140		140		132		93		190	
6	178		178		93					

All dimensions in mm

Nominal hose bore size		Approximate dip pipe dimensions			
		Outside diameter D		Inside diameter I	
in	mm	in	mm	in	mm
3/4	20	0.87	22	0.51	13
1	25	1.14	29	0.83	21
1 1/2	40	1.54	39	1.00	27
2	50	2.17	55	1.58	40



Nominal hose bore size		Approximate dip pipe dimensions			
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in	mm	in	mm	in	mm
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1	25	1.14	29	0.83	21
1 1/2	40	1.54	39	1.00	27
2	50	2.17	55	1.58	40



	Locking arms Cam & Groove			
	Non-lined fittings		Lined fittings	
	Swivelling	Fixed	Swivelling	Fixed
Size	CFLN	COLP	CFLN	COLP
1/2				
3/4	79	53	63	55
1	78	59	61	69
1 1/4		65		66
1 1/2	105	68	65	66
2	108	79	65	75
2 1/2	114	76		135
3	117	71		138

All dimensions in mm

## Corroflon

### Hose bore size range

1/2"–6"

### Hose lengths

30m (up to 2" bore size)  
 20m (up to 2 1/2" and 3" bore size)  
 10m (up to 4" bore size)  
 5m (up to 6" bore size)

### Temperature limits

Please see Page 10 for all braid temperature limits

### Working pressure ranges

SS braided hose and EPDM rubber covered hose  
 80bar for 3/8" bore size  
 15bar or 3" bore size

### Vacuum limitations

Usable at vacuum to -0.9bar for all sizes up to 150C  
 100C for tube only grade (TO)

## Corroline+

### Hose bore size range

1/2"–3"

### Hose lengths

30m (up to 2" bore size)  
 18m (up to 2 1/2" bore size)  
 15m (up to 3" bore size)

### Temperature limits

From -40C to 150C



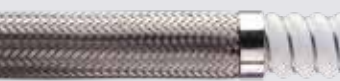


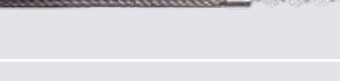

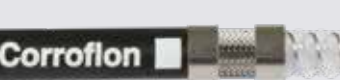
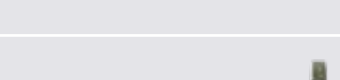
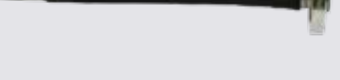

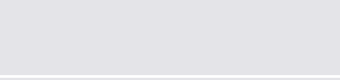
### Working pressure ranges

69bar for 1/2" to 15bar for 3"

### Vacuum limitations

Usable at vacuum to -0.9bar for all sizes up to 150C

## Hose braiding and covers

	Corroflon	Corroline+
 <p><b>SI – Transparent Platinum-cured silicone rubber cover</b></p> <ul style="list-style-type: none"> <li>Temperature range -73C–204C</li> <li>Semi-transparent, allowing visual monitoring of the braid</li> <li>USP Class VI</li> </ul>	•	
 <p><b>TO – Tube only (no braid)</b></p> <ul style="list-style-type: none"> <li>Vacuum resistant to -0.9bar up to 100C</li> </ul>	•	
 <p><b>SS – Stainless steel braid</b></p> <ul style="list-style-type: none"> <li>High tensile AISI 304 stainless steel wire</li> <li>Maximum pressure resistance and external protection</li> </ul>	•	
 <p><b>PB – Polypropylene braid</b></p> <ul style="list-style-type: none"> <li>Temperature range -30C–100C</li> <li>Two strands of Monel wire earthing strips ensure electrical continuity between end fittings</li> </ul>	•	
 <p><b>HB – Hastelloy braid</b></p> <ul style="list-style-type: none"> <li>Temperature range -73C–260C</li> <li>Improved chemical resistance over stainless steel braid</li> </ul>	•	
 <p><b>KYB – Kynar braid</b></p> <ul style="list-style-type: none"> <li>Temperature range -40C–120C</li> <li>Excellent chemical resistance over Hastelloy braid</li> </ul>	•	
 <p><b>BK – Black EPDM rubber covered</b></p> <ul style="list-style-type: none"> <li>Fireproof to BS5173 Section103.13 Part 6.2 and 6.3.</li> <li>EN 16643 flame resistant</li> <li>Anti-static in accordance with specification EN 16643</li> </ul>	•	•
 <p><b>RC-300 – Rubber covered 300mm long end protection</b></p> <ul style="list-style-type: none"> <li>For applications where excessive flexing of the hose at the end fitting occurs, it is sometimes necessary to 'stiffen' the hose in this area, to prevent kinking</li> </ul>	•	
 <p><b>DBK-300 – Double rubber covered 300mm long end protection</b></p> <ul style="list-style-type: none"> <li>For applications where excessive flexing of the hose at the end fitting occurs, it is sometimes necessary to 'stiffen' the hose in this area, to prevent kinking</li> </ul>		•
 <p><b>SG – Safeguard protection sleeve</b></p> <ul style="list-style-type: none"> <li>Lightweight, black, HDPE (High Density Polyethylene)</li> <li>To protect the hose against external abrasion and mechanical damage.</li> <li>Temperature range -40C–110C</li> <li>Internal fluid temperatures up to 140C</li> </ul>	•	•
 <p><b>SR – Scuff rings</b></p> <ul style="list-style-type: none"> <li>For medium duty applications where the hose requires some protection against abrasion when dragged over the ground, but where a full rubber cover would be too heavy. Also for polypropylene braided hose, which cannot be rubber covered</li> </ul>	•	•
 <p><b>PC – Protection coil</b></p> <ul style="list-style-type: none"> <li>For applications where the hose requires protection against abrasion when dragged over the ground, but where any rubber reinforcement is not permissible due to temperature, chemicals or other factors</li> </ul>	•	•

## Hose liners

**GP – general purpose liner**

GP 'General purpose' hoses are for applications where fluids or gases being conveyed do not generate a risk of static charge development.

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**AS – anti-static PTFE liner**

AS hoses are for use where the risk of an electrostatic charge build-up on the inside surface of the PTFE tube may then discharge through the tube wall.

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**SP – special purpose liner (only available for Corroflon)**

SP hoses are for applications requiring a higher temperature/pressure rating, greater flexibility and improved kink and crush resistance.

**Standard labelling**

All Corroflon, Corroline+ hose assemblies are labelled with the following information:

<p>Manufacturer's name (Aflex Hose Ltd)</p> <p>Hose type, size and grade</p> <p>EN16643 and year of standard publication</p> <p>EN16643 Electrical property grade</p> <p>Max. working pressure and test pressure</p>	<p>Working temperature range*</p> <p>Unique serial number</p> <p>Month and year of manufacture</p> <p>Aflex Telephone number</p> <p>CE Mark (if applicable)</p>
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*\*Note any restrictions in working pressure resulting from elevated temperatures. This information is normally laser-etched onto a ferrule. In some cases the information may be etched onto a stainless steel ring, or a thin stainless steel plate which is clamped to the hose.*

**Streamline tagging**

A label and/or colour code is placed around the silicone cover of the hose and then encapsulated by a transparent silicone that is formed into a thin streamlined cover.

*Note: 1/4" size, colour code only, no text.*

**Colour coding**

A coloured PTFE spiral strip is wound on to the hose.

INDUSTRIAL SOLUTIONS



**Watson-Marlow Fluid Technology Solutions**

Watson-Marlow Fluid Technology Solutions supports its customers locally through an extensive global network of direct sales operations and distributors

[wmfts.com/global](http://wmfts.com/global)

