AMIFLEX HOSE

Flexible Engineering Onshore & Offshore

AMIFLEX HOSE

Amiflex Hose, in conjunction with S. Redfern & Co.Ltd., is the UK's leading independently owned manufacturer of large bore, custom designed, hand built rubber hose for marine and heavy industrial applications.

Established for more than 15 years, Amiflex, together with parent company Redfern, themselves a hose manufacturer for more than 25 years, draw on over 30 years technical experience to produce a comprehensive range of custom built hoses for offshore, dockside and jetty, dredging and many other industrial applications. Bore sizes range from 1 to 40 inches and lengths up to 20 metres.

In-house design, manufacturing and testing facilities, as well as the capability to offer technical advice on any hose application, allow us to offer a complete, fast and competitive service to customers world-wide.

OIL & PETROCHEMICAL HOSE

A range of hoses, from 2" to 20" bore, covering many applications within the offshore and onshore oil/petrochemical industries:

Oil suction and discharge hose manufactured and tested in full accordance with BS EN 1765 (formerly BS1435). This encompasses light, medium and heavy duty hoses, internally and externally armoured, with built-in or swaged on end fittings to customer requirements. Many hoses are specifically designed for individual terminal loading requirements.

Ship-to-ship (STS) transfer hose. Kink-recoverable, helix free, anti-static hoses for offshore STS service which meet the requirements of the OCIMF STS Transfer Guide.

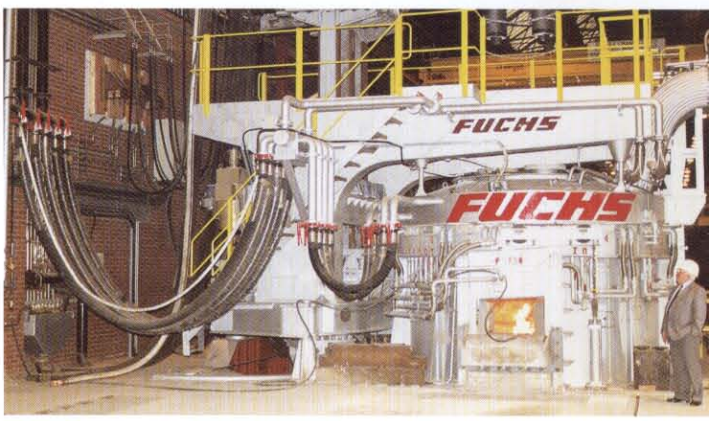
LPG transfer hose. Specially designed gas hoses for dockside, STS and submarine service.

Roof tank drain hose. Custom designed for the draining of rainwater from the floating roofs of oil and chemical storage tanks.

Submarine oil transfer hose for conventional buoy mooring (CBM) installations.

Bitumen transfer hose. Heavy duty hoses designed for carrying bitumen at high temperatures.

Amiflex offer a wide range of hoses for **specialist hydrocarbon, chemical and high temperature** applications. Hose linings are varied to offer optimum suitability and these include nitrile, neoprene, viton, EPDM, butyl and ultra high molecular weight polyethylene.



HOSES FOR OFFSHORE OIL & GAS INSTALLATIONS

Custom built heavy duty hoses, often required on a fast turnaround, for a wide range of performance and pressure criteria. End connections are generally built-in or swaged on flanged fittings but more specialised threaded couplings or unions are available.

Large bore disposal or dump hoses for water, mud or shale.

Jumper hose for flexible connection and transfer operations between installations or vessels.

High pressure pipeline test hoses.

FLOATING ROOF TANK DRAIN HOSE

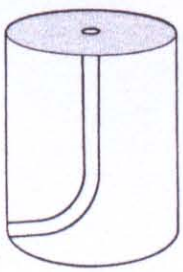
AMIFLEX HOSE

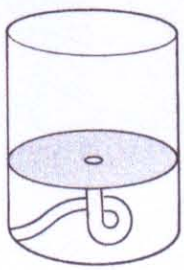
SPECIFICATION No's. A603, A604, A608

Size range: 3" (76mm), 4" (102mm) and 6" (152mm) I/D, in lengths up to 40mtrs

APPLICATIONS

Flexible hose assemblies for immersion inside storage tanks to drain rainwater from the floating roof. Specially compounded covers are used to resist immersion in high aromatic or corrosive liquids.





LINING

Smooth bore, mandrel built. Nitrile or Neoprene (Polychloroprene) depending on the type of hose specified.

REINFORCEMENT

Textile cord reinforcement with a high tensile wire helix to resist collapse from external pressure when immersed.

WORKING PRESSURE - VACUUM

Although these hoses are rainwater drains experiencing low pressures when in use, the integrity of these hose assemblies is checked, after ballasting, by testing to 10 bar with water and vacuum testing to -0.85 bar. Test and material certificates are supplied as a matter of course.

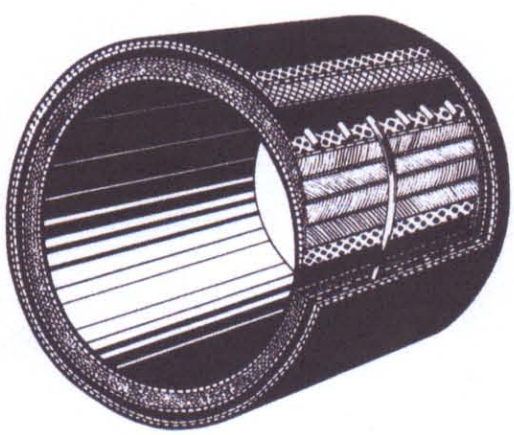
COVER

Smooth wrapped finish in the following materials.

A604 - Nitrile	Aromatic Content up to 50%
A608 - PVC/Nitrile	Aromatic Content up to 70%
A603 - Viton	100% Aromatic Content

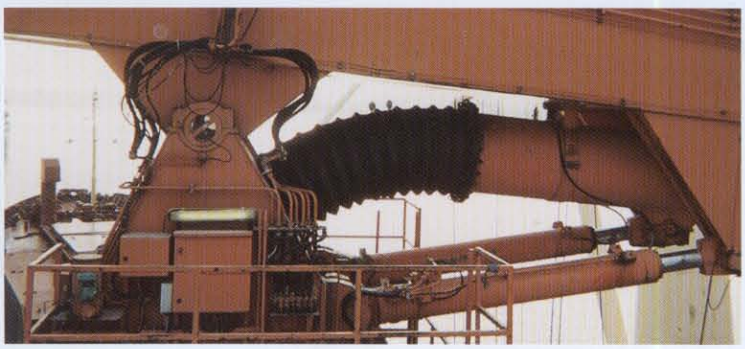
LEAD BALLAST AND BRANDING

Each hose assembly incorporates a permanently attached lead covered stainless steel cable to prevent the hose floating in the tank liquid. A longitudinal white stripe is permanently branded on the cover of each hose to ensure correct alignment. All hoses are supplied electrically continuous. Clamps and chains for roof attachment are supplied and the roof end of each hose is marked "ATTACH THIS END TO ROOF".



DREDGING & MATERIAL HANDLING

Both Amiflex and Redfern are leading names in the design and manufacture of specialist hose for offshore and inland dredging in reclamation, maintenance and commercial aggregate applications. Hoses and sleeves are available in up to 40" bore size and tailored length.



Outboard hoses and sleeves for use in the gimbal joints of dredge pipes on suction, cutter suction and trailing suction dredge vessels. **Onboard hoses** for suction and discharge pump applications. Hoses may be of separate embedded ring type, helical wire reinforced or textile reinforced softwall type.

Flexible connections in **floating and submersible dredge discharge lines.** Varied designs to accommodate required bending and pressure requirements. Hoses may be designed for varying degrees of buoyancy.

Jet water hoses for jet pump systems.

Hoses for **quarrying** and **offshore/onshore mining** applications. Custom built abrasion resistant hoses for sand, gravel and minerals.

Bulk transfer hose for port and dockside loading systems for abrasive materials such as cement powder or aggregates.

End connections may be built in steel flanges, integral rubber with steel backing plates, beaded ends with swivel flanges, re-usable clamps and straight or enlarged ends for clamping applications.

As well as the areas mentioned above, Amiflex and Redfern manufacture a wide range of hose and flexible connections for marine and industrial applications.

Naval replenishment-at-sea (RAS) hoses. Generally 2.5, 3 and 6 inch bore hoses with admiralty couplings for RAS operations in both abeam and astern modes.

Expansion joints. Custom designed and hand built flanged rubber joints to compensate for temperature or pressure induced expansion and movement in pipelines. Materials are varied to suit water, hydrocarbon, chemical, high temperature or corrosive service and sizes range from 50mm to 4 metres in diameter.

Water suction and delivery hose available in up to 24" bore complete with built-in or swaged couplings or with plain or enlarged ends.

Steel industry hose. Heavy duty hose available with heat resistant covers and steel armouring for use in water cooling applications.

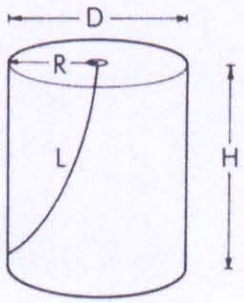
Composite hose. Complete range of stainless and mild steel armoured polypropylene and PTFE hoses with swaged fittings for ship to shore, road and rail transfer and in-plant service.

PHYSICAL DATA

Bore		Nominal O.D.	Nom. Wgt. inc. Ballast	Minimum Bend
ins	mm	mm	kg/mtr.	mm
3	76	97	9.8	460
4	102	125	12.5	610
6	152	183	26.2	915

LENGTH CALCULATION

How to estimate the length of hose required (Sump located in centre of roof) Selection Example



1. Determine
   H (Height)
   D (Diameter of the tank)
   R (½ the diameter or the radius)
   L (Length of hose required)
2. Use one of the following formulae:
   (a) If H equals R
   $$L = \frac{\pi R}{2} \text{ or } \frac{\pi H}{2}$$
   (b) If H is less than R
   $$L = \frac{\pi H}{2} + (R\text{-}H)$$
   (c) If H is greater than R
   $$L = \frac{\pi R}{2} + (H\text{-}R)$$

END TERMINATIONS

Carbon Steel or Stainless Steel

Generally mild steel nipples with fixed ASA150R/F flanges are supplied.
Other flanged drillings and types are available including swivel flanges and bronze (gunmetal) flanges.
The ballast connection is a stainless steel threaded section permanently welded to the hose nipple. The ballast is secured with two threaded stainless steel nuts retaining the cable loop which is itself secured with two stainless steel 'U' clamps with double nuts.

MULTIPURPOSE SUCTION & DISCHARGE HOSE

AMIFLEX HOSE

SPECIFICATION No's. A165, A166, A167, A168

Hand Built "Hard Wall" multipurpose suction and discharge hoses.

Size range: 2" (51mm) - 36" (915mm)
Length: Up to and including: 12" (305mm) - 19.5mtr
14" (356mm) and above - 12mtr

APPLICATIONS

Fuel, oils, diesel, sea water, drill water, water, mud pump, chemicals, dry powders, cement, sand and gravel.

LINING

Smooth bore, mandrel built. See variations over page.

REINFORCEMENT

Multiple layers of synthetic cord plus a single steel helix, giving a minimum 3.5:1 safety factor and a minimum bend radius of 6 x boresize.

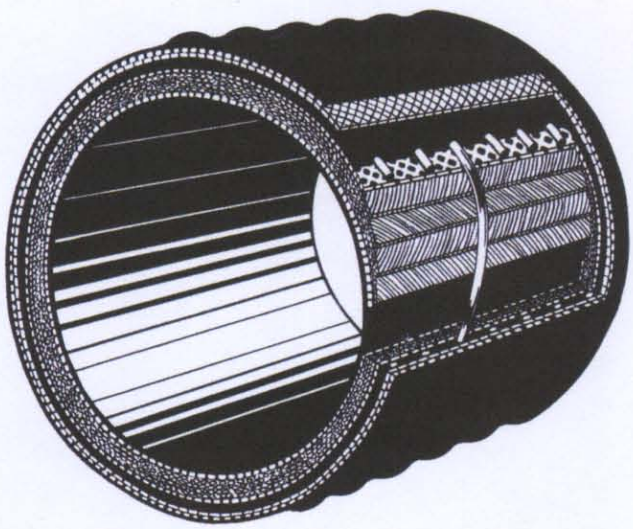
WORKING PRESSURE - VACUUM

A 165	3.5 bar	-0.85 bar
A 166	7.0 bar	-0.85 bar
A 167	10.0 bar	-0.85 bar
A 168	15.0 bar	-0.85 bar

Higher working pressure available on request. Hose assemblies are tested to 1.5 x working pressure.

COVER

Corrugated Polychloroprene (Neoprene). Tough abrasion and weather resistant.



WEIGHTS

APPROXIMATE WEIGHT - KG/MTR									
SIZE	A165	A166	A167	A168	SIZE	A165	A166	A167	A168
2"	3	3	3	3	10"	19	21	21	23
3"	4	4	4	4	12"	22	24	24	26
4"	5	5	6	6	14"	33	35	37	37
5"	8	8	9	9	16"	35	37	37	40
6"	10	11	11	12	18"	42	42	46	46
7"	12	12	14	14	20"	47	47	52	56
8"	17	17	17	18	24"	60	65	65	80

Many other sizes are available, refer to Amiflex Sales.

VARIATIONS

VARIATIONS	SUFFIX	APPLICATION
Natural Rubber Lining	NR	Water, Medium Abrasives
Nitrile Lining	NBR	Fuels, Oils
Neoprene Lining	CR	Seawater, Oil Based Mud
EPDM Lining	EP	Chemicals, Seawater
¼" thick Natural Rubber Lining	NRT	Heavy abrasives
Hypalon	CSM	Chemicals
XLPE	XLPE	Chemicals, including Solvents
Viton	FPM	Special Applications
Water Research Council Approved EPDM	WRCA	Drinking Water
eg. A167-NBR 10 bar W.P. with Nitrile lining		

(Refer to Amiflex Chemical Resistance Tables or consult Amiflex Technical Sales for the correct lining to suit your application).

END TERMINATIONS (See DATA SHEET)

Carbon Steel or Stainless Steel

1. Male Screw Thread
2. Victaulic Groove
3. Victaulic Shoulder
4. Flange (Fixed or Swivel)
5. Plain or Weld Prep End

Method of Attachment (Depending on Pressure)

1. Wired-In
2. Clamps
3. Vulcanised and Built In
4. Swaged (Internal or External)
5. Integral Rubber and Fabric Flanges with Steel Backing Plates
6. Beaded Ends.

MULTIPURPOSE DELIVERY HOSE

AMIFLEX HOSE

SPECIFICATION No's. A170, A171, A172, A173

Hand built "Soft Wall" multipurpose delivery hoses.

Size range: 2" (51mm) - 36" (915mm)
Length: Up to and including: 12" (305mm) - 19.5mtr
14" (356mm) and above - 12mtr

APPLICATIONS

Fuel, oils, diesel, sea water, drill water, water, mud, chemicals, dry powders, cement, sand and gravel.

LINING

Smooth bore, mandrel built. See variations over page.

REINFORCEMENT

Multiple layers of synthetic cord spiralled at a specific angle to give pressure resistance, flexibility and stability under pressure. Hoses have a bend radius when pressurised of 8 x bore size and a minimum 3.5:1 safety factor.

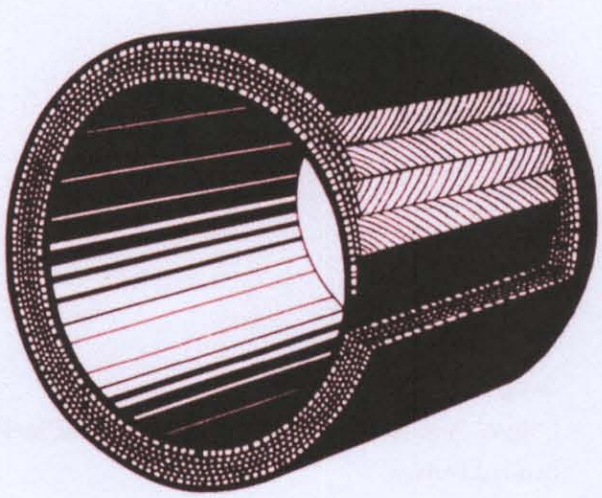
WORKING PRESSURE

A 170 3.5 bar
A 171 7.0 bar
A 172 10.0 bar
A 173 15.0 bar

Higher working pressures available on request. Hose assemblies are tested to 1.5 x working pressure.

COVER

Smooth Polychloroprene (Neoprene), tough abrasion and weather resistant.



WEIGHTS

APPROXIMATE WEIGHT - KG/MTR									
SIZE	A170	A171	A172	A173	SIZE	A170	A171	A172	A173
2"	1.5	1.5	1.5	1.5	10"	10	10	12	14
3"	2	2	2	3	12"	12	15	17	19
4"	3	3	4	4	14"	16	19	22	29
5"	4	4	5	5	16"	18	22	28	35
6"	5	5	6	6	18"	21	28	33	39
7"	6	6	7	7	20"	23	31	39	47
8"	7	8	9	9	24"	33	42	52	66

Many other sizes are available, refer to Amiflex Sales.

VARIATIONS

VARIATIONS	SUFFIX	APPLICATION
Natural Rubber Lining	NR	Water, Medium Abrasives
Nitrile Lining	NBR	Fuels, Oils
Neoprene Lining	CR	Seawater, Oil Based Mud
EPDM Lining	EP	Chemicals, Seawater
¼" thick Natural Rubber Lining	NRT	Heavy abrasives
Hypalon	CSM	Chemicals
XLPE	XLPE	Chemicals, including Solvents
Viton	FPM	Special Applications
Water Research Council Approved EPDM	WRCA	Drinking Water
eg. A173-CR 15 bar W.P. with Neoprene lining.		

(Refer to Amiflex Chemical Resistance tables or consult Amiflex Technical Sales for the correct lining to suit your application).

END TERMINATIONS (See DATA SHEET)

Carbon Steel or Stainless Steel

1. Male Screw Thread
2. Victaulic Groove
3. Victaulic Shoulder
4. Flange (Fixed or Swivel)
5. Plain or Weld Prep End

Method of Attachment (Depending on Pressure)

1. Wired-In
2. Clamps
3. Vulcanised and Built In
4. Swaged (Internal or External)
5. Integral Rubber and Fabric Flanges with Steel Backing Plates
6. Beaded Ends

ABRASION RESISTANT SUCTION AND DISCHARGE HOS

AMIFLEX HOSE

SPECIFICATION No's. A402 and A412

Hand-built abrasion resistant suction and discharge hoses.

Size range: 2" (51mm) – 36" (915mm).
Lengths: Up to and including: 12" (305) – 19.5 mtr.
14" (356) and above – 12 mtr.

APPLICATIONS

Amiflex A402 and A412 are highly abrasion resistant hoses used in Sand and Gravel pits, Dredging, Mining, Coal, Grain handling and many more industries where abrasive products are transported.

LINING

Smooth bore, mandrel built. Two types of lining are available in thicknesses from 3mm to 12mm depending on the nature and severity of the application. A tan coloured gumstock 40° hard Natural Rubber for fine air-borne abrasives (A402) and a black reinforced 60° hard Natural Rubber for slurries and heavy abrasives such as gravel and rock (A412). (See variations over page).

REINFORCEMENT

Multiple layers of synthetic cord plus a single steel helix, giving minimum 3.5:1 safety factor and c minimum bend radius of 6 x boresize.

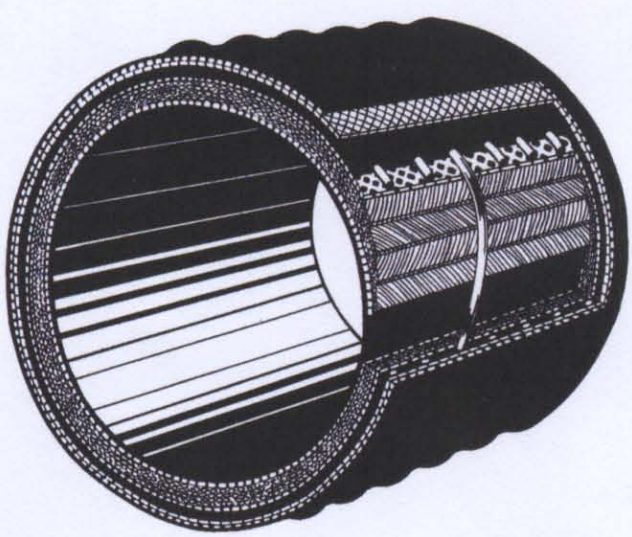
WORKING PRESSURE - VACUUM

10 bar – 0.85 bar.
Higher working pressure available on request. Hose assemblies are tested as requested by customer.

COVER

Corrugated for greater flexibility. Tough weather and abrasion resistant. Two types are available, black Natural Rubber for normal use or black Polychloroprene (Neoprene) for more extreme external conditions. (See variations over page).

Smooth and corrugated covers are also available to accommodate customers external aluminium flanges.



PHYSICAL DATA

Bore		SPECIFICATION A402 A412			
		Liner Thickness	Nominal O.D.	Nominal	Min. Bend
ins.	mm	mm	mm	Weight kg/m	mm
2	51	3	68	2.2	203
3	76	6	102	5.0	305
4	102	6	128	6.4	406
5	127	7.5	156	8.9	508
6	152	9	188	12.9	610
7	178	9	213	14.9	820
8	203	9	240	17.8	1190
9	228	9	269	21.7	1350
10	254	9	294	23.9	1520
12	305	9	346	29.1	1800
14	356	9	401	37.1	2490
16	406	9	454	42.1	2900

Weights and dimensions are based on standard lining thickness shown.
Other sizes are available up to 36" I/D (915mm).

VARIATIONS

1. A402 and A412 are available in lining thicknesses from 3mm, in 1.5mm increments, to 12mm and are specified as shown in the following examples.
   A402-3 = 40° hard gum stock, 3mm thick lining.
   A412-10.5 = 60° hard black, 10.5mm thick lining.

2. If a Neoprene cover is required for more extreme exposure conditions the letters 'CR' are added, e.g.
   A412-6-CR = 60° hard black, 6mm thick lining. Neoprene cover.

END TERMINATIONS

Rubber lined or integral types are usually supplied where the abrasive material would excessively wear a steel hose tail. However, a heavy duty thick walled carbon steel hose tail, wired, strapped or built-in full bore can be a cheaper option. (See end termination data sheet).

SEPARATE RING DREDGER SUCTION HOSE

AMIFLEX HOSE

SPECIFICATION No. A420

Size range: 12" (254mm) to 39½" (1000mm).

APPLICATIONS

Designed for use on outboard systems of suction hopper and trailing suction dredgers where gimbal supports are used. These dredger hoses or sleeves are capable of high angular deflection over short lengths.

LINING

Smooth bore, mandrel built. Highly abrasion and cut resistant black natural rubber lining in varying thicknesses depending on the severity and life expectancy of the application.
See variations over page.

REINFORCEMENT

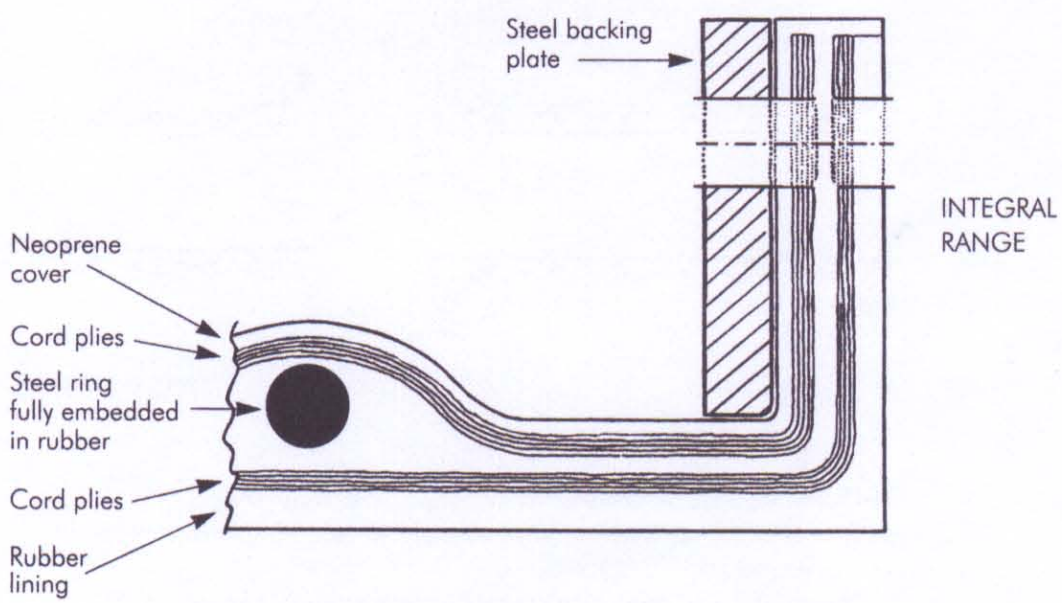
A substantial carcase of high strength synthetic textile cords and extremely robust separate rings, embedded in a solid 'D' of highly resilient rubber, giving maximum resistance to crushing and vacuum collapse.

WORKING PRESSURE - VACUUM

Rated to 10 bar – Full Vacuum.

COVER

Neoprene (Polychloroprene) rubber for excellent resistance to abrasion, weathering, oils, grease and seawater.



PHYSICAL DATA

I/D	(mm)	Wt./Mtr. Kg	Ring Spacing
12"	300	55	75
16"	400	85	100
20"	500	120	125
24"	600	145	125
27 1/2"	700	165	125
31 1/2"	800	215	150
35 1/2"	900	240	160
39 1/2"	1000	275	170

These weights are a guide only, based on 12mm thick lining and standard ring spacing.
Many other sizes are also available, refer to Amiflex Sales.

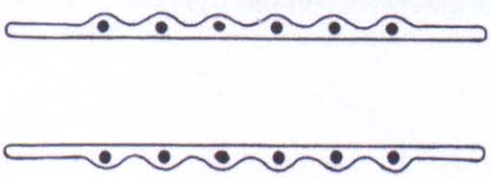
VARIATIONS

Lining thickness can vary depending on the nature of the application.

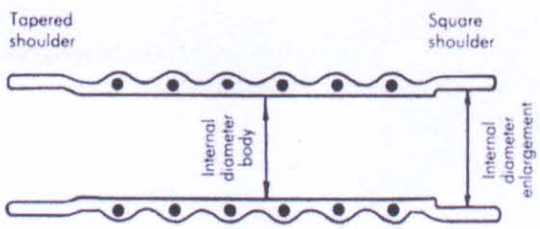
Thicknesses are available in increments of 1.5mm commencing at 9mm.
e.g. A420 – 10.5 10.5mm thick lining
A420 – 25 25mm thick lining

END TERMINATIONS (See Data Sheet)

The following types are available.

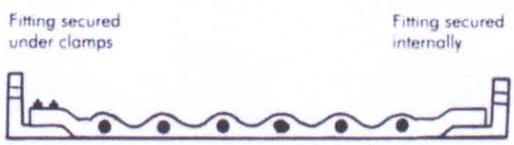


PLAIN ENDS



ENLARGED ENDS

INTEGRAL FLANGES



BUILT-IN STEEL FITTINGS

DIMENSIONS

The following must be specified at the enquiry and order stage.
1. Overall length. 2. Length of plain enlarged ends. 3. Diameter of bore.
4. Diameter of ends (if different).
5. Flange O/D, thickness, number and diameter of bolt holes and p.c.d.

DREDGER DISCHARGE HOSE

AMIFLEX HOSE

SPECIFICATION No's. A422, A423, A424

Size range: 10" (254mm) - 39 1/2" (1000mm)
Maximum length – 12mtrs.

APPLICATIONS

Designed mainly for use as flexible connections in floating pipeline discharge systems. A range of pressure ratings and lining thicknesses are available depending on the duty required.

LINING

Smooth bore, mandrel built. Highly abrasion and cut resistant black natural rubber lining in varying thicknesses depending on the severity and life expectancy of the application. See variations over page.

REINFORCEMENT

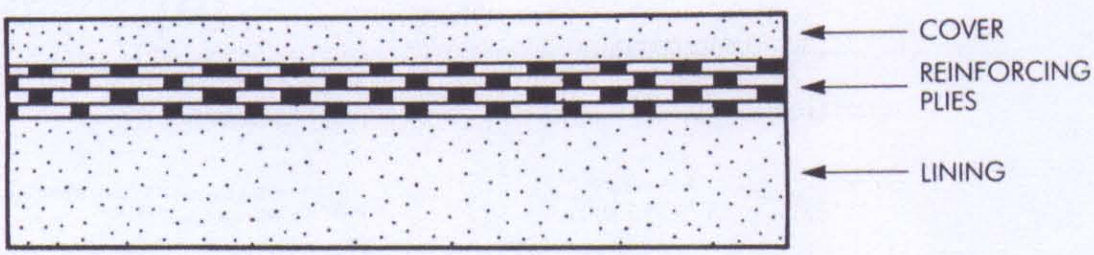
A substantial carcase of high strength textile cord plies embedded in highly resilient rubber, giving maximum resistance to pressure and flexing. This special reinforcement gives stability under pressure increasing the wear resistance of the lining.

WORKING PRESSURE

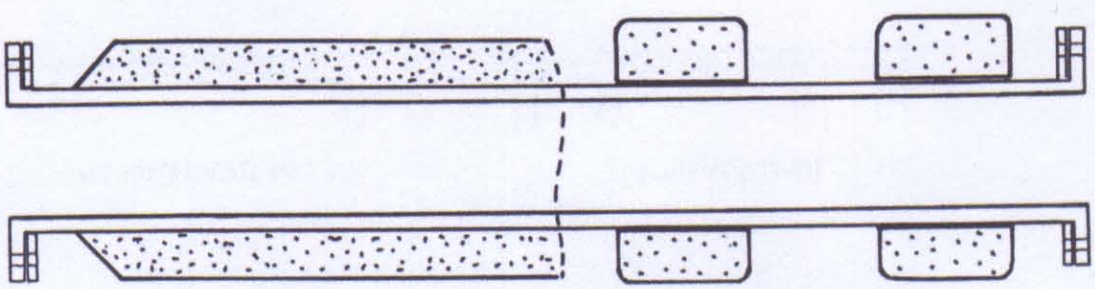
A422 – 7 bar
A423 – 10 bar
A424 – 15 bar
Hose assemblies are pressure tested on request.

COVER

Smooth Neoprene (Polychloroprene) rubber for excellent resistant to abrasion, weathering, oils, grease and seawater.



FLOTATION - Two methods are available if flotation is required.



1. Integral flotation close cell foam vulcanised onto hose and with black Neoprene cover, with bright orange spiral.

2. Flotation collars attached around hose after manufacture. Closed cell foam covered with orange Polyurethane.

PHYSICAL DATA (Based on A423-12)

I/D	(mm)	Approx. O/D (mm)	Wt./Mtr. (kg)
10"	250	292	18
12"	300	347	22
16"	400	448	29
20"	500	555	38
24"	600	660	48
27 1/2"	700	745	61
31 1/2"	800	862	71
35 1/2"	900	970	88
39 1/2"	1000	1078	94

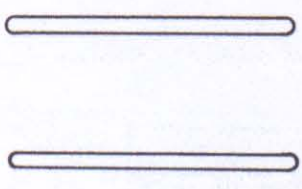
Many other bore sizes are available on request, refer to Amiflex Sales.

VARIATIONS

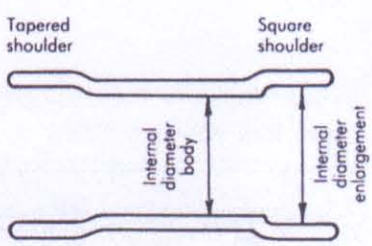
1. Three pressure ratings: A422 – 7 Bar, A423 – 10 Bar, A424 – 15 Bar.

2. Lining thickness can vary depending on the nature of the application.
   Thicknesses are available in increments of 1.5mm commencing at 9mm.
   e.g. A422 – 10.5 10.5mm thick lining
   A424 – 25 25mm thick lining

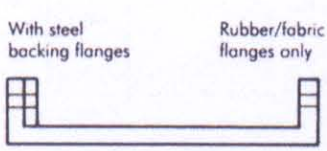
END TERMINATIONS (See Data Sheet)

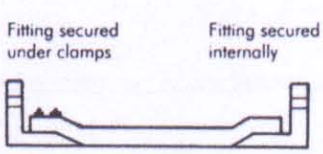


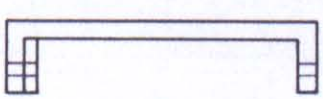
PLAIN ENDS



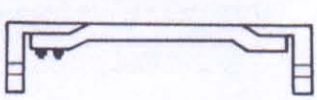
ENLARGED ENDS







INTEGRAL FLANGES



BUILT-IN STEEL FITTINGS

DIMENSIONS

The following must be specified at the enquiry and order stage.
1. Overall length. 2 Length of enlargement. 3. Diameter of bore.
4. Diameter of ends (if enlarged).
5. Flange O/D, thickness, number, diameter of bolt holes and p.c.d.

DREDGER SUCTION & DISCHARGE HOSE

AMIFLEX HOSE

SPECIFICATION No's. A427, A428, A429

Size range 10" (254mm) to 39$^{1}/_{2}$" (1000mm).
Maximum length – 12mtrs.

APPLICATIONS

Designed for use on Dredger systems in many positions both onboard dredgers and for pontoon discharge lines where a non-collapsible hose is required.

LINING

Smooth bore, mandrel built. Highly abrasion and cut resistant black natural rubber lining in varying thicknesses depending on the severity and life expectancy of the application.
(See variations over page).

REINFORCEMENT

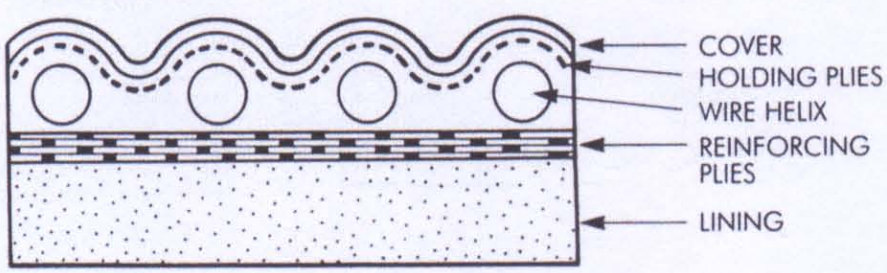
A substantial carcase of high strength synthetic textile cords and an extra heavy duty high tensile steel wire helix fully embedded in highly resilient rubber giving maximum resistance to crushing and vacuum collapse.

WORKING PRESSURE - VACUUM

A 427 7 bar – Full Vacuum
A 428 10 bar – Full Vacuum
A 429 15 bar – Full Vacuum
Hose assemblies are pressure tested on request.

COVER

Corrugated Neoprene (Polychloroprene) rubber for excellent resistance to abrasion, weathering, oils, grease and seawater.



PHYSICAL DATA

(BASED ON A428-12)			
I/D	(mm)	Approx. O/D (mm)	Wt./Mtr. (kg)
10"	250	304	27
12"	300	361	33
16"	400	462	44
20"	500	575	57
24"	600	680	72
27 1/2"	700	765	92
31 1/2"	800	886	107
35 1/2"	900	994	132
39 1/2"	1000	1108	141

Many other bore sizes are available on request, refer to Amiflex Sales.

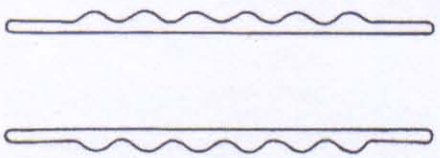
VARIATIONS

1. Three pressure ratings: A427 – 7 Bar, A428 – 10 Bar, A429 – 15 Bar.

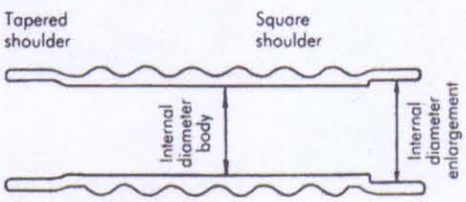
2. Lining thickness can vary depending on the nature of the application. Thicknesses are available in increments of 1.5mm commencing at 9mm.

   E.G. A427 – 10.5 10.5mm Thick Lining
   A429 – 25 25mm Thick Lining

END TERMINATIONS (See Data Sheet)



PLAIN ENDS



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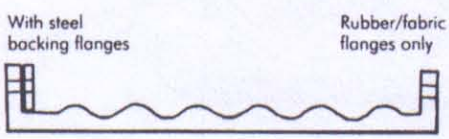
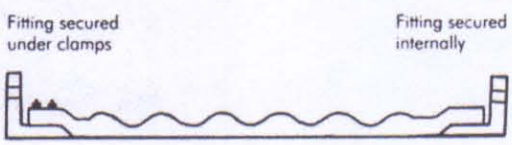


INTEGRAL FLANGES



BUILT-IN STEEL FITTINGS

DIMENSIONS

The following must be specified at the enquiry and order stage.

1. Overall length. 2 Length of enlargement. 3. Diameter of bore.
4. Diameter of ends (if enlarged).
5. Flange O/D, thickness, number, diameter of bolt holes and p.c.d.

END TERMINATIONS FITTING TYPES

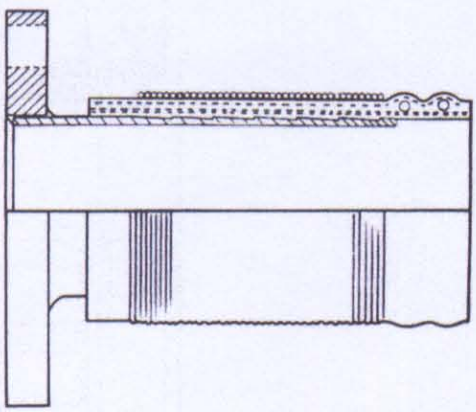
AMIFLEX HOSE

Amiflex Hose supply hose assemblies with a range of end terminations. The more common ones are shown here.

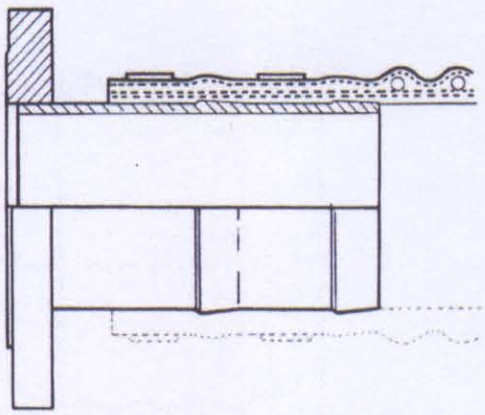
1. FITTINGS FOR HANDLING LOW PRESSURE OR NON CORROSIVE / NON ABRASIVE MATERIALS

A. REDUCED BORE TYPES

Low pressure.



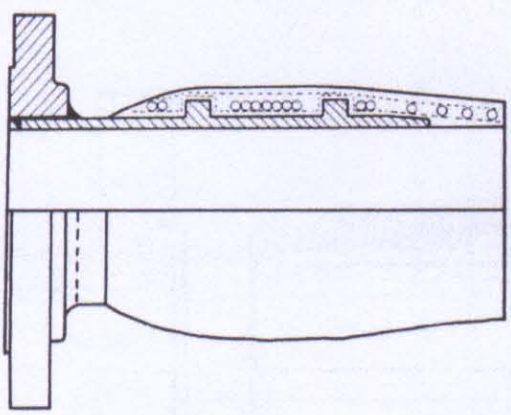
Serrated tail wired-in.



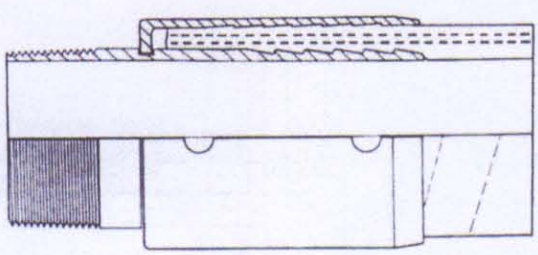
Ribbed tail, clamped clipped or strapped in.

B. FULL BORE TYPES

Medium/High Pressure.



Built-in and chemically bonded.



Internally swaged.

END TERMINATIONS

Flanges, screw threads, weld prep ends, victaulic groove or shoulder, quick release types.

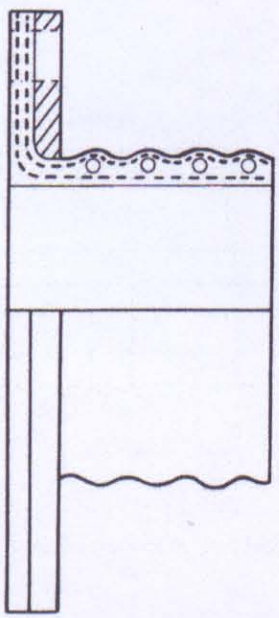
MATERIALS

Carbon steel, stainless steel, gunmetal (bronze), brass, aluminium.

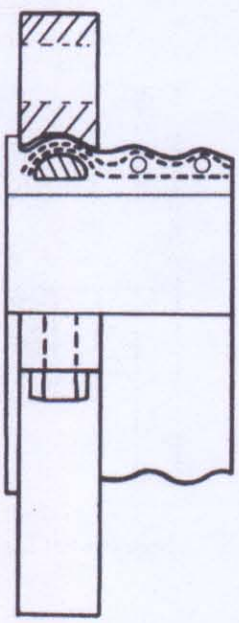
2. FLANGED FITTINGS FOR HANDLING HIGHLY CORROSIVE OR ABRASIVE MATERIALS.

FULL BORE TYPES.

C. LOW TO MEDIUM PRESSURE TYPES

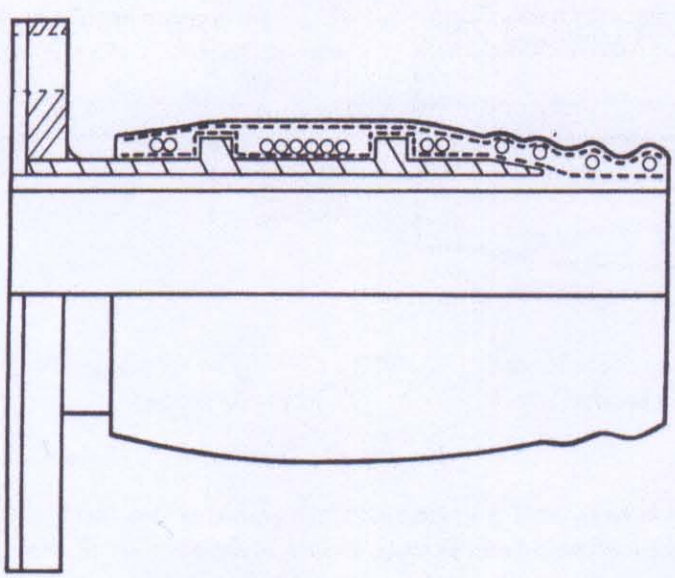


Integral. (Fixed Flange).

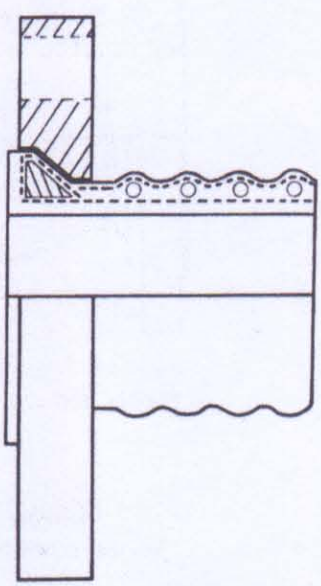


'D' Section ring and split flange.
(Swivel Flange).

D. MEDIUM TO HIGH PRESSURE TYPES



Fully embedded, rubber lined built-in and chemically bonded.
(Fixed or Swivel available).



Beaded end. (Swivel Flange).

AMIFLEX PERISTALTIC PUMP HOSE

AMIFLEX HOSE

SPECIFICATION No. A430

APPLICATION

The essential part of pumps used for suction and delivery of abrasive or corrosive fluids and slurries, such as sewage, up to pressures of 10 bar. The hose is compressed against the pump wall by rotating shoes and, on recovery, material is drawn into the hose. This material is moved progressively along the hose and through the pump by the rotating shoes.

SIZE RANGE

I/D	O/D	LENGTH*
35	60	1500
50	80	1950
65	99	2500
80	120	2850
100	144	3275

*These lengths may vary depending on the machine type. Customer to specify.

LINING

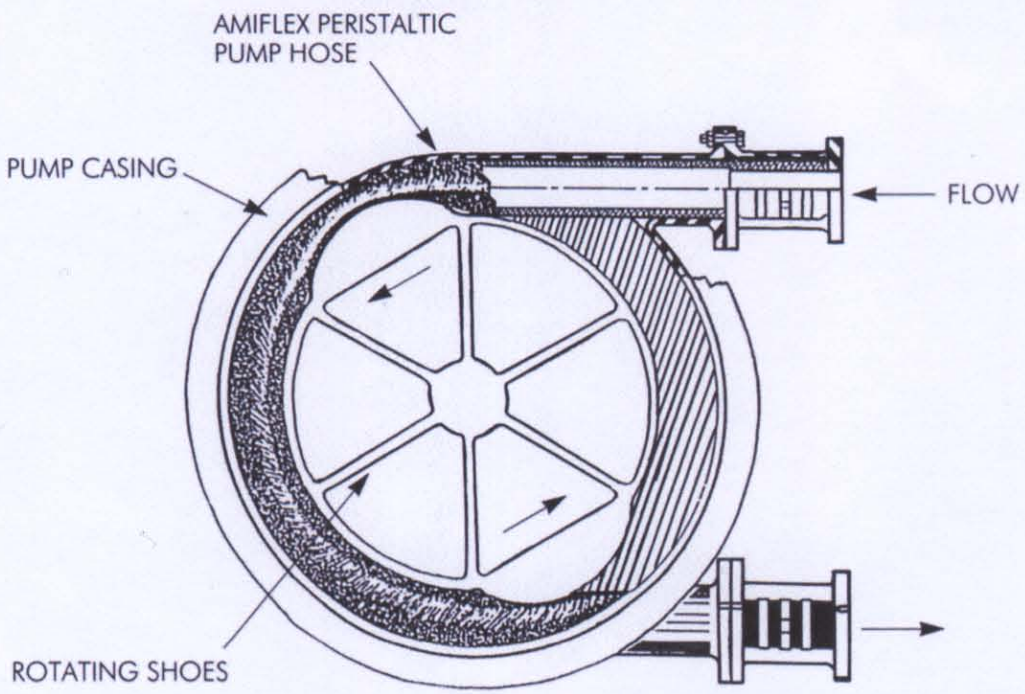
Specially developed natural rubber for high abrasion resistance and rebound resilience.

REINFORCEMENT

Special high strength synthetic cord reinforcement layers totally embedded in rubber to give pressure and fatigue resistance.

COVER

A further development of the special lining for high abrasion resistance and rebound resilience. The surface is a perfectly smooth ground finish to control the critical outside diameter of the hose and prevent damage from the pump.



CHEMICAL SUCTION & DISCHARGE HOSE

AMIFLEX HOSE

SPECIFICATION No's. A500, A501, A502, A503, A506 and A515

Hand built chemical suction and discharge hoses.

Size range: 2" (51mm) - 36" (915mm)
Length: Up to and including: 12" (305mm) - 19.5mtr
14" (356mm) and above - 12mtr

APPLICATIONS

Amiflex A500 series hoses have been specifically designed to convey a wide range of chemicals and aggressive fluids for long periods.

LINING

Smooth bore, mandrel built. (See variations over page).

REINFORCEMENT

Multiple layers of synthetic cord plus a single steel helix, giving minimum 3.5:1 safety factor and a minimum bend radius of 6 x boresize.

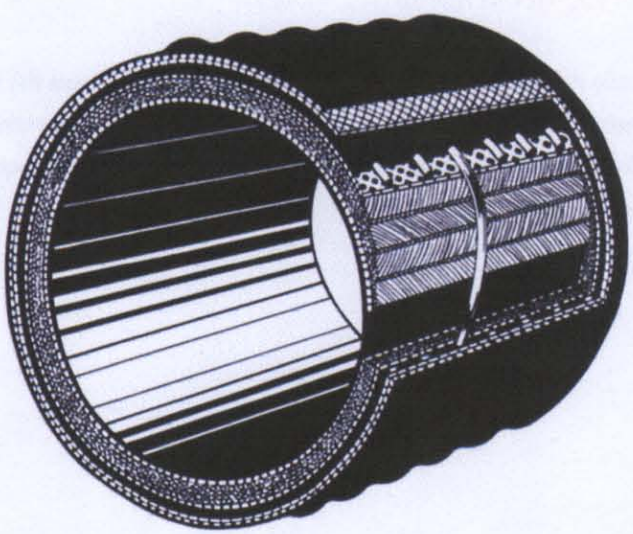
WORKING PRESSURE - VACUUM

10 bar -0.85 bar

Higher working pressures are available. Hose assemblies are tested as requested by customer.

COVER

Corrugated tough abrasion and weather resistant. (See variations over page).



PHYSICAL DATA

Bore		Liner Thickness	Nominal O.D.	Nominal Weight	Minimum Bend
ins.	mm	mm	mm	KG/M	mm
2	51	3	73	2.5	306
3	76	3	99	3.7	456
4	101	3	125	4.9	606
5	127	3	150	6.0	762
6	152	3	180	8.37	912
7	178	3	206	9.62	1068
8	203	4.5	237	14.1	1218
9	228	4.5	265	17.6	1368
10	254	4.5	291	19.4	1524
12	305	4.5	342	23.1	1830

(Other sizes available up to 36" I/D (915mm)). Refer to Amiflex Sales.

MAXIMUM LENGTHS

Up to and including 12" I/D (254mm) – 19.5 metres

14" I/D (305mm) and above – 12 metres

VARIATIONS

	LINING	COVER
A500	Gum Natural Rubber	Natural Rubber (Red)
A501	EPDM	EPDM
A502	Neoprene	Neoprene
A503	Hypalon	Neoprene
A506	XLPE	EPDM
A515	Viton	Neoprene

See chemical resistance tables for specification to use.

If in doubt ask Amiflex Technical Department.

END TERMINATIONS

Generally rubber lined or integral types are supplied where the fluid does not come into contact with metal parts. However, where possible, carbon steel or stainless steel fittings wired, strapped or built-in can also be supplied. See end termination data sheet.

AMIFLEX CHEMICAL RESISTANCE TABLES

AMIFLEX HOSE

These tables are compiled from Polymer manufacturers data and should be used as a general guide. Testing may be necessary to confirm resistance under various conditions such as temperature and concentration.

ASTM DESIGNATION	COMMON NAME	GENERAL TEMPERATURE RANGE
NR	Natural Rubber	-45°C to +70°C
SBR	SBR	-40°C to +80°C
IIR	Butyl	-40°C to +120°C
EPDM	EPDM	-40°C to +145°C
NBR	Nitrile	-30°C to +115°C
CR	Neoprene	-45°C to +95°C
CSM	Hypalon	-40°C to +135°C
FPM	Viton	-40°C to +205°C

JOINTING SYSTEM

A	Normally satisfactory
B	Useful if intermittent service
C	Very limited use only
U	Unsatisfactory

	NR	SBR	IIR	EPDM	NBR	CR	CSM	FPM
Acetaldehyde	C	U	A	A	U	C	C	U
Acetamide	C	C	A	A	A	B	B	B
Acetic Acid, Glacial	B	B	B	A	C	C	C	C
Acetic Acid, 30%	B	B	B	A	B	A	A	B
Acetic Anhydride	B	B	B	B	C	A	A	U
Acetone	B	B	A	A	U	B	B	U
Acetophenone	C	U	A	A	U	U	U	U
Acetyl Chloride						U	U	A
Acetylene	B	B	A	A	B	B	B	A
Acrylonitrile	U	C	U	U	U	C	C	U
Adipic Acid					A			
Aluminium Acetate	A	B	A	A	B	B	A	
Aluminium Chloride	A	A	A	A	A	A	A	A
Aluminium Fluoride	B	A	A	A	A	A	A	A
Aluminium Nitrate	A	A	A	A	A	A	A	
Aluminium Phosphate	A	A	A	A	A	A	A	A
Aluminium Sulphate	A	B	A	A	A	A	B	A
Ammonia Anhydrous	A		A	A	A	A	B	U
Ammonia Gas (Cold)	A	A	A	A	A	A	A	
Ammonia Gas (Hot)			B	B		B	B	U
Ammonium Carbonate	A	A	A	A	U	A		
Ammonium Chloride	A	A	A	A	U	A	A	
Ammonium Hydroxide	U	U	A	A	U	A	A	B
Ammonium Nitrate	C	A	A	A	A	B	A	
Ammonium Nitrite	A	A	A	A	A	A	A	
Ammonium Persulphate	A	A	A	A	A	A	A	
Ammonium Phosphate	B	A	A	A	A	A	A	
Ammonium Sulphate	A	B	A	A	A	A	A	
Amyl Acetate	B	C	A	A	U	U	U	U
Amyl Alcohol	B	B	A	A	B	A	A	B
Amyl Borate	U	U	U	U	A	A	A	A
Aniline	U	U	B	B	U	C	C	C
Aniline Hydrochloride	B	C	B	B	B	U	B	B
Animal Fats	U	U	B	B	A	B	B	A
Asphalt	U	U	U	U	B	C	C	A
Barium Chloride	A	A	A	A	A	A	A	A
Barium Hydroxide	A	A	A	A	A	A	A	A
Barium Sulphate	A	A	A	A	A	A	A	A
Barium Sulphide	A	B	A	A	A	A	A	A
Benzene	U	U	U	U	U	U	U	A
Benzenesulphonic Acid						A	A	A
Benzaldehyde		U	A	A	U	A	U	U
Benzyl Alcohol			B	B	U	A	B	A
Benzyl Benzoate			B	B				A
Benzyl Chloride					U	U		A
Benzoic Acid								A
Borax	B	B	A	A	B	A	A	A
Boric Acid	A	A	A	A	A	A	A	A
Brine			A	A	A	A	A	A
Bromine - Anhydrous						U	U	A
Bromine Water						B	A	A
Bromobenzene	U	U	U	U	U	U	U	A
Bunker Oil					A			A
Butadiene	U	U	C	C	U	B	B	B
Butane	U	U	U	U	A	A	A	A
Butter	U	U	B	A	A	B	B	A
Butyl Acetate			B	B	B	U	U	A
Butyl Acrylate		U	U	U	U			U
Butyl Alcohol	A	A	B	B	A	A	A	A
Butyl Amine	U	U	U	U	C	U	B	U
Butyl Benzoate			A	A		B	B	A
Butyl Carbitol			A	A	A	B	B	U
Butyl Cellosolve			A	A	C	B	B	U
Butyl Oleate	U	U	B	B		U	U	A
Butyl Stearate	U	U	U	B	B			A
Butylene	U	U	C	B	B	C	C	U
Butyraldehyde	C	C	B	B	C	C	C	A
Calcium Acetate	A		A	A	B	B	B	U
Calcium Bisulphite	U	U	U	U	A	A	A	A
Calcium Chloride	A	A	A	A	A	A	A	A
Calcium Hydroxide	A	A	A	A	A	A	A	A
Calcium Hypochlorite	U	U	A	A	C	C	A	A
Calcium Nitrate	A	A	A	A	B	A	A	A
Calcium Sulphide	B	B	A	A	A	A	A	A
Cane Sugar Liquors	A	A	B	B	B	B	B	B
Carbitol	B	B	B	B	B	B	B	B
Carbolic Acid	U	U	B	B	U	C	C	A
Carbon Bisulphide			U	U	C	U	A	A
Carbon Dioxide	B	B	B	B	A	A	A	A
Carbonic Acid	A	B	A	A	A	A	A	A
Carbon Monoxide	B	B	A	A	A	A	A	A
Carbon Tetrachloride	U	U	U	U	C	U	U	A
Castor Oil	A	A	B	B	A	A	A	A
Chlorine (Dry)	U	U				C	B	A

	NR	SBR	IIR	EPDM	NBR	CR	CSM	FPM
Chlorine (Wet)	U	U	C	C		U	C	A
Chlorine Dioxide			C	C	U	U	C	A
Chlorine Trifluoride	U	U	U	A	U	B	B	U
Chloroacetone	B		B	A	U	B	B	U
Chloroacetic Acid			B	B				
Chlorobenzene	U	U	U	U	U	U	U	A
Chlorobromomethane	U	U	U	U	U	U	U	B
Chlorobutadiene	U	U	U	U	U	U		A
Chloroform	U	U	U	U	U	U	U	A
Chloroasulphonic Acid	U	U	U	U	U	U	U	C
Chlorotoluene	U	U	U	U	U	U	B	A
Chromic Acid	U	U	C	C	U	U	A	A
Citric Acid	A	A	A	A	A	A	B	A
Cobalt Chloride	A	A	A	A	A	B	B	
Cocoanut Oil	U	U	A	A	A	B		
Cod Liver Oil	U	U	A	A	B	B	B	A
Copper Acetate			A	A	B	B	B	
Copper Chloride	A	A	A	A	A	A	A	A
Copper Cyanide	A	A	A	A	A	A	A	A
Copper Sulphate	B	B	A	A	A	B	A	A
Corn Oil	U	U	B	C	A	B	B	A
Cottonseed Oil	U	U	C	A	A	B	B	A
Creosote	U	U	U	U	B	C	C	A
Cresol	U	U	U	U	C	C	C	A
Cumene						U	U	A
Cyclohexane	U	U	U	U	B	U	U	A
Cyclohexanol			B	B	U	U	U	A
Cyclohexanone						U	U	A
Denatured Alcohol	A	A	A	A	A	A	A	A
Detergent Solutions	B	B	A	A	A	A	A	A
Diacetone			A	A				U
Diacetone Alcohol	U	U	A	A	U	U	A	
Dibenzyl Ether			B	B				
Dibenzyl Sebecate			B	B	U	U	U	B
Dibutyl Amine	U	U	U	U	U	U	U	U
Dibutyl Ether	U	U	C	C	U	U	U	C
Dibutyl Phthalate	U	U	B	A	U	U	U	B
Dibutyl Sebecate	U	U	B	B	U	U	U	B
O-Dichlorobenzene	U	U	U	U	U	U	U	A
Dichloro-Isopropyl Ether	U	U	C	C	U	U	U	C
Dicyclohexylamine					C			
Diesel Oil	U	U	U	U	A	B	B	A
Diethlamine	U	U	U	U	U	C	C	U
Diethyl Benzene	U	U	U	U	U	C	C	A
Diethyl Ether	U	U	U	U	U	C	C	U
Diethylene Glycol	A	A	A	A	A	A	A	A
Diethyl Sebecate			B	B	U	U	U	B
Diisobutylene					B	U	U	A
Diisopropyl Benzene	U	U	U	U	U	U	U	A
Diisopropyl Ketone			A	A	U	U	U	U
Dimethyl Aniline	U	U	U	B		U		U
Dimethyl Formamide					B	U	C	U
Dimethyl Phthalate	U	U	B	B	U	U	U	B
Dinitrotoluene			B	B		U	U	C
Dioctyl Phthalate								B
Dioctyl Sebecate	U	U	B	B	U	U	U	B
Diphenyl Oxides				A				A
Epichlorohydrin	U	U	B	B				U
Ethane	U	U	B	B	A	B	B	A
Ethanolamine	U	U	B	B	U	B	C	U
Ethyl Acetate	C	C	B	B	U	C		U
Ethyl Acetoacetate								
Ethyl Acrylate			B	B				U
Ethyl Alcohol	A	A	A	A	A	A	A	A
Ethyl Benzene			B	B				A
Ethyl Benzoate								
Ethyl Cellulose	B	B	B	B		B	B	U
Ethyl Chloride			A	A	C	B	C	A
Ethyl Ether			C	C	U	U	U	U
Ethyl Oxalate	A	A	A	A	A	C	A	A
Ethyl Silicate	B	B	A	A	A	A	A	A
Ethylene					A			A
Ethylene Chloride			C	C				A
Ethylene Chorohydrin	B	B			U	B	B	A
Ethylene Diamine	B	B	A	A	A	A	A	A
Ethylene Dichloride	U	U	C	C	U	U	U	A
Ethylene Glycol	A	A	A	A	A	B	B	A
Ethylene Oxide			C	C	U	U	U	A
Ethylene Trichloride			C	C	U	U	U	A
Fatty Acids	C	C	U	U	B	B	B	A
Ferric Chloride	A	A	A	A	A	A	A	A
Ferric Nitrate	A	A	A	A	A	A	A	A
Ferric Sulphate					A			A
Fish Oil								A

	NR	SBR	IIR	EPDM	NBR	CR	CSM	FPM
Fluoroboric Acid	A	A	A	A	A	A	A	
Fluorine (Liquid)			C	C				B
Fluorobenzene	U	U	U	U	U	U	U	A
Fluorocarbon Oils			A	A				
Fluosilicic Acid	A				A	A	A	
Formaldehyde			A	A	B	A	A	A
Formic Acid	A	A	A	A	B	A	A	C
Fuel Oil	U	U	U	U	A	B	B	A
Furan, Furfuran	U	U	C	C	U	U	U	
Fufural	C	C	B	B	U	B	B	U
Gasoline	U	U	U	U	A	B	B	A
Gelatin	A	A	A	A	A	A	A	A
Glucose	A	A	A	A	A	A	A	A
Glycerin	A	A	A	A	A	A	A	A
Glycols	A	A	A	A	A	A	A	A
Hexane	U	U	U	U	A	B	B	A
Hydrazine			A	A	B	B	B	
Hydraulic Oil (Petroleum)	U	U	U	U	A	B	B	A
Hydrobromic Acid	A	C	A	A	U	A	A	A
Hydrochloric Acid (Hot) 37%	U	U	C	C	U	U	C	A
Hydrochloric Acid (Cold) 37%	B	B	A	A	B	B	A	A
Hydrocyanic Acid	B	B	A	A	B	B	A	A
Hydrofluoric Acid (Conc.) Hot	U	U	U	U	U	U	C	B
Hydrofluoric Acid(Conc.) Cold	U	U	B	B	U	B	A	A
Hydrofluoric Acid - Anhydrous	U	U	B	B			A	
Hydrofluosilicic Acid	A	B	A	A	B	B	A	A
Hydrogen Gas	B	B	A	A	A	A	A	A
Hydrogen Peroxide (90%)	U	U	C	C	U		C	B
Hydrogen Sulphide (Wet) (Cold)	U	U	A	A	U	A	B	U
Hydrogen Sulphide (Wet) (Hot)	U	U	A	A	U	B	C	U
Hypochlorous Acid	B	B	B	B	U			A
Isobutyl Alcohol	A	B	A	A	B	A	A	A
Isooctane	U	U	U	U	A	B	B	A
Isopropyl Acetate			A	A	U	U	U	U
Isopropyl Alcohol	A	B	A	A	B	A	A	A
Isopropyl Chloride	U	U	U	U	U			A
Isopropyl Ether	U	U	U	U	B	B	B	U
Kerosene	U	U	U	U	A	C	C	A
Lactic Acid	A	A	A	A	A	A	A	A
Lard	U	U	U	U	A	C	C	A
Lead Acetate	A		A	A	B	B		
Lead Nitrate	A	A	A	A	A	A	A	
Lime Bleach	A	A	A	A	A	B	B	A
Lime Sulphur	U	U	A	A	U	A	A	A
Linoleic Acid			U	U	B	U		B
Linseed Oil	U	U	B	B	A	B	B	A
Liquefied Petroleum Gas	U	U	U	U	A	B	B	A
Lubricating Oils (Petroleum)	U	U	U	U	A	B	B	A
Magnesium Chloride	A	A	A	A	A	A	A	A
Magnesium Hydroxide	B	B	A	A	B	A	A	A
Magnesium Sulphate	B	B	A	A	A	A	A	A
Maleic Acid	B	B	C	C				A
Maleic Anhydride	B	B	C	C				A
Malic Acid		B	U	U	A	B	B	A
Mercuric Chloride	A	A	A	A	A	A	A	A
Mercury	A	A	A	A	A	A	A	A
Methane	U	U	U	U	A	B	B	A
Methyl Acetate	U	U	B	B	U	B		U
Methyl Acrylate	U	U	B	B	U	B		U
Methylacrylic Acid	U	U	B	B		B		B
Methyl Alcohol	A	A	A	A	A	A	A	C
Methyl Bromide					B	U	U	A
Methyl Butyl Ketone	U	U	A	A	U	U	U	U
Methyl Cellosolve	U	U	B	B		B	B	U
Methyl Chloride	U	U	C	C	U	U	U	A
Methyl Cyclopentane	U	U	U	U		C		A
Methylene Chloride	U	U	U	U	U	C	U	B
Methyl Ethyl Ketone	U	U	A	A	U	U	U	U
Methyl Formate	U	U	B	B	U	B	B	
Methyl Isobutyl Ketone	U	U	C	C	U	U	U	U
Milk	A	A	A	A	A	A	A	A
Mineral Oil	A	U	U	U	A	B	B	A
Monochlorobenzene	U	U	U	U	U	U	U	A
Monoethanolamine	B	B	B	B	U	U	U	U
Monomethylether	B	B	A	A	A	A		
Mustard Gas	A		A	A		A	A	
Naptha	U	U	U	U	C	C	U	A
Napthalene	U	U	U	U	U	U	U	A
Napthenic Acid	U	U	U	U	B			A
Natural Gas	C	C	U	U	A	A	A	A
Neatsfoot Oil	U	U	B	B	A			A
Nickel Acetate	A		A	A	B	B		U
Nickel Chloride	A	A	A	A	A	A	A	A
Nickel Sulphate	B	B	A	A	A	A	A	A
Nitric Acid – Conc.	U	U	C	C	U	C	B	A
Nitric Acid – Dilute	U	U	U	U	U	A	A	A
Nitric Acid – Red Fuming	U	U	U	U	U	A	U	C
Nitrobenzene	U	U	U	U	U	U	U	B
Nitroethane	B	B	B	B	U	C	C	U
Nitromethane	B	B	B	B	A	C	C	A
Nitrogen	A	A	A	A	A	A	A	A
Nitrogen Tetroxide	U	U	C	C	U	U	U	U
n-Octane	U	U	U	U				A
Octyl Alcohol	B	B	A	A	B	A	A	A
Oleic Acid	C	C	B	B	C	C	C	B
Oleum Spirits					B	C	B	A
Olive Oil	U	U	B	B	A	B	B	A
Dichlorobenzene					U	U	U	A
Oxalic Acid	B	B	A	A	B	B	B	A
Oxygen – Cold	B	B	A	A	B	B	B	A
Oxygen – 200-400°F	U	U	U	U	U	U	U	B
Ozone	U	U	B	A	U	B	A	A
Palmitic Acid	B	B	B	B	A	B	B	A
Peanut Oil	U	U	C	C	A	B	B	A
Perchloric Acid			B	B		A	A	A

	NR	SBR	IIR	EPDM	NBR	CR	CSM	FPM
Perchloroethylene	U	U	U	U	C	U	U	A
Petroleum – Below 250	U	U	U	U	A	B	B	A
Petroleum – Above 250	U	U	U	U	C	U	U	B
Phenol			B	B		C	C	A
Phenylbenzene	U	U	U	U	U	U	U	A
Phenyl Ethyl Ether	U	U	U	U		U	U	
Phenyl Hydrazine	A	B	C	C	U	C	C	A
Phosphoric Acid – 20%	B	C	A	A	B	B	A	A
Phosphoric Acid – 45%	U	U	B	B	U	B	B	A
Phosphorous Trichloride	U	U	A	A	U	U	U	A
Pickling Solution			C	C			C	B
Picric Acid	B	B	B	B	B	A	B	A
Pine Oil	U	U	U	U	B	U	U	A
Potassium Acetate	A		A	A	B	B	B	U
Potassium Chloride	A	A	A	A	A	A	A	A
Potassium Cyanide	A	A	A	A	A	A	A	A
Potassium Dichromate	B	B	A	A	A	A	A	A
Potassium Hydroxide	B	B	A	A	B	A	A	B
Potassium Nitrate	A	A	A	A	A	A	A	A
Potassium Sulphate	B	B	A	A	A	A	A	A
Producer Gas	U	U	U	U	A	B	B	A
Propane	U	U	U	U	A	A	A	A
Propyl Acetate	U	U	B	B	U	U	U	U
Propyl Alcohol	A	A	A	A	A	A	A	A
Propyl Nitrate			B	B				U
Propylene	U	U	U	U	U	U	U	A
Propylene Oxide			U	U		U	U	
Pyranol	U	U	U	U	A	U	U	A
Pyridine	U	U	B	B	U	U	U	U
Pyrrole	C	C	C	C	U	U		
Radiation	B	B	U	B	B	B	B	U
Rapeseed Oil	U	U	A	A	B	B	B	A
Salicylic Acid	A	B	A	A	A			A
Salt Water	A	A	A	A	A	A	A	A
Sewage	B	B	B	B	A	A	A	A
Silicate Esters	U	U	U	U	B	A	A	A
Silicone Greases	A	A	A	A	A	A	A	A
Silicone Oils	A	A	A	A	A	A	A	A
Silver Nitrate	A	A	A	A	B	A	A	A
Soap Solutions	B	B	A	A	A	A	A	A
Soda Ash	A	A	A	A	A	A	A	A
Sodium Acetate	A	C	A	A	B	B	B	A
Sodium Bicarbonate	A	A	A	A	A	A	A	A
Sodium Bisulphite	A	B	A	A	A	A	A	A
Sodium Borate	A	A	A	A	A	A	A	A
Sodium Chloride	A	A	A	A	A	A	A	A
Sodium Cyanide	A	A	A	A	A	A	A	A
Solium Hydroxide	A	A	A	A	B	A	A	B
Sodium Hypochlorite	C	C	B	B	B	B	B	A
Sodium Metaphosphate	A	A	A	A	A	B	B	A
Sodium Nitrate	B	B	A	A	B	A	A	
Sodium Perborate	B	B	A	A	B	B	B	A
Sodium Peroxide	B	B	A	A	B	B	B	A
Sodium Phosphate	A	A	A	A	A	A	A	A
Sodium Silicate	A	A	A	A	A	A	A	A
Sodium Sulphate	B	B	A	A	A	A	A	A
Sodium Thiosulphate	B	B	A	A	A	A	A	A
Soybean Oil	U	U	C	C	B	A	B	A
Stannic(ous) Chloride	A	A	B	B	A	A	A	A
Steam Under 300°F	U	U	A	A	U	C	U	U
Steam Over 300°F	U	U	C	B	U	U	U	U
Stearic Acid	B	B	B	B	B	B	B	
Styrene	U	U	U	U	U	U	U	B
Sucrose Solution	A	A	A	A	A	A	A	
Sulphite Liquors	B	B	A	A	B	B	B	A
Sulphur	U	U	A	A	C	A	B	A
Sulphur Chloride	U	U	A	U	C	C	B	A
Sulphur Dioxide	C	C	B	A	U	C	C	A
Sulphur Trioxide	B	U	B	B	U	B	U	A
Sulphuric Acid (Dilute)	C	C	B	B	U	U	A	A
Sulphuric Acid (Concentrated)	U	U	B	B	U	B	B	A
Sulphuric Acid (20% Oleum)	U	U	U	U	U	U	U	A
Sulphurous Acid	B	B	B	B	B	B	A	A
Tannic Acid	A	B	A	A	A	A	A	A
Tar, Bituminous	U	U	B	B	B	C	C	A
Tartaric Acid	A	B	B	B	A	B	A	A
Tertiary Butyl Alcohol	B	B	B	B	B	B	B	A
Tetrabromomethane	U	U	U	U	U			A
Tetrachloroethylene	U	U	U	U	U			A
Tetraethyl Lead	U	U	U	U	B	C	C	A
Tetrahydrofuran	U	U	B	B				U
Toluene	U	U	U	U	U	U	U	A
Toluene Diisocyanate	C	C	A	A		U	U	
Trichloroethane	U	U	U	U	U	U	U	A
Trichloroacetic Acid	C	B	B	B	B	B	B	C
Trichloroethylene	U	U	U	U	C	U	U	A
Tricresyl Phosphate	U	U	B	A	C	C	A	B
Triethanol Amine	B	B	B	B	C	A	A	U
Trinitrotoluene	U	U	U	U	U	B	B	B
Trioctyl Phosphate	U	U	A	A	U	B	U	B
Triaryl Phosphate	U	U	A	A	U	B	C	A
Turbine Oil	U	U	U	U	B	C	B	A
Turpentine	U	U	U	U	A	U	U	A
Vegetable Oils	U	U	A	A	A	B	B	A
Vinegar	B	B	A	A	B	A	A	A
Vinyl Chloride				B		U	U	A
Water	A	A	A	A	A	A	A	A
White Pine Oil	U	U	U	U	B	A	B	A
White Oil	U	U	U	U	A	B	B	A
Wood Oil	U	U	U	U	A	B	B	A
Xylene	U	U	U	U	U	U	U	A
Zinc Acetate	A	C	A	A	B	B	B	U
Zinc Chloride	A	A	A	A	A	A	A	A
Zinc Sulphate	B	B	A	A	A	A	A	A

OIL SUCTION & DISCHARGE HOSE

AMIFLEX HOSE

SPECIFICATION No's. A600, A601 and A602

Smooth bore oil suction and discharge hose to:

BS.EN.1765:1998 (was BS1435:Part 1:1987) Types S7, S10 & S15.
Sizes: 2" (50mm nom.) to 20" (500mm nom.). Lengths up to 19.5mtrs.

APPLICATIONS

A range of medium and heavy duty oil loading and unloading hose for dockside use.
Temperature range -20°C to +82°C.

LINING

Smooth bore, mandrel built, Nitrile lining to convey all grades of petroleum products, including crude oils and other liquid petroleum products having a maximum aromatics content of 40%.
(For 100% aromatic content a Viton lining is available).
(See variations over page).

REINFORCEMENT

A single ply of breaker fabric to reinforce the lining, with multiple plies of synthetic cord fabric surrounding a fully rubber embedded high tensile steel wire helix.
Hoses are supplied electrically continuous unless specifically requested to be electrically discontinuous. Hoses are branded accordingly. (See variation over page).

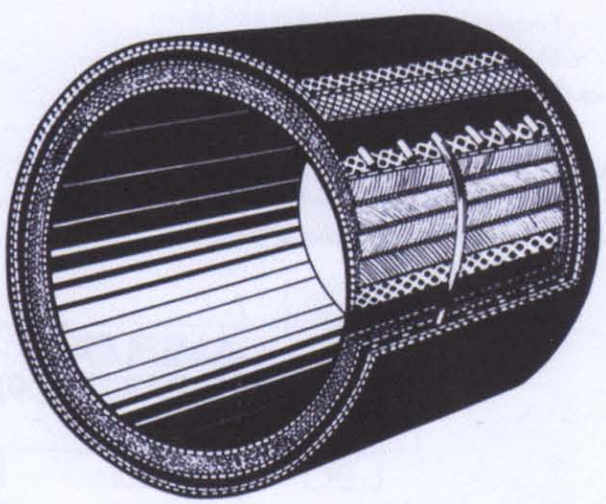
WORKING PRESSURE - VACUUM

A 600	7 bar	-0.85 bar
A 601	10 bar	-0.85 bar
A 602	15 bar	-0.85 bar

Hoses are proof tested to 1.5 x working pressure. Full test and material certificates are supplied as a matter of course.

COVER

Smooth, tough, Polychloroprene (Neoprene) rubber compounded to resist abrasion, weathering and oil. A single ply of heavy gauge breaker fabric between the cover and main carcase bonds them securely together. For submarine duty a double cover and galvanised fittings are supplied as standard. (See variation over page).



PHYSICAL DATA

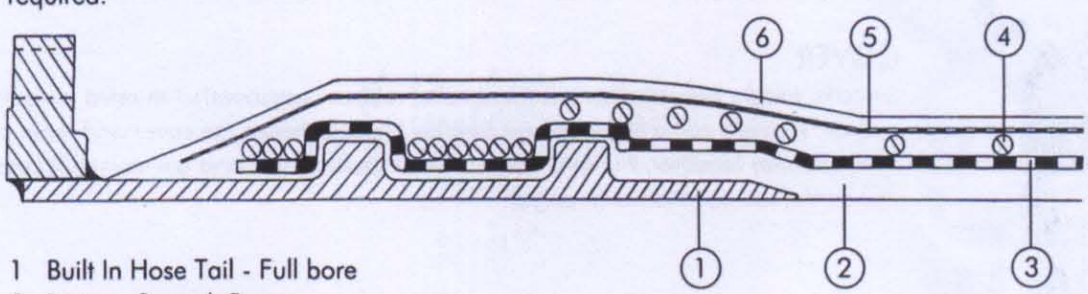
APPROXIMATE WEIGHT KG/MTR.								
Internal Diameter		A600		A601		A602		All Types
		Aprx. Wgt	Aprx. OD	Aprx. Wgt	Aprx. OD	Aprx. Wgt	Aprx. OD	Min. Bend Rad.
ins.	mm	kg/mtr.	mm	kg/mtr.	mm	kg/mtr.	mm	mtr.
3	75	5.3	102	5.9	104	6.5	107	0.45
4	100	6.8	127	7.5	130	8.3	132	0.60
6	150	13.0	185	14.1	188	15.2	191	0.85
8	200	19.7	241	21.1	244	22.6	246	1.10
10	250	29.0	300	31.2	302	33.0	305	1.35
12	300	37.0	353	39.0	356	43.2	361	1.60

VARIATIONS

VARIATIONS	SUFFIX	APPLICATION
Viton Lined	-VITON	100% aromatic content petroleum products
Electrically Discontinuous	-E/D	–
Submarine (Double cover, galvanised fittings.)	-SUB	Submarine Duty
E.g. A602-VITON-SUB.		

END TERMINATIONS

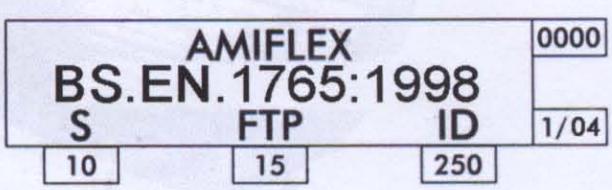
Hoses are generally supplied assembled with built-in/vulcanised carbon steel nipples with slip-on welded or welding neck flanges to customers requirements. Alternatively swaged full bore fittings are available. Nipples can also be screwed if required to standards. Stainless steel, gunmetal or aluminium fittings are also available. Steel fittings can be galvanised, plated or painted if required.



1 Built In Hose Tail - Full bore
2 Lining - Smooth Bore
3 Main Reinforcing Plies
4 Fully Embedded Steel Wire Helix
5 Wire Holding Plies
6 Flat Cover

BRANDING

Each hose is permanently branded at both ends to the following format including serial number and date of manufacture, embossed into the hose cover.



OIL DELIVERY HOSE

AMIFLEX HOSE

SPECIFICATION No's. A611and A612

Smooth bore oil delivery hose to:

BS.EN.1765:1998 (was BS1435:Part 1:1987) Types L10 & L15
Sizes 2" (50mm nom.) to 12" (300mm nom.). Lengths up to 19.5mtrs.

APPLICATIONS

Medium and Heavy duty "Soft Wall" oil delivery hoses, for dockside or ship to ship loading/unloading.

LINING

Smooth bore, mandrel built, Nitrile lining to convey all grades of petroleum products, including crude oils and other liquid petroleum products having a maximum aromatics content of 40%. (For 100% aromatic content a Viton lining is available.) (See variations over page).

REINFORCEMENT

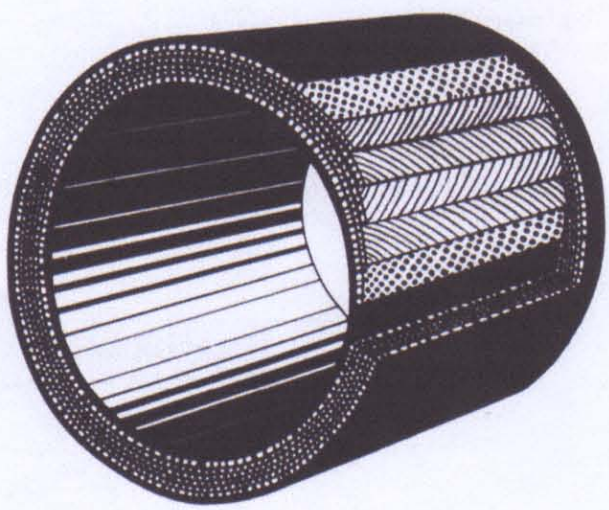
A single ply of breaker fabric to reinforce the lining, with muliple plies of synthetic cord fabric. Electrical continuity is provided by 2 or 3 spiralled stainless steel braided bonding wires secured to the end fittings.
Electrically discontinuous hoses are available and branded accordingly.
(See variations over page).

WORKING PRESSURE

A 611 10 bar
A 612 15 bar
Hoses are proof tested to 1.5 x working pressure. Full test and material certificates are supplied as a matter of course.

COVER

Smooth, tough, Polychloroprene (Neoprene) rubber compounded to resist abrasion, weathering and oil. A single ply of heavy gauge breaker fabric between the cover and main carcase bonds them securely together.



PHYSICAL DATA

APPROXIMATE WEIGHT - KG/MTR						
I/D		KG/MTR		O/D (mm)		Min Bend Radius
inches	mm	611	612	611	612	mm
2	50	3.0	3.6	68	71	300
3	75	4.6	4.6	96	96	450
4	100	5.0	5.5	121	126	600
6	150	7.0	9.0	172	178	900
8	200	12.0	13.5	228	234	1200
10	250	14.5	18.5	282	290	1500

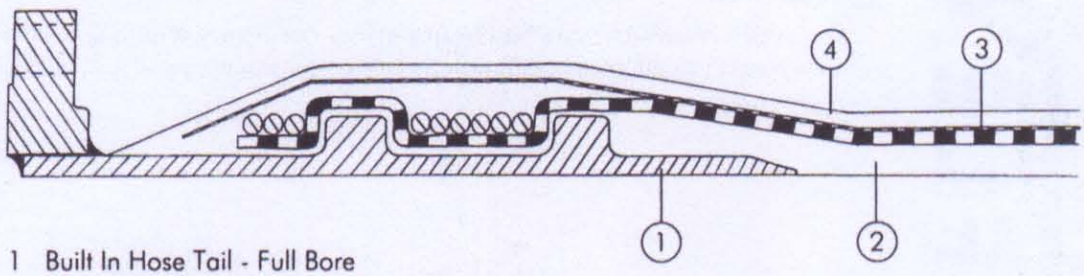
VARIATIONS

VARIATIONS	SUFFIX	APPLICATION
Viton Lined	-VITON	100% Aromatic Content Petroleum Products
Electrically Discontinuous	-E/D	

END TERMINATIONS

Hoses are generally supplied assembled with built-in/vulcanised carbon steel nipples with slip-on welded or welding neck flanges to customers requirements. Alternatively swaged full bore fittings are available. Nipples can also be screwed if required to standards. Stainless steel, gunmetal or aluminium fittings are also available.

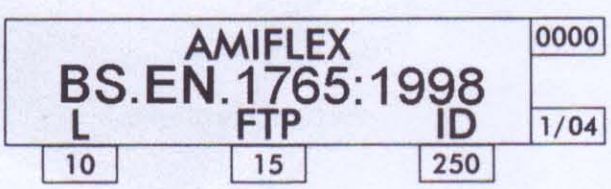
Steel fittings can be galvanised, plated or painted if required.



1 Built In Hose Tail - Full Bore
2 Lining - Smooth Bore
3 Main Reinforcing Plies
4 Flat Cover

BRANDING

Each hose is permanently branded at both ends to the following format including serial number and date of manufacture, embossed into the hose cover.



AMIFLEX HOSE

SHIP TO SHIP TRANSFER HOSE

Amiflex Type A645

Smooth bore 'softwall' ship-to-ship transfer hose to BS.EN.1765:1998 & OCIMF STS Transfer Guide

Lining

NBR oil resistant rubber suitable for oil and petroleum products with an aromatic content of 40%. Temperature range -20°C to +82°C (linings suitable for higher aromatic content or temperature available on request).

Reinforcement

Multiple layers of high tensile textile cord plies totally encapsulated in rubber. Hose construction is designed to aid the hose to recover it's shape and performance characteristics after the temporary kinking or crushing which may occur during operation.

Working Pressure/Flow Rate

15bar Working Pressure (with 5:1 safety factor), 22.5bar Test. Maximum flow rate 21mtr/sec.

Cover

Heavy duty anti-static rubber compounded to resist abrasion, weathering and petroleum products. Black with continuous white alignment stripe along entire hose length. Hose branded with manufacturer name, type, serial number, date of manufacture, service and electrical status.

End terminations

Built in carbon steel nipples and flanges ANSI B16.5 class 150 lbs RF as standard, variations available on request.

Electrical Continuity

Hose electrically semi-continuous.

Size.	O/D (mm).	Wt./Mtr. (kg.)	Minimum Bend radius (mm).	Assembly Wt. (12 Mtr. (kg))
8" (203mm)	250	25	1200	375
10" (254mm)	305	34	1500	490
12" 9305mm)	363	44	1800	638

Amiflex Hose

A Division of S. Redfern & Company Limited

BITUMEN/ASPHALT SUCTION & DISCHARGE HOSE

AMIFLEX HOSE

SPECIFICATION No. A609

Size range: 3" (76mm) to 12" (305mm) I/D in lengths up to 10mtrs.

APPLICATIONS

A robust hose specially designed for the transfer of bitumen, asphalt and tar at temperatures up to 180°C.

INTERNAL CONSTRUCTION

The composite heat resistant rubber and fabric carcase is constructed onto a galvanised round wire helix in the bore of the hose. Together with the fully embedded wire helix in the hose wall prevention of delamination is assured. Heat insulation is provided by a heavy glass fabric layer immediately above the internal helix.

REINFORCEMENT

Multiple layers of heat resisting textile reinforcement with a fully embedded wire helix produce an extremely strong carcase to resist pressure at high temperatures.

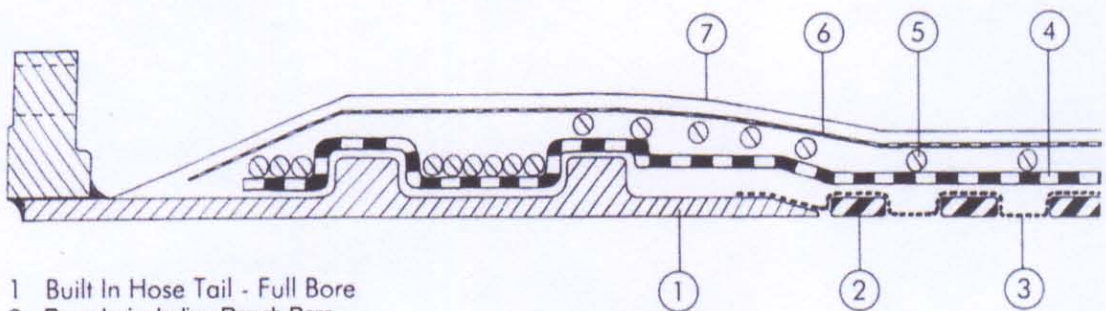
WORKING PRESSURE - VACUUM - TEMPERATURE

15 bar max. - Full - 180° max.

All hoses are tested to 22.5 bar. Test and material certificates are supplied as a matter of course.

COVER

Smooth, wrapped finish Neoprene (Polychloroprene) giving excellent resistance to oils, weathering and abrasion.



1 Built In Hose Tail - Full Bore
2 Round wire helix - Rough Bore
3 Heat Resistant Textile Layer
4 Main Reinforcing Plies
5 Fully Embedded Steel Wire Helix
6 Wire Holding Plies
7 Flat Cover

PHYSICAL DATA

I/D (mm)	O/D approx (mm)	WEIGHT approx (Kg/Mtr)	MINIMUM BEND RADIUS (mm)
3" (76)	108	9	375
4" (102)	135	11	500
6" (152)	194	21	750
8" (203)	250	33	1000
10" (254)	302	48	1250
12" (305)	355	58	1500

END TERMINATION

Generally ends are fixed carbon steel flanges built-in to the hose with a specially designed hose tail to accommodate the internal bore wire and provide a seal.

Other end fittings are available if requested.

AMIFLEX HOSE

SPECIFICATION No's. A702 and A704

Size range: 2½" (63mm) – 6" (152mm) in lengths up to 19.5mtrs.
Larger sizes are available on request, refer to Amiflex Sales.

APPLICATIONS

Hoses for high working pressures capable of handling a wide range of materials, chemicals, oils and solvents. A702 has two spiral steel cord layers, A704 has four spiral steel cord layers for the highest pressures. Also available:- A706 (6 wire) & A708 (8 wire). Ring for details.

LINING

Smooth bore, mandrel built. Several lining variations are available depending on the application and the type of material being handled. (See variations over page).

REINFORCEMENT

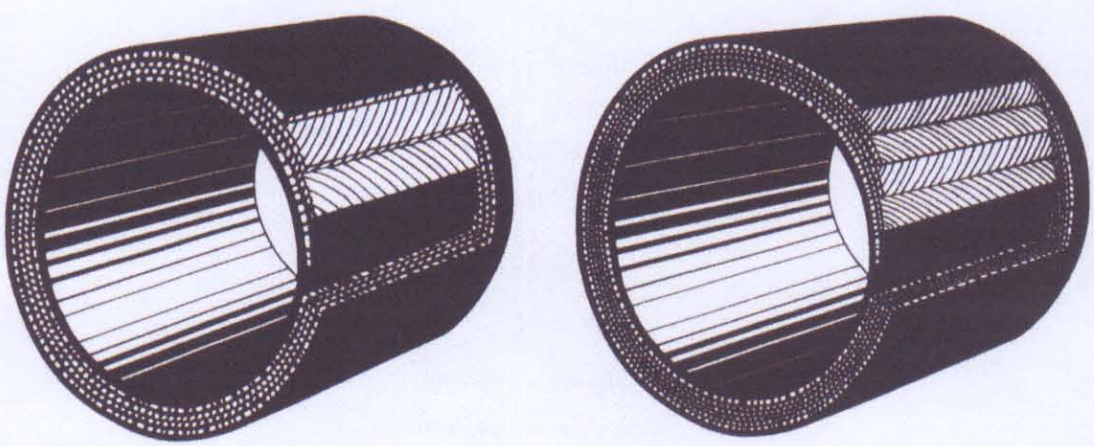
Special high tensile brass coated steel cord wire, fully encapsulated in and bonded to rubber, spiralled at an optimum angle giving stability under high pressure and great flexibility.

WORKING PRESSURE

Minimum burst pressures are given in the Physical Data Table over the page. It is recommended that the ratio of burst pressure to working pressure should not be less than 3:1. Hose assemblies are pressure tested to 1.5 x working pressure.

COVER

Smooth, wrapped finish in Neoprene (Polychloroprene) rubber, giving excellent resistance to oils, sunlight, weathering and abrasion.



PHYSICAL DATA

	I/D	O/D	Approx. wt. Kg./Mtr.	Minimum Bend Radius (mm)	Burst Pressure (Bar)
A702	2 1/2"	86	4	600	200
	3"	98	5	760	180
	3 1/2"	111	6	910	160
	4"	124	7	1100	140
	5"	149	9	1400	120
	6"	174	11	1700	100
A704	2 1/2"	96	6	760	340
	3"	108	8	910	310
	3 1/2"	121	9	1100	270
	4"	134	11	1300	240
	5"	159	13	1550	200
	6"	184	16	1850	170

VARIATIONS

VARIATIONS	SUFFIX	APPLICATION
Natural Rubber lining	NR	Water, abrasives, mud, cements
Neoprene lining	CR	Air, seawater, oils, chemicals
Nitrile lining	NBR	Oils, solvents
EPDM lining	EPDM	Air, chemicals, seawater

(Other lining materials are available on request)

END TERMINATIONS (See Data Sheet)

Carbon Steel or Stainless Steel

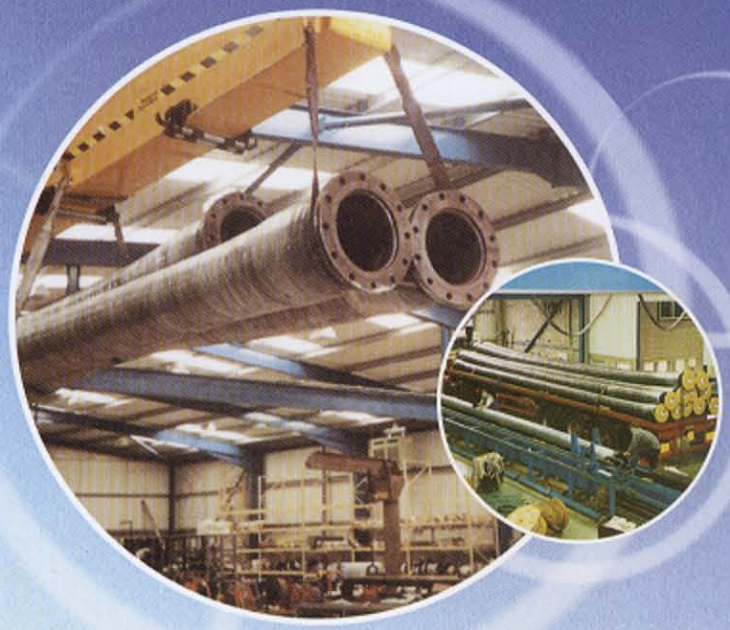
1. Male Screw Thread
2. Victaulic Groove
3. Victaulic Shoulder
4. Flange (Fixed or Swivel)
5. Plain or Weld Prep End

Method of Attachment

1. Swaged (Internal or External)
2. Dixon Boss clamps and hose tails

(See End Termination data sheet)

- Oil and petrochemical hose
- Offshore bulk transfer
- Mining & quarrying
- Dredging hose
- Naval RAS hose
- Water hose
- Steel industry
- Expansion joints
- Composite hose
- Food quality hose



AMIFLEX HOSE

Flexible Engineering Onshore & Offshore