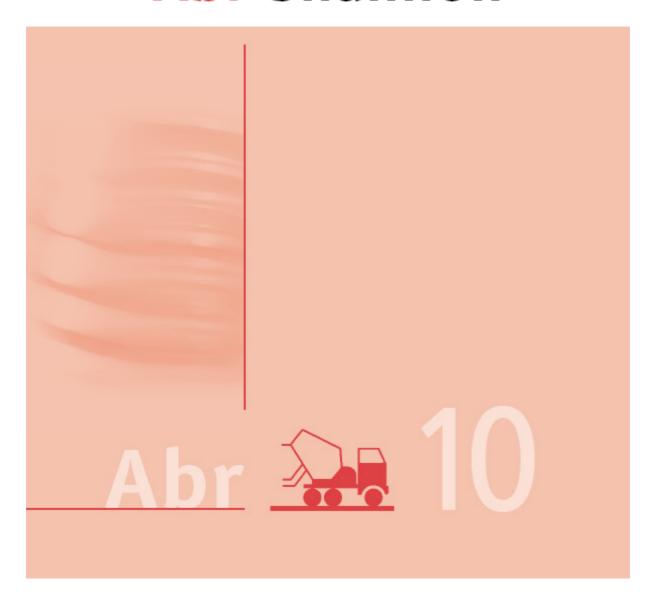
# **Abr Shannon**



## **TECHNICAL ISSUE**

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## Shannon 80



code	leide danske		dante attituter		working processes		bank pressure		weight nominal		bending radius		NO.	leighma	
			C	3		9	*	<b>y</b>			0	9	見	<b>(</b>	
	m	Indi	mm	inch	bur	psi	ber	psi	kg/m	bst	mm	Inch	ber		1
1350498	51	2	75	2.96	80	1200	200	3000	3.87	2.60	383	15.D	0.8	60	200
1347470	65	2-9/16	29	3,51	80	1200	200	3000	4.72	3.17	400	15.8	0.8	60	200
1415620	76	3	100	3,94	80	1200	200	3000	5,42	3,64	400	15,8	0,8	60	200
1350030	80	3-5/32	108	4,26	BU	1200	200	3000	6,32	4,25	450	1/,/	0,8	60	200
135/921	85	3-11/32	114	4,40	80	1200	200	3000	6,88	4,63	500	19,7	0,8	60	200
1412078	100	3-15/16	124	4.89	80	1200	200	3000	6.87	4.62	550	21.7	0.8	60	200
1340255	100	3-15/16	128	5.04	80	1200	200	3000	7.66	5.15	550	21.7	0.8	60	200
1412086	125	4-59/64	150	5,91	80	1200	200	3000	8,69	5,84	700	27,6	0,8	60	200
1346547	125	4-54/64	153	6,03	80	1200	200	3000	9,44	6,34	700	21,5	0,8	60	200
1346555	152	ы	184	1,25	80	1200	1/5	2525	14,25	9,58	800	31,5	0,8	60	200



## Tubo per calcestruzzo, (4 tele metalliche di rinforzo, 80 bar di pressione di esercizio)

Applicazione: tubo cord metallico per mandata di calcestrazzo e betoncino; impiegato quale terminale della pompa per la distribuzione della gettata. Resiste all'aspirazione in tase di putzia. Normalmente fomito con raccordi pressati "Full Flow" cementati.

Temperatura: da -40° a +70°C.

Sottostrato: nero, lacio, in gomma NFVSER restriente all'azione abrasiva del calcertruzzo.

Rinforzo: inserzioni di fili d'accialo.

Copertura: ners, lacis (ad impressione tels), in gomms NR/SER, nei-stente all'abrazione e agli agenti atmosferici. Marcatura: transfer di colore rosso "IVG Abr (logo applicazione)...".

#### Tuyau de pompage béton, (4 plis métalliques de renfort, pression de service 80 bar)

Applications: tuysu nappé métalique pour le refoulement de bélon, utilisé en bout de fiéche de la pompe à béton. Résiste à l'aspiration durant l'opération de nettoyage. Normalement fourni avec des raccords sertis cirmentile passage intégral Camme de températures: de -40°C à +70°C.

Tube: NR/SSIR noir lisse, résistant à l'abrasion du béton.

Armsture: rapper métalliques en acier.

Revillement: NR/SER noir lisse (sepect bandelli) risistant à l'abrasion

et aux agents atmosphiriques. Marquage: bande transfert de couleur rouge "IVG Abr (logotype

application)...".

#### Concrete placement hose (4 steel plies, 80 bar W.P.)

Application: steel cord hose used for concrete placement at cauting locations; it is used at the end of the pumps to distribute the concrete. The hose resists suction during the cleaning process. Usually supplied with seaged on "Full flow" hardened couplings. Temperature: from -40°C (-40°F) to +70°C (+158°F). Construction

Tube: black, smooth, NR/SSIR rubber, that withstands the abrasive action of the concrete.

Reinforcement: plice of steel wire cord.

Cover: black, amouth (emposed finish), NR/SBR nubber, abrasion and weathering resistant.
Branding: continuous red atripe "IVG Abr (family logo)...".



#### Betonpumpenschlauch, (mit 4 Stahleinlagen, Betriebsdruck 80 bar)

Verwendung: Schlauch mit Stahleinlagen, zum Einzelt als Leitungsen-defück an Betonpumpenfahrzeugen und -enlagen. Vakuumbeständig wähnend der Reinigung. Wird normalerweise mit eingepressten gehle-teten "Full-Flow"-Kupplungen gelefet. Temperaturbereicht: -40°C bis +70°C. Aufbau

Seele: NR/SBR-Gummi, schwarz, glatt, bertändig gegen die abrasive Wirkung von Beton.

Einlager: Staticord-Gewebe-Lagen.

Decker NR/SBR-Gummi, schwarz, glatt (stoffgemustert), abriebe- und witterungsbeständig. Kennzelchnung: Transfentrefen rot "IVG Abr (Logo Produktfamilie)...".



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## 2 HOSE ASSEMBLIES

Parts of the hose assemblies are: the hose and the couplings. Depending on the application, hoses may have just one or both coupled ends.



pict. n° 1: End Hose and Delivery Hose

## 2.1 End Hose



pict. n°2: Examples of End Hoses on the field.

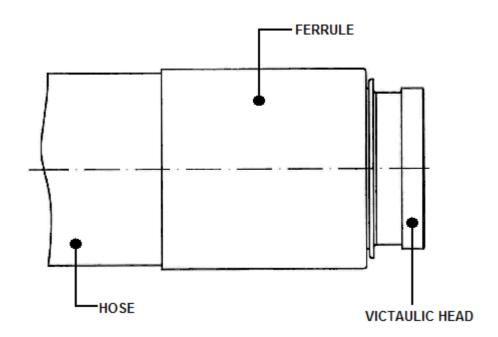
## 2.2 Delivery Hose



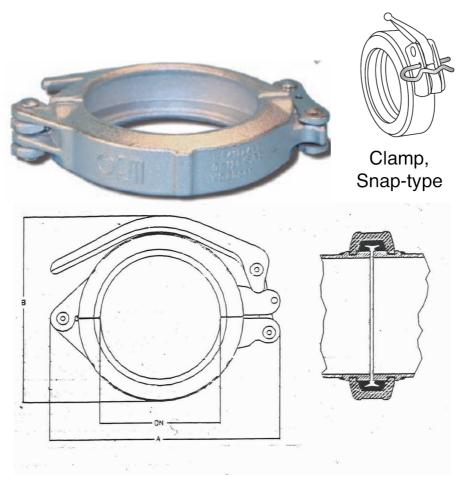
pict. n°3: Examples of applications of Concrete Delivery Hoses on trucks.

## 2.3 Couplings

End couplings are made of carbon steel. The "full flow" swaging on procedure provide a low resistance to flowing of concrete during working operations.



pict.  $n^{\circ}$  4: The swaged on joints according to Victaulic shape.



pict.  $n^{\circ}5$ : Clamps for hoses connection. Snap-type clamp needs the spring pin that prevent coupling from being released unintentionally

## 3 IDENTIFICATION MARKING

A continuous spiral red brand through all the length of the hose identify the maximum working pressure [bar].





pict. n°6: Marking.



pict. n°7: Finished product on stock, ready for delivery.

#### 4 MAINTENANCE AND USER'S INSTRUCTIONS

## 4.1 Inspection

Frequent inspection shall be performed by a designated person at daily to monthly intervals, and shall include observations prior to and during operation.

Frequent inspection shall be performed to end hoses and concrete delivery hoses for:

- a) excessive internal wear;
- b) separation of ferule from the hose;
- c) bugles, kinks, soft spots, cuts, or abraded areas which may indicate broken or misplaced reinforcement;
- d) presence of old concrete inside;

Inspection shall be performed to couplings:

- a) for cracked, distorted or missing components;
- b) for concrete in the gasket cavity that would prevent proper operation
- c) for sufficient wall thickness to withstand the maximum material pressure
- d) for dents, holes, or deformed ends;
- e) for the presence of old concrete inside;

#### 4.2 Instructions

A periodic inversion of the two ends as well as the rotation of the hose of 180° on its axis is recommended (see pict. n°8 USE INSTRUCTION label ).

## ISTRUZIONI PER L'USO - USE INSTRUCTIONS

Pulire tassativamente il tubo dopo ogni impiego con mezzi idonei (palle di spugna) ed accertarsi che non siano presenti residui di calcestruzzo.

Si raccomanda l'inversione periodica delle due estremità così come una progressiva rotazione del tubo di 180° sul proprio asse.

Clean the hose after every use with suitable means (cleaning balls or sponges) and check if concrete residuals have remained inside the hose.

We recommend a periodic inversion of the two ends as well as the rotation of the hose of 180° on its axis.

# pict. n°8: The USE INSTRUCTIONS label is applied on the ferules of end coupling of the hose

The rate of erosion or abrasive wear in piping is proportional to the velocity and quantity of flow, and size and shape of particles in the abrasive slurry. Bends determine the effects on wear resistance: strong bends increase the rate of erosion and reduce life time.

#### 4.3 Cleaning

Cleaning of the pipeline should be accomplished by sucking a sponge ball backwards through the delivery pipeline (see pict. n° 8 USE INSTRUCTION label). Cleaning shall not be performed with compressed air.

#### 5 STORAGE

#### RECOMMENDATIONS FOR CORRECT STORAGE

Rubber is subjected, by nature, to changes in physical properties. These changes, which normally occur over the course of time, according to the kind of rubber used, can be accelerated by one particular factor or by a combination of these.

Reinforcement materials are also adversely affected by unsuitable conditions of storage. The following recommendations give some precautions to be taken to ensure the minimum deterioration to stored articles.

#### STORAGE LIFE

Storage time should be reduced to the minimum through programmed rotation.

When it is not possible to avoid long term storage and when the recommendations in the points below have not been respected it is necessary to check the hose carefully prior to use.

#### TEMPERATURE AND HUMIDITY

The best temperature for the storage of rubber hoses varies from 10 to 25 degrees centigrade. Hoses should not be stored at temperatures above  $40\,^{\circ}\text{C}$  or below  $0\,^{\circ}\text{C}$ . When the temperature is below  $-15\,^{\circ}\text{C}$  it is necessary to take precautions when handling. Hoses should not be stored near sources of heat nor in conditions of high or low humidity. A humidity level of a maximum of 65% is recommended.

#### LIGHT

Hoses must be stored in dark places, avoiding direct sun light or strong artificial light. Should store rooms have windows or glass openings, these must be screened.

#### **OXYGEN AND OZONE**

Hoses should be protected from circulating air by suitable packing or by storage in air-tight containers. As ozone has a particularly aggressive action on all rubber products, the store house must not contain materials producing ozone like devices under high electrical tension, electric engines or other materials provoking sparks or electric arcs.

#### CONTACT WITH OTHER MATERIALS

Hoses should not come into contact with solvents, fuels, oils, grease, volatile chemical mixtures, acids, disinfectants and other organic liquids in general. Furthermore direct contact with some metals (for example manganese, iron, copper and its alloys) and relative mixtures exercise harmful effects on some types of rubber. Contact with PVC and creosote impregnated timber or fabrics should be avoided.

#### **HEAT SOURCES**

The temperature limits given in point 2.2. must be respected. When this is impossible, it is necessary to use a thermal shield.

#### ELECTRIC OR MAGNETIC, FIELD

Variation in electric or magnetic fields must be eliminated in store houses as these could provoke currents in metal couplings, heating them. Similar fields could be caused by high tension cables or high frequency generators.

#### STORAGE CONDITIONS

Hoses must be stored in a relaxed condition free from tension, compression or other deformation and contact with objects that could pierce or cut must be avoided. It is preferable to store hoses on special shelves or on dry surfaces. Coiled hoses must be stored horizontally avoiding piling. When this is not possible the height of the piles must be such to avoid permanent deformation of hoses stored underneath. The inside diameter of the coil must never be lower than twice the minimum bend radius stated by the manufacturer according to technical standards. It is advisable to avoid storing coiled hoses on poles or hooks. Furthermore it is advisable to store hoses to be delivered straight, horizontally, without bending.

#### **RODENTS AND INSECTS**

Hoses must be protected from rodents and insects. When such a risk is probable adequate precautions must be taken.

#### MARKING OF PACKAGED ITEMS

It is advisable that hoses are always easy to identify even if packaged.

#### **EXIT FROM STORAGE**

Prior to delivery hoses must be checked for integrity and must correspond to the required use. After long storage if couplings are not clipped, swaged or built-in, it is necessary to check that locking collars are tight.

#### **RETURN TO STORAGE**

Hoses that have been used must be freed from all substances prior to storage. Particular attention must be paid when chemical, explosive inflammable, abrasive and corrosive substances have been conveyed. After cleaning, check whether the hose is suitable for use again.

#### **HANDLING**

Hoses must be moved with care avoiding knocks, dragging over abrasive surfaces and compression. Hoses must not be pulled violently.

#### **BENDING RADIUS**

Installation underneath the minimum bending radius reduces the life of the hose considerably. Moreover it is necessary to avoid bending at fitting ends.

#### **TORSION**

Hoses are not manufactured to work in torsion.