VERDERFLEX®



VERDERFLEX PERISTALTIC PUMPS

Verderflex Hoses

VERDER
passion for pumps

The Verderflex Hose

The Heart Of The Process

The successful use of hose pumps in a number of fields led Verder to develop a hose with an enhanced construction. Hoses in peristaltic pumps generally fail due to fatigue between the rubber layers and the reinforcement. However, Verder hoses are specifically designed and manufactured to reduce fatigue, resulting in an extremely long hose service life.



Technical Summary

- Hoses are available in Natural Rubber (NR), Nitrile Buna Rubber (NBR), Food Grade NBRF, EPDM and Hypalon® (CSM)
- 12 standard hose sizes from 5mm (3/16”) to 125mm (5”)
- All are designed to maximise hose life by optimising the hoses’ fatigue strength
- Hoses have colour coded identification tapes bonded into the outer surface during manufacture to clearly identify material type.

Internal diameter of the hose and rotor speed determine the flow rate of the pump. Hose wall thickness compared to its diameter and the number of reinforcement layers are responsible for the restitution of the hose after compression which creates a virtual vacuum in the hose. The construction of the textile reinforcement allows a discharge pressure of the pump of up to 16 Bar/230 PSI for all pump types.

Technical Hose Data

MODEL	DIAMETER				LENGTH		WEIGHT	
	Internal		External					
	mm	inch	mm	inch	mm	inch	kg	lb
VF 5	5	3/16	32	1.3	510	20	0.47	1
VF 10	10	3/8	32	1.3	510	20	0.43	0.9
VF 15	15	5/8	37	1.4	780	31	0.68	1.5
VF 20	20	¾	37	1.4	780	31	0.73	1.6
VF 25	25	1	55	2.2	1005	40	2.0	4.4
VF 32	32	1¼	62	2.4	1250	50	3.1	6.8
VF 40	40	1½	65	2.6	1490	59	4.0	8.8
VF 50	50	2	81	3.2	1820	72	6.5	14.3
VF 65	65	2½	101	4.0	2335	100	12.5	27.6
VF 80	80	3	123	4.9	2780	109	22	48.5
VF 100	100	4	144	5.7	3270	129	35.5	78.3
VF 125	125	5	170	6.7	4050	160	43.2	95.2

Dimensions of the Verderflex hose are universal, this allows it to be fitted to most brands of hose pumps on the market.

Hose selection

Some industrial hose pumps in today's market have machined exteriors, a process generally employed to achieve an equal wall thickness. In comparison, the unique Verderflex® production process is so precise that the exact wall thickness and outer diameter tolerances are maintained at each and every point. For this reason Verderflex® hoses do not have to undergo this additional process of external machining. When Verderflex® hoses are tested alongside their competitors, results indicate that there is no additional friction loss due to the wound surface. The textured surface actually creates micropockets of lubricant which promotes even lubrication coverage which results in longer hose life .

For corrosive applications requiring EPDM hose, Verderflex® recognizes the importance of a homogeneous material. Under normal wear, a hose will fail in the "cheeks" of the hose and form a leak path through to the outer layer. Some hose pump manufacturers simply use an EPDM inner core and supplement this with natural rubber in the cord and outer layers, which accelerates hose failure through these layers in corrosive applications. Verderflex® uses a homogenous EPDM material throughout the hose, which helps to extend hose life and protect the pump in these aggressive applications.

All Verderflex hoses have a coloured lettering on the exterior which indicates the type of hose. The Verderflex lettering is white for a NR hose, yellow for a NBR, red for a EPDM hose type, yellow with a white stripe for the Food Grade NBRF and green for Hypalon® or CSM.

	PRINT COLOUR	TEMPERATURE		PRESSURE	
		CELSIUS	FARENHEIT	bar	PSI
NR 		Most common hose for all market segments is the Natural Rubber (NR) hose. Both the liner and cover are made from NR which is highly resistant to abrasion. Suitable for use with lightly corrosive chemicals, highly abrasive slurries, inorganic products, etc			
	White	-20°C to +80°C	-5°F to +175°F	16	230
NBR 		This hose is particularly suitable for use with oily or fatty products, and with organic materials. The inner liner is of nitrile buna rubber (NBR) and the cover is a blend of SBR/NR.			
	Yellow	-20°C to +80°C	-5°F to +175°F	16	230
NBRF 		The NBRF hose has an FDA approved food grade inner liner for use in EHEDG compliant or similar hygienic applications.			
	White / Yellow	-20°C to +80°C	-5°F to +175°F	16	230
EPDM 		This hose is suitable for corrosive chemicals and inorganic products, the liner is made of EPDM rubber. The cover of this hose is also made of EPDM, in contrast to many other hoses whose cover is made of natural rubber. This feature makes the hose exceptionally resistant to corrosive chemicals, even those for diffusing media			
	Red	-20°C to +100°C	-5°F to +210°F	16	230
			*This hose can be run for short time up to 120° C / 250° F		
CSM 		The CSM, or Hypalon® hose, is used to pump highly corrosive products such as strong oxidising agents. This hose has a CSM inner liner and an SBR/NR outer cover; it has a maximum continuous temperature rating of 85°C/185°F			
	Green	-20°C / +85°C	-5°F / +175°F	16	230

Hypalon® is a registered trademark of DuPont Dow Elastomers



Any questions? You may still have questions and/or comments after reading this brochure. Please feel free to contact us on +44 (0)1924 221 020. You can also respond via email to info@verderflex.com. For more information about Verderflex please visit our website **www.verderflex.com**

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