User’s manual

Suction Hose

92722, 92723, 92727, 92728, 92733–92735, 92748–92750, 92783, 92930–92932, 92936–92947, 92951–92959

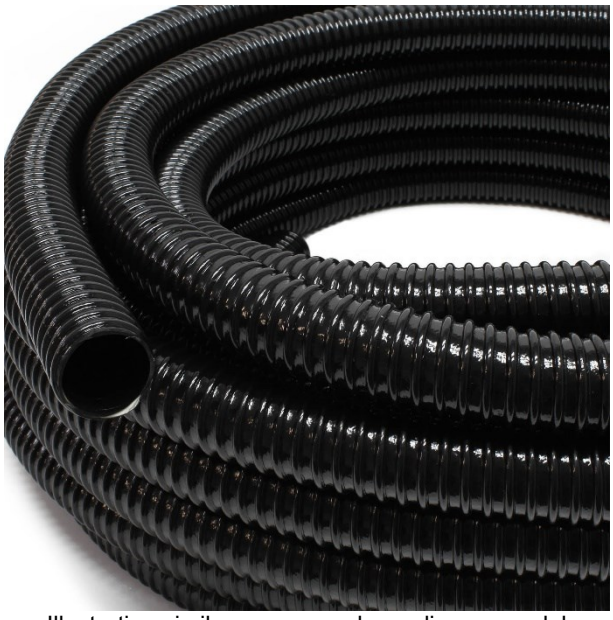

Illustration similar, may vary depending on model

Please read and follow the operating instructions and safety information prior to initial operation.

Technical changes reserved!
Illustrations, functional steps, and technical data may deviate insignificantly due to continuous further developments.

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Introduction

Thank you for choosing to purchase this quality product. To minimise the risk of injury, we ask you to always take some basic safety precautions when using this product. Please read this operating manual carefully and make sure that you understand it.
Keep these operation instructions in a safe place.

Description and use

- This very flexible and light hose made of soft PVC is reinforced with an impact-resistant hard PVC spiral.
- Connected to submersible and pond pumps in horticulture, the hose is particularly suitable for water circuits.

Thermal behaviour of plastic hoses

- Unlike rubber hoses, the influence of low and high temperatures is very important for plastic hoses. The flexibility of plastic hoses is altered with the medium or environment having low or high temperatures. At lower temperatures, they can harden to the point of brittleness, and at high temperatures close to the plastic-specific melting point, they can become plastic, i.e., deformable.
- Due to these properties, the pressure and vacuum specifications for plastic hoses are exclusively linked to a temperature of +20 °C of the medium and environment. If the temperatures of the medium or environment deviate, compliance with the specified technical properties cannot be guaranteed.

Influence of solar radiation on PVC hoses

- Solar radiation might attack PVC hoses and destroy them over time. This effect depends on the duration and intensity of the solar radiation, normally lower in Northern Europe than in Southern Europe. That is why an exact period cannot be indicated.
- The embrittlement of plastic hoses due to UV radiation can be greatly reduced by adding special UV stabilisers, but cannot be completely prevented. For the stabilisers are also used up with UV radiation persisting.

Pressure and vacuum behaviour of hoses

- Real pressure hoses are all those having a fabric as a pressure carrier. All types of hoses with reinforcing plastic or steel spirals are first and foremost to be considered as vacuum hoses.
- Considering all types of hoses, it is important to point out that they can alter their length and diameter or be twisted even within the indicated range of pressure and vacuum values. Even under laboratory conditions, hoses with a fabric as a pressure carrier might normally alter their length and diameter by up to 5 %. That is why all operating conditions that deviate from the standard exert an additional influence on the products and their behaviour.
- All hoses reinforced with a spiral not made of polyester canvas, suitable as pressure hoses to a very limited extent, are primarily intended for vacuum applications. Due to the construction, a change in the length of these hose types of up to 30 % is always possible during use, even within the specified pressure and vacuum values.
- The user must consequently consider all possible alterations in length and diameter and all possible axial twists of the hoses that he applies. Hoses must not be fixed at short intervals like pipes under operating conditions, but must always be able to move freely. In the ground, hoses may only be laid in sufficiently large empty pipes. When doing so, the user must consider all possible geometric alterations during application of the hoses.
- It is strongly recommended to perform tests to determine the behaviour of the individual hose and to lay them consequently.

- With a spiral-reinforced hose used, increasing length and twisting caused by overpressure at the same time leads to a reduced inside diameter. With steel-spiral-reinforced hoses used, the spiral cannot entirely follow the decrease of the inner diameter. That is why the spiral might penetrate the wall of the hose, thus destroying the latter.
- For long-term overpressure use, it is generally recommended to apply hoses with fabric as actual pressure carrier. This prevents an excessive increase in length. The specified bursting-pressure values for compressed-air and pneumatic hoses have been determined according to DIN EN ISO 1402.-7.3 at approx. 20 °C and with water serving as pressure medium.

Dimensions

Normally, when speaking of hoses, the inside diameter is given, while pipes (e.g., size 910, 920, and 925) are distinguished by giving the outside diameter. For the sake of completeness, we also indicate the wall thickness for almost all products.

Underpressure (vacuum)

This value is the determined vacuum that a hose can withstand without flattening, separating of the liner, or separating of the layers. The specification is always based on the international standard DIN EN ISO 7233.

Bend radius

- The bend radius is the radius of the smallest drum that the hose can be rolled up on without the diameter altering in comparison to one of the initial form of the hose. The test is in each case carried out in accordance with the standard applicable to the product.
- For your hose to reach a long service life, you should respect the following points: Select the hose to be applied considering the rated maximum operational pressure. The hose should never be deformed by force (e.g., kinked, squeezed, rolled over by vehicles, twisted, etc.). Avoid that the hose be laid on rough ground or pulled over sharp edges. The hose should not be constantly kinked at the couplings or subjected to excessive tensile stress. Avoid that the unprotected hose ends get into contact with the medium transported.
- By draining and thorough cleaning, the service life of a hose can be considerably extended.

Technical specifications

Material	Hose: soft PVC; spiral: hard PVC
Colour	Black
Tolerance	DIN 1307
Conformity	REACH: according to 1907/2006/EC; RoHS: according to 2011/65/EU
Spiral orientation	Rightward
Temperature range (°C)	-10–+65

Item number	92930–92932, 92945–92947	92722, 92723, 92727, 92728, 92783	92933–92935, 92948–92950	92936–92938, 92951–92953	92939–92941, 92954–92956	92942–92944, 92957–92959
Inner diameter (mm)	19 (¾″)	25 (1″)	32 (1¼″)	38 (1½″)	40 (1½″)	50 (2″)
Outer diameter (mm)	23.8	30	38	44.4	46.4	57
Wall thickness (mm)	0.7	0.8	0.8	0.8	0.9	0.9
Total thickness (mm)	2.4	2.8	3	3.2	3.3	3.6
Spiral gradient (mm)	7	7.2	8	8.2	8.5	10
Length density (kg/m)	0.11	0.165	0.205	0.26	0.27	0.435
Bending radius (mm)	19	25	32	38	40	50
Vacuum range (bar)	0.39	0.39	0.34	0.29	0.29	0.29

Important Note: