

realax

Hoses and tubes for APY, ISI, IP and RP series



Realax hoses & tubes specification

Hose pumps, also called peristaltic pumps, are excellent for moving a wide variety of fluids efficiently and with great dosing accuracy. They are particularly suitable for viscous, abrasive and shear sensitive liquids. Since the pump wear is concentrated on the hose – which is quick and inexpensive to replace in situ – the hose is the most essential part of the pump.

To maintain a long life time of the hose / tube, you need to consider:

- The liquid being pumped (chemical resistance)
- Content of solids
- Viscosity
- Temperature
- Suction lift
- Speed
- Selection of the hose material

Fitted for the purpose

- Suction lift up to 9,5 m
- High pressure capability up to 15 bar
- Excellent dosing capabilities
- Precise wall thickness without extra machining
- Exceptional fibre reinforcement density for longer life time
- Optimum reinforcement layers
- Wide range of materials resistant to the pumped media
- Food grade hoses
- Abrasive resistant
- Handling of high viscous liquids
- Suitable for high solid concentration up to 80%

realAx | Hose specifications



NR natural rubber

Colour code: black stripe

Most common hose type with excellent performance and hose life. Resistant to highly abrasive products.

Temperature range -20/70 °C. Over 75% of the peristaltic applications can be applied with this hose type.

Inner core black, smooth, very tough nylon inlay. Cover black. Wound structure highly abrasion resistant. This hose is particularly suited for all lightly corrosive chemicals and neutral products with abrasive contents. Not suitable for oily and fatty chemicals and foodstuffs.



NR-A natural rubber

Colour code: black stripe

Food grade NR hose. Inner core in butyl is white/cream, particularly suited for feeding alcoholic and non-alcoholic drinks, drinking water, milk and other non-oily or non-fatty products. Resistant to highly abrasive products. **Temperature range -20/70 °C.**

Reinforced by two very tough nylon inlays. Cover, as with natural rubber hose, black and highly abrasion resistant.



NBR black

Colour code: red stripe

This hose is a Buna hose, particularly suited for all oily and fatty products.

Suitable for products containing hydrocarbons.

Temperature range -20/70 °C. Core in Buna N (Nitril rubber) and reinforced with very tough nylon inlays. The cover consists of SBR/NR.



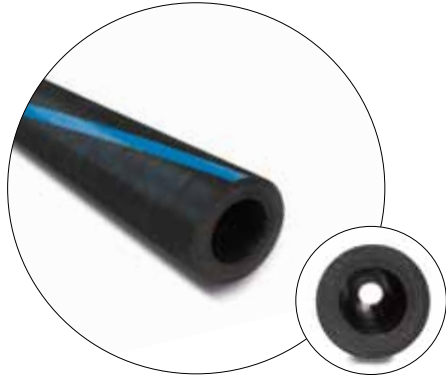
NBR-A black

Colour code: white stripe

This hose is the food grade Buna hose, particularly suited for food products, containing oily and fatty products and cleaning products. **Temperature range -20/70 °C.** The hose is reinforced with very tough nylon inlays.

The cover consists of SBR/NR in black and is coiled. This hose is produced in accordance with FDA Specifications Title 21 – Part 170-199, item 177.2600, certified with laboratory tests.

realAx | Hose specifications



EPDM

Colour code: blue stripe

This hose is particularly suited for corrosive chemicals, however it has also an excellent track record in transporting sewage water contaminated with solvents. **Temperature range -20/70 °C.** The core is EPDM, black and smooth. This hose too is reinforced by very tough nylon inlays.



CSM

Colour code: green stripe

This hose is made of Chlorinated and sulfonated rubber. It has an excellent chemical resistance to strong concentrated acids and bases, ozone and other oxidant substances. **Temperature range -20/70 °C.**



Norprene A60F and A60G

Colour code: none

This non-reinforced tube is for food applications with low pressure ratings. It's a thermoplastic food grade tube. **Only available for APY series, ISI series, and IP-40 model. Norprene A60F is available for IP-30, IP-50 and IP-60. The maximum pressure is 2 bars. Temperature range -30 up to 110 °C,** and wide range of chemical compatibility. CIP (Clean-in-Place) resistant.

Wide range of hoses & tubes for wide range of applications



realax | Hose specifications

Pressure rating up to 8 bar

Hose materials: NR, NR-A, NBR, NBR-A, EPDM, CSM

	Pump models								
	ISI 10	ISI 13	ISI 16	ISI 22	IP 30	IP 40	IP 50	IP 60	IP 70
Outer diameter (mm)	22	25	30	40	55	63	67	90	100
Hose length (mm)	380	380	526	706	850	1030	1250	1380	2165

Pressure rating up to 15 bar

Hose materials: NR, NR-A, NBR, NBR-A, EPDM, CSM

	Pump models						
	RP 25	RP 32	RP 40	RP 60	RP 70	RP 80	RP 100
Outer diameter (mm)	55	62	67	90	100	120	144
Hose length (mm)	850	1030	1250	1380	2165	2560	2995

Hose Components:

- inner layer, which has to be resistant to the pumped product
- outer layer which must be resistant to the compressions and friction
- nylon reinforcement layers which are designed to withstand the pressure and compression to re-open the hose again.

Thinner and denser reinforcement for longer hose life

Realax hoses have thinner and denser fibre nylon reinforcement which very efficiently distributes the stress forces on the hose and thus postpones the hose fatigue - the number one cause of hose delamination.

Realax hoses are produced with controlled wall thicknesses over the full length of the hose; therefore no additional surface machining is required.

Hose lifetime:

Hose lifetime is influenced by a number of factors such as the number of compressions, pressure, temperature, material selection of the hose and chemical resistance of the product.

The number of compressions depends on the operating speed, the lower the speed the longer hose life. Low pressure and/or low temperature mean longer hose life too. For lower pressures the realax pumps have been developed with rollers to generate less internal heat in the hose. That is why realax hose pump range includes both roller (series APY, IP, ISI) and pressing shoe technology (series RP). Rollers have less friction on the hose and thus generate less internal heat in the pump, they use less motor power and have excellent hose life. The only limitation is the maximum pressure of 8 bar. Use the correct type of grease for optimum hose life time.

The pressing shoe technology is designed for applications up to 15 bar. Important is here to use the correct type of lubricant as this keeps the friction between hose and shoe as low as possible, other type of lubricant will shorten the hose lifetime.

The optimum hose life can be achieved with fresh hoses, so store the hoses with "first in first out" procedure. Store the replacement hoses cool and dark, this indicates not in direct contact with sun light or UV-light.

realAx | Tube specifications



Silicone

Colour code: none

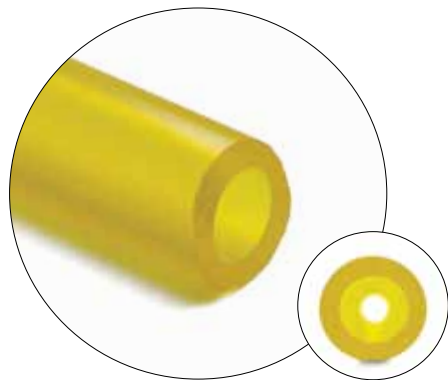
This is a non-reinforced tube and is widely used for single-use biopharm applications, as well as pH control and media feed in fermentation, metering, transfer and filtration applications. Only available for APY series, **The maximum pressure is 2 bars. Temperature range -10 up to 135°C.**



Tygon

Colour code: none

This is a non-reinforced tube. Tygon tubing is used in many markets, including food and beverage, chemical processing, industrial, laboratory, medical, pharmaceutical, and semiconductor processing. Only available for APY series, **The maximum pressure is 2 bars. Temperature range -10 up to 70°C.**



Solva

Colour code: none

This is a non-reinforced tube. Solva is solvent resistant, its characteristic allows it to be used for aromatic oils, solvents, petroleum compounds, inks and many other applications. It is also phthalate-free, meeting the modern requirements of tubing under REACH regulation. Solva exhibits comparable chemical resistance properties to Viton tubing, but is more competitively priced due to the use of PVC material. Only available for APY series, **The maximum pressure is 2 bars. Temperature range -10 up to 70°C.**

Suitable for all types of products – viscous, abrasive, shear-sensitive



MAYONNAISE



POTASH



DAIRY PRODUCTS



ACIDS



DETERGENTS



SLUDGE



MORTAR

Pressure rating up to 2 bar

Hose materials: Silicone, Norprene A-60-F and A-60-G, Solva

	Pump model				
	APY 1.6	APY 3.2	APY 4.8	APY 6.4	APY 8.0
Outer diameter (mm)	6.4	8	9.6	11.2	12.8
Hose length (mm)	500	500	500	500	500

Note: Solva and Norprene A60G tubes are not to be used for APY 1.6

Pressure rating up to 2 bar

Hose materials: Tygon, Silicone and Santoprene

	Pump model					
	APY 0.8	APY 1.6	APY 3.2	APY 4.8	APY 6.4	APY 8.0
Outer diameter (mm)	4	4.8	6.4	8	9.6	11.2
Hose length (mm)	500	500	500	500	500	500

Note: Tygon tubes are not to be used for APY 0.8. Please use only Silicone and Santoprene tubes for APY 0.8

Lubricants for APY, ISI, IP roller designed pumps



The lubricant is a silicone based grease composed for the best lubrication properties. The grease is classified as food grade and environment friendly. Grease with NSF registration number is also available. The original relax grease ensures optimum lubrication properties.

Lubricants for RP shoe designed pumps



The lubricant is a glycerin based lubricant, composed for the best lubrication and cooling properties. The original relax lubricant ensure optimum hose lifetime. The lubricant is food grade and environment friendly. Lubricant with NSF registration number is also available.

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ALL THE HOSE PUMP YOU'LL EVER NEED

www.realaxpumps.com

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