## SR10/50 Series



#### **FEATURES**

- > Speed reduction through frictional connection from the motor shaft to the rollers
- > Very simple construction with the use of few parts only
- > Easy change of the cassette
- > Generally 3 rollers
- > For short time operation only
- > Different motors available (DC, low cost DC, AC and stepper motor)

# BASE MODEL

DC Standard



### **TYPICAL APPLICATIONS**

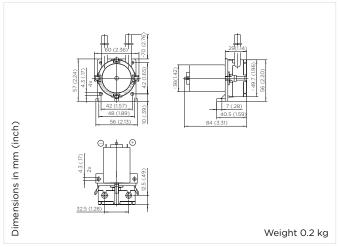
- > Transfer of fluids in bioprocessing
- > Dispensing of reagents in in-vitro diagnostics (IVD)
- > Dispensing of detergent in washers / disinfectors
- > Dispensing of foods and beverages



## SR10/50 DC Standard

#### 12/24 V For short time operation only 52 - 220 ml/min





Tubing Novoprene		Tubing PharMed BPT*		Tubing dimensions	Flow <sup>2)</sup>	
12 V DC	24 V DC	12 V DC	24 V DC	mm	ml/min	
20500501	20500505	20500702	20500705	2.4 x 1.6	100	
20500502	20500506			3.2 x 1.6	170	
20500503	20500507			4.1 x 1.6	220	
		20500703	20500706	4.0 x 1.6		

Tubing Silicone		Tubing PharMed BPT*		Tubing dimensions	Flow <sup>1)</sup>	
12 V DC	24 V DC	12 V DC	24 V DC	mm	ml/min	
20500602	20500606			2.5 x 1.6	100	
20500603	20500607			4.0 x 1.6	220	

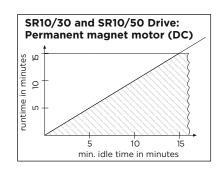
Duty cycles	
Tube	lifetime
Novoprene	500 h <sup>3) 4)</sup>
PharMed BPT®	500 II-7 -7
Silicone	200 h <sup>3) 4)</sup>
D	rive
DC Standard Motor	1000 h

1) on request in white Option: Straight flange for flush mounting part number 20501 ... 12/24 V DC - with additional circuit board (on request)

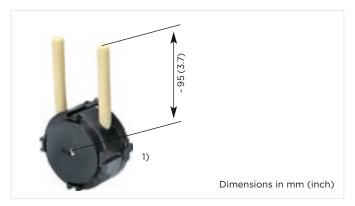
Current consumption depending on the tubing diameter, at free flow and nominal voltage  $$12\ V\ DC:\ 0.4-0.54\ A$$$  24 V DC: 0.2 - 0.27 A

- Note: The indicated values are average measured with water.
   The actual values depend on different parameters like quality and age of tubing, pressure of tubing beds, pressure ratios, viscosity.
- 3) Change the complete cassette. We recommend to roughen the shaft in axial direction when changing the cassette (sand paper grit size 150). If the pump is stored longer than three months, we recommend to take the cassette off the motor shaft and store it separately.
- 4) Ø 4 inner diameter on request

2050... Stock programme



# **Spare parts SR10/50 series**



Tubing	Diameter x wall thickness	Part number
Novoprene	2.4 x 1.6 mm	92050576
Novoprene	3.2 x 1.6 mm	92050577
Novoprene	4.1 x 1.6 mm	92050594
PharMed BPT®	24 x 16 mm	92050586
PharMed BPT®	4.0 x 1.6 mm	92050587
Cili	0.0 1.0	00050501
Silicone	2.0 x 1.6 mm	92050581
Silicone	2.5 x 1.6 mm 4 0 x 1.6 mm	92050582
Silicone	4.0 X 1.6 mm	92050583

Tubing dimensions
1.5 x 1.0 mm
Inner Ø Wall thickness

# **General Tubing Information**

Tubing Properties				
Tube	Characteristics	Limitations		
Novoprene	Standard tubing for the SR10/30, SR10/50 and SR25 Long lifetime Wide range of applications	May swell up with oil or oily liquids		
PharMed BPT™	High quality for medical, laboratory and research use Homogeneous structure and therefore comparatively better chem. resistance Autoclavable Biocompatible Long lifetime			
Silicone	Suitable for polar solvents (with the exception of chlorinated aliphatic and aromatizised hydrocarbon) No detachment of softening agents Very stable elasticity over a wide temperature range (-30 bis 180 °C)	Not recommended with strong acids or alkaline solutions Swells up in many organic solutions		

Choice of tubi	ng depending on flow	medium			
		Novoprene	PharMed BPT	Silicone	
Acids	weak medium strong	very good good not recommended		good unsatisfactory not recommended	
Alkaline solution	weak medium strong	very good good not recommended	very good very good good	good unsatisfactory not recommended	
Hydro- carbons	aliphatic aromatizised halogenated	not recommended			
Standards/ physiological behaviour		basis material meets FDA (21 CFR 177.2600) doesn't fulfill the EU food requirement 2002/72/EC	USP, class VI ISO 10993 Parts 4,5 and 11	physiologically inert	
Chemical structure		thermoplastic elastomer on PP-Basis with cross linked EPDM parts	thermoplastic elastomer on PP-Basis	high cross linked Polysiloxane with anorganic fillers	

# **Chemical Compatibility**

	N	Ph/Nor	S		N	Ph/Nor	S
A t -   -   -   -   -				Llandra man in anna dala			
Acetaldehyde	C	С	С	Hydrogen peroxide	A	A A	С
Acetate	A	В	D	Hydrogen sulphide	A	В	C
Acetic acid		A	A	Isoprophyl alcohol	A		A
Acetic anhydride	A	A	C	Jodine	A	A	С
Acetone	C	C	A	Kaliumhydroxyde	A	A	С
Aluminium chloride	A	A	D	Ketones	C	C	-
Aluminium sulfate	A	A	A	Lactic acid	A	A	С
Ammonia	A	A	С	Magnesium chloride solution	A	A	A
Amyl acetate	С	В	С	Mercury salts	A	A	С
Amyl alcohol	A	С	С	Methanol	A	A	A
Amyl chloride	C	C	С	Methyl ethyl ketone	В -	C	С
Aniline	Α	В	С	Nitrous acid 10 %	В	Α	С
Aqua regia	С	С	С	Oil, animal	В	В	В
Arsenic acid	C	C	A	Oil, hydraulic	C	C	D
Barium hydroxide	А	А	А	Oil, linseed	В	В	Α
Benzaldehyde	С	С	С	Oil, mineral	С	С	С
Benzene	С	С	С	Oil, vegatable	С	В	Α
Benzoic acid	Α	В	В	Oleic acid	С	С	С
Benzylalcohol	-	А	В	Oxalic acid	В	В	В
Bleaching agent	В	Α	Α	Paraffins	С	С	-
Boric acid	Α	Α	Α	Perchloric acid	С	С	С
Break liquid	Α	Α	Α	Perchloroethylene	С	С	С
Bromine	С	С	С	Petrol	С	С	С
Butane	Α	Α	С	Phenol	Α	Α	С
Butanol	В	С	С	Phosphoric acid, 25 %	А	А	С
Calcium hypochlorite	А	А	В	Photograpic solutions	В	В	Α
Carbon disulphide	С	С	С	Phtalic acid, 9 %	-	А	Α
Chloracetic acid	А	В	-	Potassium salts	А	А	Α
Chlorine, liquid	С	С	С	Pyridine	С	С	С
Chlorobenzene	С	С	С	Soap solution	А	А	Α
Chloroform	С	С	С	Sodium carbonate	А	А	Α
Chromic acid 50 %	С	С	С	Sodium chloride	А	А	Α
Chromium salts	А	А	С	Sodium hydroxide 40 %	А	А	В
Citric acid	В	В	А	Sodium hypochlorite <5%	А	А	В
Cyclohexane	С	С	С	Sodium hypochlorite 12 %	А	А	В
Diesel fuel	С	С	С	Sodium salt	А	А	А
Ethanol	А	А	С	Stearic acid, 5 %	В	А	В
Ether	С	С	С	Sulphurdioxide, wet gas	A	А	В
Ethyl alcohol	A	A	A	Sulphuric acid, 30 %	A	A	С
Ethyl chloride	A	A	С	Sulphuric acid, 75-100%	C	C	С
Ethylene glycol	-	Α	A	Sulphurtrioxide	-	В	-
Ferric sulfate	А	A	A	Tannic acid	А	В	А
Fluor silicium acid	C	C	_	Tetrahydrofurane	C	С	C
Fluoroboric acid, 48 %	В	В	_	Toluole	С	С	С
formaldehyde	В	С	В	Trichloroehtylene	В	В	С
Formanide	A	В	- -	Turpentine	С	С	С
Formic acid		В	A	Urea		A	
	A	С			A		Α
Furfural	C		-	Uric Acid	A	A	-
Hydrochloric acid Hydrocyanic acid	A A	A A	C C	Xylene Zinc chloride	C B	C B	C B

A = small or no effect

B = minor or moderate effect C = severe effect

D = no reliable data, please test before use

- = no available data

The material resistance is influenced by temperature and concentration of the medium. The data have to be seen as indications and do not guarantee the material properties.

Norprene®, PharMed BPT®, Norton Co. Reg. TM's,



#### PUMP AND COMPRESSOR SOLUTIONS FOR OEMS WORLDWIDE



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