Principle of Operation

This pump is a positive displacement pump and is used to pump a large variety of fluids.

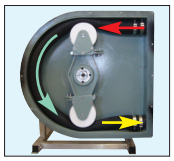
The fluid is contained in an elastomeric hose mounted inside a semi-circular shaped pump housing.

A rotor arm allow a number of rollers to totally compress and close the internal of the hose when passing.

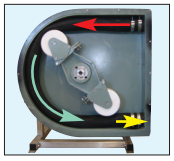
The passing motion force the fluid in front of the roller to move in the same direction as the roller.

As the hose behind the roller return to its natural state, fluid is again induced into the hose.

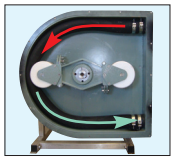
This process is named "peristalsis", thus the pump is named a peristaltic pump.



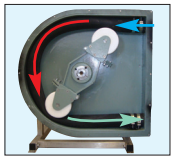
The roller compress the hose and force the fluid forward.



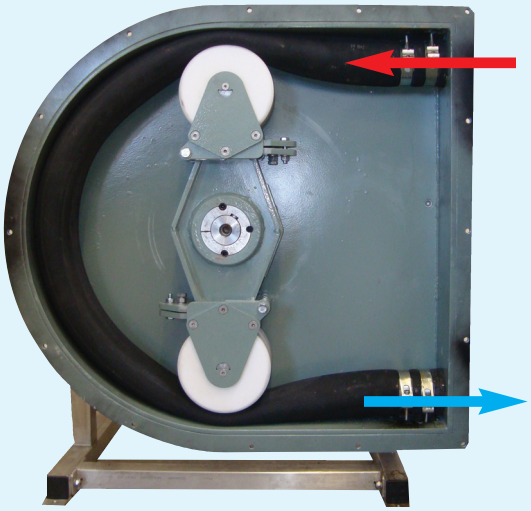
As the hose behind the roller return to its natural state, fluid is again induced into the hose.



When a fluid segment is forced forward another is induced into the hose.



Each 180° the opposite rollers compress the hose in two places and the motion is continued.



As the fluid is only in contact with the hose no cross contamination will occur.

Pump Capacity per Rotation

Model	Size	DN	Ø	Gal / r	m³ / r	Liter / r
LSM-010	¼"	10	10	0,01	-	0,05
LSM-015	½"	15	15	0,03	-	0,11
LSM-020	¾"	20	19	0,08	-	0,314
LSM-025	1"	25	25	0,14	-	0,54
LSM-032	1¼"	32	32	0,33	-	1,26
LSM-040	1½"	40	40	0,63	-	2,37
LSM-050	2"	50	50	1,14	-	4,31
LSM-065	2½"	65	65	2,55	-	9,66
LSM-080	3"	80	80	4,14	0,016	15,66
LSM-100	4"	100	100	8,15	0,031	30,83
LSM-125	5"	125	125	12,8	0,048	48,3
LSM-150	6"	150	150	22,0	0,083	83,3
LSM-200	8"	200	200	50,6	0,192	191,7

Gal = Gallons r = Rotation m³ = Cubic meter

Pump Capacity by Size

Peristaltic Hose Pump				GPM							m³/h						
Model	Size	DN	Ø	10	20	30	35	40	50	57	10	20	30	35	40	50	57
LSM-010	¼"	10	10	0,1	0,3	0,4	0,45	00,5	0,7	0,8	0,03	0,06	0,09	0,105	0,120	0,150	0,171
LSM-015	½"	15	15	0,3	0,6	0,9	1,0	1,2	1,5	1,7	0,066	0,132	0,198	0,231	0,264	0,330	0,376
LSM-020	¾"	20	19	0,8	1,7	2,5	2,9	3,3	4,1	4,7	0,188	0,377	0,565	0,659	0,754	0,942	1,074 -
LSM-025	1"	25	25	1,4	2,9	4,3	5,0	5,7	-	-	0,324	0,648	0,972	1,134	1,296	-	-
LSM-032	1¼"	32	32	3,3	6,7	10,0	11,7	13,3	-	-	0,756	1,512	2,268	2,646	3,024	-	-
LSM-040	1½"	40	40	6,3	12,5	18,8	21,9	25,0	-	-	1,422	2,844	4,266	4,977	5,70	-	-
LSM-050	2"	50	50	11,4	22,8	35,3	39,9	-	-	-	2,586	5,172	7,758	9,051	-	-	-
LSM-065	2½"	65	65	25,5	51,0	79,1	89,3	-	-	-	5,80	11,60	17,40	20,3	-	-	-
LSM-080	3"	80	80	41,4	82,7	128	145	-	-	-	9,40	18,80	28,2	32,9	-	-	-
LSM-100	4"	100	100	81,5	163	253	285	-	-	-	18,50	37,0	55	65	-	-	-
LSM-125	5"	125	125	128	255	383	450	-	-	-	29	58	87	102	-	-	-
LSM-150	6"	150	150	220	440	660	-	-	-	-	50	100	150	-	-	-	-
LSM-200	8"	200	200	507	1014	1322	-	-	-	-	115	230	300	-	-	-	-

Factory recommended max. pump speed (rpm)