## LS Laboratory Systems



The LS Series refrigerators are uniquely designed for large vial capacity in convenient box-type storage racks and at the same time keep  $N_2$  consumption to a minimum.

This results in low operating costs and fewer refills. The rectangular shape of the racks for  $5 \times 5$  or  $10 \times 10$  cryoboxes makes it easier to maintain an overview of and identify stored samples. As a result, samples can be located and removed more easily and faster.

The four vessels cover a range from 750 to 6,000 2 ml vials. The compact LS 750 can be used with either racks or with canisters.

The LS 3000, LS 4800 and LS 6000 models can be equipped with automatic level control (see pp. 8 and 9) and they can be supplied with CE mark in compliance with the Medical Devices Directive (MDD 93/42EC).

These models can also be used for storage in either the vapor or liquid phase. In case of storage in the vapor phase, the two bottom shelves must be left empty, which reduces the capacity (see table on p. 25). The use of level controller is recommended.

## » Large-capacity vessels for box-type storage with low nitrogen consumption «



SPECIFICATIONS						
Models		LS 750	LS 3000	LS 4800	LS 6000	
S tatic holding time (1)	Days	130	106	162	194	
Working time (2)	Days	80	66	102	120	
E vaporation rate (1)	I/24 h	0,27	0,76	0,80	0,84	
LN <sub>2</sub> capacity (3)	I	35	81	130	165	
Weight, empty	kg	17,7	31,8	40,9	55,0	
Weight, full (3)	kg	46,0	97,4	1 46,1	186,4	
N eck diameter	mm	119	216	216	216	
0 verall hei <b>g</b> ht	mm	681	731	892	991	
0 verall diameter	mm	478	683	683	683	
Number of 2 ml vials		750	3.000	4.800	6.000	
Cryobox dimensions	mm	76 x 76	132 x132	132 x 132	132 x 132	
N umber of vials per cryobox		25	100	100	100	
C apacity for vapor phase storage		-	1.800	3.600	4.800	

<sup>(1)</sup> E vaporation rate and holding time are nominal. A ctual rate may be affected by the nature of the contents, atmospheric conditions, container history and manufacturing tolerances

ACCESSORIES (see pp. 8/9 + 26)						
R oller base	R 033-8C 00W	R 05K - 8C 00W	R 05K - 8C 00W	R 05K - 8C 00W		
Lowliquid level alarm	R 036-8C 30	R S 30K - 8C 40	R 05K - 8C 26	R S 60-8C 40		
CryoCon AF-1D auto. level controller	-	M 550K B - L S	M 550K B - L S	M 550K B - L S		
CryoCon AFT-3L auto. level controller	-	M 505K B OX-L S	M 505K B OX-L S	M 505K B OX-L S		

The roller base increases the overall height of the vessel by 110 mm Installation of a level controller adds an extra 200 mm to the overall height

<sup>(2)</sup> Working time is an arbitrary, reference-only value to estimate container performance under the actual operating conditions

<sup>(3)</sup> Without canisters or racks