



AL SERIES

MODELS 8, 12, 16, 20,
29, 30, 39, 40, & 49



AL40

AL20

AL39

AL29

AL30

The AL Series is a complete line of liquid nitrogen containers for the storage, shipment and distribution of biological samples, vaccines, semen, and any other items requiring direct immersion in liquid nitrogen.

Ampule capacities ranging from 252 to 2124 (1.0cc) and field holding times ranging from 4 to 16 weeks make the AL Series suitable for a multitude of applications.

The Model AL-29 is designed for 16 week refills under normal field conditions. The Model AL-49-6 will hold up to 2124 1.0cc ampules on 6 ampule canes.

The continuing expansion of the "AL Series" is another example of MVE's involvement and willingness to satisfy exact customer needs.

ALL UNITS CARRY A TWO (2) YEAR WARRANTY.

AL-49 is a new unit available in 6 or 10 canister models. An added feature is a locking lid.



STORAGE UNITS • FIELD UNITS • SHIPPERS • SUPPLY UNITS

Minnesota Valley Engineering

407 7TH ST. N.W., NEW PRAGUE, MINNESOTA 56071 U.S.A. TELEPHONE 612-758-4484 TELEX NO. 29-0571

3/76



AL SERIES MODELS 8, 12, 16, 20, 29, 30, 39, 40, & 49

Special canisters, 4-3/4 inches high, are available at no additional charge over normal canisters for the storage of straws.

Listed are the Model AL-8, 12, and 16. These units are designed to hold only the 4-3/4 inch high canisters mentioned above. The overall height of these units has been held down so they will fit more conveniently into the compact cars most commonly used in foreign countries.

The performance characteristics of the AL-Series containers are shown in terms of expected static LN₂ consumption and holding times. The normal field working duration is the normal interval between refills of liquid nitrogen after allowances have been made for sample displacement and removals.

SPECIFICATIONS

		AL-29	AL-20	AL-30	AL-40	AL-39	AL-49 (6/10)		AL-3	AL-8	AL-12	AL-16
Specimen Canister Size												
Outside Diameter	inches	1-1/2	1-1/2	2	2-1/4	2-13/16	4	2-13/16	1-1/2	1-1/2	1-1/2	2
	mm	38	38	51	57	71	102	73	38	38	38	51
Height	inches	10-1/2	10-1/2	10-1/2	10-1/2	11	11	11	4-3/4	4-3/4	4-3/4	4-3/4
	mm	267	267	267	267	279	279	279	121	121	121	121
Maximum Number of Canisters		6	6	6	6	9	6	10	6	6	6	6
Working Capacity												
1cc ampules on 6 ampule canes		252	252	504	684	1512	2124	1680	—	—	—	—
1/2cc ampules on 8 ampule canes		432	432	816	1056	2520	3216	2800	—	—	—	—
1/2cc straws, 1 level bulk		732	732	1464	1644	4356	6732	4840	732	732	732	1464
Gross Volume	liters	30.8	20.7	32.3	41.2	41	44.6		3.6	8.4	13.9	16.4
Weight Empty	lbs	29	22	28	31	32	34		7.9	11.7	17	14
	kg	13.2	10.0	12.7	14.1	14.5	15.4		3.6	5.3	7.7	6.4
Weight Full	lbs	84	59	85	104	105	112		14.3	26.7	41	43
	kg	38.1	26.8	38.6	47.2	47.6	50.8		6.5	21.1	18.6	19.5
Height	inches	24	22-3/4	24-1/4	23	24	24		16	18-1/2	18	17-1/2
	mm	610	578	616	584	610	610		406	470	457	444
Outer Diameter	inches	17-1/4	14-3/4	17-1/4	18-1/2	18-1/2	18-1/2		8-3/4	10-1/4	14-3/4	17-1/4
	mm	438	375	438	470	470	470		222	260	375	438
Neck Tube Opening	inches	2	2	2-1/2	2-3/4	3-1/2	5		2	2	2	2-1/2
	mm	51	51	64	70	89	127		51	51	51	64
Static LN ₂ Consumption	(liters per day)	.16	.18	.21	.25	.33	.48		.16	.17	.22	.21
Static Holding Time	(days)	192	113	152	162	125	93		25	49	63	77
Normal Field Working Duration	(weeks)	16	8	12	12	8	6		2	3	4	6

ALL UNITS CARRY A TWO (2) YEAR WARRANTY