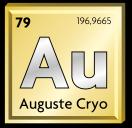
## **AC Medical Family**





Auguste Cryogenics

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#### Auguste Cryogenics introduces their new AC Medical product line of aluminum insulated vessels.

This family of products has been engineered for maximum hold time and low nitrogen consumption. Static hold times range from 3 weeks to greater than 12 weeks depending on the design specifics. These light weight dewars are protected with the GOLD standard vacuum integrity and multilayer Super Insulation technology.

Auguste Cryogenics offers a complete system for your cryo-preservation requirements. Best in class Microbulk and liquid cylinder storage solutions can be integrated into a complete nitrogen supply network. Our AC Medical vessels support every industry from livestock breeding, medical, pharmaceutical and various industrial applications such as food processing or cryo-tempering. Depending on the application and temperature requirements the biological material can be stored in the liquid phase or in the vapour phase of the vessel's reservoir.

- The L, XL and 2XL models differ in the neck opening diameter and are configured for high capacity storage of tissue fragments in sterilized straws. The 2XL and 3XL series with still bigger neck tube diameters are designed for racking systems which are suitable for vials and specimen bag inventory systems.
- The T designation denotes a special ruggedized version that conforms to ADR regulations for the transportation of the contents on public roads or rail systems.
- The vessels in the LIN lineup are used for storage and distribution of small quantities of liquid nitrogen as needed.
- The DS dry shipper product line completes the AC Medical Family. The vessels are equipped with special material
  that completely absorbs the nitrogen so no liquid remains in the container for safe shipment by road, rail and air
  without any risk of spilling. Each vessel in the AC Medical DS line meets the ADR requirements.

All vessels of the Auguste Cryogenics Medical Family can be designated as Class IIa MDD medical products compliant with the European Unions Medical Device Directive 93/42/EEC Appendix IX.

AC Medical Family cryogenic storage vessels with canisters for the storage of straws		AC L2 (1)	AC L2-S (2)	AC L3-S	AC L6	AC L10	AC XL10	AC L13	AC L15	AC XL15	AC L20	AC L20T	AC XL20	AC L25	AC XL25	AC L30	AC L30T	AC XL30	AC XL30T	AC 2XL30	AC L35	AC L35T	AC XL35	AC XL35T	AC 2XL35	AC L50T	AC XL50T
LN2 capacity (liters)		2	2	3,1	6	10	10	13	15	15	20	20	20	25	25	31,5	31,5	31,5	31,5	31,5	35,5	35,5	35,5	35,5	35,5	50	50
empty weight (kg)		2,9	2,5	3,5	5	5,8	5,9	6,6	8,2	8,3	10,2	10,9	10,2	10,7	10,9	12,3	13	13,1	13,1	12,6	13,1	13,8	14,5	14,3	13,9	15,2	15,5
neck opening (mm)		30	35	50	50	50	80	50	50	80	50	50	80	50	80	50	50	80	80	125	50	50	80	80	125	50	80
outer diameter (mm)		224	195	224	300	300	300	310	394	394	394	394	394	394	394	461	461	462	461	461	461	461	462	461	461	461	461
over all height (mm)		378	410	429	476	536	540	610	575	593	656	656	674	700	706	655	656	710	656	659	695	695	754	698	700	770	766
static evaporation rate (liters/day)		0,07	0,08	0,12	0,12	0,12	0,21	0,12	0,11	0,21	0,12	0,2	0,21	0,12	0,21	0,21	0,2	0,21	0,3	0,35	0,12	0,2	0,22	0,3	0,37	0,23	0,34
static holding time (days)		28	24	26	52	86	48	109	134	71	168	101	95	208	119	254	159	147	106	90	286	179	159	119	97	213	147
canister diameter (mm)		19	25	38	38	38	63	38	38	63	38	38	63	38	63	38	38	63	63	97	38	38	63	63	97	38	63
canister height short (mm)	AC xxx-S	120	120	120	120	120	120		120	120	120	120	120	120	120	120	120	120	120	129	120	120	120	120	120	120	120
canister height long (mm)	AC xxx-L							276			276	276	276	276	278	276	276	276	276	276	276	276	276	276	276	276	276
canisters		3	3	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
straw holding capacity	0,25 ml	204	330	1788	1788	1788	5022		1788	5022	1788	1788	5022	1788	5022	1788	1788	5022	5022	11952	1788	1788	5022	5022	11952	1788	5022
short canisters (AC xxx-S)	0,5 ml	90	165	792	792	792	2244		792	2244	792	792	2244	792	2244	792	792	2244	2244	5124	792	792	2244	2244	5124	792	2244
straw holding capacity	0,25 ml							1284		8466	2832	2832	8466	2832	8460	2832	2832	8460	8460	19944	2832	2832	8460	8460	19944	2932	8460
long canisters (AC xxx-L)	0,5 ml							2932		3624	1284	1284	3624	1284	3624	1284	1284	3624	3624	9048	1284	1284	3624	3624	9048	1284	3624
ADR		✓	✓	✓	✓	✓	✓	×	×	×	×	✓	×	×	×	×	✓	*	✓	×	×	✓	×	<b>√</b>	×	✓	<b>√</b>
Please add the desired canis	ter lenght d	esignati	on to th	e produ	ct name	when c	ordering	: AC xxx-	<b>S</b> for sh	ort canis	sters (12	20 mm) (	or AC xx	x-L for lo	ng cani	sters (27	'6 mm).										

### **Auguste Cryogenics**

AC Medical Family cryogenic storage vessels with racks and boxes for the storage of vials and bags	AC 2XL30-B	AC 2XL35-B	AC 2XL50T-B	AC 3XL65-B	AC 3XL95-B	AC 3XL115-B	AC 3XL145-B	AC 3XL175-B
LN2 capacity (liters)	31,5	35,5	50	65	95	115	145	175
empty weight (kg)	12,6	13,9	15,5	49	55	60	76,4	75
neck opening (mm)	125	125	125	216	216	216	216	216
outer diameter (mm)	461	461	461	681	681	681	681	681
over all height (mm)	659	700	753	765	774	850	940	1040
static evaporation rate (liters/day)	0,35	0,37	0,45	0,78	0,97	0,94	0,96	0,95
static holding time (days)	90	97	110	83	98	122	146	184
number of vials racks	6	6	6	6	6	6	6	6
dimensions of vials racks (mm)	82x84	82x84	82x84	142x144	142x144	142x144	142x144	142x144
dimensions of vial boxes (mm)	76x76	76x76	76x76	134x134	134x134	134x134	134x134	134x134
layers per vial rack	4	5	6	4	5	6	8	10
vials	700	875	900	1944	2430	2916	3888	4860
25 mm blood bag racks (single)	18	18	18	30	30	30	30	30
layers per 25 ml blood bag rack (single)	2	2	3	2	2	3	4	5
25 ml blood bags (single)	36	36	54	60	60	90	120	150
25 ml blood bag racks (multi)	7	7	7	7	7	7	7	7
layers per 25 ml blood bags (multi)	2	2	3	2	2	3	4	5
boxes per layer 25 ml (multi)	4	4	4	10	10	10	10	10
25 ml blood bags (multi)	56	56	84	140	140	210	280	350
50 ml blood bag racks (multi)					7	7	7	7
layers per 50 ml blood bag (multi)					2	3	4	5
boxes per layer 50 ml (multi)					8	8	8	8
50 ml blood bags (multi)					112	168	224	280
ADR	×	×	×	*	*	×	*	×

AC Medical Family LIN distribution vessels	AC LIN3	AC LIN6	AC LIN10	AC LIN20	AC LIN 20T	AC LIN30	AC LIN30T	AC LIN35	AC LIN35T	AC LIN50	AC LINSOT
LN2 capacity (liters)	3	6	10	20	20	30	31,5	35	35,5	50	50
empty weight (kg)	3,1	4,8	5,9	9,5	10,9	12,9	13	14,2	13,8	15,4	15,5
neck opening (mm)	50	50	50	50	50	50	50	50	50	50	80
outer diameter (mm)	223	300	300	394	394	462	461	462	461	462	461
over all height (mm)	435	482	552	672	656	706	656	750	695	811	766
static evaporation rate (liters/day)	0,12	0,12	0,12	0,12	0,2	0,12	0,2	0,12	0,2	0,23	0,34
static holding time (days)				168	101		159		179		147
ADR	✓	✓	✓	×	✓	×	✓	×	✓	×	✓

AC Medical Family dry shippers			AC DS3-L	AC DS6-S	AC DS8-S	AC DS10-L, AC DS10-B	AC DS15-B	AC DS20-B	AC DS25-B
LN2 capacity (liters)		1,3	5	2,9	3,2	3,4	6,5	9	25
empty weight (kg)	empty weight (kg)				6,2	5,9	8,5	9,7	
neck opening (mm)		50	50	80	80	125	216	216	216
outer diameter (mm)		223	223	300	300	300	393	394	
over all height (mm)		428	495	481	509	546	580	660	
static evaporation rate (liters/	day)	0,16	0,17	0,2	0,22	0,84	0,84	0,84	0,84
static holding time (days)		8	22	14	14	8	18	25	29
canister diameter (mm)		38	38	63	63	976			
canister height short (mm)		120		120	120	276			
canister height long (mm)	276	276							
canisters	1	1	1	1	1				
straw holding capacity	0,25 ml	298		1780	1780	3324			
short canisters (120 mm)	0,5 ml	112		820	820	1508			
straw holding capacity	0,25 ml	472	472						
long canisters (276 mm)	0,5 ml	214	214						
vial racks						1	1	1	1
dimensions of vial racks (mm)						82x84	142x144	142x144	142x144
dimensions of vial boxes (mm	)					76x76	134x134	134x134	134x134
layers per vial rack						3		4	5
vials						75	300	400	500
25 ml blood bag racks (multi)						1	1	1	1
layers per 25 ml blood bag (m	ulti)					2	1	2	3
boxes per layer 25 ml (multi)						3	15	15	15
25 ml blood bags (multi)					6	15	30	45	
50 ml blood bag racks (multi)					1	1		1	
layers per 50 ml blood bag (m					1	1		2	
boxes per layer 50 ml (multi)					3			15	
50 ml blood bags (multi)						3	15		30
ADR		✓	✓	✓	✓	✓	✓	✓	✓



## **AC Medical Family**

In 2016 **Auguste Cryogenics** acquired the European Operations of Taylor-Wharton International. Our production plant in Košice, Slovakia and the distribution center in Husum, Germany have influenced the European cryogenic industry continuously for more than 50 years. We carry the tradition of the people, practices and intellectual property for which the company has been built while investing in innovative solutions for tomorrow.

Auguste Cryogenics produces an extensive line of cryogenic storage equipment for mobile and stationary applications for the energy, medical and industrial markets. The energy portfolio ranges from LNG solutions to liquid hydrogen delivery systems. With our healthcare product line we can support the full range of applications from hospital oxygen supply to cryogenic tissue preservation. Auguste's industrial pressure vessels are used for every technical gas purpose imaginable. These vacuum insulated storage tanks are engineered to the limits of what is technically feasible.

**GOLD standard** vacuum technology is at the core of every vessel produced by **Auguste Cryogenics**. Our principle of complete thermal performance drives both inner and outer vessel design and material construction. You can't cheat the heat but we don't let it in.

See for yourself that we are building the **GOLD standard** in cryogenic storage equipment every day.

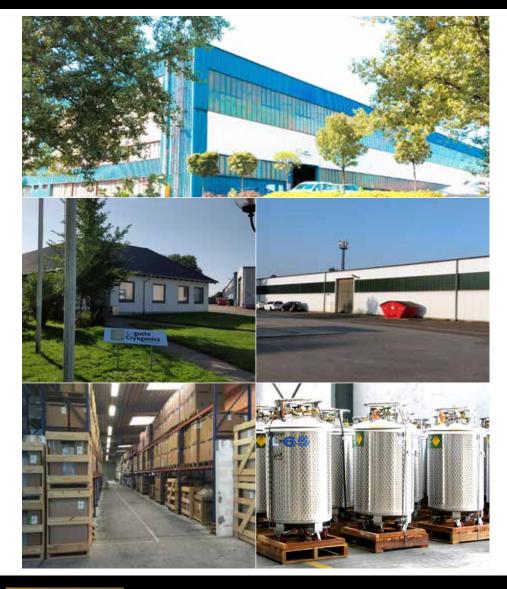
Continuity. Reliability. Quality. We are **Auguste Cryogenics.** 

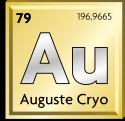
Visit our website at

www.augustecryogenics.com

Auguste Cryogenics Slovakia s.r.o. Vstupný areál U. S. Steel | 044 54 Košice | Slovakia Tel.: +421 55 7277124 | E-Mail: cs.eu@augustecryogenics.com

Auguste Cryogenics Germany GmbH Mildstedter Landstraße 1 | 25866 Mildstedt | Germany Tel.: +49 4841 985-120 | E-Mail: cs.de@augustecryogenics.com





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