

Technical department :
Specifications NC tank

Rev. : 0 From 28.04.1997.

A.E.B. Srl



TANK " N C "

5 US gallon - 18,93 L

3 US gallon - 11,35 L

2,5 US gallon - 9,46 L

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ENCLOSURE

N°	NAME
1	Draft of the tank " NC "
2	Draft of the lid
3	Draft of the valve

DESTINATION

This report will be handed out to :

N°	Destination
1	Customer
2	A. E. B. Srl Managing Director
3	A. E. B. Srl Sales department
4	A. E. B. Srl Quality Assurance department

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PURPOSE

This report describes some characteristic of design, production and performances of the tank " NC ".

Acceptance tests on raw material, tests during production and on the final product guarantee that A. E. B. tanks meet customer's specifications.

SPECIFICATION AND TOLERANCE

TANK BODY

Tanks is carried out by assembling :

- upper part (rubber top)
- lower part (rubber bottom)
- shell (calandered ferrule)

The assembling of the different metallic parts is made by round and longitudinal welding. All welding on the tank are automatically made, following TIG system in a inert atmosphere without any deposit of material. On the top of the tank there is an oval opening (mouth) which allow the closing of the tank by the lid . On the bottom there is a sump to enhance the draining off. Printed on the stainless steel of the external surface of the body, there are information about the manufacturer, the capacity of the tank and its identification numbers. The lid made in pressed stainless steel, is finished with handle, and with pull ring relief valve, if required

RUBBER COATIN

The extremities of the tank (top and bottom) are covered with black hot vulcanised natural rubber bonded onto the steel. Two handles in the top offer easy handling. Four openings in the bottom skirt enhance the drain of water when the keg is upside down. The maximum outside diameter of the rubber parts is larger than the one of the body. In this way any damage by impact is minimised and the keg can be rolled.

BODY MATERIAL

The tank model " NC " is made of AISI type 304 stainless steel (1.4301) with No. 2B mill finish steel sheet which fulfils ASTM A240 specification.

All inside surfaces are smooth to prevent any possible dirt or contamination from remaining inside after washing and sterilising.

Stainless steel does not react to magnetic attraction and its colour does not change due to cleaning or sterilising.

STANDARD	SPECIFICATION
AISI 304	AMERICAN
DIN 1.4301	GERMAN
AFNOR Z6 CN 18.09	FRENCH
BS 304 S 15	ENGLISH

Steel has the following physical characteristics :

CHARACTERISTICS :	VALUE	NOTES
Elasticity	$\geq 205 \text{ N/mm}^2$	//
Destructive strength	1200 N/mm^2	after deep-drawing
Elongation %	≥ 40	//
Hardness	$\leq 90 \text{ HRB}$	//

The top and the bottom are deep-drowned beginning from a stainless steel disk with a thickness of 1 mm before the pressing. The body has a thickness of 0,65 mm

SPECIFICATION AND TOLERANCE

RUBBER COATIN

Skirts are made of solid black vulcanised rubber. They permit the rolling of the tank and minimise damage by impact.

Skirts are free of cracks and crevices which may cause contamination due to entrapment of materials. The most important characteristics are the following :

CHARACTERISTICS	VALUE
Minimum tensile strength	1.450 psi (10 Mpa)
Minimum elongation	125 %
Hardness	80 ± 5 Shore A

Rubber fulfils ASTM D2000 (M2AA910F17P2Z1Z2Z3Z4Z5Z6Z7) specification :

CODE	MEANING
M	Classification System is based on SI units
2	Indicates a deviation or additional requirements to the basic requirements.
AA	Natural rubber, reclaimed rubber, SBR, butyl, EP, polybutadiene, polyisoprene.
8	Durometer hardness. (80 +/- 5 Sh A)
10	-Minimum tensile strength : 2.031 psi (14 Mpa) -Ultimate elongation minimum : 200 % -Heat aged ASTM D573,70 hours at 70 °C (158°F) change in tensile strength : ± 30 % change in ultimate elongation : - 50 % maximum change in hardness : ± 15 points
F17	Pass low temperature brittleness ASTM D2137, method A 9.3.2., non - brittle after 3 minutes at -40 °C (-40 °F) .
P2	Pass staining resistance ASTM D925, method B , control panel.
Z-1	The compression set shall be 35% maximum at 22 hours and 70 °C (158 °F) as per ASTM D395.
Z-2	The abrasion test shall be of the pico abrader type . The pico index rating shall be not less than 50 as per ASTM D2228.
Z-3	The adhesion test shall be not less than 50 lbs per inch with the rubber strip being separated from a metal plate at 90 degree angle as per ASTM D429.
Z-4	The skirts shall be impervious to common stainless steel pickling baths of nitric and hydrofluoric acids at 60 °C (140 °F) for 8 minutes maximum.
Z-5	The skirts shall be impervious to a 4% caustic solution at 82 °C (180 °F) for 8 ours.
Z-6	The skirts shall be resistant to ozone and weathering.
Z-7	The connection between rubber and steel must not change after an exposition to air of 6 hours at 135 °C (243 °F).

SPECIFICATION AND TOLERANCE

GASKET RUBBER

All the gaskets are made with EPDM - alimentary material - with colour black.

WEIGHT / CAPACIT

CHARACTERISTICS	5 UG G	3 UG G	2,5 UG G
Weight Kg	4,0 ± 0.25	3,45 ± 0.25	4,0 ± 0.25
Brimful /	19,6 / ± 0.20	12,2 / ± 0.20	10,2 / ± 0.20
till small dip tube /	18,93 / ± 0.20	11,35 / ± 0.20	9,45 / ± 0.20

MAIN DIMENSION

CHARACTERISTICS	5 UG G	3 UG G	2,5 UG G
Total height	633 ± 2 mm	429 ± 2 mm	370 ± 2 mm
Skirt maximum diameter	219 ± 2 mm	219 ± 2 mm	219 ± 2 mm
Body outside diameter	216 ± 1 mm	216 ± 1 mm	216 ± 1 mm
Distance skirt to valve	15,5 ± 1 mm	15,5 ± 1 mm	15,5 ± 1 mm
Plugs centre line	172 ± 1 mm	172 ± 1 mm	172 ± 1 mm

STEM

On the top part of the tank there are two welded stems, trough which the gas tube and the liquid tube are putted inside the tank, and top which the plugs are fixed.

CHARACTERISTICS	N C stems
thread	19/32 " 18 UNF

PLUG

To allow the quick disconnect with the plant, on its upper part the tank is equipped with one liquid plug and one gas plug

CHARACTERISTICS	COUPLING
Gas plug	with incision
Liquid plug	without incision

DIPTUBES

To draw out the product, the tanks has 2 dip tubes, one short to introduce the gas and one other long to vetch the product from the bottom of the tank.

CHARACTERISTICS	5 UG G	3 UG G	2,5 UG G
DIPTUBE	Gas Ø 8 x 0,5	37 mm	37 mm
	Liquid Ø 8 x 0,5	593 mm	393 mm
		333 mm	

RELIEF VALVE

The relief valve used is the pull type one.

The maximum working pressure is about 9 bar.

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SPECIFICATION AND TOLERANCE

IDENTIFICATIO / MARKING

DESCRIPTION	MARKING	CHARACTERISTICS	DIMENSION mm
Manufacturer's name and address	Name - Address	Writing	H = 5
Year of production	x x x x	Writing	H = 5
Progressive number 7 figures	x x x x x x x	Writing	H = 5
Own code (on request)	trade name	Writing	H = 5

IDENTIFICATIO / MARKING

Standard marking and identification on tank body :

A. E. B. S. R. L.
MADE IN ITALY
*** ANNO XXXX**

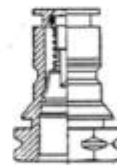
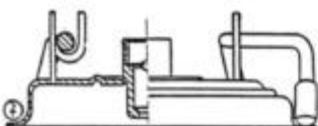
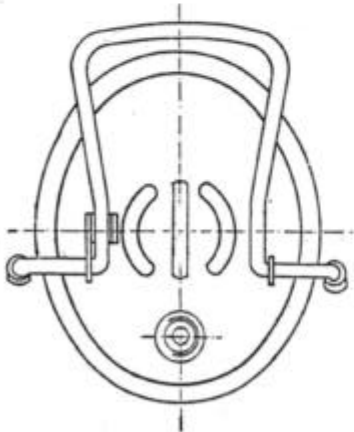
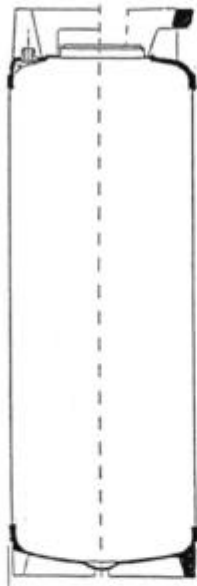
NR. 0000000

- Year of production

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CO2 (3263)

Valve Type N C
Thread 19 / 32 " 18 UNF



Product (3264)