

MAS-type VESSELS:

MAS-01-

MAS-02-

MAS-03-

	TECHNICAL PRODUCT DOCUMENTATION	MA5-0021
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1. INSTRUCTIONS AND WARNING

Body damage and/or serious material damages might be formed if user doesn't keep of instructions and warnings. Servicing staff have to be instructed and acquaint with whole safety instructions and warnings. For well and safe level switch's working there has to be assured right transport, storage, assembly, starting and conservation's instruction.


Main attentions of safety in mentioned operation and maintenance manual were marked as pictograms:

	<p style="text-align: center;">This sign means: "Indicator"</p> <p>The "Indicator" shows an operation or process being of essential importance for proper operation of the valve. In case of not observing this recommendation material damages can occur.</p>
	<p style="text-align: center;">This sign means: "Warning"</p> <p>The "Warning" shows an operation or process which in case of improper operation can cause danger to the personnel or serious material damages.</p>

2. APPLICATIONS

The MAS-type vessels are designer for:

- saving constant indirect liquid level (condensate) before measuring instrument of flow at measuring of flow intensity at overheated steam,
- as a tank of constant level at measuring the level of water in steam boilers,
- deaeration measuring systems in case of measure the intensity of flow the steams and liquids, when the measuring instrument is over the orifice,
- dehydration of measuring systems in case of measure the intensity of gases, when the measuring instrument is under the orifice
- accumulating and elimination deposit accumulated in vessel in case of measuring the liquid level in open and closed tanks.
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	<p style="text-align: center;">The MAS-type vessels have to be connect into the system by cut-out valves.</p>
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3. TECHNICAL DATA

MAS-type vessel	MAS-01-	MAS-02-	MAS-03-
Parameters			
Material	15HM 1H18N9T	15HM 1H18N9T	15HM 13HMF
Volume	300 cm ³	800 cm ³	180 cm ³
Nominal pressure	10 MPa	10 MPa	42 MPa
Highest application temperature	520 ⁰ C for 15HM 250 ⁰ C for 1H18N9T	520 ⁰ C for 15HM 250 ⁰ C for 1H18N9T	520 ⁰ C for 15HM 560 ⁰ C for 13HMF
Numerical values of permissible operating pressures versus rated pressure and Operating Temperature, acc. to standard PN-89/H02650	Chart no. 1	Chart no. 1	Charts no. 2 and 3
Passage diameter	8;15;24,5 mm	8;15;24,5 mm	8;10;14 mm
Mass	1.9 kg	4.3 kg	3.7 kg

4. ORDERING METHODS

The MAS-type vessels should be ordered directly in manufacturer giving type of vessel acc. to ordering method determined in point 10 of this Technical Product Documentation (ENCLOSURES):

Example of order:
MAS-01-00-/1-1-1

MAS-01- type of vessel
-00 – type of material
/1 - stub pipe type **A**
-1 - stub pipe type **B**
-1 - stub pipe type **C**

Type of material and stub pipe dimensions are given in ordering method determined in point 10 of this Technical Product Documentation (ENCLOSURES).

5. CONNECTED DOCUMENTS


- MA5-0016 Terms of Technical Acceptance
- PN-89/H-02650 Pressures and Temperatures
 - PN-75/H-84024 Steel for working in higher temperatures
 - PN-EN 22768-1:1999 General tolerances
 - PN-83/H-03010 Statistic Quality Control
 - PN-EN 10246-10:2004 Industrial radiography
 - PN-EN 12517-1:2009 Welding. Determination of welded connections on the basis of radiograms.
 - PN-EN 10088-1:2007 Corrosion proof steel

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6. ASSEMBLY AND CONSERVATION INSTRUCTION

- Unpacking and start-up

The vessels have to be take out from package and weld this one into pressure system.

	<p>After welding please check density of welds. The welding should be done by person with right authorization.</p>
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- Terms of safe using

	<p>Please be careful during deaeration and dewatering of vessels.</p>
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- Conservation method and spare parts

The MAS-type vessels don't have to be conserved and these haven't spare parts.

7. STORAGE AND TRANSPORT INSTRUCTION

Vessels type MAS-01; MAS-02; MAS-03; have to be packed into boxboard.

The storage have to be done into closed rooms at temperatures $+5^{\circ}\text{C}$ - $+30^{\circ}\text{C}$ in atmosphere doesn't contain aggressive gases and impurities.

The transport might be done arbitrary means of transport.

8. SET OF THE DELIVERY

Set of the delivery contains:

- Vessel type MAS-01; MAS-02; MAS-03; in proper package.
- Technical Product Documentation
- Acceptance certificate no. 3.1

9. GUARANTY TERMS

Guaranty terms are determined in separate guaranty card addend into each product.

The guaranty doesn't cover products which are improper using, transport, storage, independent disassembled, repaired or remarked and which have impaired seals and trademarks.

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	CONTROLMATICA ZAP-PNEFAL Sp. z o. o. ul. Krotoszyńska 35 63-400 Ostrów Wielkopolski www.controlmatica.com.pl	 NISZER EN ISO 9001 Nr PO21/5706D
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Ostrów Wielkopolski 05 June 2009

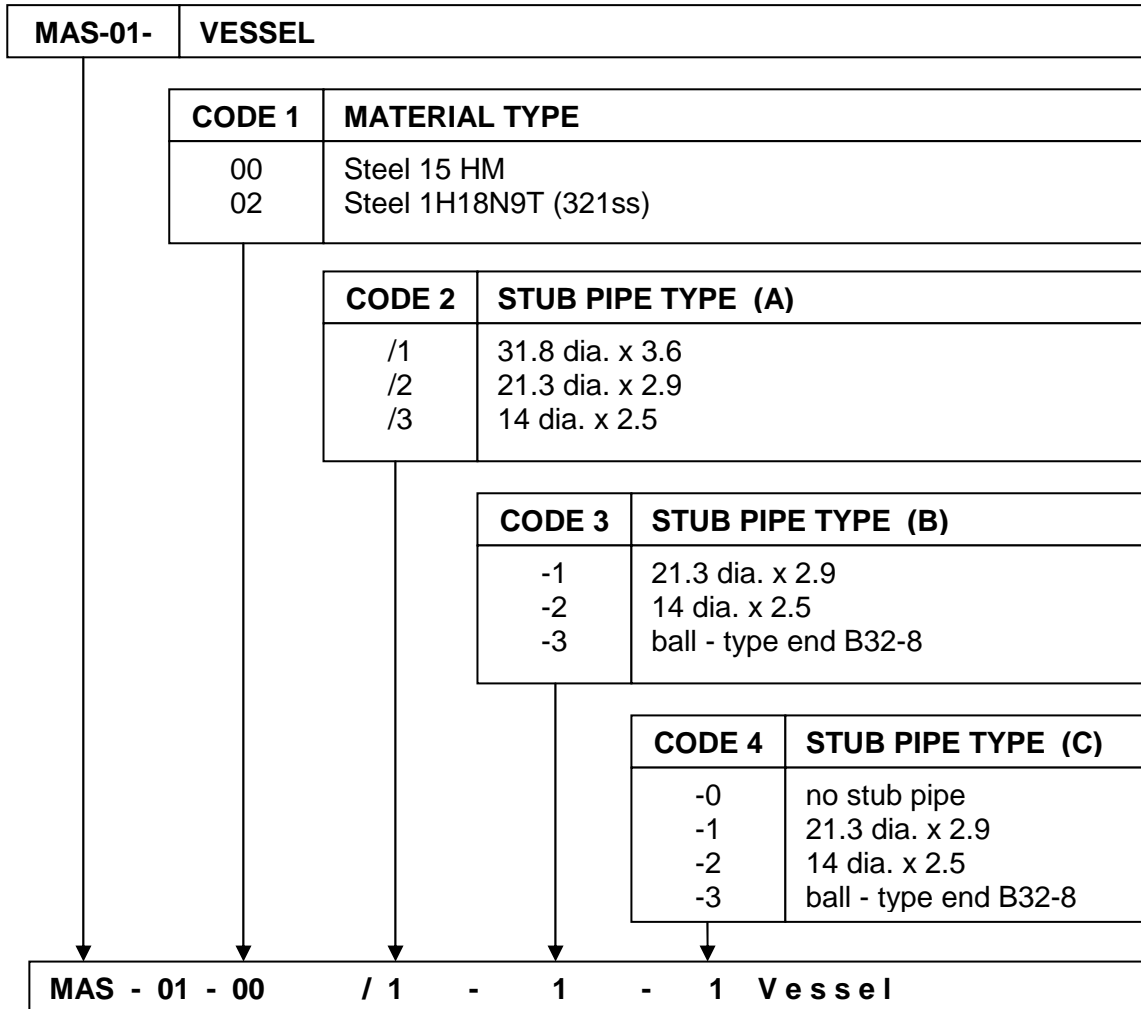
PRODUCER'S DECLARATION

We declare that following items: MAS-01÷03 are designed and manufactured in accordance with the sound engineering practice and comply with 97/23/WE Pressure Equipment Directive.

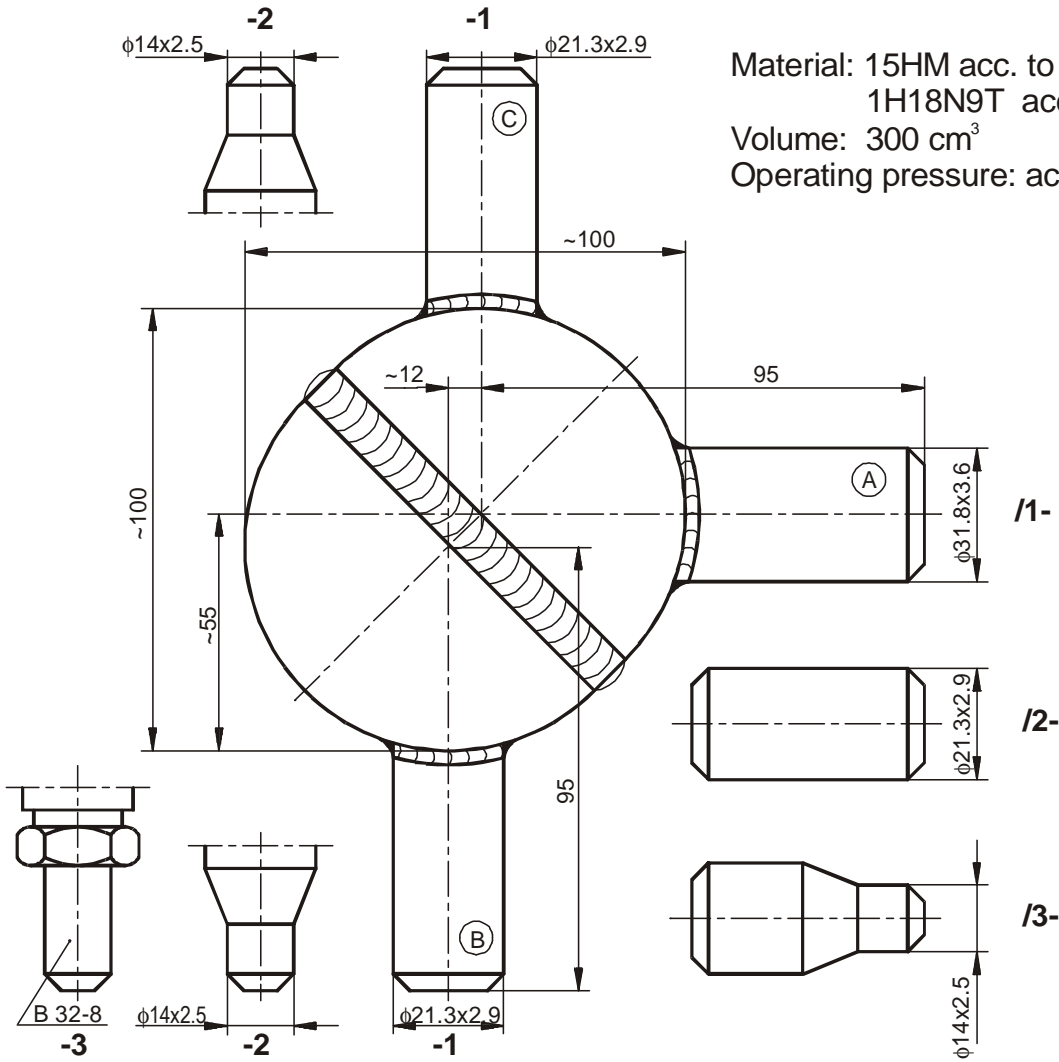
According to Article 3 Act 3 of above mentioned Directive MAS-01÷03 must not Bear the CE marking.


KIEROWNIK
Działu Konstrukcji Mechanicznych
mgr inż. Maciej Orzechowski

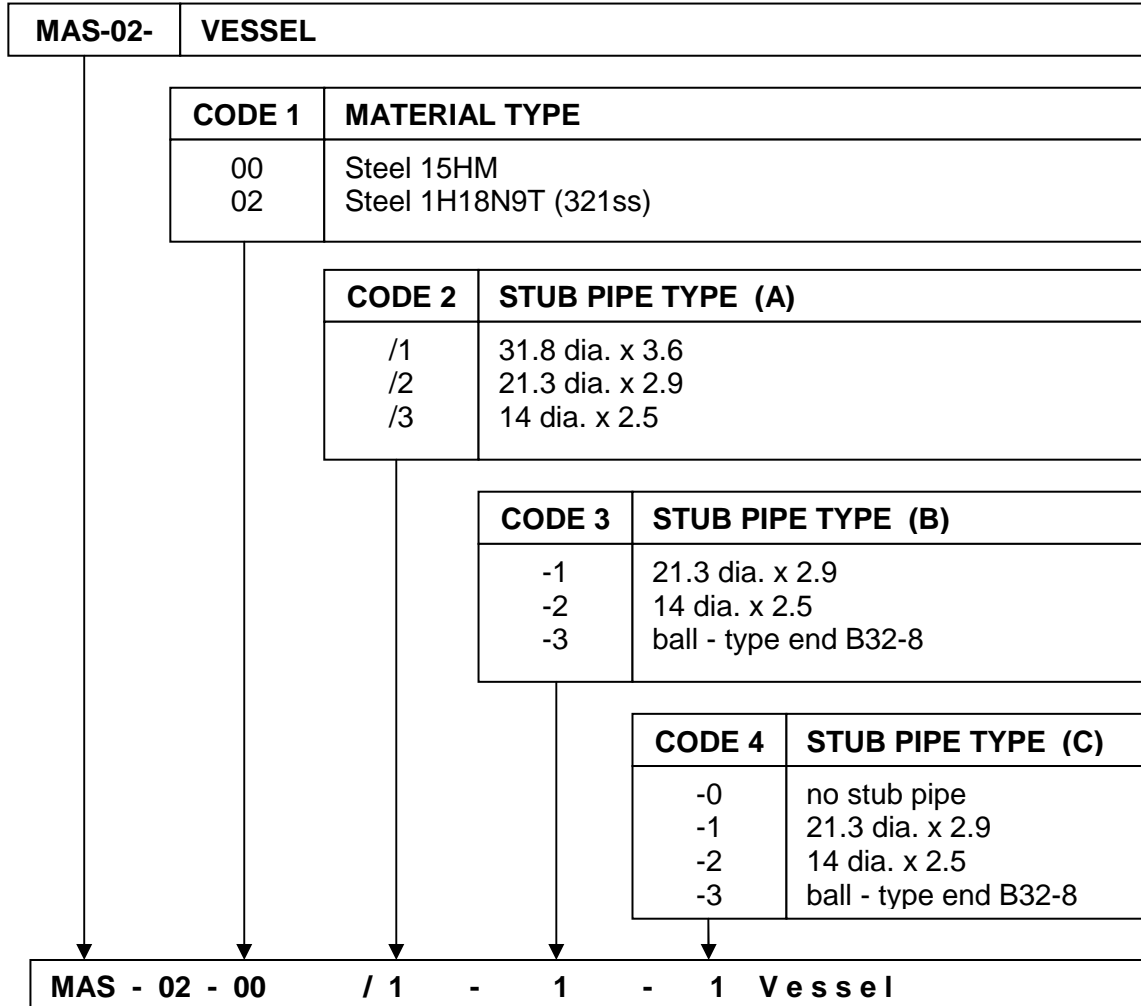

PREZES ZARZĄDU
Sebastian Moch

10. ENCLOSURES
ORDERING OF MAS-01- type VESSEL


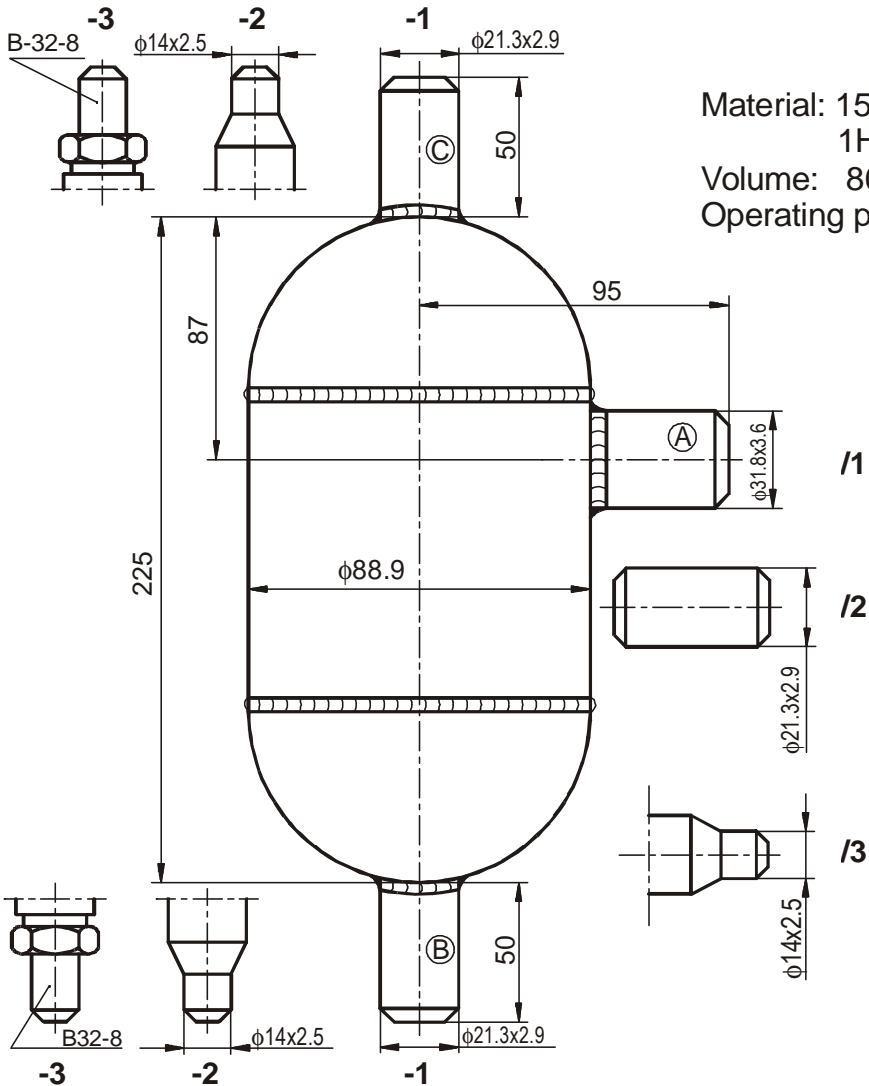
DIMENSIONED DRAWING OF MAS-01- VESSEL



ORDERING OF MAS-02-type VESSEL



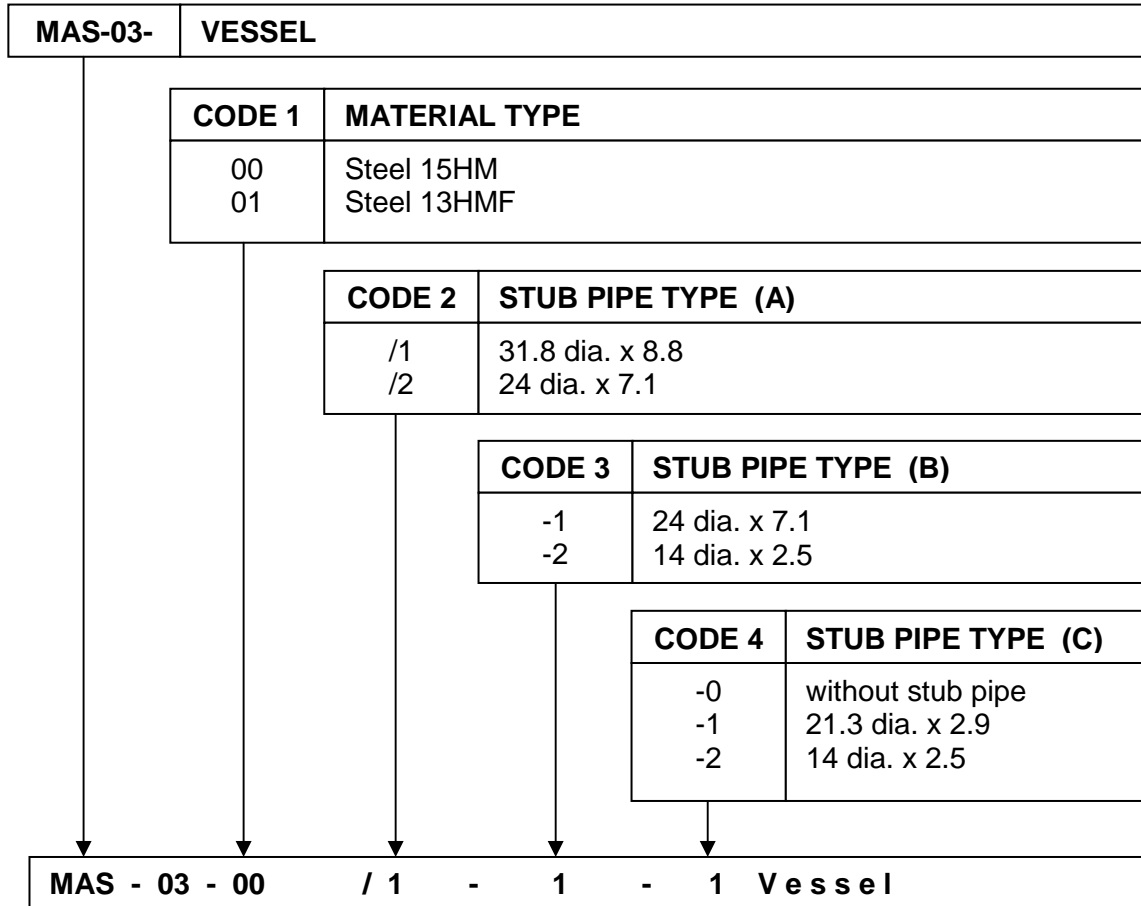
DIMENSIONED DRAWING OF MAS-02- VESSEL



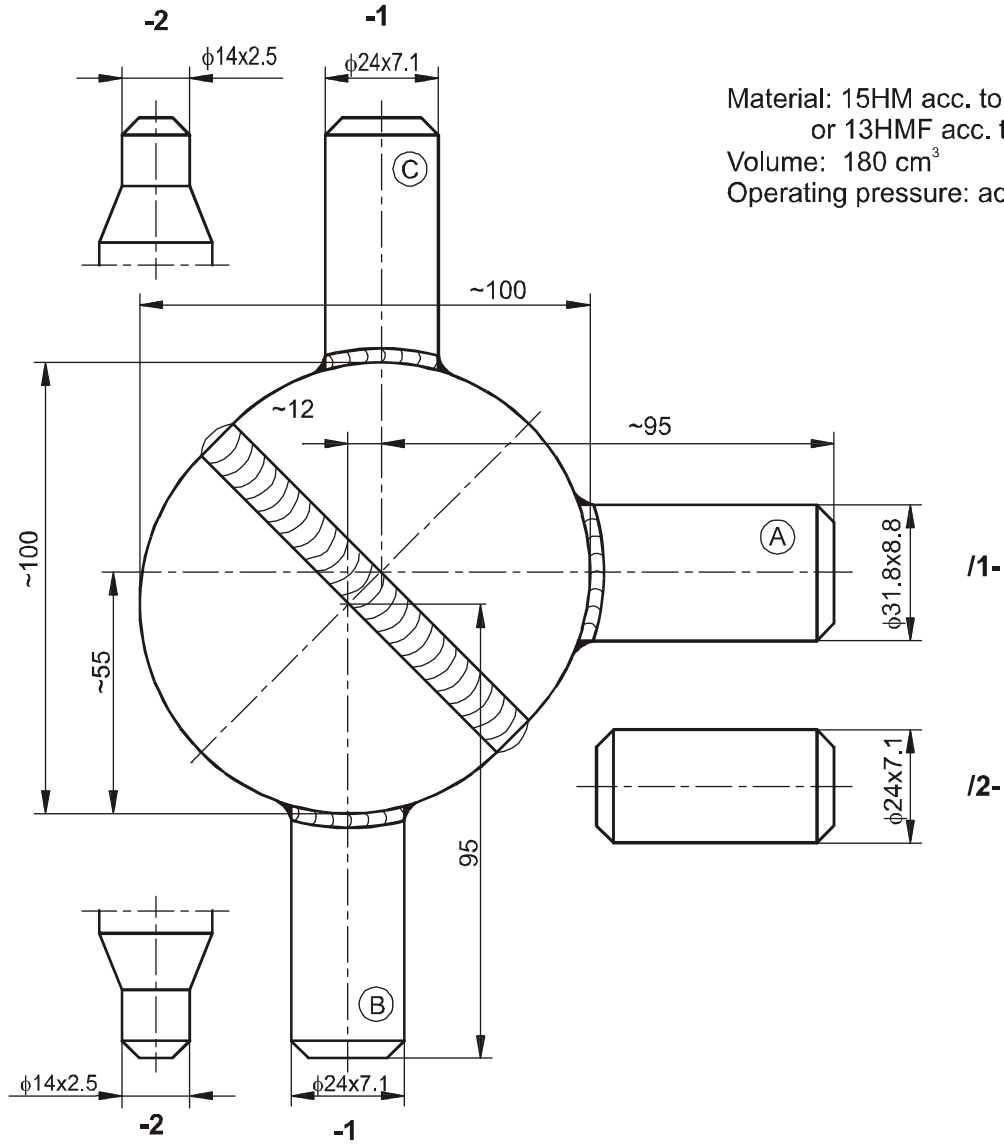
Material: 15HM acc. to PN-75/H-84024
1H18N9T acc. to PN-71/H-86020

Volume: 800 cm³

Operating pressure: acc. to Chart no. 1

ORDERING OF MAS-03- type VESSEL


DIMENSIONED DRAWING OF MAS-03- VESSEL



Material: 15HM acc. to PN-75/H-84024
 or 13HMF acc. to PN-75/H-84024
 Volume: 180 cm³
 Operating pressure: acc. to Charts no. 2 and 3

CHART NO. 1

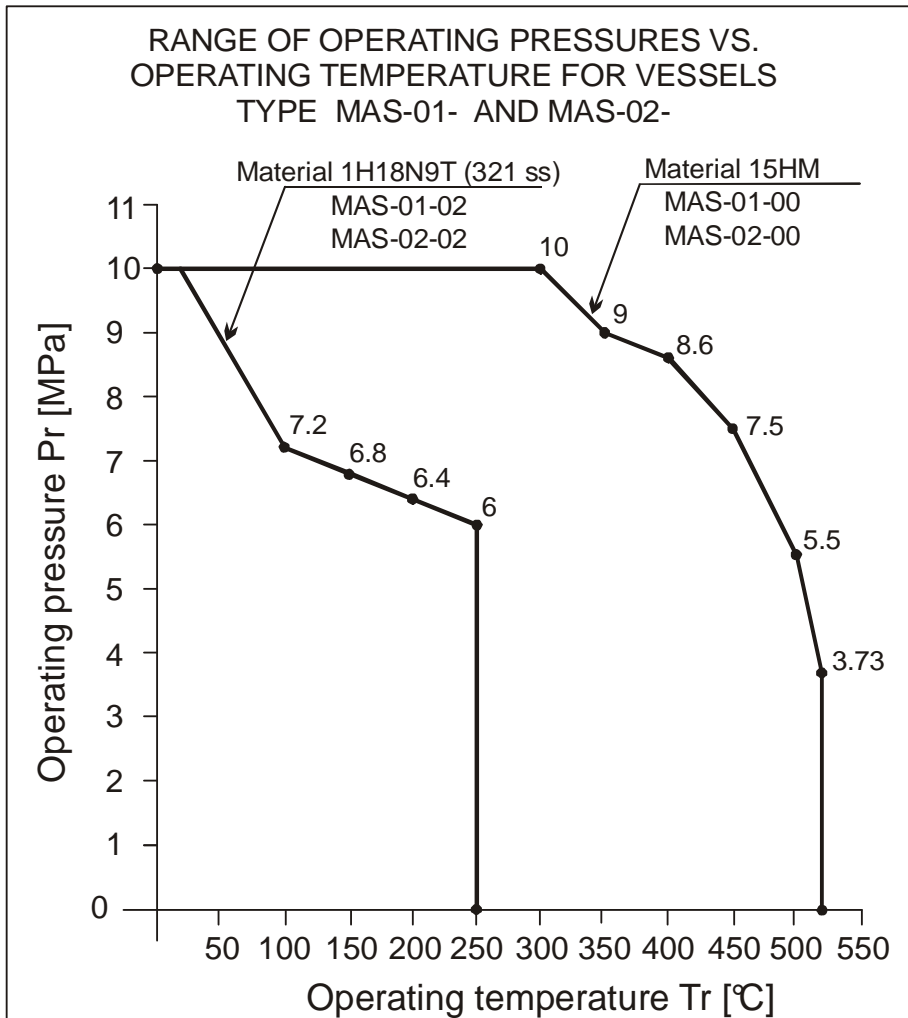


CHART NO. 2

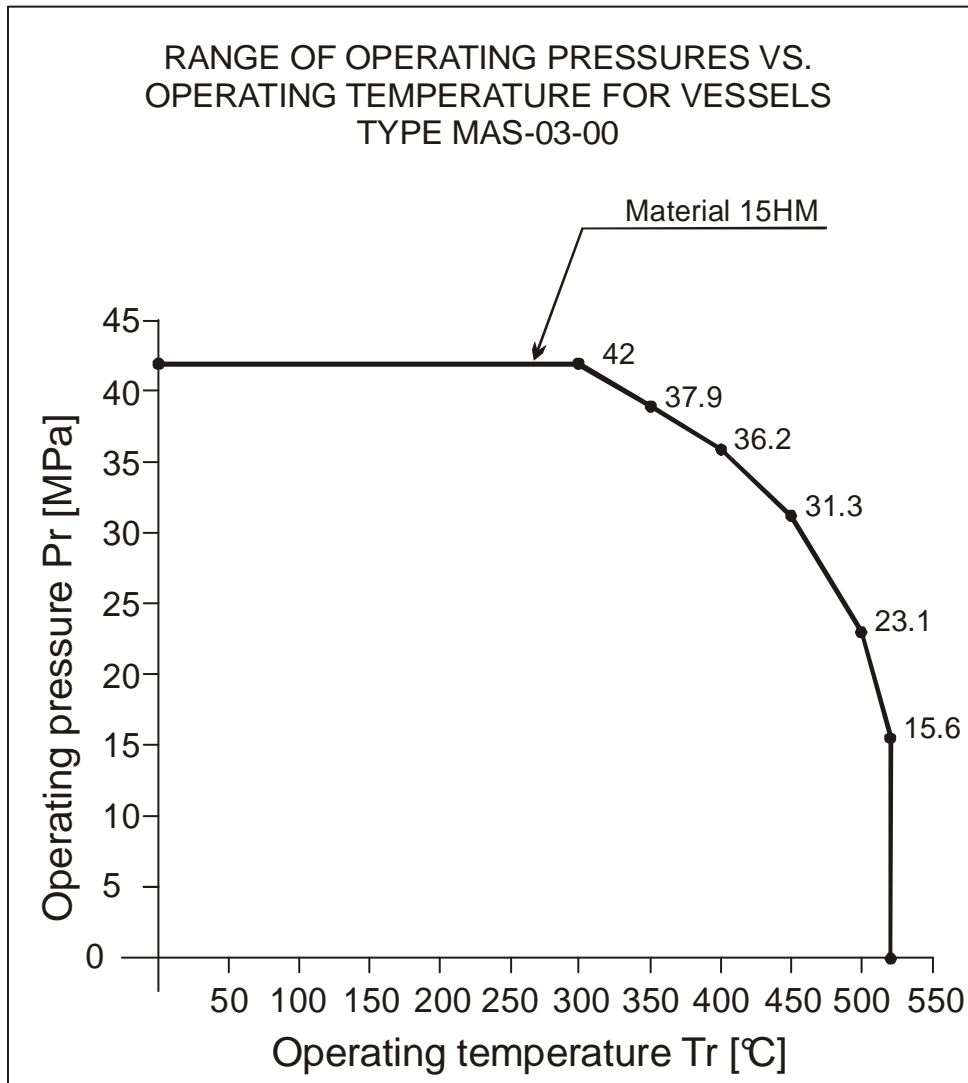


CHART NO. 3

