

Operation and Maintenance Manual

STAND WITH THE OPENING/CLOSING INDICATOR

**Cat. no.
9113**

Approved for use by

JAFAR S.A. Factory President

Failure to comply with the guidelines and instructions in this Operation and Maintenance Manual exempts the manufacturer from all obligations, liabilities and guarantees.

Due to the continuous development of our business, we reserve the right to introduce modifications and structural changes to the product presented herein.

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1 TECHNICAL DESCRIPTION

1.1 PRODUCT NAME AND FEATURES

This operation and maintenance manual applies to:

The stand with the opening/closing indicator of type 9113, intended for water pipeline systems, which serves as a basis for the control element (extension) of fittings for the flow through horizontal lines.

1.2 PURPOSE

The stand of type 9113 with the opening/closing indicator is intended for controlling fittings and mounted above ground and coupled with the fittings via its casing. It is used for transferring the torque from the steering wheel to the fittings. Used where the gate valve is controlled from a specific distance from the pipeline, e.g. underground pipelines or pipelines operated from platforms. Stands are used for installations in horizontal pipelines.

1.3 TECHNICAL SPECIFICATION

The stand with the opening/closing indicator of type 9113.

- temperature up to +70°C
- number of rotations within the indicator scope 64, 90, 250
- Protection against overloading and disassembly of the wheel
- max. value of torques: 64 rotations – 350Nm
90/250 rotations – 500Nm

2 DESIGN

2.1 FITTING DESIGN DESCRIPTION

"JAFAR" S.A. Fitting Factory provides stands with indicators of type 9113. All external elements are made of stainless steel (1.4301, 1.4021). The square of the pivot for the drive in the upper part enables mounting the steering wheel. The flange in the lower part enables fixing to the substrate.

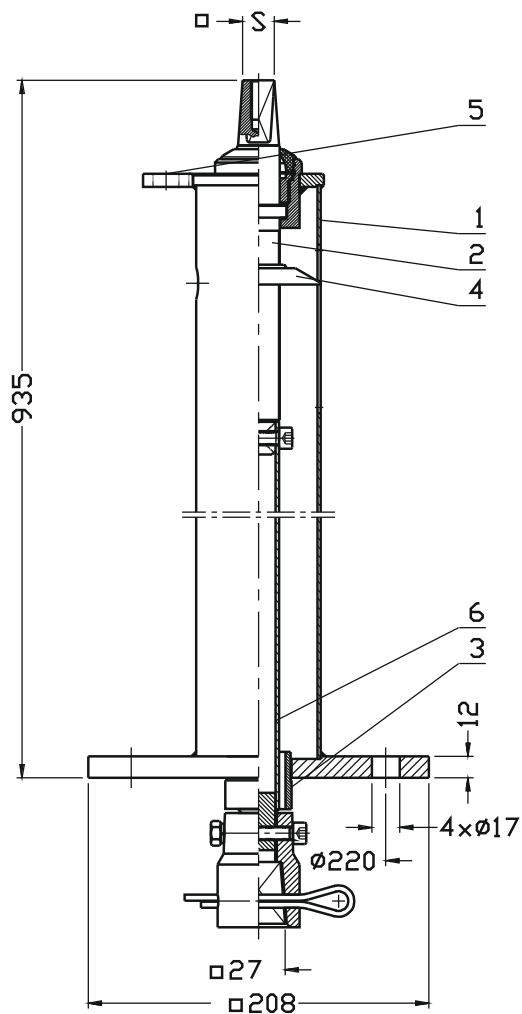
Stands are equipped with internal transmission units, each consisting of a pivot and spindle, terminated with a clutch.

2.2 MATERIALS

The index of materials used for the production of the stand is to be found in the table below:

	Part name	Material	Standard
1	Column	Stainless steel 1.4301	PN-EN 10088-1: 2014
2	Pivot	Stainless steel 1.4021	PN-EN 10088-1: 2014
3	Centering bearing	PE 100 SDR11	PN-EN 1555: 2012
4	Hand	CuZn39PbAl1-B	PN-EN 1982: 2010
5	Protection eye	Stainless steel 1.4301	PN-EN 10088-1: 2014
6	Spindle	Stainless steel 1.4301	PN-EN 10088-1: 2014

2.3 DIMENSIONS



S	Number of rotations	Weight
[mm]		[kg]
19	64	12
27	90	14
27	250	17

2.4 STANDARDISATION

PN-EN 1074-1: 2002	Pipeline fittings. Functional requirements and verification tests. General requirements.
PN-EN 1074-2: 2002	Pipeline fittings. Functional requirements and verification tests. Isolating valves.
PN-89/H-02650	Fittings and pipelines. Pressures and temperatures for
PN-EN 19:2005	Industrial fittings. Metal fitting marking.
PN-EN 12266-1: 2012	Industrial fittings. Fitting testing. Pressure testing, testing procedures and acceptance criteria.
	Mandatory requirements.
PN-EN ISO 6708: 1998	Definition and selection of DN (nominal dimension).
PN-EN 10088-1: 2014	Corrosion-resistant steel. Grades of stainless steel.
PN-74/H-84032	Spring steel. Grades
PN-EN 1982: 2010	Copper and its alloys. Ingots and castings.
PN-EN 12420: 2002	Copper and its alloys. Forgings.
PN-ISO 965-1: 2001	ISO general purpose metric screw threads. Tolerances. Principles and basic data.
PN-ISO 2903: 1996	Trapezoid ISO metric threads. Tolerances.
PN-EN ISO 4762: 2006	Hexagon socket screws.
PN-EN 10204: 2006	Metallic products. Types of inspection documents.
PN-ISO 1629: 2005	Rubber and latex. Nomenclature.
PN-EN ISO 1872-1:2000	Plastics. Polyethylene (PE) moulding and extrusion materials. Designation system and basis for specifications.
PN-EN ISO 1873-1:2000	Plastics. Polypropylene (PP) moulding and extrusion materials. Designation system and basis for specifications.
PN-EN ISO 1874-1:2010	Plastics. Polyamide (PA) forming and extrusion moulding materials. Designation system and basis for specification.

2.5 ORDERING REGULATIONS

Stands are special purpose equipment; please specify the following in your order:

- catalogue number,
- number of rotations

2.6 MANUFACTURE AND ACCEPTANCE

Stands of type 9113 are accepted and produced in accordance with PN-EN 1074-1:2002 (Water supply system fittings. Functional requirements and verification tests. General requirements) and PN-EN 12266-1:2007 (Industrial valves. Testing of metallic valves).

2.7 MARKINGS

Characteristics of the stand of type 9113 are specified in the following standards: PN-EN-19: 2005 and PN-EN-1074-1: 2002.

Bodies of stands feature markings on labels, stuck on walls of column necks. The markings contain the following data:

- stand type (acc. to the product catalogue no. /TYPE/)
 - material type
 - manufacturer trade mark
- and identification mark: (e.g. series no.)

3 PROTECTION, STORAGE & TRANSPORT

3.1 PROTECTIVE COATINGS

Stands of type 9113 are made of materials resistant to corrosion.

3.2 PACKAGING

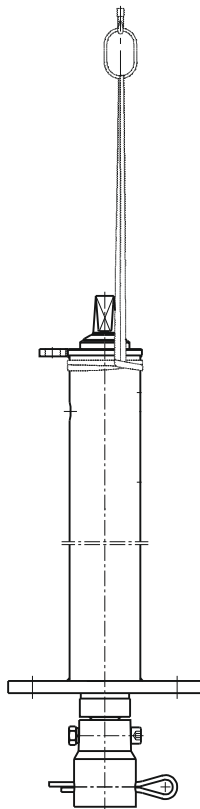
Stands are packaged on EURO pallets (1200x800) and secured with stretch foil.

3.3 STORAGE

Store stands indoors.

3.4 TRANSPORTATION

Transport stands by sheltered vehicles.



Sample schematic drawing of the transport of the stand and its preparation for assembly works.

4 ASSEMBLY AND INSTALLATION

4.1 INSTALLATION GUIDELINES

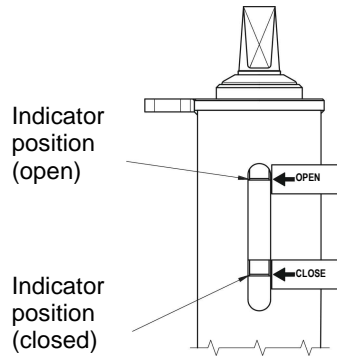
The stand of type 9113 should be mounted on a stable substrate so that it is fixed in a manner preventing its turning. The stand (drive pivot) axis should be perpendicular to the substrate surface and serve as an extension of the pivot axis, fittings. If it is not possible to set the stand so that its axis is in the axis of the pivot of the fitting drive, use the connection to the casing through Cardan joints.

4.2 INSTALLATION INSTRUCTIONS

Before installing the fittings, check the technical and commercial documentation, i.e. intended use and operation parameters of the pipeline in which they are to be installed. Before mounting the stand, check whether the distance of the gate valve and stand enables connecting the owned casing or extension and whether the prepared surface for the flange fixing the stand is perpendicular to the fitting axis.

Prepare stickers for the position indicator for applying to the column in order to determine the controlled fitting position.

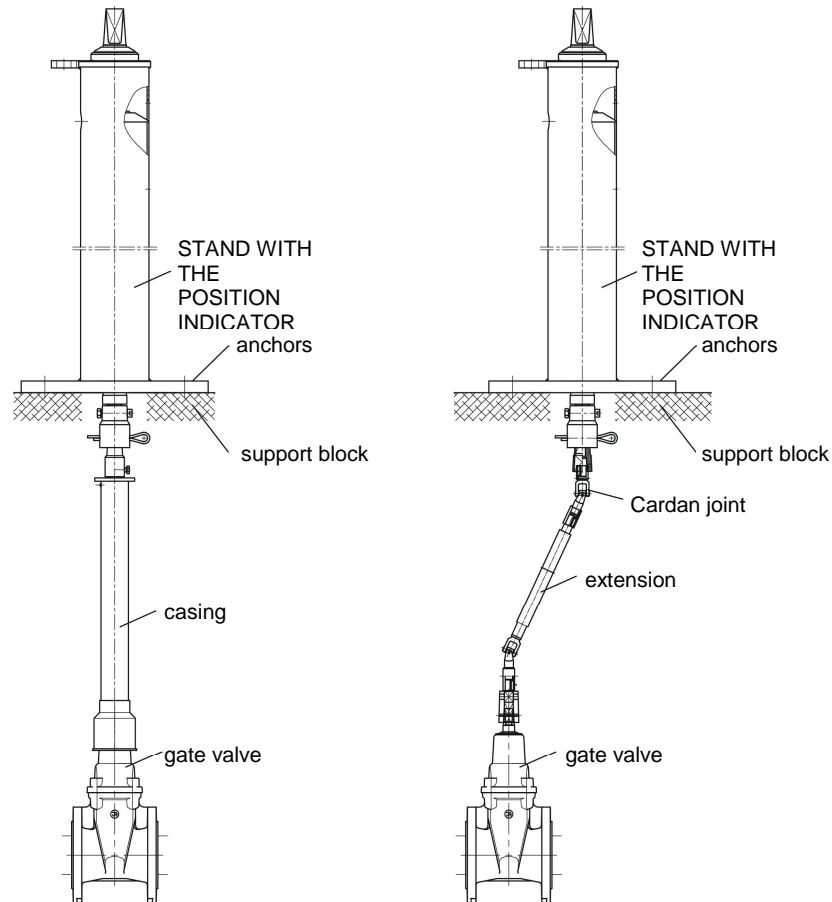
Apply the stickers acc. to the guidelines presented below:



1. Set the position indicator hand at the highest point while overloading the stand
2. Apply the position sticker (OPEN) to the column acc. to the indicator
3. Open the control fittings entirely
4. Fix the stand to the substrate by coupling the clutch with the casing or directly with the control fittings
5. Once the unit is integrated, close the fittings by using the stand
6. Apply the position sticker (CLOSE) acc. to the position indicator

The described scope of actions can also be performed in the reverse order

The method for the installation of the stand of type 9113 on the substrate is presented in the schematic drawing below:



4.3 OPERATION

The stand should be operated according to requirements pertaining to connection fittings and accessories. In order to ensure the full operational efficiency of sets, it is recommended carrying out periodic inspections which consist in overloading the sets (from the full opening to the full closing) so as to check how the mechanism functions.

4.3 OH&S REGULATIONS

Stands are subject to guidelines and recommendations included in H&S regulations applicable to the installation of pipelines and equipment in: water supply stations, thermal power stations, sewage treatment plants, intermediate pumping stations and other structures, as well as general health and safety regulations (use of upper limb protection equipment, lower limb protection equipment, head protection equipment and protective clothing), in particular during works with low and high temperature exposure.

5 GUARANTEE CONDITIONS

The manufacturer grants guarantee for the product being installed and operated according to this O&MM. The conditions and period of the guarantee are specified in the guarantee sheet.