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### 1 Purpose

- 1.1 The rack is designed for additional connections provision for instruments under test or PCA.
- 1.2 The rack is designed to work together with GUSK, MP, MGP instruments produced by Alfapascal Limited Liability Company.
- 1.3 Depending on technical capabilities, it is possible to use this instrument with other laboratory equipment.

## 2 Technical Characteristics

Working pressure				
maximum	60 MPa			
minimum	0,1 MPa			
Q-ty of seats for instruments under test	1 pc.			
Working medium	air, water, oil			
Weight	3,2 kg			
Overall dimensions (L×W×H), no more than 410×370×210 mm				
<b>3 Scope of supply</b> (in pieces)				
Additional rack				
Connecting nut				
M20×1.5				
M12×1.5				
G½				
G½				
Plug	$\dots \dots $			
Pilot wheel of connecting nut				
Connecting hose (steel tube)				
Manometer's metal-rubber seal	$\dots \dots $			
Adapter	$\dots \dots $			
Manometer special sealing (for vacuum)	$\dots \dots $			
Sealing ring				
014-018-25-2-2 PCA rack washers	$\dots \dots $			
013-017-25-2-2 PCA vacuum rack washe	ers 1 <sup>1</sup>			
Operation manual, data sheet				

<sup>&</sup>lt;sup>1</sup>Depending on instruments to be connected.

### 4 Instrument Design and Principle of Operation

4.1 Panel overview is shown in Fig. 1.

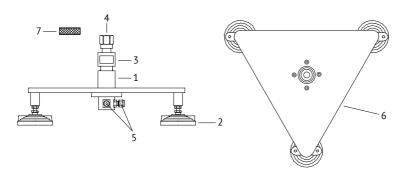


Fig. 1. Additional rack:

1 — rack; 2 — support; 3 — adapter; 4 — connecting nut; 5 — fitting; 6 — basement; 7 — connecting nut hand wheel

4.2 Additional rack consists of the basement 6 (Fig. 1) made of steel plate where the rack 1 in mounted. The plate has three adjustable supports 2. Additional adapter 3 is mounted to the rack for manometer connection. Manometer is fastened by means of nut 4. To facilitate connection, connecting nut hand wheel 8 is used. Connection between the rack and the instrument to be tested is made by means of tube (steel or plastic depending on purpose) and fittings 5. There 2 fittings - one is used for connection between the rack and the instrument, and the second is used for prospective connection with additional rack (this fitting is plugged). Fittings are installed at 90 degrees. For easy of mounting, fittings location with respect to basement 6 may be changed. For this, screw out screws 7 and rotate rack 1 to required position.

Variants of the rack connection with instruments of Alfapascal Limited Liability Company are demonstrated on Fig. 2. To connect the rack with instrument, the tube shall be first connected with the rack and then with the instrument. If required, the tube may be bent provided that steel tube bending radius shall be at least 12.5 mm.

#### **Attention**

Repeated bending/unbending is prohibited! Working liquid shall be filled as per instrument specific OM instructions.

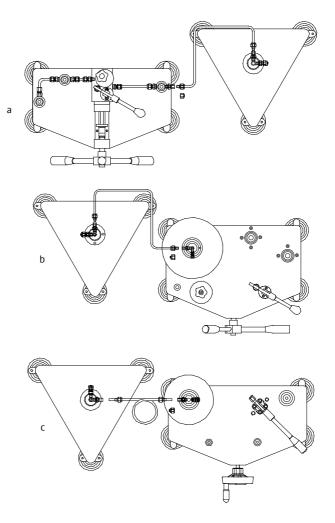


Fig. 2. Additional rack connection with instruments produced by Alfapascal Limited Liability Company:

a — with hydraulic unit GUSK (using steel tube); b — with deadweight tester MP (using steel tube); c — with gas deadweight tester MGP (using plastic tube).

## **5 Safety Precautions**

#### **Attention**

This Section is devoted to staff safety during operation as well as rack and related equipment protection against damage.

- 5.1 Before installation of instruments to be tested, make sure that connectors are clean and in working conditions.
  - 5.2 Use only standard O-rings.
  - 5.3 Manually tighten connecting nuts to notable stop.
  - 5.4 Pressure value specified in the manual shall not be exceeded.
- 5.5 Instruments can be removed from the unit only after complete pressure release.

## **6 Preparation for Operation**

- 6.1 Unpack the rack and wipe it down with clean cloth.
- 6.2 Mount the rack on the table and align the supports.
- 6.3 If required, fix the adapter.
- 6.4 Connect the tube with the rack.
- 6.5 Connect required instrument GUSK, MP or MGP.
- 6.6 Bleed the system (in case of GUSK or MP) following instrument's OM instructions.

### 7 Operation Procedure

7.1 Operation procedure is described in instrument specific OM.

#### 8 Maintenance

- 8.1 To keep the rack in working condition, before operation, it is required to inspect it, remove dust and contaminations with dry cloth.
  - 8.2 Check sealings integrity, replace them, if required.

## 9 Storage

- 9.1 Rack storage in laboratory environment. When the rack shall be stored in laboratory environment, be sure that it is in stable vertical position and covered with PE cap.
- 9.2 Rack storage in warehouse environment. Before rack storage, maintenance operations under items 8.1, 8.2 shall be done wipe it down with clean cloth and pack in original packaging (or similar).
- 9.3 The rack shall be stored in a dry heated room at an air temperature no lower than +5  $^{\circ}$ C and relative humidity no higher than 80 %.

## **10 Warranty Obligations**

10.1 The Manufacturer guarantees unit operation, provided that the operating, storage, and transportation conditions are met.

- 10.2 The warranty service life is 18 months.
- 10.3 The warranty storage life is 6 months.
- 10.4 The average service life is at least 8 years.

### 11 Claim Details

In case of a failure, prepare a certificate of required repair and submit it to the following address: «Alfapascal» LLC, 36, 2nd Paveletskaya, Chelyabinsk, 454047, Russia, phone: +7 (351) 725-74-50, e-mail: q@alfapascal.ru

12 Acceptance Certificate Additional rack SD, serial number, meets DD AΠ.042.000.000 requirements and was approved as ready for operation.				
Date of issue				
Responsible person Signature	Surname			
13 Packing Certificate Additional rack SD, serial number, was packed by Alfapascal Limited Liability Company as per DD AP.042.000.000.				
Date of packing  Responsible person  Signature				
Note The Manufacturer reserves the rig design without prior notice.	ht to make changes to the unit			