



JSC "VACUUMASH" 80 years



VBP Series Oil Booster Pumps



Oil Booster vacuum pumps VBP are medium vacuum pumps with a speed of action from 880 l/s to 18600 l/s and a maximum pumping speed at a pressure of $5 \times 10^{-1} - 10^{-3}$ Torr

Booster vacuum pumps VBP have a modular design, which makes it possible to produce a compact high-performance pump. Thanks to the increased boiler and the increased power of the heaters, it is possible to obtain an increased vapor density, which allows pumping large gas flows at pressures up to 10^{-1} Torr.

Scope of application

	VBP-160/1000	VBP-250/3000	VBP-400/6000	VBP-500/12000	VBP-630/12000	VBP-630/18000
Food industry						
Sugar production						
Woodworking						
Pulp and paper production						
Petrochemical industry	■	■	■	■	■	■
Chemical industry						
Manufacture of rubber products						
Crystal production						
Metallurgy	■	■	■	■	■	■
Mechanical engineering	■	■	■	■	■	■
Production of electrical equipment	■	■	■	■	■	■
Electricity generation						
Construction	■	■	■	■	■	■
Research activities	■	■	■	■	■	■
Medicine						
Agricultural industry						
Mining						
Waste treatment						



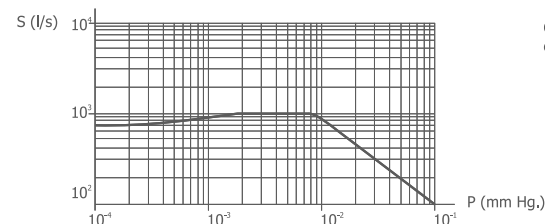
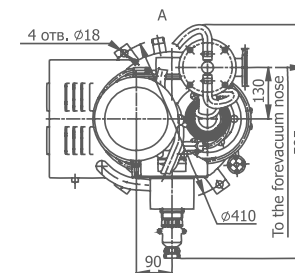
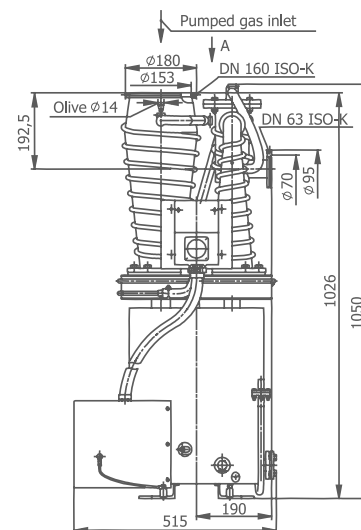
Oil Booster Pumps



VBP-160/1000 Oil Booster Pump

Type: Oil
Pressure range: high vacuum
Speed of action: 880 l/s

- ◆ High vacuum connection DN 160 ISO-K
- ◆ Forevacuum connection DN 63 ISO-K
- ◆ Carbon steel housing material
- ◆ Water cooling
- ◆ Works only with the pre-vacuum pump
- ◆ The speed of action of the forevacuum pump is not less than 54 m³/h
- ◆ Type of electrical connection directly through the connector
- ◆ Supply voltage 380V
- ◆ Power 2 kW
- ◆ Pump fluid filling, min / max, 1.0/1.4 l



Graph of the dependence of the speed of action from the pressure at the pump inlet



**VBP-250/3000
Oil Booster Pump**

Type: Oil
Pressure range: high vacuum
Speed of action: 2800 l/s

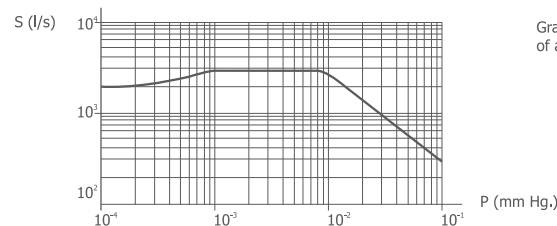
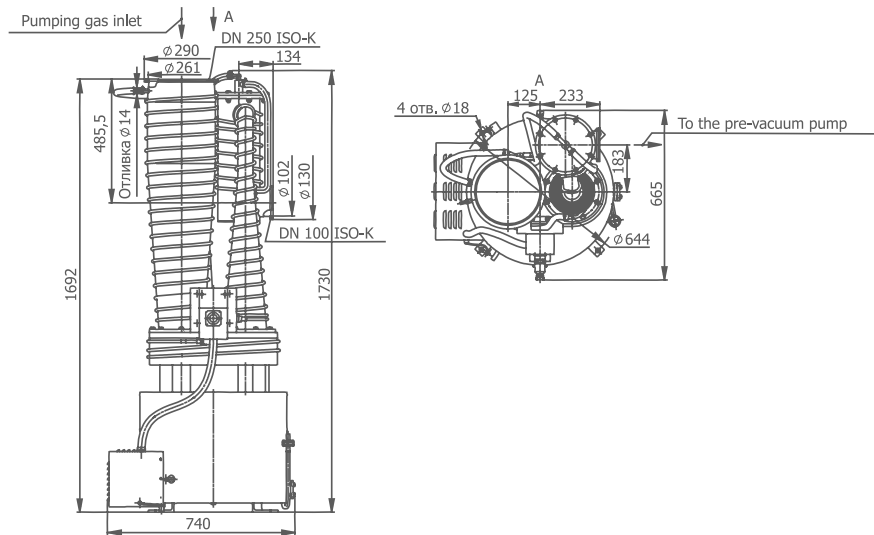
- ◆ High vacuum connection DN 250 ISO-K
- ◆ Forevacuum connection DN 100 ISO-K
- ◆ Carbon steel housing material
- ◆ Water cooling
- ◆ Works only with the pre-vacuum pump
- ◆ The speed of action of the forevacuum pump is not less than 90 m3/h
- ◆ Type of electrical connection directly through the connector
- ◆ Supply voltage 380V
- ◆ Power 6 kW
- ◆ Pump fluid filling, min / max, 1.0/1.4 l



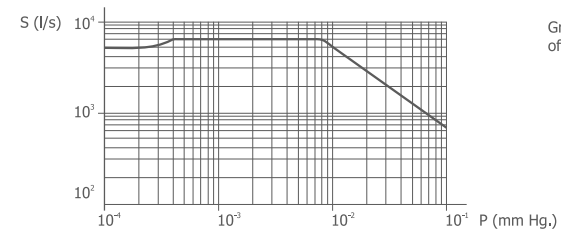
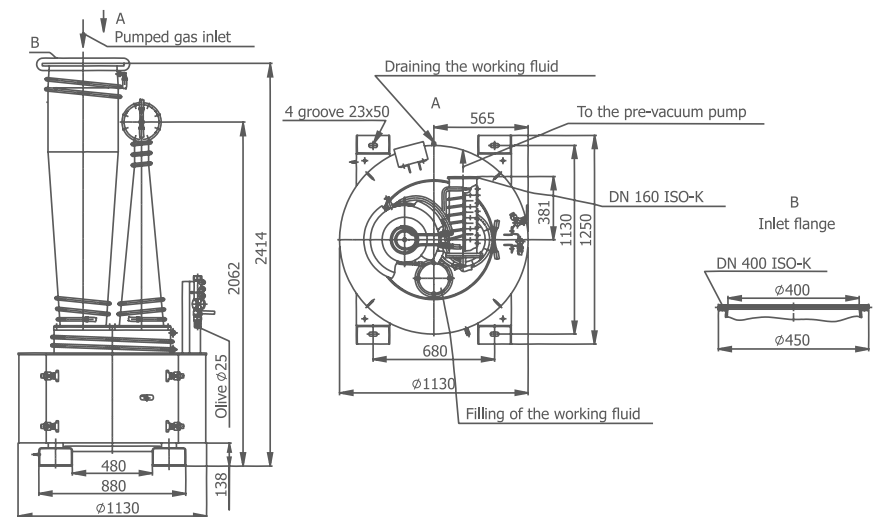
**VBP-400/6000
Oil Booster Pump**

Type: Oil
Pressure range: high vacuum
Speed of action: 6200 l/s

- ◆ High vacuum connection DN 400 ISO-K
- ◆ Forevacuum connection DN 160 ISO-K
- ◆ Carbon steel housing material
- ◆ Water cooling
- ◆ Works only with the pre-vacuum pump
- ◆ The speed of action of the forevacuum pump is not less than 180 m3/h
- ◆ Type of electrical connection directly through the connector or a block of electric switches
- ◆ Supply voltage 380V
- ◆ Power 12 kW
- ◆ Pump fluid filling, min / max, 1.0/1.4 l



Graph of the dependence of the speed of action from the pressure at the pump inlet



Graph of the dependence of the speed of action from the pressure at the pump inlet



**VBP-500/12000
Oil Booster Pump**

Type: Oil
Pressure range: high vacuum
Speed of action: 10000 l/s

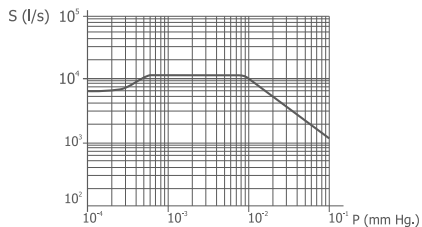
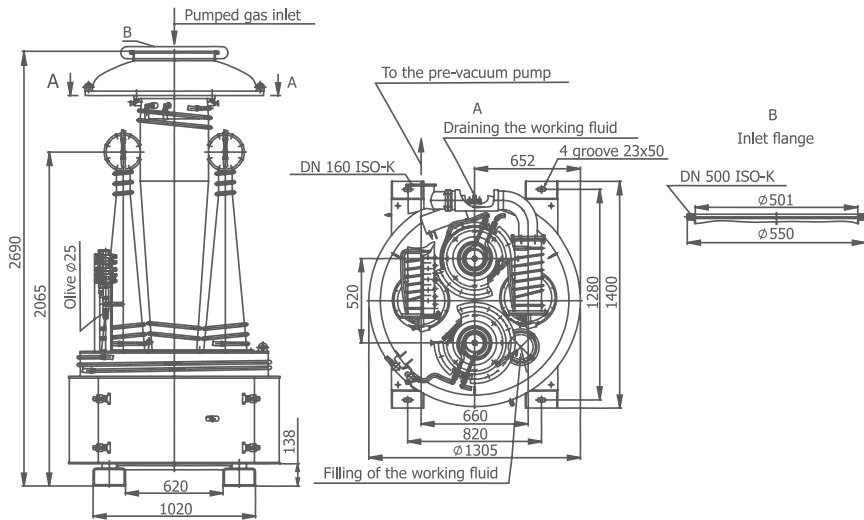
- ◆ High vacuum connection DN 500 ISO-K
- ◆ Forevacuum connection DN 160 ISO-K
- ◆ Carbon steel housing material
- ◆ Water cooling
- ◆ Works only with the pre-vacuum pump
- ◆ The speed of action of the forevacuum pump is not less than 288 m³/h
- ◆ Type of electrical connection directly through the connector or a block of electric switches
- ◆ Supply voltage 380V
- ◆ Power 24 kW
- ◆ Pump fluid filling, min / max, 1.0/1.4 l



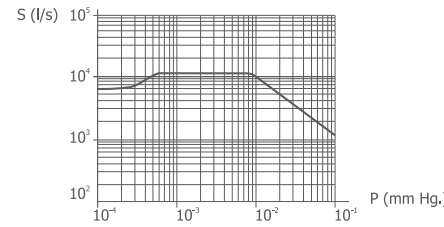
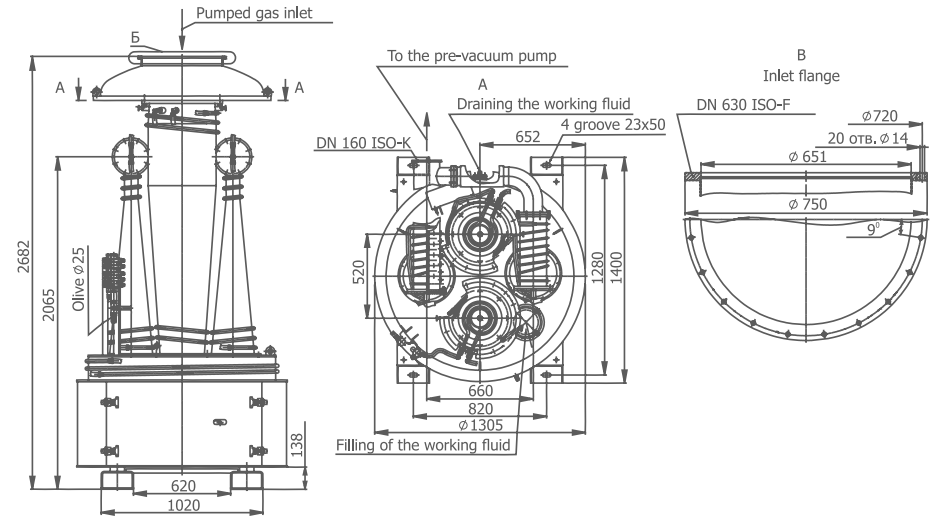
**VBP-630/12000
Oil Booster Pump**

Type: Oil
Pressure range: high vacuum
Speed of action: 12000 l/s

- ◆ High vacuum connection DN 630 ISO-F
- ◆ Forevacuum connection DN 160 ISO-K
- ◆ Carbon steel housing material
- ◆ Water cooling
- ◆ Works only with the pre-vacuum pump
- ◆ The speed of action of the forevacuum pump is not less than 360 m³/h
- ◆ Type of electrical connection directly through the connector or a block of electric switches
- ◆ Supply voltage 380V
- ◆ Power 24 kW
- ◆ Pump fluid filling, min / max, 1.0/1.4 l



Graph of the dependence of the speed of action from the pressure at the pump inlet



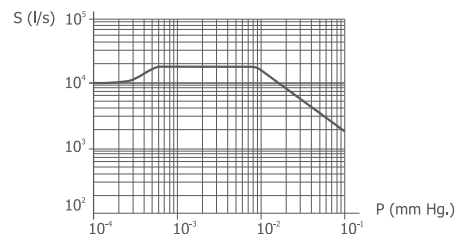
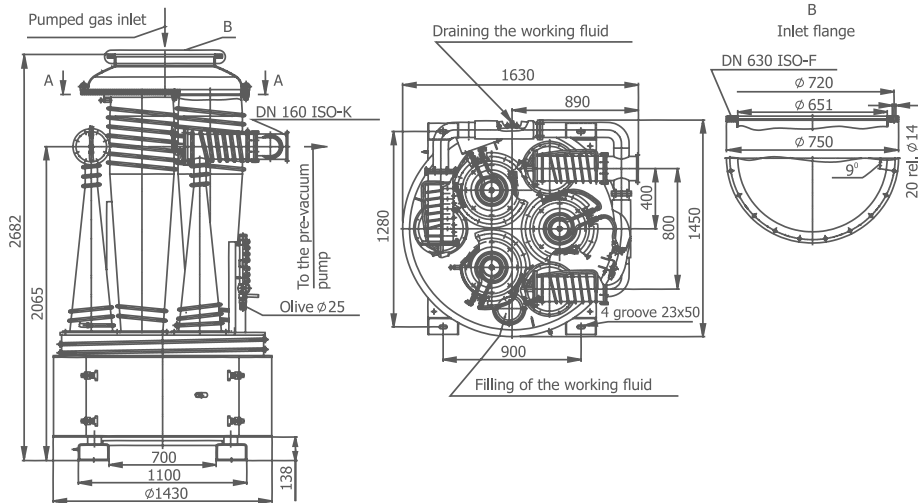
Graph of the dependence of the speed of action from the pressure at the pump inlet



**VBP-630/18000
Oil Booster Pump**

Type: Oil
Pressure range: high vacuum
Speed of action: 18600 l/s

- ◆ High vacuum connection DN 630 ISO-F
- ◆ Forevacuum connection DN 160 ISO-K
- ◆ Carbon steel housing material
- ◆ Water cooling
- ◆ Works only with the pre-vacuum pump
- ◆ The speed of action of the forevacuum pump is not less than 540 m3/h
- ◆ Type of electrical connection directly through the connector or a block of electric switches
- ◆ Supply voltage 380V
- ◆ Power 36 kW
- ◆ Pump fluid filling, min / max, 1,0/1.4 l



Graph of the dependence of the speed of action from the pressure at the pump inlet

TECHNICAL SPECIFICATIONS

NAME OF THE PARAMETER	VBP-160/1000	VBP-250/3000	VBP-400/6000	VBP-500/12000	VBP-630/12000	VBP-630/18000
Speed of action in the range of operating pressures from 1.33 to 1.33×10^{-1} Pa (from 1×10^{-2} to 1×10^{-3} mm Hg), l/s*	880 ⁺¹⁶⁰ ₋₁₂₀	2800 ⁺⁷⁰⁰ ₋₅₂₀	6200 ⁺¹⁵⁰⁰ ₋₅₇₀	10000 ⁺¹⁷⁰⁰ ₋₁₀₀₀	12000 ⁺²⁰⁰⁰ ₋₁₅₀₀	18600 ⁺²⁸⁰⁰ ₋₂₁₀₀
The highest exhaust pressure, at an inlet pressure of 1.33 Pa (1×10^{-2} mm Hg), Pa (mm Hg), not less*	93,3 (0,7)	200 (1,5)				
Power consumption at rated voltage 380 V for a three-phase network current, W	2000 ⁺¹⁰⁰ ₋₂₀₀	6000 ⁺³⁰⁰ ₋₆₀₀	12000 ⁺⁶⁰⁰ ₋₁₂₀₀	24000 ⁺¹²⁰⁰ ₋₂₄₀₀		36000 ⁺¹⁸⁰⁰ ₋₃₆₀₀
Recommended speed of action of the forevacuum pump, l/s, not less	15	25	50	80	100	150
Cooling water consumption temperature from +10°C to +20°C l/h, not less	145	360	600	1200		1800
Volume of the filled working fluid, l ³⁾	5	17	47	65		90
Weight, kg, no more **	60	160	550	1100		1400
Overall dimensions, mm, no more ***						
- height	1050	1730	2414	2690	2682	2682
- width	515	740	1130	1305	1305	1450
- length	595	665	1250	1400	1400	1630

NOTE:

* When the heater power is from nominal to maximum. At the power of the heaters from nominal to minimum, it is possible to reduce the value of the parameters by 30%.

** Without plugs, their fastening parts and working fluid.

*** Without plugs and their fastening parts.