



«SPC «ZME» LLC  
Plekhanova 4A - 111123, Moscow, Russia  
+7 (495) 221-65-55 sales@npk-zme.ru



**CENTRAL VACUUM  
UNITS**

**CVU**



[www.npk-zme.ru](http://www.npk-zme.ru)

**ADVANTAGES**

- 1** The standard model range is based on one, two or three oil-sealed rotary vane vacuum pumps.
- 2** Special designs for medicine, composite materials production, food production, metalworking.
- 3** We design and manufacture vacuum systems according to individual customer requirements.
- 4** Optionally we use oil-free types of vacuum pumps: rotary vane dry pumps, dry claw pumps.

**TYPICAL APPLICATIONS****For medical healthcare institutions**

For hospitals, CVU systems are supplied complete with groups of antibacterial filters of the series ABFG.

The systems provide a stable vacuum from 5 to 600 mbar abs. in the vacuum line of medical centers. The performance of the system, its design and the number of pumps are selected based on the number of connection points on floors in operating rooms, intensive care units or laboratory buildings.

A group of ABFG filters installed in front of the vacuum system removes bacterial and other contaminants (solid and liquid) as efficiently as possible, and is highly effective for use in infectious disease departments.



## For the production of composite materials in the automotive, aircraft and aerospace industries

For composite materials production in the automotive, aircraft and aerospace industries, CVU systems are optionally equipped with wheel supports with locks, a launch and protection unit, and a handle for easy movement of the system.

Ultra-light aircraft wings, fuselage parts and structures made of composite materials provide competitive advantages in aircraft manufacturing and spacecraft, and also significantly save aircraft fuel consumption.

Mobile CVU vacuum systems are especially convenient for moving around the shop from one workbench to another, where parts of almost any shape are located.



## To provide vacuum to CNC machines

To provide vacuum for CNC machines, CVU systems are equipped with a filter and a separator for lubricating and cooling liquids (COOLANT). This protects the vacuum pumps from mechanical impurities, and also cleans the coolant and returns it to the storage unit for reuse if necessary.



## To provide central vacuum in production

Central vacuum in various industries (food, furniture, cigarette, tea-making, etc.). The CVU system allows you to significantly save costs for pump maintenance and electricity. Smart automation detects the vacuum consumption in the production shop and independently regulates the flow rate of the system.

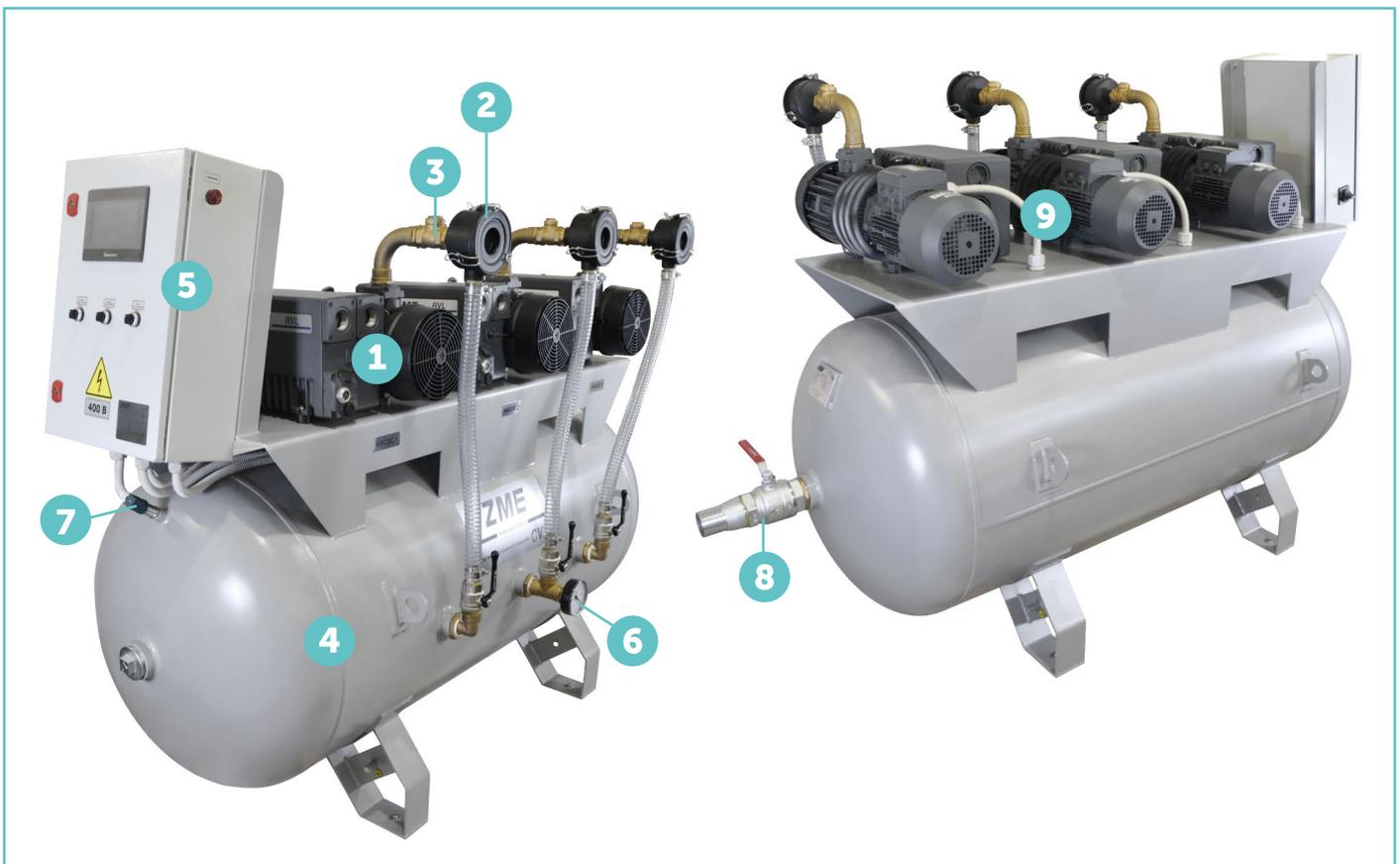
Maintenance of pumps can be carried out alternately without stopping the production process. Trends and operating hours of pumps are recorded individually.



**EQUIPMENT**

All CVU systems are supplied on a turnkey basis, including piping and electrical connections

- 1 Vacuum pump or pumps of various types (standardly oil-sealed rotary vane pumps, optionally we use oil-free types of vacuum pumps),
- 2 FG air filter for each vacuum pump,
- 3 Check valve for each vacuum pump,
- 4 Vacuum receiver 100 l / 300 l / 500 l / 900 l (optional other volumes) in horizontal or vertical configuration,
- 5 System control cabinet with interface in Russian (touch or mechanical control),
- 6 Mechanical vacuum gauge of the arrow type,
- 7 Vacuum sensor,
- 8 Shut-off valves, including a ball valve for connecting the system to an external vacuum line,
- 9 Electrical connections,
- 10 Passport in Russian language.



## ADVANTAGES

- Highly reliable vacuum pumps
- Uniform operating time for all pumps in the system
- Maintenance no more than once every six months/year and without breaking the production process
- The receiver ensures stable operation of pumps without pulsations and frequent starts
- Control cabinet with touch screen or push-button control and intuitive interface. Constant display of the main parameters of the system
- Quick adjustment of vacuum limits
- Operating hours counter for each pump
- "Automatic" and "Manual" operating modes of the system
- A log of the system's operation displaying trends over various time periods



## CVU-SL SERIES

based on one rotary vane oil-lubrication vacuum pump

Model	System capacity, m <sup>3</sup> /h	Working vacuum*, mbar abs.	Receiver volume, l	Maximum power consumption, kW	Dimensions, mm	Weight, kg
CVU 100-20 SL	1 x 20	5-600	100	1 x 0,75	1170x610x1100	138
CVU 100-40 SL	1 x 40	5-600	100	1 x 1,1	1170x610x1100	155
CVU 100-63 SL	1 x 63	5-600	100	1 x 1,5	1170x610x1100	174
CVU 300-40 SL	1 x 40	5-600	300	1 x 1,1	1580x790x1400	268
CVU 300-63 SL	1 x 63	5-600	300	1 x 1,5	1580x800x1400	286
CVU 300-100 SL	1 x 100	5-600	300	1 x 2,2	1580x800x1400	305
CVU 500-200 SL	1 x 200	5-600	500	1 x 4	2020x840x1460	438
CVU 500-300 SL	1 x 300	5-600	500	1 x 7,5	2020x840x1470	488

\* Depending on the application, the upper and lower limits of the system's operating range are adjustable by the operator. Other combinations of receiver volume, pump type and performance are possible. The manufacturer reserves the right to make technical changes



CVU 100-40 BSL

### CVU-DL SERIES

based on two rotary vane oil-lubrication vacuum pumps

Model	System capacity, m <sup>3</sup> /h	Working vacuum*, mbar abs.	Receiver volume, l	Maximum power consumption, kW	Dimensions, mm	Weight, kg
CVU 300-20 DL	2 x 20	5-600	300	2 x 0,75	1580x770x1400	283
CVU 300-40 DL	2 x 40	5-600	300	2 x 1,1	1580x860x1400	318
CVU 500-40 DL	2 x 40	5-600	500	2 x 1,1	2020x880x1400	384
CVU 500-63 DL	2 x 63	5-600	500	2 x 1,5	2020x880x1400	418
CVU 500-100 DL	2 x 100	5-600	500	2 x 2,2	2020x900x1400	452
CVU 900-100 DL	2 x 100	5-600	900	2 x 2,2	2130x1010x1645	545
CVU 900-200 DL	2 x 200	5-600	900	2 x 4	2195x1210x1680	686
CVU 900-300 DL	2 x 300	5-600	900	2 x 7,5	2195x1290x1690	786

\* Depending on the application, the upper and lower limits of the system's operating range are adjustable by the operator. Other combinations of receiver volume, pump type and performance are possible. The manufacturer reserves the right to make technical changes



### CVU-TL SERIES

based on three rotary vane oil-lubrication vacuum pumps

Model	System capacity, m <sup>3</sup> /h	Working vacuum*, mbar abs.	Receiver volume, l	Maximum power consumption, kW	Dimensions, mm	Weight, kg
CVU 300-20 TL	3 x 20	5-600	300	3 x 0,75	1625x786x1400	306
CVU 500-20 TL	3 x 20	5-600	500	3 x 0,75	2070x820x1400	366
CVU 500-40 TL	3 x 40	5-600	500	3 x 1,1	2070x885x1400	425
CVU 500-63 TL	3 x 63	5-600	500	3 x 1,5	2070x850x1400	482
CVU 900-63 TL	3 x 63	5-600	900	3 x 1,5	2210x1035x1650	575
CVU 900-100 TL	3 x 100	5-600	900	3 x 2,2	2210x1035x1650	623
CVU 900-200 TL	3 x 200	5-600	900	3 x 4	1965x1910x2310	1015
CVU 900-300 TL	3 x 300	5-600	900	3 x 7,5	1965x1910x2310	1165

\* Depending on the application, the upper and lower limits of the system's operating range are adjustable by the operator. Other combinations of receiver volume, pump type and performance are possible. The manufacturer reserves the right to make technical changes

## ABFG ANTIBACTERIAL FILTERS GROUPS

To use CVU central vacuum units for medical application (in the hospitals), it is necessary to pre-install a group of ABFG antibacterial filters. A high degree of particle filtration prevents the accumulation of trace elements in the vacuum receiver. A group of shut-off valves allows scheduled maintenance of each filter without decommissioning the vacuum system.

The degree of air purification is 99.99%. The filters are equipped with a differential pressure gauge to determine the degree of contamination.

Model	Total pumping capacity, m <sup>3</sup> /h	Filtration degree, microns	Connection	Weight, kg
ABFG 20	2 x 10	0,01	G 1/2"	38
ABFG 50	2 x 25	0,01	G 1"	44
ABFG 84	2 x 42	0,01	G 1"	46
ABFG 140	2 x 70	0,01	G 1 1/2"	49
ABFG 200	2 x 100	0,01	G 1 1/2"	51
ABFG 420	2 x 210	0,01	G 2 1/2"	90
ABFG 690	2 x 345	0,01	G 3"	100

The manufacturer reserves the right to make technical changes



## SPECIAL VERSIONS OF CENTRAL VACUUM UNITS

"SPC "ZME" LLC designs and produces vacuum units according to individual customer requirements based on pumps of various types, equipping them with additional instrumentation and automation for comprehensive control of the technological process.

### CVU 900-250 BQD system based on dry rotary vane vacuum pumps for woodworking plant

Features:

- total capacity 1000 m<sup>3</sup>/h
- two-level pump start protection
- "dry" vacuum



### CVU 10-2 BSD/M system based on a dry rotary vane vacuum pump for a private winery

Features:

- capacity 1.8 m<sup>3</sup>/h
- additionally installed gas meter
- mobile version



### CVU 900-150 ZQD system based on dry claw vacuum pumps for food production

Features:

- total capacity 600 m<sup>3</sup>/h
- operating range 100-300 mbar abs.
- soft start via VFD
- "dry" vacuum



ALL CVU CENTRAL VACUUM SYSTEMS



Made in Russia



Better in CLASS



Equipped with electric motors with energy efficiency class IE2 standard, IE3 optional



3 years warranty

"SPC "ZME" LLC CARRIES OUT

- 1 Free delivery of equipment to the customer's facility
- 2 Commissioning and installation supervision work at customer sites anywhere in Russia and the countries of the Eurasian Economic Union (EAEU)
- 3 Training of customer personnel



CONTACTS



Moscow

Plekhanova 4A,  
111123, Moscow, Russia

sales@npk-zme.ru +7 (495) 221-65-55



Novosibirsk

Sibiryakov-Gvardeytshev 51/5,  
630048, Novosibirsk, Russia

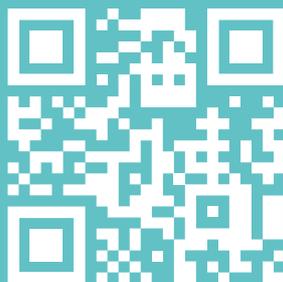
sfo@npk-zme.ru +7 (383) 363-19-03



# **ZME**

**CENTRAL VACUUM UNITS**

# CVU



[www.npk-zme.ru](http://www.npk-zme.ru)