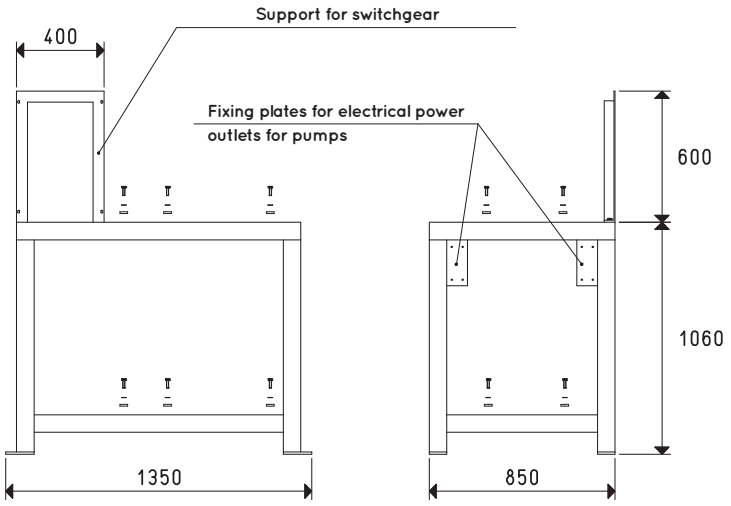
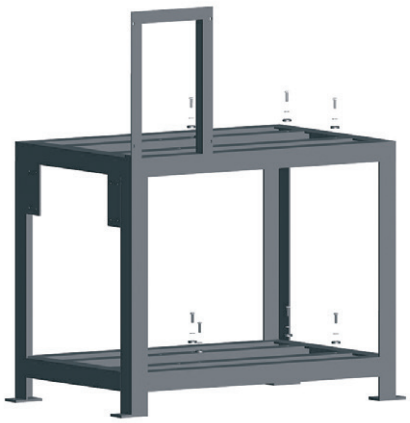
SUPPORT FRAMES FOR TWO VACUUM PUMPS AND SWITCHGEAR

This frame is made with profiled steel and varnished with special weather-resistant paints.
It is suited for assembling two vacuum pumps and their switchgear.

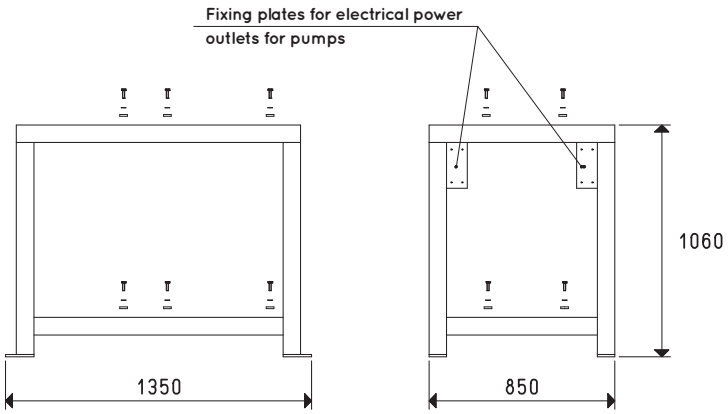


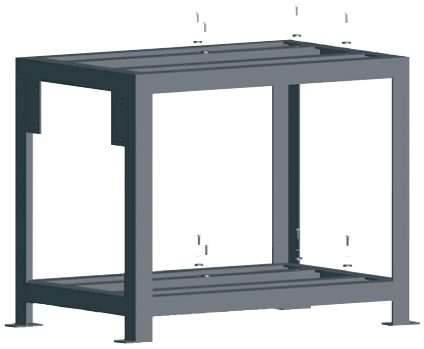


Item	Weight Kg	Fitted for 2 Pumps Mod.	Fitted for switchgear item
00 DSV 16	120	RVP 160 - RVP 200 - RVP 250 - RVP 300	D2V 150 95V DSO 300 97V

SUPPORT FRAMES FOR TWO VACUUM PUMPS

This frame is made with profiled steel and varnished with special weather-resistant paints.
It is suited for assembling two vacuum pumps.



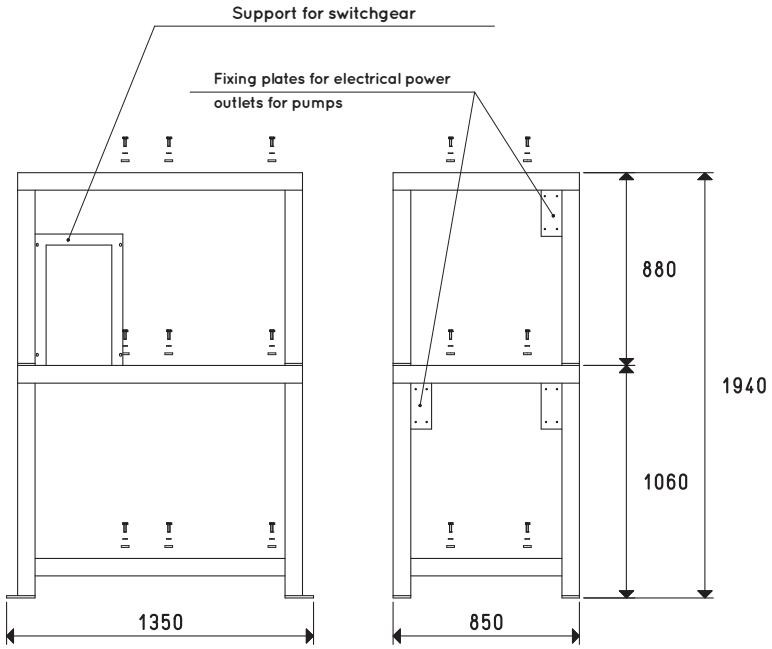


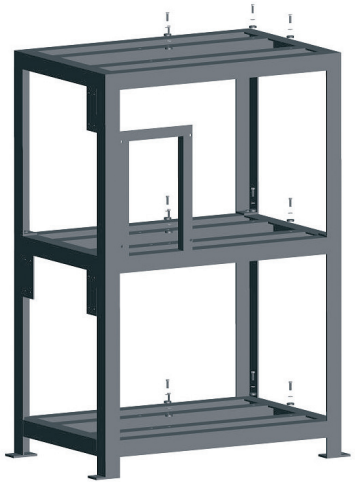
Item	Weight Kg	Fitted for 2 Pumps Mod.
00 DSV 18	117	RVP 160 - RVP 200 - RVP 250 - RVP 300

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

SUPPORT FRAMES FOR THREE VACUUM PUMPS AND SWITCHGEAR

This frame is made with profiled steel and varnished with special weather-resistant paints.
It is suited for assembling three vacuum pumps and their switchgear.

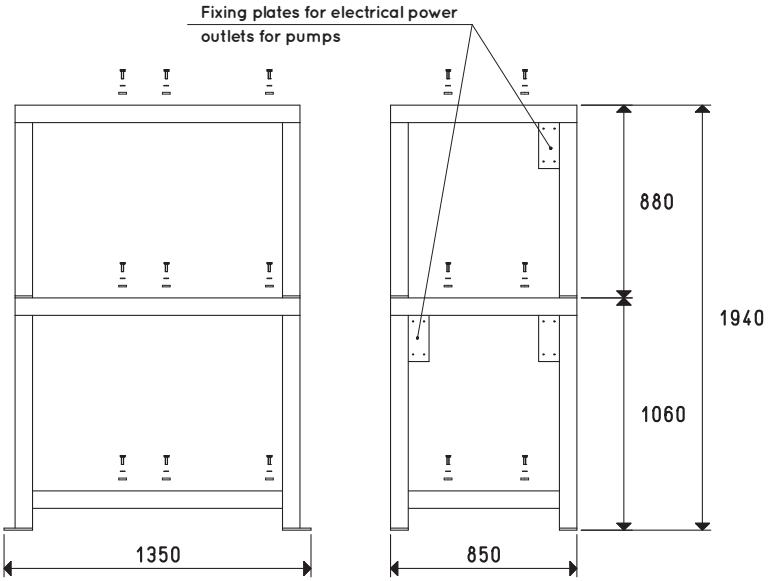


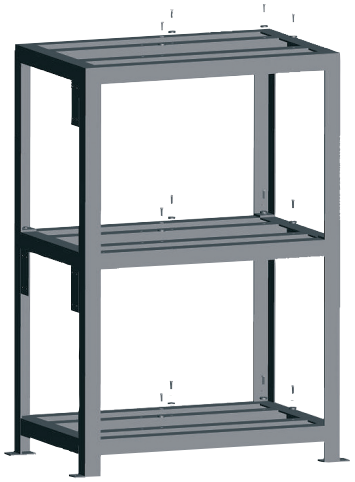


Item	Weight Kg	Fitted for 3 Pumps Mod.	Fitted for switchgear item
00 DSV 20	200	RVP 160 - RVP 200 - RVP 250 - RVP 300	DSO 300 98V

SUPPORT FRAMES FOR THREE VACUUM PUMPS

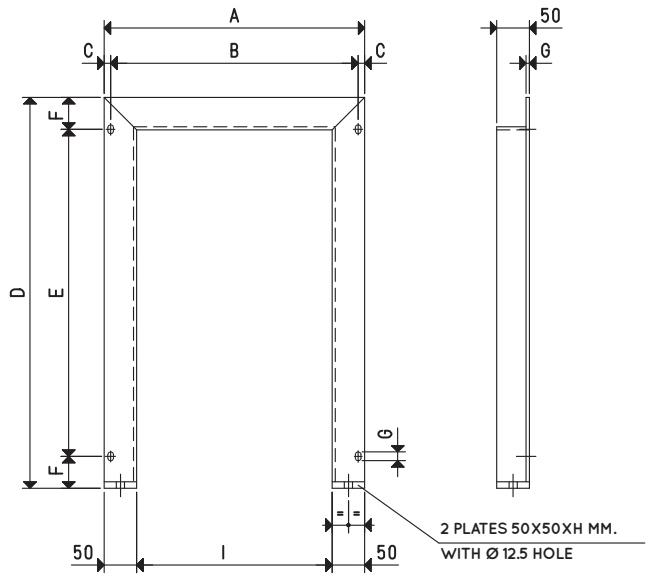
This frame is made with profiled steel and varnished with special weather-resistant paints.
It is suited for assembling three vacuum pumps.



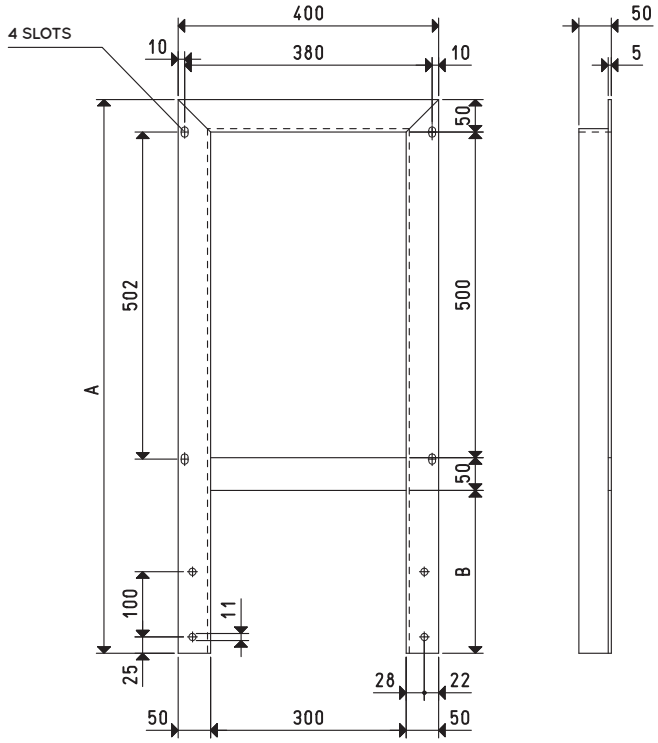


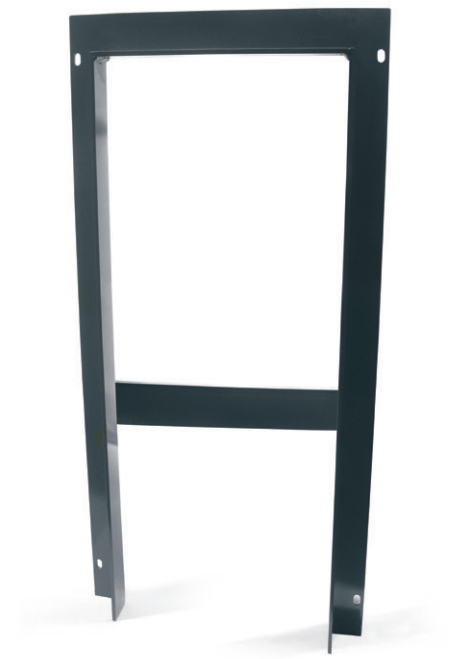
Item	Weight Kg	Fitted for 3 Pumps Mod.
00 DSV 22	197	RVP 160 - RVP 200 - RVP 250 - RVP 300

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$



Item	Weight Kg	A	B	C	D	E	F	G	H	I	Fitted for switchgear item
00 DV 16	1.5	300	256	22	300	256	22	3	10	200	DO 100 98V - DO 100 97V
00 DSV 08	5.5	400	380	10	700	502	49	5	10	300	D2V 150 95V - DSO 300 97V
00 DSV 33	7.0	500	480	10	700	602	49	5	10	400	DSO 300 98V - DSV 2000 99V



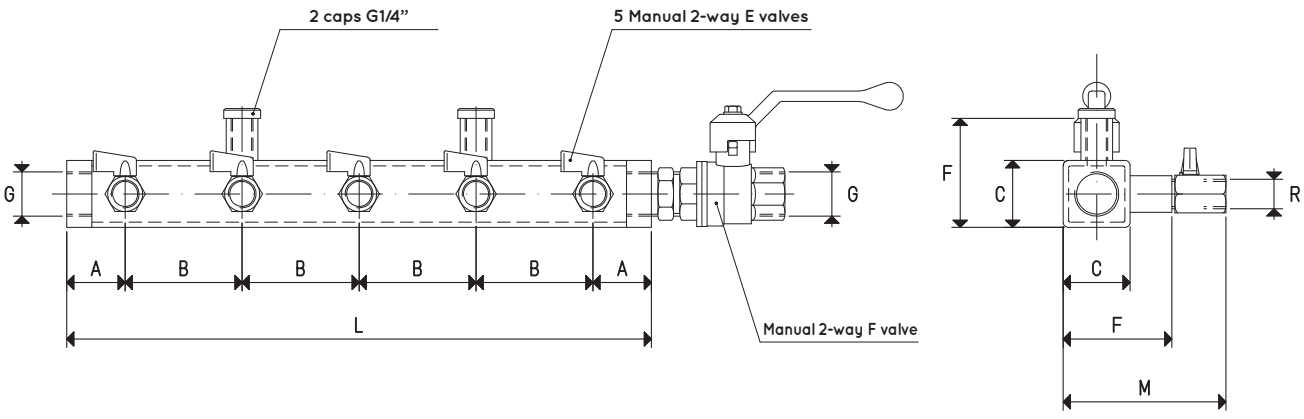


Item	Weight Kg	A	B	C	Fitted for switchgear item
00 DSO 07	7.5	850	250	850	DSO 300 97V
00 DSO 08	9.0	920	430	920	DSO 300 97V

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

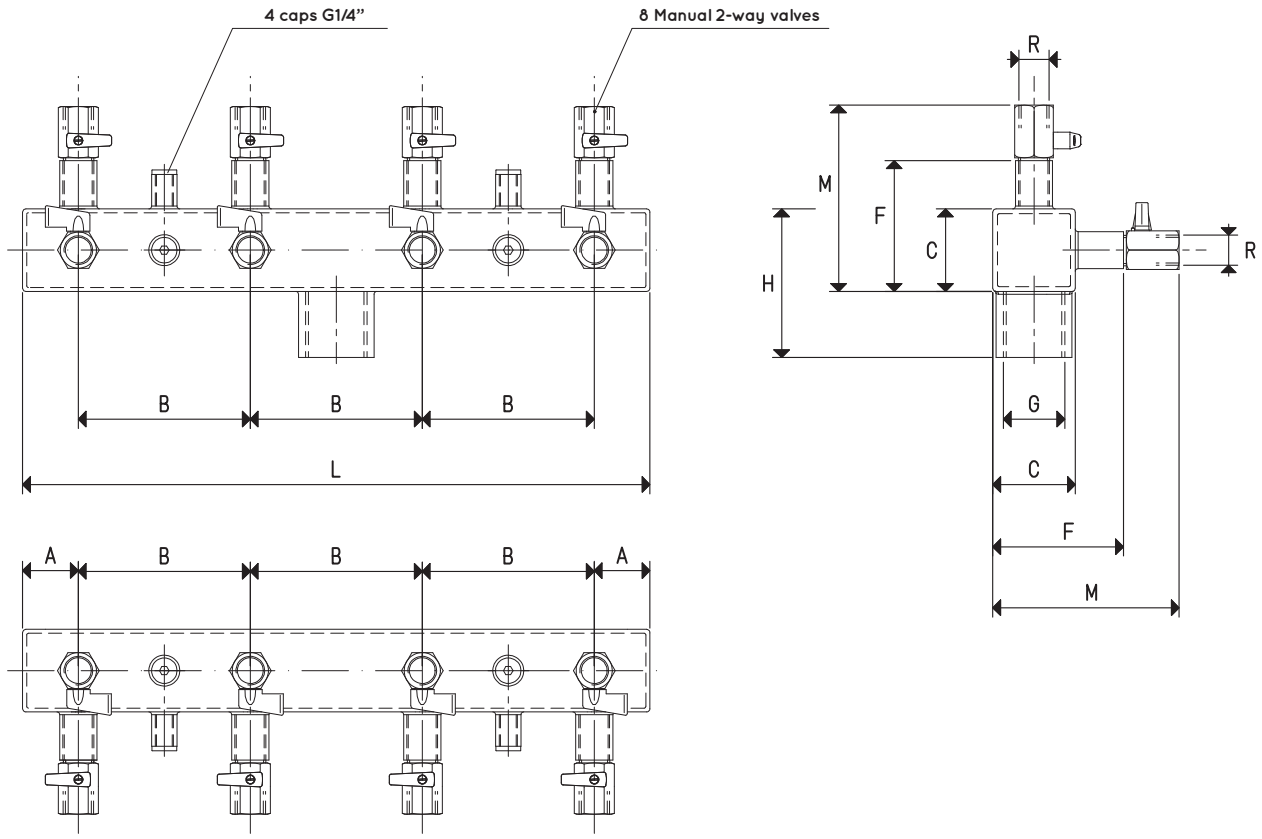
VACUUM PUMP AND PUMP SET MANIFOLDS

These manifolds are made to distribute the vacuum generated by the pumps and pump sets to several services.
They are composed of a varnished steel tubular onto which the interception valves and the connections to the level of vacuum reading and control devices are installed.
The manifolds described in these pages are standard. Upon request, they can be supplied with different shapes and sizes.

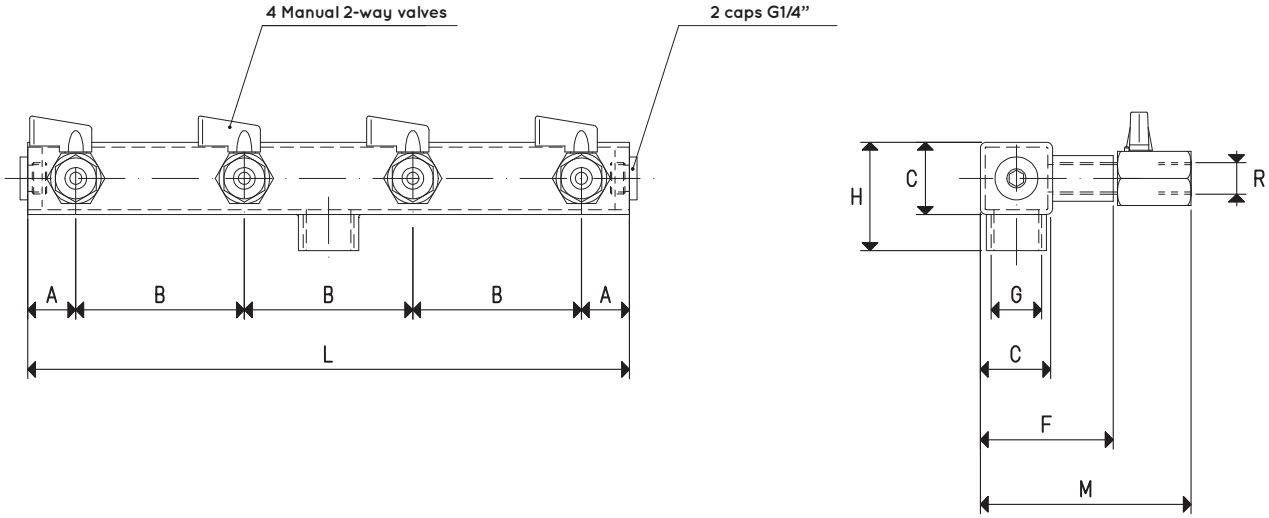


Item	A	B	C	F	G Ø	L	M	R Ø	Manual valve E item	Manual valve F item	Weight Kg
COLL 01 03	35	70	40	65	G1/2"	350	100	G1/4"	13 01 11	13 03 10	1.75
COLL 01 04	35	70	40	65	G3/4"	350	100	G3/8"	13 02 11	13 04 10	1.90
COLL 01 05	35	70	40	65	G1"	350	100	G3/8"	13 02 11	13 05 10	2.00
COLL 01 06	40	85	60	85	G1"1/4	420	160	G1/2"	13 03 11	13 06 10	2.50
COLL 01 07	40	85	60	85	G1"1/2	420	160	G1/2"	13 03 11	13 07 10	2.60

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130



Item	A	B	C	F	G Ø	H	L	M	R Ø	Manual valve item	Weight Kg
COLL 02 03	37.5	125	40	65	G1/2"	74	450	97	G1/4"	13 01 11	2.5
COLL 02 05	37.5	125	40	66	G1"	84	450	96	G3/8"	13 02 11	2.7
COLL 02 07	37.5	125	60	94	G1"1/2	108	450	127	G1/2"	13 03 11	2.9



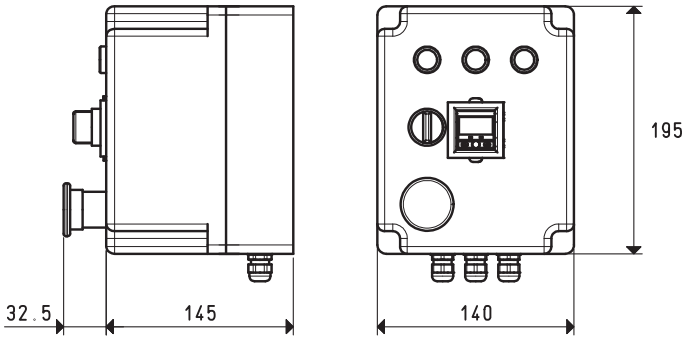
Item	A	B	C	F	G Ø	H	L	M	R Ø	Manual valve item	Weight Kg
COLL 03 03	20	70	30	55	G1/2"	64	250	87	G1/4"	13 01 11	1.2
COLL 03 05	20	70	40	66	G1"	84	250	96	G3/8"	13 02 11	1.4
COLL 03 07	20	70	60	94	G1"1/2	108	250	127	G1/2"	13 03 11	1.5

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

MINI PUMP SET SWITCHGEAR

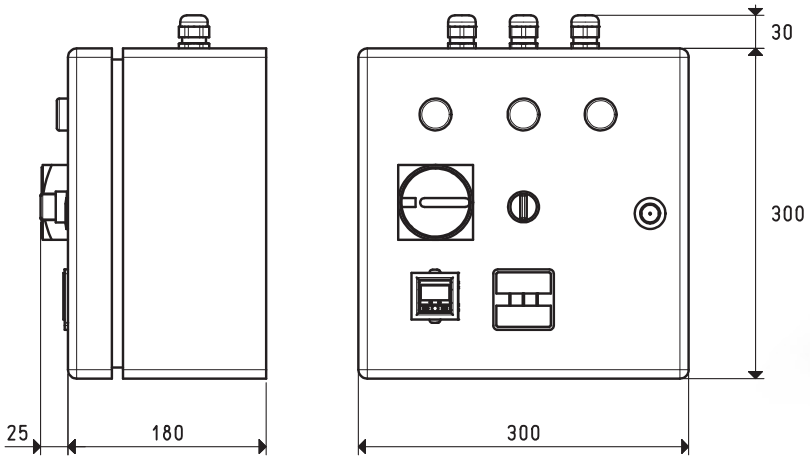
The mini pump set switchgear is enclosed in a special plastic casing. It can automatically manage a vacuum pump with a maximum power of 5.5 KW with AC and can also maintain the level of vacuum in the tank, set with the digital vacuum switch installed on the control panel.
It is equipped with a remote control switch with thermal protection, a fuse, digital vacuum switch, a transformer for low voltage auxiliary command, a selector for automatic or manual pump operation, an emergency button and signalling lamps.

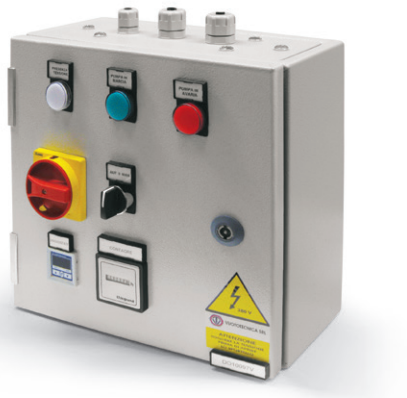


Item	Quantity of pumps No.	Motor performance Volt	Max pump power Kw	Weight Kg
DO 06 98V	1	1 ~ 230-50Hz	5.5	2
DO 06 97V	1	3 ~ 230/400-50Hz	5.5	2

SWITCHGEAR FOR PUMP SETS WITH ONE PUMP

The pump set switchgear is enclosed in a special watertight metal casing and can manage a vacuum pump with a power up to 7.5 KW as well as maintain the level of vacuum in the tank, set with the digital vacuum switch.
It is equipped with a remote control switch with thermal protection, fuses, a transformer for low voltage auxiliary command power supply, a line switch, a changeover switch for the automatic or manual pump operation, an easily-programmable digital vacuum switch suitable for setting and controlling all vacuum functions, an hour-counter for measuring the actual pump operation time and signalling lamps.



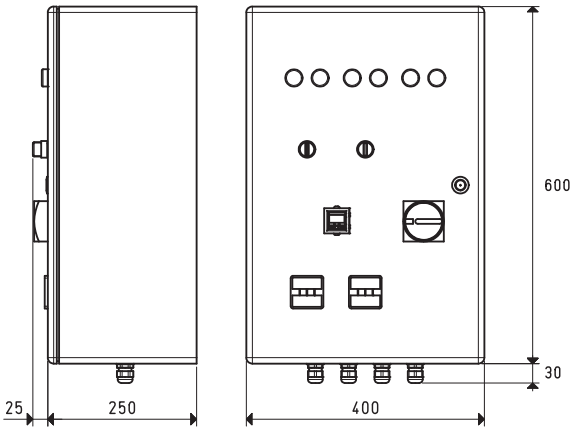


Item	Quantity of pumps No.	Motor performance Volt	Max pump power Kw	Weight Kg
DO 100 98V	1	1 ~ 230-50Hz	7.5	8
DO 100 97V	1	3 ~ 230/400-50Hz	7.5	8

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

SWITCHGEAR FOR PUMP SETS WITH TWO PUMPS

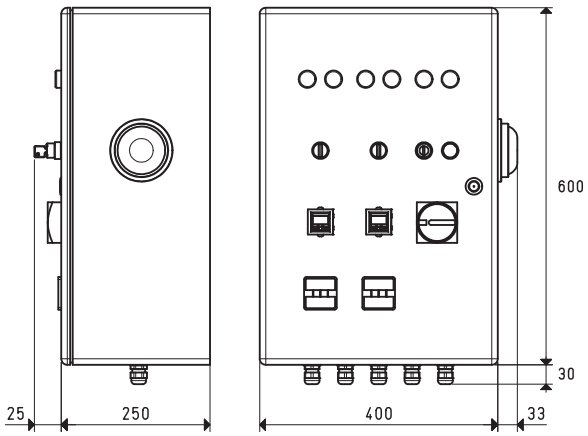
The pump set switchgear is enclosed in a special watertight metal casing and can manage two vacuum pumps, each with a power up to 7.5 KW as well as maintain the level of vacuum in the tank, set with the digital vacuum switch.
It is equipped with two remote control switches with thermal protection, fuses, a transformer for low voltage auxiliary command power supply, a line switch, a changeover switches for the automatic or manual pump operation, an easily-programmable digital vacuum switch suitable for setting and controlling all vacuum functions, two hour-counters for measuring the actual pump operation time and signalling lamps.



Item	Quantity of pumps No.	Motor performance Volt	Max pump power Kw	Weight Kg
D2V 150 95V	2	3 ~ 230/400-50Hz	7.5 cad.	24

SWITCHGEAR FOR SAFETY PUMP SET WITH 2 PUMPS

The pump set switchgear, is enclosed in a special watertight metal casing andautomatically manages two vacuum pumps, each with a power up to 7.5 KW and maintains the level of vacuum in the tank, set with the two easily-programmable digital vacuum switches, suitable for setting and controlling all vacuum functions.
It is equipped with two remote control switches with thermal protection, fuses, a transformer for low voltage auxiliary command power supply, a line switch, a changeover switches for the automatic or manual pump operation, two digital vacuum switches, two hour-counters for measuring the actual pump operation time, an alarm siren with acoustic and lit signalling, a key selector for any necessary exclusion of the siren, test buttons and signalling lamps.
The switchgear is normally provides for the operation of one pump with subsequent automatic insertion of the second one for larger consumptions and when, for whatever reason, the plant level of vacuum goes under the preset value.
The automatic timed inverter precisely alternates priority pump start-up of the services so that they are subjected to equal mechanical wear. The switchboard and remote alarm systems operate when the plant level of vacuum is below the set safety value.

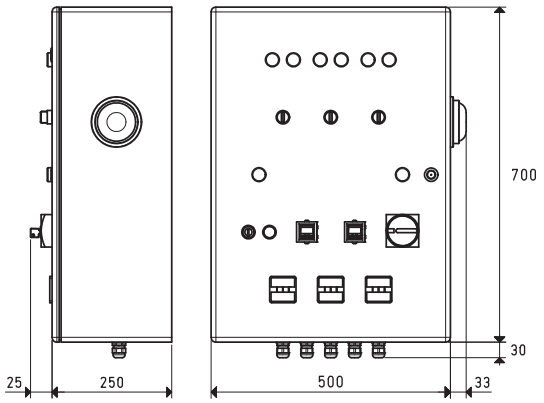


Item	Quantity of pumps No.	Motor performance Volt	Max pump power Kw	Weight Kg
DSO 300 97V	2	3 ~ 230/400-50Hz	7.5 cad.	27

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

SWITCHGEAR FOR SAFETY PUMP SETS WITH THREE PUMPS

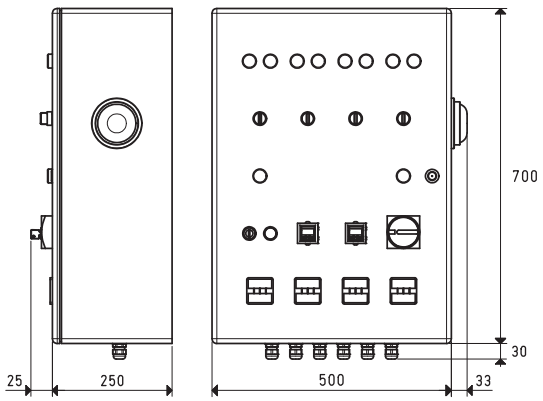
The pump set switchgear, is enclosed in a special watertight metal casing andautomatically manages three vacuum pumps, each with a power up to 7.5 KW and maintains the level of vacuum in the tank, set with the two easily-programmable digital vacuum switches, suitable for setting and controlling all vacuum functions.
It is equipped with three remote control switches with thermal protection, fuses, a transformer for low voltage auxiliary command power supply, a line switch, a changeover switches for the automatic or manual pump operation, three digital vacuum switches, two hour-counters for measuring the actual pump operation time, an alarm siren with acoustic and lit signalling, a key selector for any necessary exclusion of the siren, test buttons and signalling lamps. The switchgear is normally provides for the operation of one pump with subsequent automatic insertion of the other two for larger consumptions and when, for whatever reason, the plant level of vacuum goes under the preset value.
The automatic timed inverter precisely alternates priority pump start-up of the services so that they are subjected to equal mechanical wear. The switchboard and remote alarm systems operate when the plant level of vacuum is below the set safety value.



Item	Quantity of pumps No.	Motor performance Volt	Max pump power Kw	Weight Kg
DSO 300 98V	3	3 ~ 230/400-50Hz	7.5 cad.	29

SWITCHGEAR FOR SAFETY PUMP SET WITH FOUR PUMPS

The safety pump set switchgear is enclosed in a special watertight metal casing and it automatically manages four vacuum pumps, each with a power up to 7.5 KW, and maintains the level of vacuum in the tank, set with the two easily-programmable digital vacuum switches, suitable for setting and controlling all vacuum functions. It is equipped with four remote control switches with thermal protection, fuses, a transformer for low voltage auxiliary command power supply, a line switch, a changeover switches for the automatic or manual pump operation, two digital vacuum switches, four hour-counters for measuring the actual pump operation time, an alarm siren with acoustic and lit signalling, a key selector for any necessary exclusion of the siren, test buttons and signalling lamps.
These switchgears normally provide for the operation of two pumps and the subsequent automatic insertion of the other two for larger consumptions and when, for whatever reason, the plant level of vacuum goes below the preset value.
The automatic timed inverter precisely alternates priority pump start-up of the services so that they are subjected to equal mechanical wear.
The switchboard and remote alarm systems operate when the plant level of vacuum is below the set safety value.



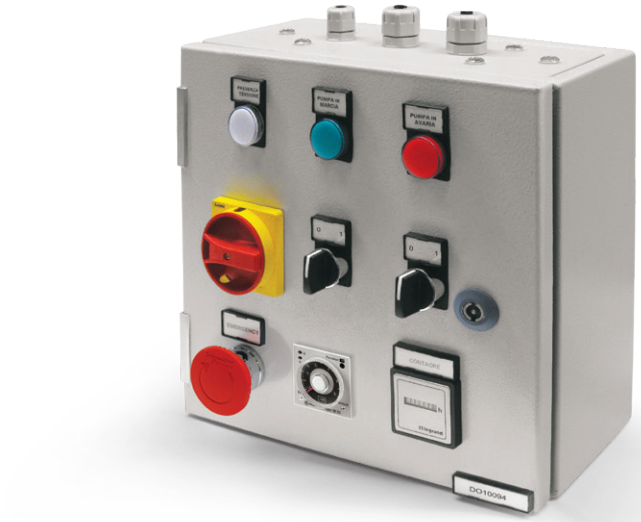
Item	Quantity of pumps No.	Motor performance Volt	Max pump power Kw	Weight Kg
DSV 2000 99V	4	3 ~ 230/400-50Hz	7.5 cad.	29.5

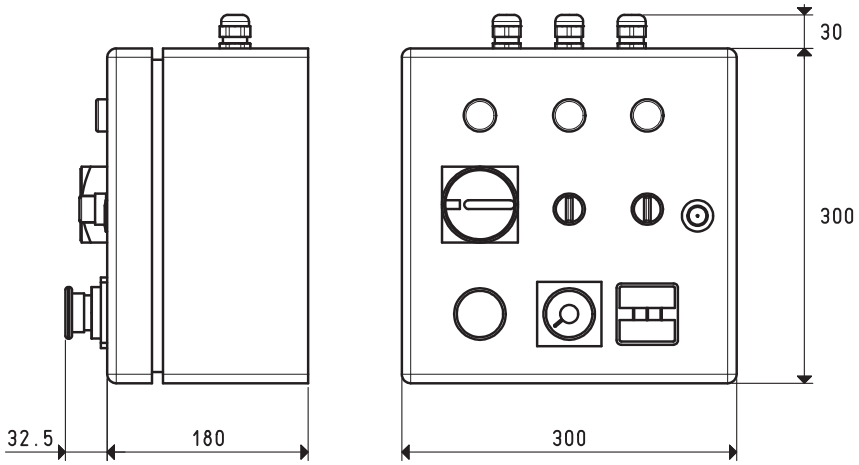
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

SWITCHGEAR FOR SINGLE PUMP

The need to use the same vacuum pump in various spots in the work environment, such as, for example, a shipyard, has led us to creating this mobile switchgear that allows for polarity reversal in presence of current, as well as for time setting pump operation and the automatic start-up restoration in case of accidental black-out.
The switchgear is enclosed in a special watertight metal casing and it is composed of fuses, remote control switches with thermal protection and a transformer for low voltage auxiliary command power supply. The following are instead installed on the casing lid:
- A line switch with indicator light
- A changeover switch for pump start-up with indicator light
- A changeover switch for polarity reversal
- An emergency button
- A timer for setting the duration of pump operation
- An hour-counter for counting the actual pump operation time
- A malfunction warning light.

This switchgear is supplied in special metal watertight casing and can manage pumps with power up to 7.5 Kw.





Item	Quantity of pumps No.	Motor performance Volt	Max pump power Kw	Weight Kg
DO 100 94	1	3 ~ 230/400-50Hz	7.5	8.0

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

VACUUM PUMP QUESTIONNAIRE

For a correct dimensioning and selection of a vacuum pump, it is important to know and assess the use to be made as well as the working environment in which it will operate.
For this reason, we kindly ask you to fill in this form and send it back to us via e-mail or fax.
We will suggest the best vacuum pump to solve your problem.
E-mail: tecnico@vuototecnica.net
Fax: +39 039 5320015

Company

.....

Address

.....

Post code / City ***Country***

....

Contact person:

.....

Telephone ***Fax***

....

E-mail

1) In what industry sector are the vacuum cups utilised?

☐ *Plastic* ☐ *Packaging* ☐ *Woodworking* ☐ *Cosmetics*
☐ *CD/DVD* ☐ *Glass/Solar* ☐ *Marble/Stone* ☐ *Automotive*
☐ *Electronics* ☐ *Graphic arts* ☐ *Medical/Pharmaceutical* ☐ *Ceramics/Porcelain*
☐ *Food* ☐ *Bottling* ☐ *Other sectors* .....

2) Which service should the vacuum pump be designed for?

☐ *Handling with vacuum cups* ☐ *Vacuum clamping*
☐ *Degassing of silicon or resin mixtures* ☐ *Vacuum packaging*
☐ *Moulding of plastics/rubbers/resins/aluminium*
☐ *Emptying containers: Volume/L* ..... *Time required s* ..... *Max vacuum mbar abs.* .....
☐ *Other use* .....

3) Where will the vacuum pump be located?

☐ *Inside a plant or mobile unit*
☐ *Outside a plant or mobile unit*
☐ *Height above sea level of the place where the pump is installed m* .....
☐ *Temperature of the work environment: min °C* ..... *max °C* ..... *Humidity %.* .....

4) Type of sucked fluid?

☐ *Dry air* ☐ *Moist air* ☐ *Air with water* ☐ *Air with oil vapours*
☐ *Aggressive gases* ..... ☐ *Air with abrasive dust*
☐ *Fluid temperature °C* .....

5) Required flow rate?

☐ *m^3/h* ..... ☐ *Nl/min* ..... ☐ *cfm* .....

6) Required level of vacuum?

☐ *mbar abs.* ..... ☐ *mmHg* ..... ☐ *-KPa* .....

7) Use of the vacuum pump and related work cycles

Daily duration: ☐ *8 hours* ..... ☐ *16 hours* ..... ☐ *24 hours* ..... ☐ *Hours?* .....
Number of work cycles/hour ☐ *Intermittency times:* *ON/ s* ..... *OFF/s* .....
Are there strong level of vacuum oscillations in the plant? ☐ *Yes* ☐ *No*
If yes, within what values? *min* ..... *mbar* *max* ..... *mbar*

3D drawings are available on **vuototecnica.net**

8) When the pump stops, does the air return in the vacuum system need to be prevented?

☐ *Yes* ☐ *No*

The seal is ensured by the check valves, whose use is:
- Mandatory, on lubricated vacuum pumps
- Optional, on dry vacuum pumps
Note: Check valves are integrated onto oil-bath vacuum pumps on the RVP series.

9) Vacuum holding time

Does the vacuum need to be maintained for a specific time? (for example, to support a suspended load with vacuum cups, in case of a blackout) ☐ *Yes* ☐ *No*
If yes, for how long? s .....

10) Vacuum tanks

☐ *Required volume L* ..... ☐ *Recommended volume L* ..... ☐ *Available volume L* .....

11) Purchase prospects

☐ *Single request* ..... ☐ *No.* ..... *pumps/year* ☐ *Required delivery:* .....

11) Purchase prospects

☐ *Single request* ..... ☐ *No,* ..... *pumps/year* ☐ *Required delivery:* .....

12) In the event of vacuum pump replacement

☐ *Model used to present:* ..... ☐ *Flow rate m3/h* ..... ☐ *Level of vacuum mbar* .....
☐ *Brand* .....
Electrical power: ☐ *Single-phase* ☐ *Volt 230-50 Hz* ☐ *Other Volt* ..... *Hz* .....
☐ *Three-phase* ☐ *Volt 230/400-50 Hz* ☐ *Other Volt* ..... *Hz* .....

13) Contact

☐ *Do you wish to be called back?* *Yes* ☐ *No* ☐
☐ *Are you interested in a visit?* *Yes* ☐ *No* ☐ *If yes, what date/time?* .....