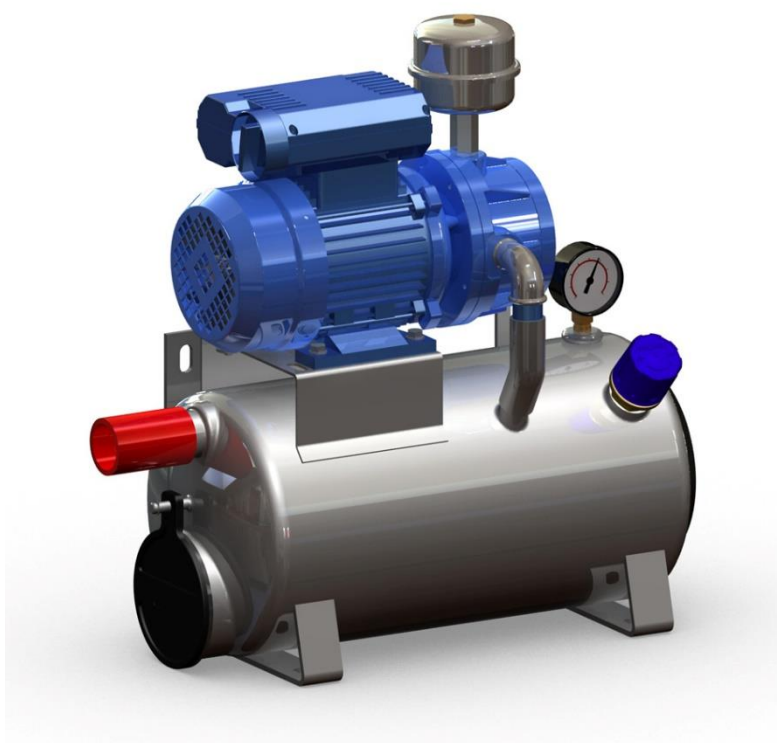


# **CTA milk<sup>®</sup>**

## **VACUUM PUMPS FOR MILKING MACHINES**



**MODEL**

**GPV 200**  
**GPV 280**  
**GPV 250/350/380**



## GENERAL INDEX

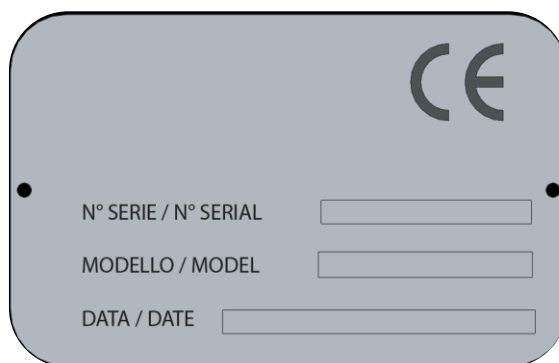
1. INTRODUCTION	pag. 1
2. IDENTIFICATION OF THE MACHINE	pag. 1
3. DESCRIPTION OF THE MACHINE	pag. 2
4. TECHNICAL DATA	pag. 3
5. GENERAL SAFETY PRECAUTIONS	pag. 4
6. MOVEMENT AND PLACEMENT OF THE MACHINE	pag. 5
7. PRELIMINARY OPERATION	pag. 5
8. USE OF THE MACHINE	pag. 6
9. MAINTENANCE	pag. 6
10. CHOICE OF OIL	pag. 7
11. CAPILLARY SYSTEM LUBRIFICATION	pag. 7 - 8
12. TROUBLESHOOTING	pag. 8
13. WARRANTY	pag. 9
14. DECLARATION OF CONFORMITY CE	pag. 9



## 1. INTRODUCTION

- 1.1 This manual has been realized to make the use and maintenance of the machine safe.
- 1.2 Read the instructions in this manual before any operations. In case of trouble, please contact us.
- 1.3 The non-observance of the safety regulations can cause accidents.
- 1.4 The incorrect use and maintenance reduce the last of the machine.
- 1.5 This manual is part of the machine. It must be always available near the machine and kept in a safe, sheltered and dry place.
- 1.6 In case of loss of the manual, please ask us for a duplicate indicating the model and the serial number of the machine.
- 1.7 The manufacturer has the right to bring up to date the production and the manuals without the obligation to bring up to date the previous manuals, save exceptional cases.

## 2. IDENTIFICATION OF THE MACHINE



CE

N° SERIE / N° SERIAL

MODELLO / MODEL

DATA / DATE

The above reported CE mark and the plate on the machine report the manufacture's data, the model, the serial number and the date of manufacturing.

The CE marking and the declaration of conformity attached certifies that the machine is constructed in accordance with directives:

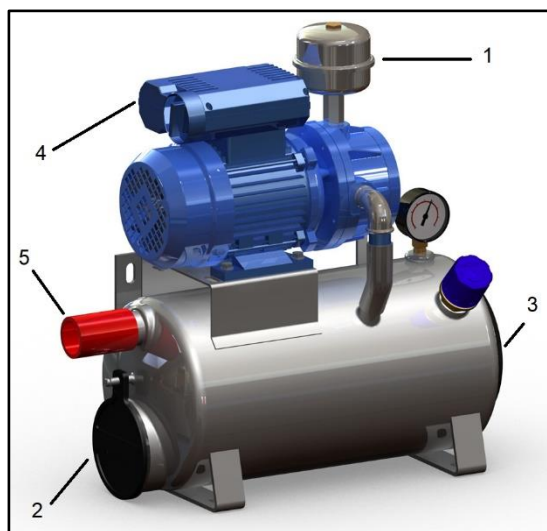
-2006/42/CE

-2014/30/UE

-UNI EN ISO 12100 : 2010

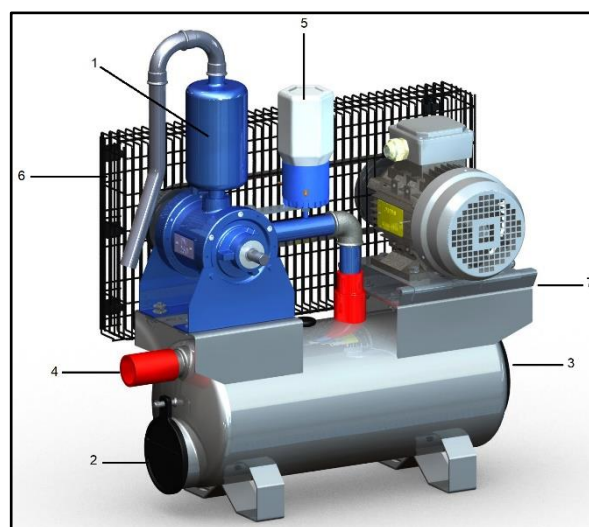
### 3. DESCRIPTION OF THE MACHINE

#### GPV 200



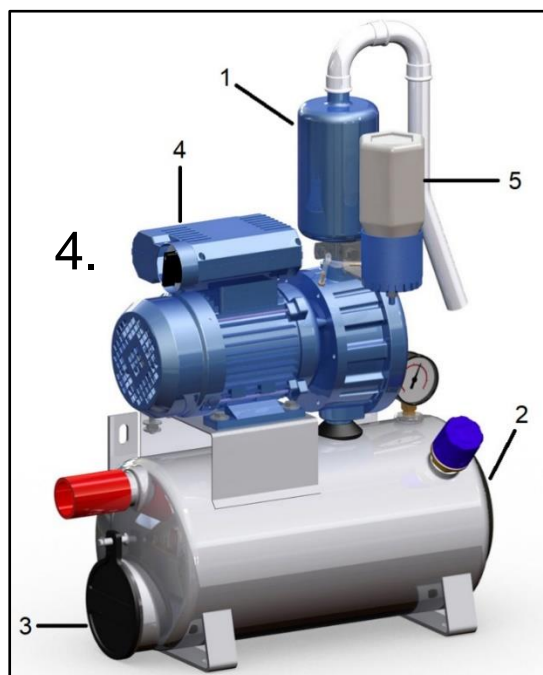
1. Silencer
2. Discharge of condense
3. Tank's plug
4. Switch
5. Rubber coupling adiprene

#### GPV 250



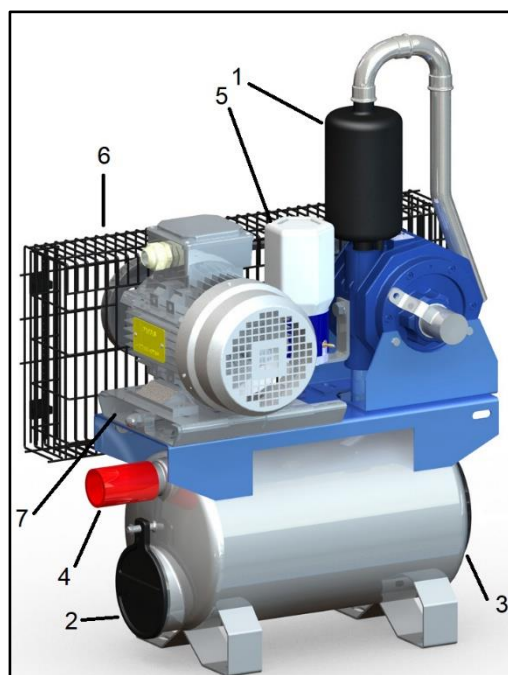
1. Silencer
2. Discharge of condense
3. Tank's plug
4. Rubber coupling adiprene
5. Oiler
6. Protection belt
7. Slide tightening belts

#### GPV 280 FL



1. Silencer
2. Tank's plug
3. Discharge of condense
4. Switch
5. Oiler

#### GPV 350/380



1. Silencer
2. Discharge of condense
3. Tank's plug
4. Rubber coupling adiprene
5. Oiler
6. Protection belt
7. Slide tightening belts

## 4. TECHNICAL DATA

### 4.1 Use

The machine has been planned to work as vacuum pump for milking machines. Uses different from this have not been planned.

### 4.2 Models

Our models are the following: GPV 200 dry, GPV 280 dry or lubricate, GPV 250 lubricate, GPV 350 lubricate, GPV 380 lubricate

MODEL		GPV 200 Dry	GPV 280 Dry	GPV 280 Oil	GPV 250 Oil	GPV 350 Oil	GPV 380 Oil
Length	Cm	60	60	70	70	76	76
Breadth	Cm	24	24	24	30	35	35
Height	Cm	55	62	75	80	95	95
Motor speed	RPM	1400	1400	1400	1400	1400	1400
Pump speed	RPM	1400	1400	1400	1400	1400	1400
Motor Power	HP	1,1	1,3	1,3	1,5	1,5	1,5
Tank	Lt	22	22	22	28	45	45
Lubrific.		NO	NO	YES	YES	YES	YES
Weight	Kg	30	42	43	50	60	60
Motor pulley	DIRECT TRANSMISSION				120 1A	130 1A	130 1A
Pump pulley	DIRECT TRANSMISSION				120 1A	130 1A	130 1A
Belt	DIRECT TRANSMISSION				A 44	A 41	A 41

**\*\*NOTE:** the height is include of silencer

## 5. GENERAL SAFETY REGULATIONS

- In order to ensure maximum reliability, the company has made a careful choice of materials and components to be used in the construction of the machine.
  - It is forbidden to use the machine for other purposes than those indicated in the manual.
  - The staff use and maintenance of the machine, as well as know the contents of this manual, must be appropriately educated and trained.
  - Each operation that covers the supply must be performed by qualified personnel, able to meet the technical standards and laws in force, with permission of the installer.
  - Dangerous conditions and notices are identified by stickers on the machine. These labels must be replaced when worn or lost.
- Do not groped to change any products so as not to create conditions of insecurity and so do not miss all the guarantees.



READ THE MANUAL BEFORE  
USING THE MACHINE



BEFORE ANY ACTION ON  
THE MACHINE TO REMOVE  
THE POWER SUPPLY



KEEP HANDS AWAY  
FROM PULLEYS AND BELTS  
WHEN THEY ARE IN FUNCTION



CAUTION HOT PARTS  
OF THE MACHINE.  
DANGER TO BURNS.



WEEKLY CHECK THE OIL LEVEL.  
IF THE PUMP SHOULD RUN WITHOUT 'OIL IT WOULD BE  
EXPOSED TO RISK OF DAMAGE.



CHECK THAT THE NUMBER OF SPEED AND DIRECTION OF ROTATION  
OF THE SHAFT MATCH THE INFORMATION THAT THERE ARE ON THE MACHINE.



THE MAINTENANCE, CLEANING, OR CASUAL OTHER OPERATIONS  
SHOULD BE DONE WITH THE MACHINE OFF. PROTECTIONS MUST  
BE TEMPORARILY REMOVED AND THEN AGAIN REINSTALLED  
CORRECTLY.



## 6. MOVEMENT AND PLACEMENT OF THE MACHINE



The movement and transport of machine can be made with standard lifting.

Never raise the machine using a single part of the base and always make sure that there is a proper weight distribution to avoid spills.

The installation must allow for appropriate ventilation for the cooling of engine and enough space for maintenance.

The machine at work could move for the vibrations ensure that it is properly secured on the base.

## 7. PRELIMINARY OPERATIONS

7.1 The machine is ready to be used as it is tested before the delivery.

7.2 Before use the machine make sure that the protections are fixed safely.

7.3 The pumps must be installed in an adequate and sheltered place.

7.4 When the machine is installed in a enclosed area, the discharge of waste must be carried out with suitable piping.

## 8. USE OF THE MACHINE

Before performing any work on the machine, disconnect the electric current of the motor which drives the pump.

For milking, the vacuum pump reaches the required vacuum.

The maximum level when the vacuum pump can work is 50 kPa

The operating temperature is about 70/80 °C:

8.1 The machine is moved by an electric motor. Must install the contactor (TERMLD) to save the engine from possible anomalies in the lines of electric current.

8.2 The pump must be fitted correctly to prevent excessive vibration.

8.3 Connect the suction and discharge through the rubber joint. Make sure that the pipes are adequately supported and not a burden on the body of the pump.

## 9. MAINTENANCE

Since the machine is not complicated, it just needs a few tips:

- Keep clean rotating parts prepared for processing

When the wash water or milk intake proceed as follows:

- Remove the exhaust
- Fill the pump with 0.25lt of diesel fuel
- Rotate the hand pump for about 3 minutes
- Allow the liquid in the pump for about 4 minutes
- Disconnect the pump tubes of lubricant and work the pump for about 5 minutes
- Repeat the operation in case of loss
- Replace the caps worn
- Adjust the tension of drive belts loosening screws securing the support of the sled motor turning the scrow adjustment at the side of the substrate
- Pressing with the thumb drive belt, the intermediate zone of the two pulleys, its decline should not exceed 1.5cm when a replacing the belts is worn throughout the series

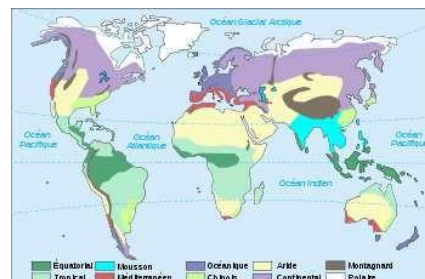
## 10. CHOICE OF OIL

### CHOICE OF OIL

- Use only oil for vacuum pumps for milking
- Do not use oils containing dyes, paraffin or other solvents
- Do not reuse oil already used or exhausted

The viscosity of oil varies according to climate:

- Hot > 68 MIN 68/ISO
- Temperate > 46 MIN 46/ISO
- Cold > 32 MIN 32/ISO



## 11. CAPILLARY SYSTEM LUBRIFICATION

### 11.1 Optimal use of oil pump

MI / hour (ml/h) under the conditions tested:

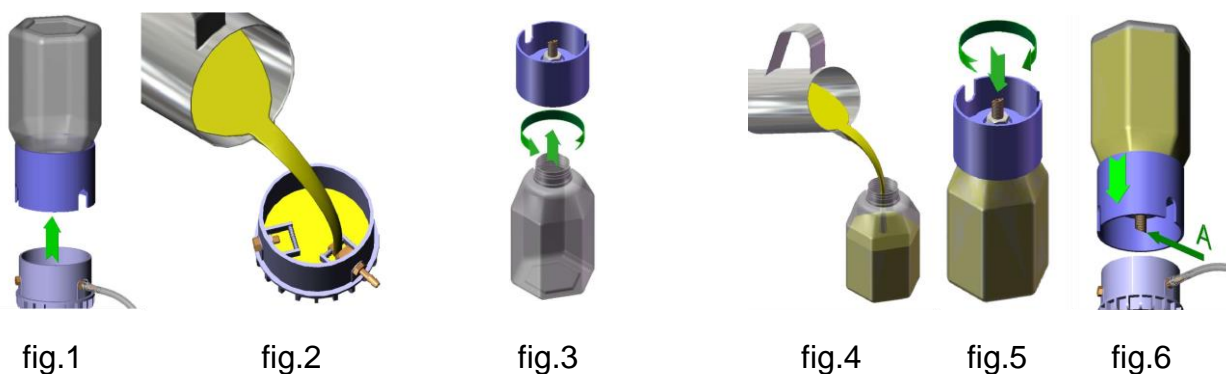
- Oil used MIN = 46
- Suction pressure = 50 KPascal
- Ambient temperature = 18°C
- Altitude above sea level = 500m

GPV 250/280, single oiler → 2-3 ml/h

GPV 350/380, single oiler → 4 ml/h

**WARNING:** The consumption of oil is influenced by seasonal temperature variations

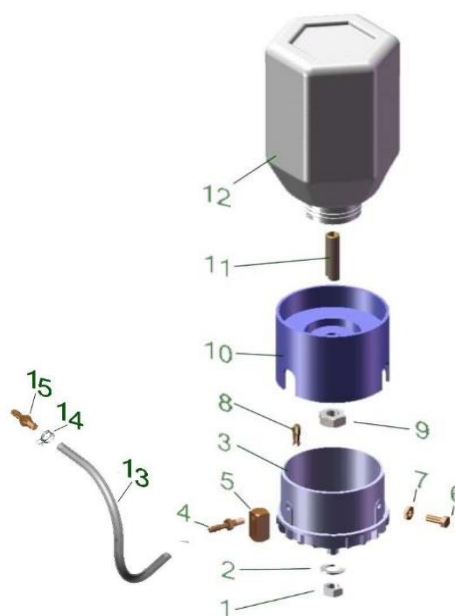
### 11.2 OIL RECHANGE INTO OILER



- (fig.1) Remove the empty container with the lid up
- (fig.2) Fill the tank with oil and support the two vacuum chambers.  
The level should reach the slats placed in the slot inlet  
NOTE: this operation must be done only for the first time
- (fig.3) Unscrew the lid of the container
- (fig.4) Fill the container with oil
- (fig.5) Replace the lid of the container
- (fig.6) Place the container in his tank into the tube closed with a finger to discharge

## 11.3 ARTICLES AND CODES

1)	Fixing nut for oil feeder	5000112
2)	Washer d.8	5000111
3)	Lower plastic body	5000102
4)	Brass nipples	5000107
5)	Brass support board 10 x 24	5000108
6)	Screw normal oiler	5000821
7)	Bolt normal oiler	5000809
8)	Suction tongue: 4 mm	5000109
	6 mm	5001109
9)	Fixing nut for set screw	5000105
10)	Upper plastic body	5000104
11)	Set screw	5000106
12)	Plastic trasparente container	5000101
13)	PVC trasparente tubing d.7 x 4	5000120
14)	clips	5000117
15)	Brass nipples	5000107.00
	Brass nipples	5000107.03



## 12. TROUBLESHOOTING

P R O B L E M	C A U S E	R E M E D Y
- Abnormal absorption power	- Bad connection - Loose straps - The motor shaft is deformed or deteriorated - Obstruction of the pump body - Obstruction in piping	- Connect the electric motor adequately - Adjust the straps - Replace the 'tree' - Clean the pump house - Clean the 'entry of' in the air system
- The machine hangs, tries or not pump uniformly	- Loose straps - Impediments in the rotor - Rotation in the opposite direction	- Adjust the straps - Clean the rotor - Reverse the direction of rotation engine
- Squeak of the rotor	- Insufficiently lubricated	- Lubricate
- Audible vibrations	- Bearing failures, rotor unbalanced - Clamped no silencer	- Replace bearings, replace rotor - Put a silencer bracket
- Pump overheating	- High oil consumption - Control valve does not works well	- Clean the lubricator/oiler adjusting - Check valve adjustment

### WARNING!

When you turn off the system, make sure the valve is working properly!

If the pump should rotate in the opposite direction would case the breaking of the vanes!

## 13.

**WARRANTY**

The company guarantees its equipment against defects in material and construction and agrees to replace ex-works defective components, provided they meet the following conditions:

- The defect must occur within 12 month from the date of commissioning of the machine;
- The machine must not have been modified, damaged and improperly used;
- The machine must be used following the instruction in the user "use and maintenance";
- The guarantee does not apply to shares that are not original;
- The components that are not original manufacturing, such as engines and electrical parts are covered by warranty provided by the respective manufacturers;
- The above warranties are invalid if they are recognized defects due to regular wear and tear or a lack of maintenance, or accidents resulting from negligent use.

## 14.

**DECLARATION OF CONFORMITY CE****Manufacturer's name:****CTA milk srl****Manufacturer's address:****Via Laghi di Avigliana, 91  
12022 Busca (CN) – Italy**

Declares the partly completed machinery / equipment:

Mod

- GPV 200
- GPV 280
- GPV 250/350/380

Serial Number:.....

The machines are conform with the essential safety requirements of the directives:

- 2006/42/CE
- 2014/30/UE
- UNI EN ISO 12100 : 2010

Depository of the technical documentation: CTA milk srl

Busca;        /        /

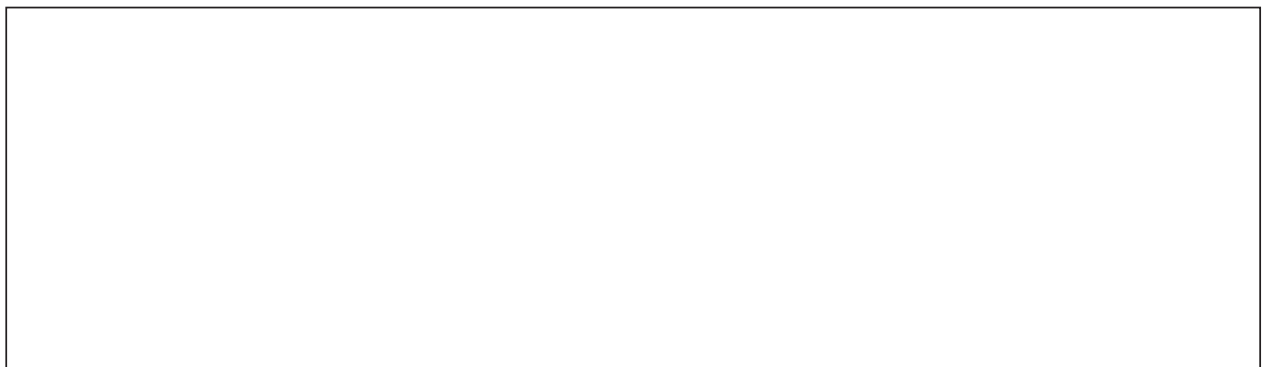


**CTA milk SRL**  
Via Laghi di Avigliana, 91  
12022 BUSCA (CN) - ITALY  
VAT No. IT 02462390044

#### NOTE



Stamp of the retail

A large, empty rectangular box with a thin black border, intended for a retail stamp.