3) MOVING OF THE MACHINE

This chapter contains instructions about how to correctly carry out the loading - unloading and machine handling operations.

3.1 - Transport packaging.

The machine is supplied packed and palletized.

IMPORTANT!

BEFORE UNPACKING THE MACHINE IT IS ADVISABLE TO CHECK WHETHER IT HAS BENN DAMAGED DURING TRANSPORTATION. IN CASE OF DAMAGES:

A) CONTACT OUR SALES REP. OR OUR MAIN OFFICE IMMEDIATELY;
B) ISSUE A WRITTEN REPORT;
C) COPIES OF THIS WRITTEN REPORT SHOULD BE MAILED TO:
- TRANSPORTATION COMPANY
- INSURANCE COMPANY
- SELES AGENT OR MANUFACTURER

3.2 - Handling operator.

The persons who handle the machine need not possess any particular requisites.
However, the operations should always be carried out by persons who habitually use lifting means, so we suggest the use of experienced personnel in order to move the unit.

3.3 - Means necessary to the move the machine.

The machine can be lifted with a lift truck, bridge crane or other suitable means (with a carrying capacity shown in the TABLE 1)
Tables **D.1** enclosed with this manual contain a dimensional diagram of the machine indicating its weight and overall dimensions.

3.4 - Instructions to lift the machine.

New machines are all packed.
The overall weight of the machine and its packaging is clearly indicated and this information is also easy to read on the outside of the pack.
The pallet can be harnessed and lifted with a bridge crane or forked by a lift truck.

Important .

Although the lifting operations are very simple, always remember to make sure that the load is well balanced before commencing.

3.5 Instructions to lift uncrated machine using a forklift.

Make sure that the lift truck forks are correctly positioned to prevent the machine from being damaged when lifted.
If you intend to use a fork lift to move the unit, be sure that the fork lift is positioned to avoid any damages to the machine. Follow the scheme indicated in Table D.2.

Important

To prevent damage, make sure that the metal part of the forks is unable to come into direct contact with the framework of the machine.
Do not sling the machine with a metal cable or with metal chains.

3.6 Instructions to lift uncrated machine using a overhead crane.

Accessories :	belts in textile fiber.
minimum carrying capacity:	see TABLE 1
length:	see TABLE 1

The harnessing diagram is given in table D.2 enclosed with this chapter.

Important

Do not use metal ropes or chains for harnessing purposes as they could damage the machine.

3.7 - Moving instructions

The machine is mounted on four wheels and can therefore be moved by hand or, better still, with a driven truck.
Particular precautions must be taken if the floor surface is not level.

Important

Do not move the machine by hand on a non-uniformed or univen surface.

In such a case, position the machine on its frame and move it by means of a fork lift or an overhead crane taking special care not to damage the unit.

If the unit experiences any type of shock, immediately control if any damage has been incurred and if necessary immediately contact either the manufacturer or the sales agent.

3.8 - Stationary precautions

The machine has been designed to work on a flat surface.
In these conditions, it will not need to be locked in place in any way.

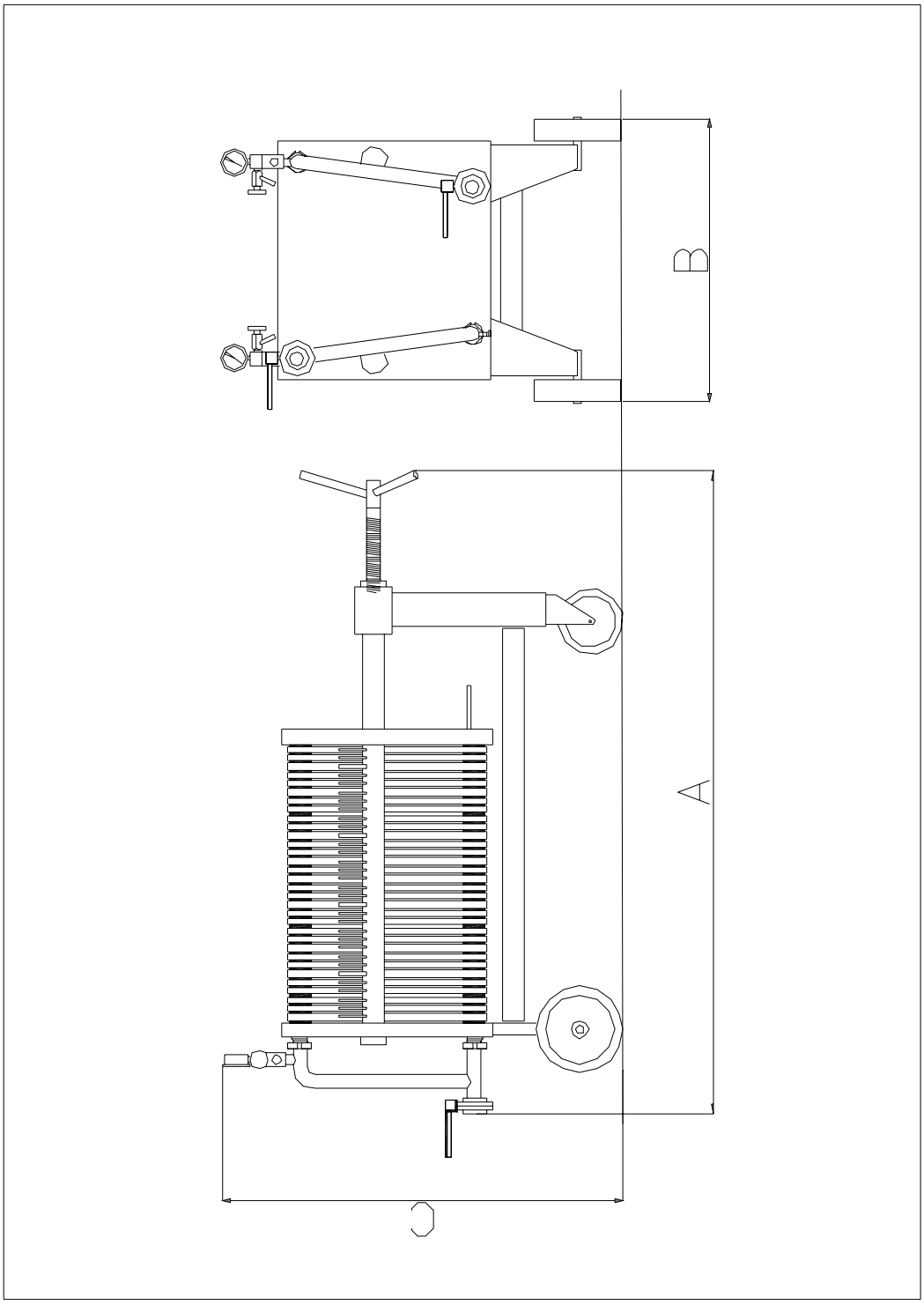
Important

If the machine has to work on an uneven surface, secure the fixed wheels with the provided stops and position the brakes on the two free wheels

It is not suggested to keep the machine on a slope greater than 2%.

It is inadvisable to leave the machine standing on slopes with a gradient of more than 5% even when it is blocked.

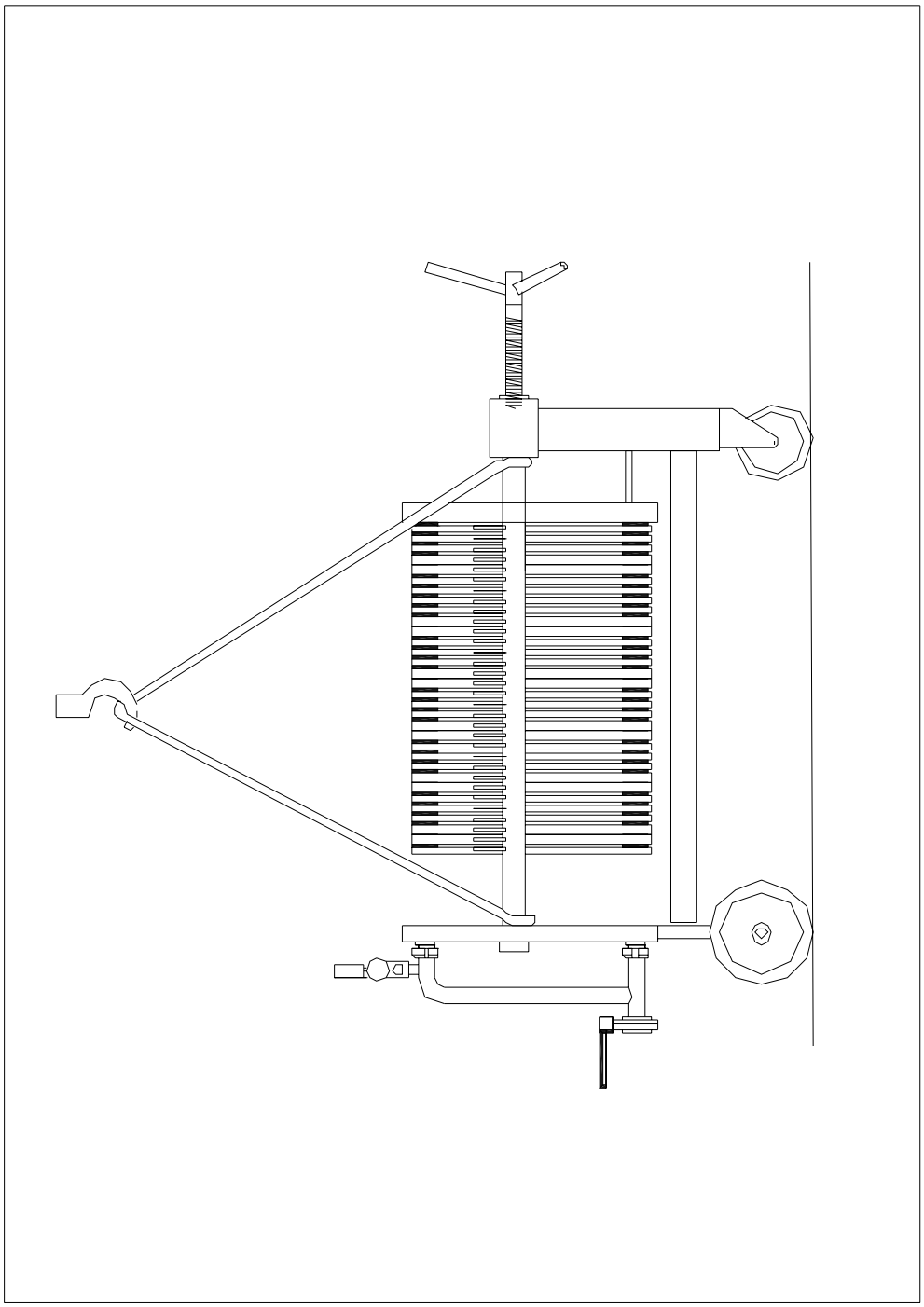
TAV.D.1
DIMENSIONAL DIAGRAM



MODEL	3	4	5	6	7	8	9	10
A (mm)	1240	1240	1560	1560	2065	2065	2495	2835
B (mm)	685	685	685	685	685	685	685	800
C (mm)	940	940	940	940	1000	1000	1095	1235

TAV.D.2

MOVING OF THE MACHINE



5) INSTRUCTIONS FOR POSITIONING OF THE MACHINE

5.1 Receiving of the machine.

The machine is delivered already mounted and ready to start.

5.2 Electric feed connections and grounding.

The connecting operations of the electrical line must be done by specialized personnel with electrical qualifications.
The machine is equipped with a cable connected to the panel.
It is sufficient to connect the plug to the other side of the cable.
.

IMPORTANT!

Check the revolution direction of the pump
The proper direction is indicated by the arrows located on the back of the motor.

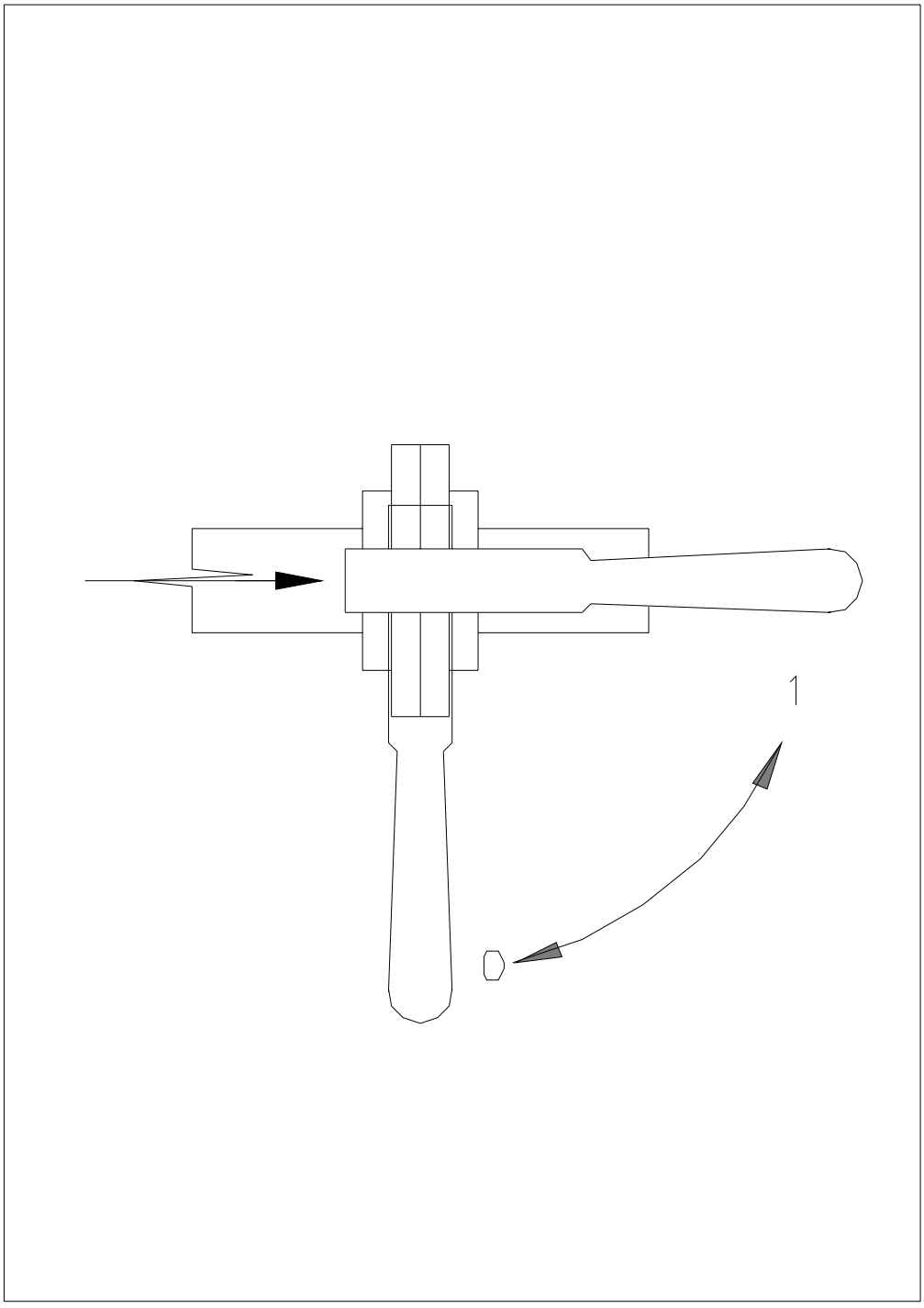
IMPORTANT!

Before starting the main pump you must ensure that its circuit is filled with product.
Never run tht pump dry.!!!

IMPORTANTE!

The valve is closed when the handle is perpendicular (90 degrees) to the piping (Rif.TAV.D.5), and it is open when it is parallel to the piping.
The middle position will provoke a strangling effect on the valve

TAV.D.5
VALVE SCHEME



0	CLOSED
1	OPEN

7) DESCRIPTION OF THE MACHINE.

7.1 Parts that compose the filter.

The filter is composed of a bearing frame (**10 TAV.100**).
The filter set is composed of various plates (Noryl), and the closing mobile plate (**12 TAV.100**).
Various valves for the filtration and for eventual steam sterilization complete with warning lights and pressure gauges (**5/6/7/8 TAV.100**).
The filter is also composed of a closure screw (**14 TAV.100**) with cross bar (**15 TAV.100**) and of a drip collecting tray (**9 TAV.100**).

7.2 Operations to execute before starting.

Before starting, and sometimes during operation check that the tie rod closing nuts **(1)** are tightly closed. Lubricate the closure screw with grease. At the same time move the screw both forwards and backwards being sure to lubricate entire rod. Once completed, remove excess grease.

3 Filtration that you desire to execute.

According to your needs, this unit will allow you to achieve various kinds of filtration.
From rough filtration to sterilization. That type of filtration is achieved through the use of different filtering sheets (**TAB D.150**).

3 Working principles of the filter.

The contaminated or dirty product is pushed through the filtering sheets where the required filtration is achieved according to choosen cardboards, i.e. the associated micron level of the cardboards (**TAV.D.110)**.

3 Cardboards (Filter Sheets) Inserting

First of all, each cardboard has a directional flow which allows the product to pass through. The cardboards have both a smooth and a porous side. The product must go in from the porous side and must exit from the smooth. Therefore, the smooth side must always be mounted on the clean side of the filter plate. (For easy following please find explanatory drawing on previous page).
Basically, the first cardboard (the one between the head plate and the 2nd plate) must have the smooth side turned toward the pressure gauges. Every odd card board, that is the 3rd, 5th, 7th, and so on **(TAV.D.110)**, must have the smooth side turned toward the pressure gauge. Consequently, all even number cardboards must have the porous side turned toward the pressure gauges.

3 Working pressure.

You must not exceed a pressure of 2-2.5 **2/2.5 Atm**. . If you have a counter pressure on the outlet pressure guage, do not exceed a **2 Atm**. difference between the inlet and outlet pressure gauges.

3 Operating.

Connect the filter to the feeding pump, restricting the by-pass to a max pressure of **2.5 Atm**. Open the inlet valve (**3**) and open air discharge valves (**6**). When the product begins to exit via the air discharge valves (**6**), close valves and open the product outlet valve (**4**). The outlet sight gauge (**8**) allows you to control product filtration level. If out coming product is not sufficiently filtered, you may have to change your filter pads accordingly to a more porous filtering sheet.
If the product becomes dirty during filtration, it is possible that one of the cardboards have broken. Open filter and control if this is the situation. This may occur at **2-2.5 Atm**. Periodically, during filtration allows air to escape from the air discharge valves (**6**). If you are getting a high pressure too quickly, you need to utilize a tighter (less porous) filtering sheet.

3 Drip collecting tray.

The filter is equipped with a drip collecting tray (**9**). The loss of drops from the cardboards during filtration is to be considered normal. This loss increases with the increasing of filtration pressure. The tray is complete with a small discharge for easy removal of liquid.

3 Washing With Water (Excepted Models For Oil)

Tightly close the filter element. Connect the inlet valve to the water line and slightly open the water. While flooding the filter with water, open all other valves to allow an escape of air, therefore, avoiding any back pressure on the inlet pressure gauge.

3 Production level of the filter.

The filter must be connected to a pump complete with by-pass with a max. capacity suited for your filter. In the case of dense products a gear pump with a by-pass should be used in place of a centrifugal pump. **The production of the filter does depend on the pump's capacity,** but rather on: the cardboards used, the characteristics of the product, and on the level of contaminates present in the product. The production level can be regulated by recognizing the pump's characteristics, and with proper use of the by-pass in respect to the pressure indicated by the pressure gauge.

3 Stainless steel plates (on request).

Stainless steel plates can be provided on request.
The drainage side of these plates are designed utilizing specialized perforated steel. In the case of breakage within the filter sheets, which may cause small particle to lodge under the net, wash immediately with a high pressure hose or air jet. These particles may spoil the successive filtration.

3 Removing the sheets from the filter.

When removing the filter plates, remember that the assembly must be reinserted in the same order so to uniform the exact format of the filtration.
NB: The head plate is that which is reinforced and the middle plates are indicated by even numbers.

3 Filter with inversion plate.

An inversion plate is used to achieve double filtration, by utilizing two different types of filter sheets. The inversion plate is inserted at any point of the filter assembly. Remember to insert inversion plate at the position of a clean plate.
In the case of those filters utilizing an inversion plate, the inlet will be from the mobile head plate and the outlet will be positioned at the fixed head plate (see drawing).
When you insert this plate you must keep in mind the filtration capacity of the filtering cardboards being used. Allow for a greater number of plates on the side utilizing the finer (less porous) cardboards.

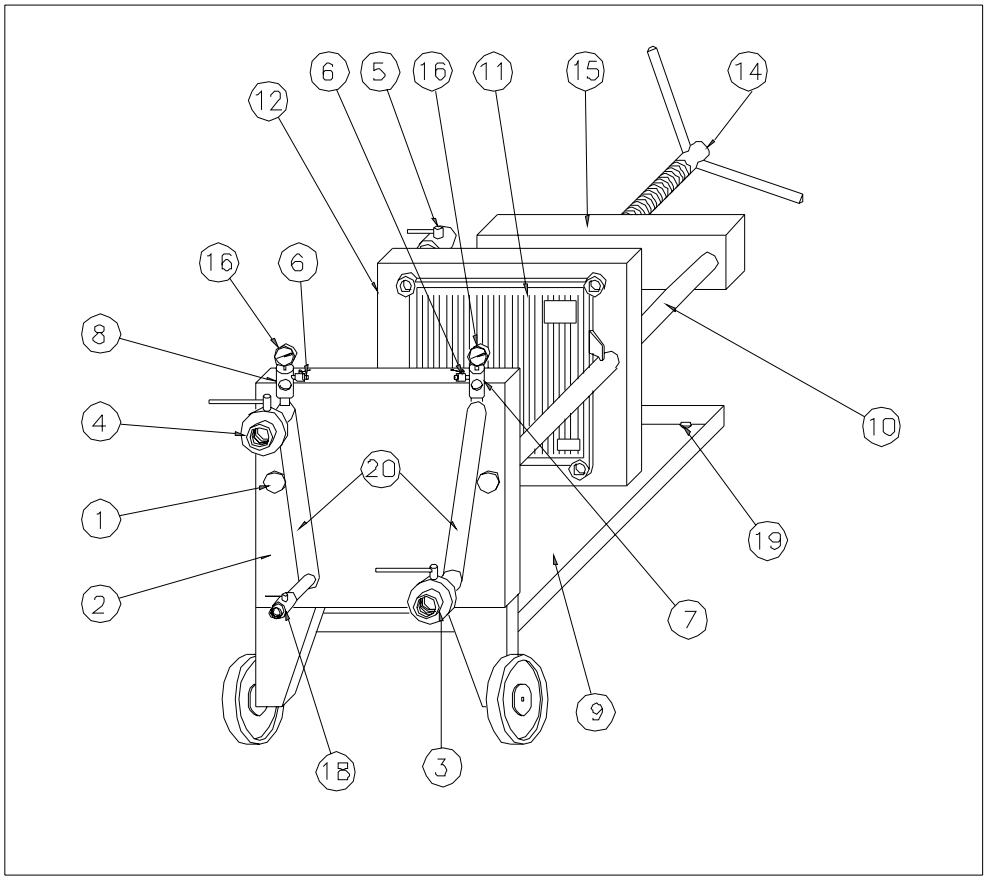
3 Filter element

The filtration capacity of the card boards 40 x 40, according to the manufacturer is:

- filtration with clarifying cardboards 80 lt/h each
- filtration with sterilizing cardboards 50 lt/h each

When using sterilizing cardboard filter sheets do not exceed 1-1.5 bars of pressure.
This will avoid damaging the cardboard pores.

TAV.D.100



1	Tie rod closing unit
2	Closing head plate
3	Inlet valve
4	Outlet valve
5	Sampling valve (optional)
6	Air discharge valve
7	Inlet sight gauge
8	Outlet sight gauge
9	Drip collecting tray
10	Bearing frame
11	Filtering element
12	Closing mobile plate
14	Closure screw
15	Cross bar
16	Pressure gauge
18	Discharge valve
19	Discharge plug

TAB.D.150

KIND OF	SEITZ	K 800	K 700	K 150	KS 80	EK	EKS
	SCHENK	AF 6000	AF 4000	AF 1600	AFS 800	AFS 400	AFS 100
	P.DE BESOS	SA - 050	SA - 390	SA - 070	SA - 890	SA – 950	SA - 990
	FILTROX	AF 15	AF 30	AF 70	AF 100	AF STERIL 110	AF STERIL 140
	CARTIERA	CKL-V12	CKP V8	CKP V12	CKP V 16	CKP V 20	CKP V 24
	CARLSON	XE 20	XE 90	XE150	X E 400	X E 675	XE 2000
	BECO	K1	KD3	KD7	KDS15	STERIL 140	S.S. 100

KIND OF TREATING	MOST	YUNG WINE, PARTYCULARLY DIRTY FOR FILTRATION THAT DOES NOT PRECEED BOTTLING	COMPLETELY FERMENTED WINES THAT NEED POLISHING	FILTRATION OF PERFECT POLISHING FOR WINES WITH LOW BACTERICAL CHARGE	STERILIZING FILTRATION OF WINES WITH NOT FERMENTED SUGAR RESIDUAL	EVERY APPLICATION WICH IS REQUESTED AN ABSOLUTE STABILITY

9) SPARE PARTS MANUAL

The spare parts manual is composed of a series of cross-section designs that, refer to the general table D.R to allow for a quick indentification of parts to be ordered.

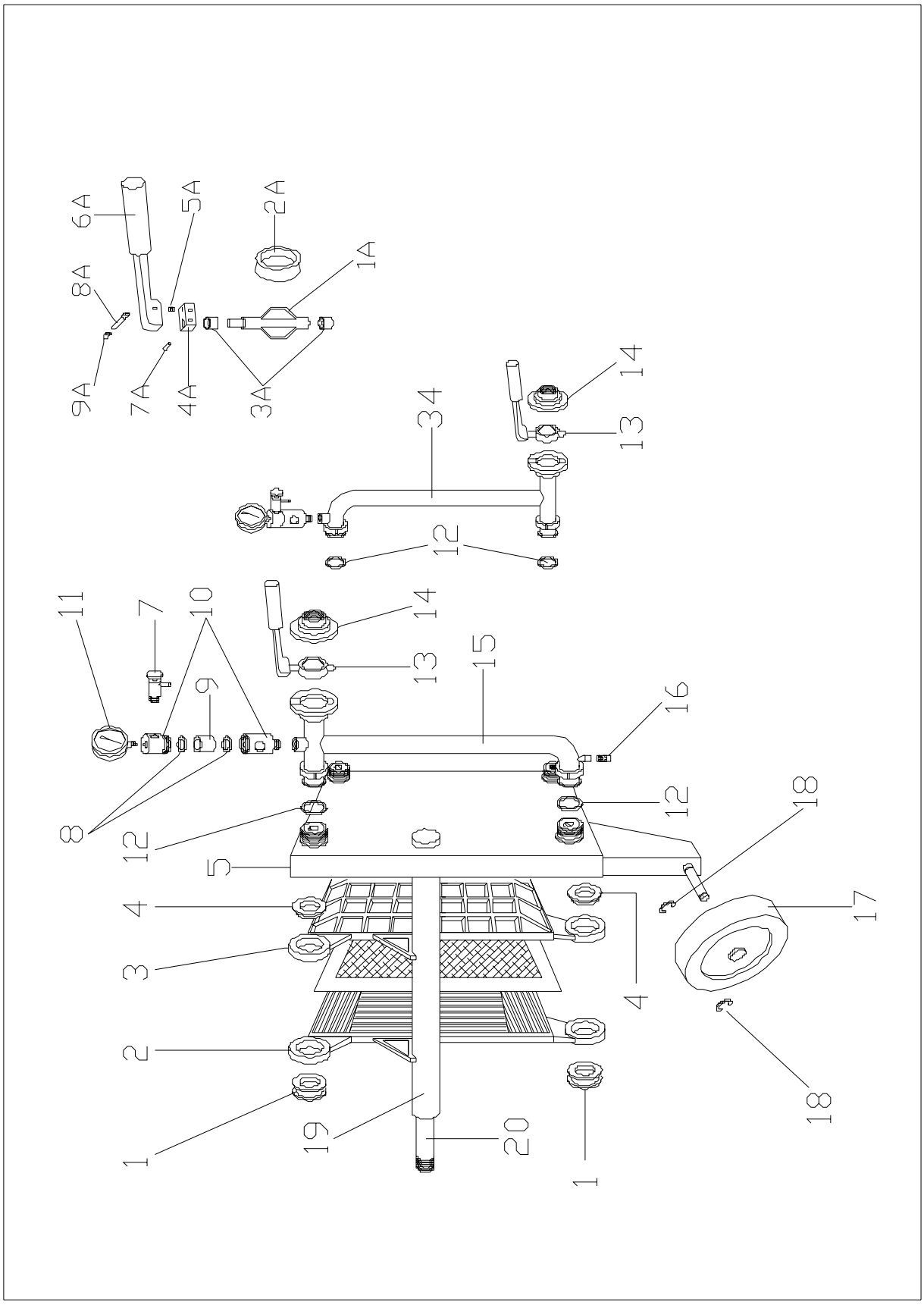
9.1 Spare parts order.

To order spare parts, follow the scheme in this chapter.

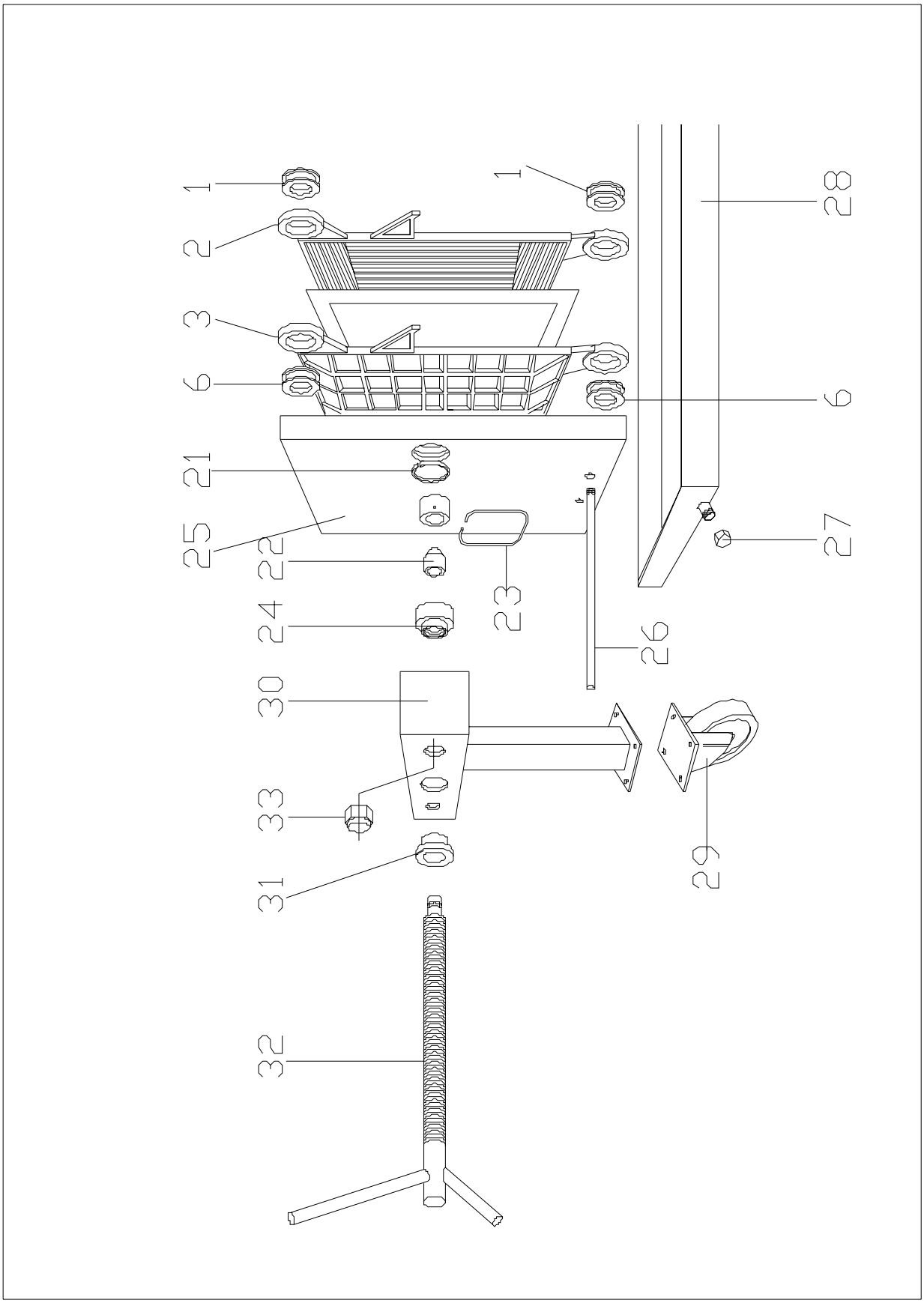
Important.

We suggest, to avoid errors, that you photocopy the module and send it to either the manufacturer or to your sales rep. directly, indicating as best possible those parts needed. Utilize the diagrams and the reference tables.

Tav.D.R.1
SPARE PARTS
TAB.1



TAB.2



RIF.	DESCRIPTION	DESCRIZIONE
1	PLATE GASKET	GUARNIZIONE PIASTRA
2	PLATE STANDARD	PIASTRA INTERMEDIA
3	HEAD PLAT	PIASTRA DI TESTA
4	END PLATE GASKET	GUARNIZIONE PIASTRA DI TESTA
5	CLOSING HEAD PLATE	TESTATA FISSA
6	PLATE GASKET	GUARNIZIONE PIASTRA
7	AIR DISCHARGE VALVE	RUBINETTO SPURGO
8	GASKET	GUARNIZIONE
9	GLASS TUBE	TUBO VETRO
10	KAPPA SIGHT GLASS	SPECOLA
11	PRESSURE GAUGE	MANOMETRO
12	RING GASKET	GUARNIZIONE
13	COMPLETE HANDLE	MANIGLIA COMPLETA
14	BATTERFLY VALVE FLANGE WITH CONNECTION	FLANGIA VALVOLA FARFALLA CON RACCORDO
15	INLET PIPING	TUBAZIONE INGRESSO
16	EMPITY SCREW CLAMP	SCARICO PER PORTALIVELLO
17	RUBBER WHEEL	RUOTA GOMMA
18	BENZING RING	ANELLO BENZIF
19	SPACER PIPE	TUBO DISTANZIALE
20	TIE ROD	TIRANTE
21	SLIDING BUSHING	BOCCOLA SCORRIMENTO
22	BUSHING	BOCCOLA SPINTA VITE
23	PLUG	SPINA INDIETREGGIO VITE
24	NUT SCREW	MADREVITE
25	CLOSING MOBILE PLATE	TESTATA MOBILE
26	SHEET ROD	ASTA CARTONI
27	PLUG	TAPPO
28	BASIN	BACINELLA
29	TURNING WHEEL	RUOTA GIREVOLE
30	BACK BRIDGE	PONTE POSTERIORE
31	BUSHING	BOCCOLA
32	SCREW	VITE
1A	BUTTERFLY	FARFALLA
2A	GASKET	GUARNIZIONE
3A	BUSHING	BOCCOLE
4A	HANDLE VALVE BLOCK	BLOCCHETTO
5A	SPRING	MOLLA
6A	HANDLE	MANIGLIA
7A	PLUG	SPINA
8A	TIE ROD	TIRANTE
9A	BLOCK NUT	DADO BLOC.