mouvex

METERED RECEIVING AND LOADING OF HYDROCARBONS

CENTREX MULTI 48 RM-CMA
CENTREX MULTI 48 RM-CMB

INSTALLATION

Technical Instructions N° 828b EL

mouvex 5, rue du Sahel - F 75012 PARIS

STORAGE

The equipment awaiting installation must be stored in a dry sheltered place; with the counter protected (by its cover if it has one).

INSTALLATION

Installation shall conform to the standard diagram approved by the Instruments Department (DIRECTION REGIONALE DE L'INDUSTRIE ET DE LA RECHERCHE) and be carried out by an installer who has received the authorization of the DRIRE or its Technical Services department.

The primary inspection of each assembly is carried out in the factory. An identification and stamping plate is fixed to the assembly. The periodic inspection labels will be appended as and when the DRIRE carries out these inspections (in addition, the user shall notify the DRIRE of the start-up of the set within 5 days following this operation).

Fixing of the chassis

Make sure that the chassis is horizontal and is in no way distorted by the fixing.

Connection of the pipes

The assembly is supplied with counter-flanges.

See to it that the pipes do not exert any abnormal stress on the set (if necessary, there should be brackets to support the pipes and valves).

Motor

This must be effectively protected from overloads by means of a suitably set circuit-breaker. During start-up, make sure that the strips in the terminal box are in the correct position. Please refer to the motor connection instructions.

Set below ground

Clearance must be provided to permit dismantling (cf. overall layout plan). In all cases the sightglass must remain visible so that it is possible to check whether or not there is product in the tank.

It is strongly recommended that the set should be properly protected and essential that there should be rainwater drainage.

FEEDING

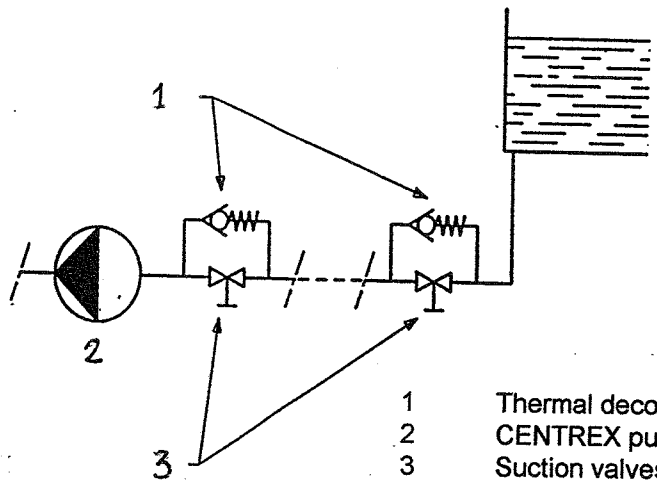
Because the pump is of the centrifugal type without self-priming, it has to be gravity-fed; it must therefore be positioned sufficiently low relative to the draining valves of the tanks from which delivery is being taken (see general layout plan).

See to it that the connection to the draining valves of the tanks from which delivery is being taken is made with a hose with an inside diameter of at least 80 mm and a length not exceeding 6 m. For longer lengths, hoses of 125 mm diam. should be used.

For lengths of more than 50 m, please consult us.

Thermal decompression

Important: To avoid any problem caused by thermal expansion it is recommended that a check valve be placed in parallel with each intake circuit valve in the direction: CENTREX => storage tank.



1 Thermal decompression CAR
2 CENTREX pump
3 Suction valves

Venting

Venting to the atmosphere is provided by the degasser itself.
No connection is necessary.

Recovery of vapours

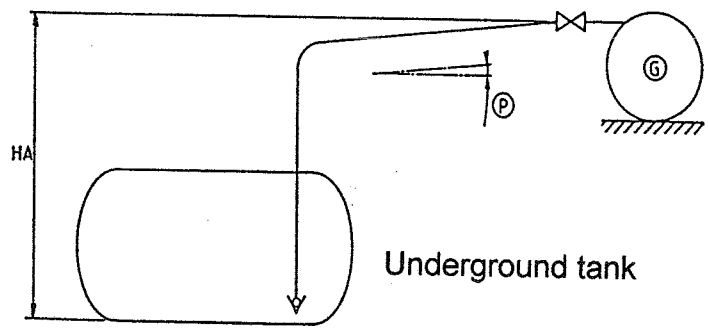
In the installations with vapour recovery the outlet from the degasser must be connected to the vapour recovery system by a suitable pipe which does not create excessive losses of head (pipe diam. 1, minimum length) cf. diagram.

The total suction height, i.e. the total lift H (geometrical height HA + losses of head) shall be as low as possible so as to prevent any risk of vaporisation of the product.

It is absolutely essential to comply with the following:

- H max. = 4 m for FOD/GO (which may mean having to place the set underground in certain cases).

Over lengths of less than 50 m, pipes of 150 mm diam. should be used.
For greater lengths, please consult us.
The pipes will have a positive gradient (P) towards the pump (G) - P min. = 0.5%.



A foot-valve will be fitted at the end of the feed pipe to prevent any drainage due to a possible leakage in these pipes.

Priming of the pump

Because the CENTREX is a centrifugal pump, it cannot prime itself. This is why it is equipped with a priming pump, a gas drain cock (PU3 A2), a 1.5 bar valve permitting the liquid to return (after priming) to the CENTREX tank.

The installer shall fit an 8x10 diam. pipe connecting the venting orifice of the drain cock to a small container.

DELIVERY

The diameter, length and accessories (elbow, T-piece, valve...) of the delivery pipe shall conform to the specifications defined at the time of the order. Our guarantee depends on this conformity.
To prevent water hammer, the loading arm shall be equipped with a delayed-closure valve which is to be set according to the manufacturer's instructions.
The distance between the counter and the loading arm shall be such that the volume between these two elements is lower than the minimum delivery.
It is recommended that an isolating valve should be fitted to each storage tank.

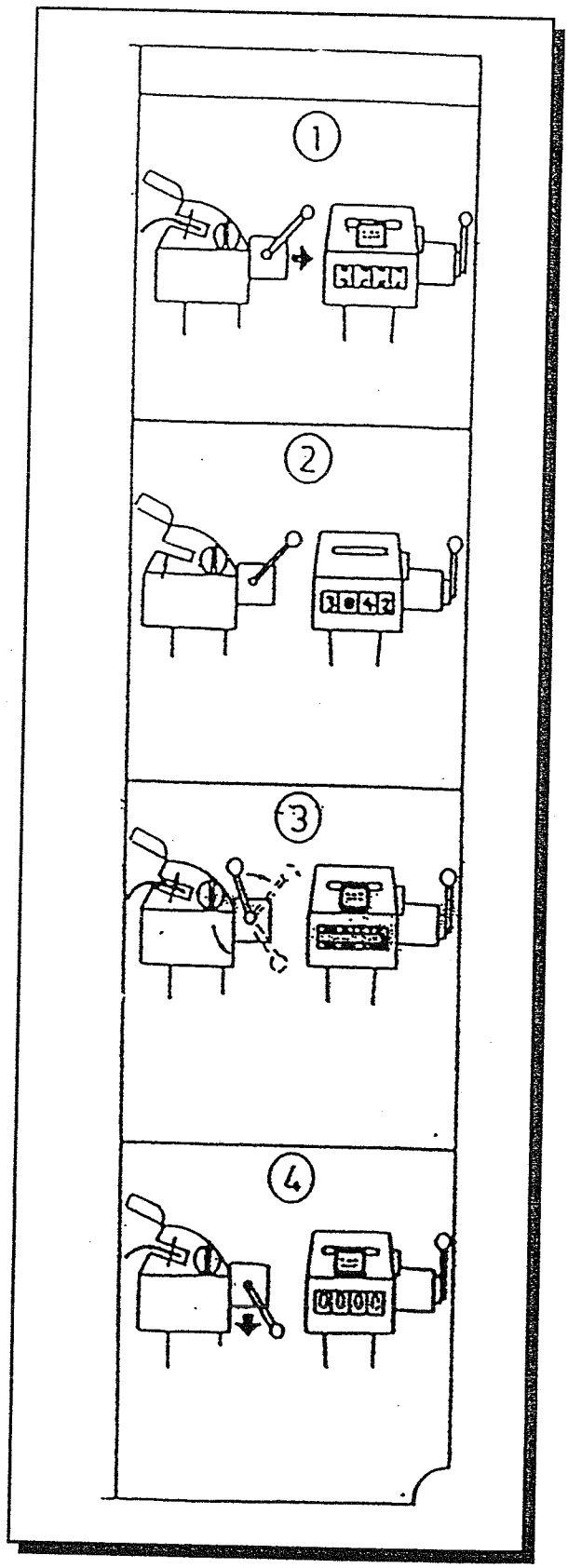
APPLICATION

Pumped products

There must be rigid conformity with the instructions defined in the equipment specification.

Apart from the general safety conditions which must be observed (earthing of the vehicle, ...), the metered loading requires the following operations to be performed:

- Connect the suction hose to the storage unit.
- Insert the docket in the counter and rotate the actuation knob button a 1/2 turn until the docket is printed, the red bar remaining in front of the figures (drawing 3).
- Operate the valve and place CM in position if it is not already there.
- Rotate the actuation knob 1/2 turn until zero is reset (drawing 4).
- Open the suction valve of the storage unit.
- Start up the set (drawing 1).
- After closing the loading arm, rotate the actuation knob a single turn only (drawing 2).
- Shut down the set.
- Close the storage valve.



1. COUNTING locked ticket and valve.
2. COUNTING STOPPED 1 turn of the knob. Printed docket released. Total not erased - valve locked.
3 Changeover from RM to CM or vice versa 1/2 turn of the knob red bar - docket locked - valve free.
4. START OF COUNTING 1/2 turn of knob zero reset - valve and docket locked.

APPLICATION

Pumped products

There must be rigid conformity with the instructions defined in the equipment specification.

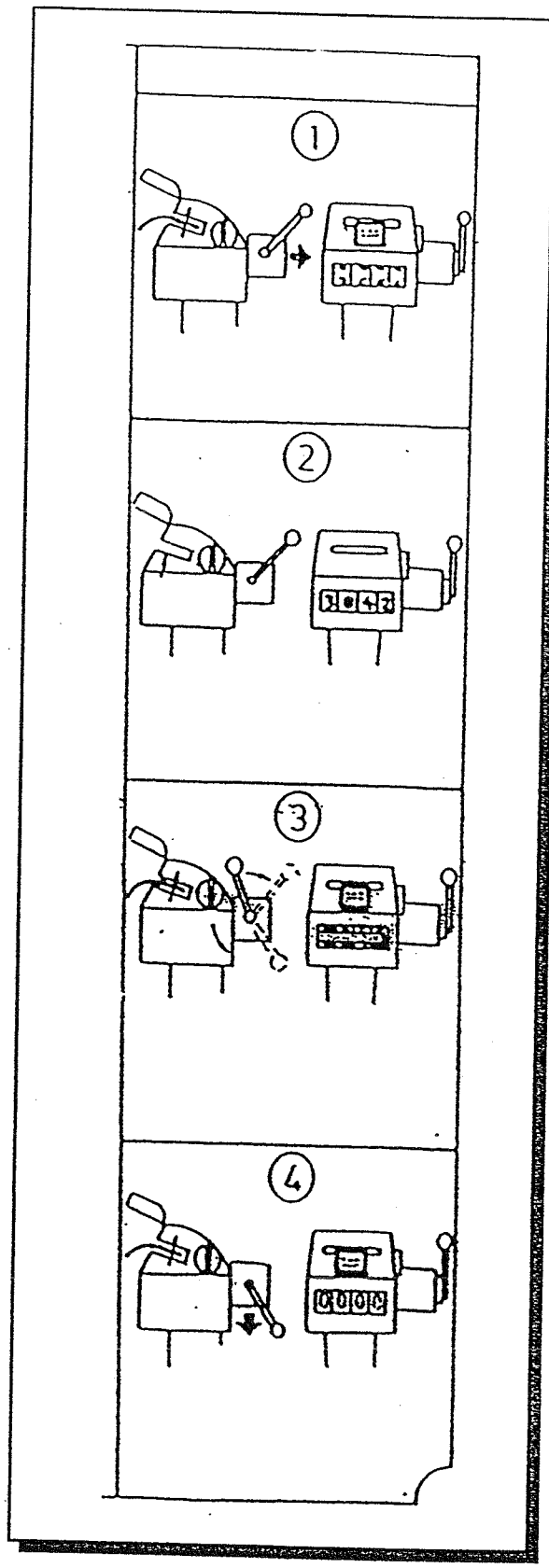
Apart from the general safety conditions which must be observed (earthing of the vehicle, etc.), metered receiving requires the following additional operations:

The set is in the metered loading position

- Close the valve of the suction pipe.
- Rotate the actuation knob a 1/2 turn (the red bar being in front of the numbers (drawing 3, without docket).
- Place the valve in the RM position.
- Rotate the actuation knob a 1/2 turn until zero is reset (drawing 4 without ticket).
- Open the valve of the storage unit filling pipe.
- Start up the assembly.
- Uncouple the suction hose at its "storage" end.
- Drain the hose until no liquid is visible in the sightglass.

The set is already in the metered receiving position

- Check that the level is clearly visible. If not, start up the set until the situation has been achieved.
- Connect the suction hose to the vehicle from which delivery is being taken.
- Insert the docket and rotate the actuation knob 1 complete turn.
- Open the valve of the vehicle.
- Start up the set.
- After filling, close the vehicle valve.
- Disconnect and drain the suction hoses.
- Check that no liquid is present in the sightglass.
- Rotate the actuation knob 1 turn only (drawing 2).
- Shut down the set and close the valve of the storage unit.



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4. START OF COUNTING 1/2 turn of knob zero reset - valve and docket locked.

MAINTENANCE

Periodic cleaning of the filter is all the maintenance needed.

For the sets intended for the metering of FOD and (or) GO, use the special winter filter for the situation where waxing occurs in cold weather.

This filter can only be used for a short time.

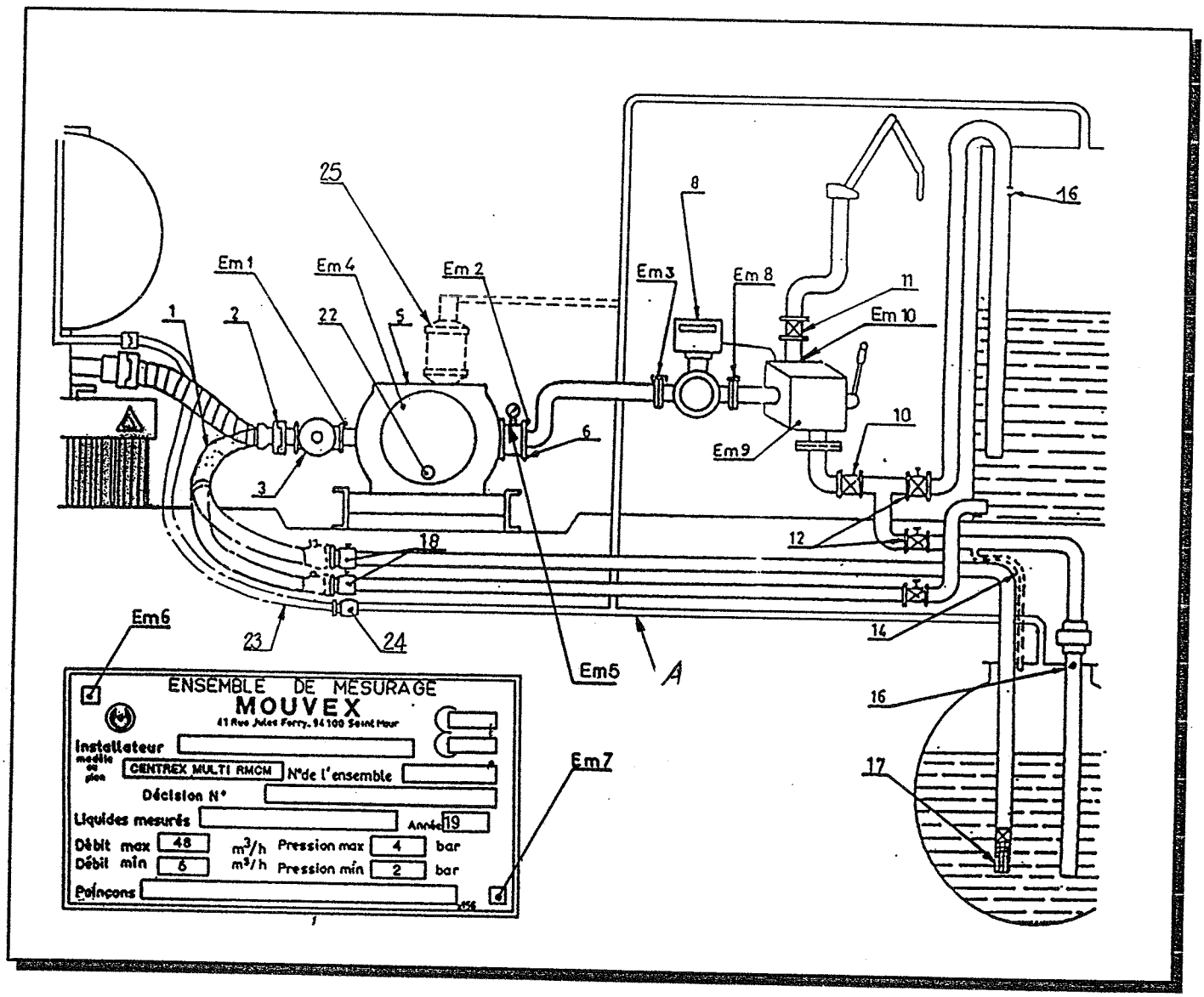
It must be replaced by the fine filter as soon as the climatic conditions allow.

Inspection

The equipment is subject to periodic inspection by the DRIRE.

INSTALLATION

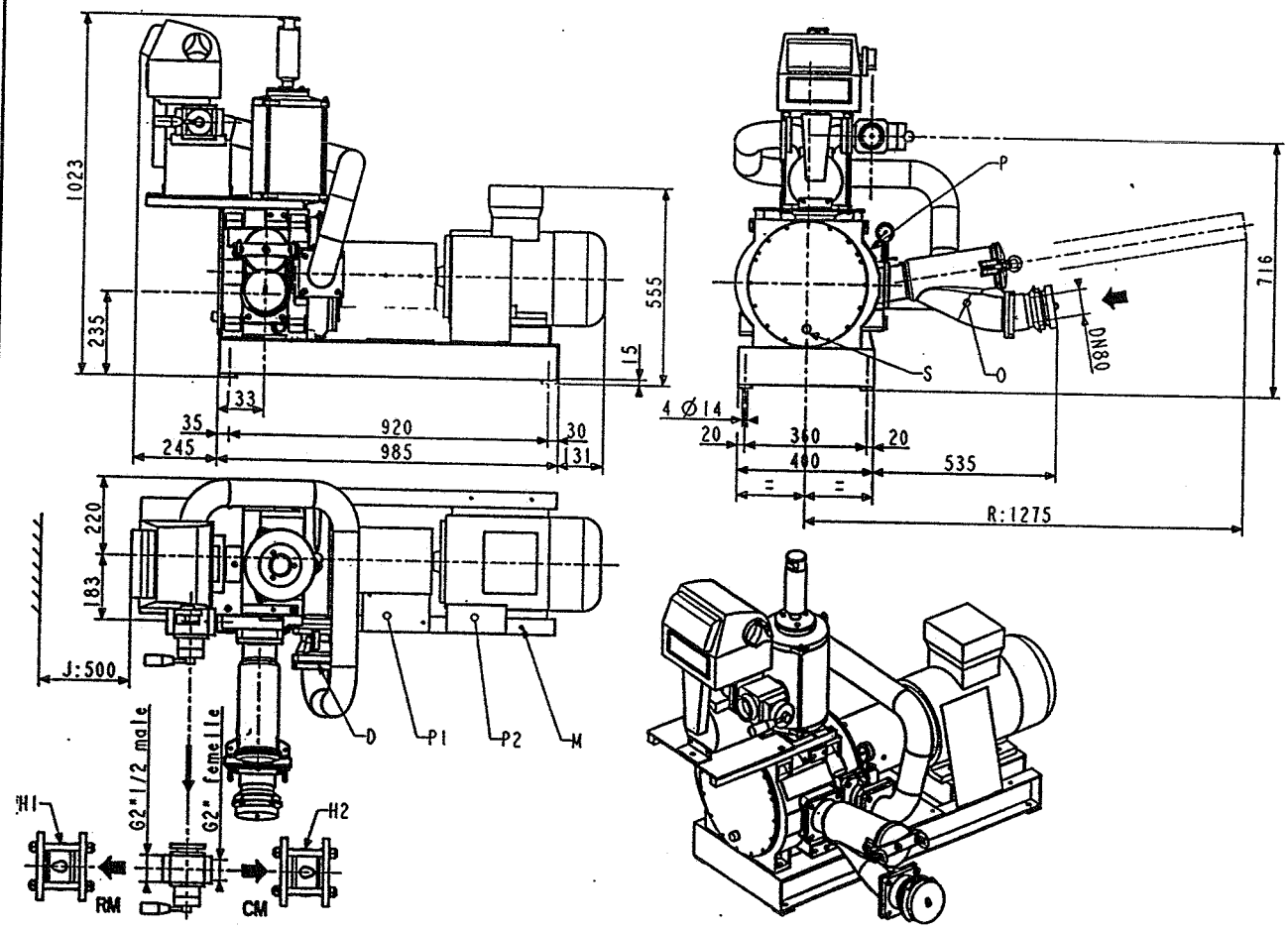
A Vapour recovery system



1	Depot hose
2	Hose connection
3	2-cage filter
4	Pre-degassing valve (RM-CMA)
5	CENTREX pump
6	Check valve incorporated in pump
8	Counter + 3-way valve
10	RM-direction check valve
11	CM-direction check valve
12	Isolating valves
14	Vacuum breaker after check valve
16	Anti-syphon vacuum breaker
17	Foot-valve with strainer
18	Valve on suction pipe
20	Priming assembly (RM-CMB)
22	Sightglass in pump cover
23	Vapour recovery
24	Vapour recovery system valve
25	Dry degasser

OVERALL DIMENSIONS - mm

CENTREX MULTI 48 RM-CM A

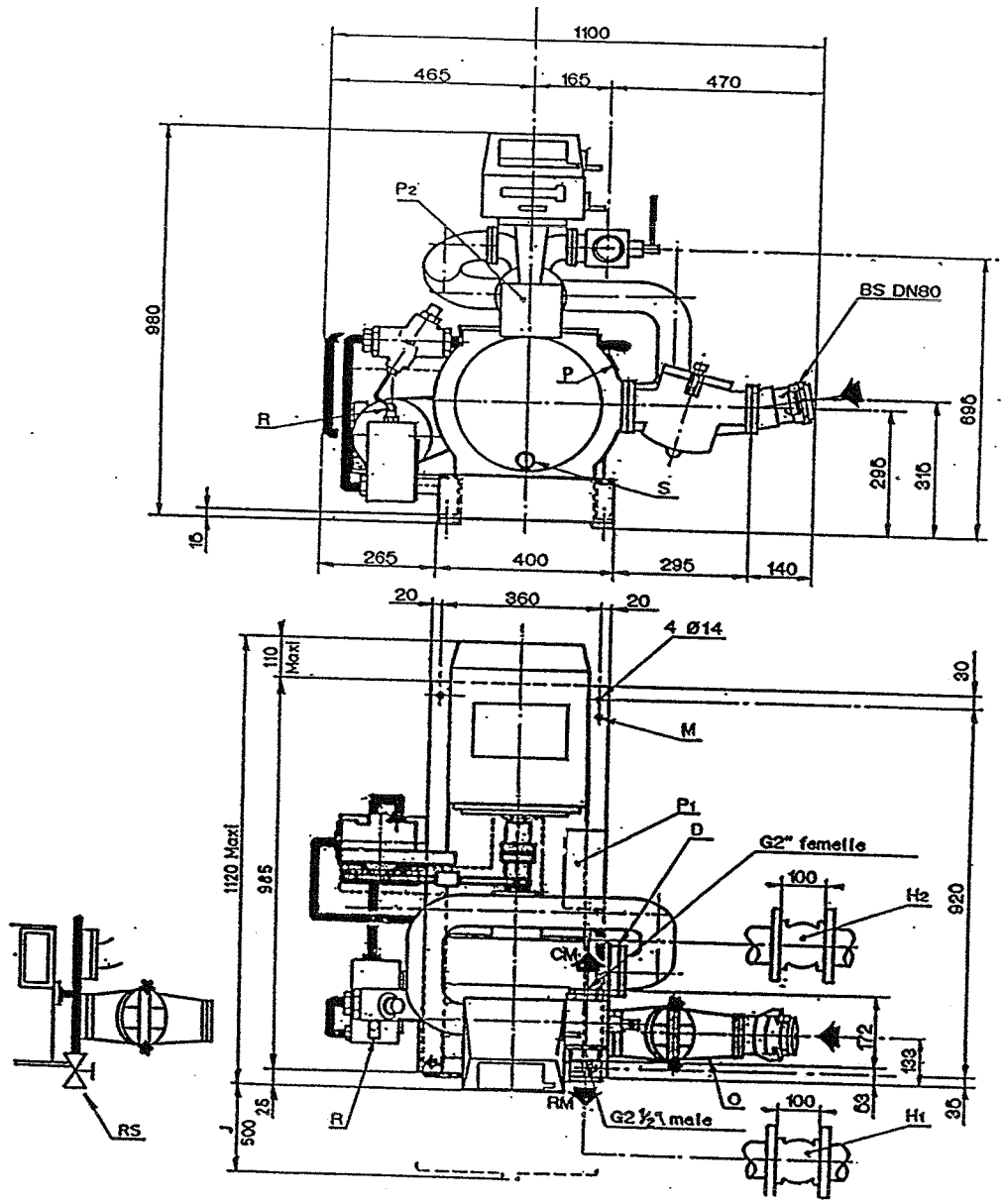


230 Kg

D	Diaphragm location
H1	0.1/0.4/1 bar calibrated check valve (RM)
H2	0.4 bar calibrated check valve (CM)
J	Release for dismantling
M	Earthing terminal
O	Suction filter
P	Pump rating plate
P1	Identification and stamping plate
P2	User's maintenance plate
R	Recess for filter cage dismantling
S	Sightglass
RM	To metered receiving
CM	To metered loading

OVERALL DIMENSIONS - mm

CENTREX MULTI 48 RM-CM B



230 Kg

D	Diaphragm location
H1	1 bar calibrated check valve (RM)
H2	0.4 bar calibrated check valve (CM)
J	Release for dismantling
M	Earthing terminal
O	Suction filter
P	Pump rating plate
P1	Identification and stamping plate
P2	User's maintenance plate
R	Foam return 8/10
RS	Valve (option)
RM	To metered receiving
CM	To metered loading
S	Sightglass