TECHNICAL INSTRUCTIONS	255e)
Revision	D

CENTREX RM PUMPS UNIT

INSTALLATION

OPERATION

MAINTENANCE

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Votre distributeur / Your distributor / Ihr händler

STORAGE

Centrex pump units when stored should be sheltered in a dry atmosphere with the meters protected by covers and the pumps full of domestic fuel oil or gas oil.

INSTALLATION

Details of installation shall comply with the standard layout approved by the Weights Measures Department (WMD) and work shall be carried out by an WMD-approved company (information may be obtained from the local WMD- division or from our technical staff).

Every pump unit is inspected and tested before leaving the factory, and an identification and certification plate is secured ot it.
Inspection date(s) - if required by the relevant Weights and Measures Department - can be stamped on the plate at the place of operation.

Input

These pumps are centrifugal pumps and must be fed by gravity ; they should therefore be placed at a sufficient distance below the outlet valves of the supply tankers (see drawing).

The pump units chassis must be strictly horizontal for correct feed to the pump.

Make sure that :

When installing a CENTREX 80 unit, the structure supporting the pumpe input pipes is correctly adjusted and entirely supports the pipes so that they do not bear on the pump (see drawing).

When the pump is fed from a main pipe, the pipe follows a continuous downward gradient with no hight point, of at least 2 %. Fit foam traps to the main pipe at each end to increase the speed of air flowing out on startup.

The connection with the tanker outlet valves is provided by one (for the CENTREX 50) or two (for the CENTREX 80) hoses of inside diameter at least 80 mm and length not more than 6 m. Please consult us if longer lengths are needed.

Motor

Supply a suitable circuit breaker that is correctly set for efficient protection against overloads. Make sure that the terminal connecting strips are correctly positioned when starting and refer to the instructions for connecting the motor.

Air venting

The installer must make the connection between the pump air venting orifice and the foam trap(s) so that the trap is sufficently high above the top of the supply tanker (see overall drawing and standard layout drawing). Check the dimension H $\geq$ 600 illustrated in the diagrams below.
Place de foam trap pipe so that it rises continuously from the unit.
Place the foam trap at the same level as the main pipe foam traps.

Pump outlet

Buyers are asked to supply our Technical Department with a sketch showing the layout of the pump unit so that it can specify the outlet pipe diameter and the motor power. We can only supply a warranty if this sketch is provided and if the specified diameters are respected.

Provide the following on the pump unit outlet (see drawing) :

A main shutoff valve downstream of the non-return valve. When there are several tanks, provide a shutoff valve on each tank.

A bellow

A device allowing fluid received to bypass the meter, in the form of a tapping with valve closed by quick coupling and plug.

A vacuum-break hole just under the limiter on the immersion tube when tanks are underground and fitted with filling limiters. The limiter must be designed to allow tanker draining by pump.

A vacuum-break device consisting of a tube and a hole when tanks are underground without filling limiters :

- in the case of a single tank : connect the vacuum-break tube downstream of the shutoff valve which is immediately downstream of the non-return valve.
- in the case of several tanks : connect the vacuum-break tube, downstream of each sutoff valve.

Note : if difficulties are encountered when fitting the vacuum-break tube, ask the WMD to allow only one vaccum-break tube as a waiver.

Startup

CENTREX pump units are delivered with sets of diaphragms that installers are required to use to limit the flow from the pump to the maximum allowed by the meter, which is 50 and 80 m3/h for the two types of pump unit.

The diaphragm diameter depends on the required reduction of flow :

UNIT	Diaphragm Ø mm	Flow reduction m3/h
CENTREX 50	40 45 50	7 to 12 3 to 7 up to 3
CENTREX 80	50 55 63	9 to 15 3 to 9 up to 3

The overall drawing indicates the position of the diaphragm, to install it, uncouple the pipe at this position, remove the washer and fit the diaphragm between the two gaskets and then replace the piping.

Filter cleaning

Clean the filter several times before startup to remove any dirt originating in the tanks and piping.

OPERATION

Fluids pumped : take care to strictly comply with the specification drawn up for the pump unit.

Proceed as follows when metering the fluid received :

Check its level which should be at the height or fhte pump's glass gauge. If it is not, operate the unit for a little while to lower the fluid to this level.

Connect the valves of the unit or of the main pipe to the tank outlet valves by hoses, opening the valves of the unit or of the main pipe.

Open the tanker outlet valves; when receiving from railway-cars through a main pipe, start by opening the valves of the wagon nearest to the takeoff connecting the main pipe to the pump; this is wagon "V" of the enclosed diagram.

Insert the ticket in the meter and turn the crank handle or the drive knob.

Start up the pump unit.

After total or partial draining of the tanker, close the tanker outlet valves.

Disconnect the hoses from the tanker outlet valves and allow the hoses to drain.

Make sure that the meter has stopped operating and the fluid level is visible throught the pump tank site gauge, an then stop the unit.

Withdraw the ticket, disconnect the hoses, close the unit valves and replace the plugs.

MAINTENANCE

Maintenance is reduced to periodic cleaning to the outer and inner filters.

CONTROLE

According to WMD's rules the pump unit may be subject to periodic inspection by the WMD.

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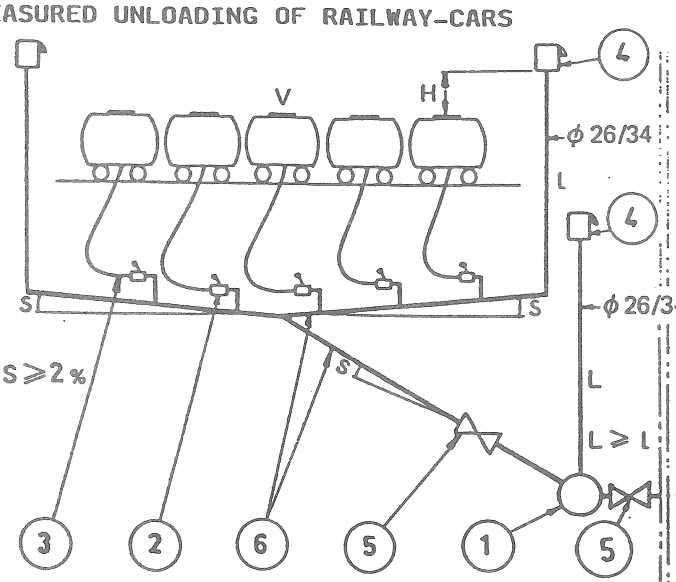
CENTREX RM PUMP UNITS

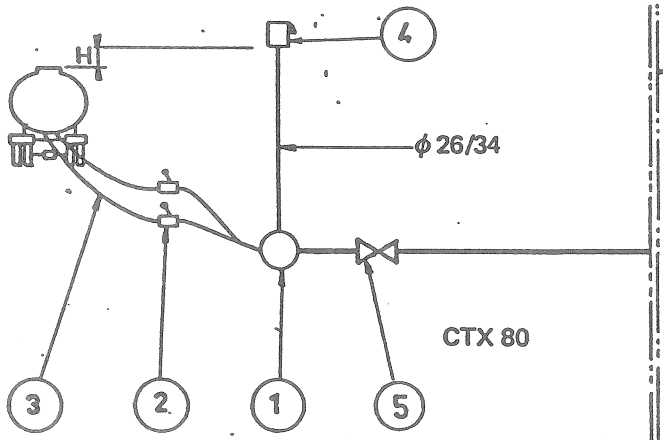
TECHNICAL FORM N° 255d

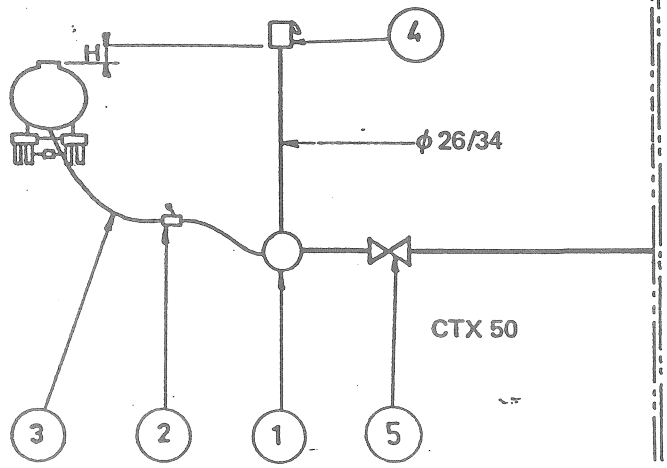
4

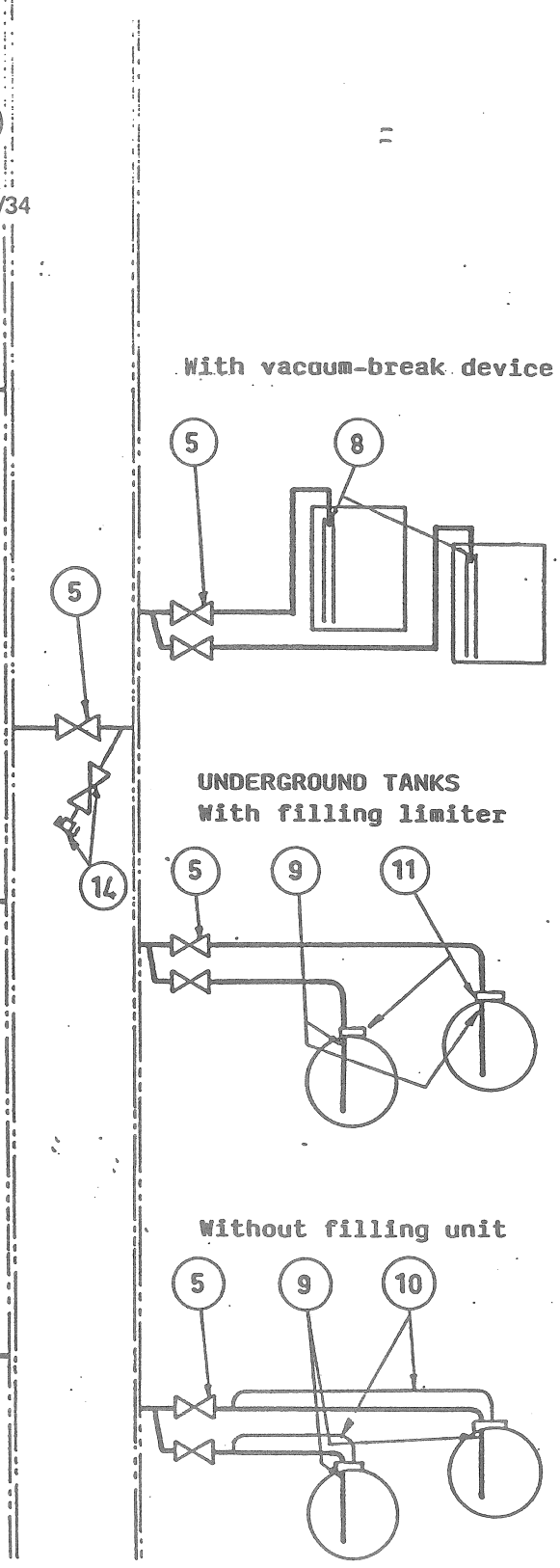
MEASURED UNLOADING OF RAILWAY-CARS



MEASURED UNLOADING OF TANKER TRUCKS







1 - Suction flooded CENTREX RM unit from trucks or wagons
2 - Valve quick-closing with automatic non-return vlave
3 - Hose
4 - Fluid trap : make sure dimension H > 600
5 - Shutoff valve
6 - Main pipe for wagons : ensure gradient is ⩾ 2 % (imposed by the WMO)
8 - Vacuum-break device for overhead tanks
9 - Vacuum-break hole in immersion tube)
10 - Vacuum-break tube, ϕ 12/17) for tanks underground
11 - Filling limiter) either (11) or (10)
14 - Takeoff with symmetrical union

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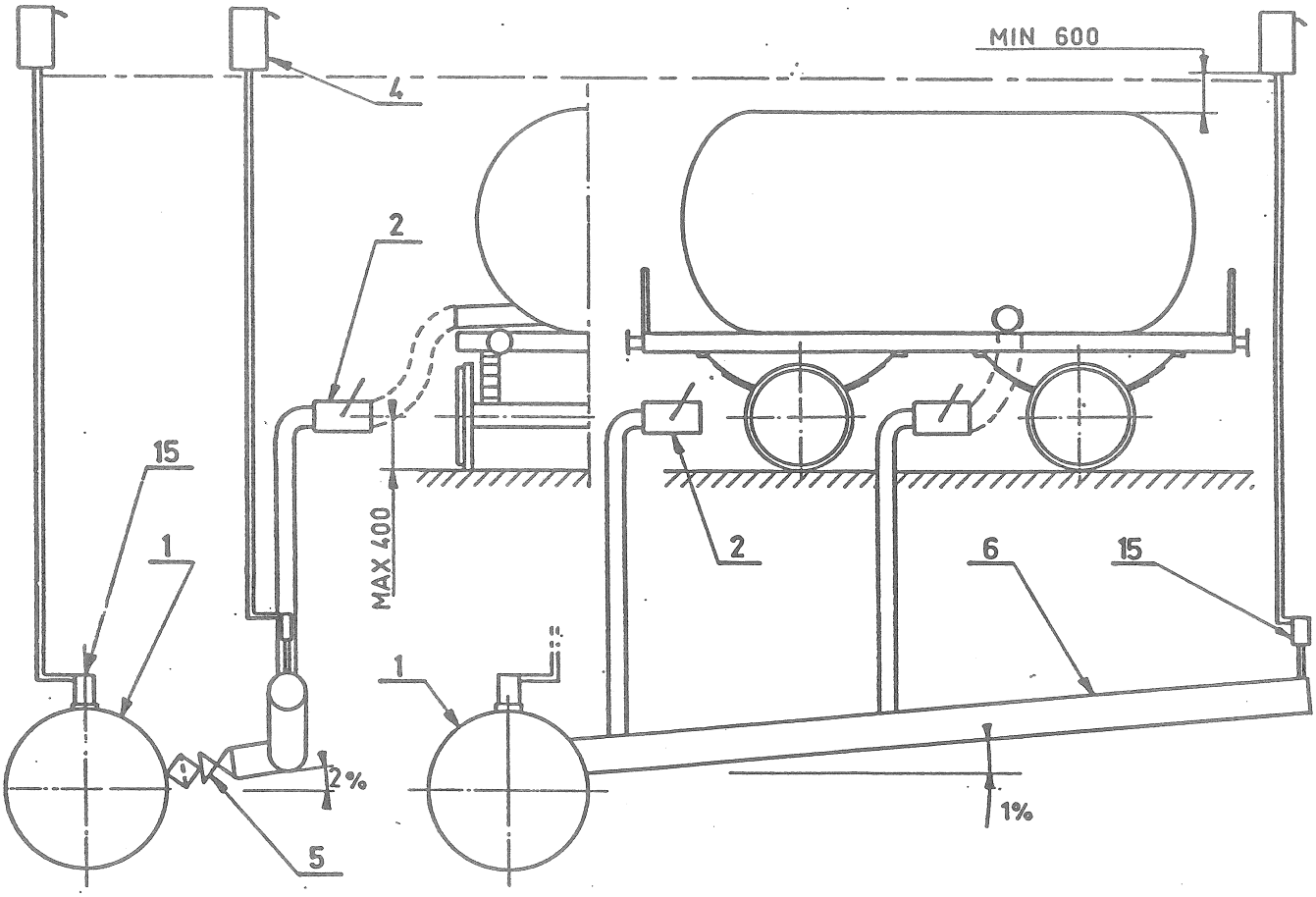
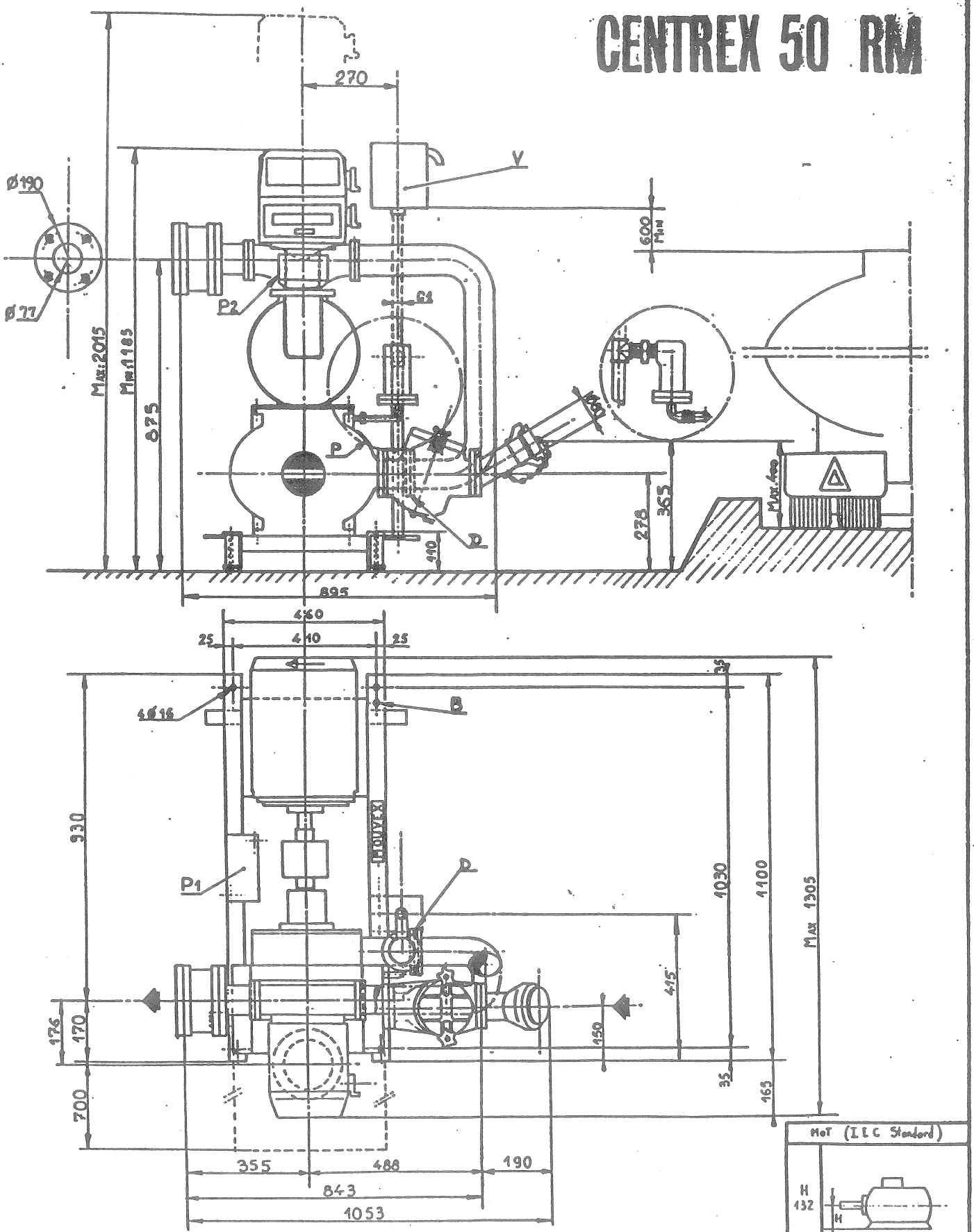
CENTREX RM PUMP UNITS	CENTREX MEASURED UNLOADING OF RAILWAY-CARS
TECHNICAL FORM	N° 255d



——— - ——— - ——— same level

15	Predegasing valve
6	Main pipe Ø 6"
5	Shutoff valve
4	Foam trap
2	Valve with automatic non-return flap
1	CENTREX unit

CENTREX 50 RM



MoT (I.L.C Standard)

P	Pump data plate	B	Earth terminal
P1	Unit data plate	D	Diaphragm
P2	Operation-maintenance plate	V	Foam trap

CL.	1/10	
R.C	51352	

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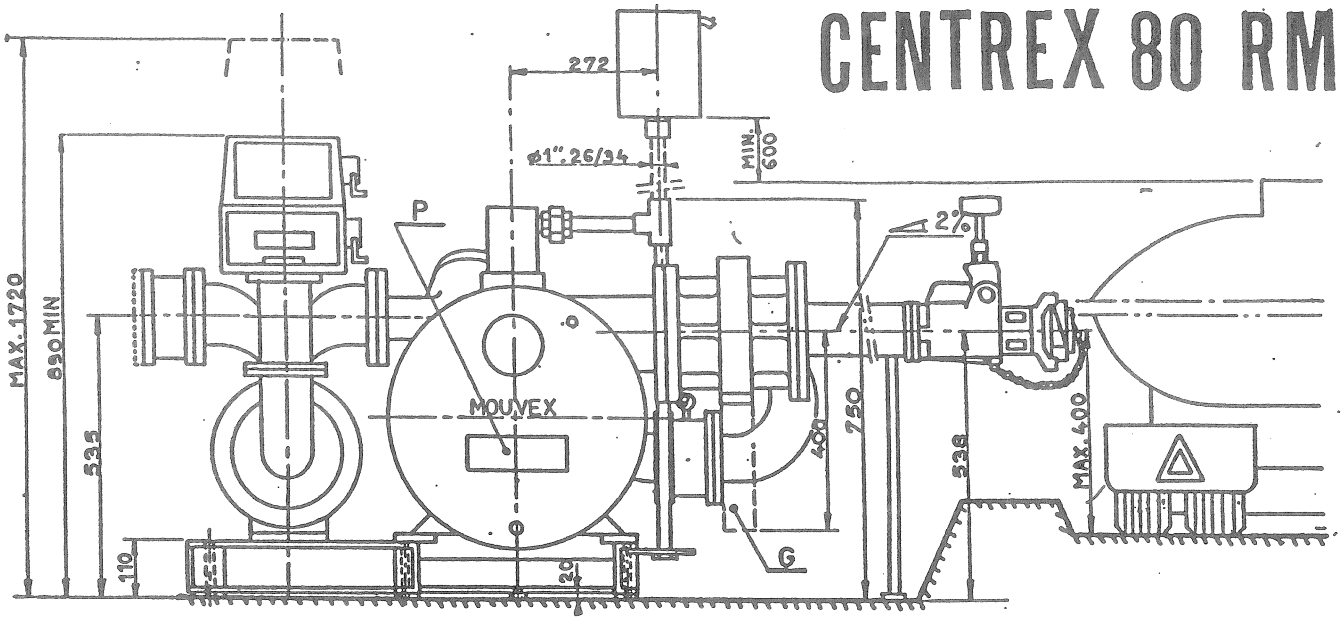
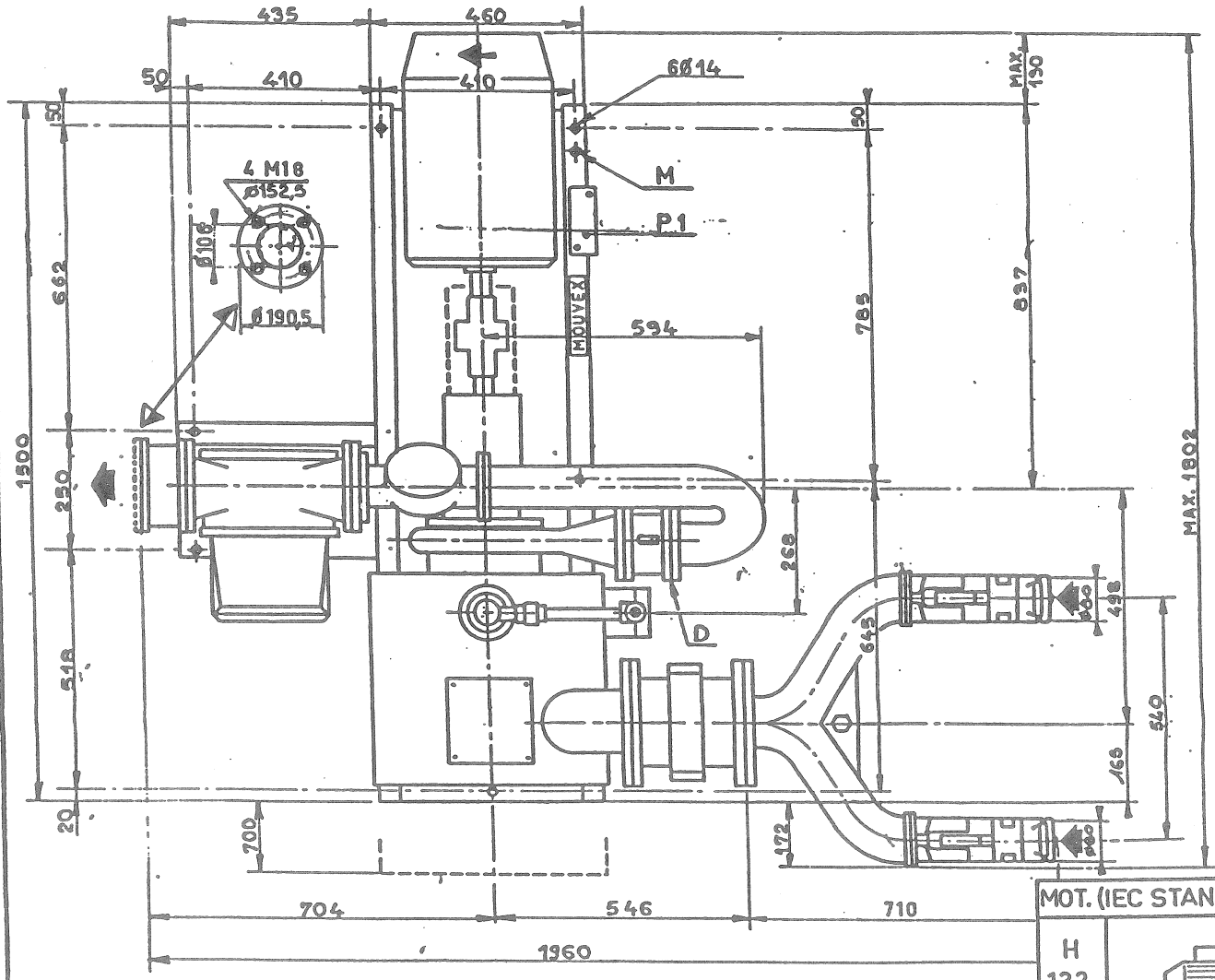
CENTREX 80 RM.

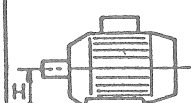




P	Pump data plate
P1	Unit data plate
M	Earth terminal
D	Diaphragm
G	Filter clearance

MOT. (IEC STANDARD)

H
132
160



Dess N.D	1/10	MIN 440 kgs = daN MAX 595 kgs = daN
Vérif RC	N°48 558	