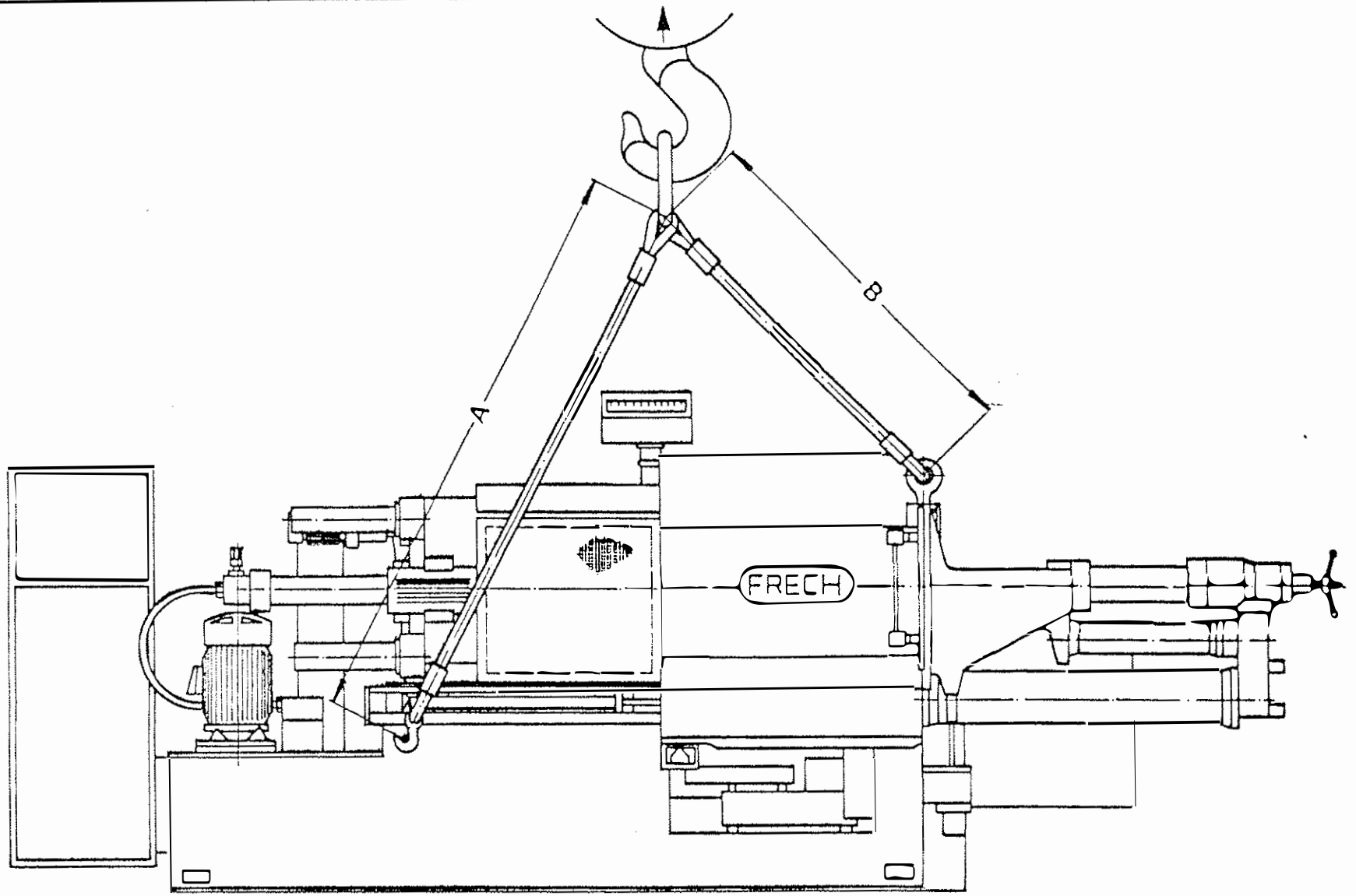
# 1. Transport and Installation



Warning: It is imperative to read through paragraphs 2,3,4 prior to commissioning.




| Masch. Typ | Gewicht | A | B |
|---|---|---|---|
| DAK 63 h | 5 Mp (50 kN) | 2250 | 1400 |
| DAK 100 h | 6 Mp (60 kN) | 2250 | 1400 |
| DAK 160 h | 8 Mp (80 kN) | 2600 | 1500 |

## 1.1 Transport of the Machine

Suspend the machine according to illustration 2. Push round section bars of approx. 30 and 0.6 m length through hole provided. Use padding at contact points between rope and machine.

Transport on rollers of approx. 80 dia. is also possible.

### 1.1.1 Transport - Illustration

See enclosed drawing.

## 1.2 Transport of the Furnace

The furnace must only be suspended from the hooks which are welded on. Any hard impact of the furnace with the floor whilst lowering ist down must be avoided at all costs.

## 1.3 Goods Reception Control

Check consignment for transport damages.
Reports of damage to be confirmed by freight forwarder and to be sent to Messrs. Frech. Please check also whether consignment is complete (machine, panel, furnace, die, spare parts, special equipment).

## 1.4 Installation

According to enclosed foundation drawing

a) solid bedding (stone bolts)

b) elastic bedding (vibration absorbing metal underlay) careful fixing are pre-requisites for successful operation. Easy access makes maintenance and operation easier.

Level the machine with spirit level on the tie-bars by means of adjustment screws.
After levelling grouting of rawl bolts. Install furnace (frame), control panels, pushbutton station also in accordance with foundation drawings and fix them with rawl bolts.

In order to keep the furnace clear of any vibration it is necessary to take care that the furnace does not touch the machine. (Take into consideration thermal expansion)

## 1.5 Services

The connections for compressed air, gas, power and water supply as well as for exhaust gas ductwork are to be carried out by officially approved personnel. The connection dimensions and cross-sections have to be in accordance with the foundation drawing and must not be smaller than these.

### 1.5.1 Water Supply

Water supply and its drainage are located at the back of the machine. The connectiing pipes should, if at all possible, be embedded in the floor.

### 1.5.2 Power Supply

Connections to mains are to be carried out in accordance with the information given on the wiring diagram and on the panel. It is very important to note that the wiring is kept at a sufficient distance from hot furnace parts.

Attention: The machine must not be switched on without being filled with the hydraulic liquid, not even for the short period of checking the direction of the hydraulic motor.

### 1.5.3 Heating Connections.

Instructions for the installation of the supply pipe to the gas or oil burner are given in the operational instructions of the furnace (paragraph 9) and in the description of the nozzle and gooseneck heating (paragraph 9).

## 1.6 Initial Cleaning

The machine has to be cleaned to remove anticorrosion agents. Cleaning rags are more suitable for this purpose than waste cotton. A little oil or paraffin is sufficient as a cleaning agent.

## 1.7 Foundation Drawing

See enclosed drawing.

## Hints on the erection of DAK machines

The erection is made on that part of the works floor which has been prepared according to the foundation plan of the machine.

### Alignment hints:

1) precision spirit level, accuracy: 1 scale division = 0,1 mm/m
2) guide ruler, length according to distance between columns
   alternative: frame level

The permissible horizontal out-of-alignment of the columns in the horizontal and vertical direction with respect to each other is +/- 0,2 mm/m.

a) Levelling by levelling screws.
   Levelling is made by the levelling screws on the machine base. Steel plates are to be laid under the levelling screws. Before the levelling work, the rag bolts are cast in;these may not be tightened until the concrete has hardened completely. During levelling, always make sure that the levelling screws (or wedge) is clamped with respect to the rag bolt. Upon completion of levelling and checking of the injection plunger alignment, the gap between machine base and floor can be cast out with concrete.

b) Levelling with base blocks (air-block-elements)
   Instead of the rag bolts, levelling screws are put under the machine base. The levelling is done by adjustment of the block in the levelling shoe. The machine must be protected against displacement in the horizontal direction. This can be performed by stopping fers encased with concrete. After having finished levelling, the regulation blocks are ensured by the countermutter.

Controle of the injection plunger alignment during the initiation starting:

Maximum deflection of the dial gauge pointer 0,4 mm along the entire injection stroke and 360°C.

Precise alignment during erection of the machine in accordance with the above instructions, will ensure that the values set and measured in the manufacturer's works will again be obtained after erection at the customer's.