

# ***KNAUER***

Multi-Layer Machine  
400-5





# **KNAUER 400-5 Progress in the Block Plant by modern Machine Techniques**

## **Superior in Technique and Production**

KNAUER Multilayer block machines have established a sound world-wide reputation. New ideas and practical experience have been the basis for improving the multilayering technique. Our research work has made it possible to increase quality and quantity of the concrete products. The result: Our newly developed multilayer type 400-5.

This multilayer machine economically produces paving stones, turfstones, solid blocks as well as elements for garden and landscaping. In addition the manufacture of curb-stones and special elements, up to a maximum stone height of 400 mm, is possible in either multi or single layer process. The newly developed mould attachment, designed for quick and easy mould change, guarantees fast adaptation of the product line to market conditions.

## **Fully electronic control system**

The application of the modern control technique with memory-programmable electronic controls offers the user great advantages. LED diodes show the actual operation mode for each component. This means there is a continuous control of all solenoid valves, contactors, limit switches and command units. All machine functions are indicated, such as the mould, ram, filling box, hopper gates, etc., on the simulator display.

All major adjustments such as amount and limitation for filling box strokes, position of ram and mould, material dosing etc. can be carried out from the control panel. Manual adjustment of limit switches is no longer required.

A diagnostic display guides the operator by visual instructions to the next service procedure. All machine and operator faults are displayed. This system makes quick trouble shooting possible. Besides

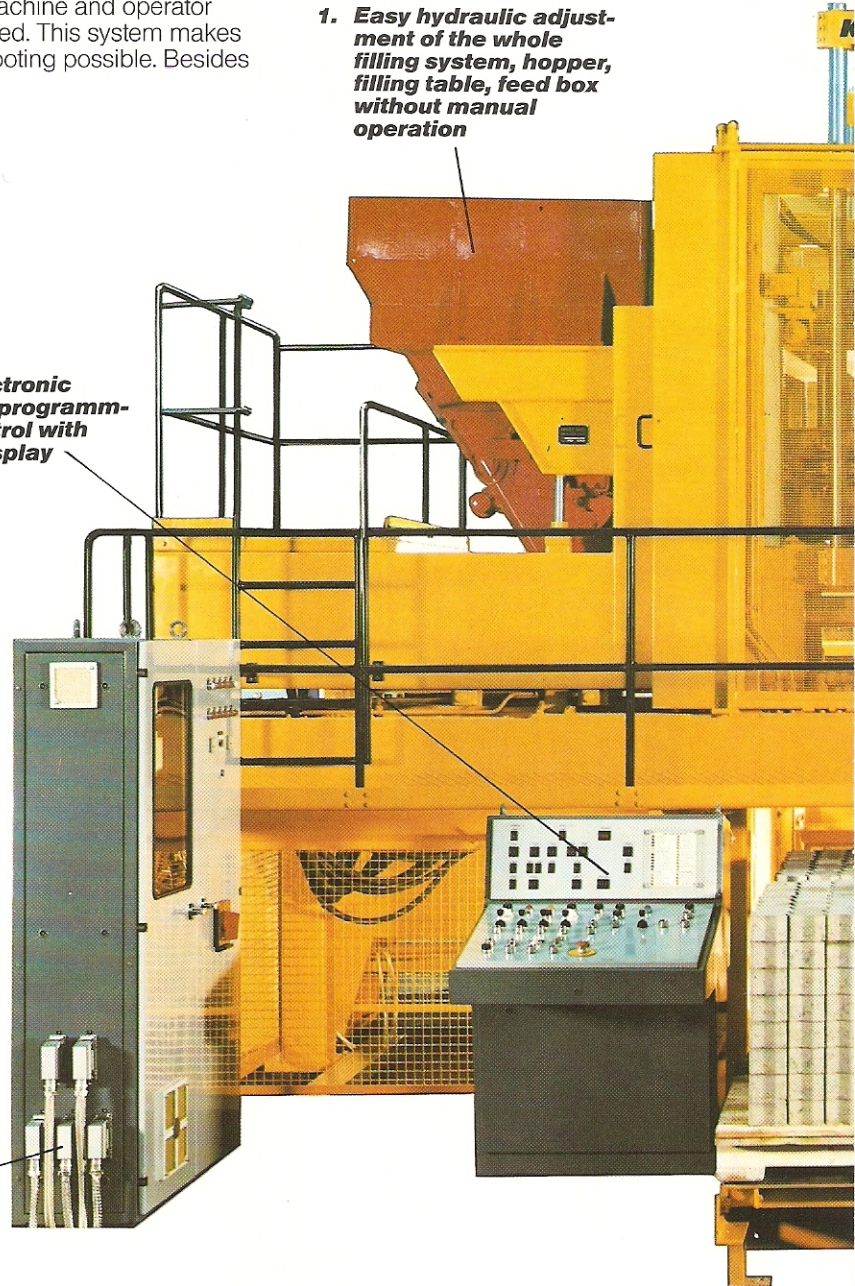
the standard operating modes "Automatic", "Semi automatic", "Manual and Adjustment", special customer requirements can be incorporated in the program with minimal effort.

The complete electronic control system for the 400-5 been tested under actual

**2. Fully electronic  
memory-programmable control with  
visual display**

**1. Easy hydraulic adjustment of the whole  
filling system, hopper,  
filling table, feed box  
without manual  
operation**

**3. Quick installation is  
possible due to ready-  
made wiring and  
coupling plugs**



**The 400-5 KNAUER has set new standards for the economic production of concrete blocks.**





operating conditions in block plants and has proved superior to any conventional control system. The system software was developed by the KNAUER engineering team. The mechanical design of the machine has been adapted to the new electronic control techniques.

### **The material filling system**

The new design of the 400-5 includes an advanced filling box drive system. Instead of the conventional lever-operated drive, a direct drive via hydraulic cylinders is incorporated.

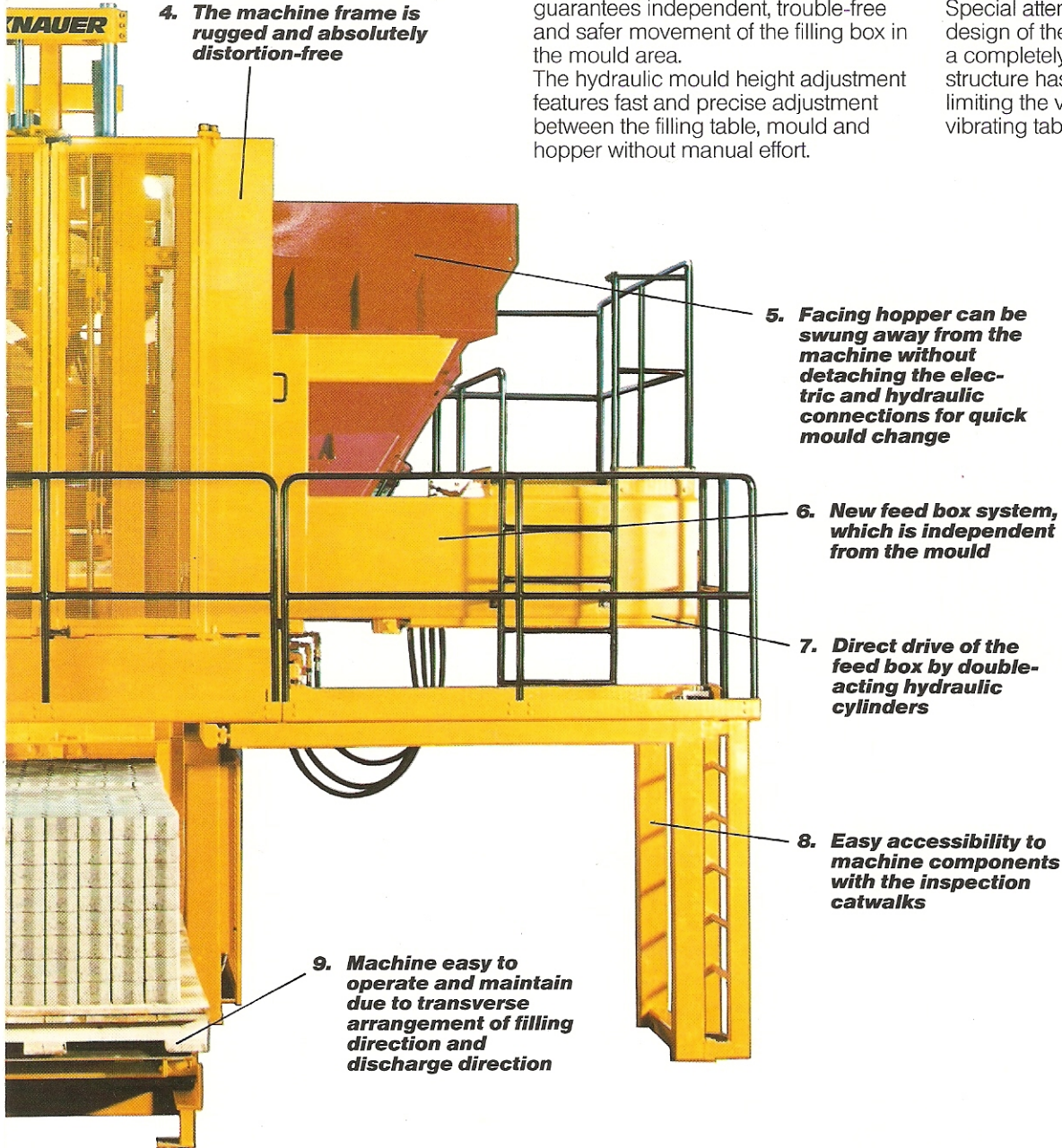
The new functions of the filling box hydraulic drive cylinders together with frame attached filling box guide rails guarantees independent, trouble-free and safer movement of the filling box in the mould area.

The hydraulic mould height adjustment features fast and precise adjustment between the filling table, mould and hopper without manual effort.

### **Vibrating system**

The newly developed mould adjustment system has produced an absolute maximization of the vibration force between the mould and the ram. In addition a locking device neutralizes the ram weight during demoulding. This prevents product damage during stacking of the demoulded layers.

Special attention has been given to the design of the vibrating table, through this a completely new reliable vibrating structure has been developed, without limiting the vibration, lifetime of the vibrating table or the product quality.



**4. The machine frame is rugged and absolutely distortion-free**

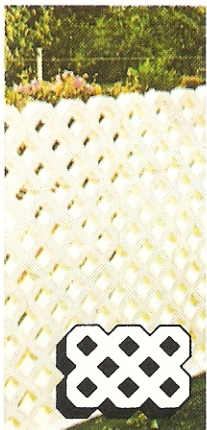
**5. Facing hopper can be swung away from the machine without detaching the electric and hydraulic connections for quick mould change**

**6. New feed box system, which is independent from the mould**

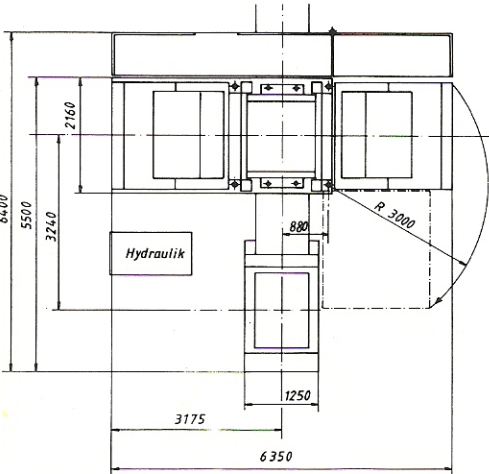
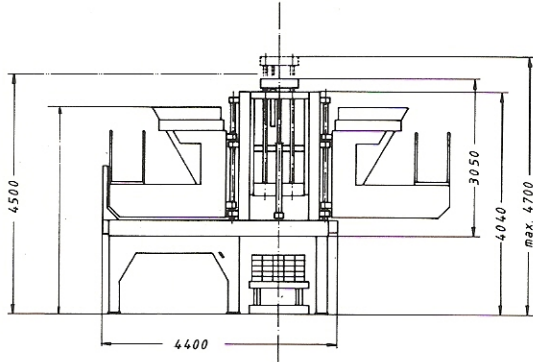
**7. Direct drive of the feed box by double-acting hydraulic cylinders**

**8. Easy accessibility to machine components with the inspection catwalks**

**9. Machine easy to operate and maintain due to transverse arrangement of filling direction and discharge direction**







### **KNAUER 400-5 Fully Automatic Multilayer**

Technical Data:	Measures in mm
Vibrating table dimension	1100 x 1330
Pallet dimension	1100 x 1300
Upper part of ram (overhead plate)	1000 x 1250
Usable mould dimension	1050 x 1250
Min. stone height	60
Max. stone height	400
Max. stacking height	800
Hopper volume (main mix)	1200/1800 l
Hopper volume (face mix)*	1000/1400 l
Weight of machine without mould	approx. 18 tons
Weight of face mix device*	approx. 2 tons
Electric supply	50 kW
Air requirement for sand spraying device	6 bar 2 m <sup>3</sup> /h
Water requirement for oil cooler*	60 l/10 bar
Space requirement	
Machine with face mix device but without roller conveyor	approx. 35 m <sup>2</sup>
Clear height of production building depending on concrete supply system	approx. 5,5 - 6 m
Width of roller conveyor	1050
Height of roller conveyor	390
Length of roller conveyor standard execution	5500
Conveyor extensions can be delivered in length*	2500 and 3000
Operator's platform for control station*	2200 x 1800 x 700

\* Special Equipment  
Technical alterations reserved

TECHNICAL ALTERATIONS RESERVED

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