

## Description

The manipulator GRIPMAT N is designed for retrieval of castings, weighing 3-5 kg from horizontal pressure diecasting machines for subsequent quality control by means of infra-red sensors, and feeding them for subsequent processing.

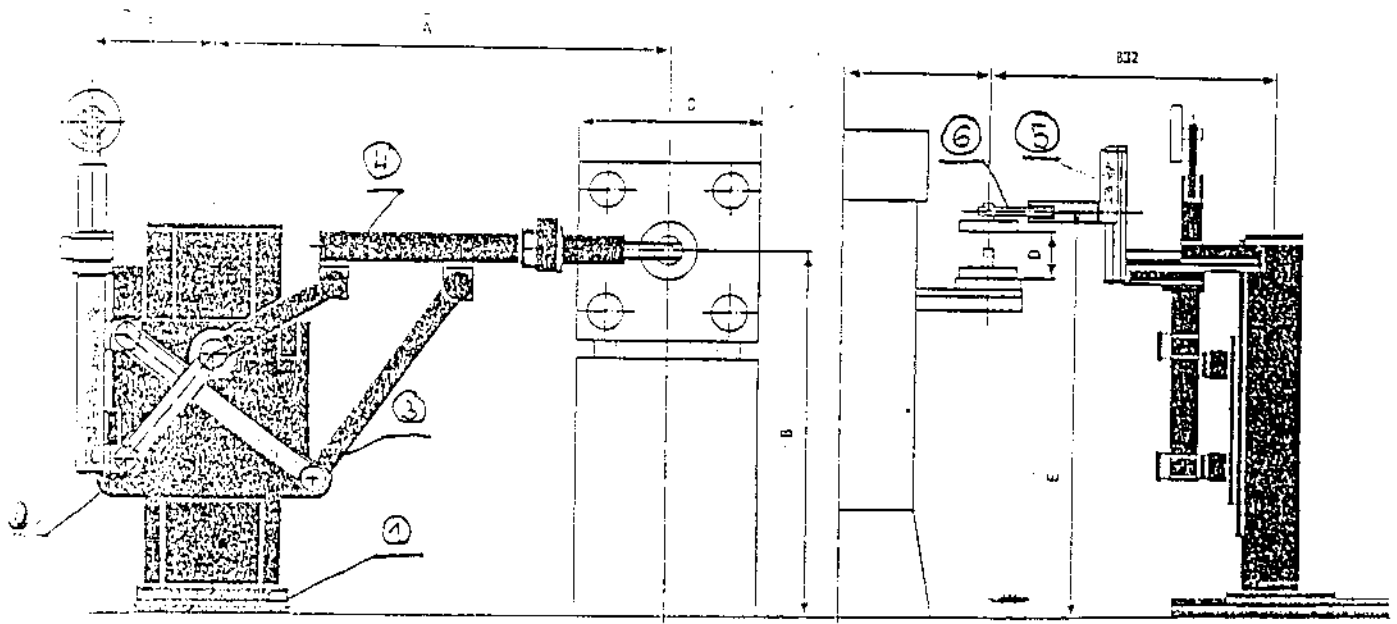
The manipulator consists of:

Base	1
Platen	2
Closed four-bar mechanism	3
Tilting console	4
Transverse translation	5
Gripping clamp	6

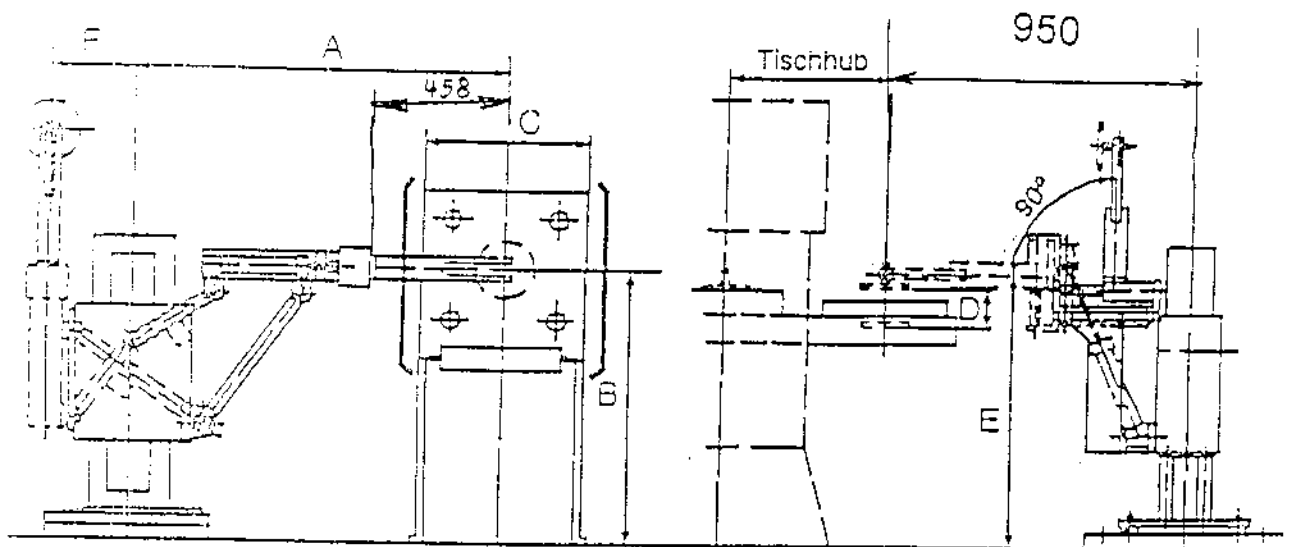
The main drive is electromechanical and includes a DC motor with a tachogenerator, gear transmission and the closed four-bar mechanism. All other motions are pneumatic.

The manipulator is controlled by means of Siemens-Simatic S5-90U controller, interface card and servo-drive and a system of induction and infra-red sensors.

The software resides in EPROM and includes three programmes that can be selected by the operator arbitrarily.



## Specifications



### Sequence of retrieval:

entry - gripping - transverse motion - exit

### Working substance:

Compressed air - 6 bar

Operating voltage 380 V (480 V),  
50 Hz (60 Hz)

### 3 programmes for free selection:

- Gripping of the casting prior to pushing, synchronous motion with the pushers followed by separation;
- Transverse motion relative to the movable platen, gripping of the casting, synchronous motion with the pushers followed by separation from the pushers;
- Transverse motion relative to the movable platen, gripping of the casting, and separation from the pushers.

Technical data	GRIPMAT N
A Min - Max mm	1620 / 1720
B Min - Max mm	1170 / 1720
C Max mm	1600
D mm	100
E Min - Max mm	1480 / 1730
F mm	365
Air pressure	6 bar
Pressure for transverse motion	0,5 - 1 bar
Gripping moment	10 000 Ncm
Maximum number of idle strokes	380 / 260
Maximum casting weight	3 / 5 kg

**Technical data**

Applicable for:	Casting force 1000-4000 kN
Maximum lifted weight:	3 kg
At reduced speed:	5 kg
Maximum cycle of idle stroke	
- at maximum speed:	380 per hour
- at reduced speed:	260 per hour
Regulation of the force in transverse motion:	4 bar → 300 N / 6 bar → 450 N
Moment of gripping clamps:	4 bar → 10.000 Ncm 6 bar → 15.000 Ncm
Direction of motion (according to the instruction manual):	3 programmes with free selection

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