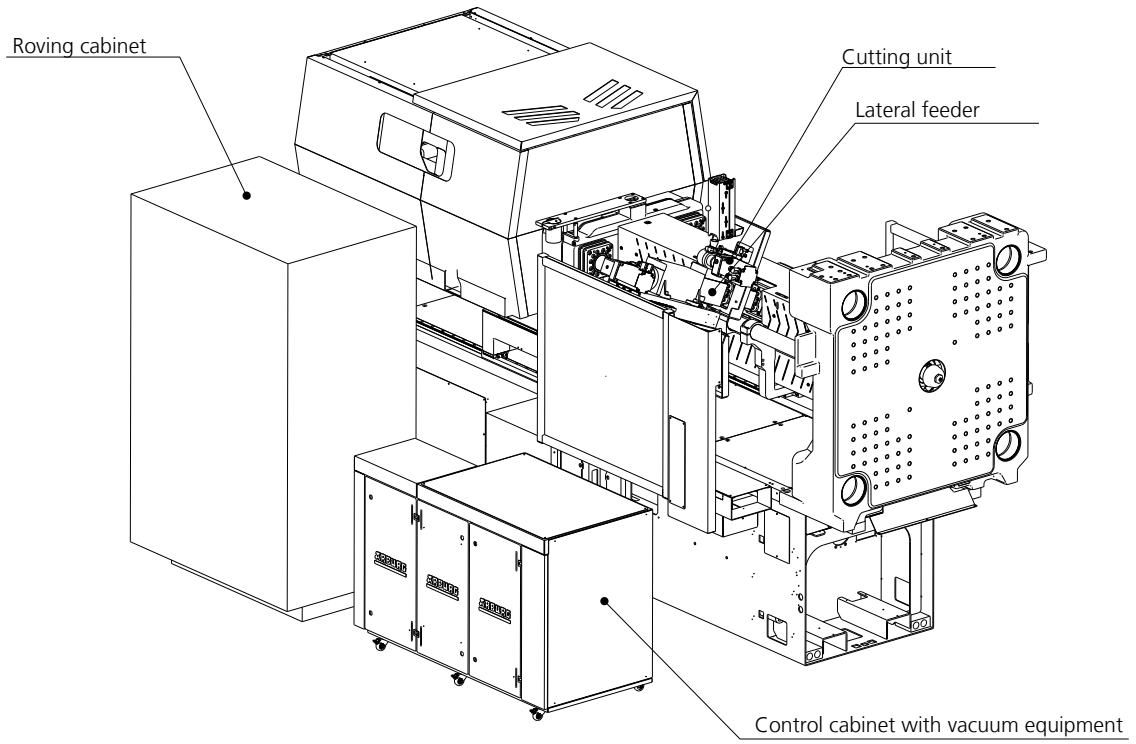


# ARBURG FDC UNIT

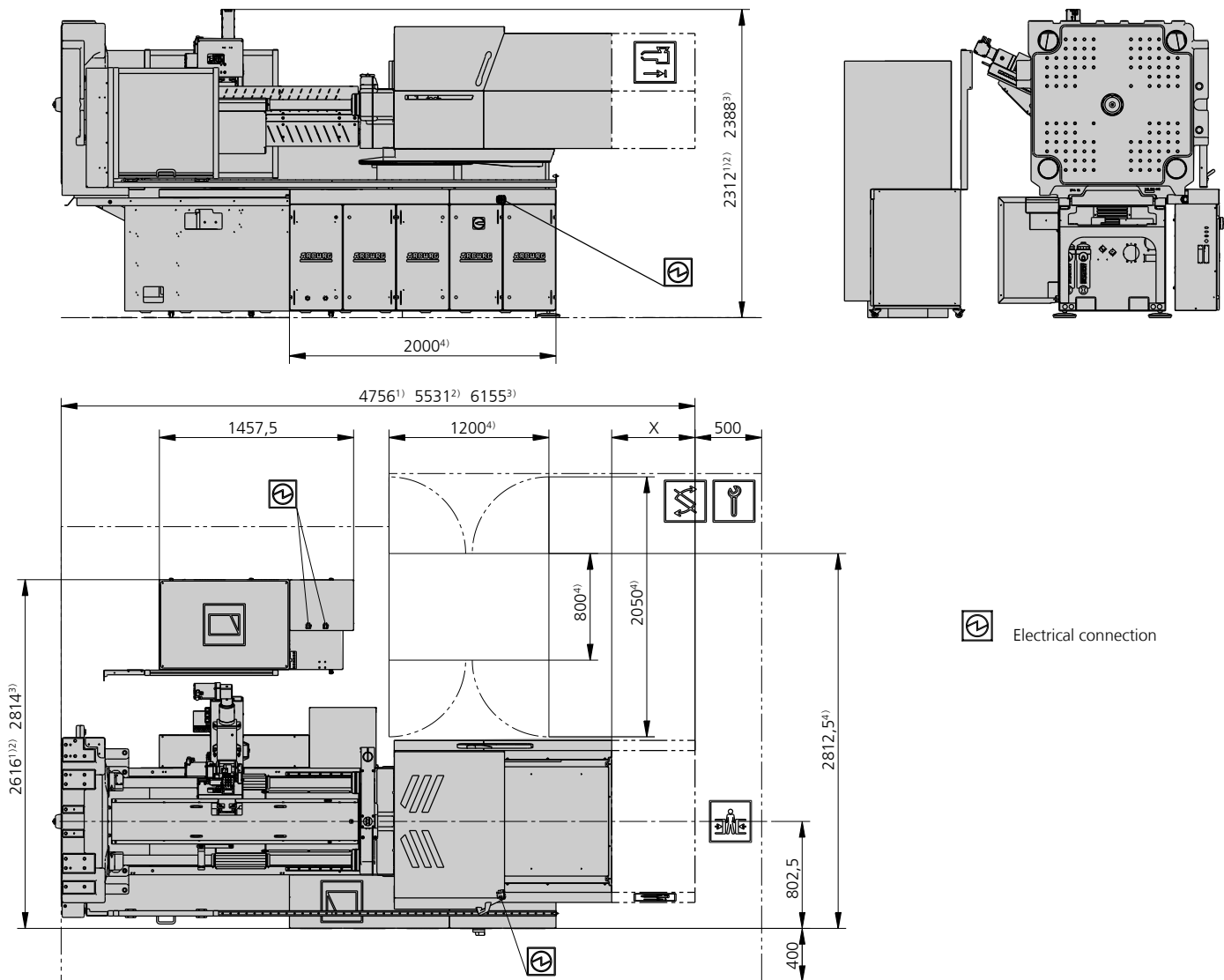
for  
ALLROUNDER 630 - 920 S  
ALLROUNDER 1120 H

**ARBURG**

# FLOOR PLAN



# DIMENSIONS



- 1) Injection unit 2100 X = 625 (stroke)
- 2) Injection unit 3200 X = 690 (stroke)
- 3) Injection unit 4600 X = 715 (stroke)
- 4) Depending on the performance and size of the injection unit

# TECHNICAL DATA

## ARBURG FDC unit

ALLROUNDER machine sizes	630-920 S (T2 equipment stage) 1120 H (non-standard version without pressure accumulator)
--------------------------	--

Injection unit		2100	3200	4600
with screw diameter	mm	60	70	80
Effective screw length	L/D	33,3	32,1	31,3
Geometry		2-stage, FDC geometry		
Dosage stroke (recommended)	xD	1 - 2,5	1 - 2,5	1 - 2,5
Dosage volume (recommended)	cm <sup>3</sup>	170 - 425	270 - 675	400 - 1000
Shot weight (recommended)	max. g PPGF30	155 - 390	250 - 620	370 - 930
Large cutting unit		3x	6x	6x
Cutting positions		2	1	1
Anzahl Rovings	max.	3+3	6+6	6+6
Number of rovings	max. kg	450	450	600

## Cutting unit

Standard cutting length	mm	5,6   11,2   16,8   33,2		
Special cutting length	mm	8,4		
Fibre content	%	10 - 50		
Approved fibres		Glass fibres		
Cutting performance (TEX 2400)	max. g/s	7	14	14
TEX	g/1000m	300   600   1100   1200   2000   2200   2400   4800		

## Plasticising

Dosing speed	max. m/min.	27		
Approved materials*		PP, PA, PET Melt Flow Index >35 (recommended)		
Processing temperature	max. C°	350		

\* Materials must be selected and tested with ARBURG.

# FUNCTION AND EQUIPMENT

## Description of function

In fibre direct-compounding (FDC), glass fibres are added to plastic during the injection moulding process (inline). Non-reinforced, reinforced and recycled plastics can be used in the process. Glass fibre rovings are fed into a cutting unit. The cutting unit cuts the fibres to a defined length. A lateral feeder unit transports the cut fibres to the plasticising cylinder. The length of the fibres and materials should be selected depending on the component requirements.

We recommend carrying out preliminary tests in consultation with ARBURG.

## Standard equipment of the FDC unit

- Roving cabinet
- Cutting unit, servo-electric
- Lateral feeder, servo-electric
- Additional control cabinet

## Wear parts for the FDC unit

- Blades
- Drive roller
- Cutting roller
- Filter

## Injection moulding machine equipment requirements

Only injection moulding machines that have been set up for this specific purpose can be used for fibre direct compounding (the equipment cannot be retrofitted to existing machines). The mould should be designed in accordance with current guidelines for processing long glass fibres.

The following equipment is required:

- Technology stage T2 (hydraulic machines)
- aXw Control ScrewPilot
- Preparation for fibre direct compounding
- FDC cylinder module (cannot be used for standard injection moulding)

## Recommended additional equipment

- ARBURG electro-mechanical dosage – recommended, depending on target cycle time
- Scales for checking weight with interface to injection moulding machine
- Gravimetric mixer with interface to injection moulding machine

**ARBURG GmbH + Co KG**  
Arthur-Hehl-Strasse  
72290 Lossburg  
Tel.: +49 7446 33-0  
www.arburg.com  
contact@arburg.com