Productinformation

TM 2300

Hotmelt moulding platform: Fully modular processing machine for practically any application

WERNER WIRTH

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Product description

The TM2300 moulding station with its consistently modular structure is the most flexible solution for producing your hotmelt application. It is suitable for all common standard tool concepts with the available tool holders, right through to hot runner tools.
The cooling or heating needed for the moulding material in accordance with the process requirements is provided indirectly through the tool holder. This makes it much easier to change the tool, managing without loose hoses or hose connections.

Solutions with a vertical or horizontal single or multi-point gate are possible and can be fed by the material preparation system needed for the specific material. In the standard version, the clamping force is 1400 kg and can be upgraded with different cylinder sizes or additional tool clamping systems.

The sub-mould is moved manually out to the user for unhindered access when inserting the parts being processed. The variable holder level of the upper mould has a clamping path reduction feature for the shortest possible clamping times.

The system is devised for one operator. An optional switch box can be added to operate two TM2300 platforms at one material feed point, thus giving the greatest possible production capacity for one operator with ideal cost effectiveness. The Machine Safety Directive is fulfilled to level D for maximum occupational safety going way beyond the minimum requirements.

Moulding platform TM2300 with its unique flexibility is the ideal solution, from the small-series platform with tank unit via extruder-fed double moulding station through to inline solutions for mass production.

1 Material preparation in the tank unit

Tank units for material preparation are the entry-level solution for hotmelt moulding. They process granulated materials. The tank units in the TM1000 series are all designed for fitting to all WERNER WIRTH moulding platforms. Depending on the specific system type, a range of features are available such as level sensor, weekly timer or temperature reduction.

2 Material preparation in the extruder

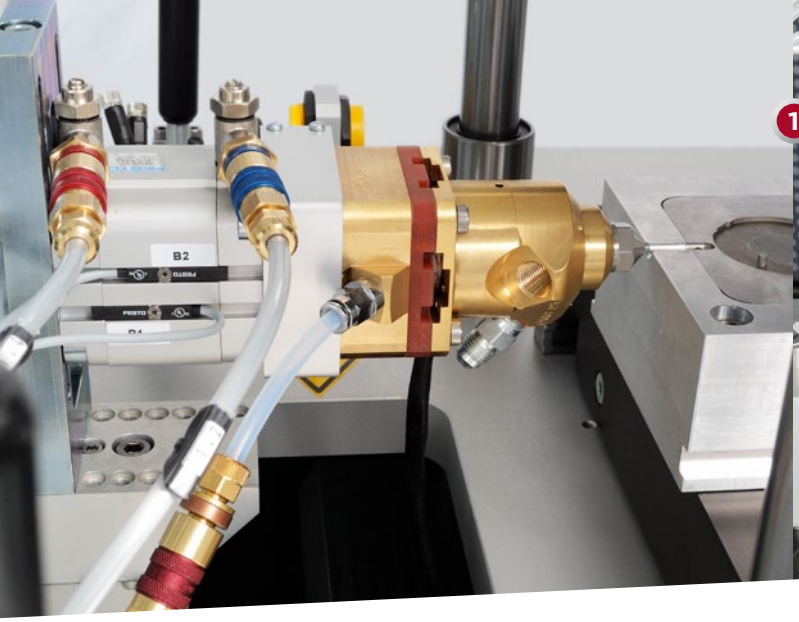
Extruding is the most convenient and reliable form of material preparation. The extruder is used for extremely gentle processing of a wide range of different granulated materials. The extruders in the TM1500 series can be integrated in all WERNER WIRTH moulding platforms and are designed for processing a wide range of materials. Touchpanel control, inverter-controlled drive and optionally integrated material drying together with melting rates coordinated to material demand are just some of the features. Our extruders make it possible use materials with higher viscosity and coloured moulding or injection moulding materials.

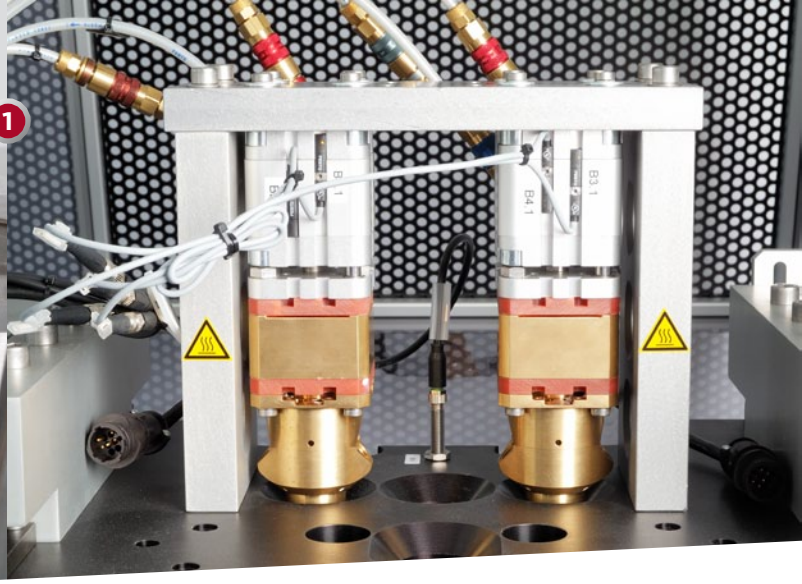
3 Material preparation in the bag melter

The TM1402 bag melter is necessary when processing our high-temperature resistant reactive polyamide materials in the PAR product group. The unit can be integrated in every moulding system. The material is melted by a controlled heating plate under the exclusion of air before being fed into the tool.

4 Tool holders

The standard TM2300 moulding station is available with two different tool concepts. The sliding table version offers the largest possible tool sizes. The cross-table version pushes one of two sub-moulds alternately under an upper mould. In both versions, the sub-mould moves out to the operator for optimum handling when inserting and removing the parts being processed.

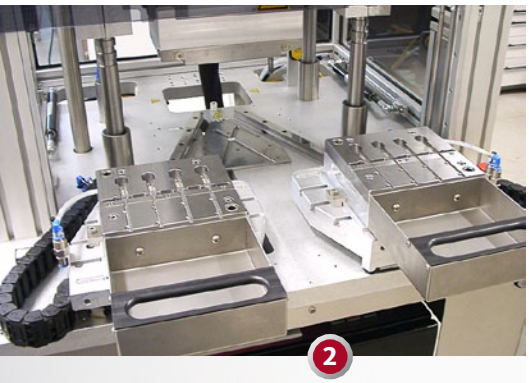




1 Valves

WERNER WIRTH moulding valves are designed for low-pressure moulding systems. The cavity is filled quickly by extra large nozzles, with material cracking reduced by the consistently undercut-free internal structure.

Both horizontal and vertical injection into the tool is possible with up to three TM1000 valve heads. Vertical arrangement permits gate-less moulding directly into the cavity, while the horizontal gate into the separation level offers the greatest variability for the gate point at the cavity.



2 Hot runners

The upper tool holder can be replaced with an optional hot runner system. When combined with an extruder, it is possible to have one separate gate point for each cavity with almost free three-dimensional positioning of the gate point at the cavity. This permits ideally reliable process control of material temperature and flow quantity, resulting in minimum consumption without any material cracking during the moulding process.

3 Cooling or heating units

One of the crucial criteria in a constant moulding process consists in controlling the tool temperature. Certain applications need the tool to be heated. Temperature control is provided indirectly through the tool holders so that the tool itself needs no extra connections or devices.

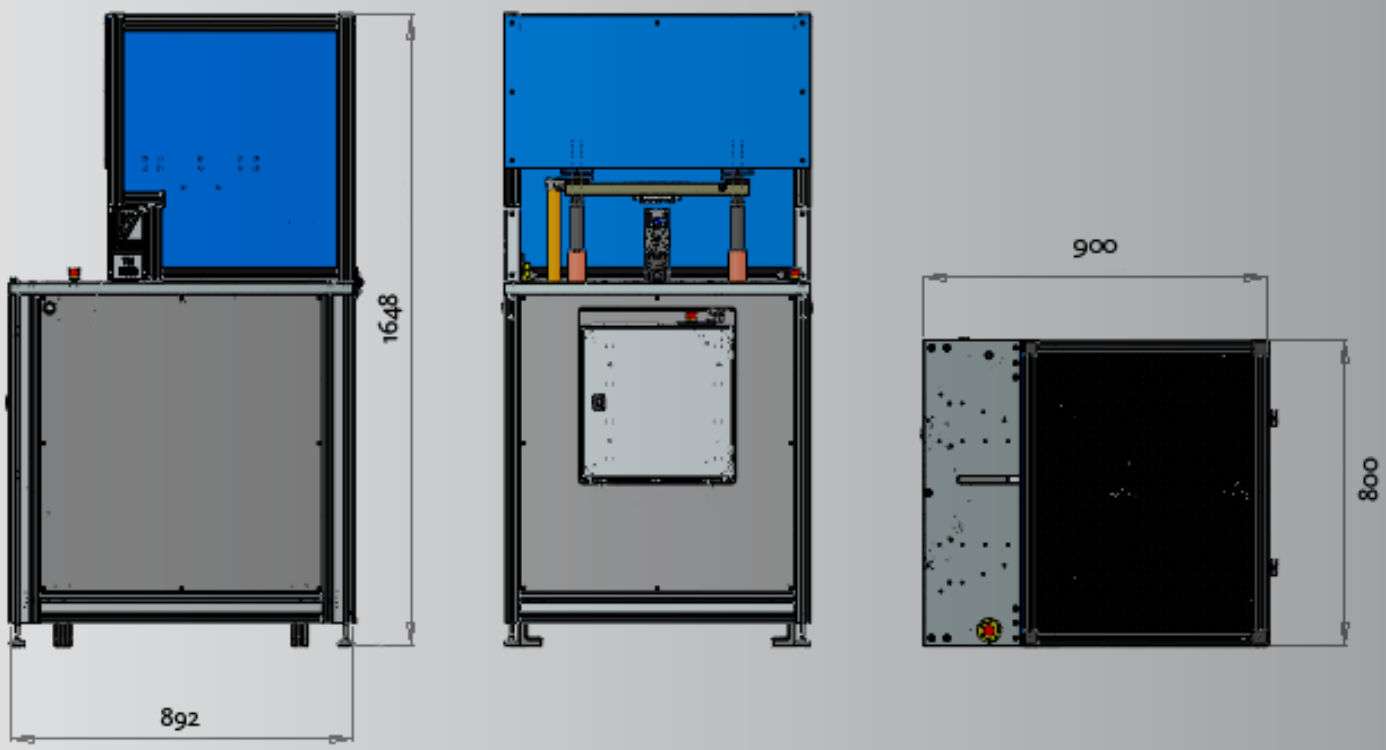
The standard TM2500 moulding station is fitted with the TM7100 cooling unit, which can be replaced by the TM7030 heating unit as an option.

4 Two+one operation

With the TM1300 switch box, two hotmelt stations can be operated at one material feed point, regardless of whether this is a tank unit, extruder or bag melter. The switch box ensures that only one moulding process is running at a time so that the moulding parameters can be provided constantly and exactly as needed by the injection moulding process.

Technische Daten/Specifications **TM2300**

Deutsch	Englisch	Bezeichnung
Steuerung	Control	Vipa Compact Commander CC03I
Programmspeicher	programstorage	10 Programme
Vergussdruck min/max	Meltingpressure min/ max.	5 - 50 bar
Material Temperaturbereich	Material Temperature range	0-240 °C
Standart Formengröße	standard mould size	H x B x T 120 x 130 x 120
Max. Formgewicht	Max. mould Weight	20 KG /auf Anfrage/ on inquiry
Sonderformenmaße möglich	special mould sizes possible	auf Anfrage/ on inquiry
Werkzeugtemperierung	Tool tempering	5° - 90 °C
Betriebsspannung AC	operation voltage AC	230 V -50/60Hz
Leistungsaufnahme max Abhängig v. Aufschmelzeinheit	powert input max. depending on Meltingunit	400 V 50-60 Hz 13 KW 16 A
Eingangsluftdruck min/max	input airpressure min/max	6 bar
Schließkraft pneumatisch	clamping force pneumatic	14 KN (6 bar)
Gesamtgewicht Maschine	total weight machine	120 kg
Ohne Aufschmelzeinheit	without meltingunit	
Option: TM1000/XX/Dual-Mode	Option: TM1000/XX/Dual-Mode	TM-1000/60/Dual



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