LAARMANN®

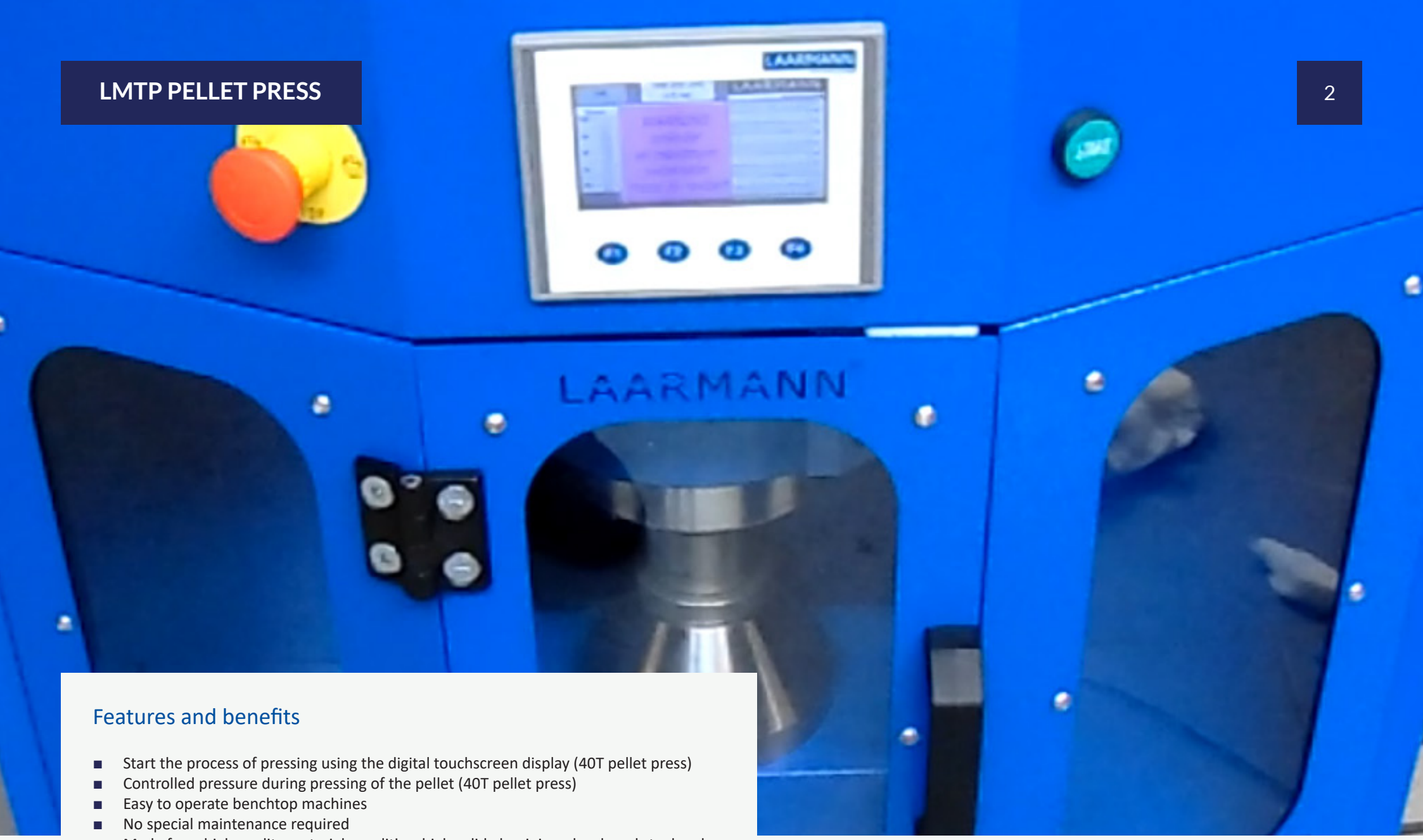
Innovators in Solids

Sample Preparation

LMTP PELLET PRESS

LAARMANN pellet press solutions

UNIVERSAL, HIGH PERFORMANCE PELLET PRESS MACHINES



Features and benefits

- Start the process of pressing using the digital touchscreen display (40T pellet press)
- Controlled pressure during pressing of the pellet (40T pellet press)
- Easy to operate benchtop machines
- No special maintenance required
- Made from high quality materials qualities: high solid aluminium, hardened steel and polished stainless steel

LMTP PELLET PRESS

LAARMANN Pellet presses

If you analyze samples like: grounded soil, various powders or other processed materials using an X-ray fluorescence instrument, infrared spectroscopy, calotimeter or similar machines you will need to have a solid lab press. Your xrf/pellet press should be easy to handle in order to produce the perfect pellets.

LAARMANN manual lab presses are made from solid stainless steel and aluminium construction for the best quality, enabling to use a variation of die sets from 3 to 50 mm, which will give you the best results in the market.

LMTP 1-15 Tons Pellet Press / LMTP 1-25 Tons Pellet Press

Manual Hydraulic Pellet Press for the precise and reproducible preparation of powder samples. The press unit is designed for free standing on the laboratory bench.

The pressing pressure is freely selectable between 1 and 25 tons using a ergonomically designed lever for creating the required pressure.

LM PT 1-15/25 ton Pellet Press

LMTP Pellet Press motorized

The LAARMANN motorized Hydraulic Pellet Press for frequent and reproducible preparation of small powder samples. The pressing pressure is selectable between 200 kg to 5 tons that can be changed with steps of 0.01 tons with the digital display. The pump will maintain the exact pressure from 200kg. The machine will automatically reapply pressure if the value drops under the automatically limit.

For safety, a switch is placed to prevent the pressure function from working when the cover is opened.

The LAARMANN compact motorized lab presses are made from solid stainless steel and aluminium construction for the best quality and can be used for different types of powder samples such as grounded soil and various powders and are easy to operate

LMTP Pellet Press motorized

Operating the LMTP40

The LMPP40 Tons Pellet Press is a laboratory machine used for pelletizing of material for X-ray analyzing purposes.

Pellets of various thickness and diameters can be produced using the LMPP40 Tons Pellet Press.
Other available models in the market use pre-set hydraulic working principle, having no possibility to control the pressure during pressing the pellet. With the LMPP40 Tons Pellet Press the operator can visualize in the display which pressure is set and what is the time frame used this pressure.
This increases a lot the quality of the pallet and also the reproducibility of the pallet making the analyses more reliable.

Up to 10 different programs are adjustable setting the pressure in relation to the time. A program consist out of 1 to 6 steps. Within each step the press power and time can be adjusted. For each material there is a different optimum pressure, which needs to be learned by doing.

The automated LMPP40 Tons Pellet Press can press pellets of a diameter variating from 13 up to 50mm.
Our die sets are made of high quality stainless steel. To improve the surface of the pellet our the plunger is high graded mirror polished.

Operating the LMTP40

Filling the die set with a 5-10ml of milled sample and insert the plunger on top Start the process of pressing using the digital touchscreen display.

The automated pre-set program will start the cycle
After releasing the pressure, removing the die set is not needed: pull out the bottom slider.

Following the operator needs to use the machine to press the pellet down with a little force of the machine

LMTP 40 tons Pellet Press closed

LMTP 40 tons Pellet Press

Applications

Pellet presses are used to compress powdered or fine materials into dense, uniform pellets under high pressure. This process improves handling, storage, transport, and material performance in downstream applications.

- Sample preparation for analytical techniques such as XRF (X-ray fluorescence), where powders are pressed into solid pellets for accurate and repeatable measurements.
- Pharmaceutical manufacturing, where powders are compacted into tablets with controlled density, shape, and dissolution properties.
- Biomass processing, converting raw materials like wood chips, sawdust, or agricultural waste into fuel pellets for efficient energy production.
- Metallurgy and material science, where metal powders or ceramic materials are pressed into pellets for sintering, research, or industrial component production.

Technical data

	LMTP 1-15	LMTP 1-25	LMTP Motorized	LMPP 40T
Applications	form pellets in industries such as agriculture, biomass energy production or animal feed			
Working principle	pressing fine powder to tablet form			
Display / resolution	Analogue, 0,2 T	Analogue, 0,5 T	Digital	Digital , automatic programs
Max pressure	15 t	25 t	5 t	40 t
Piston	108 mm	108 mm	105 mm / 22 mm	
Pressure control	0 – 20 t	0 – 30 t	200kg – 5 t	0 – 40 t
Press tool	13 / 32 / 40 mm	13 / 32 / 40 mm	13 / 32 / 40 mm	
Width between pistons	150 mm	150 mm	150 mm	
Min. / Max. inner height	50 mm / 142 mm	73 mm / 185 mm	52 mm / 142 mm	
Power connection			1 phase	1 phase
Standard	CE	CE	CE	CE
Weight	42 kg	49,5kg	40kg	200kg
Dimensions (width x length x height)	400 x 360 x 300 mm	400 x 360 x 300 mm	370 x 300 x 538 mm	500 x 850 x 1150 mm

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