

Technische Daten / [Technical data](#)

## PET Streckblasmaschine für Behälter von bis zu 10 Liter

### PET stretch blow moulder for containers up to 10 litres

# TETRA PAK LX1





### Eckdaten / Key data

Hersteller / <i>Manufacturer</i> .....	Tetra Pak
Typ / <i>Type</i> .....	LX1
Anzahl Kavitäten / <i>Number of cavities</i> .....	1
Baujahr / <i>Year of manufacturing</i> .....	2002 [neu // <b>unused</b> ]
Gewichte / <i>Weights</i> .....	~ 4.560 kg
Blasmodul mit Schaltschrank / <i>Blowing module incl. cabinet</i> .....	~ 3.800 kg
Preform Zuführung / <i>Infeed</i> .....	~ 360 kg
Geräuschpegel am Steuerpult / <i>Noise level at control panel</i> .....	~ 83 dba

### Produktabmessungen / Product dimensions

Preform Länge / <i>preform length</i> .....	70 - 210 mm
Preform Ø .....	18 - 50 mm
Neckring Ø .....	52 mm
Neck Ausführung / <i>finish</i> Ø .....	48 mm
Neck Höhe / <i>Height</i> .....	9 - 27 mm
Behälterhöhe / <i>Container height</i> .....	390 mm
Behälter / <i>Container</i> Ø .....	190 mm
Behältervolumen / <i>Container volume</i> .....	0,25 - 10,0 ltr.

### Abmessungen der Anlage / Equipment Dimension [LxBxH]

Blasmodul / <i>blowing module</i> .....	3.620 x 1.771 x 263mm
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### Leistung / Power

Gesamt / <i>Total</i> .....	35,2 kW
Infrarot Heizsektion / <i>IR heat section</i> .....	26,0 kW
Funktion & Preformzuführung / <i>Operation &amp; feeding section</i> .....	9,2 kW
Stromversorgung / <i>Power supply</i> .....	230/400V
Frequenz / <i>Frequency</i> .....	50 Hz

### Technical specifications

Number of cavities	1
Output	up to 1340 bph

#### Product dimensions

Preform length	70-210 mm
Preform diameter	18-50 mm
Neck ring diameter	52 mm
Maximum neck finish diameter	48 mm
Neck height	9-27 mm
Bottle height	390 mm
Bottle diameter	190 mm
Bottle volume	0.25-10 litres

#### Equipment dimensions, L x W x H

Blowing module	3620 x 1771 x 2631 mm
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#### Weight

Total	4560 kg
Blowing module section (with cabinet)	3800 kg
Preform infeed section	360 kg

#### Noise level

At control panel	83 dBA
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### Utility requirements

#### Installed power

Total installed power, standard setup	35.2 kW
Infra-red heating section - 11 zones	26 kW
Operation & Feeding system section	9.2 kW
Power supply	230/400 V $\pm$ 10%
Frequency	50 Hz $\pm$ 1%

#### Cooling water

Cooling capacity	7240 kcal/h
Water temperature	8-12 °C
Flow rate	up to 3.6 m <sup>3</sup> /h
Pressure	3-5 bar

#### Compressed air

Validity of these consumptions: at a temperature of 0 °C and at sea-level, for an output of 1000 bph.

#### 40 bar air consumption

For 0.25 - 6 litres bottle	44 up to 274 Nm <sup>3</sup> /h
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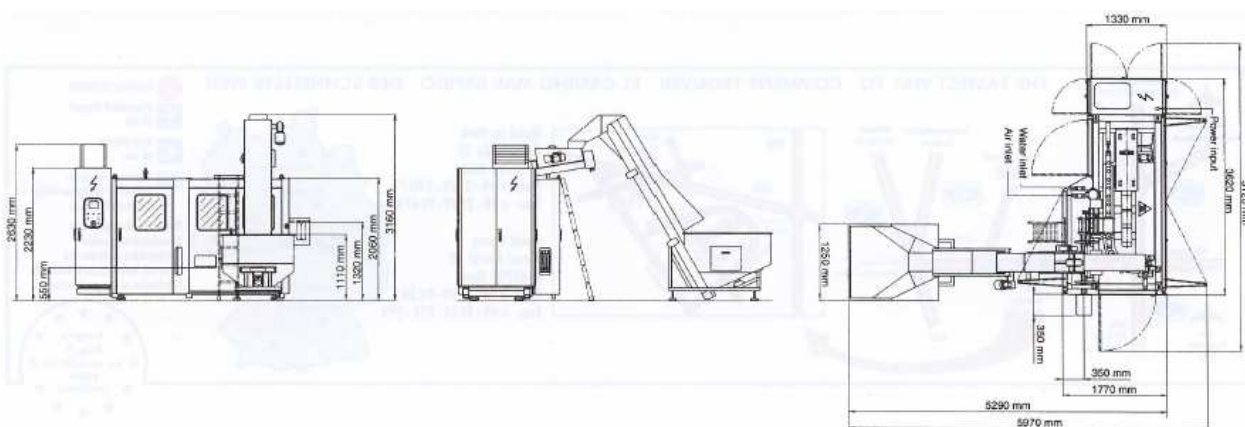
#### 7 bar (service air) consumption

61 Nm<sup>3</sup>/h

### Bottle output for standard bottles

Bottle volume	Average output
10 ltr	up to 930
5 ltr	1000
3 ltr	1015
1.5 ltr	1340
250 ml	1340

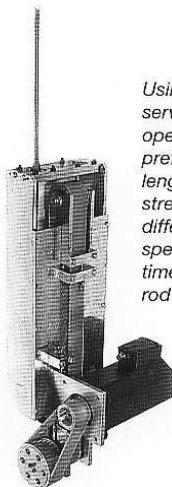
The above figures are dependent on preform bottle design and grade of PET.



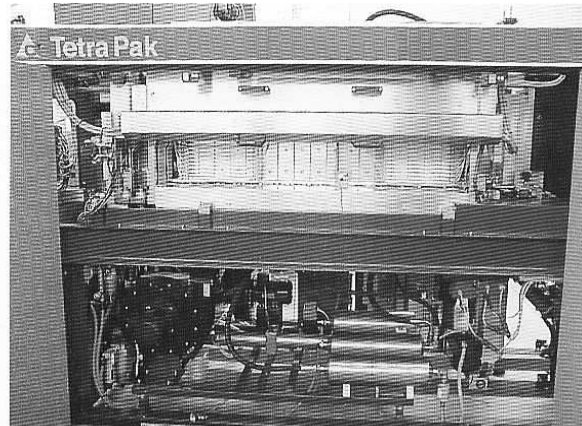




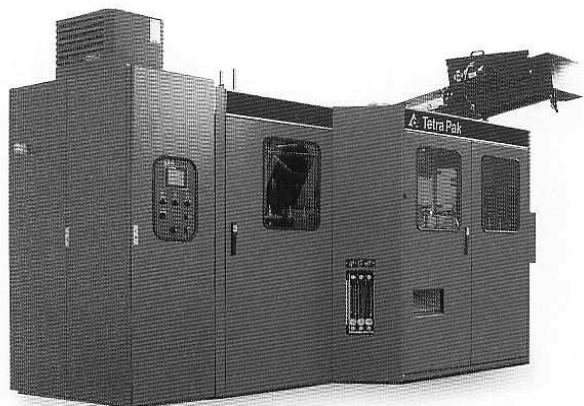
Production data and troubleshooting information are clearly displayed on the user-friendly touch-screen control panel, placed within easy reach. Up to 20 production recipes can be pre-set, saved and easily recalled.



Using the unique servomotor system the operator can measure preform and mould lengths and adjust the stretching system to different preform/bottle specifications - without time consuming stretch-rod changes.



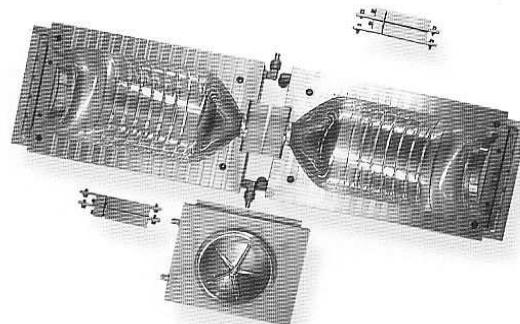
The LX-1 features outstanding oven capacity for heating any preform type. The one-lane oven system provides high-efficiency preform heating and precise temperature control. Preform and oven temperatures are controlled and regulated automatically by a closed-loop IR system. Lamp access is very convenient.



Tetra Plast<sup>TM</sup> LX-1 stretch blow moulding machine.



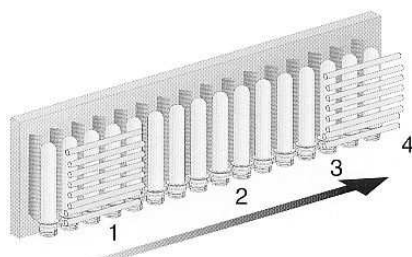
Large doors and an open design offer easy access and facilitate maintenance work on all parts of the LX-1 machine, particularly the oven and moulds.



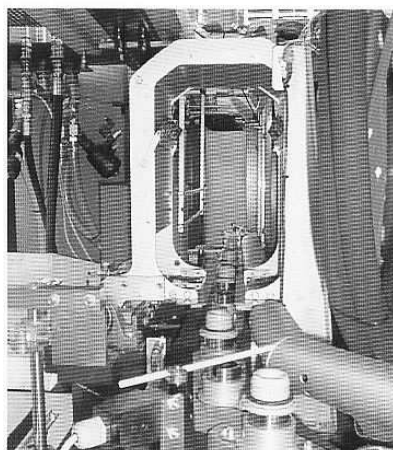
The mould halves for large volume containers are made of one single aluminium block in which the cooling channels and the base locking bars are integrated. The whole unit can be changed easily, using a special optional lifting device. The quick-change design features only two bolts per component, as well as quick disconnect hose couplings. An adapting plate is available as optional equipment to use the small volume cavities from any of the other Tetra Plast<sup>TM</sup> stretch blow moulding machines.



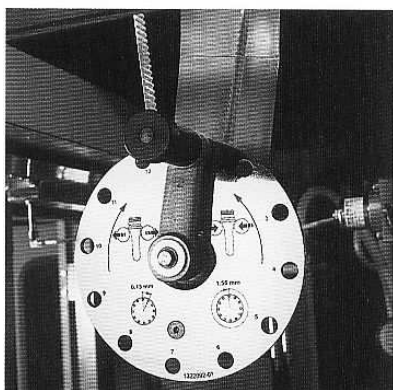
## The Large Volume Container Specialist



The four-phase oven design ensures proper temperature profiling, which is critical for consistent production of high quality containers.



For efficient handling, each preform is transported through all sections of the machine by the same carrier, or mandrel. Each mandrel lifts out quickly, with no tools required, so the machine can be set up easily for different preform neck diameters.



The Tetra Plast<sup>TM</sup> LX-1 stretch blow moulding machine has been designed to combine the well-known advantages of the reliable and compact linear concept of the LX-2 (more than 85% of the parts are similar to the LX-2), with the most recent machine automation technologies.

The LX-1 sets a new industry high for large volume container output per cavity: Maximum output of 5 litre bottles, for example, is up to 1000 per cavity per hour.

The LX-1 machine can produce simple to complex bottle shapes in volumes between 250 ml and ~~10~~ litres. It has demonstrated the ability to produce oval and rectangular bottle designs and can accommodate a wide range of preforms. The machine requires minimum floor space and can easily adapt to various layout requirements.

Bottles are discharged from the LX-1 on rails, supported by the neck. This allows automatic transfer of the bottles onto air conveyor, table-top conveyor, or into storage bins. This system also allows automatic discharge and separation of Quality Control samples and unused preforms.

### Enhanced Heating Performance

The preforms are heated in an infrared camera controlled single lane heating system, using high power, single filament lamps. The two-box oven system provides high efficiency preheating and stabilisation, followed by precise temperature profiling.

Automatic regulation ensures accurate and consistent preform wall temperature, for improved production output and material distribution with any type of preform.

### Patented Servo Stretching Technology

The flexible servomotor stretching system, linked to the proportional pre-blowing pressure valve, is a key factor in the high output performance of the LX-1. Using this unique system, the operator can measure preform and mould lengths and adjust the stretching system to different preform/bottle specifications. The need for time consuming manual stretch rod adjustments or changes is eliminated.

### Flexibility and Convenience in Operation

Key process and production parameters are easily set, using the operator-friendly touch screen interface. Up to 20 production recipes can be pre-set, saved and recalled. Easily adjustable infeed rollers, quick change preform carriers and moulds and the unique servo stretching system, minimize down time for production changes.

A number of safety and control systems prevent mechanical damage to the LX-1 machine. All operations can be performed easily and safely, making the new machine very operator-friendly.