

PET PROCESSING MACHINES

for quality PET packaging



ADDING VALUE THROUGH INNOVATION

PATENTED

- Single-stage process for PET bottles, jars & drums
 - Post-cooling process for PET preforms
- Process for PET bottles with integrated handles

PATENT PENDING

- PET beer kegs with integrated chime and handles
- PET beer kegs with safety pressure relief valves
 - Hot runner system for PET preform moulds

DESIGN REGISTERED

- Water cooler bottles with integrated handles
 - Innovative 15 - 20L edible oil containers

PATENTED PET PROCESSING EQUIPMENT

► INJECTION STRETCH BLOW MOULDING MACHINES

Patented process with many benefits and quick investment pay-back.

Servo-Hydraulic technology for the lowest energy consumption.

Long-Stroke Machine Models for higher productivity.

All-electric machines for clean room applications. **WORLD FIRST!**

Unparalleled production flexibility:
From 50 ml to 50 litres on the same machine,
just by changing moulds.



► PET PREFORM PRODUCTION SYSTEMS

Flexible, cost-effective, PET preform systems of 12 - 32 cavities:

For medium outputs of PET preforms, CYPET offers turn-key production systems with optimized technical specifications for machine, moulds and auxiliary equipment, for fast cycle times and improved preform quality.

PET preform systems of 2 - 8 cavities, with intensive post-cooling, for large preforms:

CYPET offers a unique post cooling system for fast cycle times and improved quality for large preforms. After cooling in the mould, the preforms are additionally cooled for 1 extra cycle on the injection cores and for 4 extra cycles in cooling tubes.

FOR COST-EFFECTIVE PET PACKAGING

► UNIQUE PET PACKAGING APPLICATIONS

The safest PET BEER KEGS on the market:



Only on CYPET machines

CYPET's patent pending beer keg design, is the safest and most cost-effective on the market, as a result of a pressure relief valve on the neck of the keg and the integrated top chime and handles.

WATER-DISPENSER BOTTLES with ergonomic, strong, integrated handles:



Only on CYPET machines

A revolutionary integrated rigid handle, makes the CYPET returnable 5 gallon bottles the easiest and most convenient to carry and place on the water dispensers.

The first PET DRUMS in the world:



Only on CYPET machines

CYPET offers the only technology available for producing PET drums of up to 150 Litres capacity, to replace HDPE and metal drums. Weighing 30-50% less than HDPE drums, PET drums offer tremendous savings in resources and costs.

Innovative PET packaging for EDIBLE OIL:



CYPET offers several alternative solutions for 10-20 litre stackable PET containers with integrated handles for replacing outdated HDPE and tin can packages for edible oils, other foodstuffs and chemicals.

WIDE MOUTH JARS up to 25 Litres and 200 mm neck Ø:



CYPET's range of long-stroke machines can produce wide mouth jars very efficiently with up to three rows of cavities. For example 83 mm neck jars with 18 cavities or 120 mm neck jars with 6 cavities.

RECTANGULAR NECK CONTAINERS up to 100 litres:



Only on CYPET machines

CYPET machines can produce large PET containers with rectangular mouth opening and shape, for household storage and agricultural crates, offering transparency in such applications.

PET bottles with INTEGRATED HANDLES:

In addition to the innovative integrated handles for 5 to 50 Litres PET containers, CYPET is developing a revolutionary patented solution for integrated handles for smaller bottles, with the same functionality as the typical HDPE bottles with handles for milk, juices, oils, etc..

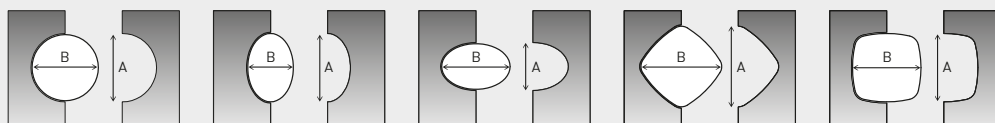
CYPET MACHINES PRODUCTION CAPABILITIES

| TOGGLE CLAMP MACHINE MODELS | | NUMBER OF CAVITIES | MAXIMUM CONTAINER DIMENSIONS (mm) | | | | MAX VOLUME (Litres) | MAX WEIGHT (Grams) |
|--------------------------------|--------------|--------------------|-----------------------------------|-------------------------|--------------------------|------------------|---------------------|--------------------|
| | | | NECK DIAMETER (T) | BODY DIAMETER* | | TOTAL HEIGHT (H) | | |
| | | | | ALONG PARTING LINE (A)* | ACROSS PARTING LINE (B)* | | | |
| SERVO-HYDRAULIC | CYPET K 16 | 1 (1x1) | 150 | 280 | 260 | 330 | 15 | 330 |
| | | 2 (1x2) | 120 | 165 | 260 | 300 | 5 | 165 |
| | | 3 (1x3) | 83 | 110 | 200 | 300 | 2 | 110 |
| | | 4 (1x4) | 63 | 78 | 200 | 300 | 1.5 | 80 |
| | | 4 (2x2) | 38 | 160 | 78 | 250 | 1 | 80 |
| | | 8 (2x4) | 38 | 78 | | 215 | 0.5 | 40 |
| | | 12 (2x6) | 25 | 52 | 100 | 200 | 0.2 | 28 |
| | CYPET K 28 | 1 (1x1) | 180 | 400 | | 550 | 50 | 900 |
| | | 2 (1x2) | 145 | 240 | 360 | 500 | 20 | 450 |
| | | 3 (1x3) | 110 | 155 | 300 | 380 | 6 | 300 |
| | | 4 (1x4) | 90 | 120 | 300 | 380 | 3 | 225 |
| | | 4 (2x2) | 63 | 240 | 150 | 360 | 5 | 225 |
| | | 8 (2x4) | 83 | 120 | | 340 | 3 | 110 |
| | | 12 (2x6) | 63 | 80 | 120 | 280 | 1 | 75 |
| | CYPET K 38 | 16 (2x8) | 48 | 60 | 120 | 240 | 0.75 | 55 |
| | | 1 (1x1) | 320 | 400 | | 700 | 75 | 1400 |
| | | 2 (1x2) | 180 | 280 | 350 | 550 | 25 | 700 |
| | | 3 (1x3) | 120 | 180 | 300 | 450 | 8 | 460 |
| | | 4 (1x4) | 100 | 130 | 250 | 450 | 5 | 350 |
| | | 4 (2x2) | 55 | 210 | 190 | 400 | 10 | 350 |
| | | 6 (2x3) | 55 | 180 | | 400 | 8 | 230 |
| | | | 100 | 180 | 140 | 260 | 6 | 230 |
| | | 8 (2x4) | 83 | 130 | 180 | 360 | 3 | 175 |
| | | 12 (2x6) | 63 | 88 | 130 | 360 | 1.5 | 115 |
| | CYPET K 53 | 16 (2x8) | 48 | 64 | 130 | 280 | 0.5 | 85 |
| | | 1 (1x1) | 400 | 480 | | 850 | 120 | 2900 |
| | | 2 (1x2) | 200 | 310 | 420 | 800 | 50 | 1450 |
| | | 3 (1x3) | 120 | 210 | 360 | 500 | 15 | 965 |
| | | 4 (2x2) | 120 | 260 | | 460 | 20 | 725 |
| | | 6 (2x3) | 120 | 210 | | 440 | 15 | 480 |
| | | 8 (2x4) | 120 | 160 | 210 | 400 | 8 | 360 |
| | | 12 (2x6) | 83 | 102 | 180 | 350 | 2 | 240 |
| | | 16 (2x8) | 53 | 74 | 200 | 350 | 0.75 | 180 |
| | | 18 (3x6) | 83 | 102 | | 340 | 2 | 160 |
| | WORLD FIRST! | CYPET K 19E | 24 (3x8) | 53 | 74 | 100 | 320 | 0.75 |
| 1 (1x1) | | | 120 | 260 | | 360 | 10 | 440 |
| 2 (1x2) | | | 120 | 210 | 260 | 380 | 10 | 220 |
| 4 (1x4) | | | 83 | 105 | 260 | 380 | 2 | 110 |
| 8 (2x4) | | | 38 | 105 | | 300 | 1 | 55 |
| 12 (2x6) | | | 38 | 72 | 100 | 230 | 0.5 | 35 |
| CYPET K 30E | | 16 (2x8) | 38 | 52 | 100 | 180 | 0.25 | 27 |
| | | 1 (1x1) | 145 | 360 | | 650 | 50 | 760 |
| | | 2 (1x2) | 145 | 260 | 360 | 550 | 20 | 380 |
| | | 4 (1x4) | 100 | 140 | 360 | 400 | 3 | 190 |
| | | 4 (2x2) | 48 | 190 | | 420 | 10 | 190 |
| | | 8 (2x4) | 83 | 140 | 130 | 400 | 3 | 95 |
| | | 12 (2x6) | 38 | 92 | 130 | 320 | 1.5 | 60 |
| | | 16 (2x8) | 38 | 68 | 130 | 300 | 0.5 | 45 |
| 24 (2x12) | 28 | 44 | 130 | 250 | 0.25 | 30 | | |

| LONG - STROKE MACHINE MODELS | | NUMBER OF CAVITIES | MAXIMUM CONTAINER DIMENSIONS (mm) | | | | MAX VOLUME (Litres) | MAX WEIGHT (Grams) |
|------------------------------------|----------------------------|--------------------------|-----------------------------------|-------------------------------|--------------------------------|------------------------|---------------------------|--------------------------|
| | | | NECK DIAMETER (T) | BODY DIAMETER* | | TOTAL HEIGHT (H) | | |
| | | | | ALONG PARTING LINE (A)* | ACROSS PARTING LINE (B)* | | | |
| SERVO-HYDRAULIC | CYPET K 6L | 1 {1x1} | 120 | 250 | 350 | 270 | 6 | 120 |
| | | 2 {1x2} | 90 | 120 | 165 | 270 | 2 | 60 |
| | | 3 {1x3} | 58 | 78 | 165 | 270 | 1 | 40 |
| | | 8 {2x4} | 25 | 58 | 68 | 150 | 0.25 | 15 |
| | | 12 {2x6} | 18 | 38 | 60 | 150 | 0.1 | 10 |
| | CYPET K 12L | 1 {1x1} | 150 | 280 | 260 | 380 | 15 | 330 |
| | | 2 {1x2} | 120 | 165 | 260 | 340 | 6 | 165 |
| | | 3 {1x3} | 83 | 110 | 200 | 340 | 2.5 | 110 |
| | | 4 {1x4} | 63 | 78 | 200 | 340 | 1 | 80 |
| | | 4 {2x2} | 63 | 165 | 140 | 250 | 1.5 | 80 |
| | | 8 {2x4} | 63 | 78 | 140 | 250 | 1 | 40 |
| | | 12 {2x6} | 25 | 52 | 100 | 200 | 0.2 | 28 |
| | | 12 {3x4} | 28 | 80 | 60 | 150 | 0.3 | 28 |
| | | 18 {3x6} | 25 | 52 | 60 | 150 | 0.15 | 18 |
| | | 24 {3x8} | 18 | 38 | 60 | 150 | 0.1 | 14 |
| | CYPET K 25L | 1 {1x1} | 180 | 400 | | 600 | 50 | 900 |
| | | 2 {1x2} | 145 | 240 | 360 | 500 | 20 | 450 |
| | | 3 {1x3} | 110 | 155 | 300 | 380 | 6 | 300 |
| | | 4 {1x4} | 90 | 120 | 300 | 380 | 3 | 225 |
| | | 4 {2x2} | 83 | 240 | | 340 | 8 | 225 |
| | | 6 {2x3} | 63 | 155 | | 340 | 5 | 150 |
| | | 8 {2x4} | 83 | 120 | 180 | 340 | 3 | 110 |
| | | 12 {2x6} | 63 | 80 | 120 | 280 | 1 | 75 |
| | | 16 {2x8} | 48 | 60 | 120 | 240 | 0.75 | 55 |
| | | 12 {3x4} | 63 | 120 | 160 | 280 | 1 | 75 |
| | | 18 {3x6} | 48 | 72 | 140 | 280 | 0.75 | 50 |
| | | 24 {3x8} | 25 | 50 | 100 | 230 | 0.15 | 38 |
| | CYPET K 35L & K 35XL | 1 {1x1} | 320 | 400 | | 700 | 75 | 1400/2900 |
| | | 2 {1x2} | 180 | 280 | 350 | 550 | 25 | 700/1450 |
| | | 3 {1x3} | 120 | 180 | 300 | 520 | 8 | 460/960 |
| | | 4 {1x4} | 100 | 130 | 250 | 520 | 5 | 350/725 |
| | | 4 {2x2} | 120 | 270 | | 520 | 20 | 350/725 |
| | | 6 {2x3} | 55 | 180 | | 430 | 8 | 230/480 L/XL |
| | | | 120 | 180 | 220 | 260 | 8 | |
| | | 8 {2x4} | 83 | 130 | 180 | 360 | 3 | 175 / 360 |
| | | 12 {2x6} | 63 | 88 | 130 | 360 | 1.5 | 115/240 |
| | | 16 {2x8} | 48 | 64 | 130 | 280 | 0.5 | 85/180 |
| | | 12 {3x4} | 83 | 130 | 180 | 320 | 3 | 115/240 |
| | | 18 {3x6} | 63 | 88 | 130 | 360 | 1.5 | 75/160 |
| | | 24 {3x8} | 48 | 60 | 120 | 280 | 0.35 | 55/120 |

***BODY DIAMETER DIAGRAMS**

(A: Along Parting line;
B: Across Parting Line)



FOR A CYPET PROPOSAL, PLEASE PROVIDE THE FOLLOWING INFORMATION:

| Working hours per year | | | | | | |
|------------------------------------|---------------|------------|------------|--------------|---------------|-----------------|
| For EACH container to be produced: | Neck Diameter | Body Ø (A) | Body Ø (B) | Total Height | Target Weight | Pieces per year |

FOR A CYPET MACHINE MODEL SELECTION GUIDE, PLEASE REFER TO OUR WEBSITE.

CYPET MACHINES TECHNICAL SPECIFICATIONS

| CYPET MACHINE MODEL | K 16 | K 28 | K 38 | K 53 | K 6L | K 12L | K 25L | K 35L | K 35XL | K 19E | K 30E |
|--|--------------------------------|-------------------|-------------------|-------------------|-----------------------------------|------------------|-------------------|-------------------|-------------------|---------------------------|------------------|
| MACHINE TYPE | SERVO - HYDRAULIC TOGGLE CLAMP | | | | SERVO-HYDRAULIC LONG-STROKE CLAMP | | | | | ALL-ELECTRIC TOGGLE CLAMP | |
| Clamping Force (kN) | 1600 | 2800 | 3800 | 5300 | 600 | 1250 | 2500 | 1800 | 1800 | 1900 | 3000 |
| Tie-bar Clearance (horizontal) | 470 | 630 | 730 | 840 | 350 | 450 | 630 | 730 | 730 | 570 | 720 |
| Injection Screw Diameter (mm) | 50 | 70 | 80 | 100 | 35 | 50 | 70 | 80 | 100 | 55 | 70 |
| Maximum shot weight (gr. PET) | 330 | 900 | 1400 | 2900 | 120 | 330 | 900 | 1400 | 2900 | 440 | 760 |
| Installed Power - Motors (kW) | 36 | 68 | 84 | 138 | 31 | 38 | 71 | 87 | 112 | 35 | 40 |
| Installed Power - Heaters (kW) | 14 | 34 | 42 | 59 | 10 | 16 | 36 | 45 | 62 | 26 | 32 |
| Expected Actual Electricity Consumption - Depending on Product Produced (kW) | Min. 7 Max 17 | Min. 12 Max 32 | Min. 18 Max 36 | Min. 20 Max 52 | Min. 5 Max 10 | Min. 8 Max 20 | Min. 15 Max 40 | Min. 22 Max 48 | Min. 25 Max 65 | Min. 6 Max 14 | Min. 7 Max 25 |
| Machine Weight (tons) | 6.6 | 12.4 | 18.9 | 26 | 5.1 | 7.4 | 12.8 | 19.5 | 20.4 | 14.8 | 17.9 |
| Footprint - L x W (m) | 5.3x1.7 | 8.0x2.0 | 8.8x2.0 | 9.7x2.3 | 4.0x1.3 | 5.4x1.6 | 7.6x1.9 | 8.9x2.4 | 9.4x2.4 | 5.5x1.9 | 7.4x2.4 |
| Height - H (m) | 3.6 | 3.9 | 4.6 | 5.3 | 3.2 | 3.6 | 4.4 | 4.6 | 4.6 | 4.0 | 4.3 |
| Other Dimensions - A (m) | 1.8 | 2.1 | 2.3 | 2.4 | 1.6 | 1.8 | 2.0 | 2.2 | 2.2 | 2.0 | 2.2 |
| Other Dimensions - B (m) | 1.6 | 1.8 | 2.0 | 2.2 | 1.5 | 1.7 | 2.0 | 2.1 | 2.1 | 1.9 | 2.2 |
| Other Dimensions - C (m) | 1.3 | 1.7 | 2.1 | 2.2 | 0.8 | 1.2 | 1.8 | 2.1 | 2.1 | 1.0 | 1.3 |
| Other Dimensions - D (m) | 2.0 | 4.0 | 4.1 | 4.2 | 1.5 | 2.3 | 3.5 | 3.7 | 3.7 | 2.5 | 3.8 |

Machine Specifications can change without notice, due to machine improvements.

