



Sizing Cages



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In the blown film extrusion process, the sizing cage is used to stabilize and to calibrate the film during blowing process. A stable bubble means better quality and faster production. This is a necessary tool on all quality lines. When production speed increases and with IBC, the internal air cooling system, the increased turbulence will cause bubble instability. The sizing cage is the tool for bubble control.

Bmec is a world leader in this field, producing cages of any size, from the smallest shopper tube to giant 30Mt. green-house foils. A number of models and several options are available to best serve customers.

CM



The CM models stands for Modular Cages. The open/close diameter control system is protected by international patent. Is based on a double IRIS movement. The guides are precision oriented into bubble centerline, holding bubble like a scissor or radial cage and still sold at an affordable price. The guides are distributed around bubble in a variable number of shafts according to bubble sizes, starting from 6 on small cages then 9 for most sizes and 12 shafts for great bubbles. Each shaft holds the film guide, set in modules fully interchangeable and in number of levels prepared according to technical requirements.

Sizes Available: open film foils from 1.5Mt to 30Mt.

LC

The LC code stands for Low-Cost. The open/close diameter control is based on the traditional single IRIS movement as most cages in the market. The guides are oriented into bubble center with the required precision necessary for IBC ultrasonic sensors. The guides are distributed around bubble in a variable number of shafts according to bubble sizes, starting from very small cages with 4 shafts, then small with 6 shafts and most sizes with 9 shafts. This cage system works best in smaller sizes and the maximum size available stops at 3600 Layflat or 7200 foil. Also this construction can install any guiding method either with cylinders or segmented bushings.

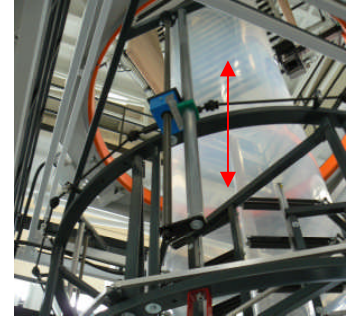
Sizes Available: open foils from 0.1Mt to 7.2Mt



Vertical Positioning

To make the cage operating correctly it is necessary to position cage near the frost line and according to materials, particularly on coex lines, cage position can be very critical. We offer several systems and with very accurate positioning:

1. **Jacks:** in number of 3 / 4 / 6 according to cage sizes. Vertical strokes available from 0.5Mt to 3Mt.
Spindles are stationary, do not rotate. Motor transmission does not use chain but simple steel rods with universal joints for angles. The system is particularly useful on large cage sizes, where partitioning is required for transport. Jacks do not need a structure around cage, so bottom cage is "clean" and IBC sensors can move in/out freely.
2. **Square Cube:** the most traditional system but improved with a clean top (motor placed under frame) and movement guided with sliding supports to avoid wobbling. Vertical strokes available from 0.5Mt to 3Mt.
This cube system is quite handy for installation but is limited by cage sizes and cannot be used for web width over 3Mt flat.



CC code, standing for centering cages. Very simple cages in 2 or 3 levels to keep bubble centered in case of tall tower under collapsing tent or when necessary. Construction is in square or octagon with 4-6-8 shafts and can install any guide system, like cylinders or plastic bushings.

Sizes available: ALL

Vertical positioning: NOT APPLICABLE.



Guiding Systems

1. **CYLINDERS:** Ø22 or Ø35

All cage models can be equipped with guides using cylinders.

Foam Silicon: most cages use this cover. Excellent insulation and no maintenance, like cleaning is required. Other covers available.

Carbon Fiber: plain CFK or treated with plasma coating for stretch film.

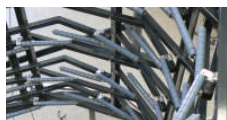
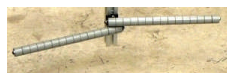
Diameters Ø22 / Ø35

The small diameter 22mm will permit an incredibly fast extrusion.

2. **PLASTIC BUSHINGS**

The "V" mounting has brought this old system to new life. Rotation on straight rods avoid pinching and beads rotate better, while the "V" shape will hold a round bubble correctly.

PETP / Ertalyte and PTFE / Teflon
Materials used are approved for food and medical use.



Options

A number of options are available for the best cage performance:

1. **Analog Size display**
Available on request for ALL SIZES
2. **Feed-back for diameter and vertical positioning.**
E.g. Linear potentiometer or encoder.
3. **IBC Sensor Supports.**
Mounting can be either on moving arms or placed stationary on ring. Supports allows adjusting for vertical, horizontal and angle.
4. **Bubble Tracer**
IBC application using a pneumatic valve (Frematic) or electric sensors

