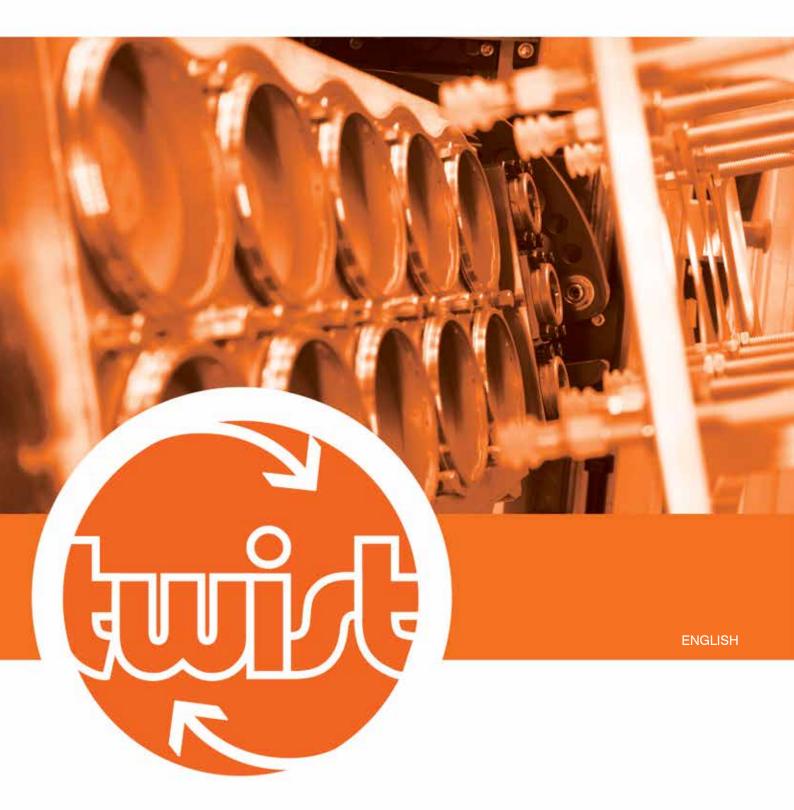


## SERIES TWIST 700 IN-MOULD TRIMMING WITH LOWER TILTING PLATEN



# TWIST 700 a new concept of tilting machine

The TWIST 700 is a pressure forming - punch and die machine with lower tilting platen without mechanical cams. One step ahead technology that makes TWIST 700 the most interesting solution for medium - high productions of tubs, dairy containers, pots, disposable cups and lids that require closed cutting tolerance, high product quality within a fully automated process.

#### New concept :

The lower tilting platen, moved without mechanical cams , rotates 75° and is guided on prismatic linear guides to reduce vibrations.

The "electronic cam" guarantees an absolute precision and repeatability of the movements while the MLS auto setting system calculates and rationalizes all speeds and accelerations.

The combination of the two technologies insures a maximum speed of 50 cycles/minute in production.

The upper and lower platens have an interface designed to receive most of the existing tools.

The ideal machine for the leading companies in food packaging industry.

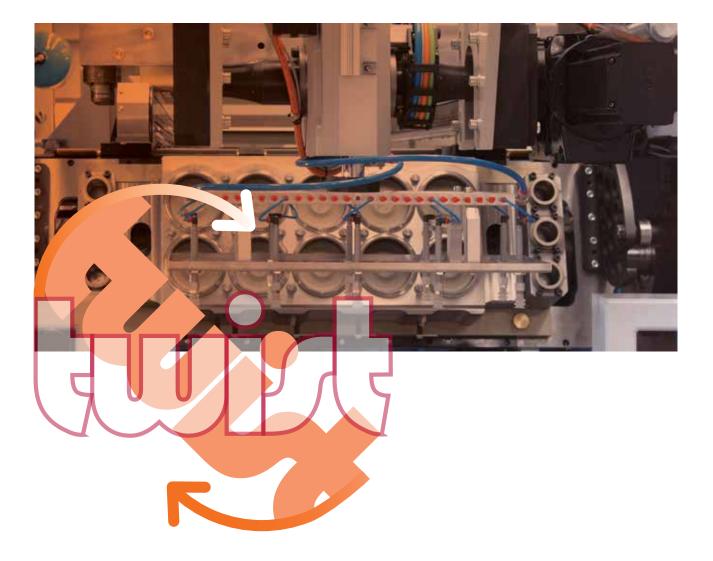
Do it right at the first time!





### Investment means value:

- New motion system without cams to reach up to 50 cycles/minute in production
- ✓ Electric extractor for better cycle synchronization
- ✓ Constant quality, high performance and rationalized material utilization
- ✓ MLS System (Machine Learning System) for initial self-setting of the cycle parameters
- ✓ Higher clamping force insuring more cavities for PET and PP materials
- Universal stacker enables easy automatic handling of light and shallow products to the packaging machine
- ✓ Hygienic production as the stacking system is not using any brushes or rubber material
- Integrated cooling system with temperature monitoring to insure a stable and safe process
- Easy operating and maintenance



## Technical Features:

#### TWIST 700

**√** 

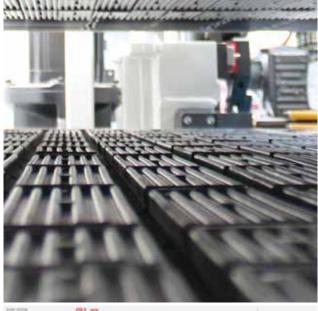
| Max. mould dimensions          | mm | 705x400 |
|--------------------------------|----|---------|
|                                |    |         |
| Max. cutting area dimensions   | mm | 685x340 |
|                                |    |         |
| Max. sheet indexing            | mm | 360     |
|                                |    |         |
| Sheet width                    | mm | 400-750 |
|                                |    |         |
| Max. sheet thickness           | mm | 2,0     |
|                                |    |         |
| Platen clamping force          | kN | 400     |
|                                |    |         |
| Upper heating power            | Kw | 81,9    |
|                                |    |         |
| Lower heating power            | Kw | 44      |
|                                |    |         |
| Height of the lower half mould | mm | 185     |
|                                |    |         |
| Height of the upper half mould | mm | 300     |
|                                |    |         |
| Positive forming depth         | mm | 10      |
|                                |    |         |
| Negative forming depth         | mm | 180*    |
|                                |    |         |
| Stroke of the ejectors         | mm | 100     |
|                                |    |         |

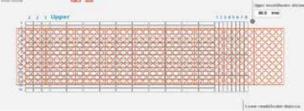
Stacker

MSv 7-9

(\*) Maximum forming depth is related to the product design and must always be verified

## TWIST 700 Process Efficiency increasing productivity





#### Infrared heaters

- HTS black heaters for higher energy efficiency
- ON-OFF function of the first rows for exact setting of the multiple heating index calculated by the MLS system
- Longitudinal and transversal temperature controllers to optimize the real sheet temperature
- Pyrometer for sheet temperature reading and temperature adjustment in closed loop
- Bank heaters length is seven times the maximum pitch of the mould in order to guarantee a homogenous sheet temperature



#### New plug movement

Improved forming force and higher speed provides better distribution of the material inside the mould cavity.

- No plug marks and better transparency
- Better mechanical characteristics
- Higher sheet thickness possible



The lower tilting platen, moved without mechanical cams, rotates 75° and is guided on prismatic linear guides to reduce vibrations.



Electric extractor for better cycle synchronization is not requiring any mechanical stopper inside the mould, therefore reducing overall maintenance.



Compactor insures better product handling during stacking pile extraction especially for shallow products designs.



The TWIST 700 has integrated two independent mould temperature circuits to keep constant the  $\Delta T$  in 2°C between the upper and lower mould.

## Integrated stacking systems achieve best quality and high performance in relation to the product shape



#### MSv - Multi Stacker

The product is taken gently from the mould by the catching plate, and subsequently vertically stacked, counted and placed in an accumulator basket without mechanical catcher. Once counted, the pieces are progressively discharged on a conveyor belt row by row for subsequent operations. The MSv model is absolutely the most flexible and complete automatic stacker possible to handle shallow and very light products.



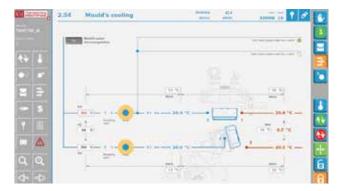
## Latest generation of drivers and control system



- The system is based on extremely reliable and well tested B&R industrial PC and Drives
- Compact touch screen
- High speed data exchange to optimize at the best cycle times
- MLS System (Machine Learning System) for initial self-setting of the cycle parameters to be able to optimize machine sequencing and increase machine output and product quality
- Program for mould change
- ✓ Cutting force monitoring
- Energy recovery
- Ceramic heating elements with individual temperature controllers for precise setting
- Energy consumption and driver analysis
- High speed modem connection in order to facilitate technical aftersales support.









#### Transponder

To control and to allow the accessibility to machine set up at different security levels.

## TWIST for the IN-LINE thermoforming plant for PP disposable cups



TWIST 700 machines can be supplied as an IN-LINE series, forming a real "production island" starting from the raw material up to the finished product, including the IN-LINE recycling of the granulated scrap.

The IN-LINE version guarantees a high performance system in terms of production speed, management, savings and the best conditions for hygienic food packaging production.



#### Rim Rolling machine B 1400

Designed and manufactured to rim up to 200.000 cups/hour in PP, PS and PET.



