CBF

Compression Blow Forming
压塑吹瓶成型技术

Reduced plastic use, smaller footprint, greater sustainability and finished product excellence.

降低原料消耗，减少占地面积，可持续性，成品性能优异

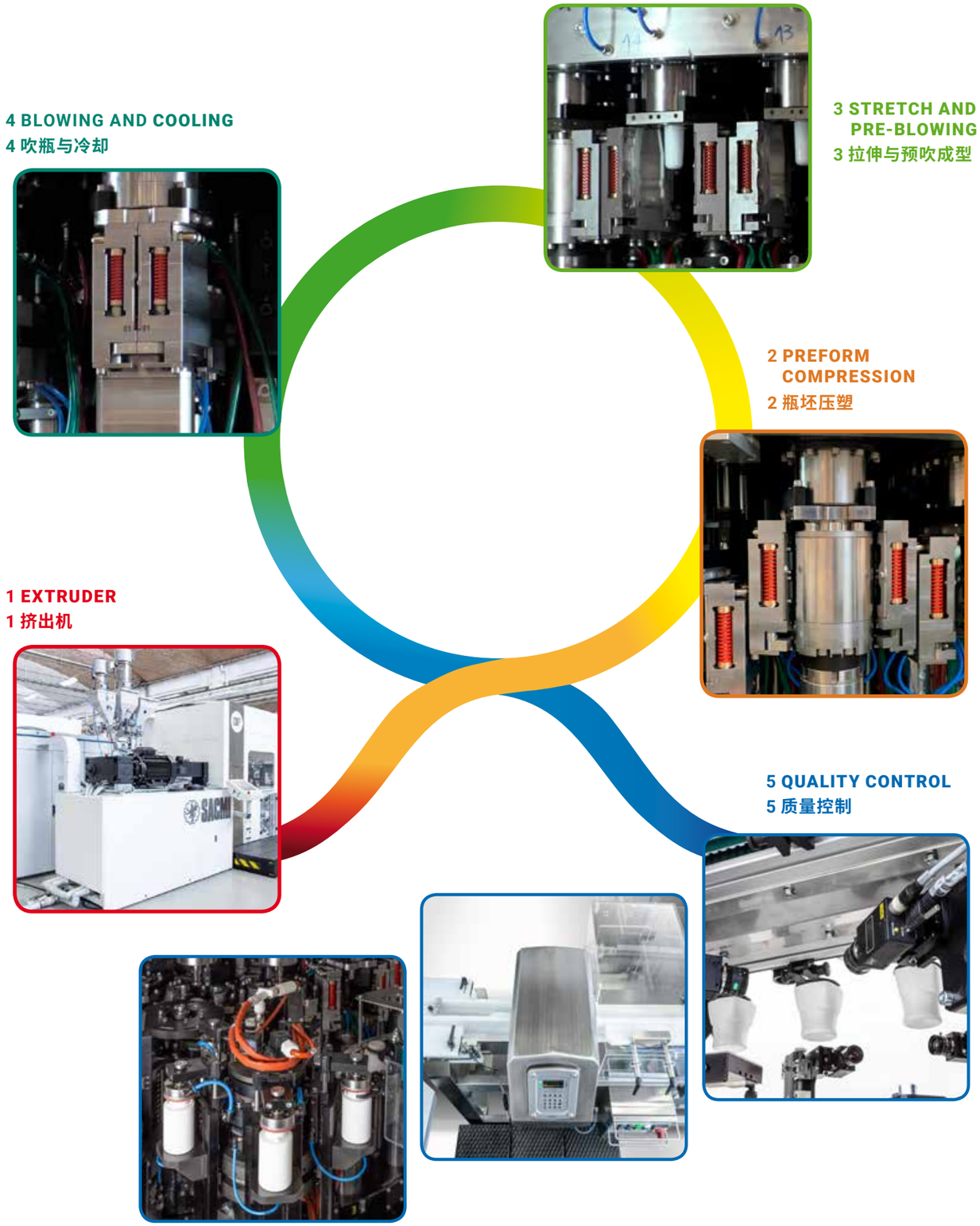
SACMI

CBF

Compression Blow Forming

HOW IT WORKS

The CBF method consists of a **continuous plastic extrusion process** in which the outflowing material is cut into controlled-weight pellets. These are then inserted in open moulds and **compressed to make a preform**. The exact preform shape may vary (especially as regards the neck, threaded or not). It is not cooled completely but, rather, **thermo-regulated** to a temperature that allows **immediate blowing**. During the final feed stage the containers extracted from the moulds are **spaced apart** to make pre-palletizing quality control easier.



压塑吹瓶成型技术

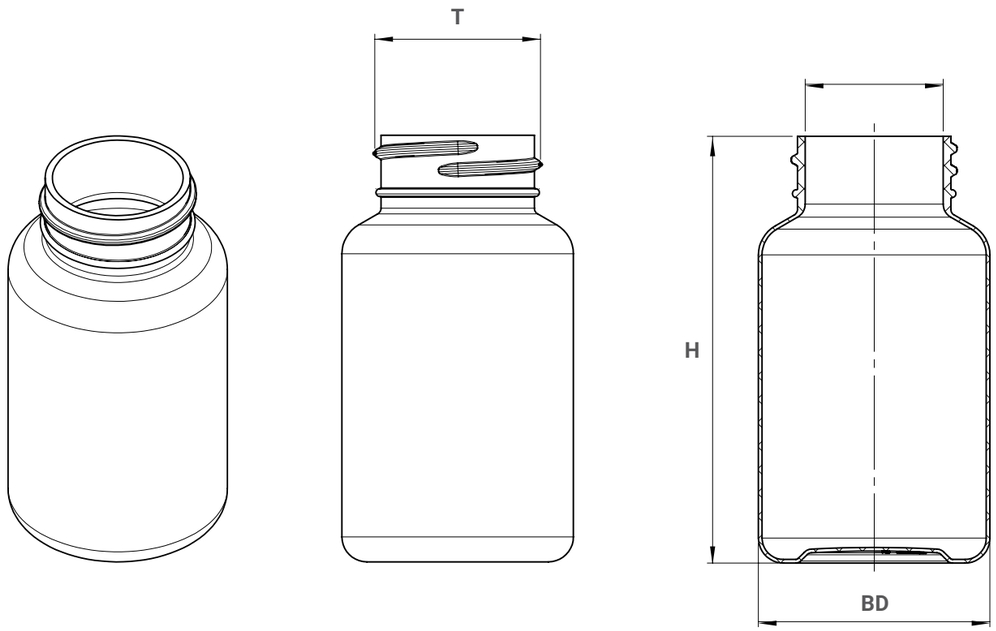
运作原理

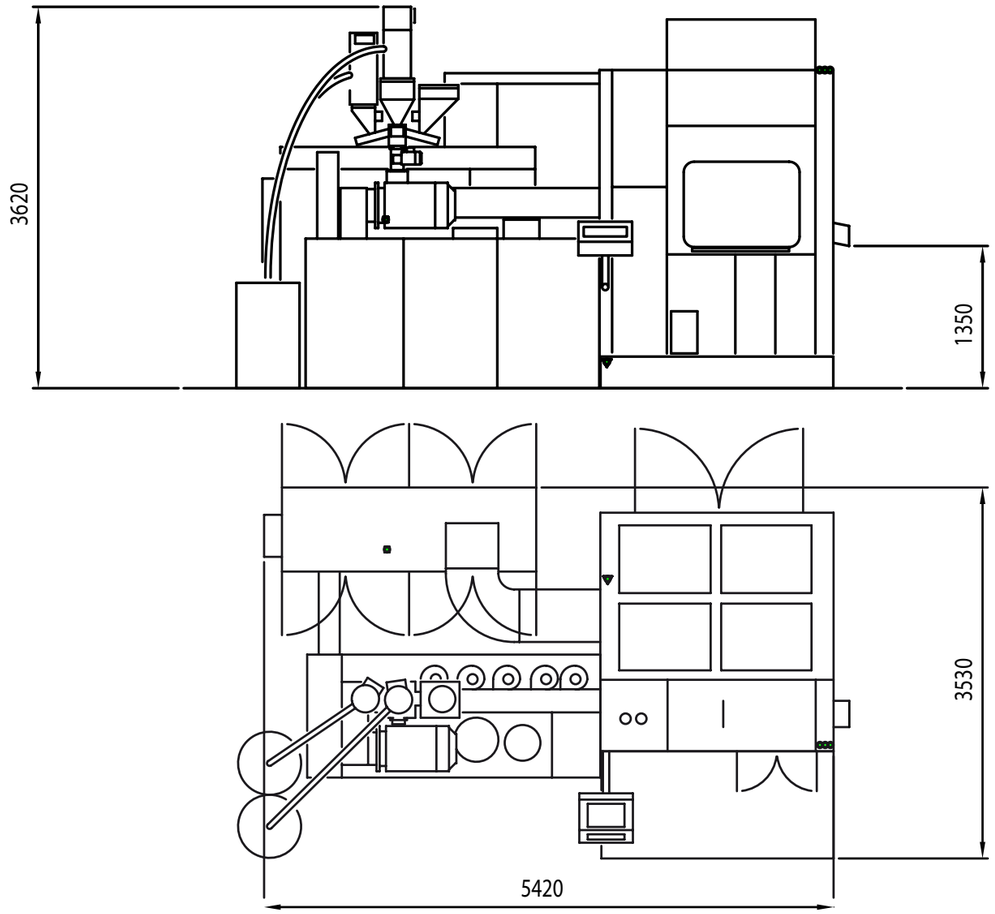
CBF的**连续塑化挤出工艺**，将原料切割为等重料粒。料粒被投至开启模具中，通过**压塑形成瓶坯**。成型的瓶坯形状会略有差异（特别是瓶颈，以及有无螺纹）。生产过程不是完全冷却，而是将**温度调控至适宜快速吹瓶**。最后阶段，从模具送出的容器之间会有间隔，为码垛做**准备**，同时也易于进行质量控制。

Main technical data

主要技术数据

PRODUCT / 产品		CBF 16	CBF 20
Number of cavities / 模腔数		16	20
Max neck diameter (T) / 瓶颈最大直径	mm / 毫米	63	43
Max body diameter (BD) / 瓶身最大直径	mm / 毫米	75	56
Max nominal height (H) / 最大高度	mm / 毫米	220	220
Max production capacity / 最大产能	bph / 瓶/时	10,000	13,000

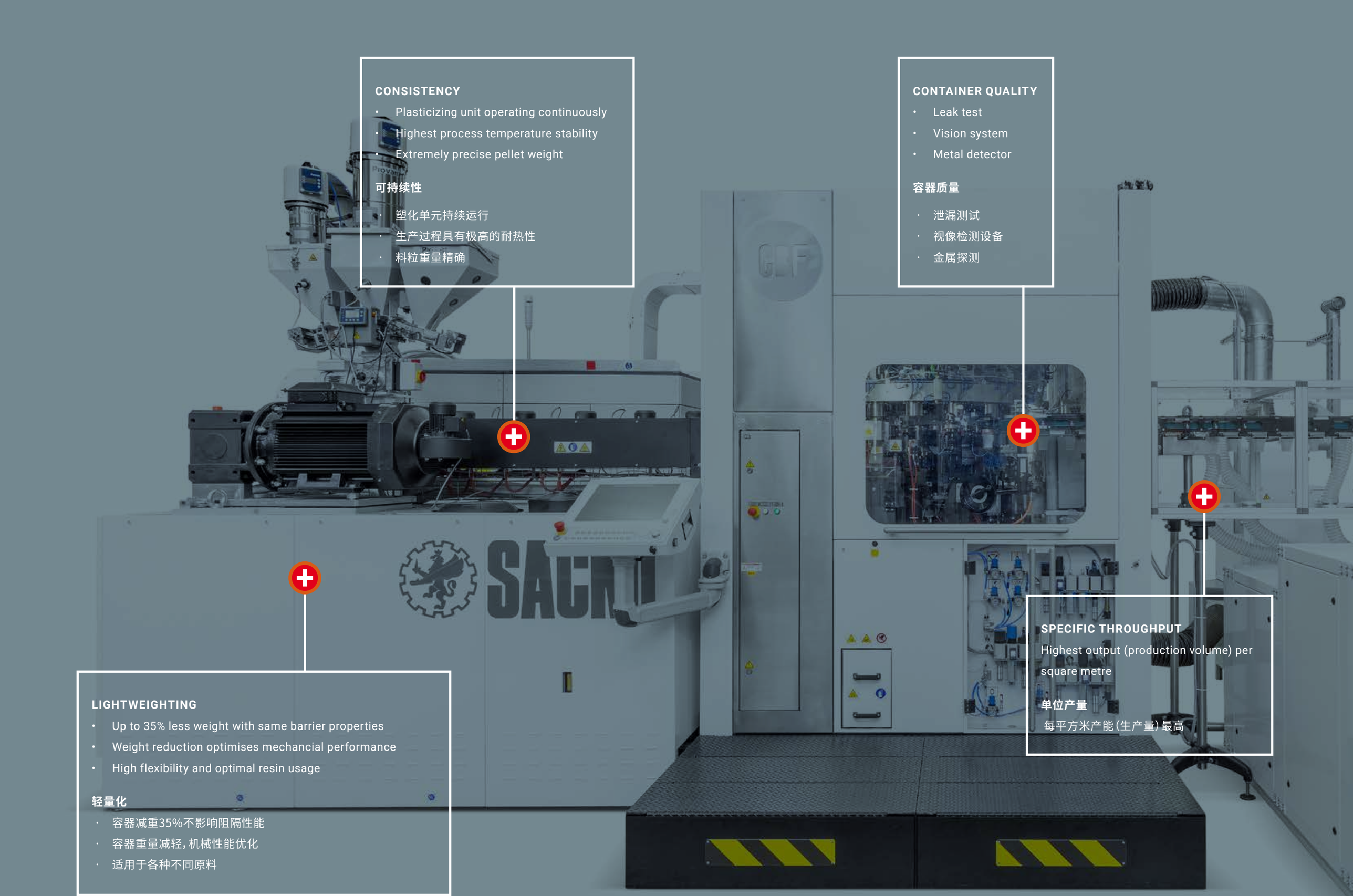




MACHINE / 机器		CBF 16	CBF 20
Machine size (LxWxH)* / 机器尺寸(长x宽x高)*	m / 米	5.42x3.53x3.62	5.42x3.53x3.62
Machine weight (approx) / 机器预计重量	kg / 公斤	23,500	23,500
Installed power** / 装机功率**	kVA / 千伏安	288	288
Specific energy consumption / 单位能耗	kWh/kg / 千瓦小时公斤	0.6...1.1	0.6...1.1

* minimum layout configuration
** power supply 380V/50Hz

* 布局配置最小值
** 供电为380V/50Hz



CONSISTENCY

- Plasticizing unit operating continuously
- Highest process temperature stability
- Extremely precise pellet weight

可持续性

- 塑化单元持续运行
- 生产过程具有极高的耐热性
- 料粒重量精确

CONTAINER QUALITY

- Leak test
- Vision system
- Metal detector

容器质量

- 泄漏测试
- 视像检测设备
- 金属探测

LIGHTWEIGHTING

- Up to 35% less weight with same barrier properties
- Weight reduction optimises mechancial performance
- High flexibility and optimal resin usage

轻量化

- 容器减重35%不影响阻隔性能
- 容器重量减轻，机械性能优化
- 适用于各种不同原料

SPECIFIC THROUGHPUT

Highest output (production volume) per square metre

单位产量

每平方米产能（生产量）最高

Strengths

优势

QUALITY, PERFORMANCE, SUSTAINABILITY AND PERFORMANCE, FEATURES THAT MAKE THE COMPRESSION BLOW FORMING SYSTEM UNIQUE IN COMPARISON WITH OTHER TECHNOLOGIES.

与其它技术相比压塑吹瓶成型系统的产品从质量，性能，可持续性都具有更强优势。

TOTAL COST OF BOTTLE

- Higher efficiency
- Lower start-up time
- Lighter bottle with improved mechanical properties
- Reduced labour requirements
- Less floor space

容器生产总成本

- 高效
- 开机时间缩短
- 机械性能不断完善使容器更轻薄
- 人工成本降低
- 减少占地面积

SUSTAINABILITY

- Lowest power consumption in the industry
- Lower scrap rate during production
- Less material wastage during colour changes

可持续性

- 行业内能耗最低
- 产品光洁无毛边
- 颜色更换时原料消耗更少

BOTTLE QUALITY

- CBF technology reduces variability, improving tolerances and augmenting the process capability index
- Highly repeatable manufacturing process delivers superior consistency
- No hot-runner on extrusion system
- No gate, no welding lines
- Zero resin scrap during production
- Improved sustainability and purity due to lower melt temperature

质量完善

- 压塑吹塑技术减小并完善公差范围，进一步提升数据统计能力
- 生产过程的高度重复性保证成品的最佳化和一致性
- 挤出系统无热流道
- 无注塑点，无合模线
- 无毛边
- 因为熔化温度更低，提升了可持续性和纯净度

SACMI moulds for plastic containers

萨克米模具用于塑料容器

WITH 30 YEARS OF EXPERIENCE AND 15,000 STACKS A YEAR, SACMI IS THE WORLD'S LARGEST PRODUCER OF MOULDS FOR THE PLASTIC INDUSTRY.

超过30年生产经验，每年生产15,000个模腔，在饮料行业，萨克米模具生产技术全球领先。

Product design, mould development and direct testing on SACMI machines ensure an all-round service of unrivalled quality.

从产品设计到模具研发，再到模具测试，萨克米为客户提供优质高效的服务。

SACMI moulds begin their lives with the precision in-house design of each individual component. The design process uses innovative, sophisticated solutions.

萨克米模具设计之初就运用创新、精湛的工艺设计每个部件。

HIGHLIGHTS

- Modular tools
- Special features
- Customization
- Highest specific output
- Lowest cost of ownership

优势

- 模块化工具
- 特殊功能
- 定制化
- 最高产量输出
- 最低经营成本

Inspection Systems

视像检测设备

Design: BVS Vision System for CBF machines has been specifically **designed** to identify any flaws that may appear on the containers, especially those that may stem from Compression Blow Forming technology.

设计：容器视像检测设备用于检测和识别容器产品的各种缺陷，应用于容器吹瓶成型技术，为产品质量保驾护航。

Quality Control: BVS checks the whole container, from top seal to finish, sidewall and bottom.

品控：容器视像检测设备用于检测整个容器，如顶部密封，瓶壁，侧边，及瓶底。

Integration: BVS is **fully integrated** with the CBF machine. It provides defect statistics by cavity number, thus providing fast and simple feedback for Maintenance, Quality Control and Production.

容器视像检测设备与压塑吹瓶成型设备完美连线，除监督和控制产品质量以外，也可识别模腔号，并向设备维护保养部、生产部、和品控部发出检测报告和指令。

SACMI reserves the right to introduce changes without notice / 30.09.2019
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