



High Quality
PET Preform & Closure Mold
高品质PET瓶胚/瓶盖模具

慧龙塑料机械有限公司
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Refreshing Your Products

TO BE A LEADER
OF PEOPLE!
做一个领跑人!

One run
Two people running
A group of people running
A team in the running
In running a business
As time goes by

一个人跑
二个人跑
一群人跑
一个团队在跑
一个企业在跑
久而久之……



Since our establishment, Smargon Plastic has been dedicating self to the research and development of PET bottle, preform and closure, as well as the fabrication of correspondent machine and mold. We also supplies conversion and optimized project solutions on production line of PET preform, closure and bottle according to customer's needs. Smargon's moulds are widely used in beverage, food, edible oil, condiment, cosmetic, toiletry and pharmaceuticals industries. With strong technical capability, first-class quality products and high-efficient service, Smargon Plastic has successfully served more than 300 customers in over 60 countries and regions such as Turkey, Spain, South Africa, Tunis, Egypt, Middle East, Sri Lanka, Malaysia, USA, Brazil, Colombia, Ecuador, etc... The company is well recognized by customers in the industry.

SMARGON PLASTIC自成立以来，一直专注于PET瓶型、瓶胚和瓶盖的设计，以及相应机器和模具的研发与制造，并未客户进行生产线的优化设计和改造。

SMARGON PLASTIC的产品广泛应用于饮料，食品，食用油，调味品，化妆品，洗涤用品，医药等包装领域。凭借强大的技术力量、卓越的品质、高效的服务，SMARGON PLASTIC已成功地为包括土耳其，西班牙，南非，突尼斯，埃及，中东，斯里兰卡，马来西亚，美国，巴西，哥伦比亚，厄瓜多尔等六十多个国家和地区的超过300位客户提供服务，在行业内获得了广泛的认同。





Research & Development

With a strong R&D team dedicated to the research and development of bottle shape, preform type and closure, Smargon Plastic is able to complete more than 100 R&D project and 200 feasibility test per year. Using advanced CAD/CAM software such as CATIA, CIMATRON and POWERMILL, we keep improving and innovating. Moreover, we have a test center to perform blowing and injection tests. With the well-organized and efficient R&D platform, we are able to launch new products according to customer's needs with a short period.



R&D Process 研发流程

公司拥有强大的研发团队，专注于PET瓶型、瓶胚和瓶盖的研发，每年可完成研发项目100多项，替客户进行可行性分析近200项。采用CATIA\CIMTRON\POWERMILL等多种先进的CAD\CAM软件，不断创新，精益求精。同时建有测试中心，进行严格的吹瓶成型及瓶胚和瓶盖的成型测试，从而构建了一流的研发平台，具备了强大的研发实力，针对客户的需求，高速高效地推出新产品！



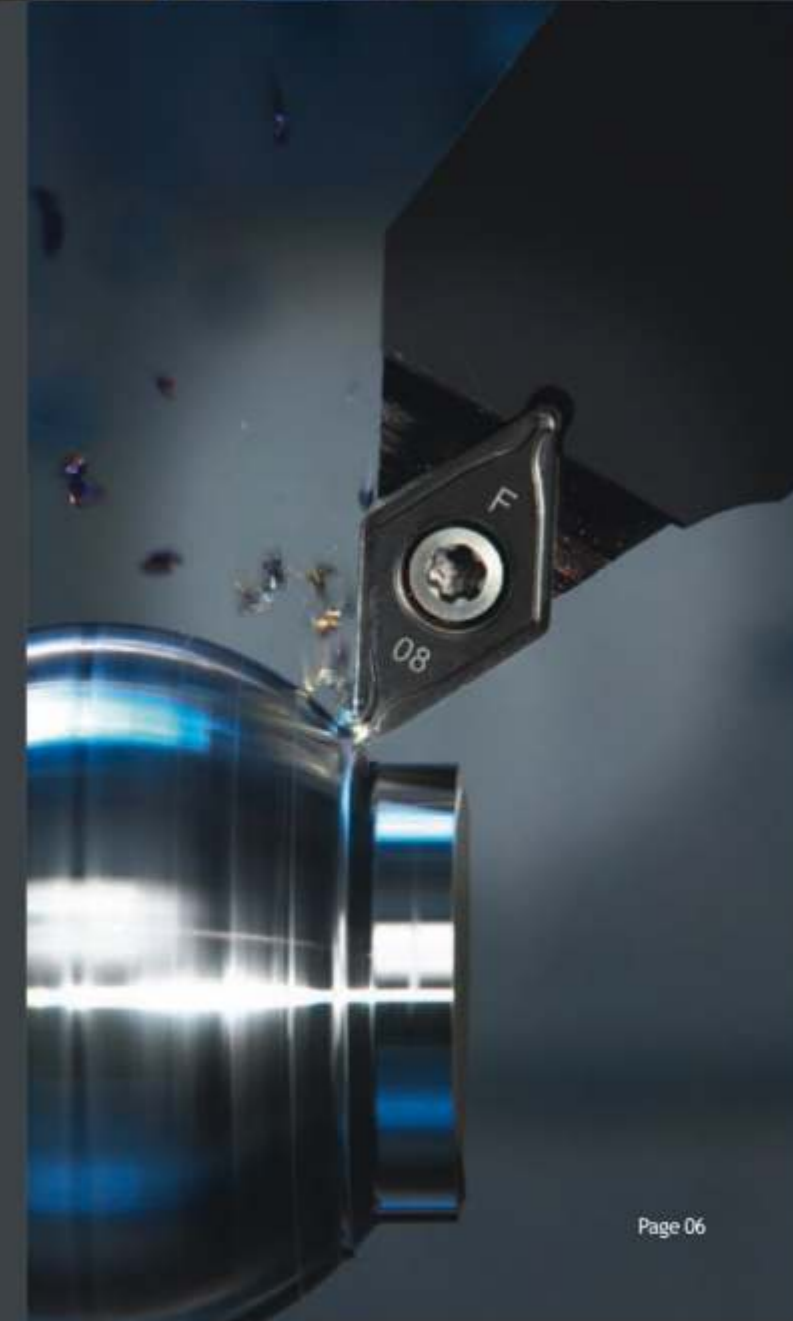


公司拥有CHARMILLES, HARDINGE, DMG, HAAS, MAZAK, STUDER等一批高精度加工设备, 经多年优化改进的加工工艺, 以及完善的加工工序指导书, 为高品质模具的制造奠定了良好的基础。完善的品控系统, 对原材料, 热处理, 设备精度, 加工精度, 表面处理, 工具夹具等各个环节都进行严格的品质控制, 为产品质量提供了强有力的保障。模具质量控制手段采用工人自检, 各工序质检员首检, 加工过程质检员巡检和完工后质检员终检相结合, 保证模具质量的稳定性和可靠性。



Manufacture & Quality Control 制造/品控

Smargon Plastic is furnished with numbers of ultra-precise machining equipment such as CHARMILLES, HARDINGE, DMG, HAAS, MAZAK and STUDER. With years of experience, manufacturing process and production guide book have been well developed and optimized. These altogether lay a solid foundation for high quality products. A well-constructed QC system strictly control the whole production flow, from raw material, heat treatment, equipment and processing accuracy, surface treatment, manufacturing tools to final products, which ensures the product quality. The quality control model for the whole manufacturing process is established as follows: self-inspection by operator, initial inspection by QC, re-inspection by QC supervisor, IPQC and FQC.





High Quality PET Preform Mold

瓶坯模具

Standards We Set for PET Preform Molds
高标准，高品质

- Precision machined, tolerance standards 0.003~0.005mm 机械加工精度高
- Interchangeable parts for every cavity 内腔零件互换
- Perfectly balanced hot-runner system 平衡性能优良的热流道系统
- Ideal gate cooling 理想的注口阀门冷却
- Low crystallinity 注射口结晶性低
- Preform surface no scratches 管胚表面没有划伤
- Low acetaldehyde (AA) levels 乙醛(AA)含量低
- Minimum eccentricity below 0.09mm (L=100mm) 偏芯度低
- Strong dimensional stability 尺寸稳定性高
- Consistent weight 重量稳定
- Flashless split-lines 合缝线没有飞边
- 5-million shot using life 五百万模次使用寿命

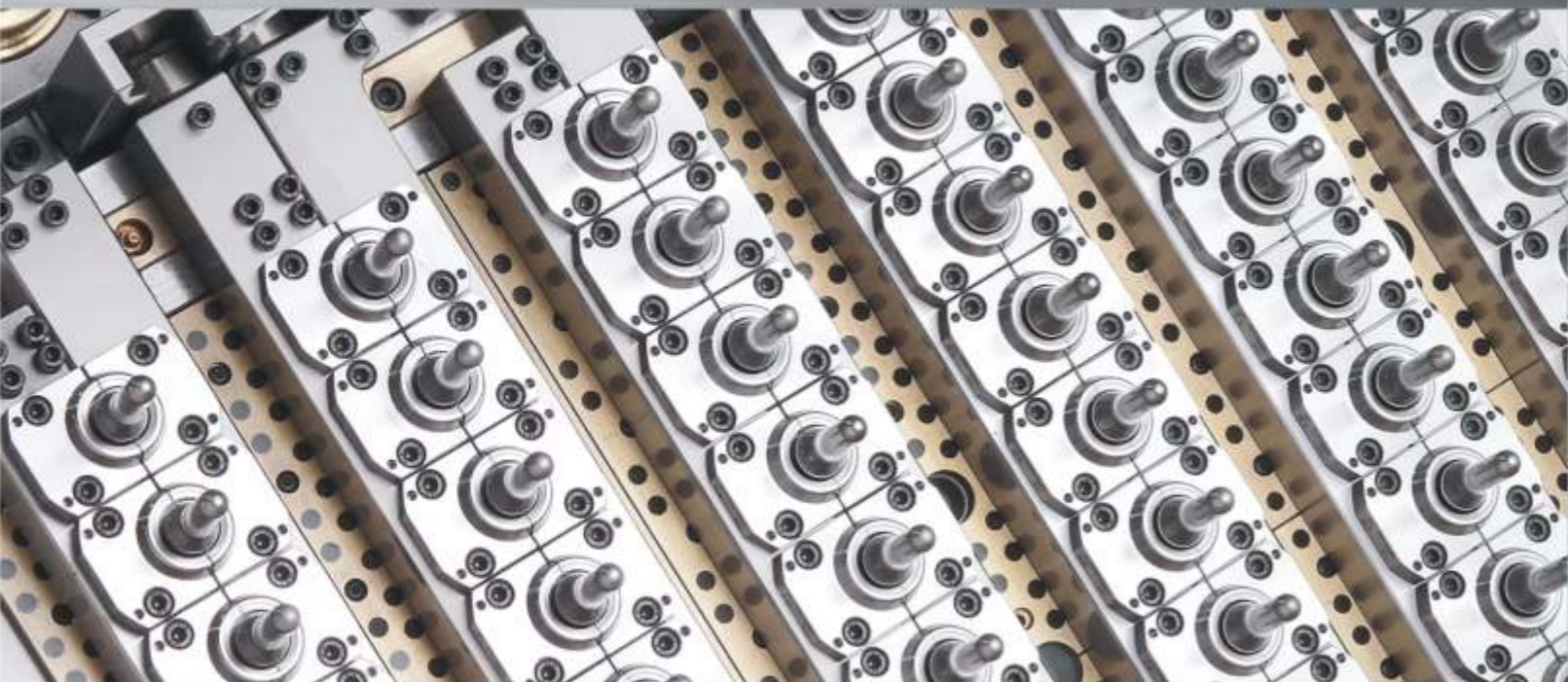


Highlight

Core, cavity and neck ring are made of Sweden imported S136, HRC up to 50-52°
型芯，型腔，螺口采用一胜百S136不锈钢制造。



72腔气动针阀式热流道瓶胚模具
72-cavity Hot-runner Preform Mold



High Precise Spare Parts with Perfect Compatibility

高精度，高兼容

Manufactured as very high standards with corrosion-resistant steel plates and optimized for preform production, Smargon PET preform mold have a long service life before refurbishing becomes necessary. What's more, we can also make high quality spare part for customers' HUSKY or NETSTAL preform mold, including core, cavity and neck ring. 凭借高标准的制造工艺，及最优化生产流程，SMARGON瓶胚模具具备超长的使用寿命。并且，可为客户的HUSKY或NETSTAL瓶胚模具制造高品质的内腔零件。



Spare Part for European Mold

Highlight

Original STAUBLI quick-change connector, provide large cooling water circuit size, leak-proof performance and fast connection.

法国史陶比尔原装快插接头及皮管，可靠耐用，拆装便捷，弯曲自如，无水道堵塞风险。



As per neck finish 示范螺口28mm PCO1810

Cavity Number	22g Preform Length: 94mm		32g Preform Length: 120mm		42g Preform Length: 130mm	
	Dimension (mm)	Weight (kg)	Dimension (mm)	Weight (kg)	Dimension (mm)	Weight (kg)
4 (1*4)	500*290*430	550	500*290*445	600	500*290*455	680
6 (2*3)	430*370*400	760	430*370*415	850	430*370*425	900
8 (2*4)	490*370*435	810	490*370*450	900	490*370*460	970
12 (2*6)	630*370*435	1020	630*370*450	1100	630*370*460	1180
16 (2*8)	750*370*480	1240	750*370*495	1350	750*370*505	1450
24 (3*8)	830*440*500	1880	830*440*515	1950	830*440*525	2060
32 (4*8)	830*580*515	2360	830*580*530	2550	830*580*545	2600
48 (4*12)	1065*580*525	2930	1065*580*540	3050	1065*580*555	3150
72 (6*12)	1140*830*560	4320	1140*830*575	4450	1140*830*580	4600

Note: Above specifications are subject to change without prior notice. Dimension means Height x Width x Thickness. 规格有变更，恕不另行通知。尺寸为高度X宽度X厚度。



48腔气动针阀式热流道瓶胚模具
48-cavity Hot-runner Preform Mold

32腔气动针阀式热流道瓶胚模具
32-cavity Hot-runner Preform Mold



Highlight

Mold base is made of Germany imported stainless steel, milled with shining surface.

德国进口不锈钢制模架，有效防止水道锈蚀问题，确保优良冷却效果，及模具使用寿命。

Dual Tapers Design for Lock 双锥互锁

Individual dual tapers locking design for thread splits, lock ring and cavity that reduce mold's wear. It guarantees the longer mold life time and the tight tolerance for the final preform product.

独立双锥互锁，有效减小模具磨损，确保模具寿命及最终瓶胚的尺寸精度。

Maintenance-free Roller Cams 精密凸轮机构

Roller cams guide both opening and closing actions on the thread splits. The bearing has less friction, makes sure the movement of the thread split plate smoothly, and ensures the longer working life. This roller cam system guarantees the longer service time.

精密凸轮机构为模具螺口滑块的开闭提供精确导向，确保模具使用寿命。

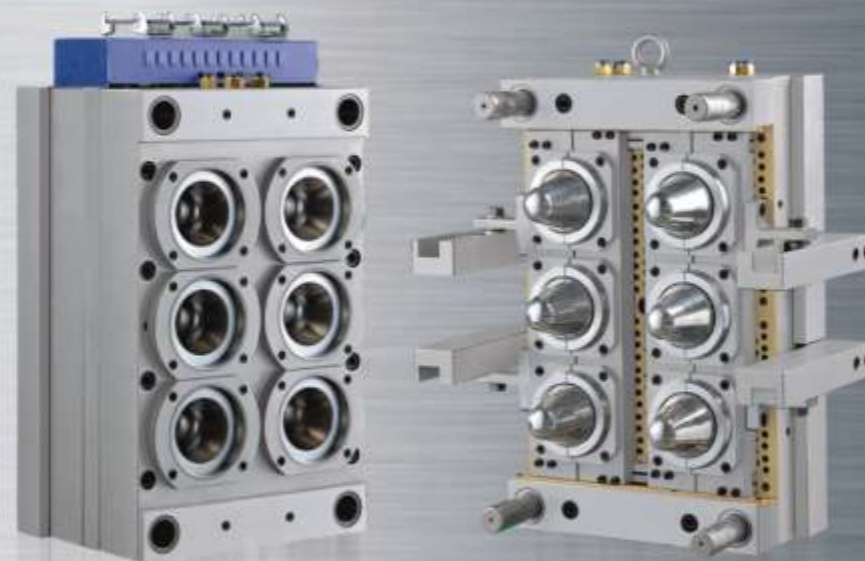


Individual Valve-gate unit with Balanced Hot Runner System

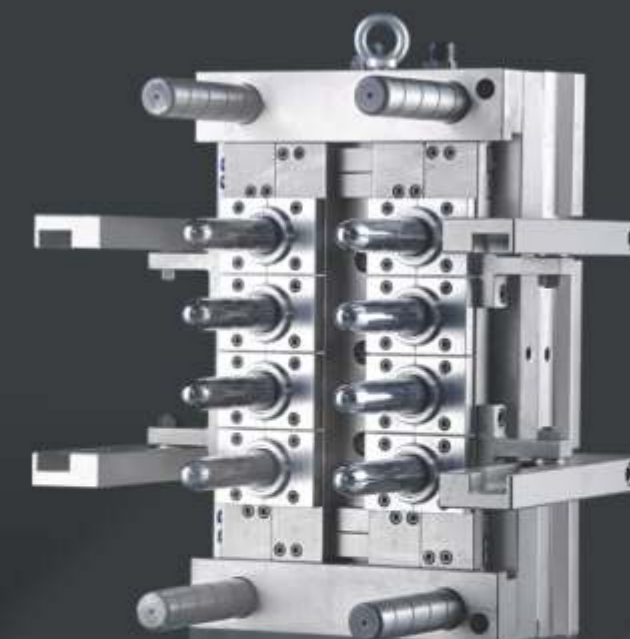
针阀式热流道

- Perfectly balanced hot runners ensure uniform melt flow and pressure in all cavities.
- The design of the melt channels minimizes shear and pressure loss, and provides a uniform flow to all cavities.
- Optimized heat distribution results in consistent AA levels across all cavities.
- Precise machining and low thermal expansion rate ensure the long working life with less maintenance.

- 平衡流道设计
- 低剪切力，低压力损失
- 热量分布均匀，AA值各腔均等
- 热膨胀率低



6腔气动针阀式热流道广口瓶胚模具
6-cavity Hot-runner Wide-mouth Preform Mold



8腔气动针阀式热流道大克重瓶胚模具
8-cavity Hot-runner Jumbo Preform Mold



High Precision Plastic Closure Mold

瓶盖模具

Aim of the technology developed by SMARGON is to reduce the cycle time to the bare minimum. SMARGON mold for production of closures for soft-drinks, mineral water, milk, juice, oil, spirit, cream and many other product are now among the most performing both for productivity and reliability.

SMARGON公司所开发的技术的目标是将节拍缩短到最低限度。现在，SMARGON公司用于生产各种软饮料，矿泉水，牛奶，果汁，油类，含汽饮料，乳脂类和其他产品的瓶盖模具无论在生产效率方面，还是可靠性方面都是最值得信赖的产品之一。



32腔切割型热流道防盗瓶盖模具
32-cavity Hot-runner Slitting-type Closure Mold

We Offer

Neck Finish: different specifications, such as 26/22, 29/25, 30/25, PCO1810, PCO1881, 38/33, 48/41, etc

Cavitation: from 8 to 48 cavities.

瓶口类型：各种规格，包括26/22, 29/25, 30/25, PCO1810, PCO1881, 38/33, 48/41, 等等

模具腔数：8腔至48腔

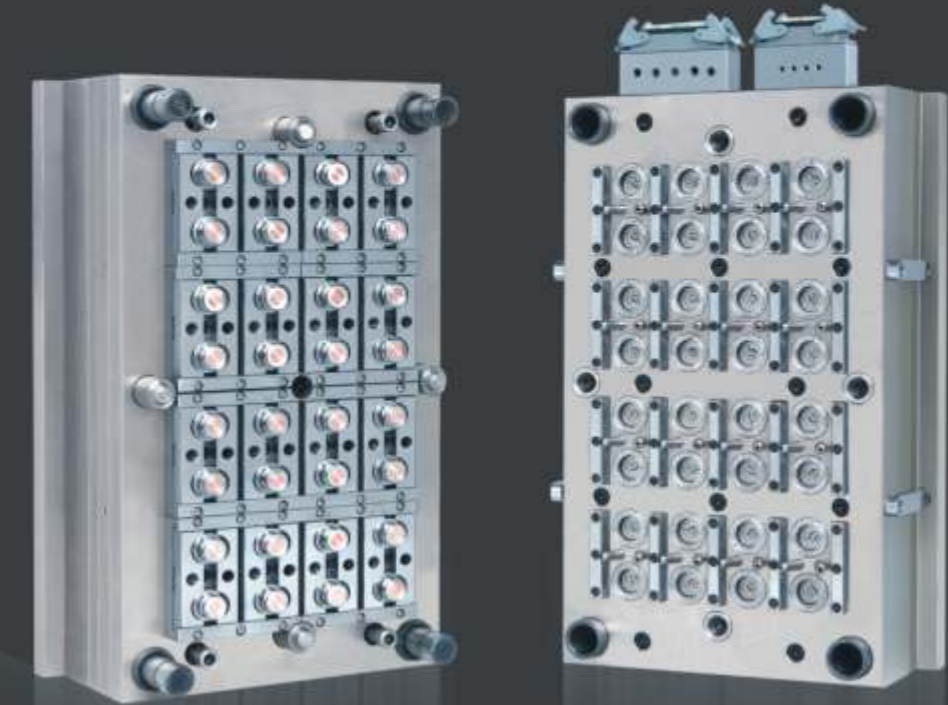
Time is Money 时间就是金钱

SMARGON's target is to minimize maximally the cycle time. By modeling closure mold on the peculiar needs of different markets lead SMARGON in a position to supply customers with tools that are perfectly in tune with the various production needs. The integration of SMARGON know-how with the market requirements has been a winning recipe.

SMARGON公司的目标是使节拍最大程度地缩短。将SMARGON公司的高新技术与市场需要相结合已成为一个赢得成功的诀窍。



32腔滑块型热流道防盗瓶盖模具
32-cavity Hot-runner Sliding-type Closure Mold



Specification 标准模具规格

As per sliding type theft-proof closure hot-runner mold 滑块型防盗瓶盖热流道模具

	Cavity No. 腔数	Mold Dimensions (mm) 模具尺寸	Weight (kg) 模具重量
28mm PC01810	8 (2*4)	400x350x335	280
	12 (2*6)	500x360x360	360
	16 (2*8)	650x360x360	500
	24 (3*8)	700x400x400	700
	32 (4*8)	700x445x400	890
30/25 3Start	48 (4*12)	900x450x450	1100
	8 (2*4)	400x350x335	280
	12 (2*6)	500x360x360	360
	16 (2*8)	650x360x360	500
	24 (3*8)	700x400x400	700
38mm 3Start CF Bericap	32 (4*8)	700x445x400	890
	48 (4*12)	900x450x450	1100
	8 (2*4)	410x350x400	400
	12 (2*6)	550x360x400	530
	16 (2*8)	680x360x460	700
48/41 3Start	24 (3*8)	750x450x480	900
	4 (2*2)	350x350x360	350
	8 (2*4)	410x350x400	450
	12 (2*6)	550x360x400	580
	16 (2*8)	680x360x460	750



Note: Above specifications are subject to change without prior notice.
Dimension means Height x Width x Thickness.
规格有变更, 恕不另行通知。尺寸为高度X宽度X厚度。

Standards We Set for Closure Molds 高品质的瓶盖模具

- Hot-runner with pin-point gate.
- Balance manifold with sheath heater.
- Modular design sliding block group.
- High-quality mold steel from professional manufacturer, including ASSAB, BOHLER, etc.
- High-precision CNC machining, such as CHARMILLES, MAZAK, HAAS, STUDER, etc.
- All insert tapers are grinded for high precision.
- Mold inserts are interchangeable.
- Molds range up to 48-cavity.
- Plates can be moved within the machine for easy maintenance and repair.
- Fast injection speed up to 12 shots per minutes.

- 点式热流道系统
- 平衡流道设计
- 模块化设计滑块组
- 源自一胜佰, 佰禄等著名厂商的高品质钢材
- 高精CNC加工中心加工
- 所有镶件的锥度通过高精度磨床加工
- 模具内腔零件可无配互换使用
- 模具最大到48腔
- 可在机器上进行模具维护和修理
- 最快可实现5秒的循环节拍





Reliable Heat-treatment Process

可靠的模具热处理

On behalf of the adoption of high quality mold steel from world famous manufacturer like ASSAB and BOHLER, SMARGON can also enjoy these companies' excellent and mature heat-treatment service. Under the professional and correct heat-treatment process, Smargon series closure mold's part have gotten uniform and even hardness level from surface to inside, and its inner stress and size deformation have been reduced to minimum.

SMARGON瓶盖模具采用了多家国际著名的钢材生产商的产品，包括瑞典一胜佰，奥地利倍禄等。同时，也享受了这些公司优良且成熟的热处理服务。经过专业且正确的热处理流程，SMARGON系列瓶盖模具的各部件可以达到由里至外非常统一且均衡硬度水平，同时内部应力和尺寸的变形程度也被减小到最小。

We have significant experience in the manufacture of mold for different types closures according to customer's requirement.

SMARGON始终秉持为客户创造价值的企业理念，以创新、品质和服务向客户提供完善的瓶盖模具解决方案。



24腔热流道提手模具
24-cavity Hot-runner handle Mold



32腔热流道油瓶下盖模具
32-cavity Hot-runner
Oil Base-cap Mold



24腔热流道翻盖模具
24-cavity Hot-runner Flip-top Cap Mold



High Quality Mold Steel 高品质模具钢材

Characteristic项目	Material/Original材料
Cavity 型腔	S136 from ASSAB
Core 型芯	S136 from ASSAB
Core Cover 型芯套	DC11 from BOHLER
Center Ejection Bar 中心顶杆	Beryllium copper from USA
Sliding Block 滑块	W302 from BOHLER
Sliding Block Frame 滑块座	2510 from ASSAB
Manifold Plate 热流道板	H13
Nozzle Tip 铜喷嘴尖	Beryllium copper from USA
Mold Base 模架	P20