







PET

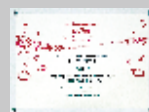
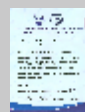


-  Preform Mold
-  Blow Mold
-  Closure Mold
-  Hot Runner System
-  Multilayer Co-injection Technology
-  Components



PET

PREFORM MOLD
BLOW MOLD
CLOSURE MOLD



Company Profile

GDXL Precise Machinery Co., Ltd. (GDXL) was founded in 1993 with registered capital 50,000,000 RMB. The company is located in Sanshan area, Foshan, China, occupying an area of 33,000 square meters.

Now there are more than 430 employees working in GDXL, among whom more than 100 are engineers and technicians.

Ever since its establishment, GDXL has been dedicating itself to the research and development of PET bottle, preform, closure and multilayer co-injection package, as well as the fabrication of corresponding blow molds, preform molds, closure molds and hot runners.

GDXL also supplies conversion and optimized project solutions on production lines of PET preform, closure and bottle according to customers' needs.

Equipped with flexible production systems, integrated machining equipment and an intelligent logistic system, GDXL guarantees production precision and efficiency, with a view to satisfying increasing customers' demand on individualized products and a shorter product development cycle. The company's laboratory has attained CNAS certification as a third party laboratory. Furthermore, GDXL has pre-delivery complete mold testing systems which guarantee products' performance and quality. The establishment of the PET packaging industry interactive platform has provided customers with an excellent media for technical discussion, patent enquiry and industry news, etc. In particular, the PET bottle database serves as a precious resource in market research and new product development.

With a view to meeting market demand, GDXL proposes multilayer co-injection system solution to help customers realize engineering projects for packages with barrier properties and color gradation. The proposal extends durability and shelf life for products, and enhances market appeal, creating higher values for customers.

GDXL's products are widely used in beverage, food, edible oil, condiment, cosmetic, toiletry and pharmaceutical industries.

With strong technical capability, first-class quality products and highly efficient service, GDXL has successfully served more than 600 customers in over 40 countries including China, the U.S.A, Japan, Europe, Australia, Russia, South Africa, Malaysia, Singapore, Indonesia, Vietnam, Thailand, the Philippines, etc.



Preform Mold



Blow Mold



Closure Mold



Hot Runner System



Multilayer Co-injection Technology

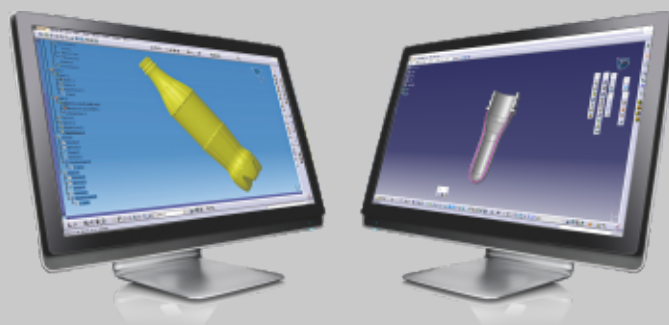


Components



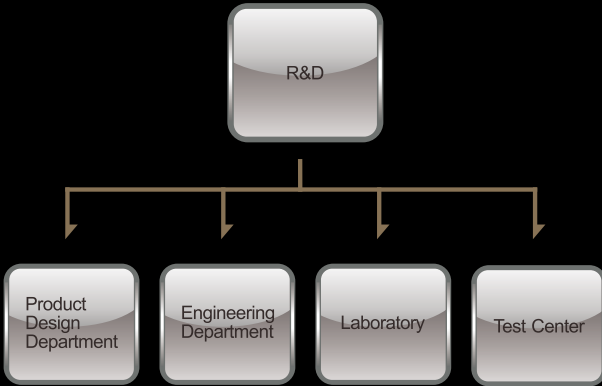
Research & Development

GDXL has provincial engineering and corporate technology centers, which develop a strong R&D team dedicating to the research and development of bottle shape, preform type and closure. More than 2,000 R&D projects and 3,000 feasibility tests are completed every year. Our laboratory has attained national laboratory certification issued by the CNAS, and has been certified by Coca-Cola and Pepsi-Cola as one of their few third-party laboratories. Using advanced CAD/CAM software such as CATIA and CIMATRON, and about 40 advanced inspection equipment including laser interferometer, 3D scanner, AA tester, O2 permeability tester, CO2 retention tester, barrier inspector, IV tester, etc., we keep innovating. In particular, we have developed testers with Intellectual Property Right (IPR), which are optimized in conducting tests on specific attributes such as bottle shapes, physical properties of preform, heat and vacuum resistance, ageing and transportation simulation. Moreover, we have test centers for bottle blowing and preform injection. With the well-organized and efficient R&D platform, we are confident in developing customers' new products within a short period.

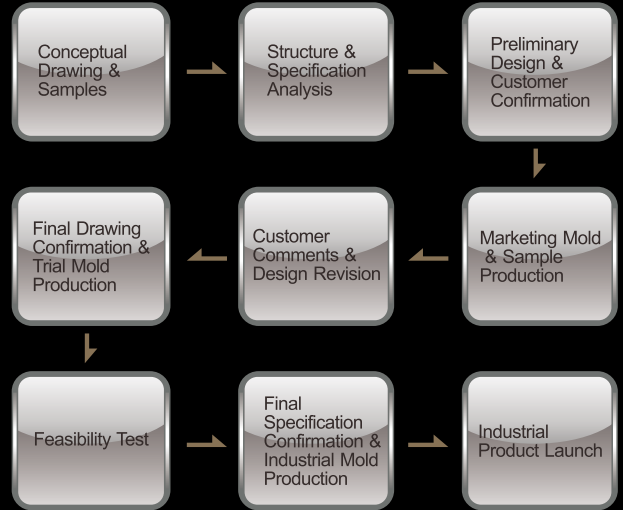


R&D Introduction

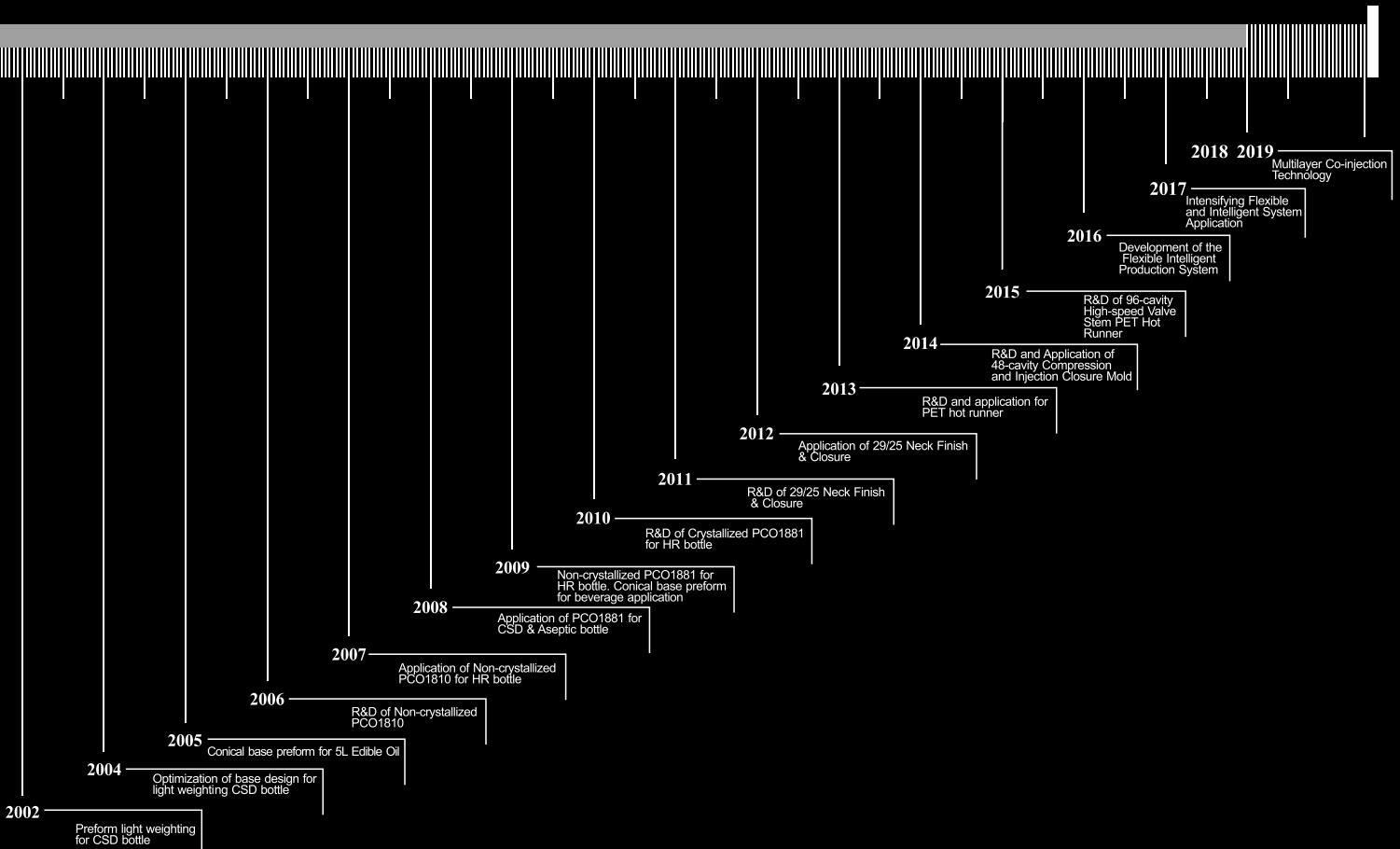
R&D comprises four core departments with 80 professional staff.

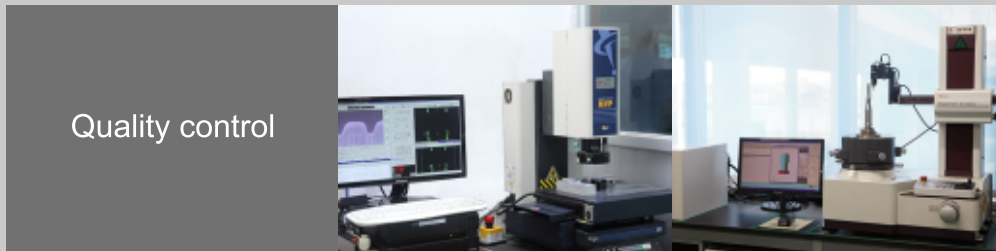


R&D Flow



Road to Innovation





Quality control



Fabrication



PET

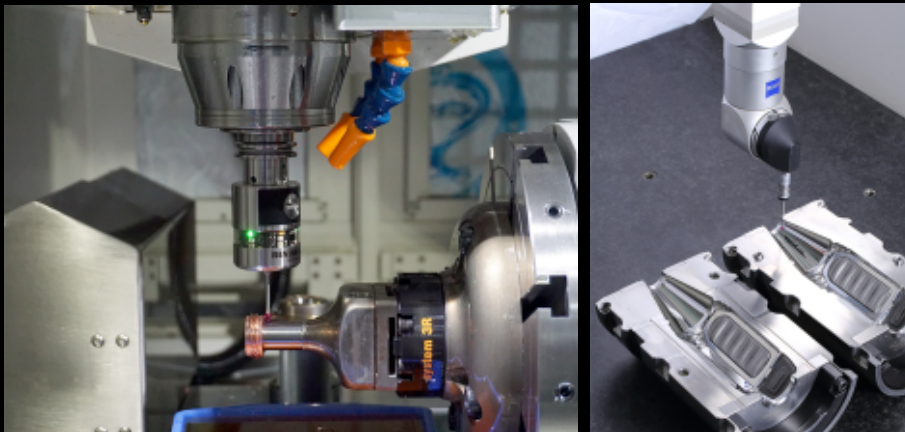
PREFORM MOLD
BLOW MOLD
CLOSURE MOLD

Fabrication & Quality Control

GDXL adopts a flexible intelligent production system which comprises complex turn-milling, complex cylindrical grinding and 3D intelligent logistics system. The production premise has a series of ultra-precise machining equipment such as CHARMILLES, HARDINGE, DMG, HAAS, MAZAK and STUDER, etc. With years of experience, manufacturing processes and production guide book have been well developed and optimized. These altogether lay a solid foundation for high quality products. Annual productivity of blow mold, preform mold and closure mold are 30,000 cavities, 20,000 cavities and 3,000 cavities respectively.

A well-constructed QA system strictly manages the whole production flow, from raw material, heat treatment, equipment and processing accuracy, surface treatment, manufacturing tools to final products, in order to ensure perfect product quality.

GDXL's quality control process includes automatic inspection by machines, online inspection along production lines, and finished molds and parts inspection. We stress the importance of TQC for delivering highly stable, reliable and precise products.



GDXL

Bottle samples



Blow Mold

Blow mold is applied to:

1. Different brands of two-step blow molding machines such as SIDEL, KRONES, SIG/KHS, TECH-LONG, and NEWAMSTAR.
2. Different brands of one-step blow molding machines such as SIPA, ASB, and AOKI.
3. PET containers for beverage industry such as water bottle, CSD bottle, HR bottle, and aseptic bottle.
4. Various containers for the industry of food, edible oil, condiment, cosmetic, toiletry product, and pharmaceutical.



Blow mold of 600ml HR bottle for SIDEL machine (Aluminium)



Blow mold of 2000ml CSD bottle for SIDEL machine



Blow mold of 500ml aseptic bottle for SIG/KHS machine



Blow mold of 450ml aseptic bottle for KRONES machine

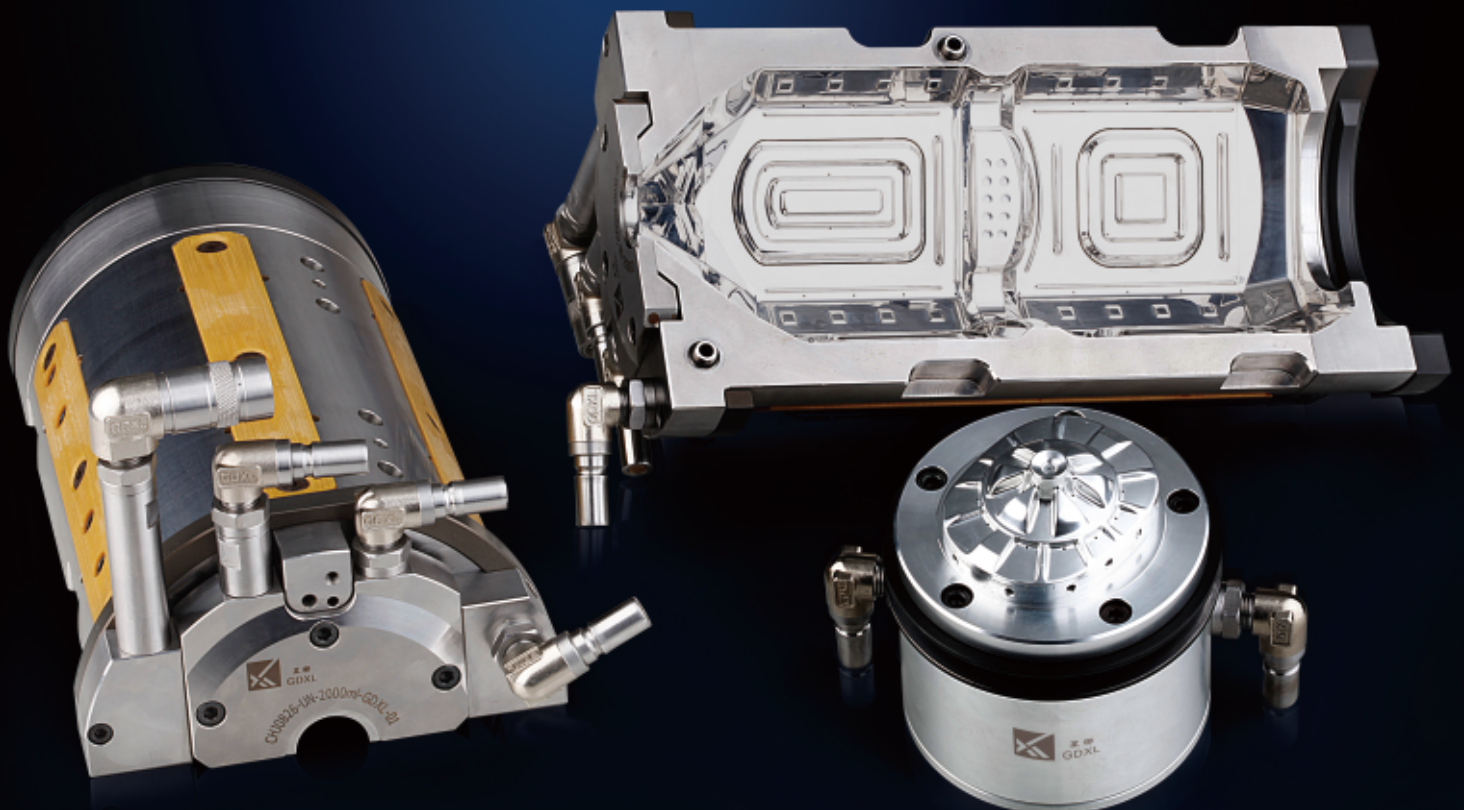


Blow mold of 500ml CSD bottle for SIDEL machine (Panel Insert)



Blow mold of 550ml water bottle for SIDEL machine

Blow mold of 2000ml HR bottle for KRONES machine



Preform samples



Preform Mold

1. Specification: Cold half of 32 cavities, 48 cavities, 56 cavities, 72 cavities, 96 cavities, and 144 cavities.
2. Neck finishes: 1716, 1810, 30/25, 1881, 29/25, 26/22, and 38mm.
3. Applied to: different brands of preform injection molding machine such as HUSKY, UNIQUE, NETSTAL, and KATA.



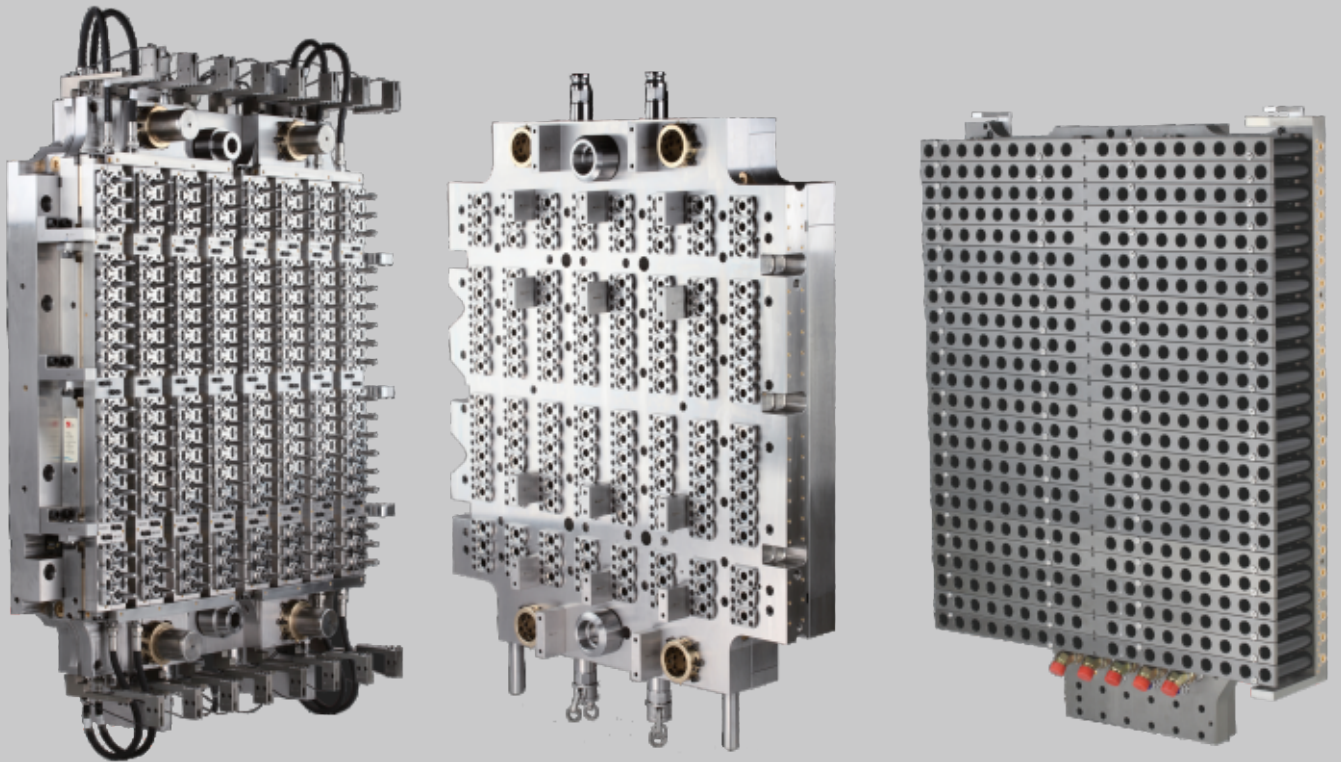
Stack components for NETSTAL machine



Stack components for HUSKY machine



Stack components for KATA machine



144 cavities preform mold for HUSKY machine



Hot Runner System

- 1、 Specification: Up to 96 cavities for preform injection hot runner and 72 cavities for closure injection hot runner.
- 2、 Applied to: Different brands of preform injection machines including HUSKY, NETSTAL, KM, SIPA, etc. and various brands of closure injection machines.



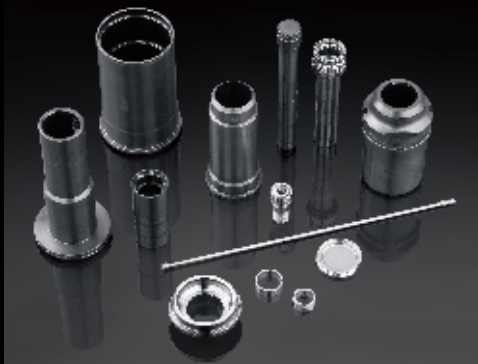
96 cavities hot runner for HUSKY machine

Closure samples



Closure Mold

1. Specification: one-piece cap and two-piece cap.
2. Neck finishes: different specification such as 26mm, 28mm, 29/25, 30/25, and 38mm.
3. Cavities: from 12 to 72 cavities.
4. Applied to: different brands of closure injection molding machine and SACMI compression machine.
5. Application:
 - Beverage such as water, juice, and tea drinks.
 - Edible oil, condiment, and soya sauce.
 - Cosmetic, health-care products, pharmaceutical, and food.



Stack components of compression closure mold



Stack components of injection closure mold

Compression Mold



Compression closure mold for SACMI machine

Injection Mold



48 cavities injection closure mold

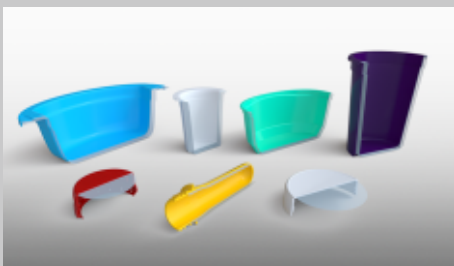
Applications of Multilayer Co-injection



Technology of Co-injection

Three-layer distribution structure extends barrier capability and maximizes durability extension of ultimate packages. Application covers beverage, food, cosmetic and pharmaceutical package markets.

1. Specification: 2, 4, 8, 16, 32, 48, 72 cavities
2. Applied to: various types of injection machines
3. Applications: gas barrier (oxygen, carbon dioxide), light barrier, water vapor barrier, color gradation



Multilayer preforms, thin-wall packages

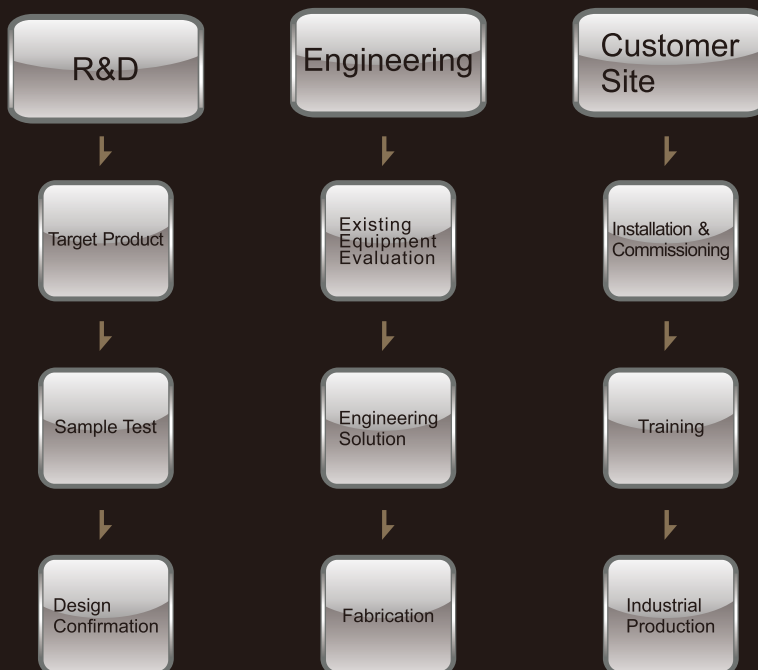


Preforms with plentiful color gradation

Proposal of Co-injection System

1. Integrating Moldmasters-Kortec multilayer co-injection technology with GDXL precise mold products
2. Including R&D, test, engineering modification, after-sales service and on-site training

Implementation Process



GDXL

Co-injection Component

- 1.Flexible installation
- 2.All-electric powered – cleaner and lower energy consumption
- 3.Compatible to various injection machines
- 4.Installable on existing injection systems



E-Multi Injection Unit



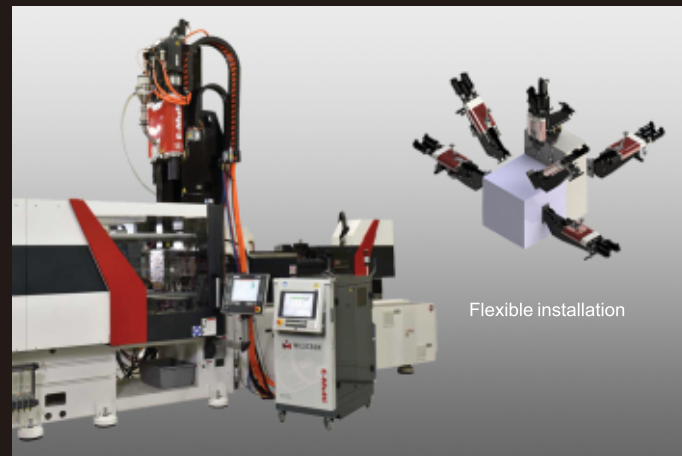
E-Multi Control System



Multilayer co-injection preform mold and hot-runner



Co-injection Integrated Component



Flexible installation



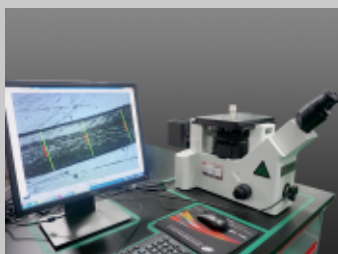
Testing and Inspection equipment of Co-Injection

GDXL's laboratory is equipped with various inspection instruments for multilayer packages. It is capable of providing customers with full inspection service for PET and PP/PE multilayer barrier packages. It also has specific test centers for multilayer packages, creating a first-class R&D platform.

O₂ permeability test



CO₂ retention test

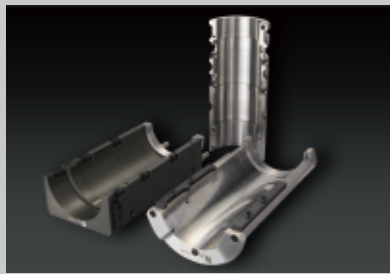
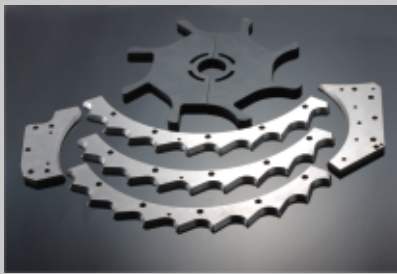


Barrier layer inspection

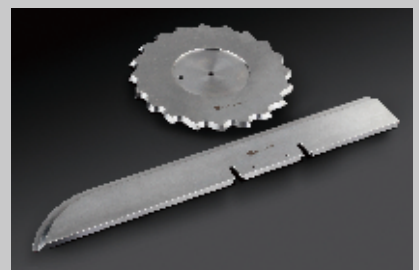
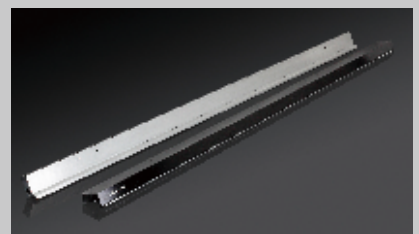


Project Retrofit & Components

1. Retrofit of bottle and preform production systems to realize the conversion among different neck finishes such as 1716, PCO1810, and PCO 1881.
2. Retrofit the HR blowing system suitable for normal temperature filling and hot filling production lines.
3. Modify structure of blow mold to realize universality among different brands of blowing system.
4. Modify blow mold and blowing systems to optimize bottle shape.
5. Modify cold half and the components to optimize the preform.



For blow molding machine



For filling machine



For labeling machine



For preform injection molding machine



For closure molding machine



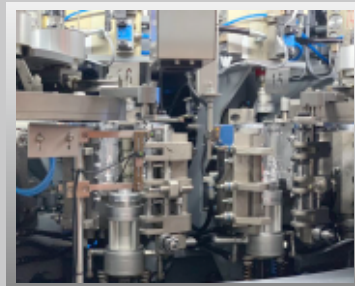
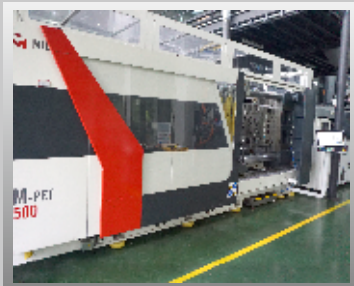


Applicable conversion among different neck finishes, such as:

1. Normal temperature filling neck finishes: 30/25, 29/25, 26mm, PCO1810, PCO1881, and 1716.
2. Hot filling neck finishes: Crystallized PCO1810, Non-crystallized PCO1810, Crystallized PCO1881, and Non-crystallized PCO1881.

Mold Commissioning System

GDXL has invested in complete mold testing systems for preform molds and blow molds. It realizes implementation of Factory Acceptance Test (FAT) for full set of complete molds, guaranteeing product quality and performance.



After-sales Service

GDXL has dedicated a strong team of engineers to provide prompt and effective after-sales service, and trouble-shooting helps to the problem occurred during commissioning and production.

We have also maintained a service history for each customer, so that a quicker and more accurate service or follow-up can be provided subsequently.

Our target is to achieve 100% customer satisfaction.



Up to now,
 GDXL has delivered products and services to more than 600 customers worldwide.
 Our growth relies on continuous support from our customers.
 We would like to express our gratitude to them here.



.....(Only part of the customers are listed due to limited spaces)

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Worldwide Sales Coverage



All the staff of GDXL keep working hard to offer customers a better service !

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