

PHARMA **TECHNOLOGY**



iCaps
CAPSULE POLISHER

Advance
by Technology ...



Before process



After process



Sophisticated engineering leads to superior flexibility and performance in terms of efficiency, dwell time and quality control.

In response to customer demand for solutions beyond the capsule filling machines, Pharma Technology offers peripheral devices as integrated solutions. Its state-of-the-art vertical polishers and accessories provide great flexibility, enhanced output, and superior dedusting quality.

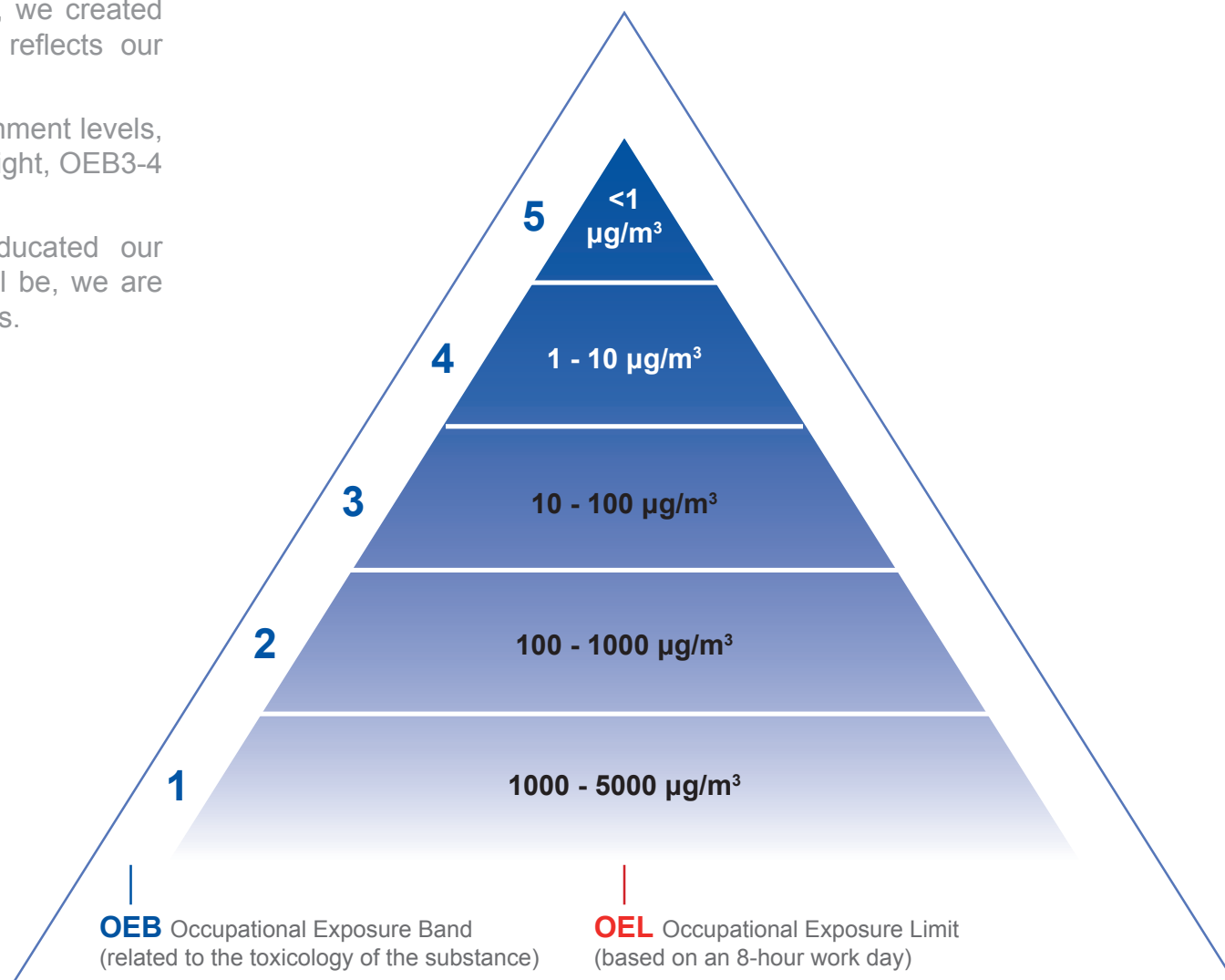
Our **CONTAINMENT** philosophy ...

For nearly 25 years, Pharma Technology has been an innovative company responsive to industry demand.

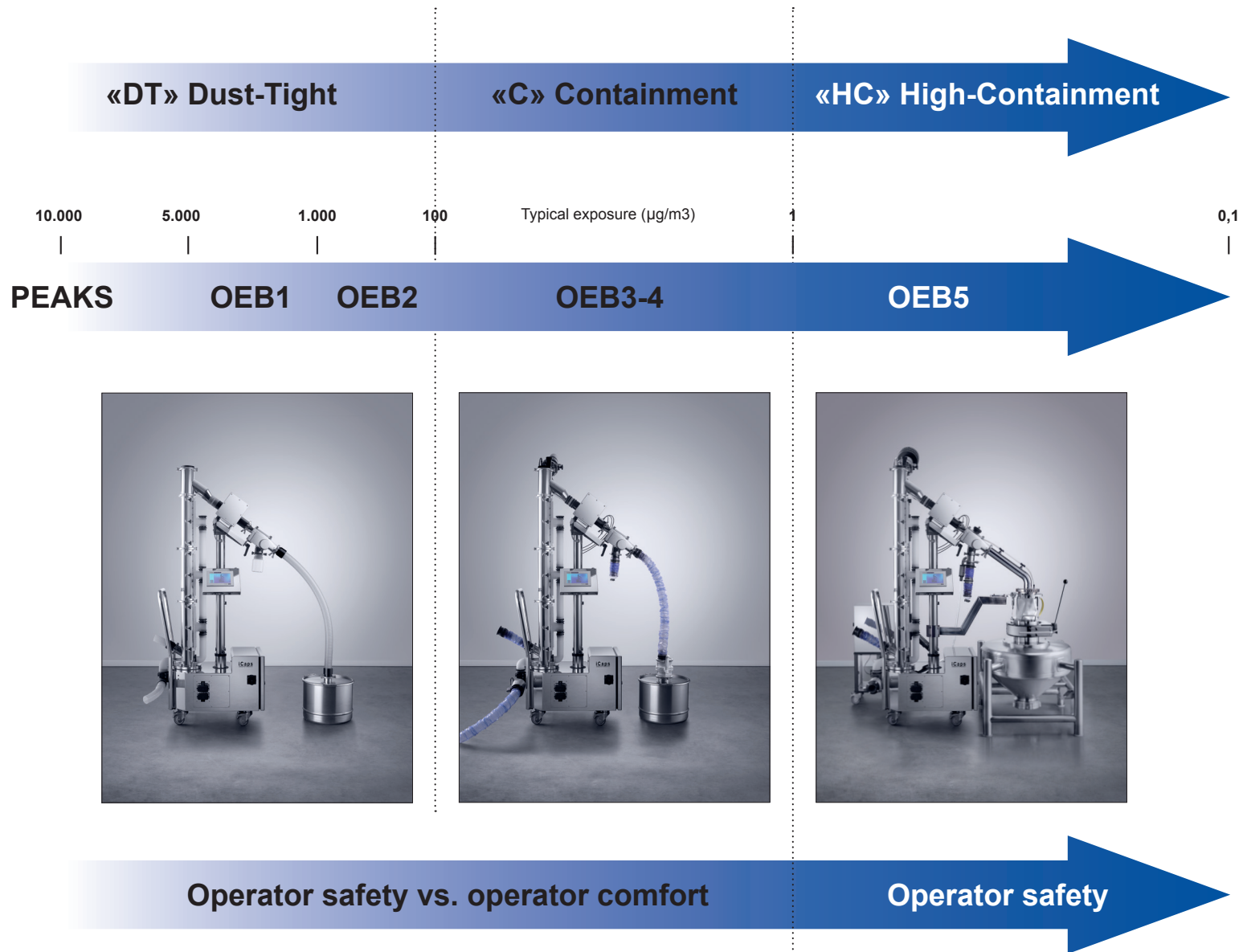
Because operator protection is so important to us, we created a unique, pioneering segmentable deduster that reflects our commitment to containment.

The new iSeries version is available in three containment levels, based on customer needs and specifications: dust-tight, OEB3-4 containment and OEB5 high-containment washable.

Because we strongly believe that the more educated our customers are, the greater our mutual success will be, we are pleased to offer training along with all of our products.



The **iCaps** frame (the 'i' standing for 'innovative') represents a new generation of modular units that can be customized according to customer needs. The frame is pre-equipped to accommodate a variety of additional options, including: diverters, sampling, test sample inserters, auto-check, IPC testers, and containment, high containment, and washable features.



iCaps «DT»

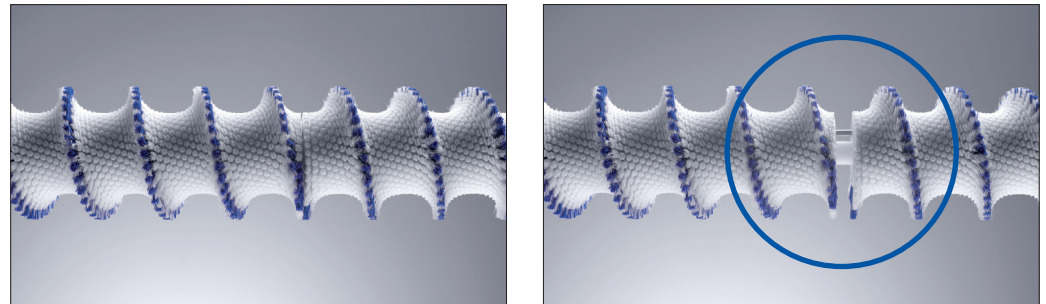
SEGMENTABLE BRUSH CAPSULE POLISHER

DUST-TIGHT

METAL DETECTOR



Patented segmentable brush



The **iCaps** range is based on a new generation of modular segments of 400mm. Each section includes a patented rotational brush, specifically designed to elevate, dedust and polish any size and shape of capsules, from 00 to 5.

The modular design allows for adjustable height gain. Four different conveying heights are available from 1000 mm to 2200 mm.

A patented homogeneous vacuum flow channel combined with a product flow deflection ensures a very high level of dedusting and polishing performances.

This new generation of unit ensures complete emptying of the unit in a few seconds with all types of capsules and weights. Utmost care has been taken to simplify the design in order to reduce the amount of parts to be assembled and disassembled, and to eliminate the need for tooling.

The iCaps can be combined with Ceia and Lock metal detectors.

The iCaps generation includes dust-tight cover features to reduce operator exposure to the product, and to dust contamination in the production room. Dust-tight systems are modularly upgradable to containment and high-containment washable solutions.

Key benefits

- Dust-tight concept
- Excellent polishing and dedusting thanks to a patented vacuum concept
- Total emptying with all formats and weights
- Modular assembly composed of segments of 400 mm
- Patented round throughput chute for metal check
- Standard patented dust-tight feature for all equipment without use of tri-clamp
- Fast changeover with exchangeable deduster module concept
- Viewing windows to monitor process
- Extremely compact footprint
- No noise emission
- FDA-approved robust material, light dismountable components
- One touch screen HMI for all fonctions
- Easy assembly and disassembly
- Easy to clean, maintain and service
- Optional automated auto-check control system for metal detector, tablet diverter, and IPC tester
- Available “C” Containment OEB3-4 & “HC” High-Containment OEB5 washable

Empty capsules eliminator



Capsules ventury conveyor



Segmentable tube with viewing windows



iCaps «C»

SEGMENTABLE BRUSH CAPSULE POLISHER

CONTAINMENT OEB3-4

METAL DETECTOR

When manufacturing or planning to manufacture potent drugs, a containment unit is required to protect the operator and his environment.

Our iCaps C machines ensure an OEB3-4 containment level.

A unique antistatic patented metal check connectivity, allow easy tightness of the machine.

A new metal detector sliding chute discharge potential static electricity from the capsules and ensures a total emptying of the machine to the drum.

An advanced system enables the introduction of test samples inside the metal check head without any contact between the product and the operator.

Continuous pressure monitoring verifies that the equipment remains under negative pressure at all times, preventing dust particles from escaping into the production environment. If a problem is detected, the system automatically changes the valves status to create a safe environment for the operator.

The double barrier solution, using our patented Flex Connect pipe in conjunction with a double LDPE barrier and Clip & Cut, allows simple and contained disconnection of the peripheral process equipment.

The peripheral process equipment can be cleaned in a separate wash room, enabling clean corridors. Containment systems are modularly upgradable to high-containment washable solutions.

LDPE connectivity



Alpha-beta valve



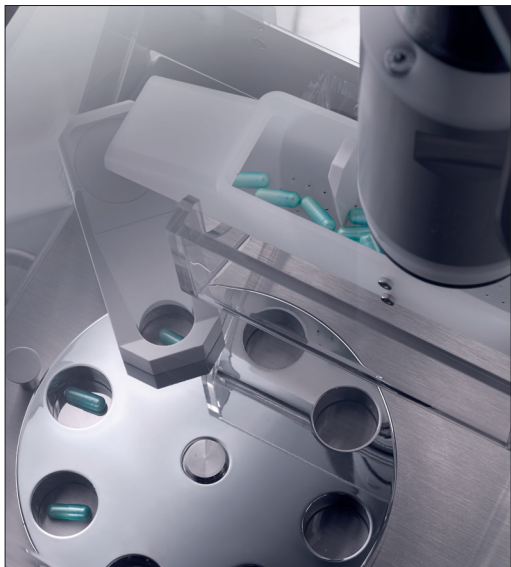
Continuous pressure monitoring



Key benefits

- Dust-tight concept
- Excellent polishing and dedusting capacity thanks to a patented vacuum concept
- Total emptying with all formats and weights
- OEB3-4 proved concept for toxic products
- Continuous pressure monitoring and alarms
- Safe-fail security valve to avoid operator and room contamination in case of emergency
- Manual test samples inserting system for metal check
- Optional automated auto-check control system for metal detector, tablet diverter
- Optional IPC 2-parameter in OEB3-4 execution
- IPC quarantine hopper concept, tablet diverter
- Availability of retrofit kit for “HC” High-Containment OEB5 washable
- Easy assembly and disassembly
- Easy to clean, maintain and service

2-P tester «C»



Containment conveying of samples



iCaps with 2-P tester weight & length





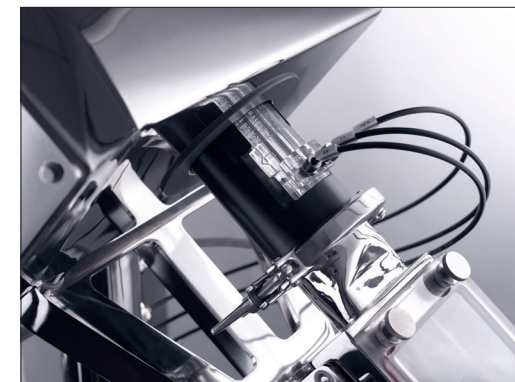
iCaps «HC»

SEGMENTABLE BRUSH CAPSULE POLISHER

HIGH-CONTAINMENT OEB5 WASHABLE

METAL DETECTOR

Antistatic auto-check unit



When manufacturing or planning to manufacture high potency drugs, a high-containment unit is required to protect the operator and his environment.

We offer a complete end-of-the-line concept with all required high-containment connectivities.

Our iCaps “HC” washable units ensure an OEB5 high-containment level. This solution permits the washing of equipment at the end of the production batch.

During the flooding of the polisher, rotation of the brush is used to remove sticking powder from the surfaces. This guarantees that all volatile dust is removed before dismantling the equipment.

A pressure decay system permits verification of the tightness of the unit before starting manufacturing. This self-test system vacuums the unit and verifies that there is no leakage in the entire system. Continuous pressure monitoring verifies that the equipment remains under negative pressure at all times, preventing dust particles from escaping into the production environment. If a problem is detected, the system will automatically change the valves status to create a safe environment for the operator.

Washable systems exist in two versions: In the HC WIP version (Washing In Place; also called Washing in Line), the polisher is washed in the production room and can be linked with the capsule filling machine. The system remains connected and closed between the production and the washing process.

In the HC WOL version (Washing Off Line), the polisher should be disconnected from the production machine in a high-containment fashion, and washed in a separate washing room. In this instance, since the WOL trolley remains in the washing room, it can handle several machines, resulting in a cost-efficient solution.

A unique patented concept called Auto-Check enables testing the metal detector at regular intervals.

Key benefits

- Excellent polishing and dedusting capacity thanks to a patented vacuum concept
- Total emptying with all formats and weights
- A global high-containment OEB5 proved concept that includes all connectivity upstream/downstream with other equipment
- Sealing integrated in the machine parts
- Pressure decay hardware and software to detect leakage after assembly, and before start of manufacturing high potency products
- Continuous pressure monitoring and alarms
- Safe-fail security valve to avoid operator and room contamination in case of emergency
- Patented Clip & Cut OEB5 sampling system
- Continuous testing of the metal detector at regular intervals thanks to the auto-check
- WIP/WOL mobile washing station
- Easy assembly and disassembly
- Easy to clean, maintain and service

Fail safe fresh air inlet with Hepa filter



OEB5 Alpha/Beta valve



WIP/WOL Mobile Washing Station



Options for iCaps Unit

FLEX CONNECT

EASY & SAFE DUST-TIGHT CONNECTION

Flex Connect is an FDA-approved silicone pipe that enables quick and easy connection between process equipment without using a tri-clamp. Due to its flexible design, Flex Connect adapts to any capsules filling machines.

Flex Connect creates a dust-tight connectivity and can be used in high-containment and washable situations with additional quick release collars.

Its flexibility helps connect misaligned equipment, and addresses thermal expansion and vibration between pipes and equipment.

With a patented design that helps prevent product jams in the funnel, it can be used for tablets, capsules, or powder transfers.

Dust-tight Flex Connect



Dust-tight Flex Connect buffer



Sampling gate with Flex Connect connection



AUTO-CHECK

AUTOMATIC TESTING SYSTEM FOR METAL DETECTOR

The Auto-Check system automatically tests the functionality of your metal check process.

The system inserts the three test pieces (stainless steel, ferrous, and non-ferrous) into the metal check head at regularly specified time intervals.

Since the test tablets go through the metal check head in a separate chamber (not in contact with the product), there is no risk of product contamination with a non-detected test piece.

The Auto-Check is an especially valuable tool for companies producing high potency drugs who are looking for automated process reporting.



CLIP & CUT

EASY & SAFE OEB5 SAMPLING



Easy to re-open



The Clip & Cut is a technology used to disconnect products from equipment, or separate two parts of equipment, in a containment, or high-containment setting.

The Clip & Cut is designed to avoid using sealing tools, and can be used to take samples or rejected products.

The Clip & Cut allows reopening a bag without tooling, as well as reconnecting to the drain in a washable application with a bag in/bag out concept.



Samples are inside the continuous liner bag



A double clip allows disconnection by collapsing the liner



The liner film retracts in the clips when cutting



The tight bag can be easily removed



EPS

EURO PALLET SYSTEM

The Euro Pallet System (EPS) enables distribution of the product into different drums/containers according to amount or weight.

The distributor is highly flexible, as the number of containers (up to 12) to be filled varies, as does the dropping height of the capsules.

The EPS unit allows less contact with operators inside the production room, which reduces cross contamination between operators and products. The U-frame of the complete unit incorporates hydraulic cylinders for height adjustment, saving space on the ground.

The drum loading center is dust-tight. A containment version is available upon request. A jam sensor is also available.

D4

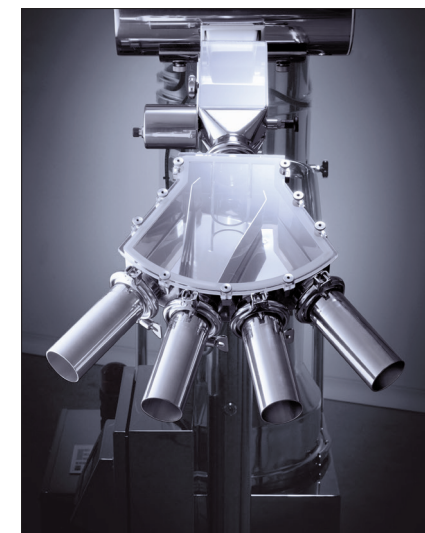
4-WAYS DIVERTER

The Diverter D4 is used to distribute the product into a maximum of 4 drums/containers according to amount or weight.

The distributor is highly flexible, as the number of containers (up to 4) to be filled varies, as does the dropping height of the capsules.

The diverter allows less interference from the operators inside the production room, which reduces bi-cross contamination between operators and products. It can be connected to any polisher, whether stand-alone or a combined unit.

The D4 is dust-tight. Containment and high-containment washable versions are available upon request. A jam sensor is also available.





PHARMA TECHNOLOGY

About us:

Pharma Technology S.A., a global leader in tablet and capsule handling equipment since 1993, specializes in dedusting, polishing, metal detection, and in-process control (weight, thickness, diameter, and hardness) for pharmaceutical manufacturing lines.

Thanks to a close and long-standing relationship with the pharmaceutical industry, Pharma Technology engineering has developed complete tablet and capsule handling solutions tailored to the specific requirements of oral solid dose (OSD) pharmaceutical companies. We provide a complete range of handling systems for tablets and capsules, on-site service, and test rooms for customer trials and Factory Acceptance Tests.

In 2008, Pharma Technology S.A. launched the Pharma Flex model -- a groundbreaking hi-tech polymer segmentable deduster -- that is ideally suited for easy cleaning. This new concept has revolutionized the tablet dedusting world by providing greatly enhanced dedusting/deburring performance.

In addition to providing equipment for a variety of tablet presses and capsule filling machinery, Pharma Technology has developed ancillary and connectivity systems.

All machines and equipment provided by Pharma Technology S.A. come with training, engineering and maintenance services to ensure successful factory integration and continued product performance.

Engineering Service



Efficient after-sales Service



International Sales & Service network





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