



The **PAST**
is the **FUTURE**

Esco through the test of time



ESCO[®]

LIFESCIENCES GROUP

Improving lives through science.



The Past is the Future

History is often overlooked.

Living in the moment is a common theme we all practice because it's quite easy to take charge of the present and prepare for the future. However, people can also quickly dismiss the remarkable yet important aspects of the past — the unsung heroes, the narratives that were never written, the stories we never heard of, and the minuscule details that led up to this very moment.

In Esco, as we improve lives through science, we want to revisit the technologies we have developed over the years. Since 1978, Esco Lifesciences Group has designed and manufactured durable and long-lasting Biological Safety Cabinets, Laminar Flow Cabinets, Ductless Fume Hoods, Pharmaceutical Sterility Test Isolators, and more outstanding equipment that stood the test of time as the world goes through a technological shift and copes up with the needs of modern science.

As we look back, we take pride in building life sciences tools that are ahead of the present and live up to our promise of paving a great future for biotechnology.



This horizontal laminar flow cabinet is one of the oldest cabinets on record. Installed in the Faculty of Veterinary Medicine, University of Putra Malaysia, this cabinet has been partnering with the students, researchers and professors for more than 30 years now.

The cabinet manufactured in 1981, is well maintained and still in good running condition. This proves that Esco cabinets are reliable and durable.

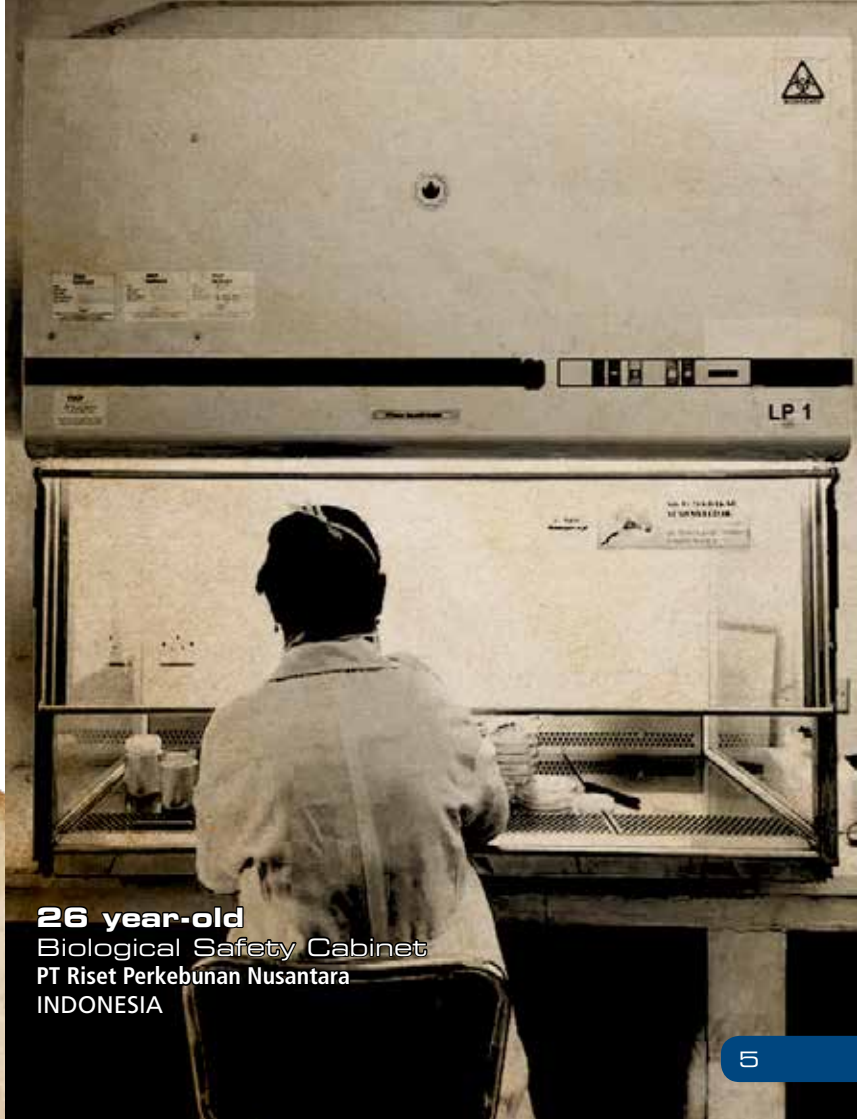
39 year-old
Horizontal Laminar
Flow Cabinet
Faculty of Veterinary Medicine,
University Putra Malaysia (UPM)
MALAYSIA



29 year-old
Laminar Flow Cabinet
Balai Besar Pengujian Penerapan Hasil Perikanan
INDONESIA



27 year-old
Laminar Flow Cabinet
PT Riset Perkebunan Nusantara
INDONESIA




26 year-old
Biological Safety Cabinet
PT Riset Perkebunan Nusantara
INDONESIA



23 year-old
Biological Safety Cabinet
Herbal Revival Sdn Bhd
MALAYSIA

“ We have a Biological Safety Cabinet, EBC- 4 which was manufactured in September 1996. This unit has been with us for 23 years since we set up our own Quality Control Laboratory in 1997.

We are very grateful that Mr. Chen, the former factory manager, got us this Biological Safety Cabinet to carry out our routine microbiological tests, together with an Esco Laminar Flow Cabinet which we use in a different application. In the



herbal industry, microbiological analysis in one of the compulsory tests other than heavy metals testing. Unlike the laminar flow cabinet, which provides sample protection while working in the cabinet, biological safety cabinet is designed to protect samples, laboratory personnel, as well as the environment, by filtering the air using HEPA filter, removing harmful bacteria and viruses before it comes back to the surroundings.

We also have undergone training from Esco personnel upon cabinet installation. They discussed how the unit works, how to maintain the unit in good condition, and how to work safety in the cabinet. We really appreciate what they have done.

To date, aside from looking clean and new, our Biological Safety Cabinet is well maintained and is in good condition. We take care of our cabinet, we perform daily decontamination on all work surfaces when our work is completed. We remove the work tray for cleaning or collection of spilled liquids. We contact the Esco Service Team to check on the cabinet yearly. We are very grateful because they examine our unit in great detail.

Since we are moving to a new plant, the roller that comes with the units makes it easier for us to bring them along.

Yes, our cabinet is 23 years and counting!



- GOH YANN JEN
KU MAISARAH BINTI KU KHALID

“

My 23-year old Laminar Flow Cabinet, which my company got in 1997, helped me a lot in my routine laboratory tests.

I love this cabinet because it still works very well despite its age. It is durable.

I love Esco product so much.”

-EKIN

HERBAL REVIVAL SDN BHD

23 year-old
Laminar Flow Cabinet
Herbal Revival Sdn Bhd
MALAYSIA



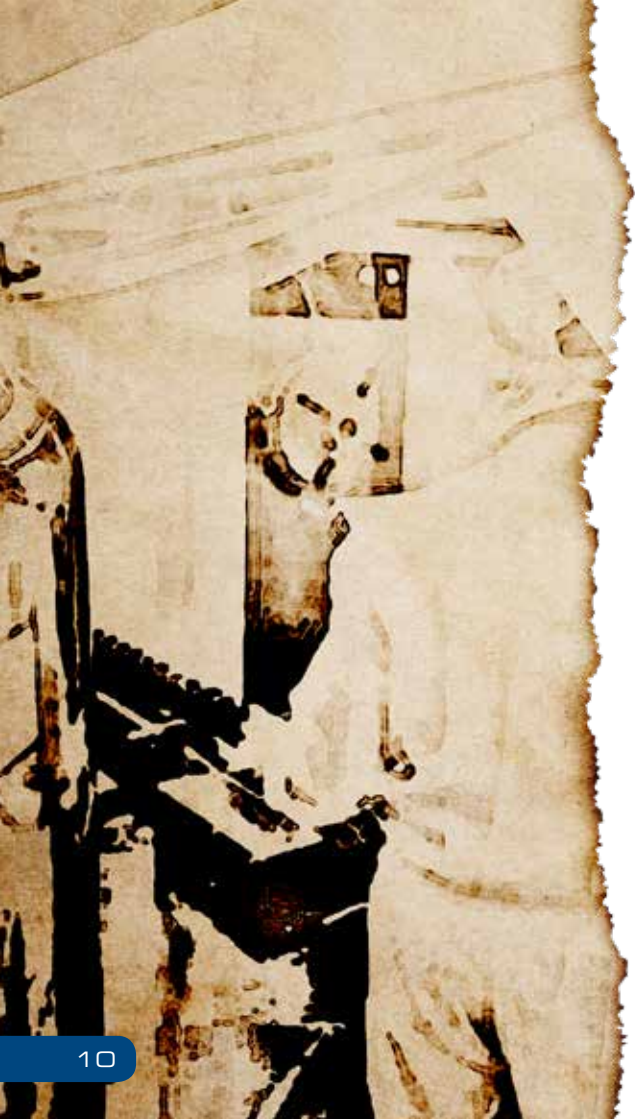


24 year-old
Laminar Flow Cabinet
Bio-Pharmachemie
VIETNAM



18 year-old
Biological Safety Cabinet
Bio-Pharmachemie
VIETNAM





ESCO CABINETS – OUR FIRST CHOICE

Biological safety cabinets and laminar flow cabinets are indispensable in microbiological laboratories and sterile production areas.

Our company is equipped with Biological Safety Cabinet for microbiological tests and Laminar Flow Cabinet for sterile production. Using Esco cabinets helps us to fully protect our sterile products from contamination as well as our staff from risk of infection. Testing samples under Esco cabinets gives us accurate and reliable results.

For 24 years, we realized that Esco cabinets are very consistent, durable, easy-to-operate and easy-to-clean. It is easy to maintain as well.

The laminar flow cabinet installed in the filling area of parenteral line from 1996 is the oldest cabinet in our company. Our biological safety cabinet, on the other hand, is installed in the cleanroom of the microbiological laboratory since 2002.

Today, both are running in good condition without breaking down, and that is one of the reasons why we love Esco cabinets.

Thanks to these cabinets that have been with us from the beginning.

We have gained a good reputation in having the best quality products in Veterinary and Aquaculture Medicine Industry through the help of these cabinets. We have satisfied our customers' requirement in both domestic and overseas market.

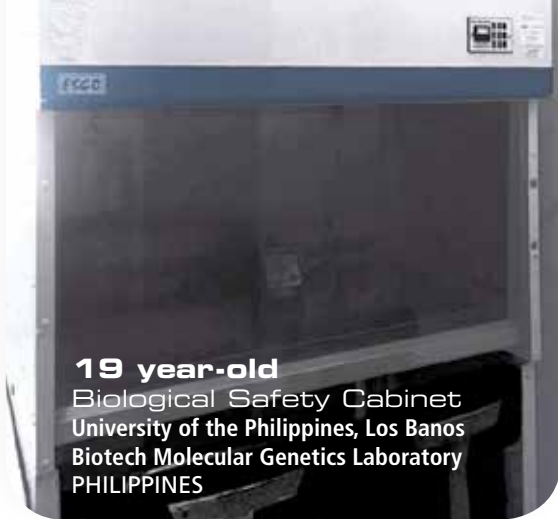
We trust that Esco will continue to provide good quality products and be a close partner to Vietnamese enterprises.

- TRAN THI NGOC LAN

QA Director
Bio-Pharmachemie

15 year-old
Biological Safety Cabinet
Bio-Pharmachemie
VIETNAM





19 year-old

Biological Safety Cabinet
University of the Philippines, Los Banos
Biotech Molecular Genetics Laboratory
PHILIPPINES



19 year-old

Laminar Flow Cabinet
Palace Hospital (Mandalay)
MYANMAR

19 year-old

Laminar Flow Cabinet
HONG KONG



19 year-old

Laminar Flow Cabinet
HONG KONG



18 year-old
Biological Safety Cabinet
BIRDEM General Hospital
BANGLADESH



18 year-old
Ductless Fume Hood
HONG KONG



18 year-old
Airstream®
Biological Safety Cabinet
Hi Precision Diagnostics – Cebu
PHILIPPINES



“

Since 2002, our biological safety cabinet keeps us safe, as users, and protects our specimen from contamination.

Esco cabinets are ergonomically designed which help increase the productivity of our staff by reducing the time needed to complete our daily tasks.

We receive excellent service from the Esco Service Team. They are very fast, and the maintenance are always thoroughly done.

More Power to Esco!!

”

- Hi-Precision Diagnostics – Cebu Team
Microbiology Department





17 year-old

Ascent® Ductless Fume Hood
HONG KONG



17 year-old

Airstream® Biological
Safety Cabinet
Popular Diagnostic, Dhanmondi Dhaka
BANGLADESH



17 year-old
Ascent® Ductless Fume Hood
HONG KONG



17 year-old
Airstream® Vertical
Laminar Flow Cabinet
Anova Viet Nam
VIETNAM



16 year-old
Airstream®
Biological Safety
Cabinet
The Medical City - South Luzon
PHILIPPINES

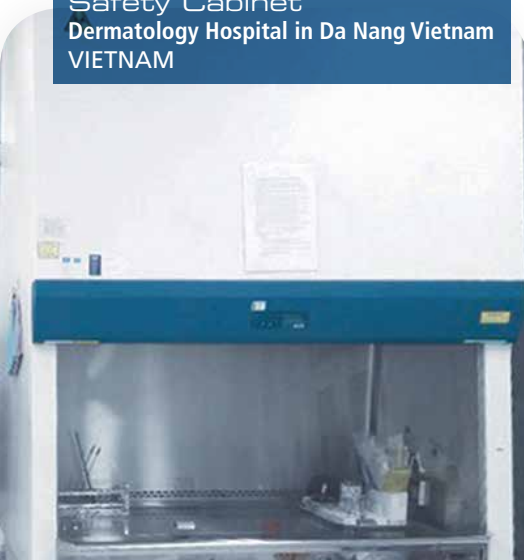


16 year-old
Airstream® Laminar Flow Cabinet
National Institute of Health of Thailand
THAILAND

15 year-old
Esco Pass Box
University of Bristol
ENGLAND



15 year-old
Labculture® Biological
Safety Cabinet
Dermatology Hospital in Da Nang Vietnam
VIETNAM



15 year-old
Air Showers
University of Bristol
ENGLAND



ESCO
CLASS II BSC

14 year-old
Biological Safety Cabinet
Phangnga Hospital
THAILAND



14 year-old
Airstream® Biological
Safety Cabinet
Batangas Medical Center
PHILIPPINES



14 year-old
Airstream® Biological
Safety Cabinet
Institute of Veterinary Research and
Development of Central Vietnam
VIETNAM

13 year-old

Labculture® Vertical
Laminar Flow Cabinet
Labaid Specialized Hospital,
Department of Fertility
BANGLADESH



13 year-old

Airstream® Vertical
Laminar Flow Cabinet
Faculty of Food Science &
Technology, University of
Putra Malaysia
MALAYSIA



13 year-old

Labculture® Biological
Safety Cabinet
St. Luke's Medical Center -
Extension Clinic
PHILIPPINES





13 year-old

Labculture® Biological Safety Cabinet

Academia Sinica - Institute of Biomedical Sciences
TAIWAN

13 year-old
Airstream® Biological
Safety Cabinet
Samegal Co., Ltd.
THAILAND



13 year-old
Streamline® Vertical
Laminar Flow Cabinet
SPM Feedmill Co., Ltd.
THAILAND



13 year-old

Airstream® Vertical
Laminar Flow Cabinet
Goshu Kohsan Vietnam
VIETNAM



13 year-old

Airstream® Vertical
Laminar Flow Cabinet
Hoa Binh Beer & Beverages
VIETNAM



13 year-old

Airstream® Vertical
Laminar Flow Cabinet
Thu Duc Hospital
VIETNAM



13 year-old

Airstream® Vertical
Laminar Flow Cabinet
National Institute of Occupational
and Environmental Health
VIETNAM



13 year-old

Airstream® Biological
Safety Cabinet
Goshu Kohsan Vietnam
VIETNAM



12 year-old
Airstream® Biological
Safety Cabinet
CDC Ha Nam - Viet Nam
VIETNAM



12 year-old
Labculture® Biological
Safety Cabinet
Prasarnmit Hospital (BKK)
THAILAND



12 year-old
Cytoculture® Cytotoxic
Safety Cabinet
Srinagarind Hospital, Khon Kaen University
THAILAND

2008

Esco cabinets championing in 2008 Olympics

Eighteen (18) units of Airstream Class II Biological Safety Cabinets are used by hospitals in Beijing, China to support the 2008 Olympic Games in Beijing.

During the Olympic Games, an emergency response command system was

set up to respond to any outbreak of infectious diseases. Beijing laboratories have been equipped with sophisticated equipment that can instantly detect plague, anthrax and eight other virulent pathogens and biological toxins, with the help of Esco Biological Safety Cab-

ESCO TRIVIA

nets to ensure the safety of all attendees in the Olympics.

Source: <https://www.rapidmicrobiology.com/archived-news?id=1051h14>



12 year-old
Streamline® PCR Cabinet
CDC Ha Nam
VIETNAM



12 year-old
Airstream® Biological
Safety Cabinet
TC Pharma
VIETNAM



12 year-old
Airstream® Biological
Safety Cabinet
Preventive Health Center of Hai Phong
VIETNAM



11 year-old
Airstream® Biological
Safety Cabinet
National Center for Veterinary Diagnosis
VIETNAM



11 year-old
Airstream® Biological
Safety Cabinet
National Center for Veterinary Diagnosis
VIETNAM



9 year-old
Streamline®
Biological Safety
Cabinet
Nakhon Phanom Hospital
THAILAND



11 year-old
Streamline® PCR Cabinet
Songkhla Aquatic Animal Health
Research Center
THAILAND



11 year-old
Labculture® Biological
Safety Cabinet
Taiwan National Health Research Institute
TAIWAN

8 year-old

Streamline® Biological Safety Cabinet
Faculty of Medical Technology, Rangsit University
THAILAND



8 year-old

Airstream® Biological
Safety Cabinet
Kuang Chuan Dairy Co., Ltd.
TAIWAN



ESCO TRIVIA

2014

Esco BSCs during the resurfacing of the Black Death.

On July 16, 2014, Bubonic plague resurfaces in China. One hundred fifty-one (151) residents have been placed in isolation at four quarantine sectors in parts of a city in northwestern China.

Researchers in Yumen, Gansu Province have used Esco Biological Safety Cabinets as they fight against the reemergence of the disease.

Source: <https://www.buzzfeednews.com/article/nicolasmadin-amora/black-death-plague-surfaces-in-china-and-forces-government-t#3442404>



Early 80's

More than 30 Years of service rendered by Esco's laminar flow cabinets

Applied Agricultural Resources Sdn. Bhd (AAR) has been using Esco's laminar flow cabinets since the early 1980's and had purchased more than 100 units to support their research in tissue culture. Robustness, reliability and convenience are only few of the many benefits that AAR still enjoys after more than 30 years of continued service that these laminar flow cabinets provide.

AAR has emerged as a leading tropical plantation crop research center since its establishment in July 1986. It advises over 260,000 hectares of oil palm, rubber and cocoa estates in Peninsular Malaysia, Sabah, Sarawak and Indonesia. It utilizes the latest research findings, innovations and technological advances in crop science and information technology.

2013

Esco cabinets used in Cancer Research at the University of Massachusetts, Amherst

University of Massachusetts life science research has been installed with Biological Safety Cabinets, Animal Transfer Stations, and other airflow products in 2013.

The laboratory of Kathleen Arcaro from the veterinary science department has 2 Labculture® Class II Type A2 Biosafety Cabinets installed. With a broad interest in Environmental Toxicology, their research focuses on the role of the estrogen receptor plays in the development of breast cancer.

Specifically, the 10 members of the laboratory are examining the role that dietary compounds may inhibit the receptor in the



7 year-old Biological Safety Cabinets
University of Massachusetts, Amherst

estrogen pathway. Eva Brown, researcher in the Arcaro Lab, very please with Esco cabinets said:

“They are very high quality. There were professionally installed and serviced by a very talented team. We are extremely pleased with the ease of use and reliability that these cabinets provide. In addition, the units are extremely quiet and when working in a hood for any period of time, this is quite beneficial to the scientist.”

Esco cabinets aiding *in vitro* propagation of orchids at the Hark Orchids USA

Hark Orchids USA has 60 units of 4ft. customized Esco Horizontal Laminar Flow Cabinets installed in 2013. These cabinets are at Hark’s state-of-the-art orchid propagation and cultivation facility in Kalamazoo, Michigan, the first overseas facility of Hark Orchids in the US.

Hark is headquartered in Germany with some 333 laminar flow cabinets being used in their five state-of-the-art laboratories. Mass production of orchids is achieved through *in vitro* propagation using meristems also known

as clones. *In vitro* propagation involves placing plant cuttings on a culture medium under sterile conditions. Over the years, Hark has developed a tested and proven set of procedures to provide the highest level of quality and yield, and these are achieved with the help of Esco’s Laminar Flow Cabinets.

Superior work zone sterility, high equipment reliability and ability to build in unique features in the cabinets are the key factors for Hark’s selection of Esco laminar flow cabinets. Hark was also impressed with Esco’s ability to integrate components such as glass bead sterilizers, plastic wrap holders, bar code scanners, side tables and drawers.



7-year old Horizontal
Laminar Flow Cabinets
Hark Orchids USA
Michigan, USA

2014

70 BSCs distributed to TB laboratories in the Philippines

The world, through United Nations, is committed to eradicate tuberculosis by 2030. Tuberculosis (TB), a disease caused by *Mycobacterium tuberculosis*, affects 25% of the world's population and kills five thousand everyday according to the World Health Organization (WHO).

In the Philippines, TB is a major public health problem which accounts to 5.1% of total deaths. Hence, TB control is one of the specific health targets of the Department of Health (DOH). Hospitals all over the country are in collaboration with the DOH to diagnose, treat, and contain TB.

In line with this, DOH distributed 70 units of Streamline® Biological Safety Cabinets to 64 TB laboratories of selected district government hospitals in the country. The DOH and laboratories' efforts coupled with Esco's reliable, durable, and safe BSCs solidify the country's plan to manage and contain the disease.



6 year-old
Streamline®
Biological Safety
Cabinets
Various TB Laboratories,
District Government Hospitals
PHILIPPINES





2020

IAEA chose Esco Cabinets

The International Atomic Energy Agency (IAEA) headquartered in Vienna, Austria, is providing support to countries all over the world through an IAEA technical cooperation project. This project was approved in 2019 and was set up to provide response to the increasing requests of Member States for assistance in addressing outbreaks of diseases - Ebola, Avian Flu, Zika-, as well as to cope to the effects of natural disasters.

Since the emergence of COVID-19, IAEA has been delivering detection equipment which includes real-time RT-PCR machines and kits, laboratory reagents and consumables, PPEs, as well as laboratory cabinets, to medical and veterinary institutions, laboratories and diagnostic facilities around the world.

Esco cabinets including Airstream® Class III Biological Safety Cabinets, Airstream® Class II Biological Safety Cabinets and Airstream® PCR Cabinets, are chosen by the IAEA and distributed to different facilities.

To date, a total of 490 Esco cabinets are ordered dedicated to 125 countries. Some installed cabinets are now being used by the scientific community to address the increasing demand to rapidly detect and better manage COVID-19.

Source: <https://www.iaea.org/newscenter/news/iaea-provides-over-100-countries-with-covid-19-detection-equipment>



**Airstream® Class III
Biological Safety
Cabinet
Recipient of IAEA Technical
Cooperation Project
Dr. Jose N Rodriguez Memorial
Hospital
PHILIPPINES**

2020

COVID-19 Response

Today, the world has seen one of the most widely spread diseases in the history. With several unknowns about the SARS-CoV-2, the research community is working double time and needs facilities that will keep them protected.



Likewise, the spread of COVID-19 in a healthcare setting requires proper facilities in containing the disease.

In response, Esco donated a Labculture® Biological Safety Cabinet to the CDC system of Hubei and 2 more units to The First Affiliated Hospital of Guangzhou Medical University, to provide additional support in research and help meet the emergency requirements in the beginning of the pandemic.

Numerous Centers for Disease Control and Hospitals chose Esco to be part of their research process. Esco's biological safety cabinet has been featured in various news and media outlets that tackles COVID-19. This shows that through any pandemic, Esco equipment are safe, reliable and trusted.

COVID-19 Products

Through the years, Esco has worked with various scientific communities, and faced several challenges in the fields of research, academe, diagnosis, and even outbreaks. These past experiences prepared us in responding to every situation with diligence.

During the COVID-19 pandemic, we have taken all-hands-on-deck approach in dealing with this global health situation. And within a short period of time, we have been able to design and manufacture products that can help in TRACE, TEST and TREAT method.




Airborne Infection Isolation Room (AIIR) Technology
Modular negatively-pressurized isolation rooms for COVID-19 positive individuals



COVID-19 Mobile Diagnostic Labs and Containerized Isolation Medical Centres
Esco's Turnkey Medical Solutions That Can Be Rapidly Deployed To Help Fight The Virus Threat



COVID-19 Swab Booths
The Safe and Efficient Way to Enhanced Mass Diagnosing of COVID-19- PUs; and ensuring personnel and environment protection validated containment systems



Integrated Solutions
Different turnkey treatment center schemes for pandemic preparedness and response to emerging healthcare needs

Today will be tomorrow's yesterday. What the future holds remain untold. But one thing remains, Esco was, is and will continue to improve lives through science.

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