



# CO-PAC

**CERTIFIED BY  
ISO 9001:2015**



**CLEAN ROOM**



**COLD ROOM**



**ELECTRICAL SYSTEM**



**AIR CONDITION &  
VENTILATION SYSTEM**



**HUMIDITY  
CONTROL ROOM**



**SPRINKLER SYSTEM**



# ABOUT COMPANY



## CO-PAC ENGINEERING CO.,LTD

**CO-PAC GROUP WAS ESTABLISHED IN 2002** and is managed by a team of highly experienced engineers specializing in air conditioning systems, electrical systems, and clean room & cold room solutions. Over the years, we have expanded our services to include maintenance solutions for clean rooms, humidity-controlled rooms, and cold rooms, ensuring optimal performance and efficiency for our clients.



CHILLER



INSTALL CHILLER



COLD ROOM SYSTEM



CLEAN ROOM



ELECTRICAL TRANSFORMER  
INSTALLATION



HUMIDITY CONTROL  
SYSTEM



SPRINKLER SYSTEM

## 2007

**Co-Pac Group** has expanded its operations by opening a branch office in **Bo Win, Sriracha, Chonburi** to be closer to customers and deliver faster service. Additionally, the company has launched a new department dedicated to the sales of air conditioner spare parts and electronic appliances, ensuring comprehensive and timely service for our valued customers.



MDB INSTALLATION



# AIR CONDITIONING & VENTILATION SYSTEM



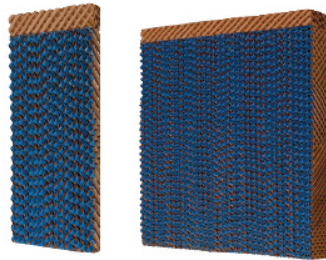
**AIR CONDITIONING**



**CHILLER**



**VENTILATION FAN**



**CEL PAD**



**COOLING**



**CHILLER INSTALLATION**



**VENTILATION SYSTEM**



**AIR CONDITIONING SYSTEM**



**VENTILATION SYSTEM**

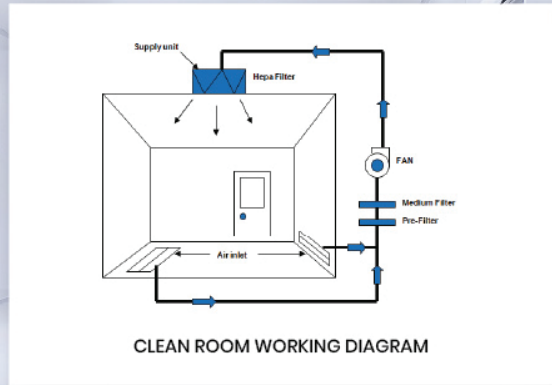


**AHU INSTALLATION**

**Co-Pac Engineering Co., Ltd.** has a dedicated design team that provides expert advice on system applications and improvements tailored to various needs. We specialize in the installation of split air conditioning systems, water pipe systems, and chillers, with a team of experienced engineers overseeing every step of the process. Our installations strictly adhere to the standards set by the Engineering Institute of Thailand, ensuring precision, efficiency, and safety compliance.



The diagram illustrates the airflow in a clean room. Air is drawn from the room through an 'Air inlet' at the bottom. It then passes through a 'FAN' and a series of filters: 'Pre-Filter', 'Medium Filter', and 'HEPA Filter'. The filtered air is then distributed through a 'Supply unit' at the top, which has arrows pointing down into the room. The room has a door and an 'Air inlet' at the bottom. The diagram is labeled 'CLEAN ROOM WORKING DIAGRAM'.



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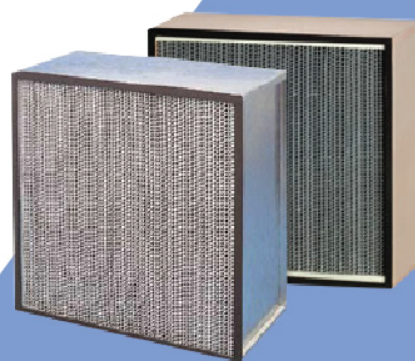
Class	Maximum Particles/m <sup>3</sup>						FED STD 209E equivalent
	≥01 µm	≥0.2 µm	≥0.3 µm	≥0.5 µm	≥1 µm	≥5 µm	
ISO 1	10	2					
ISO 2	100	24	10	4			
ISO 3	1,000	237	102	35	8		Class I
ISO 4	10,000	2,370	1,020	352	83		Class II
ISO 5	100,000	23,700	102,000	3,520	8,320	293	Class 100
ISO 6	1,000,000	237,000	102,000	35,200	8,320	2,930	Class 1,000
ISO 7				352,000	83,300	2,930	Class 10,000
ISO 8				3,520,000	832,000	29,300	Class 100,000
ISO 9				35,200,000	8,320,000	293,000	Room Air

[illegible]

**HELPA-FILTER**



**PRE-FILTER**



**MEDIUM-FILTER**





# CLEAN ROOM SYSTEM



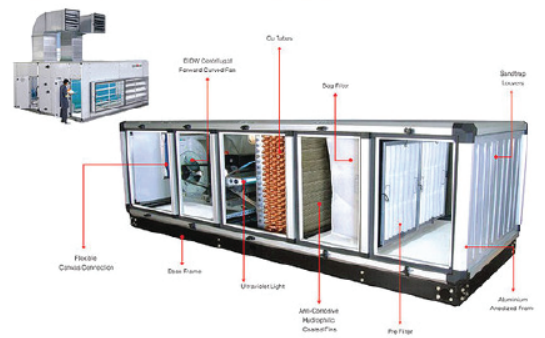
CLEAN ROOM

## WHAT IS CLEAN ROOM?

**Clean room** is a room or enclosed area where the ambient environment is controlled such as Impurity particles, temperature, air pressure, humidity, air flow patterns, vibration, light and microbial organisms.



CLEANROOM FOR MEDICINE ROOM



CLEANROOM AHU DIAGRAM

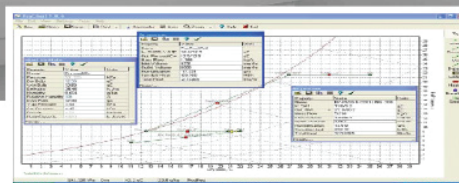
## HUMIDITY CONTROL ROOM



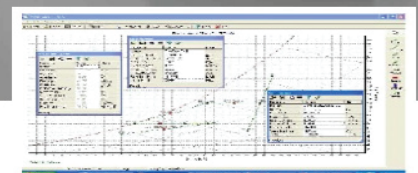
**HIGH QUALITY SERVICE  
FROM CO-PAC ENGINEERING CO., LTD.**



PROGRAM RUN AROUND COIL



P-H DIAGRAM FOR RAINY-SUMMER SEASON



P-H DIAGRAM FOR WINTER SEASON

**CAREL**



ACTIVE TEMPERATURE / HUMIDITY



# COLDROOM SYSTEM



# COLD ROOM SYSTEM



## CO-PAC ENGINEERING CO.,LTD.

a specialized company in cold storage whether the temperature is lower than  $-70^{\circ}\text{C}$  or a higher temperature. We have an experienced team of installation equipment and acceptable price that customers are satisfied.

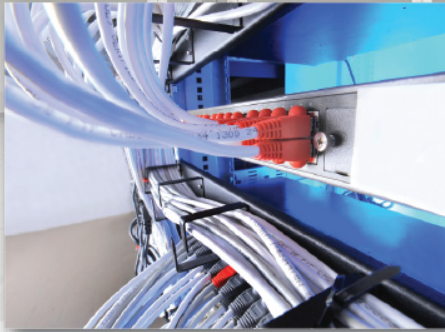




# ELECTRICAL SYSTEM



ELECTRICAL CONDUIT  
INSTALLATION



FIBER OPTIC CABLE  
INSTALLATION



FIRE ALARM SYSTEM  
INSTALLATION



MDB  
INSTALLATION



ELECTRICAL TRANSFORMER  
INSTALLATION



INDUSTRIAL ELECTRICAL SYSTEM  
INSTALLATION

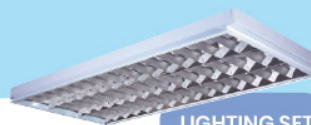


## CO-PAC ENGINEERING CO.,LTD.

More than 20 years with experienced  
electrical engineers and staff

### HIGH QUALITY EQUIPMENT

- **ELECTRICAL WIRE:** PHELS DODGE, THAI YAZAKI, BANGKOK
- **CIRCUIT BREAKER:** ABB, S-D, MITSUBISHI
- **LIGHTING:** X-TRABRITE
- **ELECTRICAL CONDUIT:** MITSUBISHI, PAT



LIGHTING SET



CIRCUIT  
BREAKER



LOAD CENTER



MDB CABINET





# PROJECT REFERENCE

## • MAIN POWER BK4

AVERY DENNISON (THAILAND) CO., LTD.



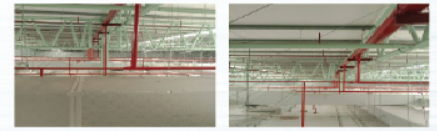
## • CHILLER INSTALLATION

VALEO AUTOMOTIVE (THAILAND) CO., LTD.



## • SPRINKLER SYSTEM

DCH AURIGA (THAILAND) CO., LTD.



## • AHU REPLACEMENT

N.O.K. INDUSTRY (THAILAND) CO., LTD.



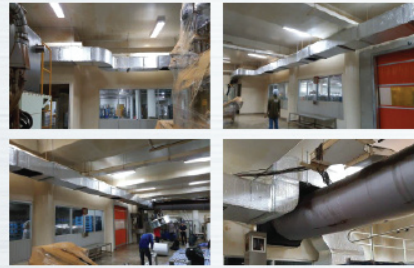
## • HALL F2 ASSEMBLY / AIR CONDITIONING

POWERTECH ENGINE ASSEMBLY CO., LTD.



## • RETURN DUCT

KHAOSHONG INDUSTRY 1979 CO., LTD.



## • NEW CHILLER 100HP

DANONE (THAILAND) CO., LTD.



## • VENTILATION SYSTEM

BERLI JUCKER PUBLIC CO., LTD.



## • CLEAN ROOM INSTALLATION

KORACH INDUSTRY CO., LTD.



## • ELECTRICAL / AIR CONDITION / CLEAN ROOM

COMPLETE-PHARMA CO., LTD.



## CLIENTS



SCI Electric Public Company Limited  
บริษัท เอสซีไอ อิเล็คทริค จำกัด (มหาชน)

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