

# **BROCHURE**





# **ABOUT PVCK**

Vietnam-Korea Petroleum Industrial Gas Joint Stock Company (PVCK) is established in 2017 as a cooperation of R&D Chemical Limited Company (Korea) and Mien Trung Petroleum Services and Trading Joint Stock Company.

Located at Chau Duc IP, Ba Ria-Vung Tau, our factory covers on the area of over 40.000 m² and facilities in producing all kind of Refrigerant Gases, Blowing Agent, and Fire Extinguishing Agent. We are professional manufacturer of various kind of refrigerant gases in Vietnam made by Korean technology. Our main products are Eco-friendly. Refrigerant Gases such as R134a, R404A, R407C, R507, R600a, R32, R410A, R290... Which are high quality and safe for usage as well as saving the environment. Our products are not only produced by Viet Nam experienced engineers team but also strictly tested on quality by AHRI standard.

















# **OUTSTANDING NUMBERS**

01

The first and only refrigerant manufacturer in Vietnam.

02

Modern production line with advanced technology come from **Korea**. Operated by Viet Nam experienced engineer and expert team.

150

More than 150 domestic and foreign enterprises, partners, and customers have cooperated with PVCK.

5000

More than 5000 products sold in the first year.

40000

The most modern refrigerant production plant in Viet Nam with an area of 40,000 m<sup>2</sup>.



























# **CEO MESSAGE**

Dear Partners and Customers,

Proud to be a pioneer in supplying industrial gas and ancillary products to the refrigeration industry with Vietnamese brands to refrigeration industry in global market. PVCK is proud to bring the quality products at reasonable price.

Modern factory and production line from Korea combined with a team of enthusiastic and experienced engineers from Vietnam, PVCK is committed to being able to fully and consistently meet market demand in terms of quality and product origin.

With the spirit of discipline, and the desire to bring Vietnamese products to the world, we always listen and maintain our reposibility in bringing value to customers.

PVCK would like to thank for attention of our Partners anh Customers.

Công ty Cổ Phần Khí Công Nghiệp Dầu Khí Việt Hàn

James Po

# PVCK ORIENTATION 2021

# VISION

2025: Vietnam's first refrigerant gas factory achieves Top 5 manufacturers leading in Southeast Asia.

2026: To become a market-leading refrigerant supplier in Viet Nam and have a great position in the world market.

2030: Top 5 international refrigerant suppliers.





Always uphold the spirit of "COOPERATION FOR DEVELOPMENT", Vietnam Korea Petroleum Company always attaches great importance to all cooperation relationships with customers and partners. The desire to bring the best quality products, clear origin and respect for partners is the top principle that Vietnam Korea Petroleum is always aiming for.



# **MISSION**



High quality and perfect service is our commitment and mission. Long-term cooperation and sustainability is the core of our business for

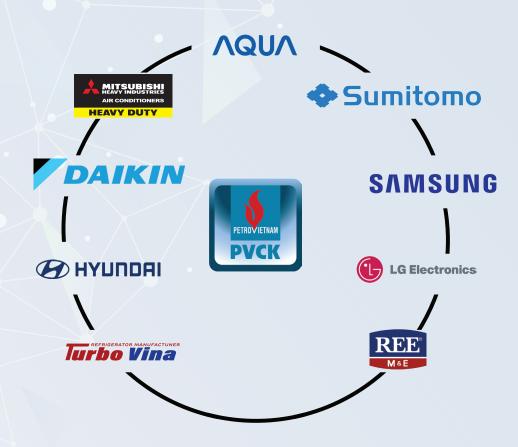
# **PRODUCT PORTFOLIO**



#### **HVAC INDUSTRY SUPPLIER**



#### **STRATEGIC PARTNERS**



# **R404A**



R404A is a mixed refrigerant of HFC-125 (44%), HFC-143a (52%) and HFC-134a (4%), designed to replace R502 for application in refrigeration systems working in medium and low temperatures.

GWP	ODP	Purity	Toxicity	Flammable
3922	0	≥ 99,9 %	None	None

#### **Applications**

Used as refrigerant in civil and industrial refrigeration systems such as home freezers, cold storage in supermarkets, transport of frozen goods, ...

#### Advantages

- No explosion, no destruction of ozone layer;
- High purity increases system stability and durability;
- Competitive price compared to the same products of other suppliers.

#### **Packaging**

- · Disposable cylinder: 10.9kg;
- Reusable cylinder: 80kg, 740kg;
- Iso tank 20 ~ 25 m³;
- Accept OEM production according to customer requirements.

## R134a



R134a is a HFC refrigerant, used as a replacement refrigerant for R12 in many different applications due to its thermodynamic properties similar to R12, does not destroy the ozone layer and has a GWP index (Global Warming Potential) lower.

GWP	ODP	Purity	Toxicity	Flammable	
1430	0	≥ 99,9 %	None	None	

#### **Applications**

- Alternative refrigerant for R12 in refrigeration systems working in the high and medium temperature range such as car air conditioners, centrifugal air-conditioners, residential refrigerators and heat pumps;
- Raw materials for the production of mixed refrigerants such as R404A, R407C, R413A, R417, ...;
- Air-bubble agent in the production of plastic foam materials; cleaning solvents;
- Used as compressed air in aerosols (paints, cosmetics )

#### Advantages

- Non-explosive, non-toxic, and non-destructive to the ozone layer;
- High purity increases system stability and durability;
- Competitive price compared to the same products of other suppliers.

- Can: 300g;
- Disposable cylinder: 3.4kg, 13.6kg;
- Reusable cylinder: 95kg, 950kg;
- Iso tank 20 ~ 25 m<sup>3</sup>;
- Accept OEM production according to customer requirements.

# R407C



R407C is the mixed refrigerant of three HFCs, including HFC-32 (23%), HFC-125 (25%) and HFC-134a (52%). R407C is designed to replace R22 refrigerant in residential and commercial refrigeration systems.

GWP	ODP	Purity	Toxicity	Flammable
1774	0	≥ 99,9 %	None	None

#### **Applications**

- R22 "Retrofit" replacement refrigerant for existing refrigeration systems;
- Use in new residential and commercial air conditioning systems.

#### Advantages

- No explosion, no destruction of ozone layer;
- High purity increases system stability and durability;
- · Characteristics very similar to R22;
- Competitive price compared to the same products of other suppliers.

#### Packing

- · Disposable cylinder: 11.3kg;
- Reusable cylinder: 90kg, 730kg;
- Iso tank 20 ~ 25 m<sup>3</sup>;
- Accept OEM production according to customer requirements.

# **R410A**



R410A is a mixed refrigerant of HFC-32 (50%) and HFC-125 (50%), designed to replace R22 in new residential and commercial air conditioning systems.

GWP	ODP	Purity	Toxicity	Flammable
2088	0	≥ 99,9 %	None	None

#### **Applications**

- Used as refrigerant in residential and industrial air-conditioning systems;
- Used in heat pumps.

#### Advantages

- No explosion, no destruction of ozone layer;
- Volumetric specific refrigeration capacity is much higher than R22 (HCFC-22) as well as R407C;
- High purity increases system stability and durability;
- Competitive price compared to the same products of other suppliers.

- Disposable cylinder: 2.8kg, 11.3kg;
- Reusable cylinder: 80kg, 770kg;
- Iso tank 20 ~ 25 m<sup>3</sup>
- Accept OEM production according to customer requirements.

# **R507**



R507 is a mixed refrigerant of HFC-125 (50%) and HFC-143a (50%), used as an alternative to R502 in low and medium temperature refrigeration applications. R507 is such a high Global Warming Potential that it is listed as a green house gas.

GWP	ODP	Purity	Toxicity	Flammable
3985	0	≥ 99,9 %	None	None

#### **Applications**

- Refrigerant used in commercial refrigeration systems such as display cabinets, refrigeration systems, ice rinks, ...;
- Used in heat pumps.

#### Advantages

- No explosion, no destruction of ozone layer;
- High cooling efficiency compared to R-134a;
- High purity increases system stability and durability;
- As an isotropic mixture, it can be loaded from a liquid or vapor phase;
- Additional charge for leaky systems is possible;
- The price is competitive compared to the same product of other suppliers.

#### Packing

- Disposable cylinder: 11,3kg
- · Reusable cylinder: 80kg, 740kg;
- Iso tank 20 ~ 25 m<sup>3</sup>;
- Accept OEM production according to custome requirements.

# **R290**



R290 (propane) is a refrigerant of the hydrocarbon group with the advantage of being friendly with the environment. R290 is used as a refrigerant in new refrigeration and air-conditioning systems.

GWP	ODP	Purity	Toxicity	Flammable
< 3	0	≥ 99,9 %	None	High

#### **Applications**

- Refrigerants in residential and commercial refrigeration and air-conditioning systems;
- Raw materials for the production of mixed refrigerants such as R436A / B, R433A,...;
- Used as compressed air in aerosols (paints, cosmetics...)

#### Advantages

- Environmentally friendly, non-toxic;
- High cooling efficiency;
- High purity increases system stability and durability;
- Competitive price compared to the same products of other suppliers.

- · Disposable cylinder: 5.5kg;
- Reusable cylinder: 40kg, 380kg;
- Iso tank 20 ~ 25 m<sup>3</sup>;
- Accept OEM production according to customer requirements.

# **R32**



R32 is a HFC refrigerant, used to replace the R410A in new refrigeration and air conditioning equipment.

G	WP	ODP	Purity	Toxicity	Flammable
6	575	0	≥ 99,9 %	None	Medium

#### **Applications**

- Refrigerants in residential and industrial refrigeration and air-conditioning systems;
- Raw materials for the production of mixed refrigerants such as R410A, ...

#### Advantages

- Does not destroy the ozone layer, relatively low GWP compared to R410A;
- High cooling efficiency;
- High purity increases system stability and durability;
- Competitive price compared to the same products of other suppliers.

#### Packing

- Disposable cylinder: 3kg, 10kg;
- Reusable cylinder: 75kg, 700kg;
- Iso tank 20 ~ 25 m<sup>3</sup>;
- Accept OEM production according to customer requirements.

# R600a



R600a (iso-butane) is a refrigerant belonging to the hydrocarbon group with the advantage of being environmentally friendly. R600a is used as an alternative refrigerant to R12 and R134a in many applications for many new refrigeration equipment.

GWP	ODP	Purity	Toxicity	Flammable
	0	≥ 99,9 %	None	High

#### **Applications**

- Refrigerant used in residential and commercial refrigeration equipment such as refrigerators, refrigerators, freezers, ... new generation;
- Raw materials for the production of mixed refrigerants such as R436A / B, R422D, ...
- · Used as compressed air in aerosols (paints, cosmetics..

#### Advantages

- Environmentally friendly, non-toxic;
- High cooling efficiency compared to R134a;
- High purity increases system stability and durability;
- About 50% charge compared to R134a in refrigeration system with the same capacity;
- Competitive price compared to the same products of other suppliers.

- Can: 120g
- Disposable cylinder: 6.5kg
- Reusable cylinder: 40kg, 430kg;
- Iso tank 20 ~ 25 m³
- Accept OEM production according to customer requirements.

# **PRODUCT PORTFOLIO**



#### **AUTOMOBILE ANCILLARY INDUSTRY**



#### **Applications:**

Used to lubricate compressors in car air conditioning systems.

#### **Advantages:**

- Non-explosive, non-toxic, and non-destructive to the ozone layer;
- High purity increases system stability and durability;
- Competitive price compared to the same products of other suppliers.

- · Disposable cylinder: 13.6kg;
- Accept OEM production according to customer requirements.









TổNG CỤC TIỀU CHUẨN ĐO LƯỚNG CHẤT LƯỢNG
DIRECTORATE FOR STANDARDS, METROLOGY AND QUALITY
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Số: 295N2.19ĐG

Ngày : 17/5/2019

#### THÔNG BÁO KÉT QUẢ GIÁM ĐỊNH TECHNICAL INSPECTION REPORT

- Đơn vị yêu cầu giám định: Công ty Cổ phần Khí Công nghiệp Dầu khí Việt Hàn Client : Vietnam Korea Petroleum Industrial Gas Joint Company
- 2. Địa chi : Lô 18, đường Đ02,KCN Châu Đức, xã Nghĩa Thành, huyện Châu Đức, tỉnh Bà Rịa- Vũng Tàu, Việt Nam
  - Address :Lot 18, D02, Chau Duc IP, Nghia Thanh ward, Chau Duc district, Ba Ria-Vung Tau province, Vietnam
- 3. Tên hàng hóa yêu cầu giám định: Khí gas lạnh
- Declared name of good : Refrigerants

  4. Số lượng mẫu gửi giám định : 01 mẫu (01 chai)
- 4. Số tượng màu gưi giani tiện 1. vi nhau (vi thiai)
   Number of sample : Ol sample (Ol cylinder)
   5. Tên hàng hóa yêu cầu giám định/ mô tâ : Mẫu chứa trong chai kim loại để trong thùng caton, bên ngoài thùng có in chữ Refrigerant 600a.

  Sample name/ description : Sample was co
- : Sample was contained in metal cylinder packaged in caton box and marked Refrigerant 600a.

  6. Nội dung yêu cầu giám định : Thử nghiệm các chỉ tiêu theo tiêu chuẩn AHRI 700-2015-
- Standard for Specification for Fluorocarbon Refrigerants.

  Inspection request : Test the sample quality according to AHRI 700-2015- Standard for Specification for Fluorocarbon Refrigerants.
- Giấy yêu cầu và nhận thẩm định/giám định số: 295N2.19ĐG ngày 08/5/2019 Registration number :
- Kết quả giám định : Xem kết quả giám định tại trang 2/2 : See inspection results on pages 2/2 Inspection results
  - Nét quả giám định nêu trên chi có giả trị đối với mẫu do khách hàng giti đến
     Khôngđược trích/sao một phần Thống bào kết quả giám định này nêu không được sự đồng
    ý bằng văn bàn của Trung tầm Kỹ thuật 3.
     The Report pertains only to the sample submitted to QUATEST3
     This Certificate shall not be reproduced except in full, without written approval of
    QUATEST3.

GIÁM ĐỊNH VIÊN INSPEÇTOR

KT. GIÁM ĐÓC PHÓ GIÁM ĐÓC GUDEPUTY DIRECTOR Mai Văn Sủng

Trang 1/2 Page

TổNG CỤC TIÊU CHUẨN ĐO LƯỜNG CHẤT LƯỢNG QUATEST 3® TRUNG TÂM KỸ THUẬT TIÊU CHUẨN ĐO LƯỜNG CHẤT LƯỢNG 3 QUALITY ASSURANCE AND TESTING CENTER 3

Số: 219N2.19ĐG/3

#### THÔNG BÁO KÉT QUẢ GIÁM ĐỊNH TECHNICAL INSPECTION REPORT

- Đơn vị yêu cầu giám định : Công ty Cổ phần Khí Công nghiệp Dầu khí Việt Hàn
   Client : Vietnam Korea Petroleum Industrial Gas Joint Company
   Địa chi : Lô 18, đường Đ02, KCN Châu Đức, xã Nghĩa Thành, huyện Châu Đức, tinh
  - Bà Rịa- Vũng Tàu, Việt Nam Address :Lot 18, D02, Chau Duc IP, Nghia Thanh ward, Chau Duc district, Ba Ria-Vung Tau province Vietnan
- 3. Tên hàng hóa yêu cầu giám định: Khí gas lạnh Declared name of good : Refrigerants
  4. Số lượng mẫu gửi giám định : 01 mẫu (01 chai)
- Number of sample : 01 sample (01 cylinder)
- 5. Tên hàng hóa yêu cầu giám định/ mô tả : Mẫu chứa trong chai kim loại để trong thùng caton, bên ngoài thùng có in chữ Refrigerant R407c
- Sample name/ description : Sample was contained in metal cylinder packaged in caton box and marked Refrigerant R407c
- Nội dung yêu cầu giám định: Thừ nghiệm và đánh giá theo tiêu chuẩn AHRI 700-2015-Standard for Specification for Fluorocarbon Refrigerants. Inspection request : Test and evaluate the sample quality according to AHRI 700-2015-Standard for Specification for Fluorocarbon Refrigerants.
- Giấy yêu cầu và nhận thẩm định/giám định số: 219N2.19ĐG ngày 05/4/2019
- : Xem kết quả giám định tại trang 2/2 8. Kết quả giám định :See inspection results on pages 2/2
- Két quá giám định nêu trên chí có giá trị đổi với mẫu do khách hàng giá đến
  -Khôngđược trích/sao một phần Thông bào kết quá giám định này nêu không được sự đồng
  ý bằng văn bàn của Trung tầm Kỹ thuật 3.
  -The Report pertaiss only to the sample submitted to QUATEST3
  -This Certificate shall not be reproduced except in full, without written approval of
  OUATEST 4.

GIÁM ĐỊNH VIÊN INSPECTOR St Đoàn Trần Cương

KT. GIÁM ĐÓC PHÓ GIÁM ĐÓC DEBUTY DIRECTOR Mai Văn Sủng

Trang 1/2 Page



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DIRECTORATE FOR STANDARDS, METROLOGY AND QUALITY
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Số: 219N2.19ĐG/4

## THÔNG BÁO KÉT QUẢ GIÁM ĐỊNH TECHNICAL INSPECTION REPORT

- 1. Đơn vị yêu cầu giám định : Công ty Cổ phần Khí Công nghiệp Dầu khí Việt Hàn
- Client : Vietnam - Korea Petroleum Industrial Gas Joint Cor 2. Địa chỉ
- : Lô 18, đường Đ02, KCN Châu Đức, xã Nghĩa Thành, huyện Châu Đức, tỉnh Bà Rịa- Vũng Tàu, Việt Nam
- Address :Lot 18, D02, Chau Duc IP, Nghia Thanh ward, Chau Duc district, Ba Ria Vung Tau province, Vietnam.
- 3. Tên hàng hóa yêu cầu giám định: Khí gas lạnh
- 3. Tên hàng hóa yêu câu giám định: Khi gas tạnn
  Declared name of good : Refrigerants
  4. Số lượng mẫu gửi giám định: 01 mẫu (01 chái)
  Number of sample : 01 sample (01 cylinder)
  5. Tên hàng hóa yêu cầu giám định: nó tả: Mẫu chứa trong chai kim loại để trong thùng caton, bên ngoài thùng có in chữ Refrigerant R134a
- Sample name/ description : Sample was contained in metal cylinder packaged in caton box and marked Refrigerant R134a
- Nôi dung yôu cầu giấm định: Thừ nghiệm và đánh giá theo tiêu chuẩn AHRI 700-2015-Standard for Specification for Fluorocarbon Refrigerants.
   Inspection request: Test and evaluate the sample quality according to AHRI 700-
- 2015- Standard for Specification for Fluorocarbon Refrigerants.
  7. Giấy yêu cầu và nhận thẳm định/giám định số : 219N2.19DG ngày 05/4/2019 Registration number
- : Xem kết quả giám định tại trang 2/2 Inspection results :See inspection results on pages 2/2
- Kết quá giám định nêu trên chi có giá trị đối với mẫu do khách hàng giá đến Khôngđược trích/sao một phần Thông báo kết quá giám định này nếu không được sự đồng ý hãng văn bán của Trung tầm Kỹ thuật 3. This Report pertains only to the sample submitted to QUATEST3 This Certificate shall not be reproduced except in full, without written approval of QUATEST3. Ghi chú:
- QUATEST 3/

GIÁM ÐINH VIÊN Đoàn Trần Cương

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#### ISOCERT INTERNATIONAL INSPECTION AND CERTIFICATION BODY

"HARMONIZATION AND PROSPERITY"

No. 8935293400387-OMS

THIS IS TO CERTIFY THAT THE QUALITY MANAGEMENT SYSTEM OF

#### VIETNAM - KOREA PETROLEUM INDUSTRIAL GAS **JOINT STOCK COMPANY**

Address: Lot 18, Road D.02, Chau Duc Industrial Zone, Nghia Thanh Commune, Chau Duc District, Ba Ria-Vung Tau Province, Vietnam.

Has been assessed and found to conform with the requirements of the following standard:

**STANDARD** 

#### **ISO 9001:2015**

**SCOPE CERTIFIED:** 

Producing refrigerant gas.

Certification : 18.Sep.2019 Issue date : 18.Sep.2019 : 17.Sep.2022 Details in decision no : 18091908/QD-ISOCERT



ISO 9001:2015



ISOCERT INTERNATIONAL CERTIFICATION AND INSPECTION JOINT STOCK COMPANY

# **OUR ADVANTAGES**

"Customer satisfaction is our pride"



#### Manufacturer in Vietnam.

PVCK provide products in HVAC industry and Automobile industry.



#### **Expansion** capacity

Ability to increase production upon request.



#### **Technical** support

We provide two ways of support: Meeting online and phone call by our experts (by English and Japanese)



#### Complaint handling process

Receive and handle complaints quickly, ensuring the interests of each customer.

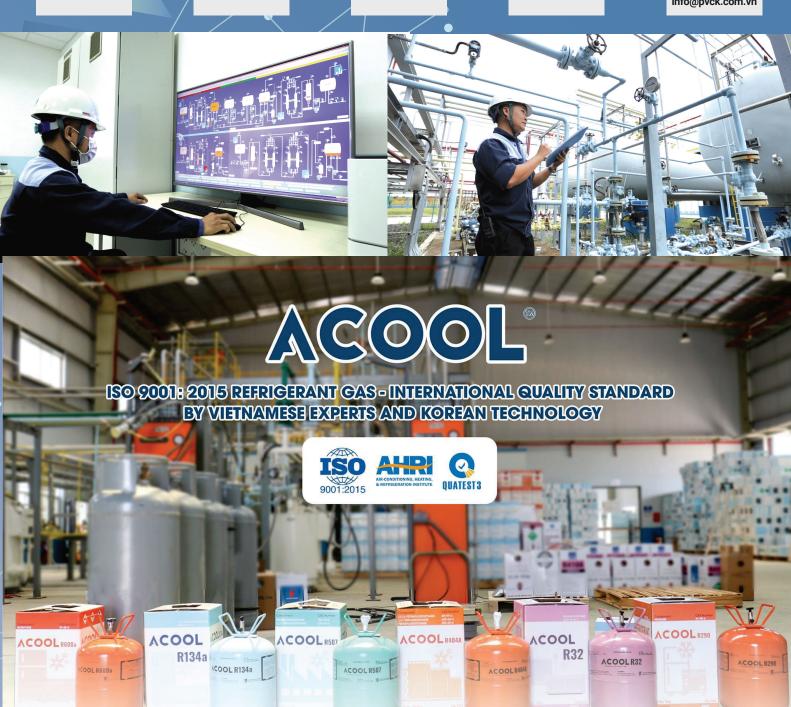


#### 24/7 customer care service

The customer care team supports 24/7. Hotline:

+84 2873 0405 88 Mail:

info@pvck.com.vn



# **DOMESTIC TYPICAL PROJECTS**

#### **FLC Grant Hotel Ha Long**

PVCK is the refrigerant gas supplier if for DAIKIN air conditioning system in this project.



#### **ICT Thanh Hoa**



PVCK is the refrigerant gas supplier of for TOSHIBA air conditioning system in this project.

# **DOMESTIC TYPICAL PROJECTS**

#### The Metropole Thu Thiem



PVCK is the refrigerant gas supplier for SAMSUNG air conditioning system in this project.

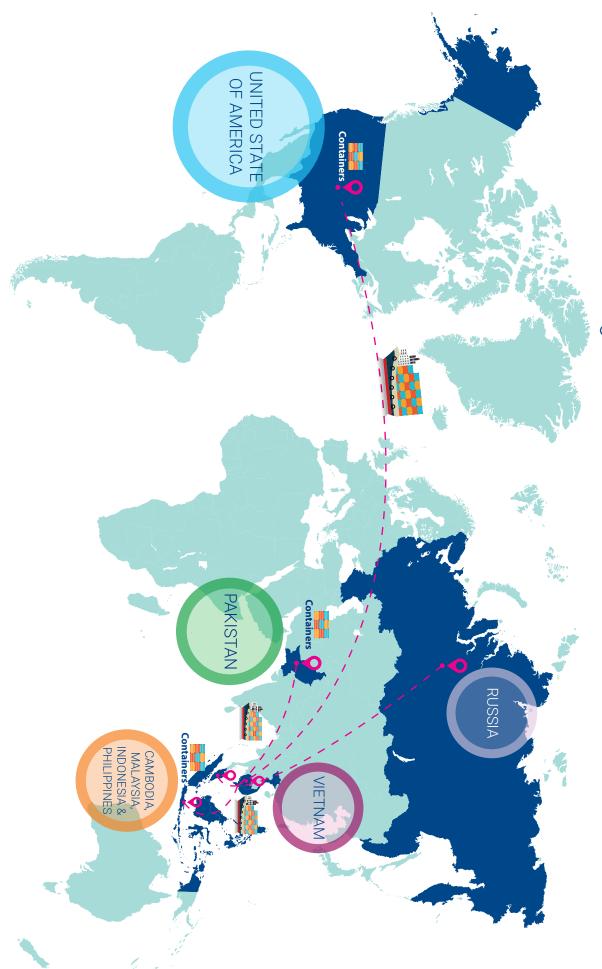
#### Malibu Resort Hoi An

PVCK is the refrigerant gas supplier I for LG air conditioning system in I this project.



# INTERNATIONAL EXPORT

"Vietnamese wisdom, reaching out to the world"





# VIET NAM VIMF EVENT IN DONG NAI



Doctor. Ho Quang Nhu Technical director



# CUSTOMER CONFERENCE AT CHAU DUC BA RIA - VUNG TAU



