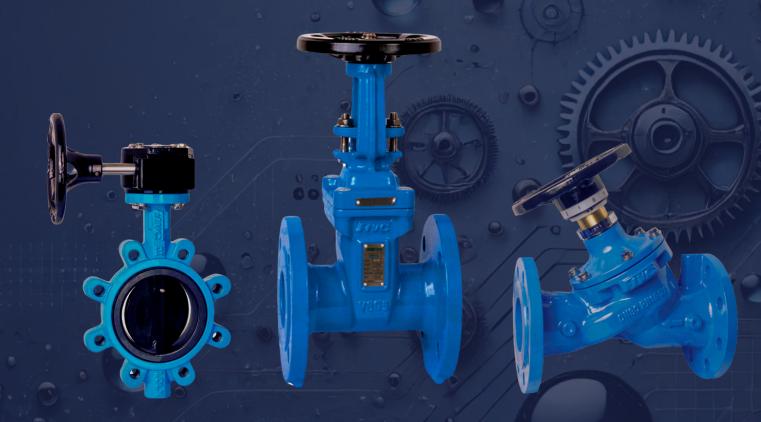


# VALVES

PRECISION-ENGINEERED FOR A

SUSTAINABLE TOMORROW



# PRECISION | RELIABILITY | INNOVATION

- Static General Valves
- Motorized Butterfly Valves and 2-way Valves
- Accessories and Fittings

**OUR EXPERIENCE YOUR BENEFIT** 

# Table Of CONTENTS Contents What we Do - The Group A. Contact Information B. About us **Business Area and Application Industries** A. Business Area B. Why FlowCon **Visionary Projects** A. Visionary Projects | Industries B. Main Applications **Certifications and Approvals** 07 A. ISO Certifications B. WRAS approvals **Key Milestones** A. 1994 – Invention of PICV B. FlowCon IVC Broadening Horizons C. The Green Transformation

Table Of Contents	CONTENTS
09	The DNA of FlowCon  A. The world's first PICV
10	Powering Progress Together  A. Uniting Businesses for Innovative Setups
wco.	Core Beliefs and Principles  A. Vision  B. Mission  C. Values
12	Product Index Overview  A. Overview of Product Portfolio
15	Article   Butterfly Valves for Data Centers A. Empowering Datacenters to be Cool
16	Case-Studies   Projects Projects across industries

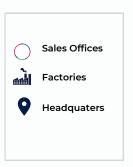
# WHAT WE DC

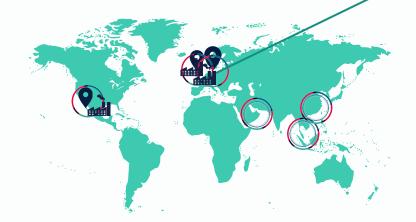


www.flowconivc.com

#### FlowCon IVC

TrafikCenter Allé 17 4100-Slagelse Denmark





# The FlowCon Group

FlowCon

FlowCon

Fio Control

GRISWOLD CONTROLS

#### **DENMARK**

#### FlowCon International Valve Company A/S FlowCon International ApS

+Trafikcenter Allé 17, 4200-Slagelse, Denmark +45 6915 2500

Trafikcenter Allé 17, 4200-Slagelse, Denmark +45 58 56 08 38

#### **ENGLAND**

#### FloControl Ltd

Units 10-12, Evolve @ Vision Park, Whittle Wy, Burnley BB12 0AW, United Kingdom +44 1282 564425

#### **USA**

#### **Griswold Controls**

1700 Barranca Pkwy, Irvine, CA 92606. USA +1 949-559-6000

# Group of **Innovation**

The FlowCon Group is a global network of renowned flow control manufacturers and installers with operations in Denmark, the U.S., and England.

Owned by Danish industrialist Biarne Ibsen. the FlowCon Group consists of four companies: FlowCon International ApS, Griswold Controls LLC, FlowCon IVC, and FloControl Ltd.

60 Years' experience is Your BENEFIT

Our operations are divided into three key areas: dynamic pressure- and temperature-independent valves, hydronic balancing valves and prefabricated assemblies, and static and motorized valves with accessories.

As a valued member of the FlowCon Group, FlowCon IVC offers an extensive portfolio of static valves, complementary accessories, and specialized services, delivering tailored solutions to meet diverse customer needs. s and accessories for a complete solution



# Business Area and system application industries

It is the right choice

- **✓** Isolation
- ✓ Regulation
- ✓ Noise reduct.
- ✓ Measurement
- **✓** Filtration
- ✓ Air discharge
- √ Vibration reduction

# WHY FLOWCON?

**Efficiency** ↑

**Cost-savings** 

**Energy-savings** 

**Green transformation** 









# Simplicity in Complexity

We simplify your complex project with essential valves and accessories for a complete solution

# **VISIONARY PROJECTS**



# **MAIN APPLICATIONS**



#### Potable Water

A wide range of WRAS- and DVGW approved products for potable water applications.



#### Oil and Gas

With an extensive selection of butterfly valves, our solutions ensure smooth and efficient distribution of these critical natural resources.



## HVAC

From chilled water applications to heating and cooling systems, we provide valves for a seamless solution.



#### Plumbing

For plumbing systems, our valves and accessories guarantee reliable performance and long-lasting durability in every installation.



#### Irrigarion Systems

To ensure reliable irrigation systems, we provide a comprehensive range of valves and accessories, designed for efficient operation and long-lasting performance.

#### Filtration

To maintain media quality and extend equipment lifespan, we offer a wide range of strainers that capture debris, ensuring smooth and efficient application systems.

# **CERTIFICATIONS AND APPROVALS**

# **QUALITY YOU CAN COUNT ON**



Our quality assurance process is allencompassing, covering every step from initial design to final handover:

- Careful material selection
- Precision manufacturing
- Thorough testing and quality control
- Meticulous packaging and shipping
- Professional after-sales service





Ensure the protection of public health and well-being by providing clean, safe, and reliable water for communities and industries alike through our WRAS- and DVGWapproved valve solutions.

Our valves, certified to meet the highest standards, are essential in maintaining the seamless operation of potable water supply systems, guaranteeing a continuous flow of pristine water.



# **KEY MILESTONES**

1994

# THE WORLD'S FIRST PICV

Bjarne Ibsen, the Danish inventor of the world's first Pressure-Independent Control Valve (PICV) in 1994, went on to establish the FlowCon Group, now a global leader in innovation, sustainability, and healthier environments.





# FLOWCON IVC BROADENING HORIZONS

With Marc Techen, Managing Director, at the helm, FlowCon IVC expanded its range to include general valves, motorized valves, and essential accessories. This strategic growth enabled FlowCon IVC to serve a broader range of industries by offering seamless solutions for HVAC, plumbing, and specialized industrial applications, reinforcing its reputation as a trusted global provider.

# 2024 GREEN TRANSFORMATION

At the core of our operations is a steadfast commitment to our Green Responsibility and Sustainability Goals. These goals guide us toward system optimization and minimizing environmental footprints. Torben Ibsen, FlowCon International's CEO, receiving 2024 year's theme award: 'The Owner-Managers' Green Transformation' for the Zealand area.



# THE DNA OF FLOWCON THE WORLD'S FIRST PICV



# The PICV A Revolutionary Invention

The PICV quickly gained recognition for its ability to deliver:

- Stable flow control under varying pressure conditions.
- Improved energy performance, contributing to greener, more sustainable building solutions.
- Reduced system complexity, eliminating the need for separate balancing and control valves.

Today, Ibsen's innovation remains a cornerstone of modern hydronic systems, with FlowCon leading the way in PICV technology. The concept continues to evolve, ensuring that buildings worldwide benefit from efficient, reliable, and cost-effective flow control solutions.



# FlowCon's Pioneering PICV Solutions for Data Centers

In the mid-1980s, Danish inventor Bjarne Ibsen revolutionized the HVAC industry by developing the concept of the Pressure-Independent Control Valve (PICV).

At a time when conventional valves struggled to maintain stable flow rates under fluctuating system pressures, Ibsen identified a critical need for a solution that could ensure precise and consistent control of flow and temperature, regardless of pressure variations.

Driven by his innovative mindset and engineering expertise, Ibsen introduced the world's first Pressure-Independent Control Valve, a groundbreaking product that transformed how HVAC systems operate.

This invention not only improved energy efficiency by maintaining optimal flow rates but also enhanced comfort and reduced operational costs in heating and cooling applications.

# POWERING PROGRESS TOGETHER

Uniting Businesses for Innovative Setups and Collective Growth

It is built to specification

Key components |

FlowCon SM PICV range, sizes 50-250mm, flow rates 1.48-76.8 l/s, with a programmable actuator with optional Fail Safe & BACnet.

The FlowCon Energy Fit System is designed to reduce flow to the required minimum to save pump energy and release extra capacity.

FlowCon IVC general-purpose valves.





# CORE BELIEFS AND PRINCIPLES

# **VISION**

Our vision is to be the world's leading supplier of sustainable, innovative, and high-quality valve solutions for HVAC and other key industries, delivering maximum efficiency, reliability, and costeffectiveness.

# **MISSION**

We strive to deliver best-in-class valve solutions and services that contribute to a sustainable future, ensuring access to clean energy and resources through efficient flow control.

As experts in advanced valve technology and design, we ensure reliable flow performance, superior media quality, optimized energy use, and maintenance efficiency for HVAC and industrial systems.

# **VALUES**

# We build on the Objective

We are committed to delivering the highest standards of optimization, comfort, safety, and durability for all valve solutions across residential, agricultural, horticultural, and industrial markets.

# Believe in Diversity and Respect

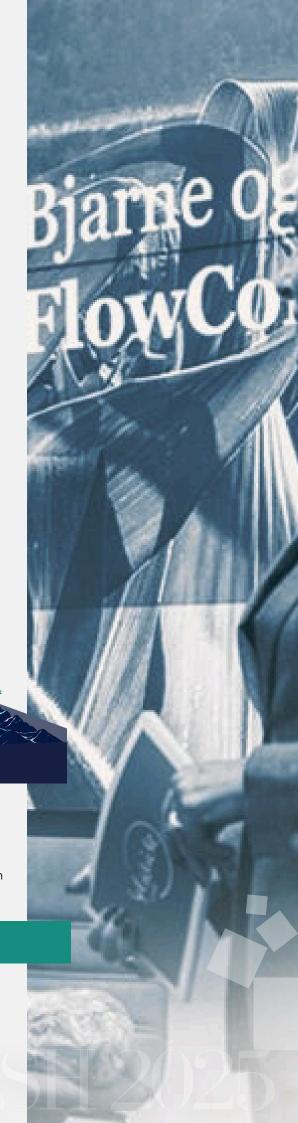
A strong, diverse global workforce empowers us to make better decisions, strengthen our organization, and enhance our collective value. We foster an inclusive culture where everyone's voice matters.

# Act for Sustainability and Social Responsibility

We are dedicated to improving quality of life and preserving natural resources. Our solutions promote healthier environments by contributing to application systems that minimize risks of contamination and disease.

#### **Ensure Credibility and Legality**

In every business interaction, we honor our commitments, uphold agreements, and strictly comply with legal and regulatory standards. Trust and integrity are at the core of our operations.



# PORTFOLIO INDEX











DN 15 - 300















**Globe valves** DN 15 - 400





**Suction Diffusers** DN 50x50 - 600x600







# PORTFOLIO INDEX













Foot valves DN 15 - 300













Orifice plates DN 50 - 1200









# PORTFOLIO INDEX







Syphons DN 15 Trumpet or D-form



Hose bibcocks DN 15 - 25







Digital Measuring Computer Includes 4300+ valves



Pressure gauges
DN 15



Thermometers
DN 15
Industrial V-line or bourdon



Pressure reducing valves DN 15







Ċ

**PT plugss** DN 6

# SYSTEM OPTIMIZATION



# **Energy Consumption and Efficiency**

Cooling systems are responsible for approximately 40 % of a data center's power consumption. Implementing precision-engineered FlowCon butterfly valves can lead to substantial energy savings. They enable precise control over media flow rates, reducing the power to circulate the cooling agent.

# **Enhancing Operating Environments**

Accurate management of cooling parameters is crucial for reducing the likelihood of server equipment failures caused by overheating. Utilizing FlowCon solutions fosters a stable and controlled environment, minimizing operational disruptions and optimizing the long-term performance of IT equipment, thereby extending the hardware's lifespan.





# FlowCon's Pioneering PICV Solutions for Data Centers

At the core of FlowCon's technology is an innovative design that maintains consistent flow rates despite varying system pressures. This stability is vital in data centers, ensuring precise temperature control for optimal equipment performance and energy efficiency. By maintaining constant flow, FlowCon's valves enhance cooling efficiency and reduce energy consumption.



#### Why Choose FlowCon?

FlowCon's valves can reduce cooling energy consumption by up to 30%, resulting in significant cost savings. Designed for the demanding environments of data centers, they ensure reliable and consistent operation where performance is critical.

### **Unique Features of FlowCon IVC Butterfly Valves**

Designed with high-quality rotational resilient seated discs that enable quick shut-off and precise flow control.

The selection of premium disc materials, including stainless steel, epoxy-coated ductile iron, aluminum bronze, and duplex/super duplex, enhance their suitability for even harsh environments.

This design incorporates a Ductile Iron body, various disc materials, a stainless-steel stem, and unlimited materials for the bonded liner seat. This combination of durable materials ensures the valves' reliability and longevity in demanding environments.



## **High-rise and Skyscrapers**

# CASE-STUDY

# 8 Bishopsgate London, UK

### **Building Details**

8 Bishopsgate is a 51-storey, 204-meter-tall commercial skyscraper completed in 2023. It offers 570,000 square feet of office space, retail areas, and public amenities.

### **Project Details**

• Project name: 8 Bishopsgate

• Location: London, UK

• Year of Installation: 2021/2022

• **Application**: Basement, plant rooms on floors, risers

• Contractor: Stanhope PLC

• MEP Contractor: Michael J. Lonsdale



# Innovative Features and Sustainability

8 Bishopsgate stands out for its sustainable design, incorporating low-energy systems, rainwater harvesting, and high-performance façades. Developed by Mitsubishi Estate London and Stanhope PLC, and designed by WilkinsonEyre, it earned a BREEAM 'Outstanding' rating. Located in London's financial district, it offers excellent accessibility and connectivity.





# **Commercial Buildings**

# CASE-STUDY

# Al Salem Air Force Base Kuwait

# **Building Details**

Ali Al Salem Air Base is a key military installation in Kuwait, serving as a strategic location for air operations. The base has undergone significant upgrades to enhance its operational capabilities, including improvements to infrastructure and facilities

### **Project Details**

- Project name: Al Salem Air Force Base
- Location: Kuwait
- Consultant: Dar Al-Handasah
- **Contractor:** Alghanim International Gen. Trad & Cont. Co.



### Infrastructure Upgrade

FlowCon IVC supplied valves as part of the infrastructure upgrade, ensuring efficient flow control for critical systems. The project was carried out under the supervision of consultant Dar Al-Handasah and contractor Alghanim International, ensuring compliance with military-grade standards and performance requirements.

+456915 2500
www.flowconivc.com
Trafikcenter Allé 17
DK-4200 Slagelse

Commercial buildings



# Hospitals and Healthcare Facilities

# CASE-STUDY

# Al Wakra Campus Al Maha Centre

### **Building Details**

The Al Maha Center for Children and Young Adults is a specialized healthcare facility within the Al Wakra Hospital campus. Spanning approximately 20,000 square meters, it includes six inpatient units and 13 outpatient clinic rooms, offering comprehensive medical services.

### **Project Details**

- Project Name: Al Maha Centre (AMC)
- Location: Al Wakra, Qatar
- **Application:** Chilled Water System (CHWS)
- Consultant: Gulf Consulting Group
- Main Contractor: HYUNDAI Engineering & Construction
- Supplied Products: Suction diffusers and triple-duty valves



### **Healthcare System Support**

FlowCon IVC supplied suction diffusers and triple-duty valves for the chilled water system (CHWS) to ensure efficient cooling and operational reliability. The project was executed by Hyundai Engineering & Construction under the supervision of Gulf Consulting Group.





# **Commercial Buildings**

# CASE-STUDY

# Qatar Media Studios & Offices

### **Building Details**

The project includes a two-storey building housing media studios and administrative offices, located at Wadi Al Sail, Doha. Designed for future expansion, it serves as a hub for media production and administrative activities.

## **Project Details**

- Project Name: Qatar Media Studios & Administration Offices
- Location: Doha, Qatar
- Application: Plumbing system
- Consultant: Gulf Consulting Group
- Main Contractor: Al Madar Contracting
- **Supplied Products:** Isolation, filtration, and regulation valves



### **Media Production Facility**

FlowCon IVC supplied isolation, filtration, and regulation valves to support the plumbing system. The project was managed by Al Madar Contracting WLL, with Gulf Consulting Group as the consultant.





**Data Centers** 

# CASE-STUDY

# Data Center Facility Pure

**Qatar** 

#### **Building Details**

This data center facility is part of Qatar's expanding digital infrastructure. Designed to support advanced cloud computing and Al applications, it plays a key role in the nation's technological growth.

### **Project Details**

• Project Name: Data Center Facility Pure

• Location: Qatar



#### **High-Performance Cooling**

FlowCon IVC supplied critical flow control valves to ensure precise temperature regulation, contributing to the facility's energy efficiency and uptime reliability.



# High-rise and Skyscrapers

# CASE-STUDY

# **Avant Apartments**

## Melbourne, Australia

### **Building Details**

Avant Apartments is a 55-storey residential highrise located in Melbourne's central business district. Completed in 2018, it offers 456 residential units and amenities, including a swimming pool, gym, and communal spaces.

## **Project Details**

• Project Name: Avant Apartments

• Location: Melbourne, Victoria, Australia

• Year of Installation: 2018

• Contractor: Ellis Airconditioning



### **Residential Comfort**

FlowCon IVC supplied valves to support the building's HVAC system, ensuring optimal climate control. The project was executed by Ellis Airconditioning, ensuring high-quality installation and performance.





# High-rise and Skyscrapers

# CASE-STUDY

# **One Tower**

## Melbourne, Australia

### **Building Details**

One Tower is a modern commercial building designed to offer premium office space. The tower features advanced infrastructure for enhanced occupant comfort.

## **Project Details**

Project Name: One TowerYear of Installation: 2021

• Owner: APJ

• Supplied Valves: Balancing valves



#### Flow Control Solutions

FlowCon IVC provided balancing valves to ensure efficient hydronic balancing, contributing to energy-efficient building operation. The project was completed in 2021, with APJ as the owner.





### **Airports**

# CASE-STUDY

# Sultan Syarif Kasim II International Airport

Indonesia

### **Building Details**

Sultan Syarif Kasim II International Airport, located in Pekanbaru, Indonesia, serves as a key regional gateway. Recent expansions have enhanced its capacity and passenger experience.

## **Project Details**

- Project Name: Sultan Syarif Kasim II International Airport
- Location: Pekanbaru, Indonesia
- Year of Installation: 2019
- Owner: ALMAGALA
- Supplied Valves: Balancing valves



#### **Terminal Expansion**

FlowCon IVC supplied balancing valves to support the airport's upgraded HVAC systems, ensuring efficient temperature regulation. ALMAGALA was the project owner, with installation completed in 2019.





#### **Data Centers**

# CASE-STUDY

# Data Centre Facility (MV2) at Umm Qarn

### **Building Details**

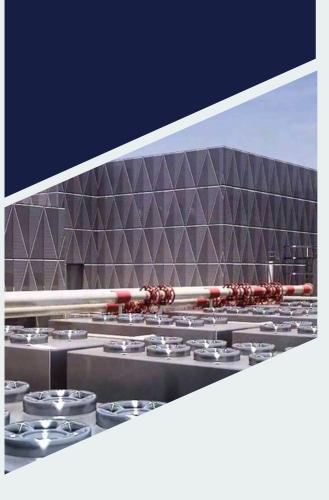
M-VAULT 2 is Qatar's first mega data center with Tier III certification. It offers state-of-the-art services, ensuring 99.98% uptime and a LEED Platinum rating for sustainability.

### **Project Details**

• Project Name: Data Centre Facility (MV2)

• Location: Umm Qarn, Qatar

Consultant: QDCClient: MEEZA



### Mission-Critical Cooling

FlowCon IVC provided valves to support the facility's chilled water system, ensuring precise temperature control for critical IT equipment. The project was overseen by QDC as the consultant and MEEZA as the client.





# **Commercial Buildings**

# CASE-STUDY

# Jakarta International Stadium (JIS)

Indonesia

### **Building Details**

Jakarta International Stadium is an 82,000-seat multi-purpose venue featuring a retractable roof. Built on a 26.5-hectare site, it aims to host international sports and entertainment events.

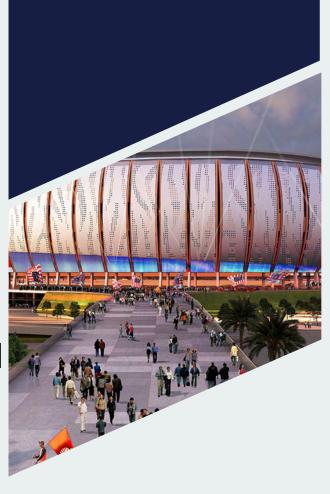
### **Project Details**

 Project Name: Jakarta International Stadium (JIS)

Location: Jakarta, IndonesiaYear of Installation: 2021

Owner: APJ

• Supplied Valves: Balancing valves



### **Sports Facility HVAC**

FlowCon IVC supplied balancing valves for the stadium's HVAC system to ensure optimal climate control. The project was completed in 2021, with APJ as the owner.





# **High-rise and Skyscrapers**

# CASE-STUDY

# Menara BRI Gatot Subroto

Indonesia

### **Building Details**

Menara BRI Gatot Subroto is a 27-storey office building located in Jakarta, offering modern office spaces and amenities for businesses.

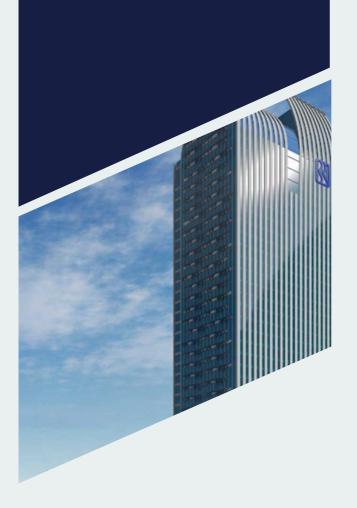
## **Project Details**

• **Project Name:** Menara BRI Gatot Subroto

Location: Jakarta, IndonesiaYear of Installation: 2019

• Owner: LUNTO

• Supplied Valves: Balancing valves



#### **Commercial Office Comfort**

FlowCon IVC provided balancing valves to ensure efficient HVAC performance, enhancing indoor climate control for office occupants.



# Railway Infrastructure

# CASE-STUDY

# Riyadh Metro

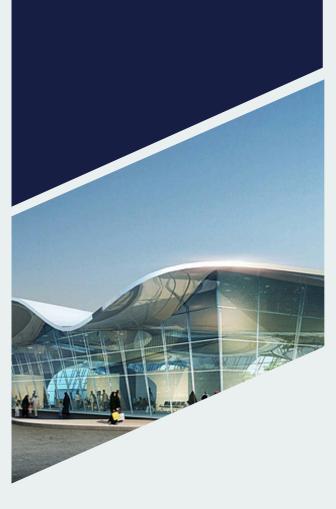
### Saudi Arabia

### **Building Details**

The Riyadh Metro is a major public transport project in Saudi Arabia, consisting of six metro lines spanning a total of 176 kilometers with 85 stations.

### **Project Details**

- Project Name: Riyadh Metro
- Location: Riyadh, Saudi Arabia
- **Application:** Chilled Water System (CHWS)
- **Consultant:** RMTC (Riyadh Metro Transit Consultants)
- Contractor: BACS (HAPCO)
- Client: Ar Riyadh Development Co.



### **Urban Transport Efficiency**

FlowCon IVC supplied valves for the metro's chilled water system, ensuring efficient cooling for station facilities and enhancing passenger comfort.





# High-rise and Skyscrapers

# CASE-STUDY

# Burj Ramla

### Saudi Arabia

### **Building Details**

Burj Ramla is a high-rise residential and commercial tower in Riyadh. It features 36 floors of premium apartments and office spaces.

## **Project Details**

- Project Name: Burj Ramla
- Location: Riyadh, Saudi Arabia
- Application: Chilled Water (CHW) & Plumbing
- **Building:** 2B + G + M + 36 Floors
- Consultant: Erga Saudi
- Contractor: First Saudi Contracting Co.
- Client: Ramla Real Estate



### **Integrated Building Solutions**

FlowCon IVC supplied valves and accessories for both chilled water and plumbing systems, ensuring efficient flow control and reliability across the tower's multiple applications.





# Hospitals and Healthcare Facilities

# CASE-STUDY

# **Sunshine Hospital**

### Australia

### **Building Details**

Sunshine Hospital is a leading healthcare facility in Victoria, providing a wide range of medical services, including emergency care, surgery, and maternity.

## **Project Details**

• **Project Name:** Sunshine Hospital

Location: Victoria, AustraliaYear of Installation: 2018

• Contractor: D&E Airconditioning



#### **Healthcare HVAC Solutions**

FlowCon IVC supplied valves to support the hospital's HVAC system, ensuring precise climate control critical for patient care and comfort.





# **Commercial Buildings**

# CASE-STUDY

# The Masar/KAAR Gateway Saudi Arabia

### **Building Details**

The Masar/KAAR Gateway is a landmark urban development project in Makkah, designed to enhance infrastructure and urban living standards.

### **Project Details**

- Project Name: The Masar/KAAR Gateway
- Location: Makkah, Saudi Arabia
- Year of Installation: 2021
- **Application:** District cooling valves (main line and branches)
- Consultant: KEO International
  - Consultants
- Contractor: Nesma & Partners



### **District Cooling Infrastructure**

FlowCon IVC supplied district cooling valves for the main line and branch systems, ensuring efficient cooling distribution across the development.

+456915 2500
www.flowconivc.com
Trafikcenter Allé 17
DK-4200 Slagelse

Commercial buildings



# Hospitals and Healthcare Facilities

# CASE-STUDY

# Hamad Bin Khalifa Medical City

Saudi Arabia

### **Building Details**

Hamad Bin Khalifa Medical City is a state-of-theart medical complex in Doha, comprising several hospitals and healthcare facilities.

### **Project Details**

- Project Name: Hamad Bin Khalifa Medical City
- Location: Doha, Qatar
- Supplied Products: Valves and accessories



# Comprehensive Medical Solutions

FlowCon IVC supplied a range of valves and accessories to support the complex's extensive medical infrastructure, ensuring reliable operation and patient comfort.



# **Commercial Buildings**

# CASE-STUDY

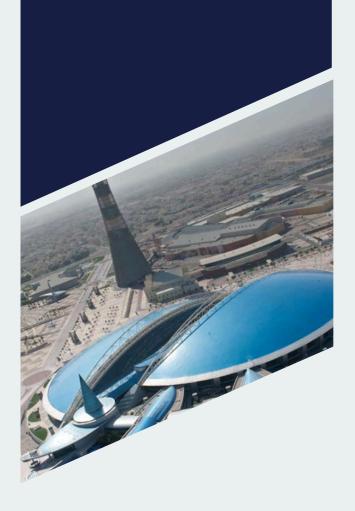
# Aspire Zone Foundation

#### **Building Details**

Hamad Bin Khalifa Medical City is a state-of-theart medical complex in Doha, comprising several hospitals and healthcare facilities.

### **Project Details**

- Project Name: Aspire Zone Foundation
- Location: Doha, Qatar
- **Building:** New Energy Centre Network & New Energy Transfer Station Rooms
- Application: Chilled Water System (CHWS)
- Consultant: EGEC
- Client: Aspire Zone Foundation



### **Energy Efficiency**

FlowCon IVC supplied valves to support the chilled water system, ensuring efficient energy transfer and climate control across the complex.





# **Commercial Buildings**

# CASE-STUDY

Orangerie & Food Hall Project

# Katara Commercial Plaza

**Qatar** 

#### **Building Details**

The Orangerie & Food Hall Project at Katara Commercial Plaza is a vibrant retail and dining destination in Doha, combining modern architecture with cultural elements.

## **Project Details**

• **Project Name:** Orangerie & Food Hall Project

• Location: Doha, Qatar

• Consultant: KEO International

Consultants

• Client: Katara



#### **Retail & Dining Comfort**

FlowCon IVC supplied valves to ensure efficient HVAC performance, providing a comfortable environment for both shoppers and diners.

+456915 2500
www.flowconivc.com
Trafikcenter Allé 17
DK-4200 Slagelse

Commercial buildings

