



Health Care Applications

Frese Project References around the World



Efficient indoor climate control for buildings

Over 75 years experience in developing innovative flow devices has resulted in Frese becoming one of the leading suppliers of dynamic and pressure independent control valves to the healthcare market sector. Frese expertise in the application of dynamic balancing valves has helped specifiers design systems that maximise the energy saving benefits whilst simplifying the overall heating and cooling system design.

This knowledge and expertise continues to be offered throughout the design, installation and commissioning stages of a project, ensuring that the products are installed and commissioned to the correct standards to deliver the maximum benefits to the client.

Benefits to Hospitals	<ul style="list-style-type: none"> + Comfortable indoor climate for staff and patients + Minimal maintenance of flow devices resulting in minimal disruption + Silent operation of products ensures no noise disruption or inconvenience + Lower energy consumption when used with variable speed pumps 	
Benefits to the designer	<ul style="list-style-type: none"> + Simplified system design + Design conditions achieved 	<ul style="list-style-type: none"> + No complicated control valve Kv calcs + BIM components availability
Benefits to the installer	<ul style="list-style-type: none"> + Easy to install + Fewer components to install + Simplified commissioning 	
Benefits to the user	<ul style="list-style-type: none"> + Minimal maintenance + Energy efficient interaction with variable speed pumps + Comfortable indoor climate + Silent operation 	
Applications	<ul style="list-style-type: none"> + Fan coil units + Plate Heat Exchangers + Chilled beams systems + Radiant panels systems + Radiator circuits 	<ul style="list-style-type: none"> + Air handling units + Chillers + Underfloor heating systems + Fan coil and heater batteries + Plant room applications

Product Overview

Pressure Independent Control Valves



Frese OPTIMA Compact

Frese OPTIMA Compact

Frese COMBIFLOW
6-way PICV

Frese OPTIMIZER 6-way

Frese EVA

DN10-DN50

DN50-DN300

DN15-DN20 (DN25)

DN15-DN25

DN15-DN25

Dynamic Flow Limiting Valves



Frese SIGMA Compact

Frese SIGMA Compact

Frese ALPHA

Frese ALPHA Wafer

Frese ALPHA Cartridges

DN15-DN50

DN50-DN300

DN15-DN50

DN50-DN1000

For all our ALPHA valves

Manual Balancing Valves



Frese STBV VODRV

Frese STBV VODRV

Frese STBV FODRV

Frese STBV FODRV

Frese STBV DRV

DN15-DN50

DN65-DN500

DN15-DN50

DN65-DN300

DN15-DN500

Differential Pressure Control Valves



Frese PV Compact

Frese PV Compact

Frese PV-SIGMA
Compact

Frese PV-YDF

Frese DPRV

DN15-DN50

DN15-DN200

DN15-DN50

DN25-DN300

DN15-DN32

Bypass Units

MODBUS System Valves for Circulation of Domestic Hot Water



Frese MODULA

Frese MODBUS System

Frese CirCon

Frese TemCon

Frese ALPHA Sanitary

DN15-DN25

DN10-DN200

DN15-DN20

DN15-DN20

DN15-DN20



EUROPE

Hull Oncology, Yorkshire, UK

Croatia

CO Clinic : Frese OPTIMA Compact & Actuators, Frese STBV Range & Frese PV Compact

Denmark

Copenhagen University Hospital : Frese STBV VODRV & Frese PV Compact
 Esbjerg Hospital : Frese OPTIMA Compact, Frese SIGMA Compact, Frese ALPHA
 Herlev Hospital: Frese PV-SIGMA Compact, Frese STBV Range & Frese SIGMA Compact
 Horsens Hospital : Frese OPTIMA Compact
 Kolding Hospital : Frese OPTIMA Compact
 Odense University Hospital : Frese OPTIMA Compact
 KU Biocenter : Frese OPTIMA Compact
 Næstved & Slagelse Hospitals : Frese SIGMA & Frese OPTIMA
 Skovvang Plejecenter (Elder care) : Frese ALPHA
 Vendsyssel Hospital : Frese OPTIMA Compact & Frese STBV
 Aabenraa Hospital : Frese OPTIMA Compact, Frese ALPHA Wafer
 Aalborg Hospital : Frese SIGMA Compact, Frese PV Compact & Frese STBV VODRV
 Aarhus University Hospital : Frese OPTIMA Compact & Frese PV Compact

France

Regional & University Hospital Center (CHRU), Nancy : Frese OPTIMA Compact

Germany

Asklepios Klinik, Altona: Frese SIGMA Compact
 Helios Klinik, Wiesbaden : Frese OPTIMA Compact, Frese PV Compact & Frese STBV VODRV
 Klinikum am Plattenwald : Frese ALPHA
 Klinikum Ibbenbüren : Frese OPTIMA Compact
 Medzentrum Schramberg : Frese SIGMA Compact
 Schönklinik Bad, Aibling : Frese SIGMA Compact
 Uniklinikum, Augsburg : Frese OPTIMIZER 6-way
 Uniklinikum, Essen : Frese ALPHA

Malta

Mater Dei Hospital : Frese SIGMA Compact & Frese STBV FODRV

Poland

Greater Poland Children's Health Center, Poznan : Frese OPTIMA Compact
 Invasive Medicine Center, Gdansk: Frese TemCon with actuator, Frese ALPHA, Frese OPTIMA Compact & Frese PV Compact (featured)

Portugal

Clinica Joaquin Chaves, Porto: Frese OPTIMA Compact & Actuators
 Hospital dos Lusíadas, Benfica / Alcantara : Frese OPTIMA Compact & Actuators
 Hospital in Azores : Frese OPTIMA Compact & Frese ALPHA

Turkey

Adana Hospital : Frese OPTIMA Compact & Frese ALPHA
 Bursa Hospital : Frese OPTIMA Compact
 Eskisehir Hospital : Frese OPTIMA Compact
 GESTEKNIK : Frese ALPHA
 Iketelli Hospital YGAP project : Frese OPTIMA Compact
 Iketelli Hospital : Frese OPTIMA Compact, Frese ALPHA Cool Cartridges & Frese ALPHA

United Kingdom

Aintree Hospital, Merseyside : Frese SIGMA Compact
 Good Hope Hospital, Midlands : Frese OPTIMA Compact & Frese ALPHA
 Hull Oncology, Yorkshire : Frese ALPHA
 Lewisham Hospital, London : Frese ALPHA, Frese PV & Frese OPTIMA Compact
 Pilgrim Hospital, Lincolnshire : Frese OPTIMA Compact
 Pinderfield Hospital & Pontefract Hospital, Yorkshire : Frese EVA
 Queen Elizabeth Hospital, London : Frese OPTIMA Compact
 Queen Victoria Hospital, Midlands : Frese ALPHA
 Southport Hospital, Merseyside : Frese ALPHA, Frese SIGMA Compact & Frese EVA
 St James Oncology, Yorkshire : Frese ALPHA
 CAHMS, Leicester : Frese OPTIMA Compact, Frese STBV Range & Frese PV Compact

FEATURED



Invasive Medicine Center, Gdansk - Poland

Invasive Medicine Center is the most modern in the Tri-City and one of the most modern hospital complexes in the country.

The Center will have 311 beds, 15 operating rooms. Surgery, urology, ophthalmology, ENT and transplantation will fit on 54,000 sq m.

There will also be a hospital pharmacy, cafe and shop. A helicopter landing pad is located on the roof.

Solutions with Frese Products:

Domestic hot water installations

Installation of technological heat for supplying ventilation units, heating and ventilation units, air curtains

Chilled water installation, for controlling fan coils

Cooling system for powering ventilation units

Central heating installation

Products:

Frese TemCon with actuator, Frese ALPHA, Frese OPTIMA Compact & Frese PV Compact



King's

مستشفى كينجز كوليدج لندن
King's College Hospital London

مستشفى
London

Middle East

Kings College Hospital, Dubai, UAE

Bahrain

Bahrain Defence Force Hospital :
Frese OPTIMA Compact & Frese MODULA

Egypt

Kian Hospital :
Frese OPTIMA Compact & Frese PV Compact

Kuwait

Al Adan Hospital :
Frese OPTIMA Compact flanged valves for AHU Application
& Frese MODULA and insulation boxes for FCU

Al Salam Hospital : Frese MODULA

Lebanon

Christ du Roi Hospital : Frese OPTIMA Compact

Oman

Ideal Med Hospital : Frese OPTIMA Compact

Qatar

Al Maha Children's Hospital : Frese OPTIMA Compact

Saudi Arabia

Jizan Hospital : Frese OPTIMA Compact

KFMC : Frese OPTIMA Compact

King Salman Hospital : Frese OPTIMA Compact

Saudi German Hospital : Frese MODULA

United Arab Emirates

AL Qassimi Hospital, Sharjah : Frese ALPHA

Cleveland Clinic, Abu Dhabi : Frese OPTIMA Compact (featured)

Emirates Speciality Hospital :
Frese OPTIMA Compact provided high flow on smaller sizes of valves,
Frese MODULA helped the contractor for faster installation

Kings College Hospital, Dubai : Frese OPTIMA Compact

FEATURED



Cleveland Clinic, Abu Dhabi

Cleveland Clinic Abu Dhabi is a world class healthcare facility which is an extension of the US based Cleveland Clinic's model of care.

It's a 23-acre facility with five clinical floors, three diagnostic and treatment levels and 13 floors of critical and acute inpatient units.

Cleveland Clinic Abu Dhabi has six Centers of Excellence in the following Institutes: Heart & Vascular, Neurological, Digestive Disease, Eye, Respiratory, and Critical Care.

Other Institutes include Surgical Subspecialties, Medical Subspecialties, Emergency Medicine, Anesthesiology, Pathology & Laboratory Medicine, Imaging, and Quality & Patient Safety.

In all, more than 40 medical and surgical specialties are represented.

Solution:

We supplied 3,200 Frese OPTIMA Compact to the Cleveland Clinic project.

They were fitted into FCU and AHU applications.




ST JOHN OF GOD
BERWICK Hospital

ASIA PACIFIC

St. John of God Hospital, Berwick, Australia

Australia

Adelaide Medical Nursing School, Adelaide: Frese OPTIMA Compact
 Blue Cross Aged Care, Vermont : Frese ALPHA
 Bolten Clarke Nursing Home : Frese OPTIMA Compact & Frese MODULA
 Commonwealth Serum Laboratories (Anti-venum production), Melbourne :
 Frese OPTIMA Compact & Frese PV Compact
 Ego Pharmaceuticals, Braeside : Frese OPTIMA Compact
 Fiona Stanley Building R, Perth : Frese OPTIMA Compact
 Geelong Private Hospital, Geelong :
 Frese OPTIMA Compact
 Gosford Hospital, Central Coast : Frese OPTIMA Compact
 Health Innovation Building Adelaide, Adelaide :
 Frese OPTIMA Compact
 Knox Private Hospital, Wantirna : Frese OPTIMA Compact
 St John of God Hospital, Berwick : Frese OPTIMA Compact
 St Vincents Aged Care, Weribee : Frese OPTIMA Compact
 St Vincents Hospital, Weribee : Frese OPTIMA Compact
 Sunshine Coast University Hospital, Queensland :
 Frese MODULA Compact
 University of Canberra, Public Hospital, Canberra :
 Frese OPTIMA Compact
 Westmead Millenium Laboratories
 (Medical Research), Parramatta :
 Frese OPTIMA Compact & Frese MODULA
 Wyndham Medical Centre, Wyndham Vale :
 Frese OPTIMA Compact & Frese SIGMA Compact

Hong Kong

Castle Peak Hospital: ALPHA Wafer

Malaysia

Hospital Miri : Frese OPTIMA Compact

New Zealand

University of Otago Dental School, Dunedin:
 Frese OPTIMA Compac & Frese MODULA

Sri Lanka

Galle Hospital : Frese OPTIMA Compact
 Kalubovila : Frese OPTIMA Compact
 Queensbury Hospital Galle :
 Frese OPTIMA Compact

Taiwan

Taipei Medical University : Frese ALPHA

Thailand

Kasemrad Hospital Prachachuen: Frese OPTIMA Compact
 Kasemrad International Hospital: Frese OPTIMA Compact
 Phyathai 2 Hospital: Frese OPTIMA Compact
 Raumpat Chachoengsao Hospital:
 Frese OPTIMA Compact

Vietnam

Childrens Hospital, Ho Chi Minh City :
 Frese PV Compact & Frese STBV (featured)

FEATURED



Childrens Hospital, Ho Chi Minh City

Covering an area of 12ha in Binh Chanh District, Ho Chi Minh City, the facility features a state-of-art and the country's largest diagnosis and treatment space with more than 100 examination rooms.

The 1,000-bed hospital is one of those in the high-tech medical zone. The hospital includes 39 clinical and subclinical departments. It is equipped with a modern extracorporeal membrane oxygenation (ECMO) system, a hybrid operating room for cardiovascular surgeries, a magnetic resonance imaging (MRI) machine and a 256-slice computed tomography (CT) system.

In particular, in the field of paediatric oncology, it is also the first hospital with a paediatric nuclear medicine and radiation therapy department dedicated to child patients.

The hospital will receive approximately 1,000-2,000 patients a day in its initial operational scale, helping reduce overloads at other children's hospitals in Ho Chi Minh City.

It is developed with a focus on advanced techniques in paediatric presence, while collaborating with the Pham Ngoc Thach University of Medicine and the City University of Medicine and Pharmaceutics to become a training base in accordance with the policy from the health sector on the university-hospital model.

The hospital aims to improve quality of life of patients and families along with paying attention to customer services and family support.

Solution:

Frese supplied over 1,800 STBV manual balancing valves with Frese PV Compact (DPCV), which collectively deliver pressure independent flow control with very high authority at every FCU, AHU and PAU (primary air handling unit) terminal at the hospital. These terminals critically serve Ho Chi Minh Cities' children during their time of need. Frese supplied these in sizes DN20 through to DN450.



Download the Frese App

Your way to easy commissioning

Find the correct pre-setting for your dynamic balancing valves with our app.

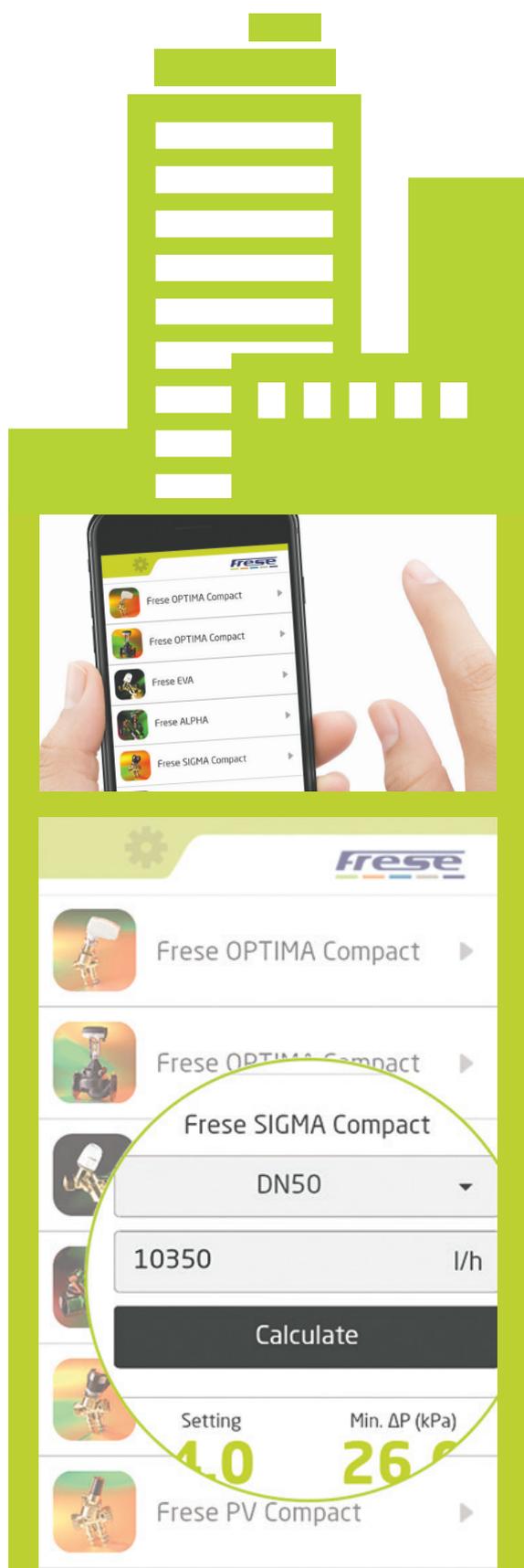
- ✓ Select the type of valve
- ✓ Enter the flow you require
- ✓ The Frese Valves app immediately calculates your valve pre-setting or your flow cartridge and the pump pressure.

Products in the app:

- Frese OPTIMA Compact
- Frese EVA
- Frese ALPHA
- Frese SIGMA Compact
- Frese PV Compact
- Frese PV-SIGMA Compact

- Frese OPTIMA
- Frese PV
- Frese PVS
- Frese S

Available in several languages:



Select valve

1



Enter flow

2



Commission

3



Download the
Frese Valves app



www.frese.eu/hvac

Denmark - Main Office

Frese A/S
Tel: +45 58 56 00 00

Germany

Frese Armaturen GmbH
Tel: +49 (0)241 475 82 333

United Kingdom

Frese Ltd
Tel: +44 (0) 1704 896 012

Turkey

Frese Eurasia DIS TIC. LTD. STI.
Tel: +90 216 580 93 60

Middle East & India

Frese Middle East & India
Tel: +44 (0)7983 634 720

Saudi Arabia

Frese Saudi Arabia
Tel: +966 5410 25 405

Australia, NZ & South Africa

Frese Asia Pacific
Tel: +61431 794 414

China

Frese Valves (Ningbo) Co., Ltd.
Tel: +86 (0)121 50809251