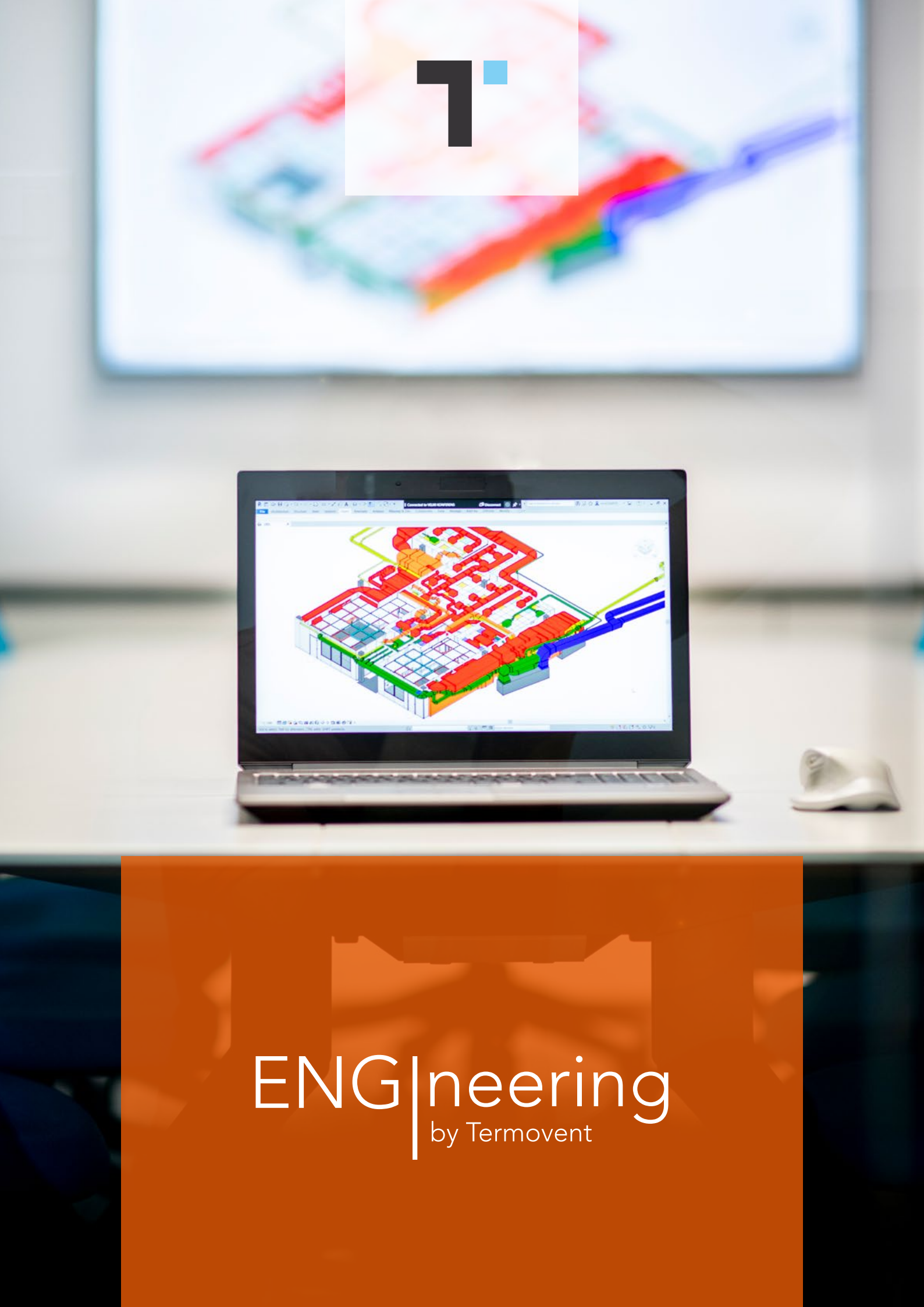


ENGineering

by Termovent

INTRODUCTION

Thanks to the main focus on clean room environment and technology, today TERMOVENT ENGINEERING is able to provide a complete solution to the clients including design, installation works, own software and validation package, from idea to qualified system, all in accordance with GMP regulations / ISO 14644-1 standard, technologies and processes.

With great knowledge and experience, as well as high level of quality and reliability of HVAC (Heating, Ventilation, Air Conditioning), BMS (Building Management System) and EMS (Environmental Monitoring System) systems as well as qualification package in demanding GMP/ISO clean room classes, TERMOVENT ENGINEERING is a strategic and trustworthy supplier to companies that base their business in clean rooms zones.

With a great reference list, good ratio of prices and quality, with own sources as well as responsible specialists dedicated to quality and success of the project, TERMOVENT ENGINEERING doesn't have an unsatisfied client today. Based on that trust, previous clients are returning, and we are gaining new ones.

TERMOVENT ENGINEERING Clients are Pharmaceutical companies, Healthcare institutions, Microelectronics industries, Battery production, but also Engineering companies.

Some of references for Engineering division are: Pfizer, Zoetis, Purna Pharmaceuticals etc.

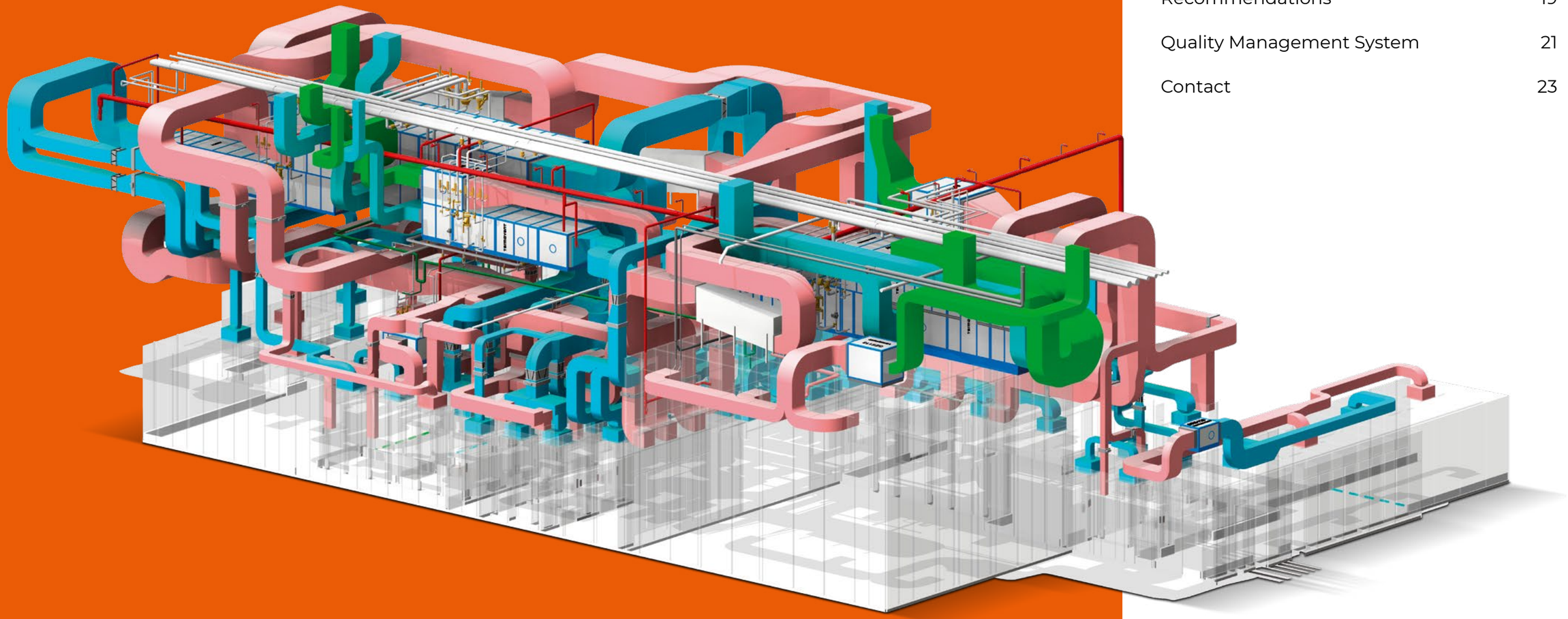
CONSULTING AND PLANNING

ENGINEERING AND DESIGN

SITE MANAGEMENT

COMMISSIONING, QUALIFICATION AND VALIDATION

HVAC
Black Utilities
Clean Piping
BMS / EMS
Cleanrooms
Validation



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CONSULTING AND PLANNING

- Familiarization with Client's Requirements and Analysis
- Documentation Package for Tendering and Execution
- HVAC Systems
- BMS / EMS Systems
- Black Utility Systems
- Clean Utility Systems
- Clean Room Modular System
- Qualification and Validation Package

ENGINEERING AND DESIGN

- Concept Design
- Basic Design
- Detailed Design
- Cost Optimization
- PLC, HMI, SCADA Application Software Design
- Project Planning and Scheduling
- Equipment Procurement Management
- Factory Simulations and Factory Acceptance Test (FAT)
- REVIT and MAGIC CAD software packages
- Health and Safety Plan

SITE MANAGEMENT

- Site Preparation
- Equipment / Material Delivery
- Sorting and Stock
- Assembly and Installation
- Construction Work
- Following of Project Execution Level
- Site Coordination with Other Contractors
- Implementation of Safety Procedures
- Quality Control and Quality Assurance
- Commissioning and Validation Phase Planning
- Budget Tracking

COMMISSIONING, QUALIFICATION AND VALIDATION

- Equipment Parameters Set-Up
- IO Signal Check
- System Start-up and Commissioning
- System HVAC Balancing
- Site Acceptance Test (SAT)
- As Built Documentation
- Qualification and Validation
- Installation Qualification (IQ)
- Operational Qualification (OQ)

PFIZER GLOBAL MANUFACTURING
Puurs, Belgium

DISHMAAN LABORATORIES
Veenendaal, Netherlands

ASPECTUS PHARMA
Skopje, North Macedonia

BILTHOVEN BIOLOGICALS
Bilthoven, Netherlands

ZOETIS
Louvain La Neuve, Belgium

TRENKER LABORATORIES
Nivelles, Belgium

PURNA PHARMACEUTICALS
Puurs, Belgium

WELLPHARMA MEDICAL SOLUTIONS
Abu Dhabi, United Arab Emirates

RASAN PHARMACEUTICALS
Sulaymaniyah, Iraq

KATOD
Novosibirsk, Russia

PHARMASYNTEZ
Bratsk, Russia

GRAND MEDICA
Novokuznetsk, Russia

SPIMACO
Riyadh, Saudi Arabia

PFIZER GLOBAL MANUFACTURING

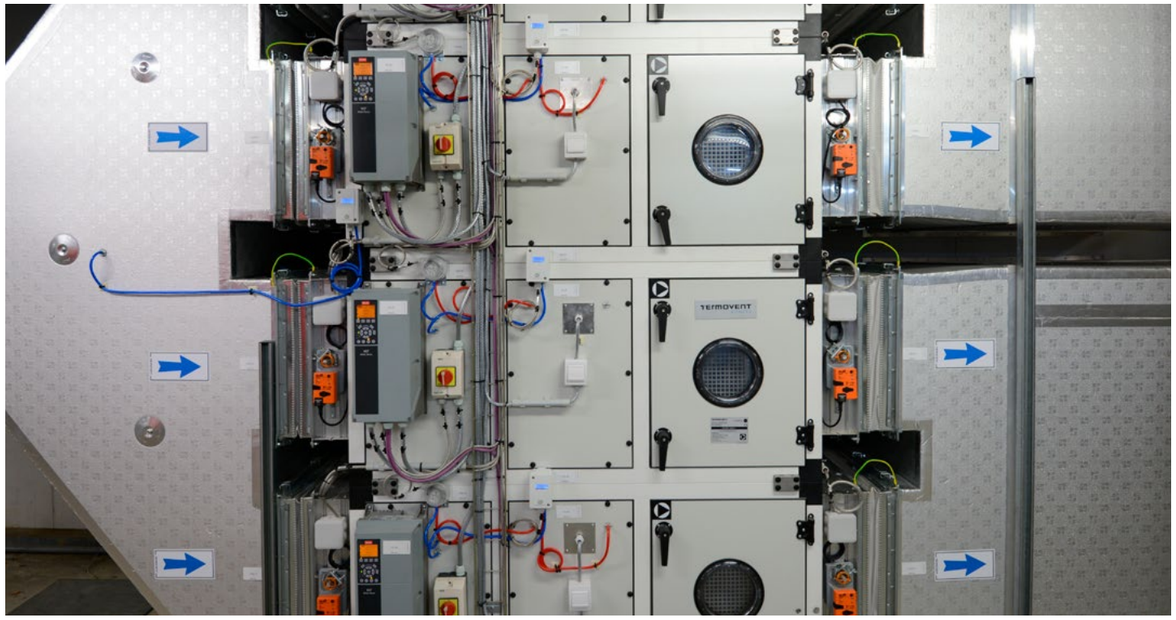
Puurs, Belgium

PROJECT:
Pilot Plant, Focus Cell 2, Formulation Boots, Flexible Cartridge Center

MISSION:
Design and installation of
HVAC ductwork with associated equipment

Room class
ISO5 / ISO6 / ISO7 / ISO8

One of worlds biggest pharmaceutical companies



ZOETIS

Louvain La Neuve, Belgium

PROJECT:
HVAC system for NGF supporting equipments and upgrade

MISSION:
Complete HVAC design, engineering, installation,
Revit design, BMS / EMS system, iFix SCADA
HVAC, EMS qualification / validation
BMS commissioning

Room class
A, B, C, D

Revamping project for 3/4 of production area completed in 6 weeks

PURNA PHARMACEUTICALS

Puurs, Belgium

PURNA
PHARMA

PROJECT:
Production & Packaging

MISSION:
HVAC design, engineering and installation
BMS system, HVAC, BMS commissioning

Room class
D, NC

First project in EU done in accordance to ATEX directive

BILTHOVEN BIOLOGICALS

Bilthoven, Netherlands

Bilthoven Biologicals
Cyrus Poonawalla Group

PROJECT:
HVAC system for IPV Manufacturing facility
in A-7 Building

MISSION:
HVAC design review, engineering, installation
HVAC qualification / validation
BMS commissioning

Room class
BSL3 laboratory, C, D, CNC, UC

BSL3 area Full welded inox ducting on the extraction with "0" leakage

PHARMASYNTEZ

Bratsk, Russia

PROJECT:
Production, delivery and installation of HVAC system's equipment for clean room environment

MISSION:
Clean room design, engineering, installation
Design, engineering, installation of complete HVAC systems
BMS / EMS system
HVAC, EMS, Clean room qualification / validation

Room class
ISO8

This project is based in Siberia, 7000 km from Termovent HQ

KATOD

Novosibirsk, Russia

PROJECT:
HVAC systems for clean room production of Night Vision Device

MISSION:
Clean room design, engineering, installation
Design, engineering, installation of HVAC systems
BMS system, HVAC, BMS commissioning

Room class
ISO5 / ISO6 / ISO7

The first ISO5 CleanRoom project for night vision equipment production

WELLPHARMA MEDICAL SOLUTIONS

Abu Dhabi, United Arab Emirates

PROJECT:
Delivery of the Control Boards, HVAC systems for The Intravenous Solutions (IV) production plant in Abu Dhabi

MISSION:
Engineering and installation of HVAC systems
BMS / EMS system, HVAC, BMS commissioning
EMS qualification / validation

Room class
C, D

UAE's first production of infusion solution

DISHMAN LABORATORIES

Veenendaal, Netherlands

PROJECT:
VDA Production Lab, Dishman

MISSION:
Design and installation of HVAC ductwork with associated equipment
HVAC commissioning

Room class
PbOEL Class 1, PbOEL Class 3

High containment cGMP laboratory

TRENKER LABORATORIES

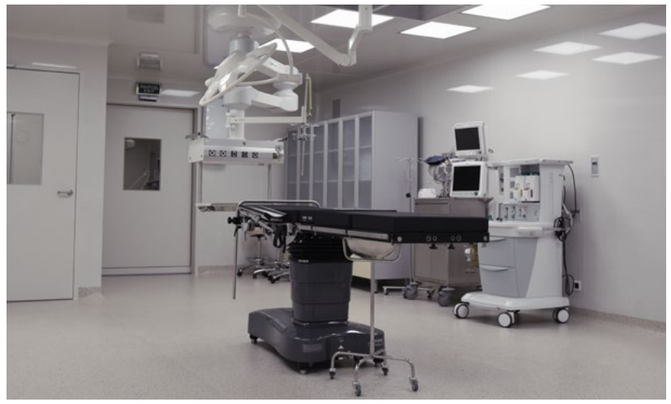
Nivelles, Belgium

PROJECT:
HVAC systems for Trenker New Laboratories

MISSION:
HVAC system engineering and installation
BMS system, HVAC qualification / validation
Warehouse temperature mapping
BMS commissioning

Room class
D, CNC, Warehouses zone

Source of hot and chilled water provided by one four-pipe heat pump



GRAND MEDICA

Novokuznetsk, Russia

PROJECT:
Complete new hospital in Novokuznetsk

MISSION:
Clean room design, engineering, installation
HVAC system engineering and installation
BMS system, HVAC qualification
HVAC commissioning

Number of operating rooms:
10 operating rooms

First purpose of the building was shopping center

Bilthoven Biologicals
Cyrus Poonawalla Group

Termovent Komerc - recommendation letter

"Termovent Komerc company from Belgrade, Serbia was working for Bilthoven Biologicals B.V. company in period 2012/2015 in next projects:

- 2012 / 2013 HVAC installation for **U3** building

For this project Termovent was responsible for delivery and installation of Air Handling Units, produced by them, sensors and air ducts with all accessories for distribution and regulation. Termovent's engineers gave us full assistance during commissioning and start up this project.

- 2015 – HVAC installation for **G7** building

For this project Termovent did main design of HVAC installation, delivery and installation of HVAC equipment, produced by them, ducting, piping with all accessories, balancing air and water side, commissioning, IQ/OQ, measuring, and start up.

- 2015 – HVAC installation for **A7** building – BSL3 area.

For this project Termovent is responsible for all activities regarding general design reviewing, delivery and installation of HVAC equipment, which is made by them, installation of ducting with elements for air distribution and regulation, electrical cabinets for power and automation, cabling, signal checking, software for BMS, balancing air and water side, commissioning, IQ/OQ, measuring, and start up.
Contract value is more than 2.300.000,00 euro.

In these projects Termovent Komerc has done all tasks: designing, FAT in their factory, installation, commissioning, IQ/OQ, and start up, in time, without remarks and in a really excellent quality.

We are very satisfied with Termovent's work and organization.
This company has our full recommendation."

Bilthoven Biologicals
Cyrus Poonawalla Group
P.O. Box 457
3720 AL BILTHOVEN
10-12-2015

PURNA
PHARMA

Puurs, 15 October 2013

Purna Pharmaceuticals NV
Rijksweg 17
2870 Puurs
Belgium

We hereby confirm that company Termovent-Komerc, for needs of our pharmaceutical factory deduced a complete HVAC system, with responsive IQ, OQ documentation, commissioning and fitting requested parameters.

HVAC system is generated according to valid GMP demands.

All work is generated according to Contract No's: 05.102.3/02.12, 05.481.6/05.12, 05.315.5/05.12, 05.630.3/10.12 and 05.1008.7/1.13.

RIJKSWEG 17 - 2870 PUURS - BELGIUM
PURNA PHARMACEUTICALS NV
TEL. +32 3 686 00 85 - FAX. +32 3 686 25 88

PURNA PHARMACEUTICALS NV

Raymond Van Gucht
Chairman of the board

Zoetis Belgium SA
Rue Laid Burniat 1
B 1348 Louvain-la-Neuve
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F +32 10 452006

zoetis

Pfizer

Pfizer Global Engineering

Pfizer NV
Rijksweg 12
2870 Puurs
Belgium
Tel: 03 / 890.92.00

Ets. Beaupain
Mr. Olivier Burguet

Puurs, August 3rd 2009

I hereby confirm that Termovent – Komerc successfully completed the new HVAC system for a critical filling line in our plant in Louvain-La-Neuve.

The scope of the works included qualification and commissioning and the respective documentation according to the GMP requirements and the internal Pfizer procedures.

The works were completed in due time, within budget and to the satisfaction of the plant management.

Pfizer Global Engineering

Jean Nomes
Director PGE Europe

Termovent Komerc
Subotička 23,
11000 Beograd
SERBIA

Louvain-la-Neuve, 10 février 2014

Thermovent Komerc – recommendation letter

"Termovent-komerc company from Belgrade, Serbia was working for purpose of Zoetis company in period 2012/2013 (starting in 2007) in next projects:

- P2179, Filling syringes line –(2012),
- P2100, Revamping HVAC for Lyo rooms –(2013),
- P2100 Revamping HVAC for Bloc 200 –(2013),
- P2186 Isolator room –(2013-2014).

In these project Termovent-komerc was responsible for all activities regarding general design, delivery and installation of HVAC equipment, which is made by them, installation of ducting with elements for air distribution and regulation, delivery and installation of electrical cabinets for power and automation, cabling with signal checking, commissioning and start up.
Special organization skills Termovent-komerc company showed in project P2100 – revamping bloc 200 §6 weeks shutdown for 2/3 of our production area), contract value approximately 1.460.000,00 euro. In this project Termovent-komerc has done all tasks: designing, dismantling, FAT in their factory, installation and finally commissioning and start up of all systems in a really short time, and in a really excellent quality.
Our company is satisfied with work and organization of Termovent-komerc company.
This company is finishing its projects in time and quality, and without remarks, which is confirmed with our contract in period of 5 (five) years.

This company has our full recommendation."

Best Regards,

Christophe DUMONT
Director Engineering
Zoetis Global Manufacturing and Supply
B1348- Louvain-la-Neuve
Phone:+32(0)10470213 or +32(0)10470480

QUALITY MANAGEMENT SYSTEM

CERTIFICATES AS THE GUARANTEE OF QUALITY

As Termovent is fully committed to meet the clients' requirements in terms of quality, environmental protection and safety, we set high quality standards which represent the cornerstone of our operations. For achieving set goals, our employees continuously participate in the process of improvement and optimization of the products and services. Success of this approach is confirmed by numerous certificates held by Termovent, which guarantee the highest standards to our customers.

Eurovent Certita Certification
Eurovent Certita Certification has certified that Termovent Air Handling Units, Range KK, and Software for calculation of performances SELECT:pro, Trade name TERMOVENT, have been assessed according to requirements of the following standard: OM-5-2017

CE marking for Termovent AHUs
Termovent Air handling Units hold CE Marking of Conformity to Machinery Directive 2006|42|EC Annex II, Point A. In addition, Termovent AHUs are designed and produced according to set of harmonized standards: EN ISO 12100:2010, EN ISO 12100:2010, EN ISO 13850:2015, EN 1037:1995+ A1:2008, EN ISO 14120:2015, EN 60204–1:2006/A1:2009 and EN 61000-6-2:2005/AC:2005

ISO 13485:2016
Certification body SIQ confirmed that Termovent introduced Quality Management System in accordance with ISO 13485:2016 in the field of manufacturing, design and installation of Termovent panels for the construction of clean rooms.

ISO 9001: 2015
Certification body TUV SUD Management Service GmbH confirmed that Termovent introduced Quality Management System in accordance with ISO 9001:2015 standard in the field of manufacturing, installation and sales of equipment for air conditioning, heating and cooling.

ISO 14001:2015
Certification body TUV SUD Management Service GmbH confirmed that Termovent introduced Environmental Management System in accordance with ISO 14001:2015 in the field of manufacturing, installation and automation of air conditioning, heating and cooling system.

OHSAS 18001:2007
Certification body TUV SUD Management Service GmbH confirmed that Termovent introduced Health and Safety Management System in accordance with OHSAS 18001:2007 in the field of manufacturing, installation and automation of air conditioning, heating and cooling equipment and systems.

AAA Creditworthiness Rating
Bisnode Serbia awards Golden certificate of Creditworthiness Rating

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