

ENERFLEX

Sectorbijeenkomst Projectgroep Biomassa &
WKK met vereniging
Afalbedrijven



ENERFLEX

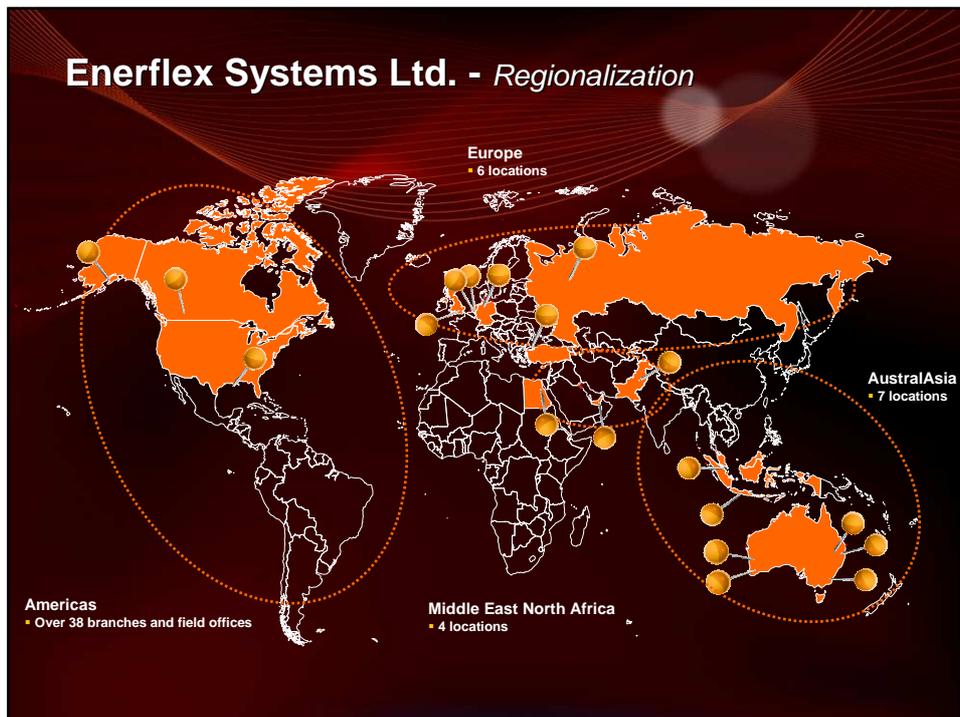
We are the specialist in sustainable and
cost-saving energy solutions

Wij zijn de specialist in duurzame en
kostenbesparende energieoplossingen

ENERFLEX

We are an
international service company
that designs, owns, constructs,
operates and maintains
oil, natural gas, biogas & power
generation equipment.

Enerflex Systems Ltd. - Regionalization



Enerflex - Overview

- Worldwide Turnkey Solutions
- Over 85 Offices, in Four Regions
- Over 2,800 Employees
- 12 Manufacturing and Retrofitting Facilities
- 24/7/365 Optimization and Maintenance Services
- Industry Leading Safety Record



ENERFLEX Quality standards

- ISO 9001 certification 
- Csox compliant
- VCA** (health and safety) certification 
- Gastec certification for the Enerflex Mastercontrol 

Wellhead to Customer - *Worldwide*

Gas Compression & Production Facility
▪ Canada



Noise Attenuated Screw Package
▪ Canada



Heat & Power Application
▪ Netherlands



Natural Gas Processing & LPG Production
▪ Egypt



LNG Processing Facility
▪ Australia



Natural Gas Processing Plant
▪ Australia



Profile - *Total Project Solutions*

- Concept to commissioning of engineered turnkey systems for natural gas processing, compression and power generation facilities.
- Advantage: The one source provider from project inception to installation and then ongoing optimization and support



Analysis

Fabrication



Logistics/
Transportation



Installation/
Commissioning



Product Support,
Maintenance &
Optimization

Enerflex – Accelerating Production & Profitability



The Total Enerflex Solution

*The ability to provide products and services
in an integrated manner,
or as stand-alone offerings to
Enerflex Customers*



Enerflex Business Segments



Enerflex Systems Ltd.

Products

- Production and Processing (*P & P*)
- Compression and Power (*C & P*)
- Heat & Power

Services

- Mechanical Services
- Electrical, Instrumentation and Controls Services (*EI&C*)
- Production & Compression Services
- Process Construction

Integrated Solutions



Enerflex Products



Enerflex - Products

Production and Processing

- Gas Processing
- Oil Processing
- Unconventional Oil Processing SAGD

Compression and Power

- Screw Compression
- Reciprocating Compression
- Specialty Compression
- Power Generation

Heat & Power

- Combined Heat & Power
- Flue Gas Treatment

Production and Processing

Production and Processing

Integrated solutions from Enerflex deliver all of the **equipment you need to handle, transport and upgrade hydrocarbons to pipeline specifications**, plus the in-house expertise to engineer your plant to maximize the value of your hydrocarbon stream.



Production and Processing

Natural Gas Processing

- Inlet Separation / Filtration
- Dehydration Packages
- Dewpoint Gas Plants
- Cryogenic Gas Plants
- Amine Sweetening
- HC Liquids Fractionation
- LPG Extraction



Carbon Dioxide Processing

Production and Processing

Heavy Oil Processing

- SAGD Modules
- Evaporator and Crystallizer Units
- Water Processing Modules

Refrigeration

- Rotary Screw, Reciprocating and Centrifugal Compressor Systems
- Gas Chilling, Liquid Chilling and Condensing / Processing Systems
- Atmospheric Storage Vapour Recovery Condensing Systems



Production and Processing

Modularized Construction, using a building block approach, provides Enerflex with the flexibility to custom design to the particular application – while delivering a cost effective solution that is safe, efficient and easily serviced.

Natural Gas Processing - Enerflex is a world-class supplier of amine-based treatment facilities for H₂S and bulk CO₂ removal, molecular sieve-based treatment for service in sweet and sour environments, and many other treatment options.



Production and Processing

Refrigeration Systems - Enerflex's refrigeration systems are used around the world in hydrocarbon dewpoint control and liquids recovery plants, plus petrochemical processing applications.

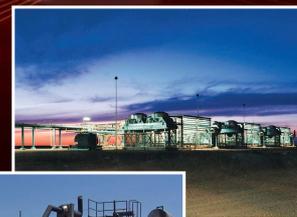
CO₂ Processing - Enerflex CO₂ systems are used in applications ranging from water dehydration to high-pressure disposal for enhanced hydrocarbon recovery and greenhouse gas solutions.



Compression and Power

Compression and Power

Standard or custom built. Sweet or sour. Hundreds of horse-power or mega-watt sized options. Enerflex combines proven compression and power generation systems with over 30 years' experience operating in supply basins throughout the world to maximize your reserves and throughput.



Compression and Power

- Reciprocating Compression (40 hp to 10,000 hp)
- Rotary Screw Compression (20 hp to 10,000 hp)
- Scroll Screw Compression (30 hp to 60 hp)
- Integral Gas Engine Compression (200 hp to 800 hp)
- Compressor Optimization
- Sweet or Sour Gas Applications
- Power Generation (25 kW to 10 MW)
- Combined Heat and Power Units (0.8 MW to 2.0 MW plus up to 3.0 GJ of heat)
- Exhaust Gas Treatments
- Standard or Custom-Designed
- Onshore or Offshore



Compression and Power

Custom Compression - Enerflex has the in-house engineering and manufacturing expertise to build to any technical specifications, design requirements, applications or environments.

Standardized Compression - Enerflex offers a wide range of standard compression packages between 20 hp and 10,000 hp. Standard packages are pre-engineered, reducing design costs and delivery times, and are continuously improved based on operator's feedback.



Compression and Power

Customer Standardized Compression - Enerflex will work with you to create your own standard package, eliminating the design phase on subsequent packages and streamlining the engineering process for your package's installation, commissioning and maintenance.



Combined Heat and Power

Combined Heat & Power (CHP)

Enerflex has been active in co-generation installations in Europe since 1985

Applications:

- Utility
- Biogas
- Oil and Gas Industry
- Horticulture, Flowers and Vegetable
- In approximately the past 25 years we have over 3,000 installations supplied and more than 1,000 systems in maintenance today
 - 20,000,000 operating hours

Enerflex CHP Installations

- CHP installations with electrical output from 25 kWe to 8MW kWe per unit, new or previously owned
- In house engineering of all installation parts

Professional project realization with:

- Short lead times by standardization and prefabrication
- Low costs by efficient production
- Strict project planning
- Usage of quality parts and materials

Knowledge and experience in the following areas:

- Low voltage distribution boards for assimilation lighting
- Exhaust gas purification installations
- Noise attenuation

Enerflex CHP Installations

In the following segments:

Horticulture



Utility



Biogas



Enerflex CHP Installations

Our packaging facility guarantees high quality and fast delivery



Enerflex CHP Installations

Indoor enclosures with or without exhaust gas purification system



Enerflex CHP Installations

Outdoor installations with or without exhaust gas purification systems

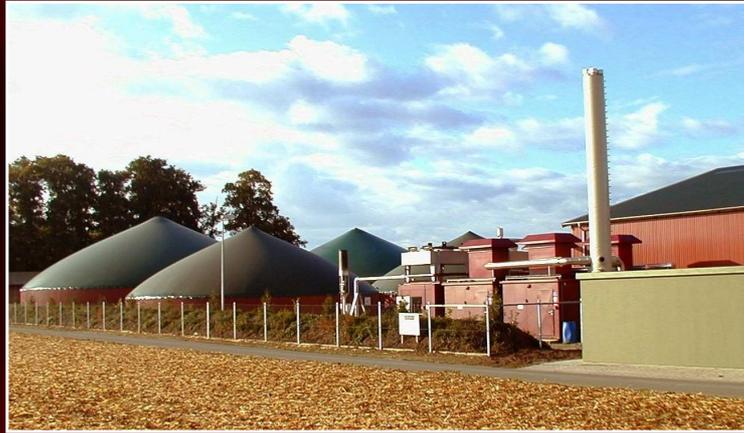


Combined Heat and Power Biogas applications

Agricultural digester Mts. Bosma – Zuidvelde (NL): EFX 300



Biogas Scherbring – Germany 2 EFX 312 in container



P.A. De Vries, St. Nicolaasga (NL): EFX 200 , 192 kW



Milieupark de Wierde, Oude Haske (NL) 2 x EFX 1033



Landfill project Vlagheide in Schijndel 5 x EFX 312



Landfill project Carbiogas Nuenen EFX 312



Landfill project Smink Amersfoort EFX 230



Sewage gas application



Flare gas application

NAM – Vries 1: 2 wkk's: each 928kWe genset



WWTW Dublin Bay Ringsend in Ireland

4 CHP's: each 1.006 kWe + 820 kg steam/hr – All four dual fuel applied



Flare gas application

NAM – Grootegast: 4 wkk's: each 312 kWe genset



Fakkелgas toepassing
NAM – Blija: 1 genset 110 kWe



Biogas application:
Oudegem Papier- België: CHP in outdoor enclosure, 1413 kWe
Biogas from waste watertreatment



Enerflex CHP Installations

Service and Maintenance:

- maintenance contracts
- Telecontrol centre 24 / 7 / 365
- Remote monitoring by telephone line, access to all installation data
- Extensive experience in overhauls of CHP installations



Enerflex CHP Installations

Service and Maintenance



Enerflex CHP Installations

Overhauls on location and in our work shops



Enerflex Services

Enerflex - Services

Mechanical Services

- Field maintenance, overhaul, parts and service of gas compression, power generation and CHP packages
- Exclusive OEM relationships/distributorships

Electrical, Instrumentation & Controls (EI&C) Services

- Construction, Maintenance, Commissioning and Instrumentation Services
- Automation Systems, SCADA, Compressor Controls, Burner Management, and Panel Fabrication

Production & Compression Services

- Process & Compression Rental Units
- Compression Optimization & Revamp

Construction Services

- Gas Compression and Processing Facilities

Mechanical Service

Enerflex - Mechanical Service

- Network of 25 service centers around the world
 - 2 service centers in Netherlands
 - 1 service center in Germany
 - 4 service centers in AustralAsia
 - 18 service centers in Canada
- Central Service in Edmonton, AB carries an extensive inventory of parts (\$30 MM)
- Dedicated central repair facilities in Canada, Australia and Netherlands
- Remanufacturing center for component parts and engines
- Dedicated start-up and commissioning teams



Mechanical Service – Exclusive OEM Relationships

- Enerflex is the exclusive distributor for Waukesha in Canada, Australia, Alaska, Netherlands, Indonesia and Malaysia
- C.E.P.S. (Compression Engine Parts and Service) agreement with Caterpillar / Finning
- Additional distributorship agreements with Ariel, Dresser Rand, Impco, Altronic, Garrett and Champion



Integrated solutions

Process Construction

Enerflex Process provides specialized engineering and construction services to the Oil & Gas Industries.



Process Construction - Contracting Options

Enerflex offer numerous contract solutions to suit individual client needs that are determined by issues such as schedule, price and risk management.

- Collaboration contracts with risk and reward incentives;
- EPC Turnkey contracts;
- Fixed lump sum supply and construct contracts;
- BOO or BOOM projects; and
- Flexible and innovative financial solutions including leasing.

