

KEY FIGURES DSEC



350+
Employees



300 M€
Latest project value



500+
Projects completed
in 65+ countries



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VEGOILS & DERIVATIVES



DE SMET
ENGINEERS & CONTRACTORS

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Serving the World Vegetable Oil industry

Process integrator dedicated to Agro-processing industries

De Smet Engineers & Contractors (DSEC) is a private company located in Belgium, created in 1989:

- Acting as an engineering & general contractor company specializing in the agro-industrial and bio-based industry fields,
- Fully integrated world-class provider of project management, engineering, procurement and construction services.



DSEC carries out projects from their initial conceptual stage (audits and engineering studies) up to complete delivery, including commissioning and performances demonstration (turnkey management - EPCM or full turnkey construction - EPC).

Edible Oils production and Oilseeds Proteins

Through its heritage from the De Smet continuous counter-current solvent extractor's inventor, DSEC has continued to work closely with the edible oil production sector, offering the integration of all processing units and related auxiliaries from seed unloading and storage to refined oil packaging.

Although completely independent from technology providers, DSEC's understanding of vegetable oil processing techniques provides a unique background for the implementation of a comprehensive project, whether for its definition, its construction or its operation.

DSEC can also provide the integration of Plant-based Protein Concentrates & Isolates production facilities using the most advanced technologies in the field, for both animal FEED and human FOOD sectors and also the fish food protein industries.

DSEC can assist its customers in addressing rapidly changing market concerns in terms of nutrition and health as well as the increasing demand for environmentally friendly meat replacements.

VegOils & Derivatives



Reliability through experience

Biodiesel and HVO production

DSEC extends its activities in the Edible Oils & Fats sector to **Biodiesel plants construction** as a natural complement to Oilseeds processing.

Biodiesel Production covers **Vegetable Oils** and **Used Cooking Oil (UCO)** pre-treatment and Transesterification units as well as vertically integrated facilities with oilseed extraction plant.

The pre-treatment of Crude Vegetable Oils or UCO for the production of **Hydrotreated Vegetable Oil (HVO)** Renewable Diesel can also be contemplated.

Implementing External Technologies and beyond

- Capability to develop full projects **from feedstock handling to product conditioning**, including **offsites and construction works**
- Full **understanding of Technology Providers' downstream requirement** through DSEC's large experience in the agro industry (filtration, evaporation, separation, drying, chromatography, ion exchanges...)
- Experience in **assessing and validating all stages of process development** and products definition so as to reach a comprehensive concept before effective project start (Pilot ► Demo ► Industrial)

DSEC is your partner for...

PROJECT DEFINITION

- PDP development based on technical process description from Technology Providers or the client
- Technical & technological assessments
- Selection of appropriate technology & unitary operation
- Integration of an add-on into an existing facility
- Utilities engineering & interfaces design
- CAPEX & OPEX development

PROJECT IMPLEMENTATION

- Overall Project Management including cost control, scheduling
- Detailed Design of all activities (Civil & Structure, piping, EIA...)
- Procurement of equipment & materials
- Workshop quality control & FAT
- Expediting services
- Integration of all related project activities
- Plant automation standardization
- Site activities management including implementation of site HSSE
- Plant commissioning & Start-up assistance



DSEC's Assets for the VegOils & Derivatives Industry

- Efficient Integration of new developments and flexibility in dealing with changing environments
- Strong track record accumulated for more than 30 years, working in 65 countries and completing many Large Scale Projects (which major projects referenced are listed opposite)
- Integrated, robust, validated process and final product definition, before transfer of technology
- Repeated experience with key industry players, Client IP protection
- Focus on efficiency and energy saving
- Full independence from equipment suppliers allowing optimization of projects' Global Sourcing Strategy
- Execution of all downstream process units such as: filtration, evaporation, separation, drying, chromatography, ion exchange, ...
- Familiar with all types of raw material: oilseeds, grains, animal fats, vegetable oil, ...

Main Industrial References in VegOils & derivatives production

	PRODUCT	CUSTOMER	COUNTRY	CAPACITY	CONTRACT
	Turnkey construction of a complete soybean crushing plant with harbour transfer and storage facilities.	Soybean Crushing & Derivatives Ltd., Yanbu	K.S.A.	2,200 TPD soybean	EPC 60 M€
	Lumpsum Turnkey construction of an edible oil refining and fractionation plant.	KOG Edible Oils BV, Rotterdam	Netherlands	1,000 TPD refining 800 TPD fractionation	EPC 40 M€
	Turnkey construction from greenfield of a biodiesel production plant.	Rosendaal Energy BV, Sluiskil	Netherlands	250,000 TPY biodiesel	EPC 45 M€
	Turnkey construction from greenfield of a biodiesel production plant.	Dutch BioDiesel BV, Rotterdam	Netherlands	250,000 TPY biodiesel	EPC 50 M€
	Turnkey construction from greenfield of a crushing plant (rapeseed) including a biodiesel production unit.	Ineos Enterprises, Baleycourt	France	1,200 TPD rapeseed 2 x 100,000 TPY biodiesel	EPC 100 M€
	Revamping and capacity increase of Crushing plants and Ports.	Terminal 6 S.A., Santa Fe	Argentina	20,000 TPD final crushing capacity of the site	EPCM 80 M€
	Revamping of a soybean oilseed crushing plant.	Bunge Ltd, Amsterdam	Netherlands	2,100 TPD soybean	EPCM 20 M€

MEETING OUR CUSTOMER'S NEEDS

