



A short Presentation of our Company

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INTRODUCTION LETTER

Dear Madam, dear Sir ,

May we introduce our company to you briefly :

Edwin Engineering GmbH was founded in 2004 by elimination of the oleochemical activities from Vaprotec GmbH .

Myself, Ewald Of, was one of the founders of Vaprotec GmbH in the year 2000 – and I'm now shareholder and managing director of Edwin Engineering GmbH.

In the meantime I have gained about 20 years experience in process engineering (mainly evaporation and distillation plants), most of it as project manager and head of the oleochemicals department within the GEA group of companies.

Up to now I was involved in the execution of about 170 projects (70 evaporation plants, 60 distillation plants, 40 special plants – modifications, extensions and new plants), for most of these plants I carried out the process design and guided their succesful commissioning.

Further details are stated in our reference list. Of course personal references are available as well.

During the last years our main activities were in oleochemicals processing, were we could collect deep experience especially for products like fatty acids, glycerine and biodiesel or other methyl esters and fatty alcohols and their raw materials .

To our customers we offer flexible and reliable solutions, coupled with the attractive price structure of a small engineering company.

Our sope of supply ranges from consulting, basic and / or detail engineering services up to complete delivery and guidance of start up.

We were most glad to receive your inquiry and we`d like to ensure you a competent handling of it.

Ewald Of , Managing Director

Hambrücken, January 02, 2008

Oleochemicals / Oils & Fats processing

- Fat Splitting
- Glycerine processing :
 - Pretreatment of sweetwater
 - Glycerine, soap underlye and biodiesel glycerine
 - Evaporation
 - Distillation / Fractionation / Bleaching
- Fatty Acids
 - Hydrogenation
 - Pretreatment
 - Esterification
 - Distillation / Fractionation
- Methyl esters / Biodiesel
 - Dehydration
 - Distillation / Fractionation
 - Methanol rectification
- Fatty Alcohols
 - Distillation / Fractionation
- Miscilla Distillation
 - For rape seed oil, palm oil, olive oil, soya oil etc.
 - Solvents: methanol, ethanol, acetone, hexane etc.



Types of Evaporators

Our experience covers all types of evaporators, such as

- Falling film
- Rising film
- Counterflow trickle
- Natural circulation
- Forced circulation
- Fluidized bed
- Plate
- Wiped film evaporators



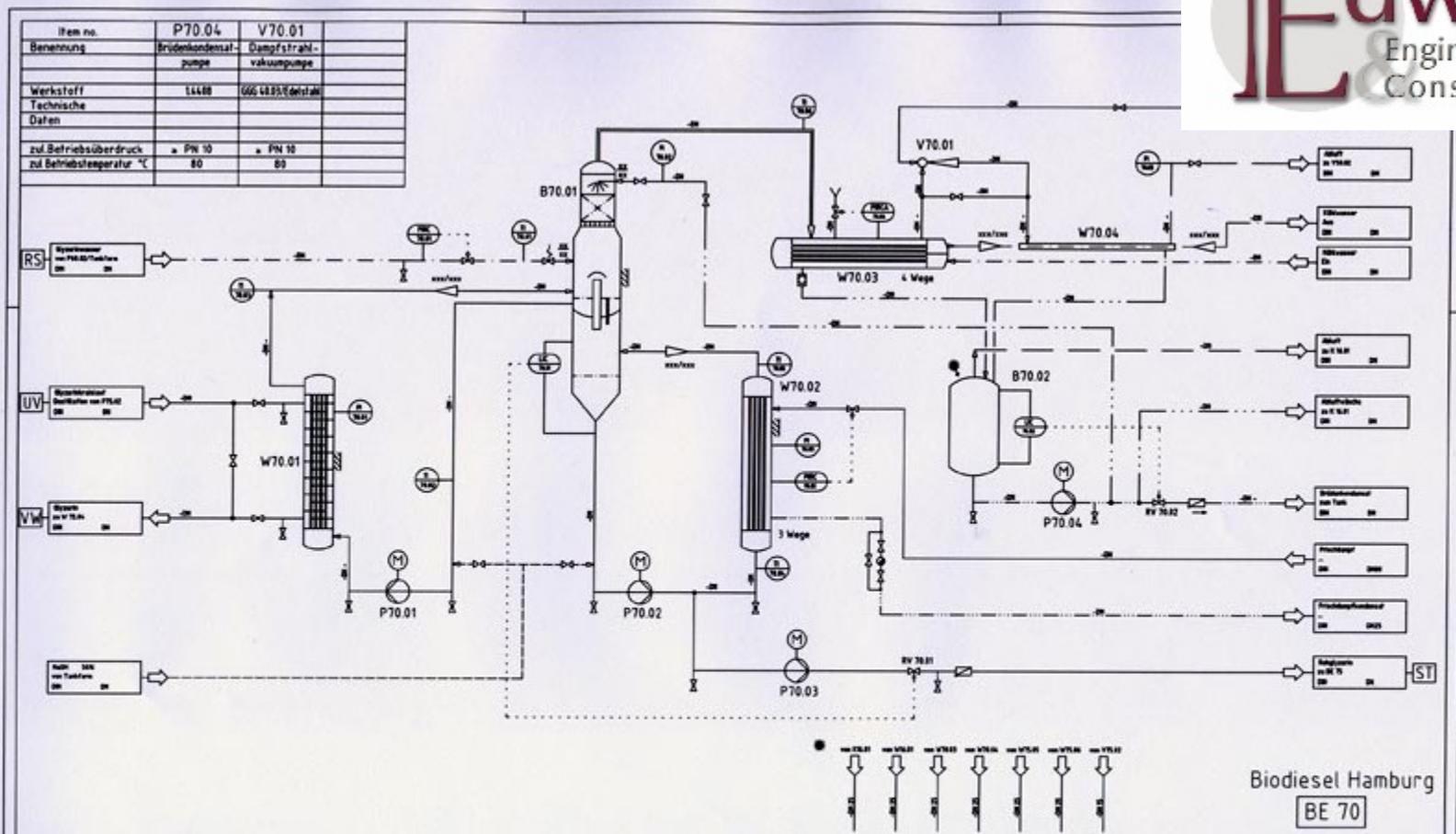
Distillation Equipment

Columns equipped with structured packings, trays, random packing.
Distillation, rectification, stripping and fractionation, vacuum generation

Capabilities

- **Consulting in process layout, equipment selection and design, preparation for plant start etc.**
- **Technical support during project execution**
- **Basic Engineering**
 - Mass and energy balances
 - General process descriptions
 - Process flow diagrams
 - Main dimensions of equipment, loads
 - General layout proposal
 - Steel structure guide drawing
- **Extended Basic Engineering**
 - Process design of equipment like columns, reboilers, vacuum systems etc. (guide drawings, data sheets)
 - Basic data for field instrumentations
 - Pipe and instruments diagram (P&ID) with controls, pipe diameters, info on trace heating and insulation
 - Layout drawing (3D or 2D with several views) with main pipework

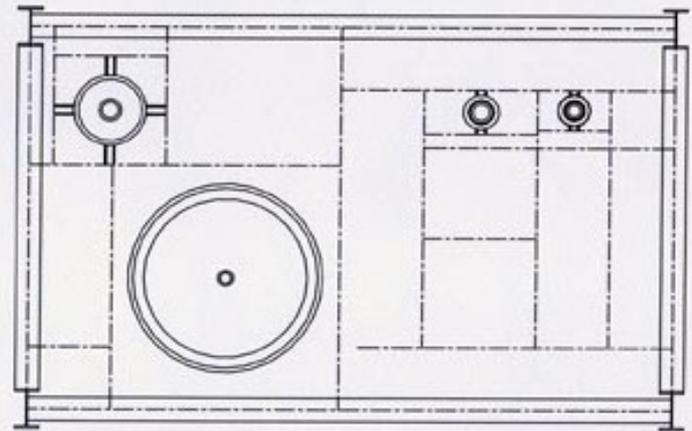
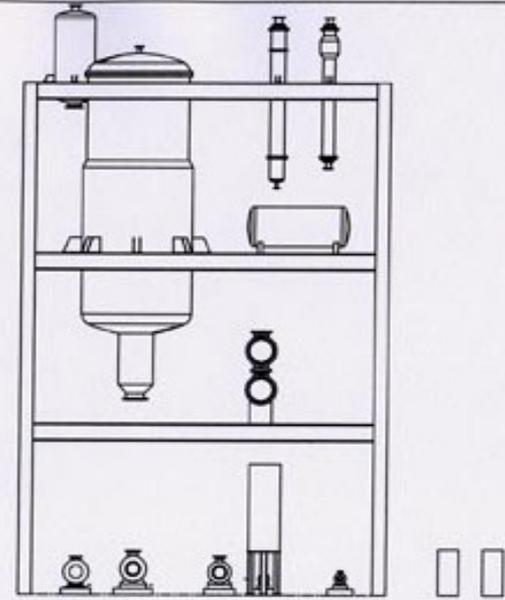
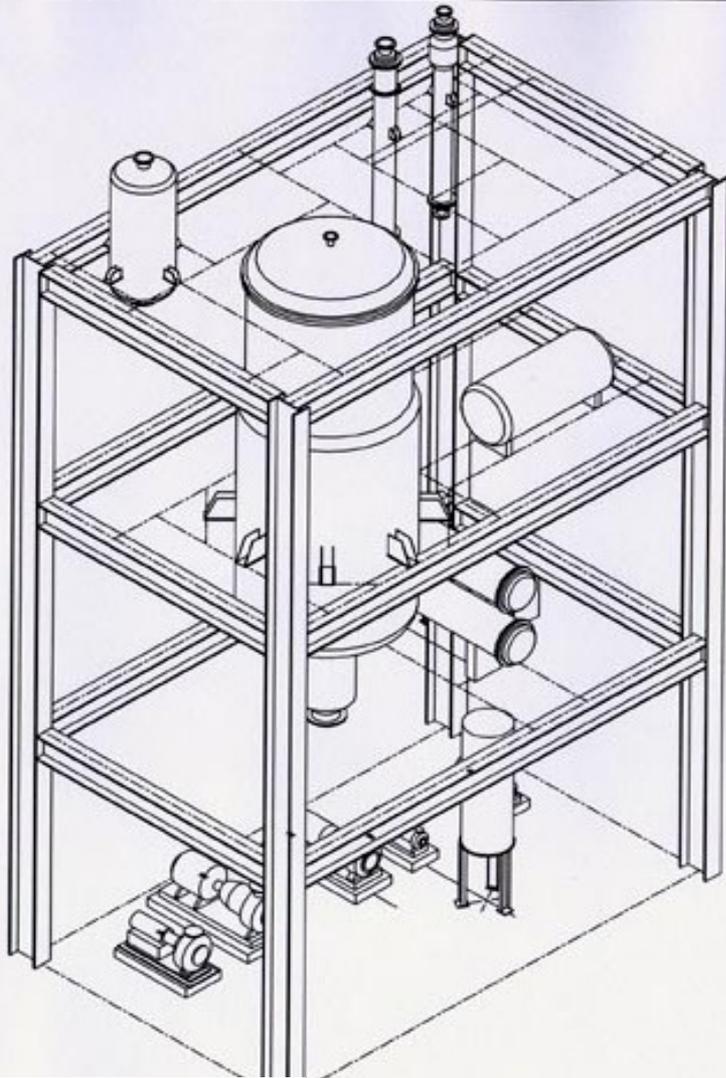
- **Detail engineering**
 - Layout with pipeworks, isometrics
 - Foundation connecting plans
 - List of valves and fittings
 - Piping specifications
 - Data sheets for control instruments
 - Terminal and wiring diagrams, alarm lists and interlocks
 - PLC/DCS specification and programming
- **Intermediate and final checking of erection**
- Supervision / Assistance
advisory support before and during commissioning (including info on hot flushing, vacuum testing etc.)
- **Internal Software**
 - ChemCad for process simulations
 - Auto Cad 2000
 - Several packages for coloumn internals
 - Own equipment design programs (heat exchangers, evaporators, condensers etc.)



Biodiesel Hamburg
BE 70

Item no.	W70.01	W70.02	W70.03	W70.04	B70.01	B70.02	P70.01	P70.02	P70.03
Benennung	Zwangsumlauf- heizkörper	Zwangsumlauf- heizkörper	Oberflächen- kondensator	Nach- kondensator	Zwangsumlauf- abscheider	Brüden- kondensat- behälter	Zirkulations- pumpe	Zirkulations- pumpe	Rohglyzerin- pumpe
Werkstoff	1.4571/1.4539	1.4571/1.4539	1.4571	1.4571	1.4571/1.4539	1.4301	1.4539	1.4539	1.4408
Technische Daten									
zul. Betriebsüberdruck	1.4 R u.d.R. -1/1 -1/3	1.4 R u.d.R. -1/3 -1/8	1.4 R u.d.R. -1/5 -1/8.5	1.4 R u.d.R. -1/5 -1/8.5	-1/0.5	-1/0.5	PN 10	PN 10	PN 10
zul. Betriebstemperatur °C	130 150	160 210	50 120	50 150	160	80	80	80	80

Besteller: EDW		Pos.Nr.: BE 70	
Auftr. Nr.: Biodiesel Hamburg		Liefertermin: 2010/01	
Industriegebiet Bismarckstr. 113/115, Faltler	Dat. der Auftr. 12.08.2009	Werkstoff/NR DN 100-2000 Material-Nr. 1.4539	Übertragungs- NR DN 100-2000
"Schlüsselwort nach DIN 19230" "Schlüsselwort ACCORDING TO DIN 19230"		Material/SKALE 1:1	
Werkstoff / MATERIAL		Klassen/CLASS	
BDH - BE 70.0-RI		Werkstoff/CLASS	
Zust. Änderung/REV		Ers. Nr.	



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IE Edwin
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& Consulting





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Equipments Erection ME-Plant

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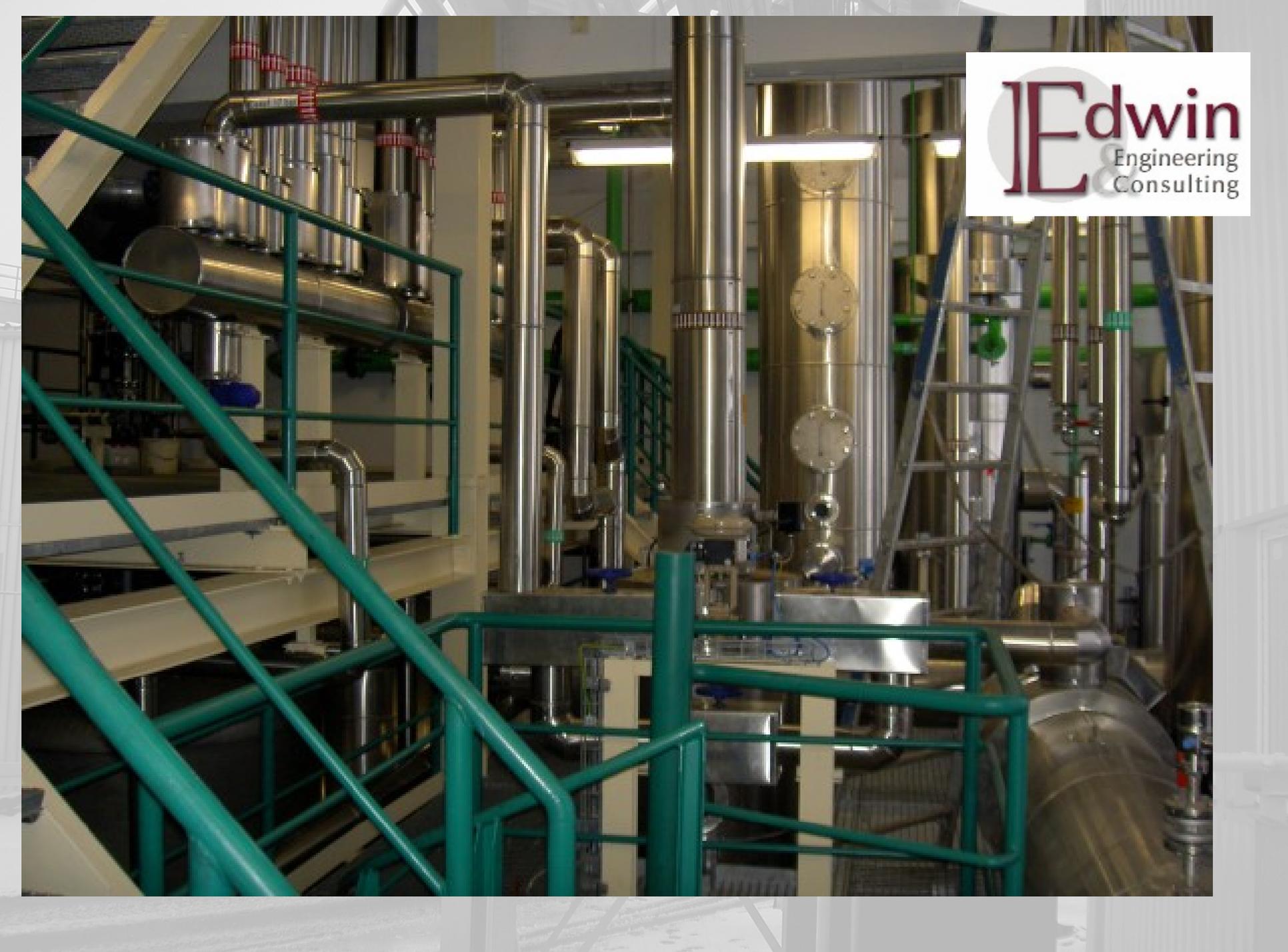


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The image shows a complex industrial facility, likely a refinery or chemical plant. It features numerous tall, vertical stainless steel distillation columns and horizontal pipes. The equipment is interconnected with a network of pipes and valves. In the foreground, there are prominent green metal railings that form a walkway or safety barrier. The lighting is bright, coming from overhead industrial fixtures. The overall scene is a detailed view of heavy industrial machinery.

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