



# Here we are

ESCO - Labor AG

Riehen - Switzerland





# Our Products

Mixing:

Processing plants from  
1 to 400 litre



Grinding:

Jet Mills



Filling:

Sampling valves  
and filling units





# Application Scope of Processing plants



- Pharmaceutical
- Chemical
- Colours and Lacquers
- Food
- Cosmetic



# Our Customers



For example:

- Novartis (Pharma)
- Roche (Pharma)
- Nestle (Food)
- Elmex (Tooth paste)
- L'oréal (Cosmetic)



# ESCO Processing plants

- Sizes: from one to 400 litre
- Absolute **homogenous** final product
- For liquid and pasty products
- Execution in steel or glass
- With heating, cooling, Vaccum System
- PC controlled available
- FDA-approved





# ESCO – Processing plant from 1 to 20 Litre

EL1pm



EL3 pm in glass



EL10 special edition





# ESCO – Processing plant from 1 to 20 Litre



EL3 pm in glass





# ESCO – Processing plant from 1 to 20 Litre

Typ EL 6 in glass



Typ EL10 in steel (pharma)





# ESCO – Processing plant from 50 to 400 Litre

- EL 200 with two vessels for 200 litre useful volume
- Control system with heating, vacuum control and hydraulic system





# ESCO – Processing plant from 50 to 400 Litre



EL50



# the new „*pm*“ generation

- The result of our aim producing plants more than 30 years
- through great experience in developing and constructing customized solutions
- for the cosmetic and pharmaceutical industries





partnership with



- WAB ball milling with ESCO- pre-mixing and ph-reduction





# Control panel with touch screen

- front view with ergonomical panel
- easy cleanable
- plugs for pump and heating unit



- Interface RS-232 for datalogging
- Main switch and emergency bottom



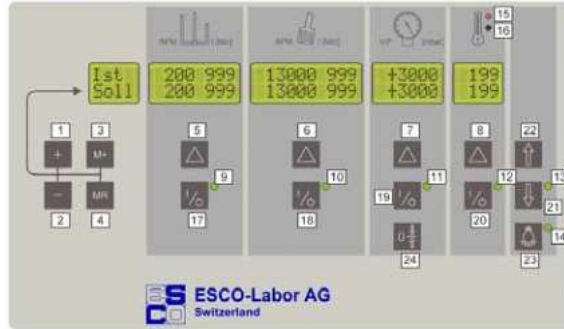
- Back view with frequency converters
- Modern electronic with chip technology



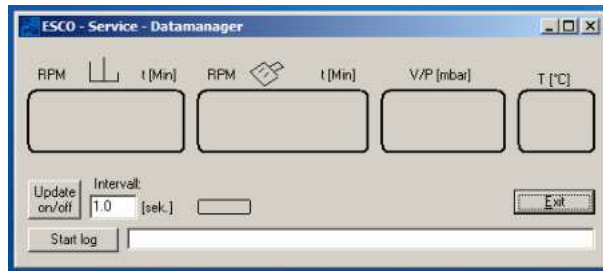


# Data- logging software

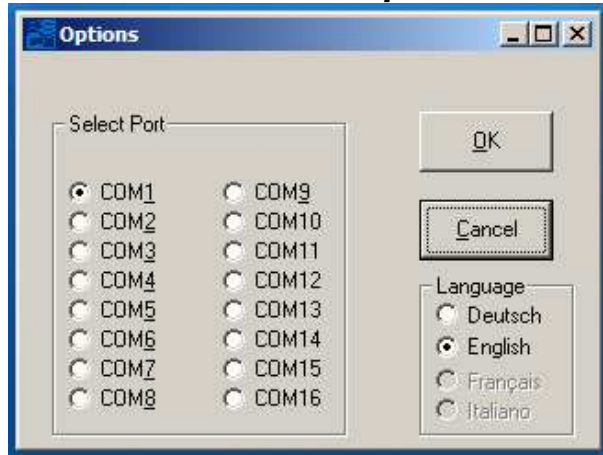
## 4.0 ESCO-Service software



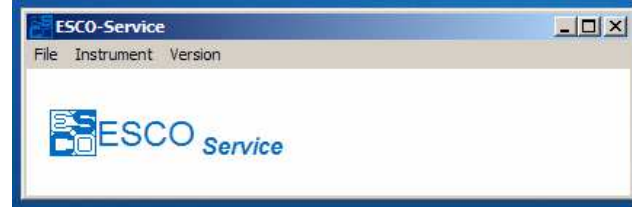
## 4.2 ESCO-Service datamanager



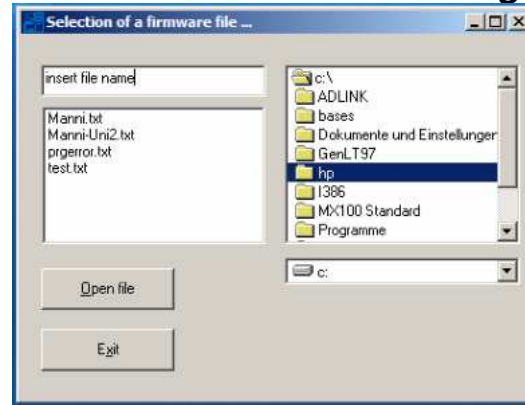
## 4.4 ESCO-Service "options"



## 4.1 ESCO-Service software



## 4.3 ESCO-Service "start log"



## 5. Screenshot EXCEL-file for data-export

**ESCO Service: Data logging**

Processing plant: EL 1-pm  
 Manufacturer: ESCO-Labor AG, Switzerland

Batch-No.: 1202345-9  
 Date: 12.06.2006  
 Name: x  
 Product name: x  
 Recept: x  
 Data file: C:\folder\ bit  
 Additional doc: missing.doc  
 Comments: test only

Date - Time	Scraper RPM [present]	Scraper Run-Time [actual]	Scraper RPM [present]	Scraper Run-Time [actual]	Home RPM [present]	Home RPM [actual]	Home Run-Time [actual]	Vacuum presenting [actual]	Vacuum mbar lower/upper	Temperature are actual [°C]	Temperature a presenting [°C]
18 19.08.2006 11:54	345	19	23	30	31296	36500	53	60	1280 L=1000 U=1050	108.5	25
19 19.08.2006 11:57	345	19	22	30	31036	36500	62	60	1311 L=1000 U=1050	107.1	25
20 19.08.2006 11:58	345	19	22	30	31089	36500	52	60	1319 L=1000 U=1050	107.3	25
21 19.08.2006 11:59	345	19	21	30	31071	36500	51	60	1365 L=1000 U=1050	107.7	25
22 19.08.2006 11:59	345	19	21	30	31044	36500	51	60	1365 L=1000 U=1050	107.9	25
23 19.08.2006 11:59	345	19	20	30	31208	36500	50	60	1364 L=1000 U=1050	108.5	25
24 19.08.2006 12:00	345	19	20	30	31096	36500	50	60	1393 L=1000 U=1050	108.8	25
25 19.08.2006 12:00	345	19	19	30	31002	36500	49	60	1385 L=1000 U=1050	109.1	25
26 19.08.2006 12:01	345	19	19	30	31246	36500	49	60	1426 L=1000 U=1050	109.5	25
27 19.08.2006 12:01	345	19	18	30	31089	36500	48	60	1420 L=1000 U=1050	109.8	25
28 19.08.2006 12:02	345	19	18	30	31032	36500	48	60	1436 L=1000 U=1050	109.9	25
29 19.08.2006 12:02	345	19	17	30	31268	36500	47	60	1452 L=1000 U=1050	110.2	25
30 19.08.2006 12:03	345	19	17	30	31071	36500	47	60	1471 L=1000 U=1050	110.7	25
31 19.08.2006 12:03	345	19	16	30	31277	36500	46	60	1500 L=1000 U=1050	111.1	25



# Temperature- and pressure controller

on control board

- Wika pressure sensor to pressure controller
- Pressure relief valve



- Temperature control unit up to 200°C
- PT100-2 in product
- pressure and temperature resistant isolated tubes with isolation and quick couplings



- pressure vessel with piston bottom valve
- interchangeable with glass vessel



- KNF membrane vacuum pump 50mbar absolute and suction capacity of 30 l/min





# Container adjustment

for glas vessel and pressure vessel in stainless stell

- container in fixed position



- loosen by hand the two screws
- support vessel by one hand
- easily pulling back the adjustment



- Container adjustment without glas





# Lid design

in aseptic execution

- GMP- conform Tri- Clamp connection with FDA seals
- Pressure relief valve
- Lid for Tri-Clamp clamping



- Lid seal O-ring
- mirror and electro polished surface
- Sealing housing for pressure and vacuum



- membrane valves with PTFE membrane

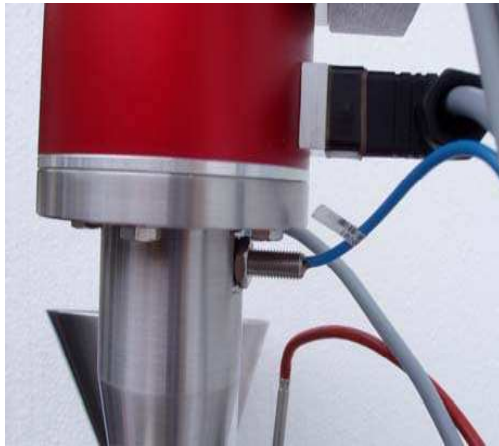




# New homogeniser motor

automatically with three position controller

- PTC sensor
- high precision revolution sensor
- three- phase motor frequency controlled with 21400rpm
- Seperate fan for cooling
- noise <70dbA





# glas- and pressure vessel

with bottom outlet valve

- pressure execution up to 5 bar and 150°C for unilever best food
- clip- version PTFE scraper blades

- approved glas vessel, cylindrical till lid avoid dead space





# Design feature

- anti cable damage plate



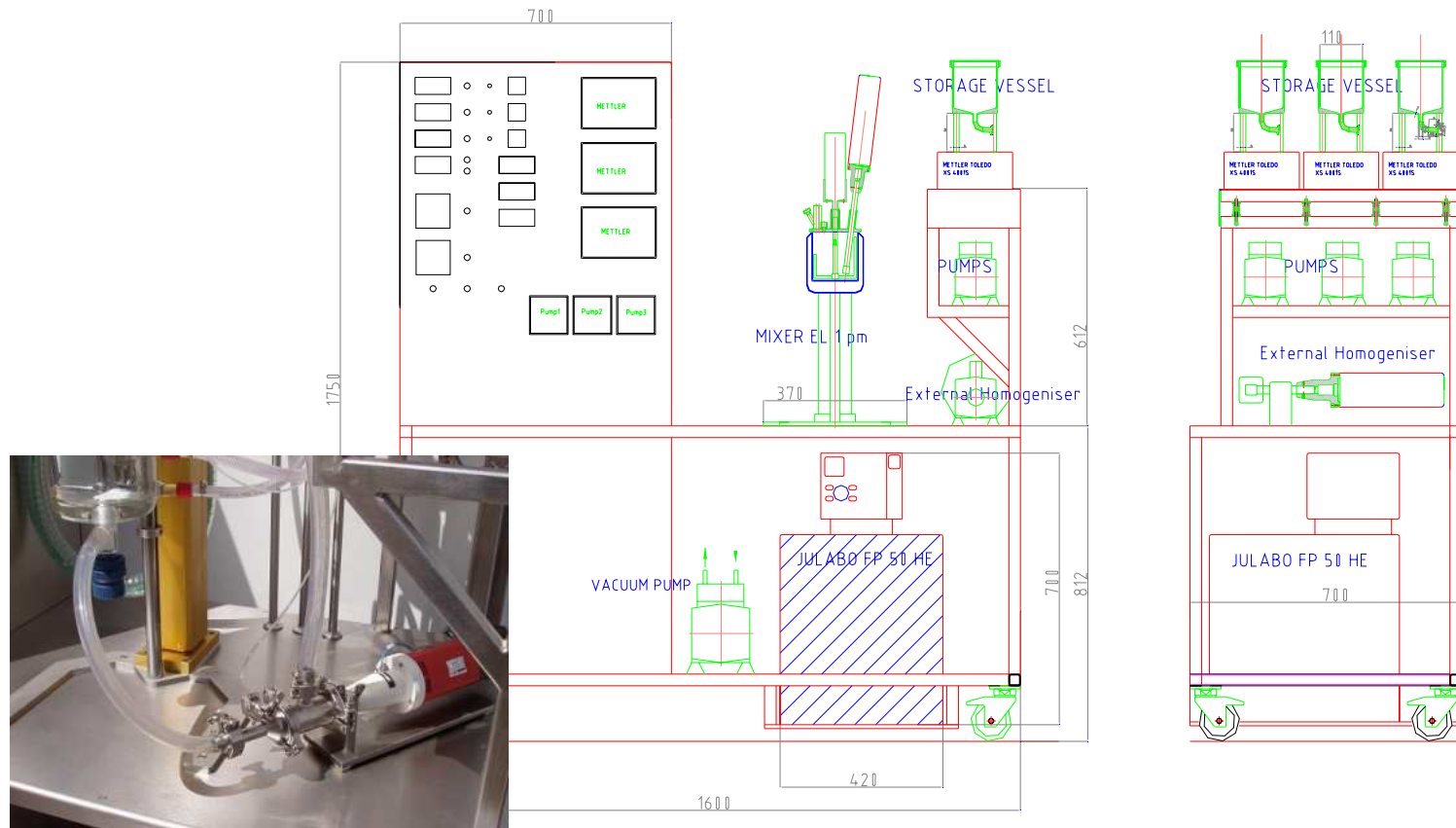
# EL 1 „as much as possible“



# EL 6 pm with options



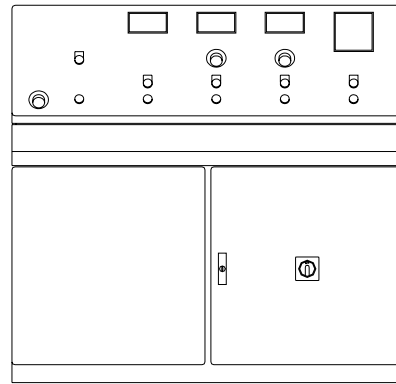
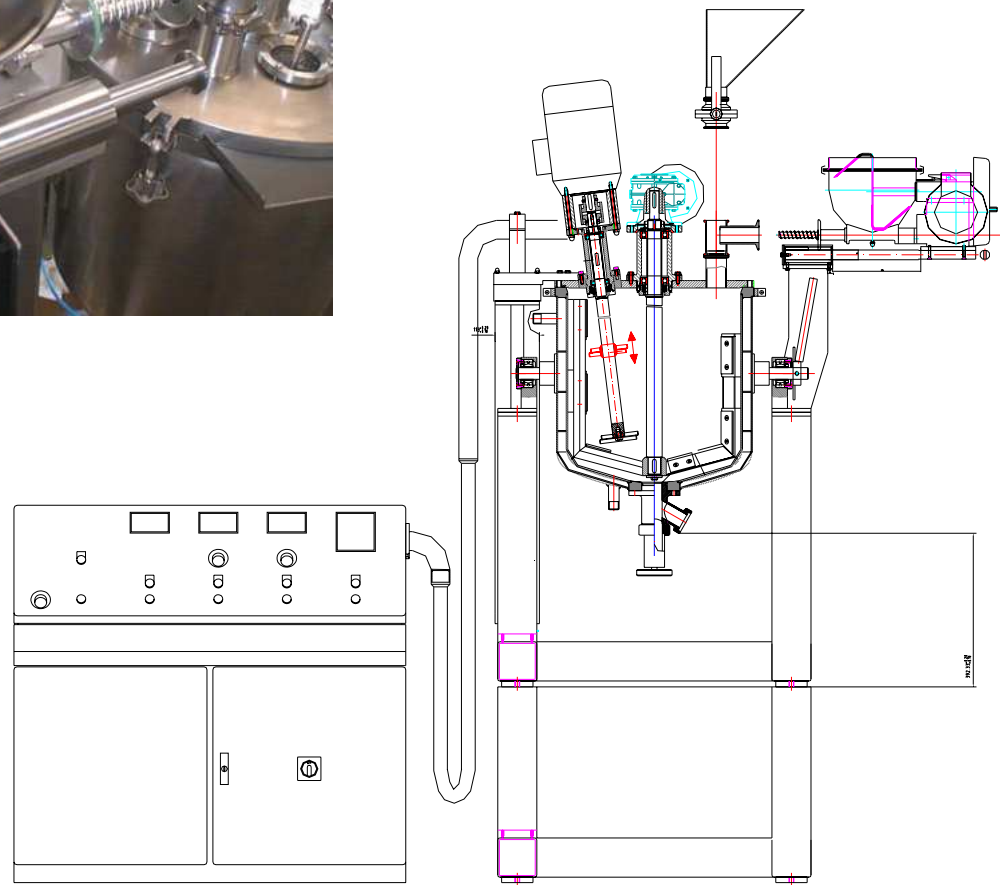
# EL1 production simulation



FRONT VIEW

SIDE VIEW

# EL 50 with screw feeder







# Advantages of ESCO Products

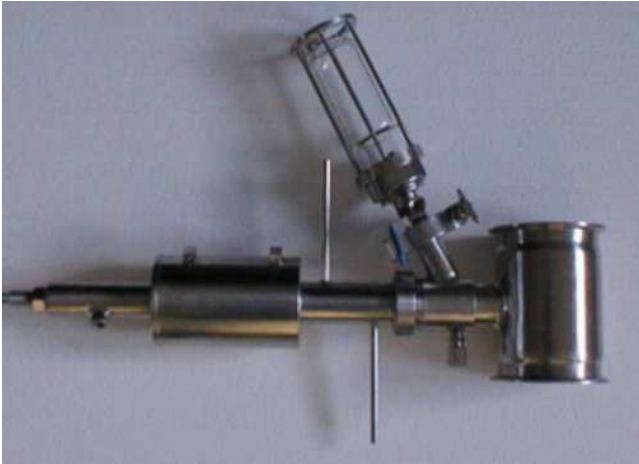
- Good quality for a good price
- All products are easy to handle and easy to clean
- Great experience in developing and constructing customized solutions
- ...

**Our aim is to adapt our high quality products to the individual requirements of our customers and to continuously improve our products**





# Inline Sampling Valves



DN 25 in a 4 inch line



DIN 11 851 / DN 25



DN 25 for welding

**All ESCO piston valves are dead space free**



# ESCO - Luftstrahlmühle

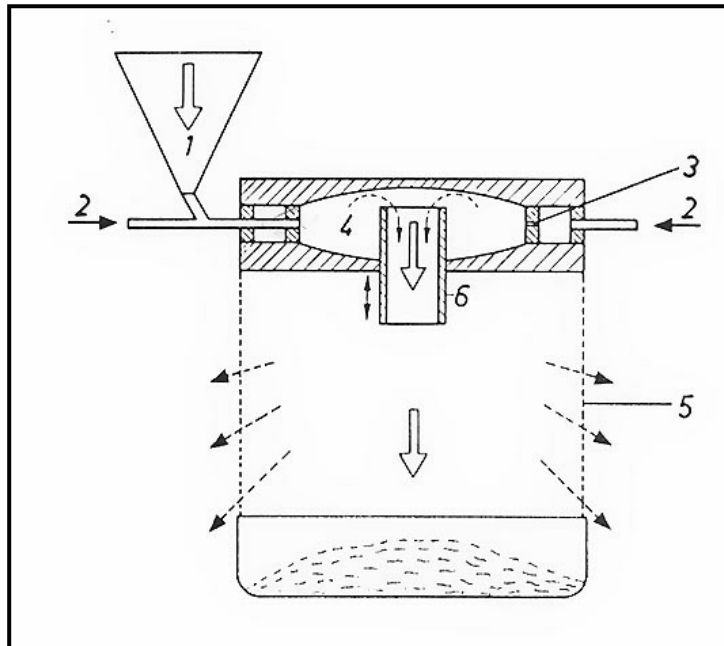
## ESCO - Jet mill





# ESCO - Jet mill

JMRS 80 SQ





# Customized Products



**ESCO-Labor-  
Processing-Plant EL6**  
with extrude device and  
bottom outlet valve  
special edition for pasty  
products





# Customized Products





# Processing plants in use





# Reactor Vessel 500Litres





# Misch- und Filtrationsanlage

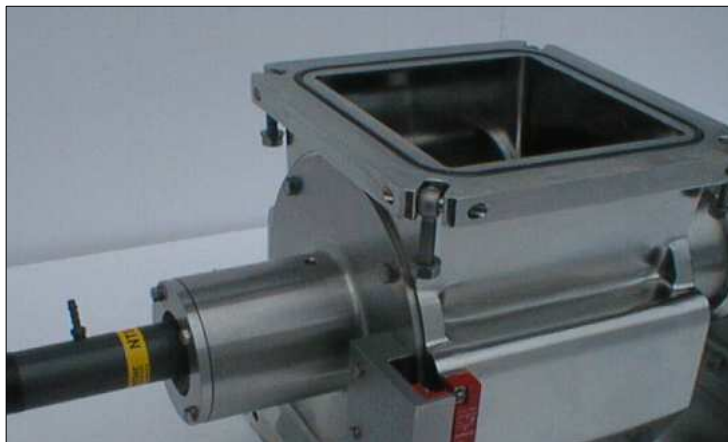
## Mixing and filtration unit





# Zerkleinerungsgerät für Pharmawirkstoffe

## Crushing unit for pharmaceutical products





# Manufacturer

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# More Informations

**For more information please  
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