

# multiVachH



ENOOP is an innovative family-owned company, established in 1989, specialized in providing fast, efficient, cost competitive and customer-tailored processing solutions for the food-processing, chemical and pharmaceutical industry.

For more than 20 years we have been focusing on the development and production of equipment and plants able to meet the most complex needs of these industrial branches.

We have an extensive experience in processing equipment for the food industry - from the reception of raw materials to the final product preparation.



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**ENOOP**  
since 1990

**Special plant for emulsions and suspensions**

## UNIQUE DESIGN FOR EXCELLENT RESULTS

ENOP has more than 20 years of experience in vacuum processing technologies for food, cosmetics pharmaceutical and chemical industry. MultiVach is a state of the art vacuum processing plant for liquid and semi-solid products such as suspensions, emulsions and gels, and it is the ultimate achievement of our R&D efforts. MultiVach excellent performances and versatility ensure top quality of end-products, making it an indispensable equipment in the food, cosmetic and pharmaceutical industries. It is an excellent solution for those who are looking for the best efficiency, highest quality, very high reproducibility, short changeover times, short batch cycles, extremely simple operations and processes that spend a bit of energy.

Some most common food products, where multiVach can be successfully applied:

### Products (examples):

Mayonnaise
Ketchup
Toppings
Dressings
Sauces
Dairy products
Relishes
Chutneys

## DESIGNED FOR VERSATILITY

MultiVach vacuum processing plant can be used everywhere that dry powder or liquids have to be mixed, dispersed and emulsified. The products can be produced such in hot as in cold method, also according to customer requirements. The product heating and cooling is performed through a double jacket which is insulated on the external side. For the product that needs to be heated very fast is used direct steam injection. This heating system blow steam directly in to the circulating product. In the vacuum mixing vessel the ingredients are mixed and homogenized through the special - high-shear mixing and dispersing machine which is suited for batch operations with a recirculating loop and is directly mounted to the vessel bottom. The dispersing machine enables suction, pumping, and self-cleaning by CIP rotating nozzles.

Solids and liquids with good flow properties are fed direct to the homogenizing tool via the vacuum unit. The recirculation line returns the product back to the vessel. This, plus the special scraper-stirrer, generate the additional macromixing by means of vertical convection. The conical shape of the vessel floor leads the product to the single-chamber homogenizing system, where the entire procedure is repeated. The machine is emptied via the recirculation line downstream of the homogenizer.

The plant is equipped with a Siemens PLC control system. All functions are manual, semi or fully automatic controlled, with optional recipe management and monitoring system. All functions and massages are displayed on a 12" touch screen.

### Type of food industry

Pastries cream
Confectionery
Dairy
Gastronomy and catering

A wide assortment of models and sizes make multiVach an indispensable appliance for a wide range of industry branches. Hereunder is a list of some possible applications of multiVach in the food industry.

## COSMETIC, PHARMACEUTICAL AND CHEMICAL INDUSTRY

MultiVach is perfect plant for production in cosmetic branch, chemical and pharmaceutical industry. In the cosmetic branch hygiene and the highest quality are top criteria for best result and for good products.

Some pharmaceutical, cosmetic and chemical products where multiVach can be applied:

### Applications (examples):

#### PHARMACEUTICAL industry

Toothpaste, Pill coatings, Syrups, Ointments, Ear drops/ Eye drops

#### COSMETIC industry

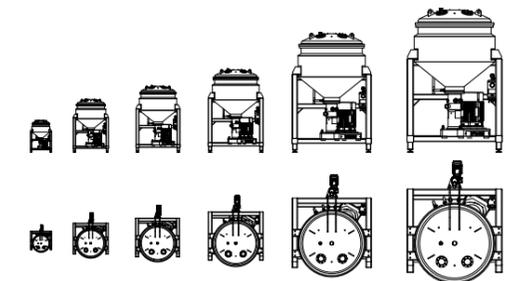
Suspensions, Creams, Lotions, Gels, Toothpaste, Ointments, Decoctions, Sun spray, Hair colours, Shampoos, Conditioner and cures, Shaving foam

#### CHEMICAL industry

Adhesives, Colour, Lacquer, Lubricants

## MultiVach ADVANTAGES

- Easy filling and emptying
- High and fast productivity
- One machine for numerous processes
- User-friendly operating
- Easy cleaning (automatic self-cleaning)
- Processing data recording for HACCP process diagrams and updates



## TEHNICAL DETAILS

Type		EVH 20	EVH 100	EVH 250	EVH 450	EVH 1000	EVH 2000
Useful volume (max)	l	20	100	250	450	1000	2000
Pressure resistance	bar	-1/+0	-1/+0	-1/+0	-1/+0	-1/+0	-1/+0
Double jacket pressure (max)	bar	+6	+6	+6	+6	+6	+6
Product inlet	DN	25	50	50	50	50	50
Product outlet	DN	40	65	65	65	80	80
Homogenizer	kW	4	7,5	7,5	22	45	45
Scraper agitator	kW	0,37	1,5	1,5	1,5	5,5	5,5
Vacuum pump	kW	0,75	0,75	1,5	1,5	2,2	2,2
Material		AISI 316					

