

VEP SERIES

Bitumen Emulsion Plants

2 – 20 t/h · VIMPO MultiMix™ colloid mill · Electric or thermal oil heating

2 – 20 t/h	40+	1997	10,000 m²
capacity range	countries with Vimpo equipment	experience since	covered production area

Compact, factory-tested bitumen emulsion plants that deliver the same emulsion quality in every production run.

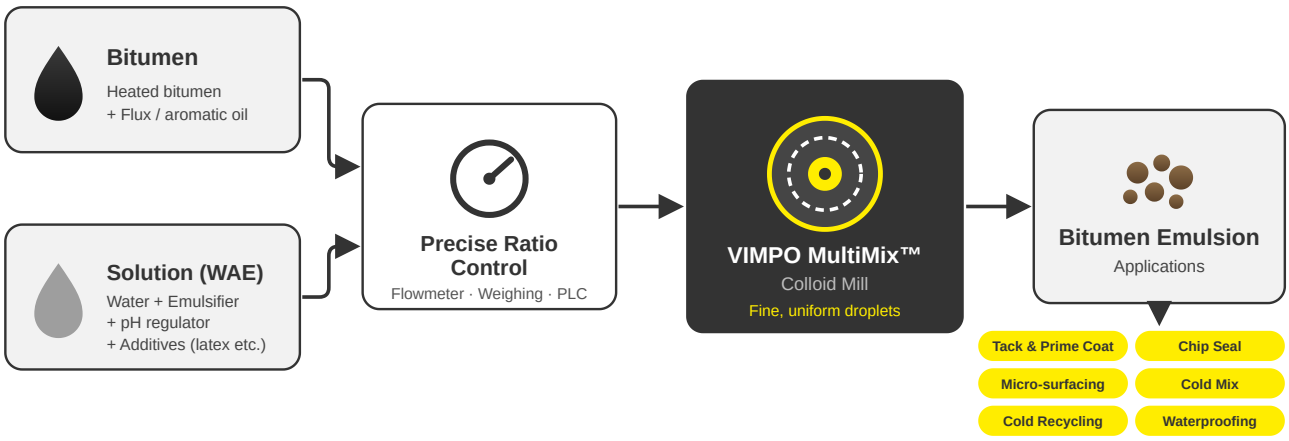
VEP plants feed hot bitumen and the water phase (WAE) to the VIMPO MultiMix™ colloid mill at a precisely set ratio. Every component — mill, pumps, dosing and automation — is designed by Vimpo engineering and manufactured in our Ankara factory, then assembled on a single steel skid, tested and shipped ready to connect.

- Cationic emulsions to EN 13808 and ASTM D2397
- Polymer-modified emulsions with latex dosing
- Cut-back production with the optional solvent line
- Siemens PLC with touch-screen recipes and reports on VEP 5 / 10 / 20
- Ships in a 40 ft HC or Open Top container

THE PROCESS

How a VEP plant works

Heated bitumen and the water phase — water, emulsifier, pH regulator and additives — are metered at a fixed ratio into the colloid mill. High shear in the narrow rotor-stator gap breaks the bitumen into micron-sized droplets, and the emulsifier keeps them stable in water.



KEY FEATURES

Built for consistent quality

VIMPO MultiMix™ colloid mill
Fine, uniform droplets and stable emulsions — including polymer-modified recipes.

Precise ratio control
Flow meters and load-cell dosing on VEP 5 / 10 / 20; operator-set on VEP-E-ECO.

Smart automation
Siemens PLC touch screen on VEP 5 / 10 / 20 — one-touch recipes and reports.

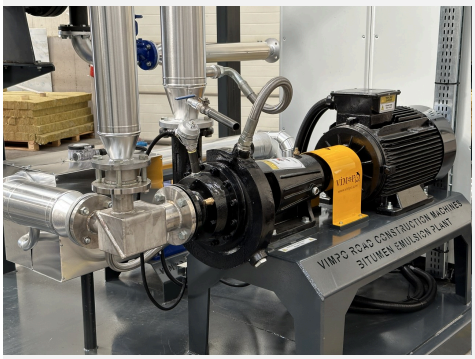
Durable build
Stainless steel and HDPE where the acidic solution runs; welding to EN ISO 3834-2.

Safe operation
Closed chemical dosing, PT100 temperature monitoring, emergency stop and alarms.

Flexible heating
VEP-T on site thermal oil; VEP-E and VEP-E-ECO electric with PT100 control.

Ready to ship
Assembled and tested in our factory, shipped in a 40 ft HC or Open Top container.

Ready to expand
Prepared for latex, flux oil, cut-back solvent and bentonite lines.



THE HEART OF THE PLANT

VIMPO MultiMix™ colloid mill

Designed and built by Vimpo. The multi-stage rotor-stator design and adjustable gap set the droplet size to the recipe; rotor and stator discs in heat-, acid- and water-resistant material keep the mill running reliably for years.

0.3 – 3 mm
adjustable gap

Multi-stage
rotor-stator

PMB-ready
polymer recipes

THE RANGE

Choose your model

Four capacities on one proven design. VEP 5, VEP 10 and VEP 20 are available with thermal oil (VEP-T) or electric (VEP-E) heating; VEP-E-ECO is the simple, operator-controlled entry model with electric heating.

VEP-E-ECO

2 t/h

≈ 350 t/month*

Electric heating · PT100
Operator controlled

A simple, economical way to start emulsion production

MultiMix™ Technology

ENTRY LEVEL

VEP 5

5 t/h

≈ 880 t/month*

Thermal oil or electric
Fully automatic · PLC

Compact plant for municipalities and regional producers

MultiMix™ Technology

COMPACT

VEP 10

10 t/h

≈ 1,760 t/month*

Thermal oil or electric
Fully automatic · PLC

Medium to large-scale production · suited to polymer-modified recipes

MultiMix™ Technology

VERSATILE

VEP 20

20 t/h

≈ 3,520 t/month*

Thermal oil or electric
Dual solution tanks

High-volume, continuous production for terminals and contractors

MultiMix™ Technology

CONTINUOUS

* Estimated monthly output: 8 hours/day, 22 days/month at maximum capacity

	VEP-E-ECO	VEP 5	VEP 10	VEP 20
Capacity*	2 t/h	5 t/h	10 t/h	20 t/h
Heating	Electric	Thermal oil or electric	Thermal oil or electric	Thermal oil or electric
Heating control	Electric heaters with PT100 control	VEP-E: electric heaters with PT100 control · VEP-T: thermal oil jackets and coil		
Operation	Operator-controlled	Fully automatic — Siemens PLC, touch-screen HMI, recipes and production reports		
Bitumen / WAE ratio	Set by the operator	Frequency-controlled pumps with flow meters on both phases		
Acid & emulsifier	Dosing tanks with level gauge	Dosed from IBCs by load-cell weighing		
WAE tank	IBC tank	1 tank	1 tank	2 tanks, alternating
Colloid mill	VIMPO MultiMix™ multi-stage rotor-stator			
Shipping	Assembled and tested on one steel skid — 40 ft HC or Open Top (OT) container			

* Maximum capacity rated at 70 % bitumen / 30 % WAE, water supply min. 25 °C and WAE temperature 40 °C. With colder water or lower bitumen content, capacity falls in proportion to the available heating power. Detailed technical data sheets are available for each model.



VEP 20 — at our Ankara factory



VEP 5 — in operation on site

READY TO EXPAND

Options

- **Latex dosing**
  Polymer-modified emulsions
- **Flux oil dosing**
  Sized to the plant capacity
- **Cut-back solvent line**
  ATEX-compliant equipment on request
- **Bentonite feeder**
  Screw feeder with load-cell weighing
- **Thermal oil heater**
  For VEP-T models

WHAT YOU CAN PRODUCE

Products

EN 13808

Cationic emulsions, e.g. C60B4, C65B3, C69B3 · polymer-modified C65BP3 with latex dosing

ASTM D2397

CRS-1, CRS-2, CMS, CSS

Other products

Prime coat · cut-back with the optional solvent line

WHERE EMULSION GOES

Tack Coat
Bonding between asphalt layers

Prime Coat
On granular base before paving

Chip Seal
Binder and chip spreading

Micro-surfacing
Slurry seal and micro-surfacing

Cold Mix
Cold asphalt and storable patching

Cold Recycling
Cold in-place recycling (CIR) and stabilisation

Crack Sealing
Crack filling and surface maintenance

Waterproofing
Waterproofing and dust suppression



VEP 10

SELECTED REFERENCES

COLAS · İstanbul Teknik · Beogradput · Maxagro · Piatra Balast Impex · Haliliye Municipality · Puma Energy · İlkadım Municipality

Full reference list on request.

Let's size your plant

Tell us your capacity, emulsion types and heating preference — we will recommend the right VEP model and send the technical data sheet and quotation. Commissioning, operator training and spare parts from Ankara, Herford (Germany) and Pune (India).

+90 312 354 85 09
sales@vimpo.com
www.vimpo.com

Vimpo Makine A.Ş. · Malıköy Anadolu OSB 12. Cadde No:8, Sincan, Ankara, Türkiye

CE · EAC · TSE · ISO 9001 · ISO 14001 · ISO 45001
EN ISO 3834-2 · EN 1090-2 EXC3
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