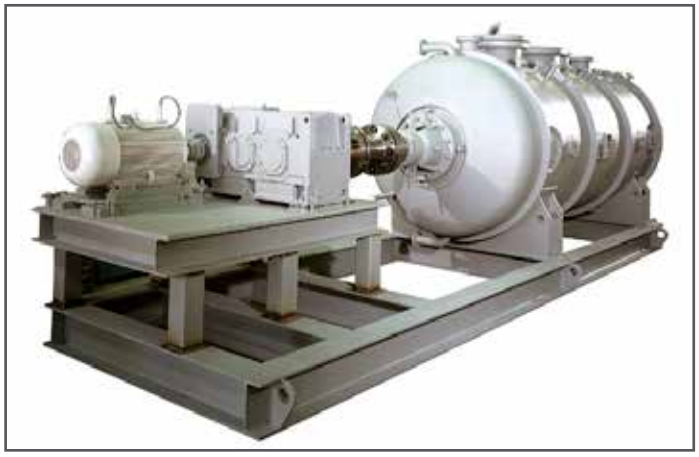
LÖDIGE
PROCESS TECHNOLOGY

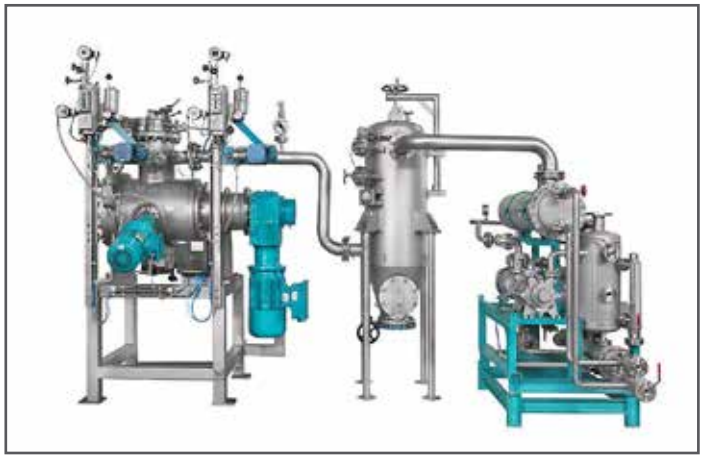
REACTOR DRUVATHERM®
TYPE DVT

- High speed mixing of reactants
- Prevention of local overconcentration
- No temperature gradients in the reaction field
- Improved reaction of reactants providing higher yield and greater end product purity
- Multiphase process (reaction, heating, drying, granulation, cooling)

ALWAYS THE RIGHT MIX



Reactor with drive unit mounted on base frame



DRUVATHERM® Reactor DVT 130 for R&D and small-scale production

Reactor DVT

Reactor DVT 55000 while shipment

Lödige DRUVATHERM Reactors are batch-process, high speed reactors. A three dimensional movement of the product is generated by mixing elements, adapted to the process, rotating in a cylindrical drum which is jacketed for temperature regulation. The resultant frequent contact of the reactants ensures effective reaction and maximum yield.

Mode of Operation

The high speed mixing elements force frequent contact between the reactants and intensive contact with the heated or cooled drum wall. In this way reactions in both homogeneous and heterogeneous phases can be carried out in any combination of solid/liquid/gaseous, whereby the spectrum of the product consistency can be liquid, pasty, lumpy or even free flowing. High speed choppers fitted to the side of the machine drum provide an additional mixing effect whilst dispersing the reactants.

Range of Application

- Cellulose derivates (CMC, HPMC, HEMC, MC)
- Starch, guar and tamarind derivates
- Chemical and special chemicals
- Intermediate pharmaceutical products
- Plastics
- Recycling

Sizes

Model	Motor Power in kW	Model	Motor Power in kW
DVT 5	0,75 - 0,75	DVT 6300	37 - 315
DVT 20	1,3 - 3,5	DVT 8000	45 - 400
DVT 50	2,2 - 7,5	DVT 10000	55 - 400
DVT 130	5,5 - 22	DVT 12500	55 - 400
DVT 300	5,5 - 30	DVT 16000	75 - 400
DVT 800	7,5 - 55	DVT 20000	90 - 500
DVT 1250	7,5 - 90	DVT 25000	90 - 500
DVT 2000	11 - 110	DVT 30000	110 - 600
DVT 3000	15 - 200	DVT 40000	300 - 800
DVT 4000	22 - 250	DVT 50000	400 - 1000

Optional Equipment

- Speed variation by hydrostatic drive unit or frequency regulation
- Product contact materials can be made, as required, of mild steel, any usual austenitic steels, duplex steels, titan or diverse nickel-based materials
- Pressure range to max. 40 bar
- Temperature range to max. 650 °C
- Shafts sealed by double-action mechanical face seals
- Supply of peripheral unit parts up to a complete system
- Drum volumes in graduated sizes from 5 litres

Gebrüder Lödige
Maschinenbau GmbH
Elsener Straße 7–9
33102 Paderborn

Telefon: +49 5251 309-0
Telefax: +49 5251 309-123
E-Mail: info@loedige.de