Montz–Pak Type A3-500M

Lowest pressure drop at high efficiencies

The new A3-500M offers a reduced pressure drop of 20% compared to the standard packing A3-500.

Due to the optimized crimp geometry higher throughputs, lower total pressure drops and smaller tower diameters and tower debottlenecking applications are possible. The A3-500M suites applications under high vacuum along with the smallest liquid distribution densities.

Characteristics
- lowest pressure drop per theoretical stage
- higher capacity
- equal separation efficiency to A3-500G

Applications
The main applications are the separation of thermal unstable products, which are separated under high vacuum up to 0.5 mbar.
- essential oils
- isomer mixtures
- vitamins
- fatty acids
- fatty alcohol
- isocyanates

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- fatty acids
- fatty alcohol
- isocyanates

Separation efficiency in system chloro-ethylene for Montz-Pak A3-500M

Pressure drop in system chloro-ethylene for Montz-Pak A3-500M and A3-500G

Range of products offered by Montz:
- Aseptics, fermentation, biotechnology: Rectification (immiscible and vacuum), distillation, absorption, extraction, falling film evaporators, heat exchangers.

Columns internals:
- Structured packing
- BI packing
- Large diameter metal packing
- A3 were gauze packing
- CP/SP packing
- DI/MM high performance packing
- Liquid distributor systems
- Mass transfer trays
- Montz Thermaweld mast
- Montz tunnel trays
- Cross-flow trays type KGG
- Saws and bubble cap trays
- Reflux splitter

Materials:
- stainless steel, aluminium, copper,
- nickel, Hastelloy, tantalum, titanium, zirconium, etc.

Assembly and installations:
- industrial installations
- refineries
- refineries
- Glohbautenungen von Apparaten

Inspections and technical codes:
- TÜV, Lloyd’s, Lloyds, Bureau, MANC, Service Mines, AIM-Vincotte, ASM etc.

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High performance structured packing

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Montz-Pak Type M / MN
The new high performance packing

The Montz-Pak Type M and Type MN are further developments of the tried and trusted Montz structured packing Type B1, A3 and B00 with its own patent coverage. The optimized crimp geometry creates two packing types, that meet the demands for high separation efficiency and throughput exceptionally well.

The new Type MN series gives 30% more separation efficiency along with higher throughput capacity compared to standard packing strips. Higher purity, smaller column heights, and simple lower debottlenecking are now possible.

Both packing types are patented in USA and Europe. Layer height depends on crimp shape, which prevents liquid holdup at the lower end of the packing layer at high gas loads.

The field of applications comprises new columns as well as older columns. Revamps from standard packed columns to the new high performance packing type consistently deliver outstanding performance.

**Characteristics Type M**
- maximized capacity
- lowest pressure drop
- same separation efficiency compared to standard packing types

**Characteristics Type MN**
- higher capacity
- lower pressure drop
- highest separation efficiency

**Available packing types**
- **Pack Type** Surface area (m²/ft²)
  - B1-200M 250
  - B1-350M 350
  - B1-250WM 250
  - B1-350WM 350
  - B1-500WM 500

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**Type MN**
Separation efficiency increase of 30%
Performance data of a test distillation unit DN 600

**Type M**
Throughput increase of 30%
Performance data of a test distillation unit DN 450

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Separation efficiency in system chloro / ethylene  for Montz-Pak B1-350SM

Pressure drop in system chloro / ethylene  for Montz-Pak B1-350SM

Pressure drop in system air / water  for Montz-Pak B1-350SM (B in m³/hr)

Pressure drop in system air / water  for Montz-Pak B1-250WM (B in m³/hr)
Montz-Pak Type M / MN
The new high performance packing

Montz-Pak Type M and Type MN are further developments of the tried and trusted Montz structured packing Type B1, A3 and B3H with their own patent coverage. The optimised crimp geometry creates two packing types, that meet the demands for high separation efficiency and throughput exceptionally well.

The new Type MN versions give 30%, more separation efficiency along with higher throughput capacity compared to standard packing types. Higher purity, smaller column heights, and simple shorter debottlenecking are now possible.

The Type M allows throughput increases of 30% compared to columns equipped with standard packing types due to the reduced pressure drop. This packing type offers the same efficiency as standard packing types.

Both packing types are patented in USA and Europe. Layer height depends on crimp shape, which prevents liquid holdup at the lower end of the packing layer at high gas loads.

The field of applications comprises new columns as well as tower modernisation. Replaces from standard packed columns to the new high performance packing type consistently deliver outstanding performance.

Characteristics Type M
- maximised capacity
- lowest pressure drop
- same separation efficiency compared to standard packing types

Characteristics Type MN
- higher capacity
- lower pressure drop
- highest separation efficiency

Available packing types
<table>
<thead>
<tr>
<th>Pack Type</th>
<th>Surface area (m²/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1-250M</td>
<td>250</td>
</tr>
<tr>
<td>B1-350M</td>
<td>350</td>
</tr>
<tr>
<td>B1-350SW</td>
<td>350</td>
</tr>
<tr>
<td>B1-500W</td>
<td>500</td>
</tr>
</tbody>
</table>

Type MN
Separation efficiency increase of 30%
Performance data of a test distillation unit DN 600

Type M
Throughput increase of 30%
Performance data of a test distillation unit DN 450
Montz-Pak Type M / MN

The new high performance packing

The Montz-Pak Type M and Type MN are further developments of the tested and trusted Montz structured packing Type B1, A3 and B98 with its own patent coverage. The optimized crimp geometry creates two packing types, that meet the demands for high separation efficiency and throughput exceptionally well. The new Type MN series gives 30% more separation efficiency along with higher throughput capacity compared to standard packing crests. Higher porosity, smaller column heights, and simple lower deadheading are now possible.

The Type M Manticore allows throughput increases of 50% compared to columns equipped with standard packing types due to the reduced pressure drop. This packing only offers the same efficiency as standard packing types.

Both packing types are patented in USA and Europe. Layer height depends on crimp shape, which prevents liquid holdup at the lower end of the packing layer at high gas loads.

The field of applications comprises new columns as well as tower retrofits. Reworks from standard packed columns to the new high-performance packing type consistently deliver outstanding performance.

**Characteristics Type M**
- Reversed packing
- Lowest pressure drop
- Same separation efficiency compared to standard packing types

**Characteristics Type MN**
- Higher capacity
- Lower pressure drop
- Highest separation efficiency

**Available packing types**
- **Type M**
  - Surface area (sqm)
  - B1-250M: 250
  - B1-350M: 350
  - B1-250WN: 250
  - B1-350WN: 350
  - B1-550WN: 500

**Type MN**

Separation efficiency increase of 30%
Performance data of a test distillation unit DN 600

**Type M**

Throughput increase of 30%
Performance data of a test distillation unit DN 450
Montz–Pak Type A3-500M
Lowest pressure drop at high efficiencies

The new A3-500M offers a reduced pressure drop of 20% compared to the standard packing A3-500.

Due to the optimized crimp geometry higher throughput, lower total pressure drops and smaller tower diameters and tower debottlenecking applications are possible. The A3-500M suits applications under high vacuum along with the smallest liquid distribution densities.

Characteristics
- lower pressure drop per theoretical stage
- higher capacity
- equal separation efficiency to A3-500G

Applications
- The main applications are the separation of thermal unstable products, which are separated under high vacuum up to 0.5 mbar.
- essential oils
--isomer mixtures
- vitamins
- fatty acids
- fatty alcohol
- isocyantes

Separation efficiency in system chlorine / ethylene for Montz-Pak A3-500M:

Range of products offered by Montz:
- Aqueous, thermally, catalytic; rectification (immixtures and vacuum), distillation, absorption, extraction, falling film evaporators, heat exchangers

Column internals:
- Structured packing: BI packing
- Structured metal packing: A3 sea gull packing, CGT packing
- Liquid distributors: spray, mass transfer trays, Montz Thermowell, Monostack trays
- Cross-flow trays type KGG, Seele and bubble cap trays
- Reflux splitter

Materials:
- Stainless steel, aluminium, copper, nickel, Hastelloy, tantalum, titanium, zirconium, etc.

Assembly and installations:
- industrial installation
- revamps
- repair
- Giblassenhandlungen von Apparaten

Inspections and technical codes:
- TÜV Lloyd’s, Stromweisen, ANCC, Service Mines, ABV-Vincci, ASM etc.

Montz–Pak Type A3-500M
Lowest pressure drop at high efficiencies

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High performance structured packing

Addresses and Services
This list shows you where you can find our range of products and services along with our world-wide agencies and representative:

Range of products offered by Montz:
- Aqueous, thermally, catalytic; rectification (immixtures and vacuum), distillation, absorption, extraction, falling film evaporators, heat exchangers

Column internals:
- Structured packing: BI packing
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Structured packing

High performance structured packing
Montz–Pak Type A3-500M
Lowest pressure drop at high efficiencies

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Characteristics
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- equal separation efficiency to A3-500Q

Applications
The main applications are the separation of thermal unstable products, which are separated under high vacuum up to 0.5 mbar.

- essential oils
- isomer mixtures
- vitamins
- fatty acids
- fatty alcohol
- isonitrates

Range of products offered by Montz:
- Apparatus, Kennedy, plant engineering,
- Rectification (removal and vacuum),
- distillation, absorption, extraction,
- falling film evaporators, heat exchangers

Columns internals:
- Structured packing: B1 packing
- Structured metal packing: A3 were gas pack: ODFF packing
- M/Bighin performance packing
- Liquid distributor systems
- Mass transfer trays
- Montz Thermowell rings
- Montz channel trays
- Cross-flow trays type KGG
- Swirl and bubble cap trays
- Reflux splitter

Materials:
- stainless steel, aluminium, copper,
- nickel, Hastelloy, tantalum, zirconium, etc.

Assembly and installations:
- industrial installations
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- repairs
- Gleitlagerführungen von Apparaten

Inspections and technical codes:
- TÜV, Lloyd’s, Stromwesen, AMCC, Service Mines, ANCC, ASM etc.

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Separation efficiency in system chloro–ethylene for Montz-Pak A3-500M

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