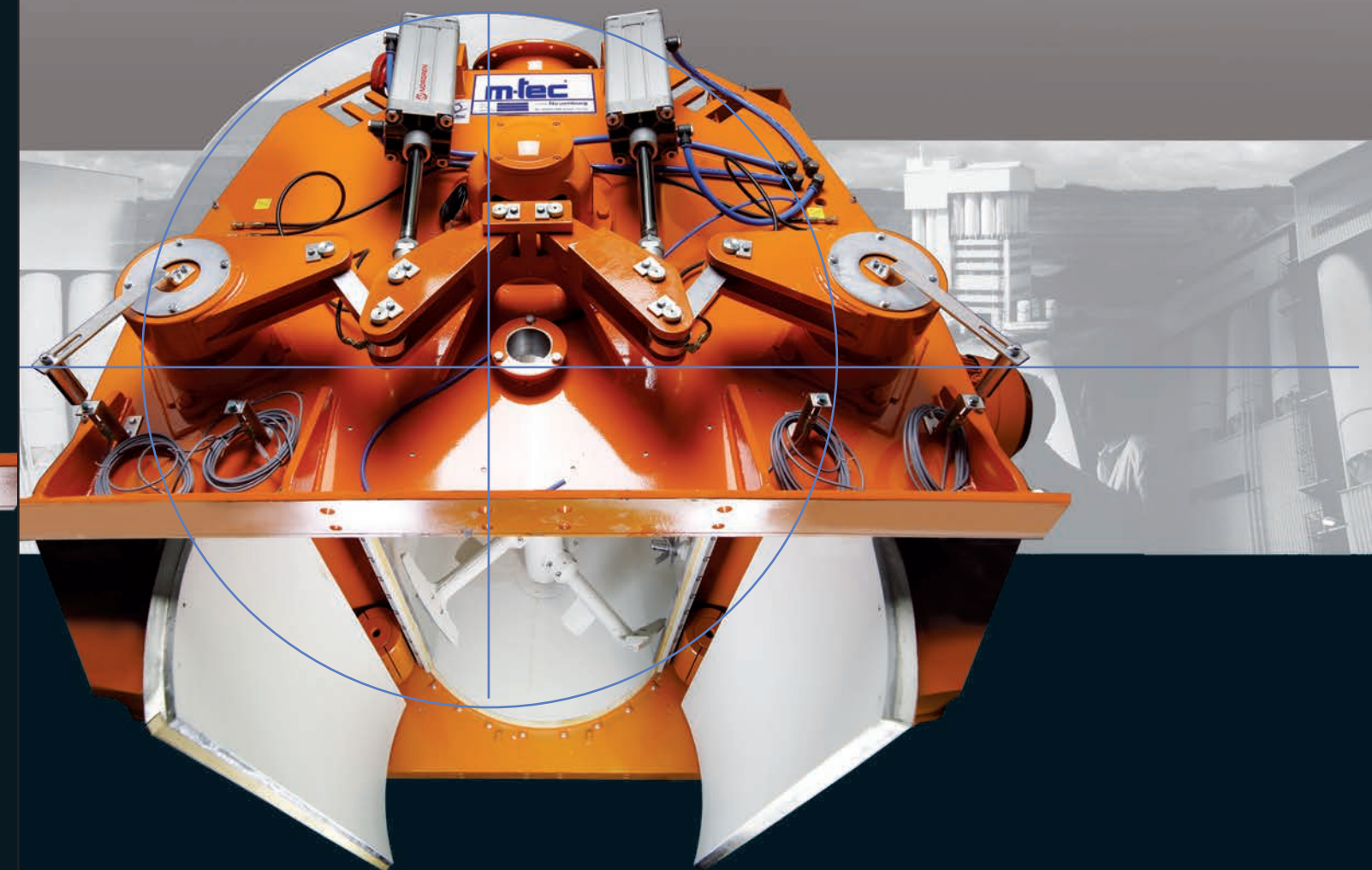


# MR



# MR

Batch mixers:  
the clean solution!



11/2019 m-tec

**m-tec**<sup>®</sup>  
Technology for better building

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Technology for better building



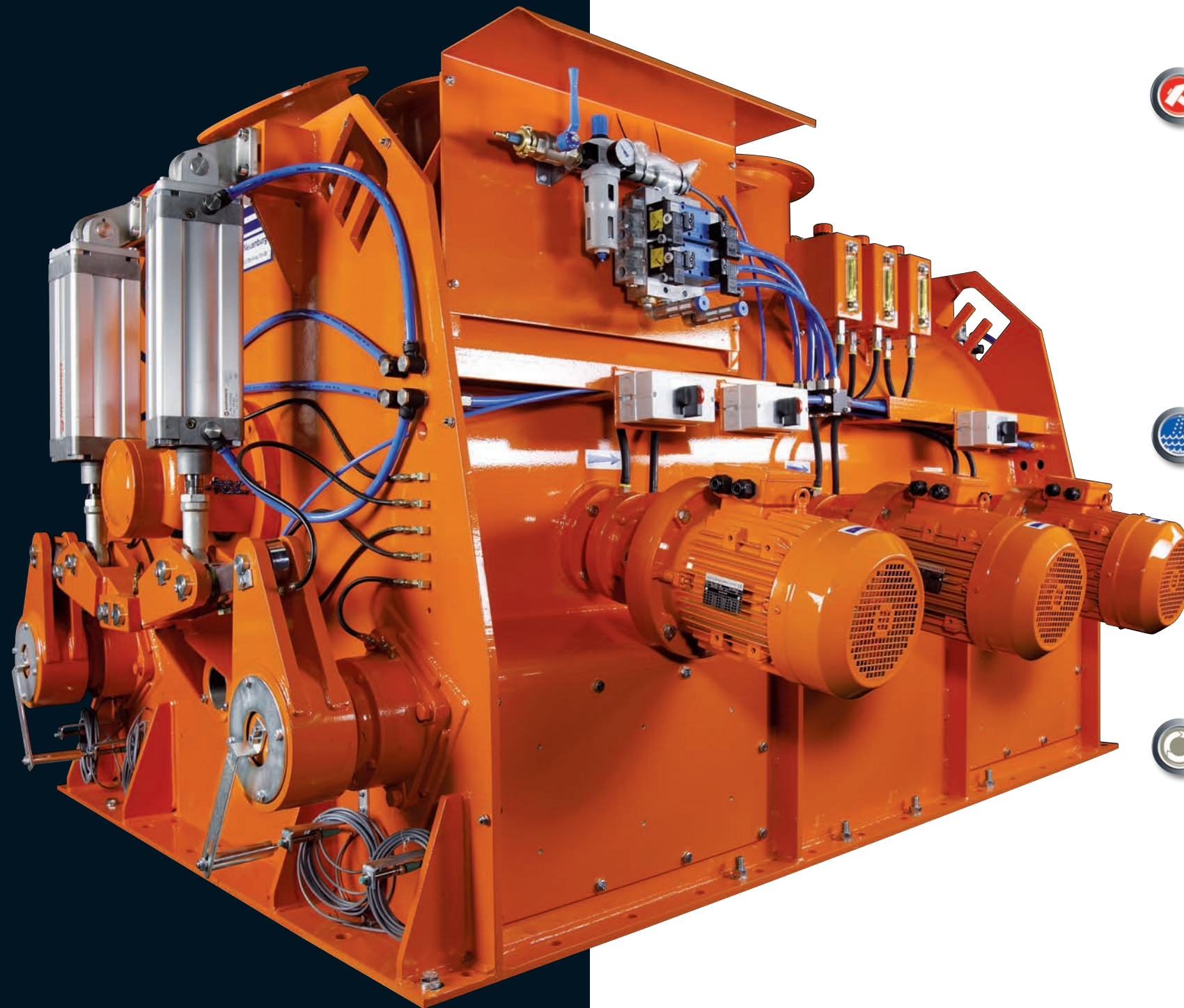
# MR batch mixers: the clean solution!

m-tec mixers work according to the centrifugal principle. The special construction of the mixer unit (also available with low-wear fittings as required) creates a three-dimensional movement in the particles in the components to be mixed. By gently mixing the raw materials, this allows high mixing quality within the briefest of times. The use of optionally available shaft whirlers, which are fitted with specialised tools, allows the successful, trouble-free processing of agglomerates, colour pigments as well as fibres.

One of the most noticeable features of this type of mixer is its almost residue-free, rapid emptying. In the MR model, the contents of the mixing container is emptied through two hydraulically or pneumatically operated emptying flaps, which extend along the entire length of the mixer and open to an angle of 100°, into an end-container. After emptying, the residue remaining in the mixer can be measured in fractions of a percent (this may vary according to the product). m-tec's patented sealing system with mechanical self-cleaning ensures a 100% seal thanks to a double-locking flap together with a toggle-lever locking system... even with cohesive mixing products with relatively high levels of residual humidity.

While the end-product is continuously removed from the end-container, the mixing of a new batch can already be started, thus significantly optimising processing time in comparison to a mixer with no end-container. The rapid emptying of the mixer saves additional time and thus considerably increases the throughput of the mixer – although this will vary according to the product-dependent mixing time. Running these over a common power source means that they both generate considerable power and thus cost savings.

Whether you want to reduce the time you spend or produce more in the same amount of time - MR type mixers are ideally suited for customers who must be able to switch production quickly and frequently for operational reasons, and who also value flexibility combined with high production output. In other words: The MR is the ideal model for the most demanding of requirements.



# MR

## > MR: Plus points



### EasyClean

- Almost residue-free emptying (< 1 ‰) thanks to dual-flap system
- High storage times and reliability thanks to the patented sealing-system with self cleaning effect



### EasyWork

- More or less continuous production thanks to a downstream buffer container
- Long mixing shaft seal lifespan thanks to a specially developed sealing system
- Long mixing body lifespan thanks to individual tuning
- Simple, rapid replacement of consumer parts
- High levels of safety thanks to mechanical flap locking (using m-tec's toggle-lever locking system)



### EasyMix

- Gentle product handling thanks to specialised mixer blade geometry
- High mixing quality with the shortest mixing times
- High reproducibility of individual loads
- Improved processing of agglomerates, colour pigments and fibres thanks to optionally integrable mixing whirler
- Simple sampling
- Shortest possible emptying time thanks to dual-flap system



### EasyLife

- Universal application for almost any mixing task
- Excellent price-performance ratio
- High efficiency thanks to low energy consumption
- High availability thanks to long maintenance intervals and ease of maintenance Design
- High reliability and long lifespan thanks to manufacture according to recognised m-tec quality standards





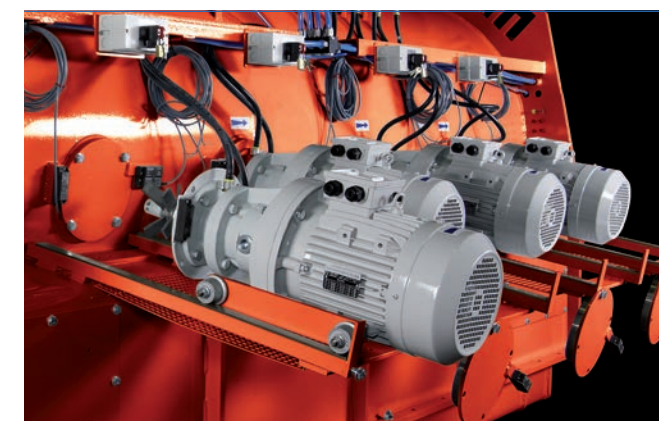
# MR

> MR: Technical data

| Type                     | MR 11 | MR 22 | MR 45 | MR 65 | MR 90 | MR 150 | MR 220 | MR 310 | MR 460 | MR 610 | MR 840 | MR 1100 |
|--------------------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|---------|
| <b>Drive output (kW)</b> |       |       |       |       |       |        |        |        |        |        |        |         |
| Drive a.                 | -     | 5,5   | 7,5   | 11    | 15    | 22     | 37     | 45     | 75     | 90     | 132    | 160     |
| Drive b.                 | 5,5   | 7,5   | 11    | 18,5  | 30    | 37     | 55     | 75     | 110    | 160    | 200    | -       |
| Drive c.                 | -     | -     | 18,5  | 30    | 37    | 55     | 75     | 110    | 160    | 200    | -      | -       |
| <b>Mixing blade rpm</b>  |       |       |       |       |       |        |        |        |        |        |        |         |
| n (1/min)                | 170   | 155   | 135   | 135   | 135   | 120    | 120    | 113    | 100    | 100    | 90     | 90      |
| <b>Weight (kg)</b>       |       |       |       |       |       |        |        |        |        |        |        |         |
| Mixer                    | 750   | 950   | 1500  | 2100  | 2700  | 3900   | 5050   | 7400   | 11150  | 12750  | 22000  | 26000   |
| End container            | 75    | 120   | 250   | 350   | 450   | 680    | 1200   | 1550   | 1900   | 3400   | 3000   | 4000    |
| Drive a.                 | -     | 220   | 250   | 420   | 570   | 680    | 930    | 1400   | 1600   | 1800   | 2600   | 3000    |
| Drive b.                 | 220   | 250   | 420   | 570   | 840   | 930    | 1210   | 1600   | 2300   | 3000   | 3100   | -       |
| Drive c.                 | -     | -     | 570   | 850   | 930   | 1250   | 1550   | 2200   | 3000   | 3100   | -      | -       |
| <b>Whirler</b>           |       |       |       |       |       |        |        |        |        |        |        |         |
| Number                   | 1     | 1     | 1     | 2     | 3     | 3      | 4      | 4      | 4      | 6      | 6      | 8       |

| <b>Whirler for all mixers</b> |      |
|-------------------------------|------|
| P (kW)                        | 7,5  |
| n (rpm)                       | 3000 |

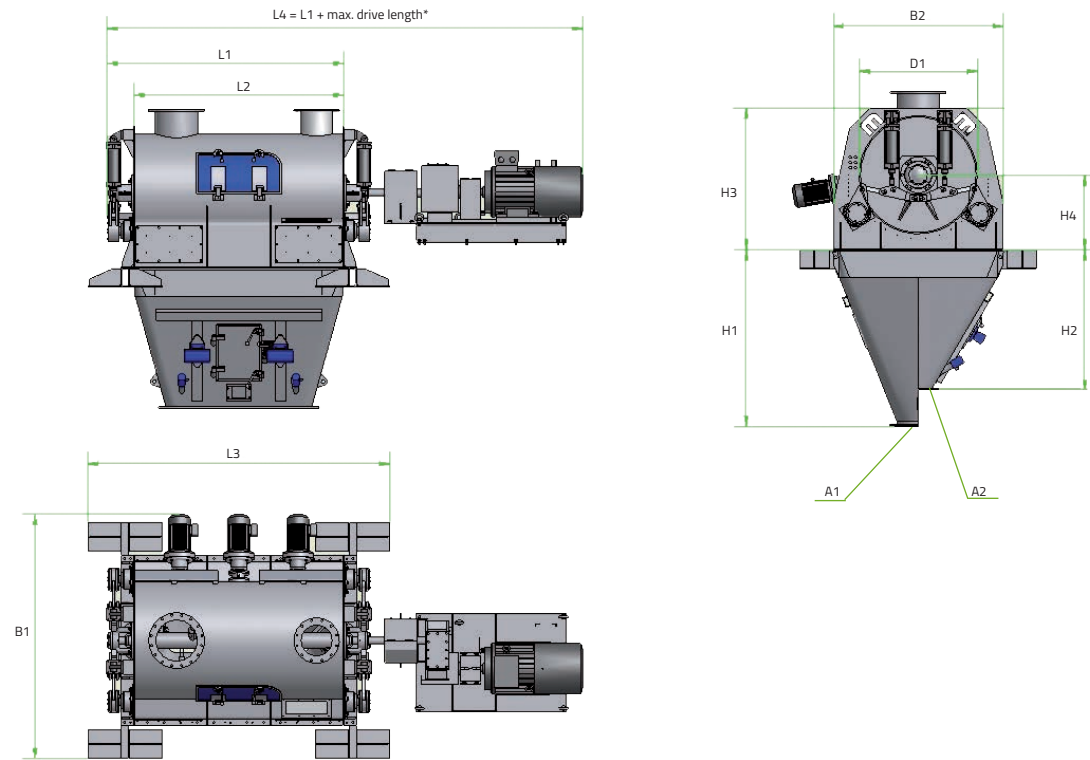
Other fittings are available upon request.  
Subject to technical alterations



Option: agitator quick change system

# MR

## > MR: Facts

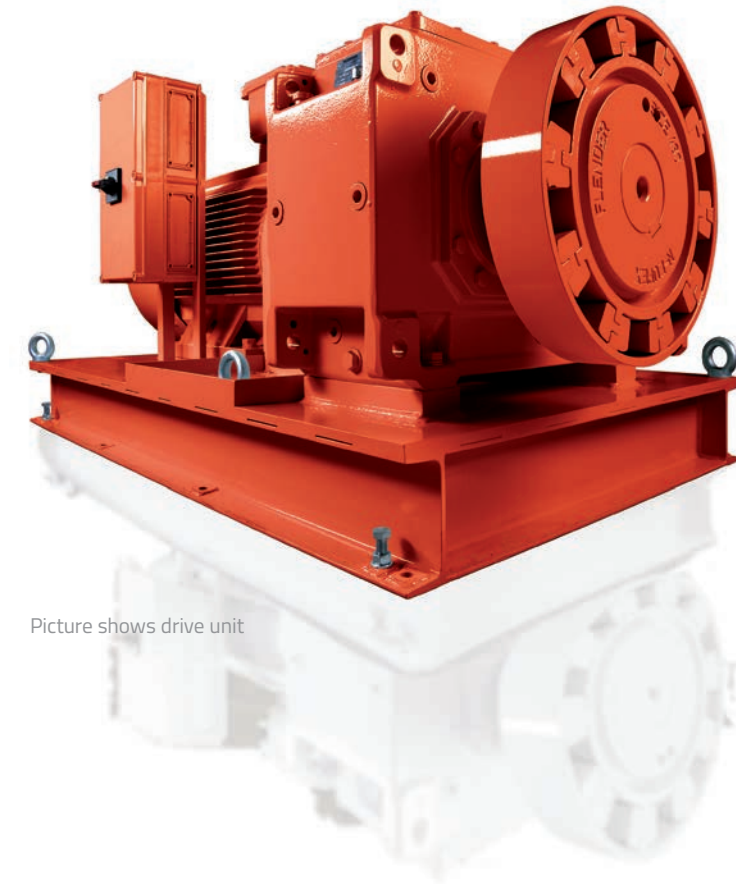


\* dependent on unit layout

Schematic drawing, shown without inlet nozzles

| Type    | L1   | L2   | L3   | L4   | D1     | H1   | H2   | H3   | H4   | B1   | B2   | A1    | A2           |
|---------|------|------|------|------|--------|------|------|------|------|------|------|-------|--------------|
| MR 11   | 1030 | 665  | 1065 | 2598 | ø 540  | 480  | -    | 1100 | 800  | 1400 | 900  | ø 250 | -            |
| MR 22   | 1360 | 1000 | 1400 | 2928 | ø 650  | 670  | -    | 1280 | 930  | 1550 | 1000 | ø 250 | -            |
| MR 45   | 1460 | 1100 | 1370 | 3268 | ø 880  | 1200 | -    | 1200 | 700  | 1650 | 1330 | ø 300 | -            |
| MR 65   | 1860 | 1500 | 1770 | 3961 | ø 880  | 1300 | -    | 1200 | 700  | 1650 | 1330 | ø 400 | -            |
| MR 90   | 2360 | 2000 | 2270 | 4452 | ø 880  | 1600 | 1050 | 1200 | 700  | 1650 | 1330 | ø 400 | □ 250 x 1400 |
| MR 150  | 2360 | 2000 | 2280 | 4585 | ø 1110 | 1700 | 1350 | 1370 | 725  | 1950 | 1640 | ø 400 | □ 250 x 1400 |
| MR 220  | 3360 | 3000 | 3280 | 5811 | ø 1110 | 2500 | 1750 | 1450 | 725  | 1950 | 1640 | ø 400 | □ 250 x 1400 |
| MR 310  | 3760 | 3400 | 3800 | 6763 | ø 1250 | 3000 | 1950 | 1570 | 870  | 2060 | 1760 | ø 500 | □ 250 x 2000 |
| MR 460  | 3360 | 3000 | 3500 | 6309 | ø 1635 | 2600 | 2300 | 2100 | 1100 | 2520 | 2220 | ø 500 | □ 250 x 2000 |
| MR 610  | 4360 | 4000 | 4500 | 7349 | ø 1635 | 3500 | 2600 | 2100 | 1100 | 2520 | 2220 | ø 500 | □ 250 x 2000 |
| MR 840  | 4200 | 3840 | 4340 | 7204 | ø 1930 | 3500 | 2600 | 2500 | 1400 | 3040 | 2740 | ø 500 | □ 250 x 2000 |
| MR 1100 | 5400 | 5040 | 5540 | 8523 | ø 1930 | 4000 | -    | 2500 | 1400 | 3400 | 2740 | ø 500 | □ 250 x 2000 |

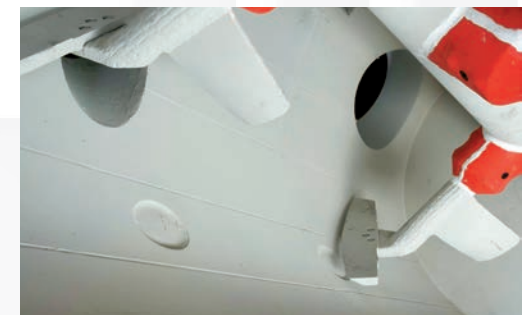
Subject to technical alterations, all measurements in mm



Picture shows drive unit



Picture shows agitator tools



Picture shows mixing tools

| Type    | Mixing volume (dm <sup>3</sup> ) |      | Mixing output (m <sup>3</sup> /h) |                    |
|---------|----------------------------------|------|-----------------------------------|--------------------|
|         | max                              | min  | 90 s loading time                 | 150 s loading time |
| MR 11   | 110                              | 25   | 4,4                               | 2,6                |
| MR 22   | 220                              | 50   | 8,8                               | 5,3                |
| MR 45   | 450                              | 100  | 18                                | 11                 |
| MR 65   | 650                              | 150  | 26                                | 16                 |
| MR 90   | 900                              | 200  | 36                                | 22                 |
| MR 150  | 1500                             | 350  | 60                                | 36                 |
| MR 220  | 2200                             | 500  | 88                                | 53                 |
| MR 310  | 3100                             | 700  | 124                               | 75                 |
| MR 460  | 4600                             | 1000 | 184                               | 110                |
| MR 610  | 6400                             | 1350 | 244                               | 146                |
| MR 840  | 8400                             | 1850 | 336                               | 200                |
| MR 1100 | 11000                            | 2400 | 440                               | 264                |

The provided output values are for reference only



Picture shows discharge flap