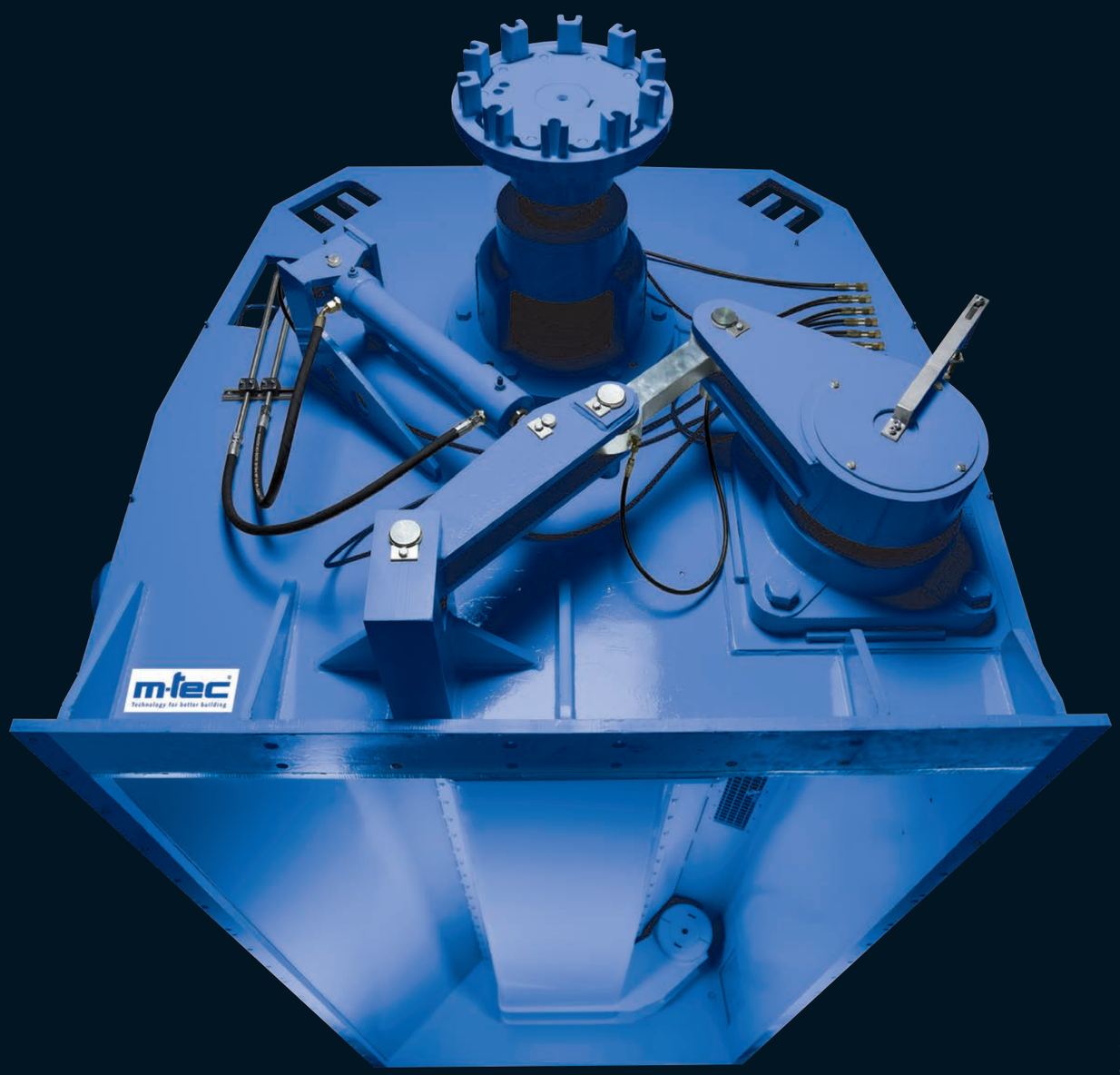
# ME

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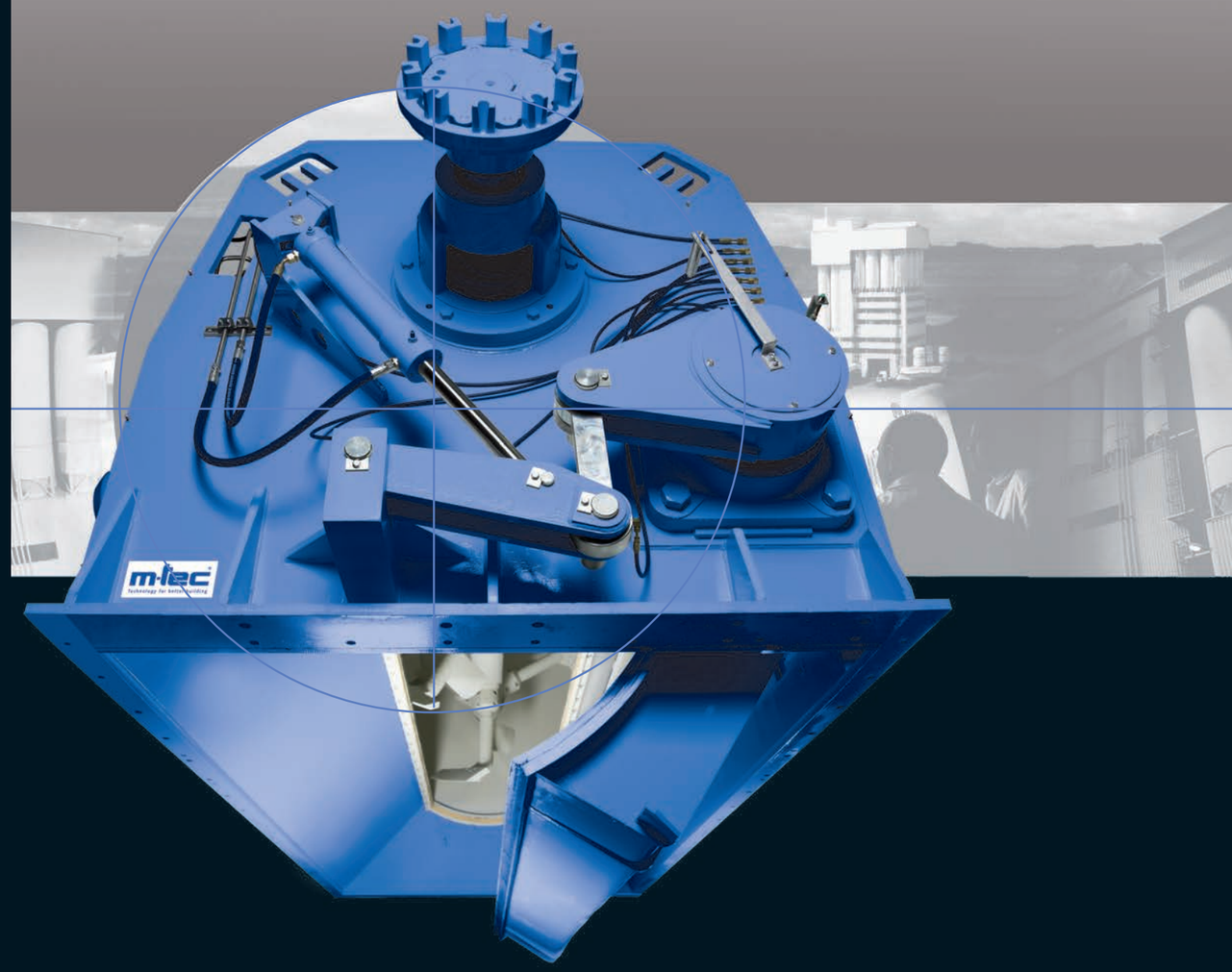
11/2019 m-tec

# ME

## ME batch mixers:
## Smart and self-cleaning!



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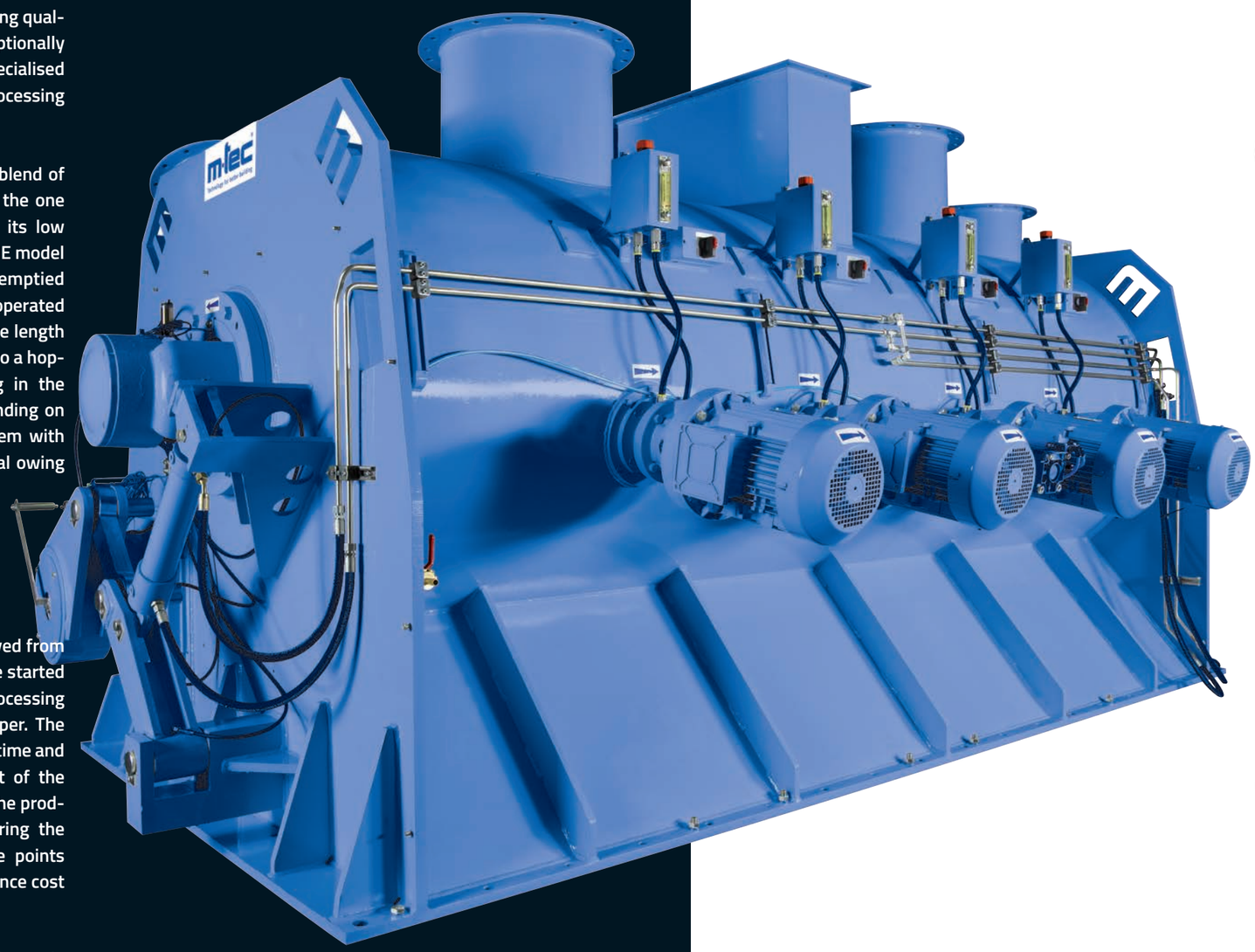
# ME batch mixers: Smart and self-cleaning!

m-tec mixers operate 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 of the particles in the components to be mixed. Temperate mixing of the raw materials produces a high mixing quality within the briefest of times. The use of optionally available agitators, which are fitted with specialised tools, allows the successful, trouble-free processing of agglomerates, colour pigments and fibres.

This mixer type is regarded as a successful blend of high output owing to its rapid emptying on the one hand and (compared to twin-valve mixers) its low capital investment cost on the other. In the ME model the contents of the mixing chamber is emptied through a pneumatically or hydraulically operated emptying flap, which extends along the entire length of the mixer and opens to an angle of 60°, into a hopper. After emptying the residue remaining in the mixer is less than 2 ‰ (this may vary depending on the product). m-tec's patented sealing system with mechanical self-cleaning ensures a 100% seal owing to a double-locking flap together with a toggle-lever locking system... even with cohesive mixing products containing relatively high levels of residual humidity.

While the end-product is continuously removed from the hopper, the mixing of a new batch can be started immediately, thus significantly optimising processing time in comparison to a mixer with no hopper. 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. When considering the total energy requirements, both the above points together result in a significant energy and hence cost saving.

High mix quality (compared with mixers with nozzle outlets) and reduced running time – ME mixers are ideally suited for customers who value high performance but who may also require manual cleaning during any switch in production. The actual mixing result is indistinguishable from that of our top MR model!




ME

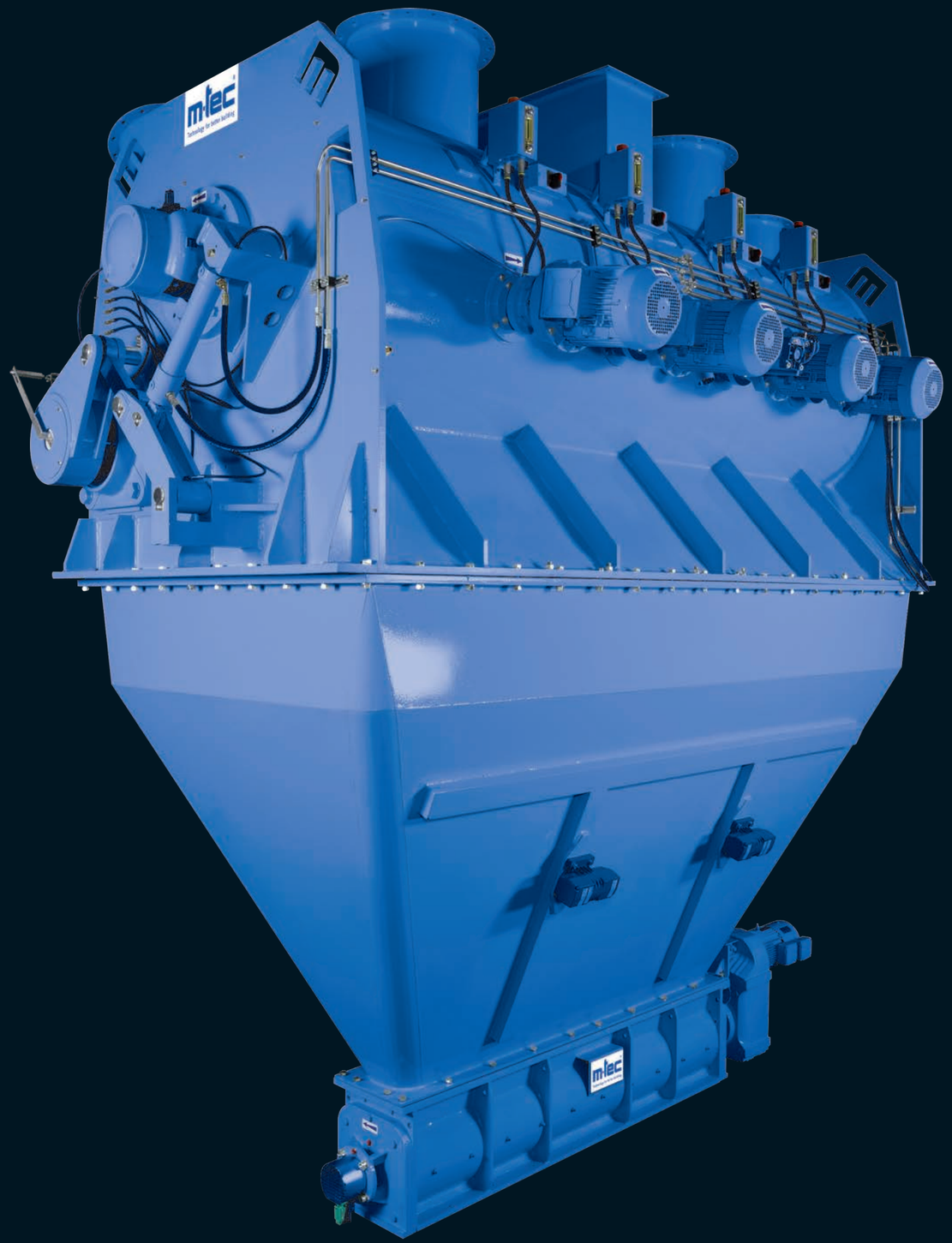
## > ME: Plus points

**EasyClean**
- Low-residue emptying (<< 2 ‰) owing to a single-flap system with wide aperture angle
- Simple cleaning during switches in production
- High storage times and reliability owing to the patented sealing-system with self cleaning effect

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

**EasyMix**
- Temperate product handling owing 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 retrofit mixing agitators
- Simple sampling
- Shortest possible emptying time owing to single-flap-system

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



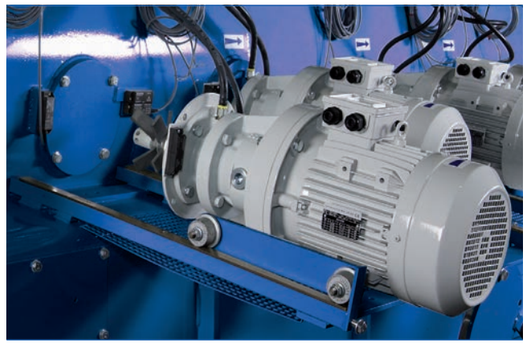
# ME

## > ME: Technical data

| Type | ME 11 | ME 22 | ME 45 | ME 65 | ME 90 | ME 150 | ME 220 | ME 310 | ME 460 | ME 610 | ME 840 | ME 1100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Drive output (kW)** | | | | | | | | | | | | |
| **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 | - | - |
| **Mixing blade rpm** | | | | | | | | | | | | |
| **n** (rpm) | 170 | 155 | 135 | 135 | 135 | 120 | 120 | 113 | 100 | 100 | 90 | 90 |
| **Weight (kg)** | | | | | | | | | | | | |
| **Mixer** | 730 | 920 | 1450 | 2000 | 2550 | 3120 | 4700 | 7100 | 8800 | 12200 | 21000 | 25000 |
| **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 | - | - |
| **Agitator** | | | | | | | | | | | | |
| **Number** | 1 | 1 | 1 | 2 | 3 | 3 | 4 | 4 | 4 | 6 | 6 | 8 |

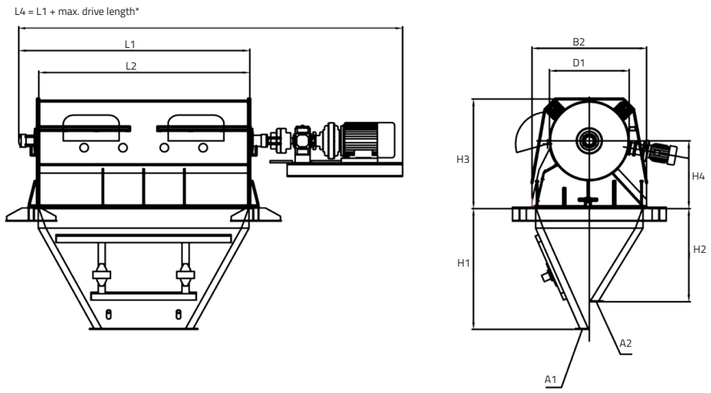
| Agitators for all mixers | |
|---|---|
| **P** (kW) | 7,5 |
| **n** (1/min) | 3000 |

Other fittings are available upon request.
Subject to technical modifications.

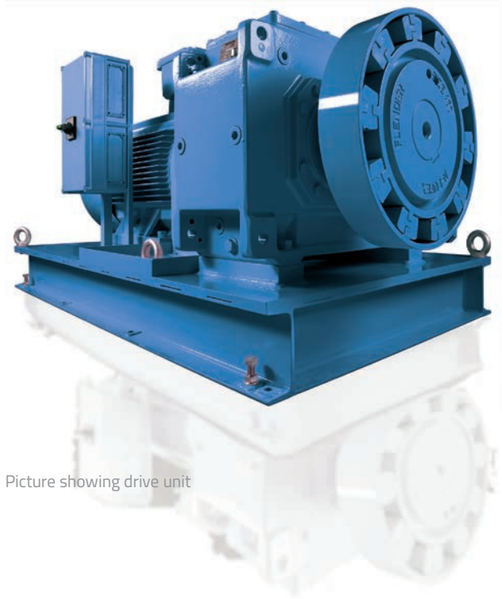


Option: agitator quick change system

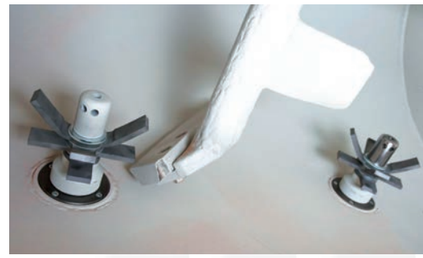
# > ME: Facts




Schematic drawing, shown without inlet nozzles



Picture showing drive unit



Picture showing agitator tools

Picture showing mixing tools

Picture showing discharge flap

| Type | L1 | L2 | L3 | L4 | D1 | H1 | H2 | H3 | H4 | B1 | B2 | A1 | A2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ME 11** | 1115 | 665 | 1065 | 2811 | ø 540 | 480 | - | 1100 | 900 | 1400 | 900 | ø 250 | - |
| **ME 22** | 1450 | 1000 | 1400 | 3146 | ø 650 | 670 | - | 1280 | 930 | 1550 | 1000 | ø 250 | - |
| **ME 45** | 1550 | 1100 | 1370 | 3808 | ø 880 | 1200 | - | 1430 | 930 | 1650 | 1330 | ø 300 | - |
| **ME 65** | 1950 | 1500 | 1770 | 4051 | ø 880 | 1300 | - | 1450 | 930 | 1650 | 1330 | ø 400 | - |
| **ME 90** | 2850 | 2000 | 2270 | 4942 | ø 880 | 1600 | 1050 | 1450 | 930 | 1650 | 1330 | ø 400 | ☐ 250 x 1400 |
| **ME 150** | 2450 | 2000 | 2280 | 4675 | ø 1110 | 1700 | 1350 | 1550 | 950 | 1950 | 1640 | ø 400 | ☐ 250 x 1400 |
| **ME 220** | 3450 | 3000 | 3280 | 5839 | ø 1110 | 2500 | 1750 | 1550 | 950 | 1950 | 1640 | ø 400 | ☐ 250 x 1400 |
| **ME 310** | 3900 | 3400 | 3800 | 6903 | ø 1250 | 3000 | 1950 | 1700 | 1050 | 2060 | 1760 | ø 500 | ☐ 250 x 2000 |
| **ME 460** | 3450 | 3000 | 3500 | 6399 | ø 1635 | 2600 | 2300 | 2300 | 1300 | 2520 | 2220 | ø 500 | ☐ 250 x 2000 |
| **ME 610** | 4450 | 4000 | 4500 | 7439 | ø 1635 | 3500 | 2600 | 2300 | 1300 | 2520 | 2220 | ø 500 | ☐ 250 x 2000 |
| **ME 840** | 4290 | 3840 | 4340 | 7279 | ø 1930 | 3500 | 2600 | 2800 | 1700 | 3040 | 2740 | ø 500 | ☐ 250 x 2000 |
| **ME 1100** | 5490 | 5040 | 5540 | 8439 | ø 1930 | 4000 | - | 2620 | 1700 | 3400 | 2740 | ø 500 | ☐ 250 x 2000 |

Subject to technical modifications, all measurements in mm

| | Mixing volume ($dm^3$) | | Mixing output ($m^3/h$) | |
|---|---|---|---|---|
| **Typ** | **max** | **min** | **90 s loading time** | **150 s loading time** |
| **ME 11** | 110 | 25 | 4,4 | 2,6 |
| **ME 22** | 220 | 50 | 8,8 | 5,3 |
| **ME 45** | 450 | 100 | 18 | 11 |
| **ME 65** | 650 | 150 | 26 | 16 |
| **ME 90** | 900 | 200 | 36 | 22 |
| **ME 150** | 1500 | 350 | 60 | 36 |
| **ME 220** | 2200 | 500 | 88 | 53 |
| **ME 310** | 3100 | 700 | 124 | 75 |
| **ME 460** | 4600 | 1000 | 184 | 110 |
| **ME 610** | 6100 | 1350 | 244 | 146 |
| **ME 840** | 8400 | 1850 | 336 | 200 |
| **ME 1100** | 11000 | 2400 | 440 | 264 |

The provided output values are for reference only