

MPTK-GI

The MPTK-GI chopper pump is an integrated part of the Landia GasMix System. The pump is ideal for pumping sludge with a high dry matter content. The knife system prevents clogging and ensures a steady chopping of organic material, leading to increased biogas production.

APPLICATION EXAMPLES

🔗 Landia GasMix mixing system

PUMP RPM

1,500 rpm



MATERIAL OF CONSTRUCTION

| | |
|-------------------------------|--|
| Motor housing and oil chamber | Cast iron EN-GJL-250 |
| Pump housing | Cast iron EN-GJL-250 |
| Pump impeller | Cast iron EN-GJL-250 Cast iron EN-GJS-700-2 (optional) W1.4408/AISI316 (optional) not available for MPTK-I 105 |
| Pump Shaft | W1.6582/AISI4340 |
| Bolts | A4 |
| Sealing system | Mechanical shaft seals: silicon carbide/silicon carbide |
| Knife system | Hardened steel W1.0038/S235JR W1.4404/AISI316 (optional) not available for MPTK-I |
| Extended knife system | Hardened steel W1.0038 (optional) W1.4404/AISI316 (optional) not available for MPTK-I |
| Oil type | 15W-40 Vario HDX (with moisture detection) |

SERVICE AND MAINTENANCE

| | |
|---|---|
| Recommended service interval/oil change | Maximum 2,000 operating hours/minimum once a year |
| Motor | Lifetime lubricated bearings |
| Oil chamber | Periodic oil change |

SURFACE TREATMENT

| | |
|---|------------|
| Machinery enamel: RAL 9005 (Jet Black) | Jet Black |
| 2-component coating: RAL 7005 (Mouse Grey) (optional) | Mouse Grey |

MONITORING FUNCTIONS

Thermistor

Moisture detection system (optional)

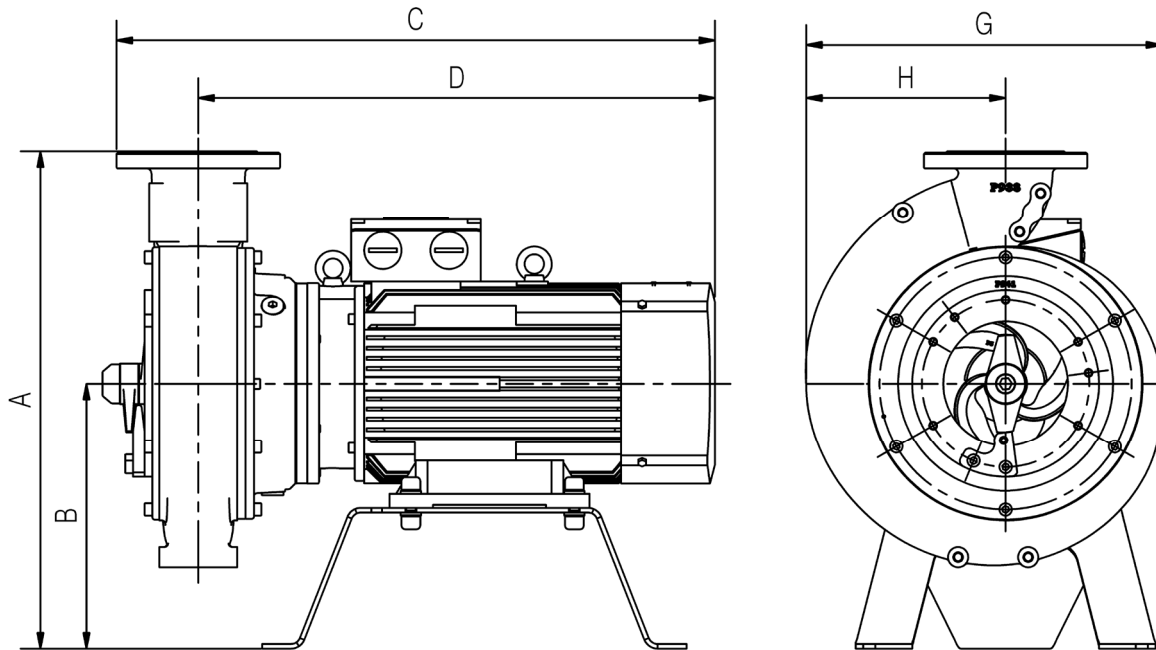
ELECTRICAL DATA

| | |
|------------------------------|------------------|
| Motor type | 3-phase AC motor |
| Nominal voltage | 400 V |
| Minimum voltage allowed | 360 V |
| Nominal frequency | 50 Hz |
| Applicable for VFD operation | Yes |
| Ingress protection rating | IP 55 |
| Insulation class | F |

| Model | Nominal power | Motor | Full load current (400 V) | Connection method | Start current (DOL) | cos phi | Efficiency |
|------------------------------------|---------------|-------|---------------------------|-------------------|---------------------|---------|------------|
| | [kW] | [rpm] | [A] | Y/Δ | [A] | | [%] |
| MPTK-GI 105 18.5 kW-1,500 rpm | 18.5 | 1,460 | 35.0 | Δ | 238 | 0.85 | 89.3 |
| MPTK-GI 150 30.0 kW-1,500 rpm | 30.0 | 1,465 | 57.0 | Δ | 399 | 0.84 | 90.7 |
| MPTK-GI 105 18.5/15.0 kW-1,500 rpm | 18.5 | 1,470 | 37.5 | Δ | 240 | 0.78 | 91.2 |
| MPTK-GI 150 30.0 kW-1,500 rpm | 30.0 | 1,480 | 58.5 | Δ | 423 | 0.8 | 92.3 |

For voltages others than 400 V/50 Hz please refer to the attached Appendix.

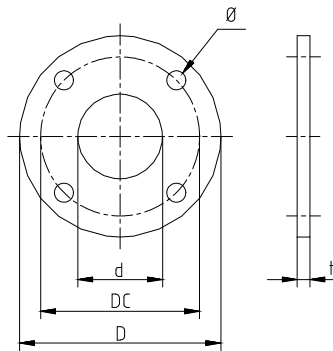
OVERALL DIMENSIONS



| Model | Item number | A [mm] | B [mm] | C [mm] | D [mm] | G [mm] | H [mm] | Weight [kg] |
|------------------------------------|-------------|--------|--------|--------|--------|--------|--------|-------------|
| MPTK-GI 105 18.5 kW-1,500 rpm | 2514981 | 640 | 340 | 730 | 625 | 460 | 250 | 210 |
| MPTK-GI 150 30.0 kW-1,500 rpm | 2514681 | 822 | 380 | 870 | 725 | 580 | 320 | 380 |
| MPTK-GI 105 18.5/15.0 kW-1,500 rpm | 2534981 | 640 | 340 | 752 | 647 | 460 | 250 | 270 |
| MPTK-GI 150 30.0 kW-1,500 rpm | 2534681 | 822 | 380 | 937 | 794 | 580 | 320 | 435 |

We reserve the right to make technical changes.

OVERALL DIMENSIONS WELDING FLANGE



| Model/ Pump series | Material | MPTK 50 - 65 - 80 - 105 DIN 2573 PN 6 Dim. [mm] MPTK 150 2576 PN 10 Dim. [mm] | | | | |
|-----------------------|----------------|--|---------|-------------------|----------------------|----|
| | | D | DC | d | \varnothing | t |
| MPTK-I 50 | W1.0038/S235JR | $\varnothing 110$ | 90 | $\varnothing 52$ | 4 x $\varnothing 10$ | 8 |
| MPTK-I 65 | W1.0038/S235JR | $\varnothing 160$ | 130 | $\varnothing 69$ | 4 x $\varnothing 14$ | 8 |
| MPTK-I 80 | W1.0038/S235JR | $\varnothing 192$ | 150/160 | $\varnothing 82$ | 4 x $\varnothing 18$ | 10 |
| MPTK-I 105 | W1.0038/S235JR | $\varnothing 212$ | 170/180 | $\varnothing 107$ | 4 x $\varnothing 18$ | 10 |
| MPTK-I 150 | W1.0038/S235JR | $\varnothing 285$ | 240 | $\varnothing 152$ | 8 x $\varnothing 22$ | 12 |

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