

IWAKI Magnetic Drive Pump

MDM Series (ANSI)

Instruction Manual

 Read this manual before use of product

Thank you for selecting IWAKI Magnetic Drive Pump MDM Series. This instruction manual, which is divided into five sections, namely "Safety", "Outline of Product", "Installation", "Operation" and "Maintenance", deals with the correct handling and operation procedures for the pump. To make maximum use of the pump and to ensure safe and long time operation of the pump, please read this manual thoroughly and carefully prior to operating the pump.

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SAFETY SECTION



For the Safe and Correct Handling of the Pump

- Before use of the pump, read carefully this "Safety Section" to prevent accidents and to avoid the damage or loss of other assets.
- Observe and abide by the instructions described in this "Safety Section". These instructions are very important for protecting pump users or other persons from hazard or from loss of assets.
- Meaning of symbols








Following two symbols describe the extent of hazards and loss which may brought if the instructions are not observed or if the pump is wrongly used.

| | |
|---|---|
|  Warning | Nonobservance or misapplication of the contents of the "Warning" could lead to a death or heavy injury of person. |
|  Caution | Nonobservance or misapplication of the contents of the "Caution" could lead to a injury of person or damage of assets. |

Following two symbols describe the content to be observed.









| | |
|---|--|
|  | Prohibited action or procedure is indicated. Inside or near this circle, a concrete activity to be prohibited is depicted. |
|  | Action or procedure which must be performed without fail is indicated. Inside this circle, a concrete activity to be performed is depicted. |

Safety Section

|  Warning | |
|--|---|
| <ul style="list-style-type: none"> Magnet field danger The magnet drive pumps contain very strong magnets. The strong magnet field could adversely affect persons who are assisted by electronic devices such as pacemakers etc. |  |
| <ul style="list-style-type: none"> Always turn off power supply prior to maintenance works etc. Pay special attention so that no other operator turns on by mistake the power supply while someone is working on the pump. In a noisy or poor visibility environment, display a sign near power supply switch to notify other person that someone is "WORKING" on the pump. Power supply mistakenly turned on during maintenance works may lead to personal injury. Each operator must pay special attention. |  Power off |
| <ul style="list-style-type: none"> Wear protectors When piping is removed or pump is disassembled/assembled, wear protective gear such as safety goggles and protective gloves etc. |  Wear protective gear |
| <ul style="list-style-type: none"> Lifting pump When pump is lifted, apply chain or belt to eye bolt and motor to keep the pump & motor horizontally. |  |
| <ul style="list-style-type: none"> No remodeling Remodeling of pump may result in serious personal injury or damage of the pump. Do not attempt remodeling pump because it is very dangerous. |  No Remodeling |
| <ul style="list-style-type: none"> Dangerous liquid When the pump is used to transfer dangerous liquids mentioned as below, the pump must always be checked and watched so that the liquid can not be leaked. The operation of pump leaking the liquid may result in personal injury, explosion or fire accident. <ul style="list-style-type: none"> Explosive or flammable liquids Corrosive or stimulus toxic liquids Liquids harmful to human health |  |

Safety Section

CAUTION

| | |
|--|---|
| <ul style="list-style-type: none"> ● Attention to magnetic force This pump employs strong magnets. Special attention must be paid not to be injured by attracting force of magnets. Follow the procedure "Disassembling and Assembling" when the maintenance works are done. |  |
| <ul style="list-style-type: none"> ● Do not run pump dry Do not run pump dry (without liquid). If the pump run dry, heat is generated by rubbing, which causes pump damage. If the pump is operated with suction side valve closed, the pump runs dry. |  Do not run dry |
| <ul style="list-style-type: none"> ● Countermeasures for static electricity When low electric conductivity liquid such as ultra-pure water and fluor inactive liquid (e.g. Fluorinert™) are handled, the static electricity may be generated in the pump, which may cause static discharge and pump break down. Take countermeasures to avoid and remove the static electricity. |  |
| <ul style="list-style-type: none"> ● Qualified operator The pump must be handled or operated by the person who has enough knowledge and well acquainted with the pump. |  |
| <ul style="list-style-type: none"> ● For specified application only The use of pump in any application other than those clearly specified may result in the failure or damage of the pump. |  |
| <ul style="list-style-type: none"> ● Ventilate the site When handling the liquid which may generate toxic gas, safety measures such as ventilation must be taken to prepare for the accidental liquid leakage. |  |
| <ul style="list-style-type: none"> ● Countermeasure to liquid flowing out Protective measurement must be taken against liquid flowing out caused by damage of pump or pipe by accident. Also, appropriate measurement must be taken so that the liquid can not directly flow out on the ground. |  |
| <ul style="list-style-type: none"> ● Disposal of used pump Disposal of used or damaged pump must be done in accordance with local laws and regulations. (Consult a licensed industrial waste products disposing company.) |  |

OUTLINE OF PRODUCT

| | |
|--|----------|
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1. Unpacking and inspection

| + Iwaki Magnet Pump + | | |
|----------------------------|----|--------|
| MODEL | | |
| HEAD (m) | | |
| CAPACITY (ℓ/min) | | |
| | kw | Hz rpm |
| MFG.NO. | | |
| IWAKI CO.,LTD. TOKYO JAPAN | | |
| 2P405251 | | |

After unpacking of the pump, check the following points.

- (1) If the product is ordered one.

Check model code, discharge capacity, discharge pressure, voltage which are written on nameplate of pump and motor to see if they conform to your order.

- (2) If the product is not damaged or bolts are not loosened during transportation.

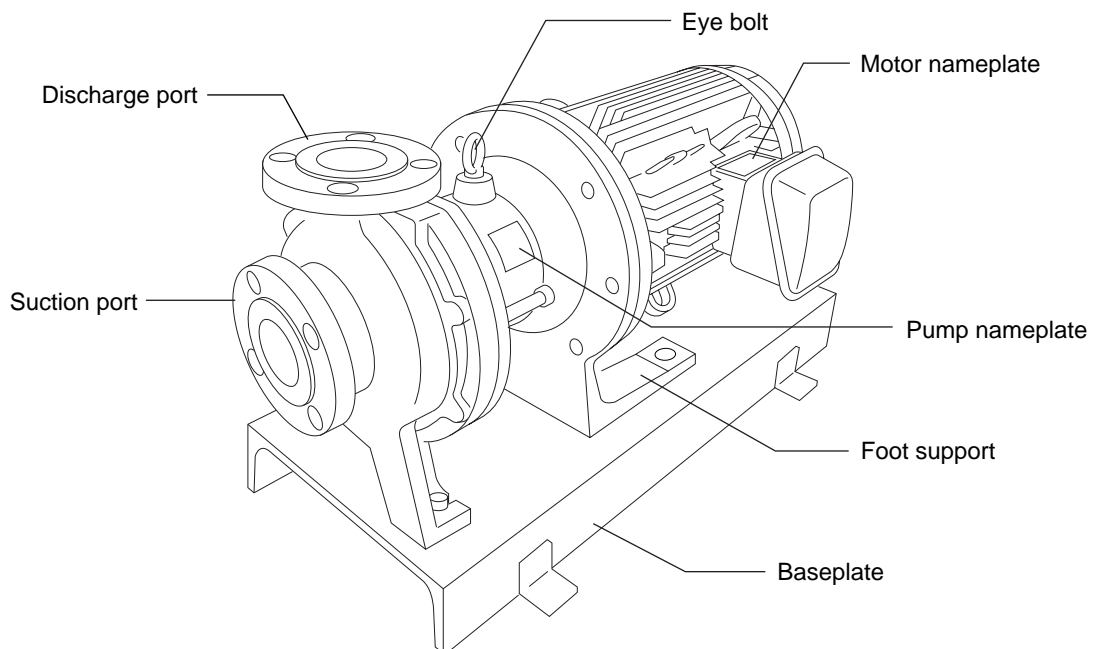
- (3) If accessories are attached.

Standard accessories:

Bolts for back pull-out M12 × 100: 2pcs

(M10 × 50 : 2pcs for MDM25-1)

Optional accessories if ordered



2. Model code

MDM40 - 150 1 E KK F 075 A - D 2 H

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

- ① Pump discharge bore Suction Discharge
 25: 40 × 25
 40: 50 × 40
 50: 65 × 50
 65: 80 × 65
- ② Nominal impeller diameter: 100 - 225 (mm)
- ③ Impeller range: 1: Low head impeller type 2: High head impeller type (Available for MDM25 and MDM40)
 3: High head impeller type (Available for MDM25 only)
- ④ Casing material: E: CFR-ETFE P: PFA
- ⑤ Bearing/spindle material: KK:SiC/SiC CF:High density carbon/High purity ceramic
- ⑥ Type of motor to be mounted: F : Flange mounted motor type
- ⑦ Motor output: 004 :0.37kW, 007 : 0.75 kW, 015 : 1.5 kW, 022 : 2.2 kW,
 055 : 5.5 kW, 075 : 7.5 kW, 110 : 11 kW, 150 : 15 kW, 185 : 18.5 kW
- ⑧ Standard for connection flange/motor
 J : JIS pump flange + JIS motor I : ISO pump flange + IEC motor A : ANSI pump flange + JIS motor
- ⑨ Drain/special version

| | Drain | Baseplate | Standard or Special version |
|---|---------------|-------------------|-----------------------------|
| A | Without drain | With baseplate | Standard |
| S | | | Special version |
| D | With drain | | Standard |
| X | | | Special version |
| B | Without drain | Without baseplate | Standard |
| Y | | | Special version |
| E | With drain | | Standard |
| Z | | | Special version |

Note: For PFA material type, air vent is always equipped for "with drain" type.

- ⑩ Motor pole : 2 : 2 pole motor
 4 : 4 pole motor
- ⑪ High temperature type
 No code : Standard
 H : High temperature type
 (Available for MDM25-3 and MDM40-2)

Note) In this manual, model code is simplified by using pump discharge bore code (①) and impeller range code (③). For example, when you see MDM25-1, MDM25-2, MDM25-3, MDM40-2, the figures 25 or 40 are pump discharge bore and 1, 2 or 3 are impeller range.

3. Conditions to be used

1. Permissible pressure

Permissible pressure of the pump is 1 MPa (1.6 MPa for MDM25-3 and MDM40-2). Pay attention so that the pump discharge pressure does not exceed this figure.

2. Slurry containing liquid

Basically slurry containing liquid can not be handled but SiC bearing type (KK type) can handle it in the following conditions:

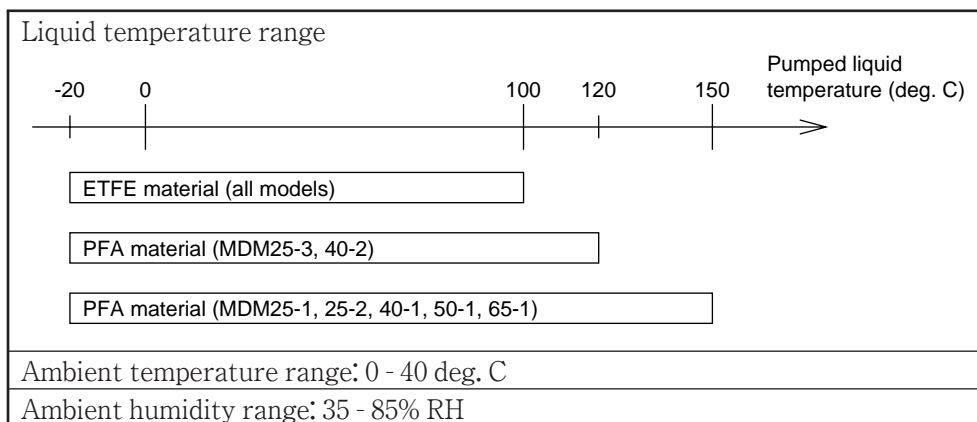
- Slurry concentration up to 5 wt%
- Slurry hardness up to 80 Hs
- Slurry size up to 50 μm

3. Performance change caused by specific gravity and viscosity of liquid

When specific gravity and viscosity are larger than water, shaft power, discharge capacity and discharge head will change depending on specific gravity and viscosity of pumped liquid. The pump was made and shipped according to the information given to IWAKI. If the liquid condition is changed, ask and confirm IWAKI to use the pump without problem.

4. Influence by liquid temperature

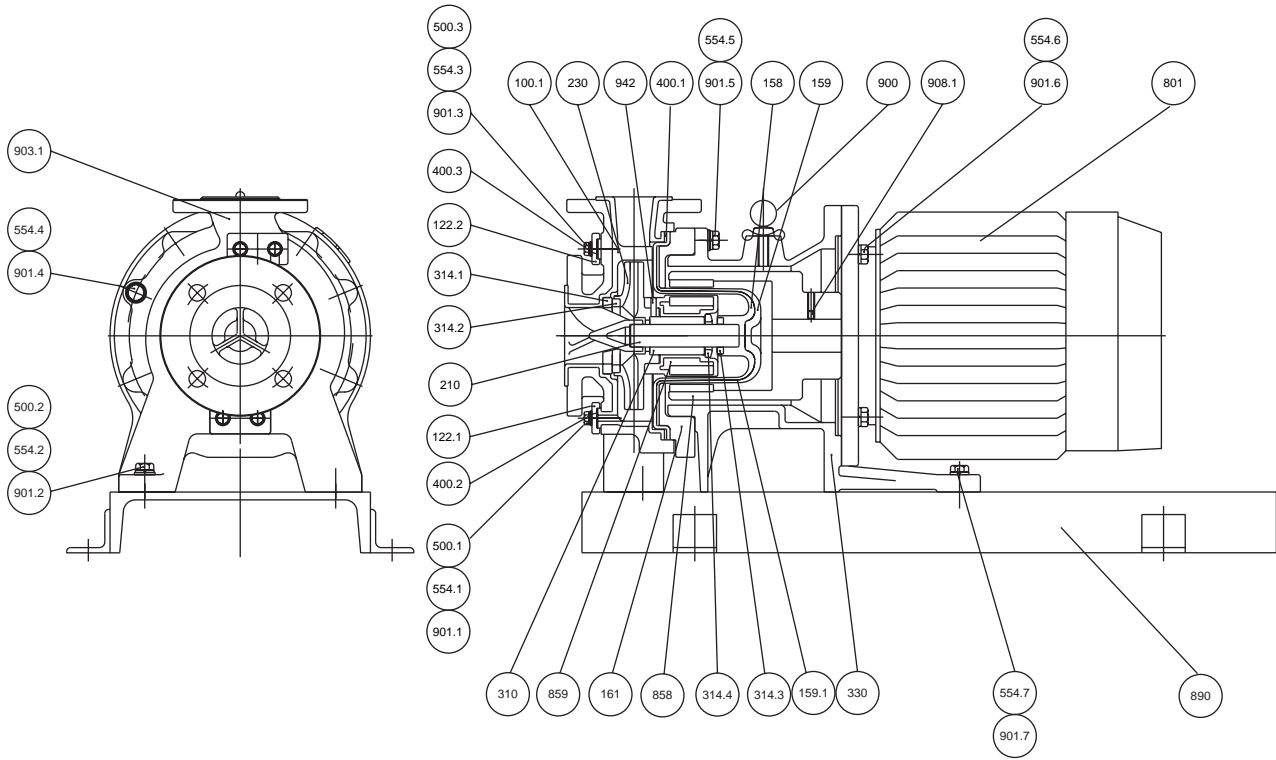
The chemical liquid changes its viscosity, vapor pressure and corrosivity according to the temperature change. Pay attention to the change of liquid characteristics.



Note 1) For temperature range of each chemical liquid, refer to Chemical Resistant Table on booklet "Technical Information on MDM Series".

2) For liquid temperature below zero deg. C for both ETFE and PFA material types and above 120 deg. C for PFA material type, please contact IWAKI because detailed operating condition must be considered for these temperature ranges.

4. Structure and names of parts



| NO. | Parts name | Q'ty | NO. | Parts name | Q'ty |
|-------|-------------------------|------|-------|-------------------------|------------------------|
| 100.1 | Front casing | 1 | 554.1 | Spring washer | 2 |
| 100.2 | Cover | 1 | 554.2 | Spring washer | 2 |
| 122.1 | Drain plate | 1 | 554.3 | Spring washer | 2 |
| 122.2 | Air vent plate | 1 | 554.4 | Spring washer | 8 (6) or (10) Note (1) |
| 158 | Rear casing | 1 | 554.5 | Spring washer | 4 |
| 159 | Rear casing cover | 1 | 554.6 | Spring washer | 4 |
| 159.1 | Reinforce pipe Note (2) | 1 | 554.7 | Spring washer | 2 |
| 161 | Rear casing support | 1 | 801 | Motor | 1 |
| 210 | Spindle | 1 | 858 | Drive magnet unit | 1 |
| 230 | Impeller | 1 | 859 | Magnet capsule unit | 1 |
| 310 | Bearing | 1 | 890 | Base plate | 1 |
| 314.1 | Liner ling | 1 | 900 | Eye bolt | 1 |
| 314.2 | Mouth ring | 1 | 901.1 | Hex. head bolt | 2 |
| 314.3 | Rear thrust | 1 | 901.2 | Hex. head bolt | 2 |
| 314.4 | Rear ring | 1 | 901.3 | Hex. head bolt | 2 |
| 330 | Bracket | 1 | 901.4 | Hex. head bolt | 8 (6) or (10) Note (1) |
| 400.1 | Gasket | 1 | 901.5 | Hex. head bolt | 4 |
| 400.2 | Drain gasket | 1 | 901.6 | Hex. head bolt | 4 |
| 400.3 | Air vent gasket | 1 | 901.7 | Hex. head bolt | 2 |
| 500.1 | Plain washer | 2 | 903.1 | Hex. head bolt Note (3) | 5 |
| 500.2 | Plain washer | 2 | 908.1 | Hex. socket head bolt | 2 |
| 500.3 | Plain washer | 2 | 942 | Impeller pin | 2 |

Note (1): Q'ty in parenthese (6) is for MDM25-1 and (10) is for MDM25-3 & MDM40-2.

(2): For high temperature type "H" of MDM25-3 & MDM40-2.

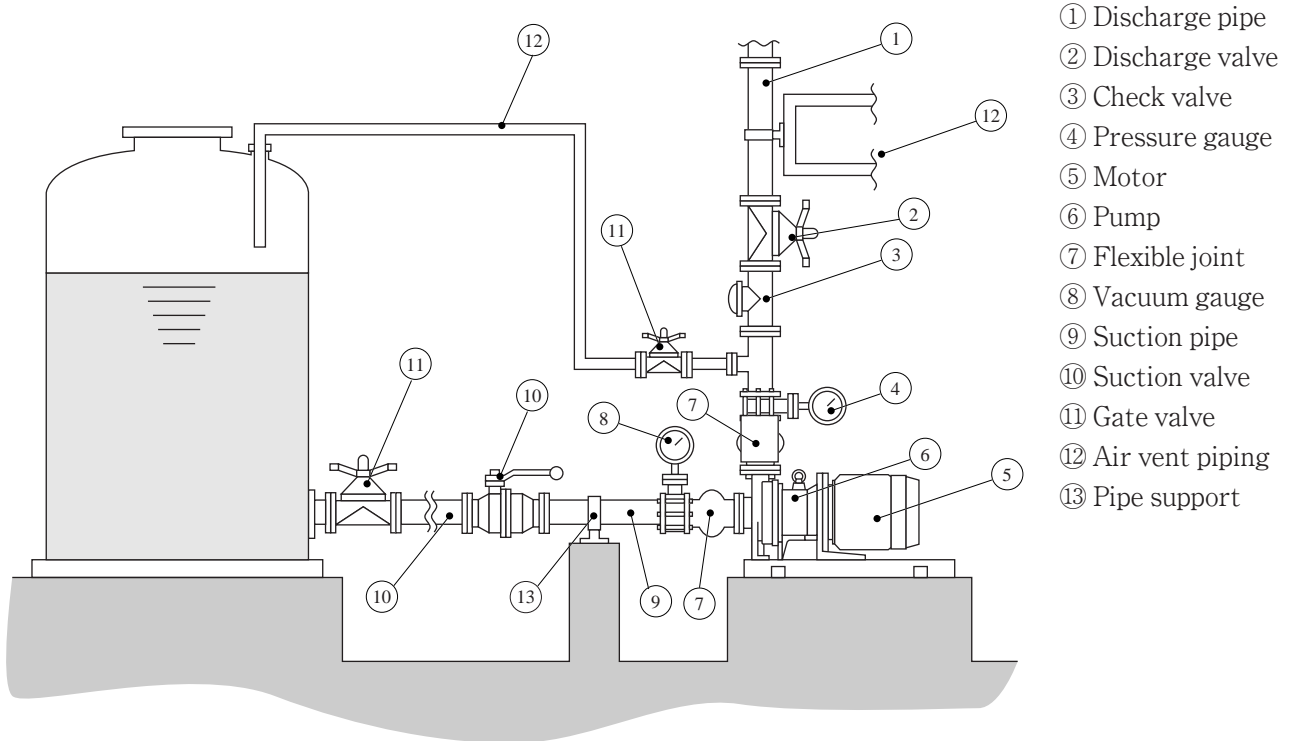
(3): For all ETFE types and PTFE type of MDM25-1

INSTALLATION

| | |
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5. Installation

Example of recommended piping



- ① Discharge pipe
- ② Discharge valve
- ③ Check valve
- ④ Pressure gauge
- ⑤ Motor
- ⑥ Pump
- ⑦ Flexible joint
- ⑧ Vacuum gauge
- ⑨ Suction pipe
- ⑩ Suction valve
- ⑪ Gate valve
- ⑫ Air vent piping
- ⑬ Pipe support

1. Installed position

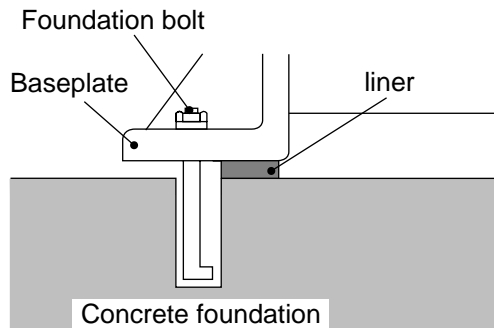
- Install and fix the pump on the foundation which is not affected by vibration generated by other machines.
- Keep enough space around the pump for the back pull-out of motor, assembly and disassembly of the pump.
- Foundation area must be larger than pump base plate.

2. Location

- Install the pump as close to the tank as possible and at lower position than the tank (flooded suction).
- If the pump is installed at the location that the pump suction port comes higher position than the liquid level of tank (suction lift style), install the priming piping and foot valve at the end.

3. Foundation

- Refer to illustration below.



6. Piping

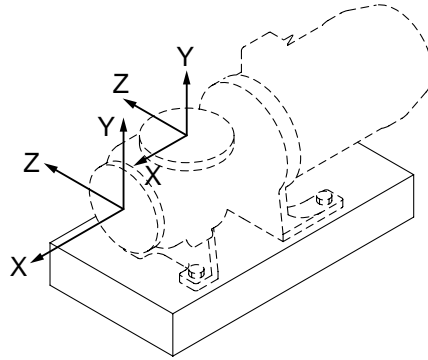
1. Tightening of pipe flange

Table below shows the bolt size and tightening torque for the connection of pipe flange to pump flange. Tightening torque is the figure when metallic flange and rubber gasket are used.

| Bolt size | Tightening torque |
|-----------|-------------------|
| M16 | 78.4 N · m |

2. Pipe load and moment

Pipe load and moment put on the pump should not exceed the figures shown below.



Allowable pipe load on pump flange

| Direction of load | Load kN | | | |
|-----------------------------------|------------------|-----------|----------------|-------|
| | Discharge flange | | Suction flange | |
| | MDM25, 40, 50 | MDM65 | MDM25, 40, 50 | MDM65 |
| F _x | 0.71 | 1.07 | 0.89 | 1.33 |
| F _y (Pression/Tension) | 0.89/0.44 | 1.33/0.67 | 0.58 | 0.89 |
| F _z | 0.58 | 0.89 | 0.71 | 1.07 |

Allowable moment on pump flange

| Direction of load | Moment kN · m | | | |
|-------------------|------------------|-------|----------------|-------|
| | Discharge flange | | Suction flange | |
| | MDM25, 40, 50 | MDM65 | MDM25, 40, 50 | MDM65 |
| M _x | 0.35 | 0.72 | 0.46 | 0.95 |
| M _y | 0.46 | 0.95 | 0.35 | 0.72 |
| M _z | 0.23 | 0.47 | 0.23 | 0.47 |

3. Suction piping

(1) Flooded suction

Flooded suction is recommended.

(2) Pipe diameter

Pipe diameter should be larger than pump inlet bore.

(3) Shortest piping

Employ less bends and shortest piping length.

(4) Straight piping

Employ straight pipe just before pump inlet port.

Pump inlet bore 50A or smaller : Straight pipe of 500 mm or longer

Pump inlet bore 65A or larger : Straight pipe of 8 times as larger than inlet port

(5) Air pocket in piping

Do not allow any projection in piping where air may be trapped along the suction pipe.

Suction pipe should have an ascending gradient of 1/100 toward the pump.

(6) Different diameter of pipes

If diameter of pump suction port is different from that of suction pipe, use the eccentric reducer pipe.

Connect the eccentric reducer pipe so that upper side is level. Residual air may not go out if it is mounted in reverse.

(7) Gate valve in suction side

In case of flooded suction, install gate valve in suction piping. It is needed when the pump is disassembled and inspected.

(8) Piping for flushing

Install pump flushing piping in case that the dangerous liquid will be handled.

(9) End of suction piping

The end of suction pipe always should be located 500 mm or more below the liquid level.

(10) In case of suction lift piping

- The end of suction piping should be 1 to 1.5 times of pipe diameter or more away from the bottom of suction tank.
- Install foot valve or check valve in suction piping.

(11) Pipe support

Install the pipe support so that the weight of pipe can not be directly loaded to the pump.

(12) Pipe connection

Pipes must be connected securely so that the air can not be sucked in. If the sealing is not perfect, air is sucked in, which causes pump damage.

4. Discharge piping

(1) Pipe diameter

In case the discharge piping is long, the specified performance may not be obtained because of unexpected pipe resistance if the pipe diameter is the same as pump bore. Calculate the pipe resistance in advance to decide proper diameter of pipe.

(2) Gate valve

Install the gate valve in discharge piping to adjust flow rate and to protect motor from over loading. If the check valve is also installed, recommended arrangement is : Pump → Check valve → Gate valve

(3) Pressure gauge

Install a pressure gauge in discharge piping to check the operating conditions such as discharge head etc.

(4) Check valve

Check valve must be installed in the following cases.

- Discharge piping is longer than 15 to 20 meters.
- Actual head exceeds 15 meters.
- Height difference between liquid level and discharge pipe end exceeds 9 meters.
- When two pumps are used in parallel.

(5) Air vent

If horizontal discharge piping is longer than 15 to 20 meters, install air vent on the way.

(6) Drain

If the liquid must be drained to protect from freezing, install the drain valve.

(7) Pipe support

Install the pipe support so that the pipe weight can not be loaded to pump.

(8) Priming piping

Install piping for priming in case of suction lift.

7. Electrical wiring

Electrical works or wiring must be carried out by qualified and authorized person according to local law or regulation.

- Use the electromagnetic switch which conforms to motor specifications such as voltage and capacity etc.
- If pump is installed outdoor, wiring must be done so that water can not get into switch.
- Electromagnetic switch and push-button switch must securely installed apart from the pump.
- Star-delta starter, inverter or soft starter must be used to start the pump which is equipped with motor of 5.5 kW or more power.

OPERATION

| | |
|--|----|
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9. Operation (Starting)

1. Fully close discharge valve and fully open suction valve.
2. Fill liquid into pump
 - In case of flooded suction, confirm if suction valve is fully opened.
 - In case of suction lift, prime to fill liquid into suction piping.
3. Check rotating direction of motor.
 - Start motor momentarily (within a second) to check direction. Direction is shown on "arrow" mark on pump. (Clockwise seen from motor fan side)
 - Also check if motor fan smoothly stops when switched off. If it does not stop smoothly, pump rotating parts may be locked. Check the rotating parts.
4. Air vent operation
 - Before pump operation, vent the air in the pump.
 - Fully open the valve in air vent piping and repeat one second running for three to five times.
 - After the air vent running, fully close the discharge valve.
Note: In case air vent piping is not equipped, open the discharge valve to repeat momentary run several times.
5. Starting pump
 - Start pump with discharge valve fully closed. (Maximum one minute)
 - Confirm that discharge pressure rises to shut-down pressure.
 - Gradually open discharge valve to get specified pressure (capacity).
Note: Pay attention to over-load caused by excessively opened valve.
Keep minimum allowable capacity to avoid seizure of bearing or rubbing parts.

| | 2P | 4P |
|---------------|-----------|-----------|
| MDM25 | 20 ℓ /min | 10 ℓ /min |
| MDM40, 50, 65 | 50 ℓ /min | 20 ℓ /min |

10. Pump stopping

1. Slowly close the discharge valve
Quick closing of valve may cause water hammer and pump damage.
2. Switch off and stop the pump
Confirm if pump stops smoothly. If pump stops suddenly and not smoothly, inspection is needed.
3. When the pump is stopped for a long period, anti freezing measure must be taken so that the liquid can not be frozen in the pump or piping.

Maintenance

| | |
|---|-----------|
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| <i>15. Mass of pump</i> | <i>45</i> |

11. Troubleshooting

| Troubles | Symptom on pump | | Cause | Check & countermeasures | |
|---|--|--|---|---|---|
| | When disch. valve closed | When disch. valve opened | | | |
| Liquid can not be sucked | | Press. gauge & vacuum gauge indicate zero. | <ul style="list-style-type: none"> • Lack of priming liquid • Dry running | <ul style="list-style-type: none"> • Stop pump and replenish pump with liquid to re-start. | |
| | Primed liquid drops quickly | | <ul style="list-style-type: none"> • Foot valve is clogged by foreign matters. | <ul style="list-style-type: none"> • Clean foot valve • Check if foreign matters are not adhered to valve seat. | |
| | After starting, pressure drops as soon as discharge valve is opened. | | Pressure gauge vibrates and drops to zero. | <ul style="list-style-type: none"> • Air is sucked from suction pipe or gasket. | <ul style="list-style-type: none"> • Check if connected flanges are completely sealed. • Check if liquid level of tank is not excessively lowered. |
| | | | | <ul style="list-style-type: none"> • Disconnected magnet coupling | <ul style="list-style-type: none"> • Check amperage to see if motor is not overloaded. • Check if foreign matters do not lock impeller or magnet capsule • Check if voltage is normal. |
| | Press. gauge shows low pressure | | <ul style="list-style-type: none"> • Low pump speed • Reverse rotation | <ul style="list-style-type: none"> • Check wiring or motor. • Interchange wiring connection. | |
| Discharge capacity is small. | Pressure gauge & vacuum gauge indicates normal figure. | Vacuum gauge indicates high figure. | <ul style="list-style-type: none"> • Strainer is clogged by foreign matters. | <ul style="list-style-type: none"> • Remove foreign matters. | |
| | | Vacuum gauge indicates very high figure. | <ul style="list-style-type: none"> • Air pocket in suction piping | <ul style="list-style-type: none"> • Check and remedy suction piping. | |
| | | | <ul style="list-style-type: none"> • Foreign matters are clogged at impeller inlet. | <ul style="list-style-type: none"> • Remove foreign matters. | |
| | | Pressure gauge & vacuum gauge vibrate. | <ul style="list-style-type: none"> • Air is sucked in from suction pipe or gasket. | <ul style="list-style-type: none"> • Check connection part of pipes and retighten it. | |
| <ul style="list-style-type: none"> • Foreign matters clog at discharge side. | <ul style="list-style-type: none"> • Remove foreign matters. • Remove foreign matters or scales in piping. | | | | |
| | | Vacuum gauge indicates high but pressure gauge indicates normal. | <ul style="list-style-type: none"> • There are resistance such as air pocket etc. in suction piping. | <ul style="list-style-type: none"> • Check if there is not protruded section in suction piping. | |

| Troubles | Symptom on pump | | Cause | Check & countermeasures |
|--|--|--|---|--|
| | When disch. valve closed | When disch. valve opened | | |
| Discharge capacity is small. | Pressure gauge & vacuum gauge indicates normal figure. | Pressure is high but vacuum is normal. | <ul style="list-style-type: none"> • Too high actual head or too large pipe resistance | <ul style="list-style-type: none"> • Check actual head of discharge piping and loss of pipe resistance. |
| | Pressure is low and vacuum is very low. | Pressure is low and vacuum is low. | <ul style="list-style-type: none"> • Motor rotates in reverse | <ul style="list-style-type: none"> • Interchange motor wiring. |
| Motor is overheated. | | | <ul style="list-style-type: none"> • Lowered power voltage | <ul style="list-style-type: none"> • Check voltage or frequency. |
| | | | <ul style="list-style-type: none"> • Overload | <ul style="list-style-type: none"> • Check density and viscosity of liquid |
| | | | <ul style="list-style-type: none"> • Too high ambient temperature | <ul style="list-style-type: none"> • Ventilate |
| Discharge capacity is rapidly reduced. | | Vacuum gauge indicates high figure. | <ul style="list-style-type: none"> • Foreign matters clog suction piping. | <ul style="list-style-type: none"> • Remove foreign matters. |
| Pump vibrates. | | | <ul style="list-style-type: none"> • Foundation is not perfect. | <ul style="list-style-type: none"> • Re-install the pump. |
| | | | <ul style="list-style-type: none"> • Loosened mounting bolts. | <ul style="list-style-type: none"> • Re-tighten |
| | | | <ul style="list-style-type: none"> • Cavitation occurs. | <ul style="list-style-type: none"> • Resolve the reason of cavitation. |
| | | | <ul style="list-style-type: none"> • Worn or melted bearing | <ul style="list-style-type: none"> • Replace |
| | | | <ul style="list-style-type: none"> • Broken magnet capsule or spindle | <ul style="list-style-type: none"> • Replace |
| | | | <ul style="list-style-type: none"> • Bad dynamic balance of drive magnet | <ul style="list-style-type: none"> • Resolve the reason or replace |
| | | | <ul style="list-style-type: none"> • Worn bearing of motor | <ul style="list-style-type: none"> • Replace bearing or motor |

12. Maintenance & inspection

⚠ Warning

- Magnetic force is very strong. Pay attention when you handle the magnet capsule or driving magnet so that fingers can not be injured by attraction of magnets.
- The persons who are assisted by electronic devices such as pacemakers etc. are prohibited to approach the magnet capsule and drive magnet.

⚠ Caution

- Magnetic force is very strong. Pay attention iron pieces or powder can not be attracted to the magnet capsule or drive magnet.
- Do not approach the magnetic card to the pump not to break the data.

1. Periodical inspection (Once a six months)

| Parts name | Inspection items | Countermeasures |
|----------------|---|--|
| Drive magnet | • If there is no rubbed trace. | • If abnormality is found, consult dealer. |
| | • If drive magnet housing is correctly mounted or if hex. bolts are not loosened. | • Re-mount the drive magnet to motor shaft or re-tighten the bolt. |
| | • Decentering of magnet and motor shaft. (Max. 0.1 mm) | • Re-tighten bolts or replace drive magnet. (Consult dealer if replacement is needed.) |
| Rear casing | • Rubbed trace in inner surface. | • If abnormality is found, consult dealer. |
| | • If there is no cracks. | • If crack is found, replace. |
| | • Wear of thrust ring. | • If worn abnormally, consult dealer. |
| | • Dirty inside. | • Cleaning |
| Magnet capsule | • If there is no rubbed trace. | • If abnormality is found, consult dealer. |
| | • If there is no cracks. | • If abnormality is found, consult dealer. |
| | • Measure the bearing inner diameter. | • Replace if worn excessively. |
| | • If impeller is securely fixed to magnet capsule. | • If loosened, replace or consult dealer. |
| Impeller | • Measure the mouth ring thickness. | • Replace if excessively worn. |
| | • If there is no cracks. | • Replace if cracked. |
| | • If there is no trace of cavitation. (Abnormal wear, seizure etc.) | • Resolve the reason. |
| | • Dirt or clog inside impeller. | • Clean |
| | • Change of dimension. | • Replace if abnormality is found. |
| Front casing | • Dirty wet-end. | • Clean |
| | • If there is no cracks. | • Replace if abnormality is found. |
| | • If there is no abnormal wear, cracks, rubbed traces in liner ring. | • Consult dealer if abnormality is found. |
| | • Clogged drain. | • Clean |
| | • If there is no swelling or cracks in gasket. | • Replace if abnormality is found. |
| | • If there is no rubbed trace. | • Consult if abnormality is found. |
| Spindle | • If there is no crack. | • Replace if abnormality is found. |
| | • Wear against bearing | • Replace if excessively worn. |

2. Wear limit of bearing and spindle (Time to be replaced)

Unit: mm

| Model | Bearing inner dia. | | Spindle outer dia. | |
|---------------------------|--------------------|------------|--------------------|------------|
| | New one | Wear limit | New one | Wear limit |
| MDM25-1 | 20 | 21 | 20 | 19 |
| MDM25-2, MDM40-1, MDM50-1 | 26 | 27 | 26 | 25 |
| MDM25-3, MDM40-2, MDM65-1 | 30 | 31 | 30 | 29 |

Note1. When the clearance between bearing inner dia. and spindle outer dia. exceeds 1 mm, replace by new ones.

Carbon bearing (CF) type: Replace by new one either spindle or bearing which is worn more (normally it is bearing).

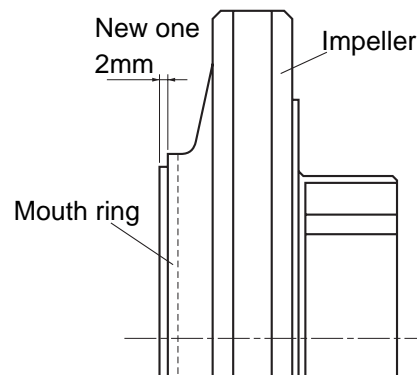
SiC bearing (KK) type: Replace by new ones both bearing and spindle.

2. It may possible that rubbing parts are worn a little in a short time after the pump is started first time, but it is not abnormal.

3. Wear limit of mouth ring (Time to be replaced)

Step between mouth ring and impeller is 2 mm when the pump is shipped. Replace mouth ring when this step becomes zero.

| Model | Thickness of mouth ring | |
|------------------------------------|-------------------------|------------|
| | New one | Wear limit |
| MDM25-1, MDM25-2, MDM40-1 | 8 mm | 6 mm |
| MDM25-3, MDM40-2, MDM50-1, MDM65-1 | 9 mm | 7 mm |

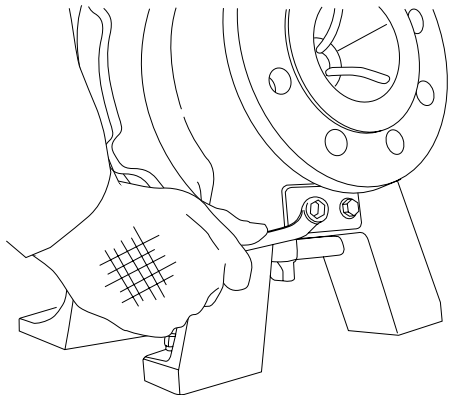


13. Disassembling & assembling

Tool list

Following tools are necessary to disassemble and assemble the pump.

| Tool | MDM25-1 | MDM25-2, MDM25-3, MDM40, MDM50, MDM65 | Remarks |
|------------------------------------|---------------------|---------------------------------------|---------------------------|
| Spanner | 13 mm, 17 mm, 19 mm | 13 mm, 19 mm, 24 mm | 1 pc/each |
| Hex. wrench | 4 mm, 5 mm | 4 mm, 5 mm | 1 pc/each |
| Plastic round bar | 24 mm dia. × 80 L | 34 mm dia. × 100 L | To remove & mount bearing |
| Plastic welder or industrial dryer | 1 unit | | |
| Hand press | 1 unit | | |



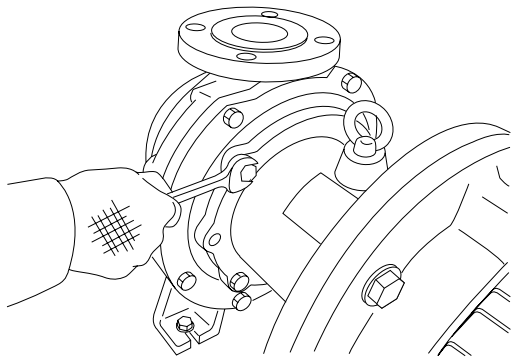
1. Disassembly of pump casing

- (1) Remove hex. bolts (901.3) and drain plate (122.1) to drain liquid inside.

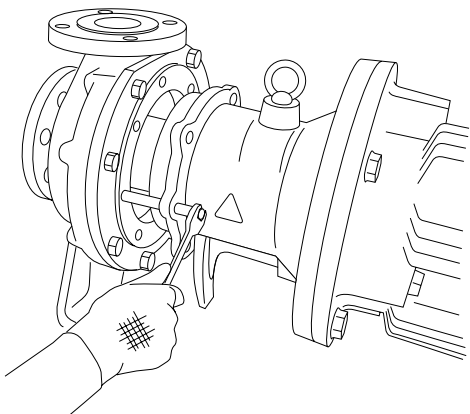
For the type without drain, disassemble the pump after the liquid inside is neutralized or the pump is cleaned by water.

⚠ Warning

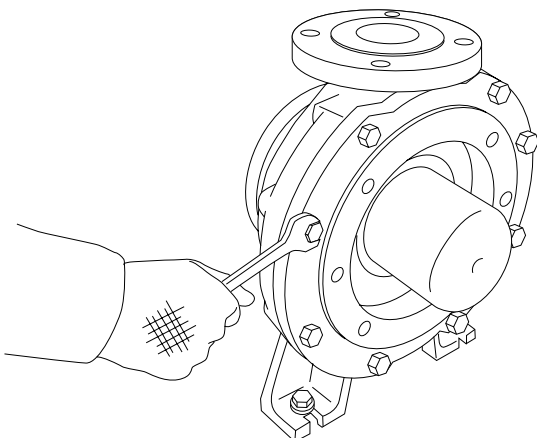
If all the hex. bolts are loosened simultaneously, liquid will splash and will result in injury.



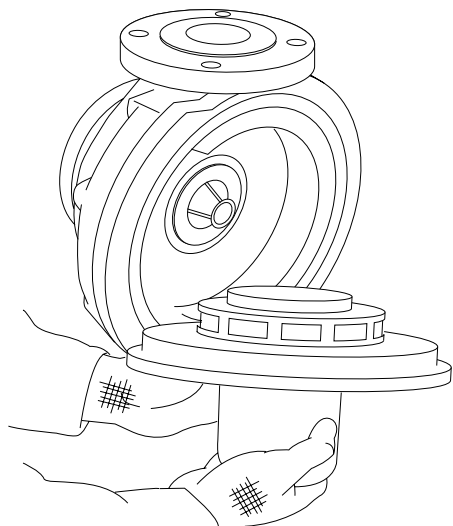
- (2) Remove hex. bolts (901.7) of foot support (330).
- (3) Remove hex. bolts (901.5) of pump side.



- (4) Separate pump body from foot support by screwing two bolts (M12 × 100, and M10 × 50 for MDM25-1) from motor side through bolt threads holes of foot support. Screw in bolts alternatively to remove foot support backward. (Screw in bolts by approx. 80 mm and approx. 40mm for MDM25-1).
- (5) Pull out backward motor and foot support by lifting them by crane or so. Take care so that the motor and foot support are pulled out straight to backward. Otherwise, drive magnet (858) touches the rear casing (158).



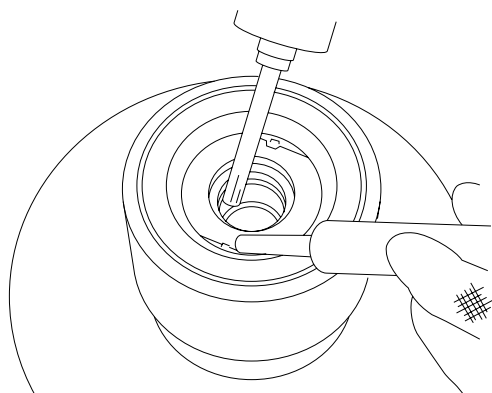
- (6) Remove hex. bolts (901.4) of cover (100.2) to pull out rear casing holder.



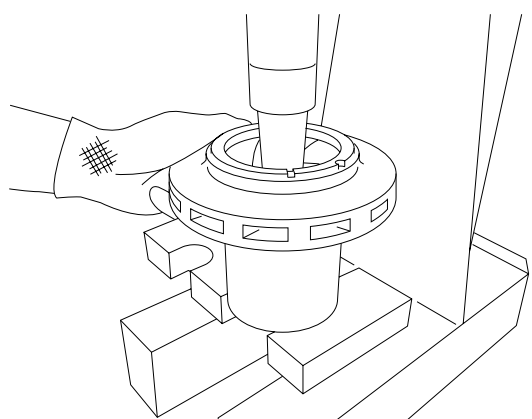
- (7) Then, remove rear casing (158) from rear casing cover (159). If rear casing is hard to remove, remove it by turning. Pay attention not to drop the impeller (230)/magnet capsule (859) unit which is located in the rear casing.

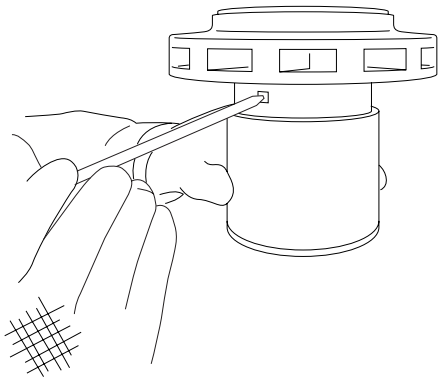
2. Removal of impeller and bearing

- (1) Stand up the claw of rear ring (314.4) after it was heated by plastic welder or industrial dryer.

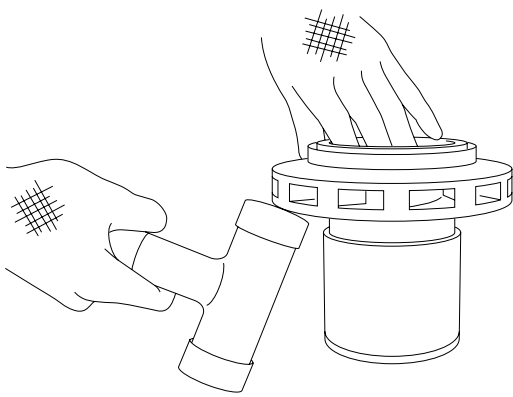


- (2) Apply plastic made round bar of 34 mm dia. × 100L (24 mm dia. × 80 L for MDM25-1) on the bearing end through impeller side and remove bearing (310) and rear ring (314.4) using hand press etc.

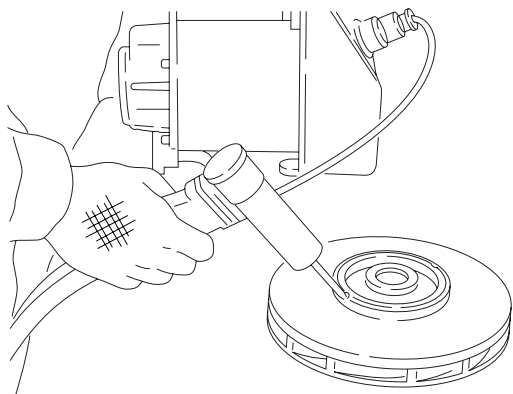




- (3) Remove impeller fixing pin (942) of upper part of magnet capsule by pushing it by screw driver or like.

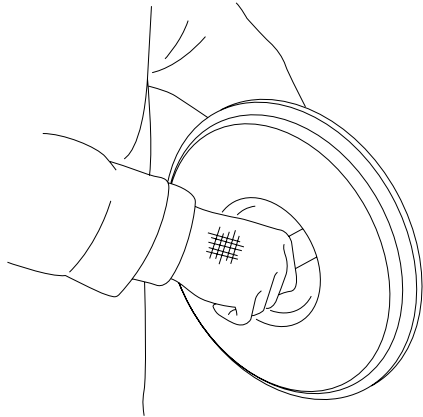


- (4) Remove impeller (230) from magnet capsule (859). If it is hard to remove, slightly strike the impeller back side with plastic hammer.
Impeller (230) and magnet capsule (859) of high temp. type of MDM25-3 and MDM40-2 can not be separated because they are unified by welding.



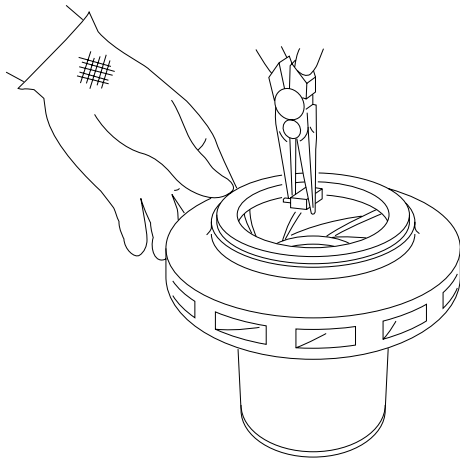
3. Replacement of mouth ring

- (1) Stand up the claw of impeller after it was heated by plastic welder or industrial dryer.
(2) Replace the mouth ring (314.2), and fix it by heating the claw with plastic welder or industrial dryer and push the claw down.



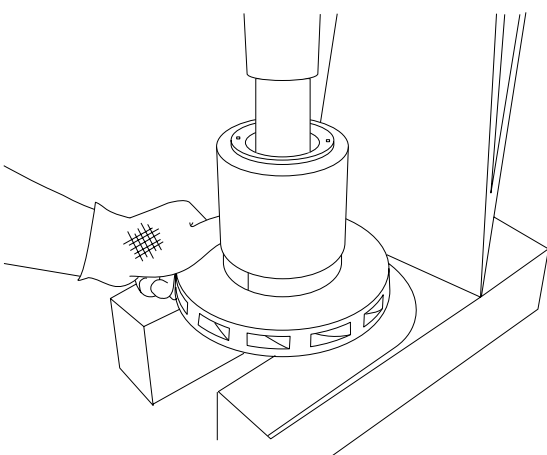
4. Replacement of spindle

- (1) Spindle (210) is slightly pressed into rear casing (158). Pull out the spindle by a hand.
If it is hard to pull it out, pull it out by shaking it right and left.
- (2) Wipe off the stain at spindle inserted part of rear casing and insert the spindle. Use hand press or like if it is hard to insert.



5. Mounting impeller and bearing

- (1) Put together the depressed and hollowed parts of impeller and magnet capsule and insert the impeller into magnet capsule.
At the same time, align the insert ports of impeller pin.
- (2) Insert the impeller pin. Pliers are useful for easy insertion.



- (3) Put the magnet capsule on top and insert the bearing into magnet capsule by using hand press. Before starting the works, warm the magnet capsule putting it in water of 90 deg. C.
- (4) Then, insert the rear ring and fix it by heating the claw with plastic welder or industrial dryer to weld it and push it to rear ring.

6. Assembling

Assemble the pump in reverse procedures paying attention to the following points.

- Replacement of gasket

Do not fail to replace the gasket by new one. Pay attention so that it cannot be forgotten to be put or it can be mounted correctly without twist or bite. Clean the sealing surface before mounting the gasket.

- Tightening of bolts

Tighten the bolts diagonally and evenly.

- Cleaning of magnet capsule

Powdered iron or like can be attracted to the magnet capsule. Remove the foreign matters before assembling.

(1) Mount the gasket on front casing (100.1).

(2) Mount impeller/magnet capsule unit on rear casing and mount them on front casing by rotating the rear casing right and left.

(3) Then mount the rear casing cover and securely fix the rear casing support by tightening hex. bolts diagonally and evenly.

- Tightening torque of rear casing support

MDM25-1 : $45\text{N} \cdot \text{m}$

MDM25-2

MDM40-1

MDM50-1

MDM65-1

MDM25-3

MDM40-2

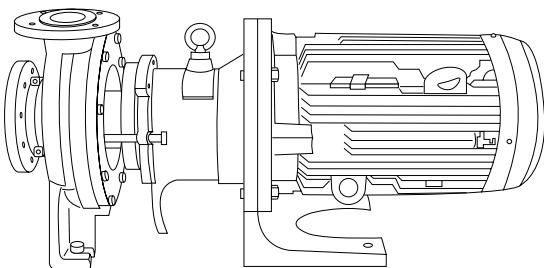
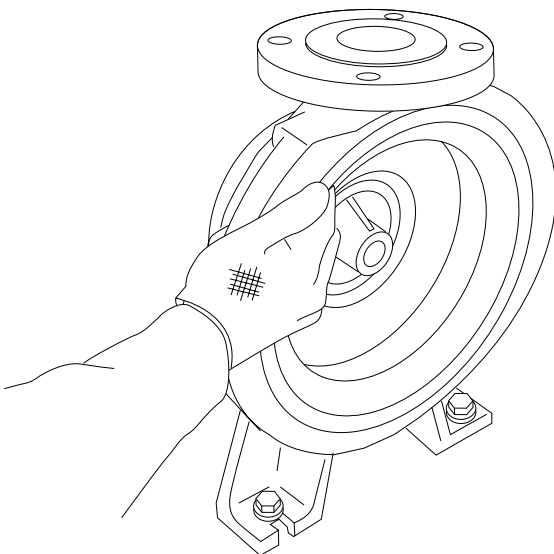
} $80\text{N} \cdot \text{m}$

} $85\text{N} \cdot \text{m}$

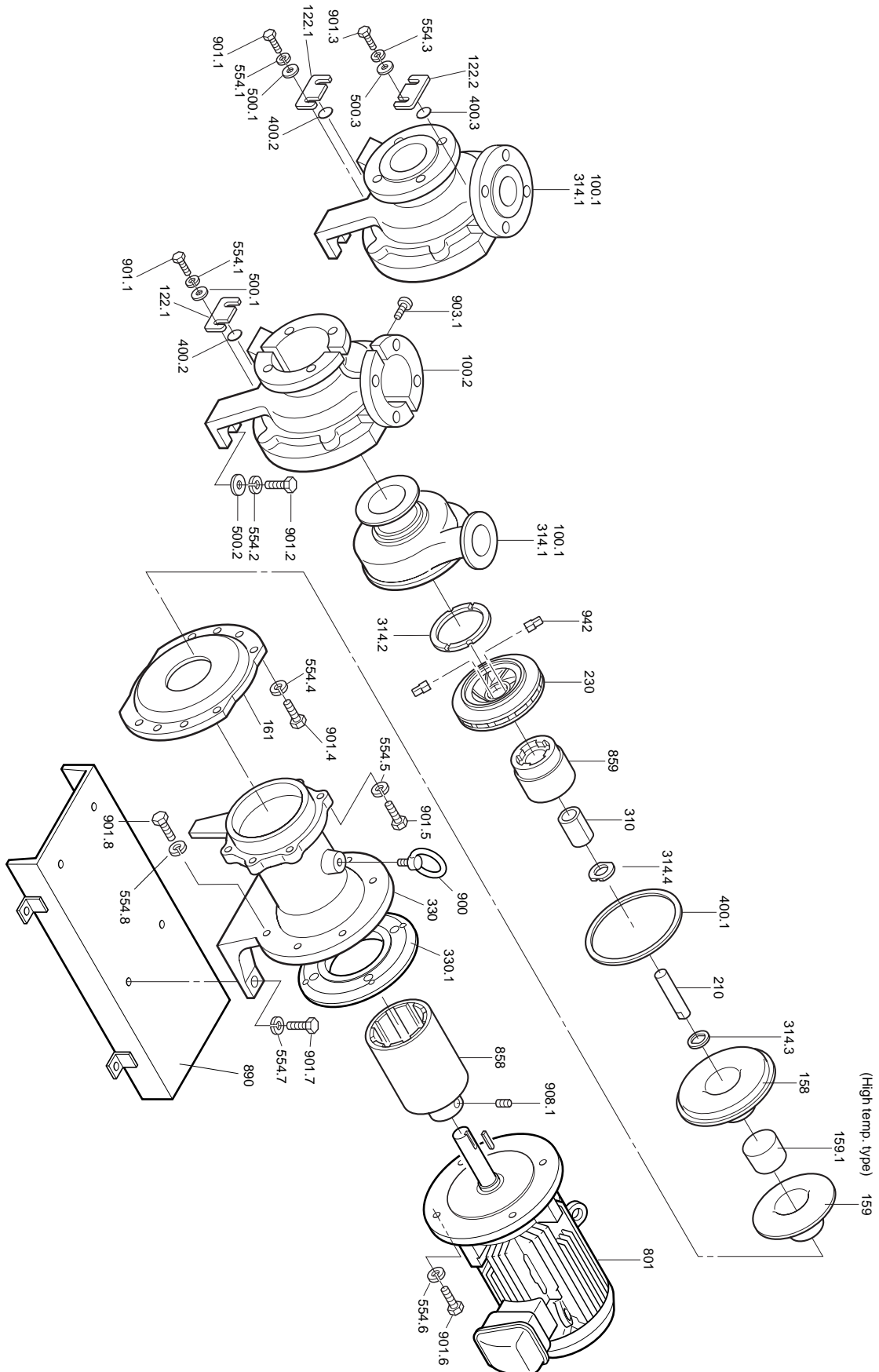
(4) Remove foreign matters from the drive magnet.

(5) Lift the foot support/motor and insert the faucet part of foot support into the rear casing support by unscrewing the bolts alternatively. (Before the works, attached bolts ($M12 \times 100$) are screwed by half into the foot support.

(6) Then, fix the foot support and rear casing support by hex. bolts. Foot support must be inserted straight, otherwise, drive magnet will touch the rear casing cover.



14. Repair parts list



| NO | Parts name | Model code | Q'ty | MDM25-1 Low Head Code No. | MDM25-2 High Head Code No. | MDM25-3 7.5KW Code No. | MDM25-3 11/15/18.5KW Code No. | MDM40-1 Code No. | MDM40-2 7.5KW Code No. | MDM40-2 11/15/18.5KW Code No. | MDM50-1 Code No. | MDM65-1 7.5KW Code No. | MDM65-1 11/15/18.5KW Code No. | Remarks | |
|--------|------------------------------------|------------------------------|------------------------------|---------------------------------|----------------------------------|------------------------------|-------------------------------------|---------------------|------------------------------|-------------------------------------|---------------------|------------------------------|-------------------------------------|--------------------|--------------------|
| 100.1+ | Front casing | PKK | 1 | MDM0001 | | | | | | | | | | With drain hole | |
| 314.1 | | EKK | 1 | MDM0002 | MDM0110 | MDM0722 | MDM0722 | MDM0203 | MDM0869 | MDM0869 | MDM0279 | MDM0366 | MDM0366 | With drain hole | |
| | | ECF | | MDM0003 | MDM0111 | | | MDM0204 | | | | MDM0280 | MDM0367 | MDM0367 | With drain hole |
| | | PKK | | MDM0004 | | | | | | | | | | | Without drain hole |
| 100.1+ | Front casing unit (Note 1) | EKK | 1 | MDM0005 | MDM0112 | MDM0723 | MDM0723 | MDM0205 | MDM0870 | MDM0870 | MDM0281 | MDM0368 | MDM0368 | Without drain hole | |
| 314.1 | | ECF | | MDM0006 | MDM0113 | | | MDM0206 | | | MDM0282 | MDM0369 | MDM0369 | Without drain hole | |
| | | PKK | 1 | | MDM0114 | MDM0724 | MDM0726 | MDM0207 | MDM0871 | MDM0873 | MDM0873 | MDM0283 | MDM0464 | MDM0464 | With drain hole |
| | | PKK | 1 | | MDM0115 | MDM0725 | MDM0727 | MDM0208 | MDM0872 | MDM0874 | MDM0874 | MDM0284 | MDM0465 | MDM0465 | Without drain hole |
| 100.2+ | Cover unit (Note 1) | PKK | 1 | | MDM0114 | MDM0726 | | MDM0207 | MDM0873 | | MDM0283 | MDM0464 | | With drain hole | |
| 903.1 | | EKK, ECF | 1 | MDM0008 | MDM0116 | MDM0728 | MDM0729 | MDM0209 | MDM0875 | MDM0876 | MDM0285 | MDM0474 | MDM0466 | For ETFE | |
| | | EKK, ECF F075 (Note 4) | 1 | | MDM0116 | MDM0729 | | MDM0209 | MDM0876 | | MDM0285 | MDM0466 | | For ETFE | |
| 122.1 | | Steel | 1 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | |
| 122.2 | Air vent plate | | 1 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | MDM0009 | For PFA | |
| 158 | Rear casing | PKK | 1 | MDM0010 | MDM0117 | MDM0730 | MDM0730 | MDM0210 | MDM0370 | MDM0370 | MDM0210 | MDM0370 | MDM0370 | | |
| | PKK, EKK, ECF for high temp. type | | 1 | | | MDM0731 | MDM0731 | | MDM0877 | MDM0877 | | | | | |
| 159 | Rear casing cover | EKK, ECF | 1 | MDM0011 | MDM0118 | MDM0732 | MDM0732 | MDM0211 | MDM0371 | MDM0371 | MDM0211 | MDM0371 | MDM0371 | | |
| 159.1 | FRP | | 1 | MDM0012 | MDM0119 | MDM0733 | MDM0733 | MDM0212 | MDM0119 | MDM0119 | MDM0212 | MDM0119 | MDM0119 | | |
| 161 | Reinforce ring for high temp. type | FRP | 1 | | | MDM0734 | MDM0734 | | MDM0734 | MDM0734 | | | | | |
| 186 | Rear casing support | Ductile cast iron | 1 | MDM0013 | MDM0120 | MDM0852 | MDM0852 | MDM0213 | MDM0878 | MDM0878 | MDM0213 | MDM0120 | MDM0120 | Note 5 | |
| 210 | Front spacer | Steel | 1 | | MDM0607 | | | MDM0607 | | | MDM0607 | | | | |
| 230 | Spindle | PKK, EKK | 1 | MDM0014 | MDM0121 | MDM0372 | MDM0372 | MDM0121 | MDM0372 | MDM0372 | MDM0121 | MDM0372 | MDM0372 | | |
| | ECF | | 1 | MDM0015 | MDM0122 | | | MDM0122 | | | MDM0122 | MDM0373 | MDM0373 | | |
| 230+ | Impeller | Refer to impeller parts list | | | | | | | | | | | | | |
| 314.2 | | Impeller ass'y | Refer to impeller parts list | | | | | | | | | | | | |

| NO | Parts name | Model code | Q'ty | MDM25-1 | | MDM25-2 | | MDM25-3 | | MDM40-1 | | MDM40-2 | | MDM50-1 | | MDM65-1 | | Remarks | | | |
|--------|-------------------------------|--------------------|---------|-------------------|--------------------|----------------|-----------------------|----------------|-----------------------|----------------|-----------------------|----------------|-----------------------|---------|---------|---------|---------|---------|-------------------|----|--|
| | | | | Low Head Code No. | High Head Code No. | 7.5kW Code No. | 11/15/18.5kW Code No. | 7.5kW Code No. | 11/15/18.5kW Code No. | 7.5kW Code No. | 11/15/18.5kW Code No. | 7.5kW Code No. | 11/15/18.5kW Code No. | | | | | | | | |
| 230+ | Impeller/magnet capsule ass'y | | | | | | | | | | | | | | | | | | | | |
| 310+ | | | | | | | | | | | | | | | | | | | | | |
| 314.2+ | | | | | | | | | | | | | | | | | | | | | |
| 314.4+ | | | | | | | | | | | | | | | | | | | | | |
| 859+ | | | | | | | | | | | | | | | | | | | | | |
| 942 | | | | | | | | | | | | | | | | | | | | | |
| 310 | Bearing | PKK, EKK | 1 | MDM0016 | MDM0123 | MDM0735 | MDM0735 | MDM0123 | MDM0735 | MDM0123 | MDM0735 | MDM0735 | MDM0123 | MDM0735 | MDM0123 | MDM0735 | MDM0374 | | | | |
| | | ECF | 1 | MDM0017 | MDM0124 | | | MDM0124 | | MDM0124 | | | MDM0124 | | MDM0124 | | MDM0375 | | | | |
| 314.2 | Mouth ring | PKK, EKK | 1 | MDM0018 | MDM0018 | MDM0488 | MDM0488 | MDM0018 | MDM0488 | MDM0018 | MDM0488 | MDM0488 | MDM0488 | MDM0018 | MDM0488 | MDM0488 | MDM0376 | | | | |
| | | ECF | 1 | MDM0019 | MDM0019 | | | MDM0019 | | MDM0019 | | | MDM0019 | | MDM0019 | | MDM0377 | | | | |
| 314.3 | Rear thrust | EKK, ECF | 1 | MDM0020 | MDM0125 | MDM0378 | MDM0378 | MDM0125 | MDM0378 | MDM0125 | MDM0378 | MDM0378 | MDM0125 | MDM0378 | MDM0125 | MDM0378 | | | | | |
| | | PKK | 1 | | | MDM0615 | MDM0615 | | MDM0615 | | MDM0615 | MDM0615 | | MDM0615 | | | | | | | |
| 314.4 | Rear ring | PKK, EKK | 1 | MDM0021 | MDM0126 | MDM0126 | MDM0126 | MDM0126 | MDM0126 | MDM0126 | MDM0126 | MDM0126 | MDM0126 | MDM0126 | MDM0126 | MDM0126 | MDM0126 | | | | |
| | | ECF | 1 | MDM0022 | MDM0127 | | | MDM0127 | | MDM0127 | | | MDM0127 | | MDM0127 | | MDM0127 | | | | |
| 330 | Bracket (Note 2) | F015, F022 | 1 | MDM0023 | | | | | | | | | | | | | | | | | |
| | | F022 (Note 4) | 1 | MDM0604 | | | | | | | | | | | | | | | | | |
| | | F037 | 1 | | MDM0128 | | | | MDM0128 | | MDM0128 | | | MDM0128 | | MDM0128 | | | | | |
| | | F055, F075 | 1 | | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | | | | |
| | | F075 (Note 4) | 1 | | MDM0467 | MDM0467 | MDM0467 | MDM0467 | MDM0467 | MDM0467 | MDM0467 | MDM0467 | MDM0467 | MDM0467 | MDM0467 | MDM0467 | MDM0467 | | | | |
| | | F110, F150, F185 | 1 | | | MDM0467 | | | | MDM0467 | | | MDM0467 | | | | MDM0467 | | | | |
| | | F004-4P | 1 | MDM0616 | | | | | | | | | | | | | | | | 4P | |
| | F007-4P | 1 | MDM0023 | | | | | | | | | | | | | | | | 4P | | |
| | F015-4P | 1 | | MDM0620 | MDM0620 | MDM0620 | MDM0620 | MDM0620 | MDM0620 | MDM0620 | MDM0620 | MDM0620 | MDM0620 | MDM0620 | MDM0620 | MDM0620 | | | 4P | | |
| | F022, F037-4P | 1 | | MDM0128 | MDM0128 | MDM0128 | MDM0128 | MDM0128 | MDM0128 | MDM0128 | MDM0128 | MDM0128 | MDM0128 | MDM0128 | MDM0128 | MDM0128 | | | 4P | | |
| | F055, F075-4P | 1 | | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | MDM0129 | | | 4P | | |
| 330.1 | Motor adapter | F150/F185 (Note 4) | 1 | | | | | MDM0610 | | | | MDM0610 | | | | MDM0610 | | | | | |
| | | F004-4P | 1 | MDM0617 | | | | | | | | | | | | | | | 4P | | |
| | | F015-4P | 1 | | MDM0621 | | | MDM0621 | | MDM0621 | | | MDM0621 | | MDM0621 | | MDM0621 | | 4P | | |
| 400.1 | Gasket | PTFE | 1 | MDM0024 | MDM0130 | MDM0736 | MDM0736 | MDM0214 | MDM0130 | MDM0214 | MDM0130 | MDM0130 | MDM0214 | MDM0130 | MDM0130 | MDM0130 | | | | | |
| 400.2 | Drain gasket | PTFE | 1 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | | | With drain type | | |
| 400.3 | Air vent gasket | PTFE | 1 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | MDM0025 | | | With drain of PFA | | |
| 500.1 | Plain washer | | 2 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | | | | | |

Refer to impeller parts list

| NO | Parts name | Model code | Q'ty | MDM25-1 | MDM25-2 | MDM25-3 | MDM25-3 | MDM40-1 | MDM40-2 | MDM40-2 | MDM40-2 | MDM50-1 | MDM65-1 | MDM65-1 | Remarks |
|-------|-------------------------------|------------------|--------|----------------------|-----------------------|-------------------|--------------------------|----------|-------------------|--------------------------|----------|----------|----------|----------|-------------------------------|
| | | | | Low Head Code No. | High Head Code No. | 7.5kW Code No. | 11/15/18.5kW Code No. | Code No. | 7.5kW Code No. | 11/15/18.5kW Code No. | Code No. | Code No. | Code No. | Code No. | |
| 500.2 | Plain washer | | 2 | MDM0027 | MDM0027 | MDM0027 | MDM0027 | MDM0027 | MDM0027 | MDM0027 | MDM0027 | MDM0027 | MDM0027 | MDM0027 | |
| 500.3 | Plain washer | | 2 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | MDM0026 | |
| 554.1 | Spring washer | | 2 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | |
| 554.2 | Spring washer | | 2 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | |
| 554.3 | Spring washer | | 2 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | MDM0028 | |
| 554.4 | Spring washer | | 6/8/10 | MDM0030 | MDM0029 | MDM0490 | MDM0490 | MDM0029 | MDM0490 | MDM0490 | MDM0490 | MDM0029 | MDM0029 | MDM0029 | 25-1 : 6, 25-3 : 8, 40-2 : 10 |
| 554.5 | Spring washer | | 4 | MDM0030 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | |
| 554.6 | Spring washer | F015, F022 | 4 | MDM0030 | | | | | | | | | | | |
| | | F022 (Note 4) | 4 | MDM0029 | | | | | | | | | | | |
| | | F087, F055, F075 | 4 | | MDM0029 | | | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | |
| | | F075 (Note 4) | 4 | | MDM0490 | | | MDM0490 | MDM0490 | MDM0490 | MDM0490 | MDM0490 | MDM0490 | MDM0490 | |
| | | F110, F150, F185 | 4 | | | MDM0490 | | | MDM0490 | | | | | | |
| 554.7 | Spring washer | | 2 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | MDM0029 | |
| 554.8 | Spring washer | F004-4P | 4 | MDM0028 | | | | | | | | | | | |
| | | F015-4P | 4 | | MDM0030 | | | MDM0030 | | | | MDM0030 | | | |
| 801 | Motor | | 1 | | | | | | | | | | | | |
| 858 | Drive magnet unit (Note 2) | F015 | 1 | MDM0031 | | | | | | | | | | | |
| | | F022 | 1 | MDM0032 | | | | | | | | | | | |
| | | F022 (Note 4) | 1 | MDM0605 | | | | | | | | | | | |
| | | F037 | 1 | | MDM0131 | | | MDM0131 | | | | MDM0131 | | | |
| | | F055 | 1 | | MDM0132 | | | MDM0132 | | | | MDM0132 | | | |
| | | F075 | 1 | | MDM0286 | | | MDM0286 | | | | MDM0286 | | | |
| | | F075 (Note 4) | 1 | | MDM0608 | | | MDM0608 | | | | MDM0608 | | | |
| | | F110 | 1 | | | MDM0738 | | | MDM0738 | | | | MDM0468 | | |
| | | F150 | 1 | | | MDM0738 | | | MDM0738 | | | | MDM0492 | | |
| | | F185 | 1 | | | MDM0738 | | | MDM0738 | | | | | | |
| | | F150 (Note 4) | 1 | | | MDM0738 | | | MDM0738 | | | | MDM0611 | | |
| | | F185 (Note 4) | 1 | | | MDM0738 | | | MDM0738 | | | | | | |
| | | F004-4P | 1 | MDM0618 | | | | | | | | | | | 0.4kW-4P |
| | | F007-4P | 1 | MDM0627 | | | | | | | | | | | 0.75kW-4P |
| | | F015-4P | 1 | | MDM0622 | | | MDM0622 | | | | MDM0622 | | | 1.5kW-4P |
| | | F022-4P | 1 | | MDM0623 | | | MDM0623 | | | | MDM0623 | | | 2.2kW-4P |
| | | F037-4P | 1 | | MDM0624 | | | MDM0624 | | | | MDM0624 | | | 3.7kW-4P |
| | | F055-4P | 1 | | | | | | | | | | | | 5.5kW-4P |
| | | F075-4P | 1 | | | | | | | | | | | | 7.5kW-4P |

| NO | Parts name | Model code | Q'ty | MDM25-1 | MDM25-2 | MDM25-3 | MDM40-1 | MDM40-2 | MDM40-2 | MDM50-1 | MDM65-1 | MDM65-1 | Remarks | | |
|-----------------|---------------------|---------------|---------|----------------------|-----------------------|-------------------|--------------------------|----------|-------------------|--------------------------|----------|-------------------|-----------|--------------------------|--|
| | | | | Low Head Code No. | High Head Code No. | 7.5kW Code No. | 11/15/18.5kW Code No. | Code No. | 7.5kW Code No. | 11/15/18.5kW Code No. | Code No. | 7.5kW Code No. | | 11/15/18.5kW Code No. | |
| 859 | Magnet capsule unit | PKK-F015 | 1 | MDM0083 | | | | | | | | | | | |
| | | PKK-F022 | 1 | MDM0083 | | | | | | | | | | | |
| | | PKK-F087 | 1 | | MDM0133 | | MDM0133 | | | | MDM0133 | | | | |
| | | PKK-F055 | 1 | | MDM0133 | MDM0133 | MDM0133 | MDM0133 | MDM0133 | MDM0133 | MDM0133 | MDM0133 | | | |
| | | PKK-F075 | 1 | | MDM0287 | MDM0287 | MDM0287 | MDM0287 | MDM0287 | MDM0287 | MDM0287 | MDM0287 | | | |
| | | PKK-F110 | 1 | | | MDM0469 | | | MDM0469 | MDM0469 | | | MDM0469 | | |
| | | PKK-F150 | 1 | | | MDM0469 | | | MDM0469 | MDM0469 | | | MDM0469 | | |
| | | PKK-F185 | 1 | | | MDM0469 | | | MDM0469 | MDM0469 | | | | | |
| | | PKK-F004-4P | 1 | MDM0083 | | | | | | | | | | 0.4kW-4P | |
| | | PKK-F007-4P | 1 | MDM0083 | | | | | | | | | | 0.75kW-4P | |
| | | PKK-F015-4P | 1 | | MDM0133 | | MDM0133 | MDM0133 | MDM0133 | MDM0133 | MDM0133 | MDM0133 | MDM0133 | 1.5kW-4P | |
| | | PKK-F022-4P | 1 | | MDM0133 | MDM0133 | MDM0133 | MDM0133 | MDM0133 | MDM0133 | MDM0133 | MDM0133 | MDM0133 | 2.2kW-4P | |
| | | PKK-F087-4P | 1 | | MDM0287 | MDM0287 | MDM0287 | MDM0287 | MDM0287 | MDM0287 | MDM0287 | MDM0287 | MDM0287 | 3.7kW-4P | |
| | | PKK-F055-4P | 1 | | | | MDM0469 | | | MDM0469 | | | MDM0469 | 5.5kW-4P | |
| | | PKK-F075-4P | 1 | | MDM0469 | | MDM0469 | | | MDM0469 | | | | 7.5kW-4P | |
| | | EKK/ECF-F015 | 1 | MDM0084 | | | | | | | | | | | |
| | | EKK/ECF-F022 | 1 | MDM0084 | | | | | | | | | | | |
| | | EKK/ECF-F087 | 1 | | MDM0134 | | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | |
| | | EKK/ECF-F055 | 1 | | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | |
| | | EKK/ECF-F075 | 1 | | MDM0288 | MDM0288 | MDM0288 | MDM0288 | MDM0288 | MDM0288 | MDM0288 | MDM0288 | MDM0288 | MDM0288 | |
| EKK/ECF-F110 | 1 | | | | MDM0470 | | | MDM0470 | MDM0470 | | | MDM0470 | | | |
| EKK/ECF-F150 | 1 | | | | MDM0470 | | | MDM0470 | MDM0470 | | | MDM0470 | | | |
| EKK/ECF-F185 | 1 | | | | MDM0470 | | | MDM0470 | MDM0470 | | | | | | |
| EKK/ECF-F004-4P | 1 | MDM0084 | | | | | | | | | | | 0.4kW-4P | | |
| EKK/ECF-F007-4P | 1 | MDM0084 | | | | | | | | | | | 0.75kW-4P | | |
| EKK/ECF-F015-4P | 1 | | MDM0134 | | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | 1.5kW-4P | | |
| EKK/ECF-F022-4P | 1 | | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | MDM0134 | 2.2kW-4P | | |
| EKK/ECF-F087-4P | 1 | | MDM0288 | MDM0288 | MDM0288 | MDM0288 | MDM0288 | MDM0288 | MDM0288 | MDM0288 | MDM0288 | MDM0288 | 3.7kW-4P | | |
| EKK/ECF-F055-4P | 1 | | | | MDM0470 | | | MDM0470 | MDM0470 | | | MDM0470 | 5.5kW-4P | | |
| EKK/ECF-F075-4P | 1 | | MDM0470 | | MDM0470 | | | MDM0470 | MDM0470 | | | | 7.5kW-4P | | |
| 890 | Base plate | | 1 | MDM0085 | MDM0135 | MDM0471 | MDM0135 | MDM0135 | MDM0135 | MDM0135 | MDM0135 | MDM0135 | MDM0471 | | |
| | | F022 (Note 4) | 1 | MDM0606 | | | | | | | | | | | |
| 900 | Eye bolt | F075 (Note 4) | 1 | | MDM0471 | MDM0471 | MDM0471 | MDM0471 | MDM0471 | MDM0471 | MDM0471 | MDM0471 | | | |
| 901.1 | Hex. head bolt | | 1 | MDM0086 | MDM0086 | MDM0086 | MDM0086 | MDM0086 | MDM0086 | MDM0086 | MDM0086 | MDM0086 | MDM0086 | | |
| | | | 2 | MDM0087 | MDM0087 | MDM0087 | MDM0087 | MDM0087 | MDM0087 | MDM0087 | MDM0087 | MDM0087 | MDM0087 | | |

| NO | Parts name | Model code | Q'ty | MDM25-1 Low Head Code No. | MDM25-2 High Head Code No. | MDM25-3 7.5kW Code No. | MDM25-3 11/15/18.5kW Code No. | MDM40-1 Code No. | MDM40-2 7.5kW Code No. | MDM40-2 11/15/18.5kW Code No. | MDM50-1 Code No. | MDM65-1 7.5kW Code No. | MDM65-1 11/15/18.5kW Code No. | Remarks |
|-------|-----------------------|--------------------|--------|---------------------------------|----------------------------------|------------------------------|-------------------------------------|---------------------|------------------------------|-------------------------------------|---------------------|------------------------------|-------------------------------------|-------------------------------|
| 901.2 | Hex. head bolt | | 2 | MDM0088 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | |
| 901.3 | Hex. head bolt | F075 (Note 4) | 2 | | MDM0609 | MDM0136 | | MDM0609 | MDM0136 | | MDM0609 | MDM0609 | | |
| 901.4 | Hex. head bolt | | 6/8/10 | MDM0037 | MDM0037 | MDM0037 | MDM0037 | MDM0037 | MDM0037 | MDM0037 | MDM0037 | MDM0037 | MDM0037 | |
| 901.5 | Hex. head bolt | | 4 | MDM0039 | MDM0137 | MDM0491 | MDM0491 | MDM0137 | MDM0491 | MDM0491 | MDM0137 | MDM0137 | MDM0137 | 25-1 : 6, 25-3 : 8, 40-2 : 10 |
| 901.6 | Hex. head bolt | F015, F022 | 4 | MDM0040 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | |
| | | F022 (Note 4) | 4 | MDM0041 | | | | | | | | | | |
| | | F037 | 4 | | MDM0555 | | | MDM0555 | | | | | | |
| | | F055, F075 | 4 | | MDM0137 | MDM0137 | | MDM0137 | MDM0137 | | MDM0137 | MDM0137 | | |
| | | F075 (Note 4) | 4 | | MDM0491 | MDM0491 | | MDM0491 | MDM0491 | | MDM0491 | MDM0491 | | |
| | | F110, F150, F185 | 4 | | | | MDM0491 | | MDM0491 | | | | MDM0491 | |
| | | F004-4P | 4 | MDM0619 | | | | | | | | | | |
| | | F007-4P | 4 | MDM0041 | | | | | | | | | | |
| | | F015-4P | 4 | | MDM0041 | | | MDM0041 | | | MDM0041 | MDM0041 | | |
| | | F022, F037-4P | 4 | | MDM0555 | MDM0555 | | MDM0555 | MDM0555 | | MDM0555 | MDM0555 | | |
| | | F055, F075-4P | 4 | | | MDM0137 | | | MDM0137 | | | MDM0137 | | |
| 901.7 | Hex. head bolt | | 2 | MDM0042 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | MDM0136 | |
| 901.8 | Hex. head bolt | F004-4P | 4 | MDM0698 | | | | | | | | | | |
| | | F015-4P | 4 | | MDM0625 | | | MDM0625 | | | MDM0625 | MDM0625 | | |
| 903.1 | Hex. socket head bolt | | 5 | MDM0043 | MDM0043 | MDM0043 | MDM0043 | MDM0043 | MDM0043 | MDM0043 | MDM0043 | MDM0043 | MDM0043 | Note 3 |
| 903.2 | Hex. socket head bolt | F150/F185 (Note 4) | 4 | | | | MDM0612 | | | MDM0612 | | | MDM0612 | |
| 908.1 | Hex. socket head bolt | | 2 | MDM0044 | MDM0044 | MDM0044 | MDM0044 | MDM0044 | MDM0044 | MDM0044 | MDM0044 | MDM0044 | MDM0044 | |
| 942 | Impeller pin | | 2 | MDM0045 | MDM0138 | MDM0138 | MDM0138 | MDM0138 | MDM0138 | MDM0138 | MDM0138 | MDM0138 | MDM0138 | |

Note 1: For MDM65, code No. is for TEFC motor type. Ask IWAKI if explosion proof or other type motor is mounted.

Note 2: Code No. is for TEFC motor type. Ask IWAKI if explosion proof or other type motor is mounted.

Note 3: For PFA type of MDM25-1 and all models of ETFE.

Note 4: For safety increased motor.

Note 5: For 7.5kW safety increased motor except MDM65.

MDM25 Impeller parts list

| Model | NO | Parts name | Impeller size code | Motor power | Q'ty/ unit | Parts code No. | | | | |
|---------|---|-------------------------------|--------------------|-------------|---------------|----------------|---------|---------|---------|---------|
| | | | | | | PKK | EKK | ECF | | |
| MDM25-1 | 230 | Impeller | 165 | | 1 | MDM0046 | MDM0067 | MDM0067 | | |
| | | | 160 | | 1 | MDM0047 | MDM0068 | MDM0068 | | |
| | | | 150 | | 1 | MDM0048 | MDM0069 | MDM0069 | | |
| | | | 140 | | 1 | MDM0049 | MDM0070 | MDM0070 | | |
| | | | 130 | | 1 | MDM0050 | MDM0071 | MDM0071 | | |
| | | | 120 | | 1 | MDM0051 | MDM0072 | MDM0072 | | |
| | | | 110 | | 1 | MDM0052 | MDM0073 | MDM0073 | | |
| | | | 100 | | 1 | MDM0084 | MDM0109 | MDM0109 | | |
| | | | 170 | 4P | 1 | MDM0628 | MDM0632 | MDM0632 | | |
| | 230+ 314.2 | Impeller ass'y | 165 | | 1 | MDM0053 | MDM0074 | MDM0093 | | |
| | | | 160 | | 1 | MDM0054 | MDM0075 | MDM0094 | | |
| | | | 150 | | 1 | MDM0055 | MDM0076 | MDM0095 | | |
| | | | 140 | | 1 | MDM0056 | MDM0077 | MDM0096 | | |
| | | | 130 | | 1 | MDM0057 | MDM0078 | MDM0097 | | |
| | | | 120 | | 1 | MDM0058 | MDM0079 | MDM0098 | | |
| | | | 110 | | 1 | MDM0059 | MDM0080 | MDM0099 | | |
| | | | 100 | | 1 | MDM0083 | MDM0081 | MDM0100 | | |
| | | | 170 | 4P | 1 | MDM0629 | MDM0633 | MDM0637 | | |
| | 230+ 310+ 314.2+ 314.4+ 859+ 942 | Impeller/magnet capsule ass'y | 165 | 1.5kW | 1 | MDM0060 | MDM0085 | MDM0101 | | |
| | | | 160 | 1.5kW | 1 | MDM0061 | MDM0086 | MDM0102 | | |
| | | | 150 | 1.5kW | 1 | MDM0062 | MDM0087 | MDM0103 | | |
| | | | 140 | 1.5kW | 1 | MDM0063 | MDM0088 | MDM0104 | | |
| | | | 130 | 1.5kW | 1 | MDM0064 | MDM0089 | MDM0105 | | |
| | | | 120 | 1.5kW | 1 | MDM0065 | MDM0090 | MDM0106 | | |
| | | | 110 | 1.5kW | 1 | MDM0066 | MDM0091 | MDM0107 | | |
| | | | 100 | 1.5kW | 1 | MDM0082 | MDM0092 | MDM0108 | | |
| | | | 165 | 2.2kW | 1 | MDM0060 | MDM0085 | MDM0101 | | |
| | | | 160 | 2.2kW | 1 | MDM0061 | MDM0086 | MDM0102 | | |
| | | | 150 | 2.2kW | 1 | MDM0062 | MDM0087 | MDM0103 | | |
| | | | 140 | 2.2kW | 1 | MDM0063 | MDM0088 | MDM0104 | | |
| | | | 130 | 2.2kW | 1 | MDM0064 | MDM0089 | MDM0105 | | |
| | | | 120 | 2.2kW | 1 | MDM0065 | MDM0090 | MDM0106 | | |
| | | | 110 | 2.2kW | 1 | MDM0066 | MDM0091 | MDM0107 | | |
| 100 | | | 2.2kW | 1 | MDM0082 | MDM0092 | MDM0108 | | | |
| 170 | | | 0.4kW-4P | 1 | MDM0630 | MDM0634 | MDM0635 | | | |
| 170 | | | 0.75kW-4P | 1 | MDM0630 | MDM0634 | MDM0635 | | | |
| MDM25-2 | | | 230 | Impeller | 195 | | 1 | MDM0139 | MDM0163 | MDM0163 |
| | | | | | 190 | | 1 | MDM0140 | MDM0164 | MDM0164 |
| | 180 | | | | 1 | MDM0141 | MDM0165 | MDM0165 | | |
| | 170 | | | | 1 | MDM0142 | MDM0166 | MDM0166 | | |
| | 160 | | | | 1 | MDM0143 | MDM0167 | MDM0167 | | |
| | 150 | | | | 1 | MDM0144 | MDM0168 | MDM0168 | | |
| | 140 | | | | 1 | MDM0145 | MDM0169 | MDM0169 | | |
| | 130 | | | | 1 | MDM0146 | MDM0170 | MDM0170 | | |
| | 200 | 4P | | | 1 | MDM0640 | MDM0645 | MDM0645 | | |

| Model | NO | Parts name | Impeller size code | Motor power | Q'ty/ unit | Parts code No. | | |
|--|---|-------------------------------|--------------------|-------------|---------------|----------------|---------|---------|
| | | | | | | PKK | EKK | ECF |
| MDM25-2 | 230+ 314.2 | Impeller ass'y | 195 | | 1 | MDM0147 | MDM0171 | MDM0187 |
| | | | 190 | | 1 | MDM0148 | MDM0172 | MDM0188 |
| | | | 180 | | 1 | MDM0149 | MDM0173 | MDM0189 |
| | | | 170 | | 1 | MDM0150 | MDM0174 | MDM0190 |
| | | | 160 | | 1 | MDM0151 | MDM0175 | MDM0191 |
| | | | 150 | | 1 | MDM0152 | MDM0176 | MDM0192 |
| | | | 140 | | 1 | MDM0153 | MDM0177 | MDM0193 |
| | | | 130 | | 1 | MDM0154 | MDM0178 | MDM0194 |
| | | | 200 | 4P | 1 | MDM0641 | MDM0646 | MDM0650 |
| | 230+ 310+ 314.2+ 314.4+ 859+ 942 | Impeller/magnet capsule ass'y | 195 | 3.7kW | 1 | MDM0155 | MDM0179 | MDM0195 |
| | | | 190 | 3.7kW | 1 | MDM0156 | MDM0180 | MDM0196 |
| | | | 180 | 3.7kW | 1 | MDM0157 | MDM0181 | MDM0197 |
| | | | 170 | 3.7kW | 1 | MDM0158 | MDM0182 | MDM0198 |
| | | | 160 | 3.7kW | 1 | MDM0159 | MDM0183 | MDM0199 |
| | | | 150 | 3.7kW | 1 | MDM0160 | MDM0184 | MDM0200 |
| | | | 140 | 3.7kW | 1 | MDM0161 | MDM0185 | MDM0201 |
| | | | 130 | 3.7kW | 1 | MDM0162 | MDM0186 | MDM0202 |
| | | | 195 | 5.5kW | 1 | MDM0155 | MDM0179 | MDM0195 |
| | | | 190 | 5.5kW | 1 | MDM0156 | MDM0180 | MDM0196 |
| | | | 180 | 5.5kW | 1 | MDM0157 | MDM0181 | MDM0197 |
| | | | 170 | 5.5kW | 1 | MDM0158 | MDM0182 | MDM0198 |
| | | | 160 | 5.5kW | 1 | MDM0159 | MDM0183 | MDM0199 |
| | | | 150 | 5.5kW | 1 | MDM0160 | MDM0184 | MDM0200 |
| | | | 140 | 5.5kW | 1 | MDM0161 | MDM0185 | MDM0201 |
| | | | 130 | 5.5kW | 1 | MDM0162 | MDM0186 | MDM0202 |
| | | | 195 | 7.5kW | 1 | MDM0556 | MDM0564 | MDM0572 |
| | | | 190 | 7.5kW | 1 | MDM0557 | MDM0565 | MDM0573 |
| | | | 180 | 7.5kW | 1 | MDM0558 | MDM0566 | MDM0574 |
| | | | 170 | 7.5kW | 1 | MDM0559 | MDM0567 | MDM0575 |
| | | | 160 | 7.5kW | 1 | MDM0560 | MDM0568 | MDM0576 |
| | | | 150 | 7.5kW | 1 | MDM0561 | MDM0569 | MDM0577 |
| | | | 140 | 7.5kW | 1 | MDM0562 | MDM0570 | MDM0578 |
| | | | 130 | 7.5kW | 1 | MDM0563 | MDM0571 | MDM0579 |
| | | | 200 | 1.5kW-4P | 1 | MDM0642 | MDM0647 | MDM0649 |
| | | | 200 | 2.2kW-4P | 1 | MDM0642 | MDM0647 | MDM0649 |
| 200 | | | 3.7kW-4P | 1 | MDM0643 | MDM0648 | MDM0651 | |
| MDM25-3 (except high temp. type of PKK) | 230 | Impeller | 225 | | 1 | MDM0740 | MDM0764 | |
| | | | 220 | | 1 | MDM0741 | MDM0765 | |
| | | | 210 | | 1 | MDM0742 | MDM0766 | |
| | | | 200 | | 1 | MDM0743 | MDM0767 | |
| | | | 190 | | 1 | MDM0744 | MDM0768 | |
| | | | 180 | | 1 | MDM0745 | MDM0769 | |
| | | | 170 | | 1 | MDM0746 | MDM0770 | |
| | | | 160 | | 1 | MDM0747 | MDM0771 | |
| | 230+ 314.2 | Impeller ass'y | 225 | | 1 | MDM0853 | MDM0772 | |
| | | | 220 | | 1 | MDM0854 | MDM0773 | |
| | | | 210 | | 1 | MDM0855 | MDM0774 | |
| | | | 200 | | 1 | MDM0856 | MDM0775 | |
| | | | 190 | | 1 | MDM0857 | MDM0776 | |
| | | | | | | | | |

| Model | NO | Parts name | Impeller size code | Motor power | Q'ty/ unit | Parts code No. | | |
|---|---|----------------------------------|--------------------|-------------|---------------|----------------|---------|-----|
| | | | | | | PKK | EKK | ECF |
| MDM25-3 (except high temp. type of PKK) | 230+ 314.2 | Impeller ass'y | 180 | | 1 | MDM0858 | MDM0777 | |
| | | | 170 | | 1 | MDM0859 | MDM0778 | |
| | | | 160 | | 1 | MDM0860 | MDM0779 | |
| | 230+ 310+ 314.2+ 314.4+ 859+ 942 | Impeller/magnet capsule ass'y | 225 | 5.5kW | 1 | MDM0748 | MDM0780 | |
| | | | 220 | 5.5kW | 1 | MDM0749 | MDM0781 | |
| | | | 210 | 5.5kW | 1 | MDM0750 | MDM0782 | |
| | | | 200 | 5.5kW | 1 | MDM0751 | MDM0783 | |
| | | | 190 | 5.5kW | 1 | MDM0752 | MDM0784 | |
| | | | 180 | 5.5kW | 1 | MDM0753 | MDM0785 | |
| | | | 170 | 5.5kW | 1 | MDM0754 | MDM0786 | |
| | | | 160 | 5.5kW | 1 | MDM0755 | MDM0787 | |
| | | | 225 | 7.5kW | 1 | MDM0756 | MDM0788 | |
| | | | 220 | 7.5kW | 1 | MDM0757 | MDM0789 | |
| | | | 210 | 7.5kW | 1 | MDM0758 | MDM0790 | |
| | | | 200 | 7.5kW | 1 | MDM0759 | MDM0791 | |
| | | | 190 | 7.5kW | 1 | MDM0760 | MDM0792 | |
| | | | 180 | 7.5kW | 1 | MDM0761 | MDM0793 | |
| | | | 170 | 7.5kW | 1 | MDM0762 | MDM0794 | |
| | | | 160 | 7.5kW | 1 | MDM0763 | MDM0795 | |
| | | | 225 | 11kW | 1 | MDM0861 | MDM0796 | |
| | | | 220 | 11kW | 1 | MDM0862 | MDM0797 | |
| | | | 210 | 11kW | 1 | MDM0863 | MDM0798 | |
| | | | 200 | 11kW | 1 | MDM0864 | MDM0799 | |
| | | | 190 | 11kW | 1 | MDM0865 | MDM0800 | |
| | | | 180 | 11kW | 1 | MDM0866 | MDM0801 | |
| | | | 170 | 11kW | 1 | MDM0867 | MDM0802 | |
| | | | 160 | 11kW | 1 | MDM0868 | MDM0803 | |
| | | | 225 | 15kW | 1 | MDM0861 | MDM0796 | |
| | | | 220 | 15kW | 1 | MDM0862 | MDM0797 | |
| | | | 210 | 15kW | 1 | MDM0863 | MDM0798 | |
| | | | 200 | 15kW | 1 | MDM0864 | MDM0799 | |
| | | | 190 | 15kW | 1 | MDM0865 | MDM0800 | |
| | | | 180 | 15kW | 1 | MDM0866 | MDM0801 | |
| | | | 170 | 15kW | 1 | MDM0867 | MDM0802 | |
| | | | 160 | 15kW | 1 | MDM0868 | MDM0803 | |
| | | | 225 | 18.5kW | 1 | MDM0861 | MDM0796 | |
| | | | 220 | 18.5kW | 1 | MDM0862 | MDM0797 | |
| | | | 210 | 18.5kW | 1 | MDM0863 | MDM0798 | |
| | | | 200 | 18.5kW | 1 | MDM0864 | MDM0799 | |
| | | | 190 | 18.5kW | 1 | MDM0865 | MDM0800 | |
| | 180 | 18.5kW | 1 | MDM0866 | MDM0801 | | | |
| | 170 | 18.5kW | 1 | MDM0867 | MDM0802 | | | |
| | 160 | 18.5kW | 1 | MDM0865 | MDM0800 | | | |
| | 225 | 2.2kW-4P | 1 | MDM0748 | MDM0780 | | | |
| | 225 | 3.7kW-4P | 1 | MDM0756 | MDM0788 | | | |
| | 225 | 5.5kW-4P | 1 | MDM0861 | MDM0796 | | | |
| | 225 | 7.5kW-4P | 1 | MDM0861 | MDM0796 | | | |

| Model | NO | Parts name | Impeller size | Motor power | Q'ty/ unit | Parts code No. | Remarks |
|---|-------------|----------------------------------|---------------|-------------|---------------|----------------|--|
| | | | | | | PKK-H | |
| MDM25-3 (for high temp. type of PKK) | 230+ 859 | Impeller/magnet capsule ass'y | 225 | 5.5kW | 1 | MDM0804 | Impeller and magnet capsule can not be separated because they are welded each other. |
| | | | 220 | 5.5kW | 1 | MDM0805 | |
| | | | 210 | 5.5kW | 1 | MDM0806 | |
| | | | 200 | 5.5kW | 1 | MDM0807 | |
| | | | 190 | 5.5kW | 1 | MDM0808 | |
| | | | 180 | 5.5kW | 1 | MDM0809 | |
| | | | 170 | 5.5kW | 1 | MDM0810 | |
| | | | 160 | 5.5kW | 1 | MDM0811 | |
| | | | 225 | 7.5kW | 1 | MDM0812 | |
| | | | 220 | 7.5kW | 1 | MDM0813 | |
| | | | 210 | 7.5kW | 1 | MDM0814 | |
| | | | 200 | 7.5kW | 1 | MDM0815 | |
| | | | 190 | 7.5kW | 1 | MDM0816 | |
| | | | 180 | 7.5kW | 1 | MDM0817 | |
| | | | 170 | 7.5kW | 1 | MDM0818 | |
| | | | 160 | 7.5kW | 1 | MDM0819 | |
| | | | 225 | 11kW | 1 | MDM0820 | |
| | | | 220 | 11kW | 1 | MDM0821 | |
| | | | 210 | 11kW | 1 | MDM0822 | |
| | | | 200 | 11kW | 1 | MDM0823 | |
| | | | 190 | 11kW | 1 | MDM0824 | |
| | | | 180 | 11kW | 1 | MDM0825 | |
| | | | 170 | 11kW | 1 | MDM0826 | |
| | | | 160 | 11kW | 1 | MDM0827 | |
| | | | 225 | 15kW | 1 | MDM0820 | |
| | | | 220 | 15kW | 1 | MDM0821 | |
| | | | 210 | 15kW | 1 | MDM0822 | |
| | | | 200 | 15kW | 1 | MDM0823 | |
| | | | 190 | 15kW | 1 | MDM0824 | |
| | | | 180 | 15kW | 1 | MDM0825 | |
| | | | 170 | 15kW | 1 | MDM0826 | |
| | | | 160 | 15kW | 1 | MDM0827 | |
| | | | 225 | 18.5kW | 1 | MDM0820 | |
| | | | 220 | 18.5kW | 1 | MDM0821 | |
| | | | 210 | 18.5kW | 1 | MDM0822 | |
| | | | 200 | 18.5kW | 1 | MDM0823 | |
| | | | 190 | 18.5kW | 1 | MDM0824 | |
| | | | 180 | 18.5kW | 1 | MDM0825 | |
| | | | 170 | 18.5kW | 1 | MDM0826 | |
| | | | 160 | 18.5kW | 1 | MDM0827 | |
| 225 | 2.2kW-4P | 1 | MDM0804 | | | | |
| 225 | 3.7kW-4P | 1 | MDM0812 | | | | |
| 225 | 5.5kW-4P | 1 | MDM0820 | | | | |
| 225 | 7.5kW-4P | 1 | MDM0820 | | | | |

| Model | NO | Parts name | Impeller size | Motor power | Q'ty/ unit | Parts code No. | Remarks |
|---|--------|-------------------------------|---------------|-------------|---------------|----------------|---------|
| | | | | | | PKK-H | |
| MDM25-3 (for high temp. type of PKK) | 230+ | Impeller/magnet capsule ass'y | 225 | 5.5kW | 1 | MDM0828 | |
| | 310+ | | 220 | 5.5kW | 1 | MDM0829 | |
| | 314.2+ | | 210 | 5.5kW | 1 | MDM0830 | |
| | 314.4+ | | 200 | 5.5kW | 1 | MDM0831 | |
| | 859+ | | 190 | 5.5kW | 1 | MDM0832 | |
| | 942 | | 180 | 5.5kW | 1 | MDM0833 | |
| | | | 170 | 5.5kW | 1 | MDM0834 | |
| | | | 160 | 5.5kW | 1 | MDM0835 | |
| | | | 225 | 7.5kW | 1 | MDM0836 | |
| | | | 220 | 7.5kW | 1 | MDM0837 | |
| | | | 210 | 7.5kW | 1 | MDM0838 | |
| | | | 200 | 7.5kW | 1 | MDM0839 | |
| | | | 190 | 7.5kW | 1 | MDM0840 | |
| | | | 180 | 7.5kW | 1 | MDM0841 | |
| | | | 170 | 7.5kW | 1 | MDM0842 | |
| | | | 160 | 7.5kW | 1 | MDM0843 | |
| | | | 225 | 11kW | 1 | MDM0844 | |
| | | | 220 | 11kW | 1 | MDM0845 | |
| | | | 210 | 11kW | 1 | MDM0846 | |
| | | | 200 | 11kW | 1 | MDM0847 | |
| | | | 190 | 11kW | 1 | MDM0848 | |
| | | | 180 | 11kW | 1 | MDM0849 | |
| | | | 170 | 11kW | 1 | MDM0850 | |
| | | | 160 | 11kW | 1 | MDM0851 | |
| | | | 225 | 15kW | 1 | MDM0844 | |
| | | | 220 | 15kW | 1 | MDM0845 | |
| | | | 210 | 15kW | 1 | MDM0846 | |
| | | | 200 | 15kW | 1 | MDM0847 | |
| | | | 190 | 15kW | 1 | MDM0848 | |
| | | | 180 | 15kW | 1 | MDM0849 | |
| | | | 170 | 15kW | 1 | MDM0850 | |
| | | | 160 | 15kW | 1 | MDM0851 | |
| | | | 225 | 18.5kW | 1 | MDM0844 | |
| | | | 220 | 18.5kW | 1 | MDM0845 | |
| | | | 210 | 18.5kW | 1 | MDM0846 | |
| | | | 200 | 18.5kW | 1 | MDM0847 | |
| | | | 190 | 18.5kW | 1 | MDM0848 | |
| | | | 180 | 18.5kW | 1 | MDM0849 | |
| | | | 170 | 18.5kW | 1 | MDM0850 | |
| | | | 160 | 18.5kW | 1 | MDM0851 | |
| | 225 | 2.2kW-4P | 1 | MDM0828 | | | |
| | 225 | 3.7kW-4P | 1 | MDM0836 | | | |
| | 225 | 5.5kW-4P | 1 | MDM0844 | | | |
| | 225 | 7.5kW-4P | 1 | MDM0844 | | | |

Note: Tell us pump model code and Mfg. No. when impeller is ordered because actual impeller size may not be the same as those shown here.

MDM40 Impeller parts list

| Model | NO | Parts name | Impeller size | Motor power | Q'ty/ unit | Parts code No. | | |
|---------|---|----------------------------------|---------------|-------------|---------------|----------------|---------|---------|
| | | | | | | PKK | EKK | ECF |
| MDM40-1 | 230 | Impeller | 165 | | 1 | MDM0215 | MDM0239 | MDM0239 |
| | | | 160 | | 1 | MDM0216 | MDM0240 | MDM0240 |
| | | | 150 | | 1 | MDM0217 | MDM0241 | MDM0241 |
| | | | 145 | | 1 | MDM0218 | MDM0242 | MDM0242 |
| | | | 140 | | 1 | MDM0219 | MDM0243 | MDM0243 |
| | | | 130 | | 1 | MDM0220 | MDM0244 | MDM0244 |
| | | | 120 | | 1 | MDM0221 | MDM0245 | MDM0245 |
| | | | 110 | | 1 | MDM0222 | MDM0246 | MDM0246 |
| | | | 170 | 4P | 1 | MDM0654 | MDM0659 | MDM0659 |
| | 230+ 314.2 | Impeller ass'y | 165 | | 1 | MDM0223 | MDM0247 | MDM0263 |
| | | | 160 | | 1 | MDM0224 | MDM0248 | MDM0264 |
| | | | 150 | | 1 | MDM0225 | MDM0249 | MDM0265 |
| | | | 145 | | 1 | MDM0226 | MDM0250 | MDM0266 |
| | | | 140 | | 1 | MDM0227 | MDM0251 | MDM0267 |
| | | | 130 | | 1 | MDM0228 | MDM0252 | MDM0268 |
| | | | 120 | | 1 | MDM0229 | MDM0253 | MDM0269 |
| | | | 110 | | 1 | MDM0230 | MDM0254 | MDM0270 |
| | | | 170 | 4P | 1 | MDM0655 | MDM0668 | MDM0664 |
| | 230+ 310+ 314.2+ 314.4+ 859+ 942 | Impeller/magnet capsule ass'y | 165 | 3.7kW | 1 | MDM0231 | MDM0255 | MDM0271 |
| | | | 160 | 3.7kW | 1 | MDM0232 | MDM0256 | MDM0272 |
| | | | 150 | 3.7kW | 1 | MDM0233 | MDM0257 | MDM0273 |
| | | | 145 | 3.7kW | 1 | MDM0234 | MDM0258 | MDM0274 |
| | | | 140 | 3.7kW | 1 | MDM0235 | MDM0259 | MDM0275 |
| | | | 130 | 3.7kW | 1 | MDM0236 | MDM0260 | MDM0276 |
| | | | 120 | 3.7kW | 1 | MDM0237 | MDM0261 | MDM0277 |
| | | | 110 | 3.7kW | 1 | MDM0238 | MDM0262 | MDM0278 |
| | | | 165 | 5.5kW | 1 | MDM0231 | MDM0255 | MDM0271 |
| | | | 160 | 5.5kW | 1 | MDM0232 | MDM0256 | MDM0272 |
| | | | 150 | 5.5kW | 1 | MDM0233 | MDM0257 | MDM0273 |
| | | | 145 | 5.5kW | 1 | MDM0234 | MDM0258 | MDM0274 |
| | | | 140 | 5.5kW | 1 | MDM0235 | MDM0259 | MDM0275 |
| | | | 130 | 5.5kW | 1 | MDM0236 | MDM0260 | MDM0276 |
| | | | 120 | 5.5kW | 1 | MDM0237 | MDM0261 | MDM0277 |
| | | | 110 | 5.5kW | 1 | MDM0238 | MDM0262 | MDM0278 |
| | | | 165 | 7.5kW | 1 | MDM0580 | MDM0588 | MDM0596 |
| | | | 160 | 7.5kW | 1 | MDM0581 | MDM0589 | MDM0597 |
| | | | 150 | 7.5kW | 1 | MDM0582 | MDM0590 | MDM0598 |
| | | | 145 | 7.5kW | 1 | MDM0583 | MDM0591 | MDM0599 |
| | | | 140 | 7.5kW | 1 | MDM0584 | MDM0592 | MDM0600 |
| | | | 130 | 7.5kW | 1 | MDM0585 | MDM0593 | MDM0601 |
| | | | 120 | 7.5kW | 1 | MDM0586 | MDM0594 | MDM0602 |
| 110 | | | 7.5kW | 1 | MDM0587 | MDM0595 | MDM0603 | |
| 170 | | | 1.5kW-4P | 1 | MDM0656 | MDM0661 | MDM0663 | |
| 170 | | | 2.2kW-4P | 1 | MDM0656 | MDM0661 | MDM0663 | |
| 170 | | | 3.7kW-4P | 1 | MDM0657 | MDM0662 | MDM0665 | |

| Model | NO | Parts name | Impeller size | Motor power | Q'ty/ unit | Parts code No. | | |
|---|---|----------------------------------|---------------|-------------|---------------|----------------|---------|-----|
| | | | | | | PKK | EKK | ECF |
| MDM40-2 (except high temp. type of PKK) | 230 | Impeller | 225 | | 1 | MDM0740 | MDM0764 | |
| | | | 220 | | 1 | MDM0741 | MDM0765 | |
| | | | 210 | | 1 | MDM0742 | MDM0766 | |
| | | | 200 | | 1 | MDM0743 | MDM0767 | |
| | | | 190 | | 1 | MDM0744 | MDM0768 | |
| | | | 180 | | 1 | MDM0745 | MDM0769 | |
| | | | 170 | | 1 | MDM0746 | MDM0770 | |
| | | | 160 | | 1 | MDM0747 | MDM0771 | |
| | 230+ 314.2 | Impeller ass'y | 225 | | 1 | MDM0853 | MDM0772 | |
| | | | 220 | | 1 | MDM0854 | MDM0773 | |
| | | | 210 | | 1 | MDM0855 | MDM0774 | |
| | | | 200 | | 1 | MDM0856 | MDM0775 | |
| | | | 190 | | 1 | MDM0857 | MDM0776 | |
| | | | 180 | | 1 | MDM0858 | MDM0777 | |
| | | | 170 | | 1 | MDM0859 | MDM0778 | |
| | | | 160 | | 1 | MDM0860 | MDM0779 | |
| | 230+ 310+ 314.2+ 314.4+ 859+ 942 | Impeller/magnet capsule ass'y | 225 | 5.5kW | 1 | MDM0748 | MDM0780 | |
| | | | 220 | 5.5kW | 1 | MDM0749 | MDM0781 | |
| | | | 210 | 5.5kW | 1 | MDM0750 | MDM0782 | |
| | | | 200 | 5.5kW | 1 | MDM0751 | MDM0783 | |
| | | | 190 | 5.5kW | 1 | MDM0752 | MDM0784 | |
| | | | 180 | 5.5kW | 1 | MDM0753 | MDM0785 | |
| | | | 170 | 5.5kW | 1 | MDM0754 | MDM0786 | |
| | | | 160 | 5.5kW | 1 | MDM0755 | MDM0787 | |
| | | | 225 | 7.5kW | 1 | MDM0756 | MDM0788 | |
| | | | 220 | 7.5kW | 1 | MDM0757 | MDM0789 | |
| | | | 210 | 7.5kW | 1 | MDM0758 | MDM0790 | |
| | | | 200 | 7.5kW | 1 | MDM0759 | MDM0791 | |
| | | | 190 | 7.5kW | 1 | MDM0760 | MDM0792 | |
| | | | 180 | 7.5kW | 1 | MDM0761 | MDM0793 | |
| | | | 170 | 7.5kW | 1 | MDM0762 | MDM0794 | |
| | | | 160 | 7.5kW | 1 | MDM0763 | MDM0795 | |
| | | | 225 | 11kW | 1 | MDM0861 | MDM0796 | |
| | | | 220 | 11kW | 1 | MDM0862 | MDM0797 | |
| | | | 210 | 11kW | 1 | MDM0863 | MDM0798 | |
| | | | 200 | 11kW | 1 | MDM0864 | MDM0799 | |
| | | | 190 | 11kW | 1 | MDM0865 | MDM0800 | |
| | | | 180 | 11kW | 1 | MDM0866 | MDM0801 | |
| | | | 170 | 11kW | 1 | MDM0867 | MDM0802 | |
| | | | 160 | 11kW | 1 | MDM0868 | MDM0803 | |
| 225 | | | 15kW | 1 | MDM0861 | MDM0796 | | |
| 220 | | | 15kW | 1 | MDM0862 | MDM0797 | | |
| 210 | | | 15kW | 1 | MDM0863 | MDM0798 | | |
| 200 | | | 15kW | 1 | MDM0864 | MDM0799 | | |
| 190 | | | 15kW | 1 | MDM0865 | MDM0800 | | |
| 180 | | | 15kW | 1 | MDM0866 | MDM0801 | | |
| 170 | | | 15kW | 1 | MDM0867 | MDM0802 | | |
| 160 | | | 15kW | 1 | MDM0868 | MDM0803 | | |

| Model | NO | Parts name | Impeller size | Motor power | Q'ty/ unit | Parts code No. | | |
|---|--------|----------------------------------|---------------|-------------|---------------|----------------|---------|-----|
| | | | | | | PKK | EKK | ECF |
| MDM40-2 (except high temp. type of PKK) | 230+ | Impeller/magnet capsule ass'y | 225 | 18.5kW | 1 | MDM0861 | MDM0796 | |
| | 310+ | | 220 | 18.5kW | 1 | MDM0862 | MDM0797 | |
| | 314.2+ | | 210 | 18.5kW | 1 | MDM0863 | MDM0798 | |
| | 314.4+ | | 200 | 18.5kW | 1 | MDM0864 | MDM0799 | |
| | 859+ | | 190 | 18.5kW | 1 | MDM0865 | MDM0800 | |
| | 942 | | 180 | 18.5kW | 1 | MDM0866 | MDM0801 | |
| | | | 170 | 18.5kW | 1 | MDM0867 | MDM0802 | |
| | | | 160 | 18.5kW | 1 | MDM0865 | MDM0800 | |
| | | | 225 | 2.2kW-4P | 1 | MDM0748 | MDM0780 | |
| | | | 225 | 3.7kW-4P | 1 | MDM0756 | MDM0788 | |
| | | | 225 | 5.5kW-4P | 1 | MDM0861 | MDM0796 | |
| | | | 225 | 7.5kW-4P | 1 | MDM0861 | MDM0796 | |

| Model | NO | Parts name | Impeller size | Motor power | Q'ty/ unit | Parts code No. | Remarks |
|---|-------------|----------------------------------|---------------|-------------|---------------|----------------|--|
| | | | | | | PKK-H | |
| MDM40-2 (for high temp. type of PKK) | 230+ 859 | Impeller/magnet capsule ass'y | 225 | 5.5kW | 1 | MDM0804 | Impeller and magnet capsule can not be separated because they are welded each other. |
| | | | 220 | 5.5kW | 1 | MDM0805 | |
| | | | 210 | 5.5kW | 1 | MDM0806 | |
| | | | 200 | 5.5kW | 1 | MDM0807 | |
| | | | 190 | 5.5kW | 1 | MDM0808 | |
| | | | 180 | 5.5kW | 1 | MDM0809 | |
| | | | 170 | 5.5kW | 1 | MDM0810 | |
| | | | 160 | 5.5kW | 1 | MDM0811 | |
| | | | 225 | 7.5kW | 1 | MDM0812 | |
| | | | 220 | 7.5kW | 1 | MDM0813 | |
| | | | 210 | 7.5kW | 1 | MDM0814 | |
| | | | 200 | 7.5kW | 1 | MDM0815 | |
| | | | 190 | 7.5kW | 1 | MDM0816 | |
| | | | 180 | 7.5kW | 1 | MDM0817 | |
| | | | 170 | 7.5kW | 1 | MDM0818 | |
| | | | 160 | 7.5kW | 1 | MDM0819 | |
| | | | 225 | 11kW | 1 | MDM0820 | |
| | | | 220 | 11kW | 1 | MDM0821 | |
| | | | 210 | 11kW | 1 | MDM0822 | |
| | | | 200 | 11kW | 1 | MDM0823 | |
| | | | 190 | 11kW | 1 | MDM0824 | |
| | | | 180 | 11kW | 1 | MDM0825 | |
| | | | 170 | 11kW | 1 | MDM0826 | |
| | | | 160 | 11kW | 1 | MDM0827 | |
| | | | 225 | 15kW | 1 | MDM0820 | |
| | | | 220 | 15kW | 1 | MDM0821 | |
| | | | 210 | 15kW | 1 | MDM0822 | |
| 200 | 15kW | 1 | MDM0823 | | | | |
| 190 | 15kW | 1 | MDM0824 | | | | |
| 180 | 15kW | 1 | MDM0825 | | | | |
| 170 | 15kW | 1 | MDM0826 | | | | |
| 160 | 15kW | 1 | MDM0827 | | | | |

| Model | NO | Parts name | Impeller size | Motor power | Q'ty/ unit | Parts code No. | Remarks |
|---|---|-------------------------------|---------------|-------------|---------------|----------------|---------|
| | | | | | | PKK-H | |
| MDM40-2 (for high temp. type of PKK) | 230+ 859 | Impeller/magnet capsule ass'y | 225 | 18.5kW | 1 | MDM0820 | |
| | | | 220 | 18.5kW | 1 | MDM0821 | |
| | | | 210 | 18.5kW | 1 | MDM0822 | |
| | | | 200 | 18.5kW | 1 | MDM0823 | |
| | | | 190 | 18.5kW | 1 | MDM0824 | |
| | | | 180 | 18.5kW | 1 | MDM0825 | |
| | | | 170 | 18.5kW | 1 | MDM0826 | |
| | | | 160 | 18.5kW | 1 | MDM0827 | |
| | | | 225 | 2.2kW-4P | 1 | MDM0804 | |
| | | | 225 | 3.7kW-4P | 1 | MDM0812 | |
| | | | 225 | 5.5kW-4P | 1 | MDM0820 | |
| | | | 225 | 7.5kW-4P | 1 | MDM0820 | |
| | 230+ 310+ 314.2+ 314.4+ 859+ 942 | Impeller/magnet capsule ass'y | 225 | 5.5kW | 1 | MDM0828 | |
| | | | 220 | 5.5kW | 1 | MDM0829 | |
| | | | 210 | 5.5kW | 1 | MDM0830 | |
| | | | 200 | 5.5kW | 1 | MDM0831 | |
| | | | 190 | 5.5kW | 1 | MDM0832 | |
| | | | 180 | 5.5kW | 1 | MDM0833 | |
| | | | 170 | 5.5kW | 1 | MDM0834 | |
| | | | 160 | 5.5kW | 1 | MDM0835 | |
| | | | 225 | 7.5kW | 1 | MDM0836 | |
| | | | 220 | 7.5kW | 1 | MDM0837 | |
| | | | 210 | 7.5kW | 1 | MDM0838 | |
| | | | 200 | 7.5kW | 1 | MDM0839 | |
| | | | 190 | 7.5kW | 1 | MDM0840 | |
| | | | 180 | 7.5kW | 1 | MDM0841 | |
| | | | 170 | 7.5kW | 1 | MDM0842 | |
| | | | 160 | 7.5kW | 1 | MDM0843 | |
| | | | 225 | 11kW | 1 | MDM0844 | |
| | | | 220 | 11kW | 1 | MDM0845 | |
| | | | 210 | 11kW | 1 | MDM0846 | |
| | | | 200 | 11kW | 1 | MDM0847 | |
| | | | 190 | 11kW | 1 | MDM0848 | |
| | | | 180 | 11kW | 1 | MDM0849 | |
| | | | 170 | 11kW | 1 | MDM0850 | |
| | | | 160 | 11kW | 1 | MDM0851 | |
| | | | 225 | 15kW | 1 | MDM0844 | |
| | | | 220 | 15kW | 1 | MDM0845 | |
| | | | 210 | 15kW | 1 | MDM0846 | |
| | | | 200 | 15kW | 1 | MDM0847 | |
| | | | 190 | 15kW | 1 | MDM0848 | |
| | | | 180 | 15kW | 1 | MDM0849 | |
| 170 | 15kW | 1 | MDM0850 | | | | |
| 160 | 15kW | 1 | MDM0851 | | | | |
| 225 | 18.5kW | 1 | MDM0844 | | | | |
| 220 | 18.5kW | 1 | MDM0845 | | | | |
| 210 | 18.5kW | 1 | MDM0846 | | | | |
| 200 | 18.5kW | 1 | MDM0847 | | | | |

| Model | NO | Parts name | Impeller size | Motor power | Q'ty/ unit | Parts code No. | Remarks |
|---|--------|----------------------------------|---------------|-------------|---------------|----------------|---------|
| | | | | | | PKK-H | |
| MDM40-2 (for high temp. type of PKK) | 230+ | Impeller/magnet capsule ass'y | 190 | 18.5kW | 1 | MDM0848 | |
| | 310+ | | 180 | 18.5kW | 1 | MDM0849 | |
| | 314.2+ | | 170 | 18.5kW | 1 | MDM0850 | |
| | 314.4+ | | 160 | 18.5kW | 1 | MDM0851 | |
| | 859+ | | 225 | 2.2kW-4P | 1 | MDM0828 | |
| | 942 | | 225 | 3.7kW-4P | 1 | MDM0836 | |
| | | | 225 | 5.5kW-4P | 1 | MDM0844 | |
| | | | 225 | 7.5kW-4P | 1 | MDM0844 | |

Note: Tell us pump model code and Mfg. No. when impeller is orderd because actual impeller size may not be the same as those shown here.

MDM50 Impeller parts list

| Model | NO | Parts name | Impeller size | Motor power | Q'ty/ unit | Parts code No. | | |
|---------|---|-------------------------------|---------------|-------------|---------------|----------------|---------|---------|
| | | | | | | PKK | EKK | ECF |
| MDM50-1 | 230 | Impeller | 165 | | 1 | MDM0379 | MDM0481 | MDM0481 |
| | | | 160 | | 1 | MDM0475 | MDM0482 | MDM0482 |
| | | | 150 | | 1 | MDM0476 | MDM0483 | MDM0483 |
| | | | 140 | | 1 | MDM0477 | MDM0484 | MDM0484 |
| | | | 130 | | 1 | MDM0478 | MDM0485 | MDM0485 |
| | | | 120 | | 1 | MDM0479 | MDM0486 | MDM0486 |
| | | | 110 | | 1 | MDM0480 | MDM0487 | MDM0487 |
| | | | 170 | 4P | 1 | MDM0669 | MDM0674 | MDM0674 |
| | 230+ 314.2 | Impeller ass'y | 165 | | 1 | MDM0296 | MDM0324 | MDM0345 |
| | | | 160 | | 1 | MDM0297 | MDM0325 | MDM0346 |
| | | | 150 | | 1 | MDM0298 | MDM0326 | MDM0347 |
| | | | 140 | | 1 | MDM0299 | MDM0327 | MDM0348 |
| | | | 130 | | 1 | MDM0300 | MDM0328 | MDM0349 |
| | | | 120 | | 1 | MDM0301 | MDM0329 | MDM0350 |
| | | | 110 | | 1 | MDM0302 | MDM0330 | MDM0351 |
| | | | 170 | 4P | 1 | MDM0670 | MDM0675 | MDM0679 |
| | 230+ 310+ 314.2+ 314.4+ 859+ 942 | Impeller/magnet capsule ass'y | 165 | 3.7kW | 1 | MDM0303 | MDM0331 | MDM0352 |
| | | | 160 | 3.7kW | 1 | MDM0304 | MDM0332 | MDM0353 |
| | | | 150 | 3.7kW | 1 | MDM0305 | MDM0333 | MDM0354 |
| | | | 140 | 3.7kW | 1 | MDM0306 | MDM0334 | MDM0355 |
| | | | 130 | 3.7kW | 1 | MDM0307 | MDM0335 | MDM0356 |
| | | | 120 | 3.7kW | 1 | MDM0308 | MDM0336 | MDM0357 |
| | | | 110 | 3.7kW | 1 | MDM0309 | MDM0337 | MDM0358 |
| | | | 165 | 5.5kW | 1 | MDM0303 | MDM0331 | MDM0352 |
| | | | 160 | 5.5kW | 1 | MDM0304 | MDM0332 | MDM0353 |
| | | | 150 | 5.5kW | 1 | MDM0305 | MDM0333 | MDM0354 |
| | | | 140 | 5.5kW | 1 | MDM0306 | MDM0334 | MDM0355 |
| | | | 130 | 5.5kW | 1 | MDM0307 | MDM0335 | MDM0356 |
| | | | 120 | 5.5kW | 1 | MDM0308 | MDM0336 | MDM0357 |
| | | | 110 | 5.5kW | 1 | MDM0309 | MDM0337 | MDM0358 |
| | | | 165 | 7.5kW | 1 | MDM0310 | MDM0338 | MDM0359 |
| | | | 160 | 7.5kW | 1 | MDM0311 | MDM0339 | MDM0360 |
| | | | 150 | 7.5kW | 1 | MDM0312 | MDM0340 | MDM0361 |
| 140 | | | 7.5kW | 1 | MDM0313 | MDM0341 | MDM0362 | |
| 130 | | | 7.5kW | 1 | MDM0314 | MDM0342 | MDM0363 | |
| 120 | | | 7.5kW | 1 | MDM0315 | MDM0343 | MDM0364 | |
| 110 | 7.5kW | 1 | MDM0316 | MDM0344 | MDM0365 | | | |
| 170 | 1.5kW-4P | 1 | MDM0671 | MDM0676 | MDM0678 | | | |
| 170 | 2.2kW-4P | 1 | MDM0671 | MDM0676 | MDM0678 | | | |
| 170 | 3.7kW-4P | 1 | MDM0672 | MDM0677 | MDM0680 | | | |

Note: Tell us pump model code and Mfg. No. when impeller is ordered because actual impeller size may not be the same as those shown here.

MDM65 Impeller parts list

| Model | NO | Parts name | Impeller size | Motor power | Q'ty/ unit | Parts code No. | | |
|---------|---|-------------------------------|---------------|-------------|---------------|----------------|---------|---------|
| | | | | | | PKK | EFF | ECF |
| MDM65-1 | 230 | Impeller | 165 | | 1 | MDM0289 | MDM0317 | MDM0317 |
| | | | 160 | | 1 | MDM0290 | MDM0318 | MDM0318 |
| | | | 150 | | 1 | MDM0291 | MDM0319 | MDM0319 |
| | | | 140 | | 1 | MDM0292 | MDM0320 | MDM0320 |
| | | | 130 | | 1 | MDM0293 | MDM0321 | MDM0321 |
| | | | 120 | | 1 | MDM0294 | MDM0322 | MDM0322 |
| | | | 110 | | 1 | MDM0295 | MDM0323 | MDM0323 |
| | | | 170 | 4P | 1 | MDM0683 | MDM0689 | MDM0689 |
| | 230+ 314.2 | Impeller ass'y | 165 | | 1 | MDM0380 | MDM0408 | MDM0436 |
| | | | 160 | | 1 | MDM0381 | MDM0409 | MDM0437 |
| | | | 150 | | 1 | MDM0382 | MDM0410 | MDM0438 |
| | | | 140 | | 1 | MDM0383 | MDM0411 | MDM0439 |
| | | | 130 | | 1 | MDM0384 | MDM0412 | MDM0440 |
| | | | 120 | | 1 | MDM0385 | MDM0413 | MDM0441 |
| | | | 110 | | 1 | MDM0386 | MDM0414 | MDM0442 |
| | | | 170 | 4P | 1 | MDM0684 | MDM0690 | MDM0695 |
| | 230+ 310+ 314.2+ 314.4+ 859+ 942 | Impeller/magnet capsule ass'y | 165 | 5.5kW | 1 | MDM0387 | MDM0415 | MDM0443 |
| | | | 160 | 5.5kW | 1 | MDM0388 | MDM0416 | MDM0444 |
| | | | 150 | 5.5kW | 1 | MDM0389 | MDM0417 | MDM0445 |
| | | | 140 | 5.5kW | 1 | MDM0390 | MDM0418 | MDM0446 |
| | | | 130 | 5.5kW | 1 | MDM0391 | MDM0419 | MDM0447 |
| | | | 120 | 5.5kW | 1 | MDM0392 | MDM0420 | MDM0448 |
| | | | 110 | 5.5kW | 1 | MDM0393 | MDM0421 | MDM0449 |
| | | | 165 | 7.5kW | 1 | MDM0394 | MDM0422 | MDM0450 |
| | | | 160 | 7.5kW | 1 | MDM0395 | MDM0423 | MDM0451 |
| | | | 150 | 7.5kW | 1 | MDM0396 | MDM0424 | MDM0452 |
| | | | 140 | 7.5kW | 1 | MDM0397 | MDM0425 | MDM0453 |
| | | | 130 | 7.5kW | 1 | MDM0398 | MDM0426 | MDM0454 |
| | | | 120 | 7.5kW | 1 | MDM0399 | MDM0427 | MDM0455 |
| | | | 110 | 7.5kW | 1 | MDM0400 | MDM0428 | MDM0456 |
| | | | 165 | 11kW | 1 | MDM0401 | MDM0429 | MDM0457 |
| | | | 160 | 11kW | 1 | MDM0402 | MDM0430 | MDM0458 |
| | | | 150 | 11kW | 1 | MDM0403 | MDM0431 | MDM0459 |
| | | | 140 | 11kW | 1 | MDM0404 | MDM0432 | MDM0460 |
| | | | 130 | 11kW | 1 | MDM0405 | MDM0433 | MDM0461 |
| | | | 120 | 11kW | 1 | MDM0406 | MDM0434 | MDM0462 |
| | | | 110 | 11kW | 1 | MDM0407 | MDM0435 | MDM0463 |
| | | | 165 | 15kW | 1 | MDM0401 | MDM0429 | MDM0457 |
| | | | 160 | 15kW | 1 | MDM0402 | MDM0430 | MDM0458 |
| | | | 150 | 15kW | 1 | MDM0403 | MDM0431 | MDM0459 |
| | | | 140 | 15kW | 1 | MDM0404 | MDM0432 | MDM0460 |
| | | | 130 | 15kW | 1 | MDM0405 | MDM0433 | MDM0461 |
| 120 | | | 15kW | 1 | MDM0406 | MDM0434 | MDM0462 | |
| 110 | | | 15kW | 1 | MDM0407 | MDM0435 | MDM0463 | |
| 170 | | | 1.5kW-4P | 1 | MDM0685 | MDM0691 | MDM0694 | |
| 170 | | | 2.2kW-4P | 1 | MDM0685 | MDM0691 | MDM0694 | |
| 170 | | | 3.7kW-4P | 1 | MDM0686 | MDM0692 | MDM0696 | |
| 170 | | | 5.5kW-4P | 1 | MDM0687 | MDM0693 | MDM0697 | |

Note: Tell us pump model code and Mfg. No. when impeller is ordered because actual impeller size may not be the same as shown here.



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