



INSTALLATION, OPERATION AND SERVICE INSTRUCTIONS

MDX Magnetically Driven Circulator

The MDX features a type 3 anodized aluminum housing and adaptor for corrosion resistance. There is no mechanical seal in the pump since the rotor is magnetically coupled to the motor.





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GENERAL SAFETY INFORMATION:

THE FOLLOWING WARNINGS ARE USED TO NOTIFY AND ADVISE THE USER OF THIS PRODUCT OF PROCEDURES THAT MAY BE DANGEROUS TO THE USER OR RESULT IN DAMAGE TO THE PRODUCT.

THIS BULLETIN MUST BE READ COMPLETELY BEFORE INSTALLING , OPERATING, OR SERVICING THE PUMP

DO NOT perform service or maintenance when the pumping system is pressurized. Injury may occur.

DO NOT operate the pump in a manner that was not intended to be used.

DO NOT mount the pump such that high piping loads exist on the pump flanges, or in a rigid piping system that does not allow the pipe to expand and cause the pump to be strained.

DO NOT continue to operate the pumping system when a known leak exists.

DO NOT continue to operate the pump when unusual noise or vibration occurs.

DO NOT continue to operate beyond the pressure or temperature limits stated in the product literature.

DO NOT allow severe temperature changes to occur in a short time period within the pumping system.

INSTALLATION

Never expose the pump to extremely wet or dirty conditions. The pump should be mounted away from highly contaminated areas or shielded from the environment. Use of additives in the cooling systems can cause excessive wear and premature failure. Check with factory on coolant additive usage.

Piping / Mounting

The MDX has flange connections so the motor should not require further restraint. However, if the system cannot carry the weight of the pump then the motor should be secured with a strap clamp or optional base.

Electrical

24-volt systems should never exceed 30-volts, while the 12- volt systems should never exceed 15-volts.

Operation

Never run the pump dry as it can harm the pump and cause premature failures. Do not place the MDX in ambient temperatures exceeding 200 degrees Fahrenheit. Coolant temperatures in excess of 210°F are not recommended. High temperatures will reduce life of motor components.

Repair and Maintenance

The pump has no mechanical seal and instead has a wet rotor that is magnetically coupled to the motor. A pump that leaks means that the O-Ring between the housing and adaptor is not sealing properly. If the pump stops working, you must check the rotor assembly for damage and replace if necessary.

With the use of the above installation parameters, each MP pump should provide years of trouble-free service. Not considering these installation criteria could cause premature failure and voids the warranty.



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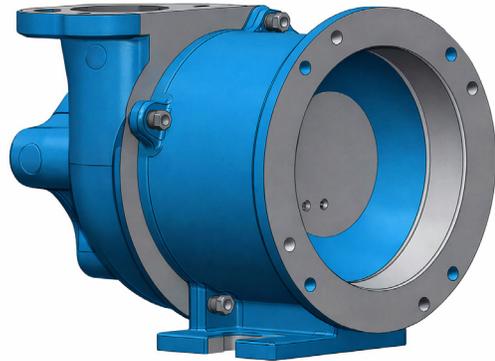


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Reassembly Instructions

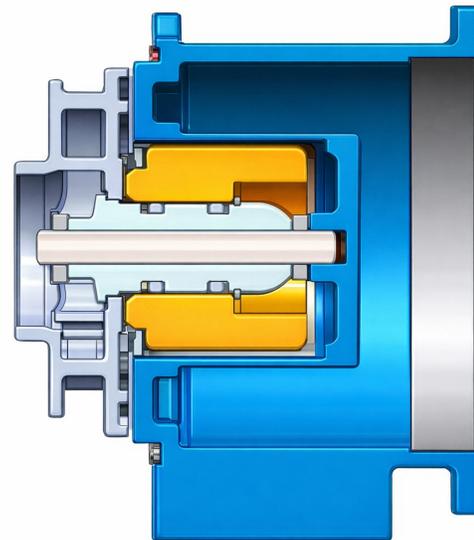
Housing Assembly/Disassembly

Have the housing face down on the work surface and line up the adaptor holes with the holes in the housing. Then install the four (4) #8 capscrews by having them go through the adaptor and into the housing. /Remove the four (4) #8 capscrews that go through the adaptor and into the housing.



Rotor Assembly/Disassembly

Slide the rotor assembly onto the shaft and then slide the ceramic washer onto the shaft. /Remove the ceramic washer and then slide off the rotor assembly.



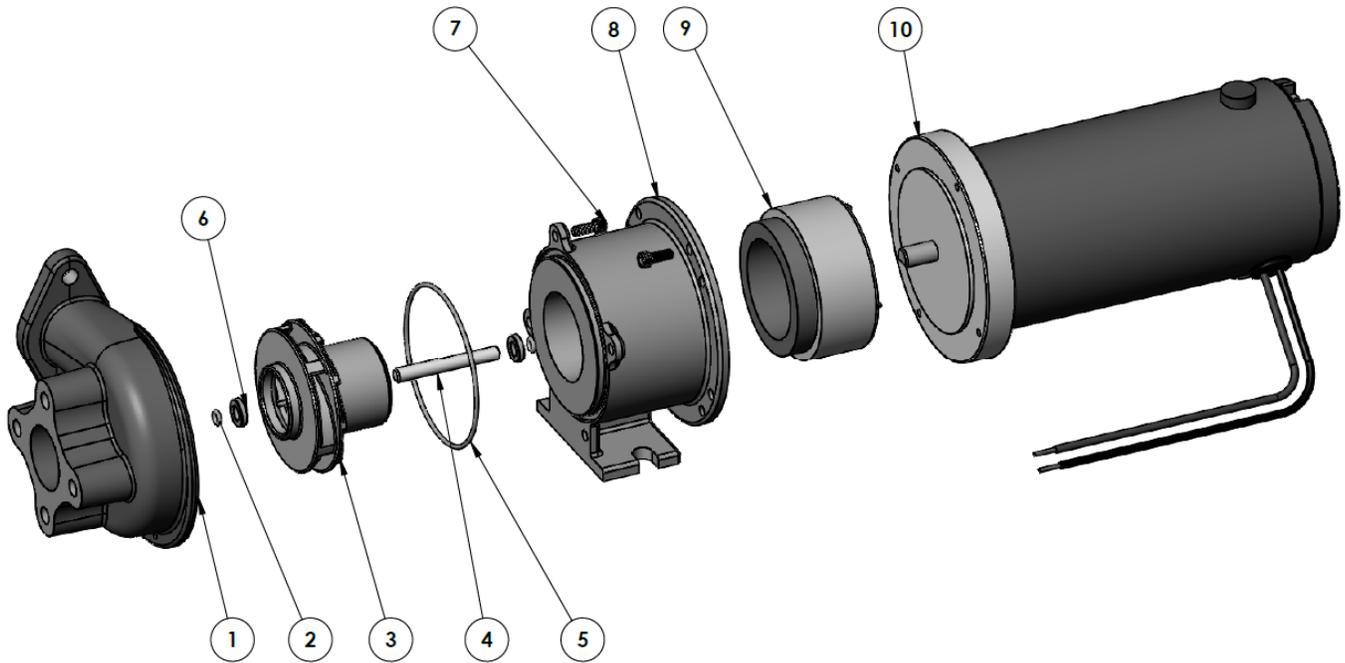
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Parts List

MP30011



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	MP39506	HOUSING	ALUMINUM T-6 CAST	1
2	MP39512	O-RING AS-568-007	VITON	2
3	MP39511	ROTOR ASSEMBLY	N/A	1
4	MP39510	DOWEL PIN	416 STAINLESS STEEL	1
5	MP30622	O-RING	VITON	1
6	MP39509	THRUST WASHER	CERAMIC	2
7	MP30297	SOCKET HEAD CAPSCREW	STEEL	8
8	MP30603	ADAPTER	ALUMINUM T-6 CAST	1
9	MP30769	DRIVE MAGNET	CERAMIC MAGNET	1
10	MP30270	MOTOR 24 VDC	STD.	1



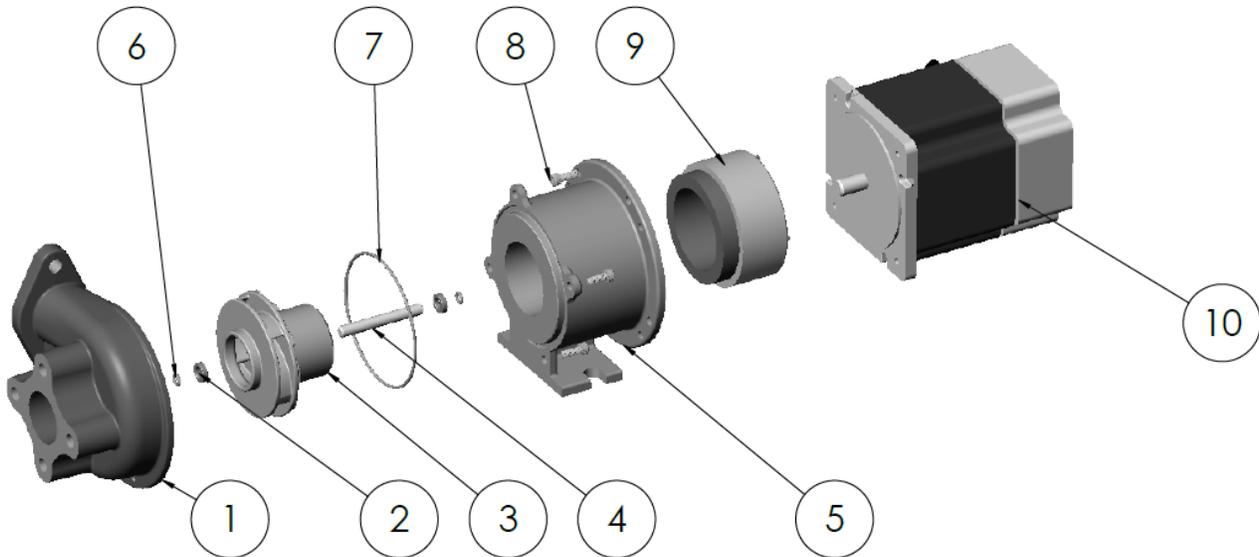
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Parts List

MP30939



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	MP39506	HOUSING	ALUMINUM T-6 CAST	1
2	MP33445	WASHER	303 STAINLESS STEEL	2
3	MP39511	ROTOR ASSEMBLY	N/A	1
4	MP39510	DOWEL PIN	416 STAINLESS STEEL	1
5	MP30603	ADAPTER	ALUMINUM T-6 CAST	1
6	MP39512	O-RING AS-568-007	VITON	2
7	MP30622	O-RING	VITON	1
8	MP30297	SOCKET HEAD CAPSCREW	STEEL	8
9	MP30769	DRIVE MAGNET	CERAMIC MAGNET	1
10	MP39268	MOTOR	STEEL SHAFT	1



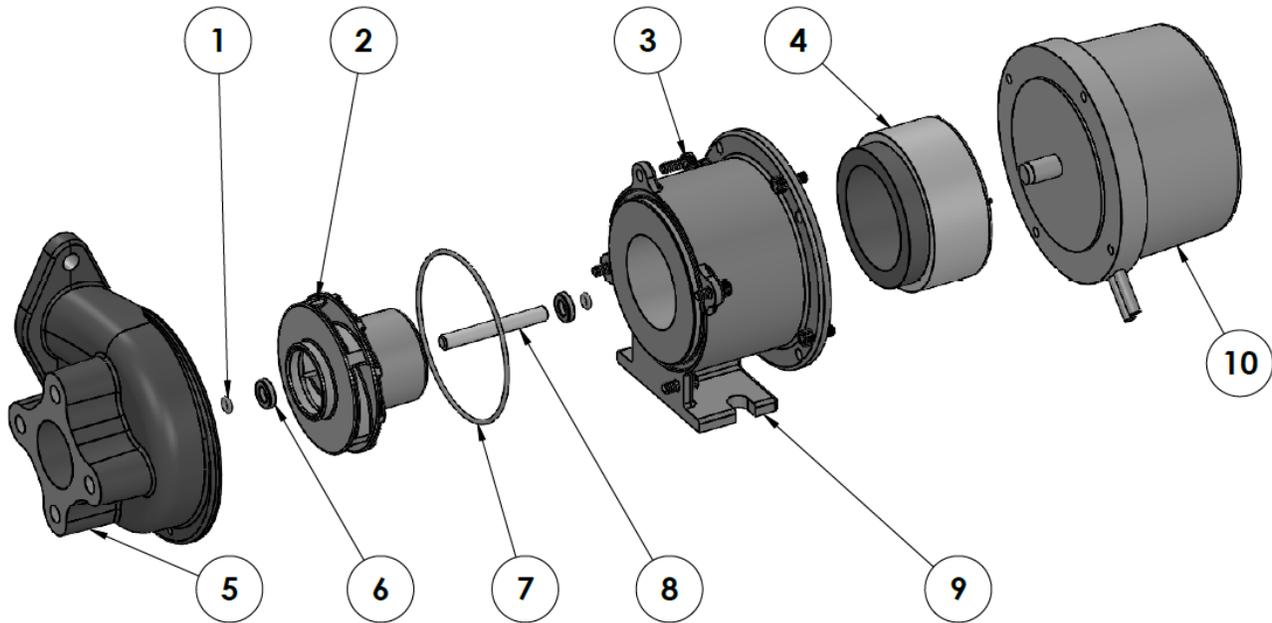
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Parts List

MP30990



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	MP39512	O-RING AS-568-007	VITON	2
2	MP39511	ROTOR ASSEMBLY	N/A	1
3	MP30297	SOCKET HEAD CAPSCREW	STEEL	8
4	MP30769	DRIVE MAGNET	CERAMIC MAGNET	2
5	MP39506	HOUSING	ALUMINUM T-6 CAST	1
6	MP39509	THRUST WASHER	CERAMIC	2
7	MP30622	O-RING	VITON	1
8	MP39510	DOWEL PIN	416 STAINLESS STEEL	1
9	MP30603	ADAPTER	ALUMINUM T-6 CAST	1
10	MP30989	ELECTRIC MOTOR 12 VDC	STANDARD	1



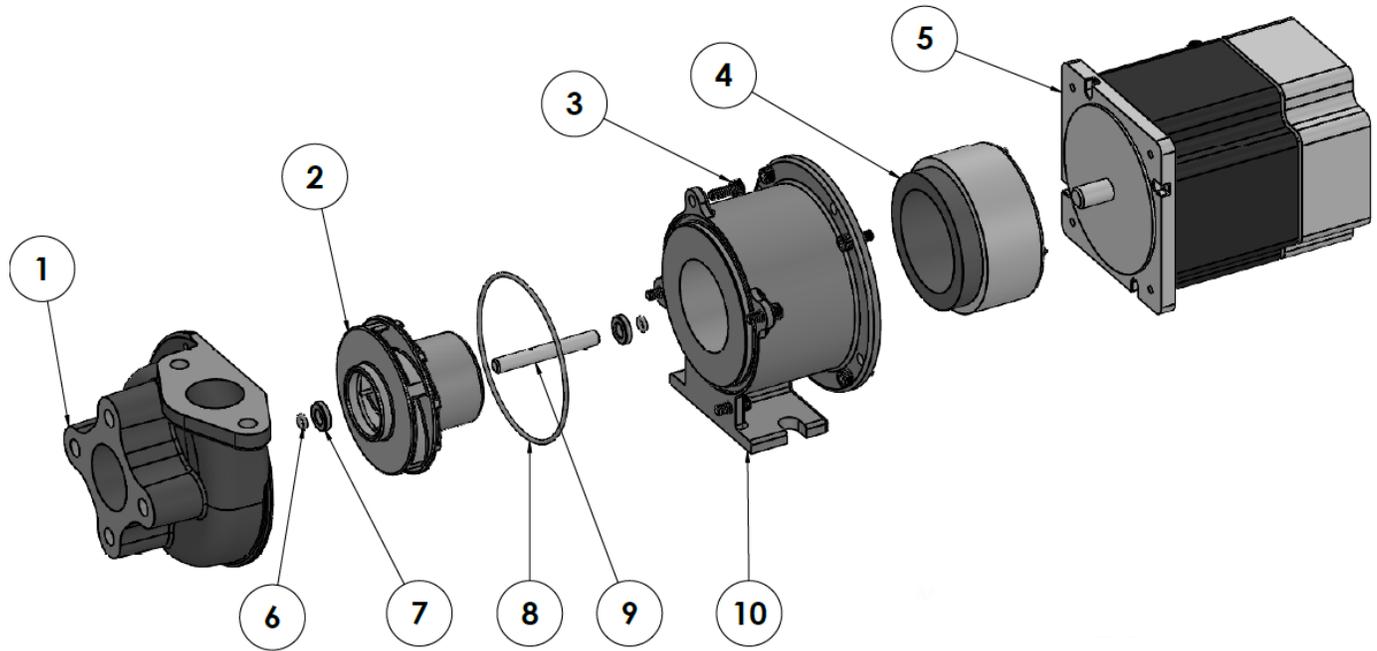
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Parts List

MP31905



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	MP39506	HOUSING	ALUMINUM T-6 CAST	1
2	MP39511	ROTOR ASSEMBLY	N/A	1
3	MP30297	SOCKET HEAD CAPSCREW	STEEL	8
4	MP30769	DRIVE MAGNET	CERAMIC MAGNET	1
5	MP39268	MOTOR	STEEL SHAFT	1
6	MP39512	O-RING AS-568-007	VITON	2
7	MP39509	THRUST WASHER	CERAMIC	2
8	MP30622	O-RING	VITON	1
9	MP39510	DOWEL PIN	416 STAINLESS STEEL	1
10	MP30603	ADAPTER	ALUMINUM T-6 CAST	1



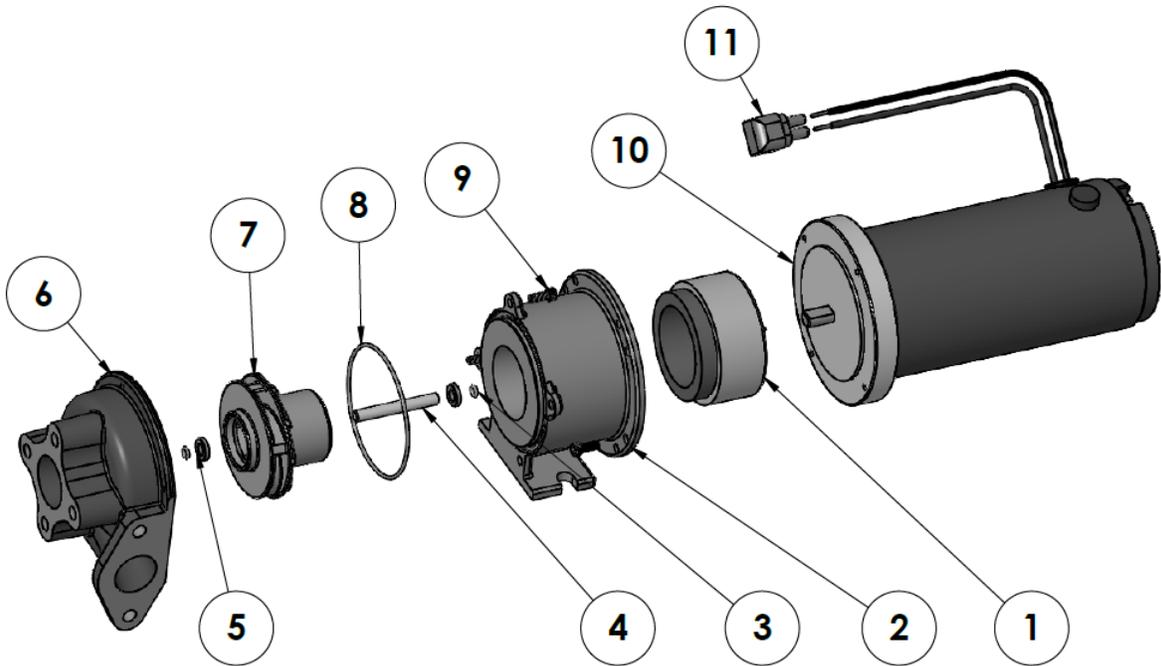
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Parts List

MP33420



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	MP30769	DRIVE MAGNET	CERAMIC MAGNET	1
2	MP30603	ADAPTER	ALUMINUM T-6 CAST	1
3	MP39512	O-RING AS-568-007	VITON	2
4	MP39510	DOWEL PIN	416 STAINLESS STEEL	1
5	MP39509	THRUST WASHER	CERAMIC	2
6	MP39506	HOUSING	ALUMINUM T-6 CAST	1
7	MP39511	ROTOR ASSEMBLY	N/A	1
8	MP30622	O-RING	VITON	1
9	MP30297	SOCKET HEAD CAPSCREW	STEEL	8
10	MP30270	MOTOR 24 VDC	STD.	1
11	MP28972	TERM. HOUS. MATE W/29551 N/S	STD. PACKARD BELL	1



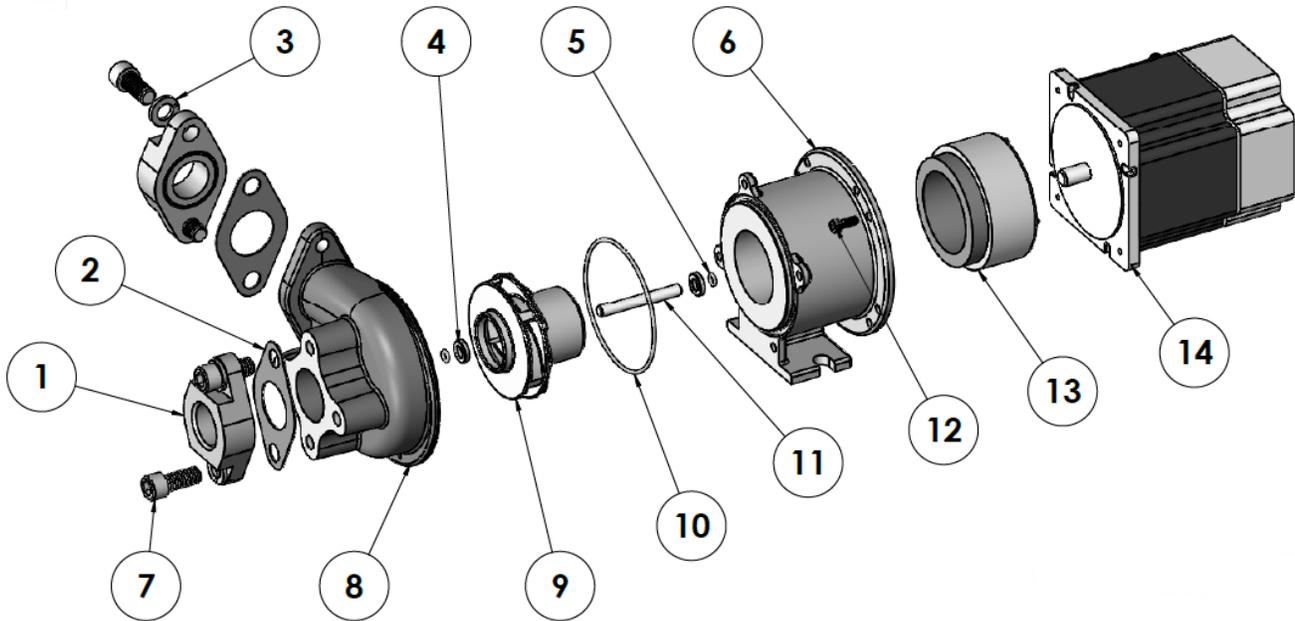
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Parts List

MP33439



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	MP31270	FLANGE 3/4" NPT	BRASS	2
2	MP21651	GASKET 2 5/16 X 1 1/16 X .05	D-7280	2
3	MP21266	LOCKWASHER 3/8 X 1/8	304 STAINLESS STEEL	4
4	MP39509	THRUST WASHER	CERAMIC	2
5	MP39512	O-RING AS-568-007	VITON	2
6	MP30603	ADAPTER	ALUMINUM T-6 CAST	1
7	MP31435	SOC. HEAD. SCR. 3/8-16 X .75	304 S.S.	4
8	MP39506	HOUSING	ALUMINUM T-6 CAST	1
9	MP39511	ROTOR ASSEMBLY	N/A	1
10	MP30622	O-RING	VITON	1
11	MP39510	DOWEL PIN	416 STAINLESS STEEL	1
12	MP30297	SOCKET HEAD CAPSCREW	STEEL	8
13	MP30769	DRIVE MAGNET	CERAMIC MAGNET	1
14	MP39268	MOTOR	STEEL SHAFT	1



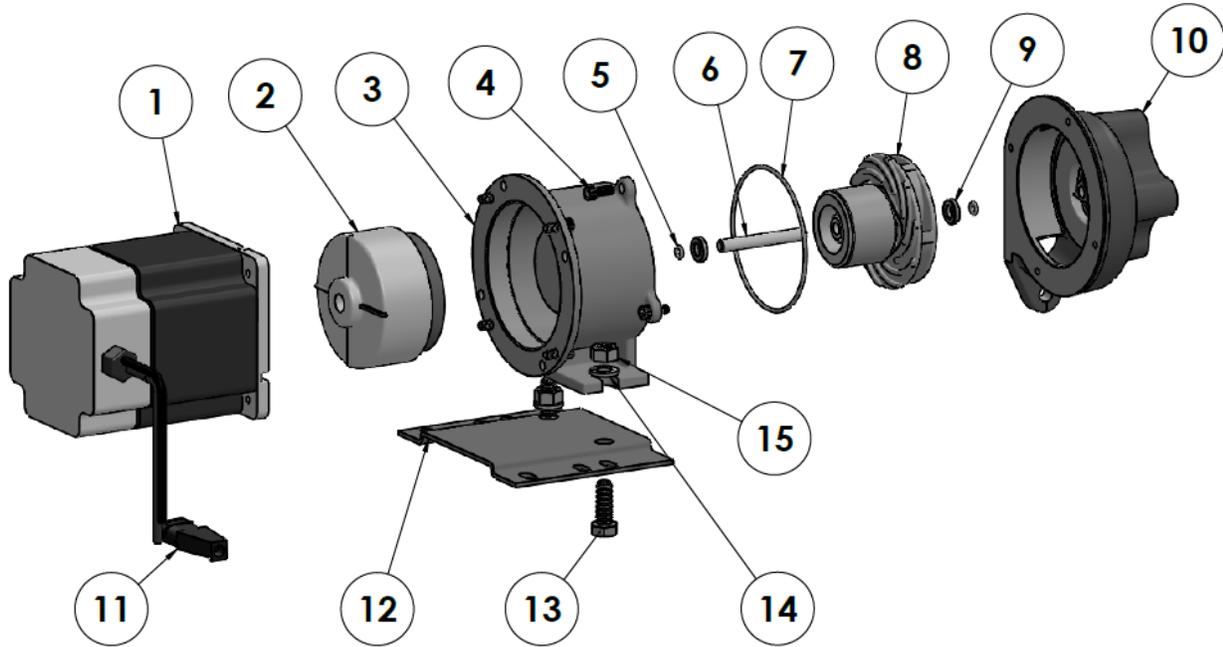
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Parts List

MP35869



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	MP39268	MOTOR	STEEL SHAFT	1
2	MP30769	DRIVE MAGNET	CERAMIC MAGNET	1
3	MP30603	ADAPTER	ALUMINUM T-6 CAST	1
4	MP30297	SOCKET HEAD CAPSCREW	STEEL	8
5	MP39512	O-RING AS-568-007	VITON	2
6	MP39510	DOWEL PIN	416 STAINLESS STEEL	1
7	MP30622	O-RING	VITON	1
8	MP39511	ROTOR ASSEMBLY	N/A	1
9	MP39509	THRUST WASHER	CERAMIC	2
10	MP39506	HOUSING	ALUMINUM T-6 CAST	1
11	MP29841	TERM. HOUS. MATE W/29551 N/S	STD.	1
12	MP39345	BASE	ZINC PLATED STEEL	1
13	MP21242	CAP SCREW HH 5/16-18 X 7/8	304 STAINLESS STEEL	2
14	MP21238	LOCKWASHER 5/16 X 18	304 STAINLESS STEEL	2
15	MP24984	HEXNUT	STEEL	2



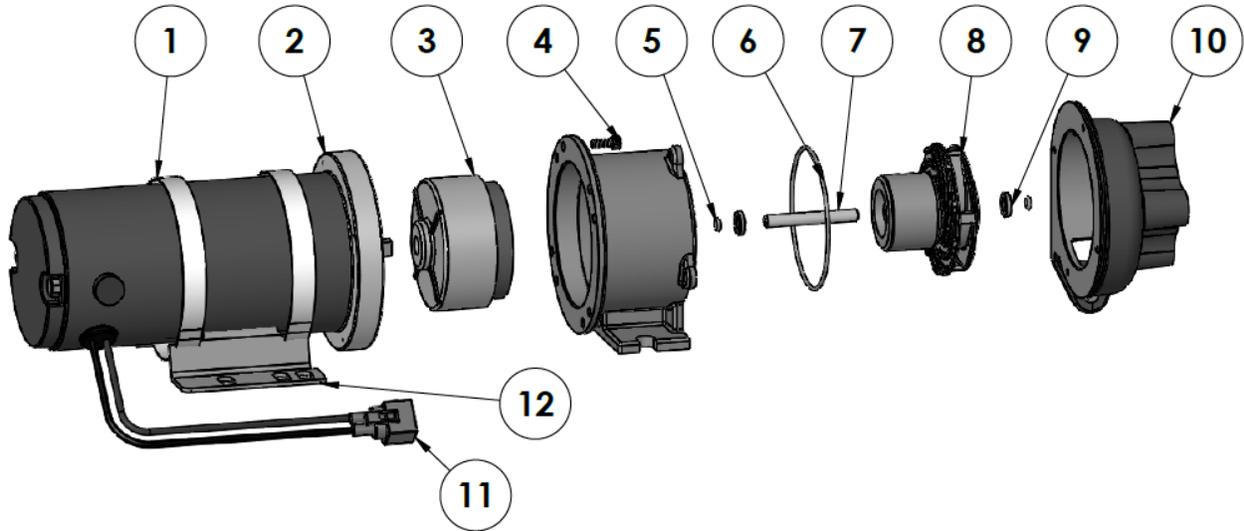
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Parts List

MP36697



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	MP30794	HOSE CLAMP #72	STAINLESS STEEL	2
2	MP30270	MOTOR 24 VDC	STD.	1
3	MP30603	ADAPTER	ALUMINUM T-6 CAST	1
3	MP30769	DRIVE MAGNET	CERAMIC MAGNET	1
4	MP30297	SOCKET HEAD CAPSCREW	STEEL	8
5	MP39512	O-RING AS-568-007	VITON	2
6	MP30622	O-RING	VITON	1
7	MP39510	DOWEL PIN	416 STAINLESS STEEL	1
8	MP39511	ROTOR ASSEMBLY	N/A	1
9	MP39509	THRUST WASHER	CERAMIC	2
10	MP39506	HOUSING	ALUMINUM T-6 CAST	1
11	MP28972	TERM. HOUS. MATE W/29551 N/S	STD. PACKARD BELL	1
12	MP28866	BASE	STEEL	1



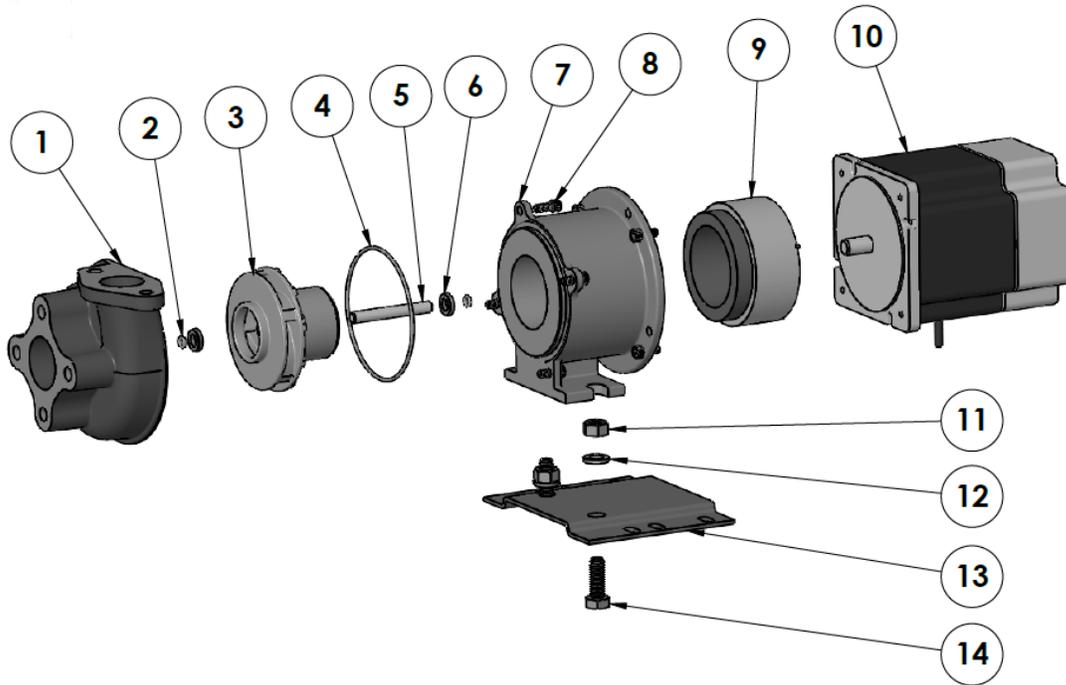
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Parts List

MP39336



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	MP39506	HOUSING	ALUMINUM T-6 CAST	1
2	MP39512	O-RING AS-568-007	VITON	2
3	MP39511	ROTOR ASSEMBLY	N/A	1
4	MP30622	O-RING	VITON	1
5	MP39510	DOWEL PIN	416 STAINLESS STEEL	1
6	MP39509	THRUST WASHER	CERAMIC	2
7	MP30603	ADAPTER	ALUMINUM T-6 CAST	1
8	MP30297	SOCKET HEAD CAPSCREW	STEEL	8
9	MP30769	DRIVE MAGNET	CERAMIC MAGNET	1
10	MP39268	MOTOR	STEEL SHAFT	1
11	MP24984	HEXNUT	STEEL	2
12	MP21238	LOCKWASHER 5/16 X 18	304 STAINLESS STEEL	2
13	MP39345	BASE	ZINC PLATED STEEL	1
14	MP21242	CAP SCREW HH 5/16-18 X 7/8	304 STAINLESS STEEL	2



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