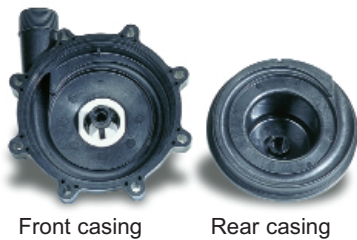
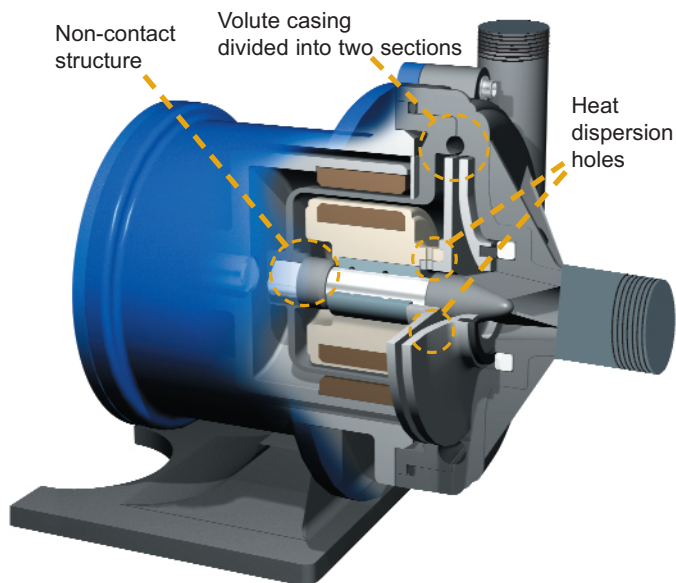


MX Series



Front casing

Rear casing



The MX Series pumps represent the latest state of the art design in plastic magnetic drive pumps. With the experience gained from previous generations of MDH pumps, the MX Series has been engineered to meet the most severe operating conditions.

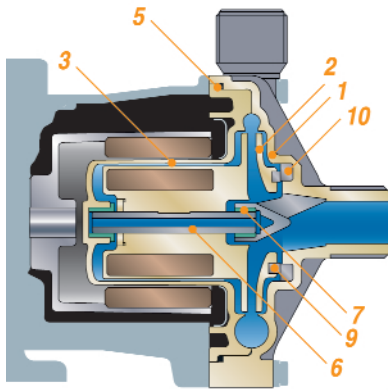
When fitted with a carbon bearing, the MX will allow for brief periods of dry running. The new “self radiating structure” (patent pending), in addition to the existing proven non-contact principle with front and rear supported spindle, greatly improves the ability to withstand cavitation and running against a closed discharge valve.

MX Series pumps are highly recommended for use in various production processes such as filtering, spraying, washing, plating and etching in surface treatment applications.

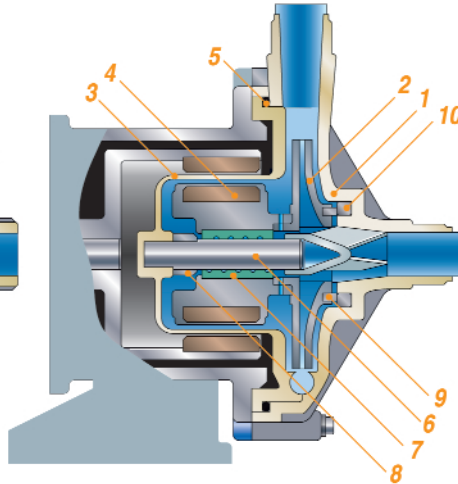
- **Split Volute casing** (patent pending) The MX Series is the first resin magnet pump that uses a split volute pump casing that forms a vortex chamber. The volute limits the liquid getting out of the impeller and returns it to the pump, which is efficiently guided to the discharge port to enhance overall efficiency.

- **Self-radiating structure** (patent pending) – Through heat dispersion holes provided in fixed portions of the impeller and the magnet capsule, the liquid around the spindle and bearing is forced to circulate. Heat generated by friction can be reduced effectively, thereby preventing any thermal deformation and reducing wear.

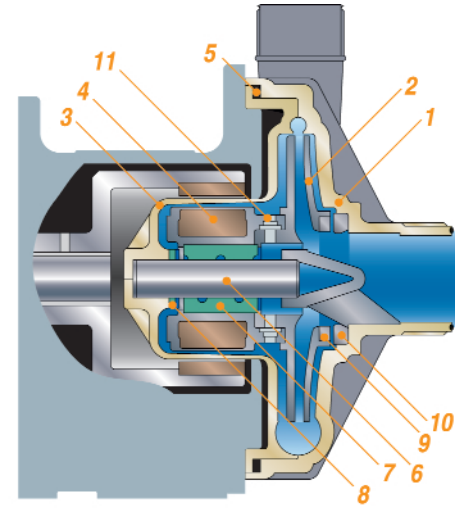
- MX utilizes standard NEMA frame motors making them easy to install. (IEC and JIS versions available)



MX-70, 100, MX-F100



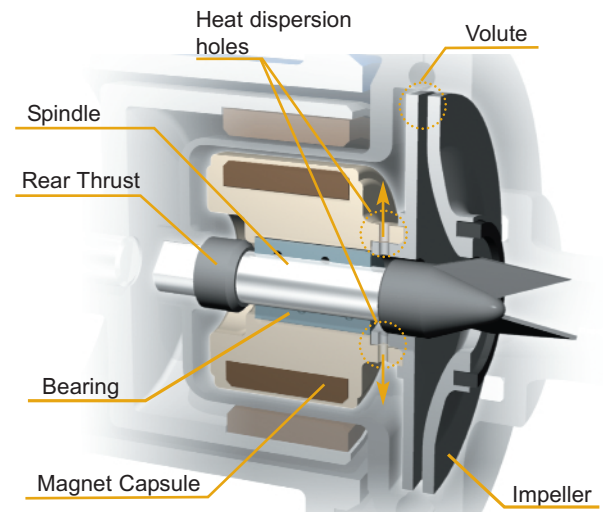
MX-250 to 401
MX-F250 to F401



MX-402 to 403H, 100
MX-F402 to F403

MX Materials

Model	MX-402 to F403H				
	MX-70	MX-100	MX-250 to 401		
Mark	V (E)	AV (AE)	CV (CE)	RV (RE)	
1 Front casing	GFRPP		GFRPP		
2 Impeller	CFRPP		GFRPP		
3 Rear casing	GFRPP		GFRPP		
4 Magnet capsule	---		PP		
5 O-ring	FKM ¹		FKM ¹		
6 Spindle	High Purity Alumina Ceramic		High Purity Alumina Ceramic		
7 Bearing	CFRPPS	PTFE	Alumina Ceramic	Carbon	PTFE
8 Rear thrust	---		CFRPPS	CFRPPS ²	
9 Mouth ring	---	PTFE	PTFE		
10 Thrust/Liner ring	Alumina Ceramic		Alumina Ceramic		
11 Lock pin	---		---	GFRPPS (only on 402 to 403H)	



MX-F Materials

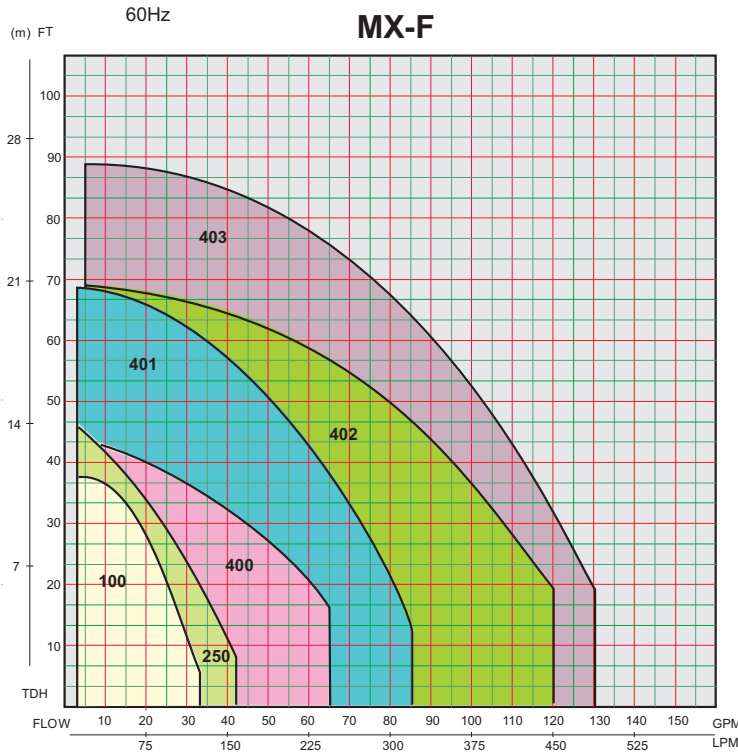
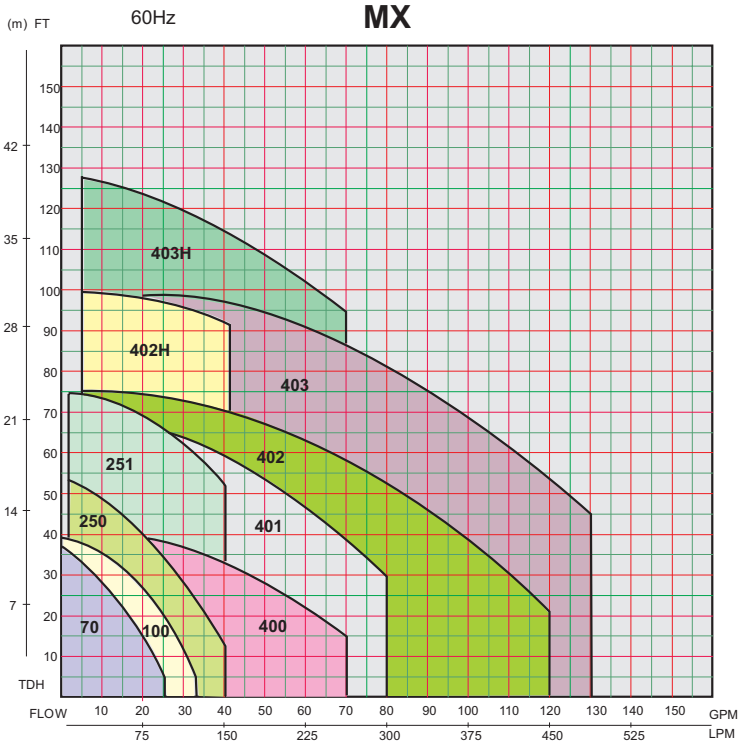
Model	MX-F402 to F403					
	MX-F100		MX-F250 to F401			
Mark	RV	KV	CFV	RFV	KKV	AFV
1 Front casing	CFRETFE		CFRETFE			
2 Impeller	CFRETFE		CFRETFE			
3 Rear casing	CFRETFE		CFRETFE			
4 Magnet capsule	CFRETFE		CFRETFE			
5 O-ring*	FKM ¹		FKM ¹			
6 Spindle	High purity Alumina Ceramic	SiC	High purity Alumina Ceramic		SiC	High purity Alumina Ceramic
7 Bearing	PTFE	SiC	Carbon	PTFE	SiC	High purity Alumina
8 Rear thrust	High purity Alumina Ceramic	SiC	CFRETFE		CFRETFE ³	CFRETFE
9 Mouth ring	PTFE	---	PTFE		SiC	PTFE
10 Thrust/Liner ring	High purity Alumina Ceramic	---	High purity Alumina Ceramic		SiC	High purity Alumina Ceramic
11 Lock pin	---		CFRETFE (only on 402 & 403)			---

¹ EPDM and AFLAS® o-ring also available

² 402-403H have CFRPEEK rear thrust collars

³ F402-403H have CFRPFA rear thrust collars

PERFORMANCE CURVES / MODEL CODE



Performance based on water @ 70°F (21°C).
Fluids with specific gravity other than 1.0 should be reviewed by the factory.

Model Code

MX(F)250 - 403(H)

MX-(F)	250	CFV	6
1	2	3	4

1

Series symbol

MX GFRPP casing
MX-F CFRETFE casing

2

Pump size

250: 1" x 1" 0.5 HP
251: 1" x 1" 1.0 HP
400: 1.5" x 1.5" 0.75 HP
401: 1.5" x 1.5" 1.5 HP
402(H): 2" x 1.5" 2.0 HP
403(H): 2" x 1.5" 3.0 HP

3

Materials of Bearing/Spindle/O-ring

MX
CV: Carbon/Alumina ceramic/FKM (EPDM/AFLAS)
RV: PTFE/Alumina ceramic/FKM (EPDM/AFLAS)
AV: Alumina ceramic/Alumina ceramic/FKM (EPDM/AFLAS)
(models MX-250 to MX-401)

MX -F

CFV: High density Carbon/High purity Alumina Ceramic/FKM (EPDM/AFLAS)
RFV: PTFE/High purity alumina ceramic/FKM (EPDM/AFLAS)
KKV: SiC/SiC/FKM (EPDM/AFLAS)
AFV: Alumina Ceramic/Alumina Ceramic/FKM (EPDM/AFLAS)
(models MX-F250 to F401)

4

Impeller mark

MX
5: 50 Hz 6: 60 Hz 7: Larger impeller
MX-F
X: 50/60 Hz

MX-70 - (F)100

MX-(F)	100	V	T	Y	-	13	L
1	2	3	4	5	6	7	

1

Series symbol

MX GFRPP casing
MX-F CFRETFE casing

2

Pump size

70: 1" x 1" 180W (MX series only)
100: 1" x 1" 260W

3

Materials

MX
V: FKM (O-ring)
E: EPDM (O-ring)
A: AFLAS (O-ring)
MX -F
RV: PTFE/FKM (EPDM/AFLAS) (Bearing/O-ring)
KV: SiC/FKM (EPDM/AFLAS) (Bearing/O-ring)

4

Connection

No mark: Tube connection (1" diameter)
T: Thread connection

5

Impeller Mark

MX No mark 50/60 Hz
MX-F Y: 50/60 Hz

6

Motor

13: 1 phase 230V
15: 1 phase 115V
XX: 3 phase (available upon request)

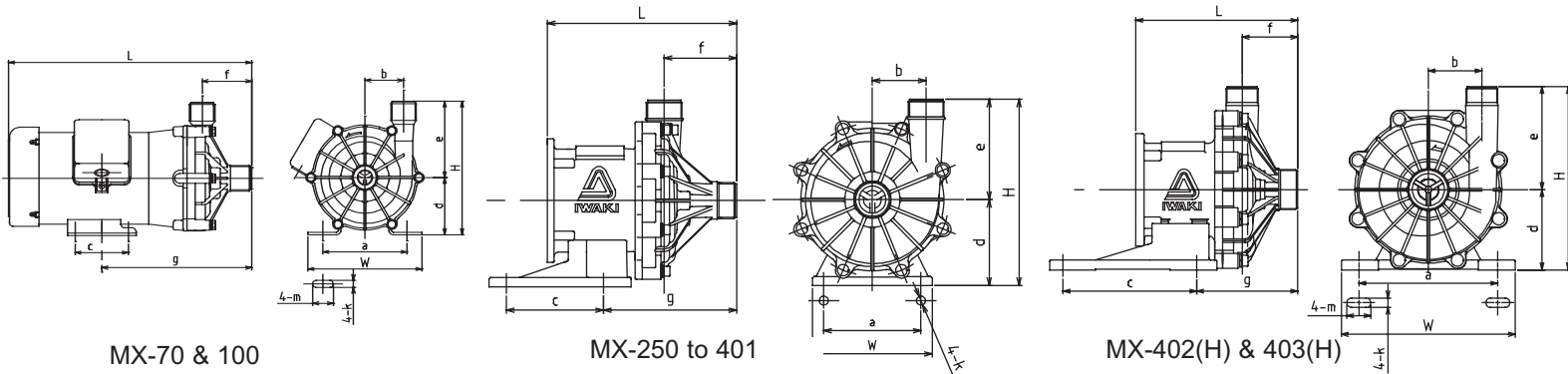
7

L: UL Approved

Specifications

Model	Suction x Discharge (NPT)	Max. Discharge Pressure (ft)	Max Flow (GPM)	Specific Gravity	Motor Output @ 60 Hz	Weight (less motor) lbs.	
MX-70	1" x 1"	36	26	1.0	.24 HP	14.3	
MX-100		38	33	1.2	.35 HP	18.1	
MX-250		53	40	1.0	0.5 HP	17.0	
MX-251		75	40	1.0	1 HP	22.5	
MX-400	1.5" x 1.5"	6	38	1.2	0.75 HP	13.7	
		7	43				70
MX-401		6	59		80	1.5 HP	22.5
		7	68		80		
MX-402	2" x 1.5"	73	107	1.2	2 HP	29.8	
MX-402H		99	45	1.0			
MX-403		101	130	1.2	3 HP	32.0	
MX-403H		126	70	1.0			
MX-F250	1" x 1"	48	43	1.2	0.5 HP	17.0	
MX-F400	1.5" x 1.5"	V	43		65	0.75 HP	13.7
		X	34		65		
MX-F401		V	68		86	1.5 HP	22.5
		X	50		75		
MX-F402	2" x 1.5"	70	120		2 HP	29.8	
MX-F403		88	130		3 HP	32.0	

Dimensions



Detailed drawings available upon request.

inches (mm)

Models	W	H	L	a	b	c	d	e	f	g	k	m
MX-70	5.12 (130)	6.10 (155)	10.18 (258.5)	4.33 (110)	1.89 (48)	1.57 (40)	2.56 (65)	3.54 (90)	2.09 (53)	7.07 (180)	.28 (7)	.43 (11)
MX-100	5.90 (150)	6.89 (175)	12.58 (319.5)	4.33 (110)	2.01 (51)	2.76 (70)	2.95 (75)	3.94 (100)	2.56 (65)	7.76 (197)	.35 (9)	1.06 (27)
MX-250	6.30 (160)	9.75 (248)	9.39 (239)	5.12 (130)	2.56 (65)	5.12 (130)	4.53 (115)	5.22 (133)	3.25 (83)	6.12 (155)	.47 (12)	---
MX-251	6.30 (160)	9.75 (248)	9.39 (239)	5.12 (130)	3.00 (76)	5.12 (130)	4.53 (115)	5.22 (133)	3.25 (83)	6.44 (164)	.47 (12)	---
MX-400	5.51 (140)	8.62 (219)	9.37 (238)	4.33 (110)	2.13 (54)	3.86 (98)	3.74 (95)	4.88 (124)	3.19 (81)	5.67 (144)	.47 (12)	---
MX-401	6.30 (160)	9.81 (249)	9.96 (253)	5.12 (130)	2.83 (72)	5.12 (130)	4.53 (115)	5.28 (134)	3.82 (97)	7.01 (178)	.47 (12)	---
MX-(F)402(H) MX-(F)403(H)	10.24 (260)	10.78 (274)	9.53 (242)	8.19 (208)	3.15 (80)	7.87 (200)	4.72 (120)	6.06 (154)	3.27 (83)	5.94 (151)	.55 (14)	1.42 (36)