

**ASME (ANSI)**

# APPLICATION DRIVEN ENGINEERED SOLUTIONS



**intMPE ANSI  
MPIII™ G1, G2, G3**



**intMPE ANSI  
MP 6913™ Pumps**



# APPLICATION DRIVEN ENGINEERED SOLUTIONS

## ***Introduction***

Over three decades of Engineering and Industrial Equipment experience. intMPE has been developing a proprietary line of products using industries most robust and reliable systems designed for mining equipment. Focused on improving end user satisfaction, durability of equipment and reduce Total Cost Of Ownership.

## ***ANSI B73.1 Chemical Process Pumps***

### ***Goulds 3196\* Series (intMPE 6913 Series)***

When the Goulds 3196 ANSI Standard Dimension Process Pump was first introduced in 1961, it immediately became the standard for the industry.

Today, the number of installations attest to its remarkable performance. Users know they can make no better choice — Goulds Model 3196.

### ***Durco Mark III \*Series (intMPE MP III Series)***

Durco Mark 3 chemical process pump provides outstanding hydraulic performance, unrivaled reliability and low total cost of ownership.

Conforming to ASME(ANSI) B73.1, the Durco Mark 3 incorporates many proven reliability- and performance-enhancing features.

### ***Interchangeability***

Precision's pumps and parts can be interchangeable with world leading Weir-Warman® Slurry Pumps and ANSI chemical process pumps: ITT-Goulds® 3196 and Flowserve-Durco® Mark III pumps.

*\*Disclaimer: All manufacturers' names, numbers symbols and descriptions are used for reference purposes only, and it is not implied that any pump or parts for them is a product of any of the manufacturers mentioned.\**

## Intmpe provides ISO-9001

Certification and ASTM Materials using sophisticated modern equipment, including:

- Vacuum spectrometer
- Dye check
- X-Ray,
- Zygo,
- Magnaflux,
- Spin Testing
- Microscopic Analysis,
- Hydro Static Testing

## Quality Assurance

### ISO-9001 Certified to ASTM Standards

- Alloy 20
- CD4MCu
- 316L
- Hastelloy Grades Inconel
- Monel
- Ductile Iron
- Titanium
- Zirconium



### Pump Accessories:

- ANSI B73.1M Complete Pumps Baseplates, Guards, Labyrinth and Packings, Mechanical Seals, Bellows Type Hug Perature.

### Inpro / Seal Labyrinths

Life Inpro/Seal "VBX" Bearing Isolator is the only labyrinths seal to afford positive protection against vapor transfer into the lube system -at rest or under load.

Life is at least 100,000 pumping hours (11.4 years)

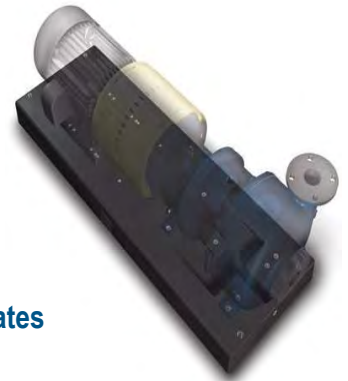
- Features: High quality bronze



## Q.A. and Pump Features

### Polymer Concrete Baseplates

- ANSI B73.1 M dimensions
- Excellent corrosion resistance
- Vibration dampening superior to steel and Iron
- Integrally molded catch basin
- 316 Stainless steel inserts



### Optional Features for Baseplates

- Custom sizes Custom colors
- Hastelloy-C inserts Leveling
- screws Compatible grout
- Integrally molded grout holes
- 

### Lantern Ring: Thermal Formed

- Fits your stuffing box better
- Easy to install

### One Ring Fits Multiple Stuffing Boxes

- Fewer Orders
- Lower Inventory
- Fewer Outages



### Lantern Ring: Virgin PTFE

- Temperature to 500°F
- pH range from 0 - 14



## Standard Materials of Construction

intMPE factories and foundries are making breakthroughs in the heavy equipment market, pouring alloys from ductile iron to stainless steels. All wet-end MPIII castings carry a limited lifetime guarantee.

Designation	Symbol	ACI Designation	Equivalent Wrought Designation	ASTM Specifications*
Ductile Iron	DCI	None	None	A395
Carbon Steel	DS	None	Carbon Steel	A216 Gr. WCB
CF-8M	D4	CF8M	316	A744, Gr. CF8M
Durcomet 100	CD4M	CD4MCuN	Ferralium® 255	A995, Gr. 1B
Durimet 20	D20	CN7M	Alloy 20	A744, Gr. CN7M
Durcomet 5	DV	None	None	None
CY-40	DINC	CY40	Inconel® 600	A494, Gr. CY40
M-35	DM	M351	Monel® 400	A494, Gr. M35-1
Nickel	DNI	CZ100	Nickel 200	A494, Gr. CZ100
Chlorimet 2	DC2	N7M	Hastelloy® B-2	A494, Gr. N7M
Chlorimet 3	DC3	CW6M	Hastelloy® C-276	A494, Gr. CW6M
Duriron®	D	None	None	A518, Gr. 1
Durichlor 51®	D51	None	None	A518, Gr. 2
Superchlor®	SD77	None	None	None
DC-8	DC8	None	None	None
Titanium	Ti	None	Titanium	B367, Gr. C-3
Titanium-Pd	Ti-Pd	None	Titanium-Pd	B367, Gr. C-8A
Zirconium	Zr	None	Zirconium	B752, Gr. 702C

*Allloys conform to the chemical and mechanical requirements of the latest edition of the ASTM specification.*

© Duriron, Durichlor 51 and Superchlor are registered trademarks of Flowserve Corporation.

© Ferralium is a registered trademark of Langley Alloys.

© Hastelloy is a registered trademark of Haynes International, Inc.

© Inconel and Monel are registered trademarks of International Nickel Co. Inc.

*intMPE MP 6913 Pumps  
After Market  
Spare Parts*

**100% interchangeability intMPE  
ANSI MP6913 Series with  
(\*Goulds 3196 Series)**

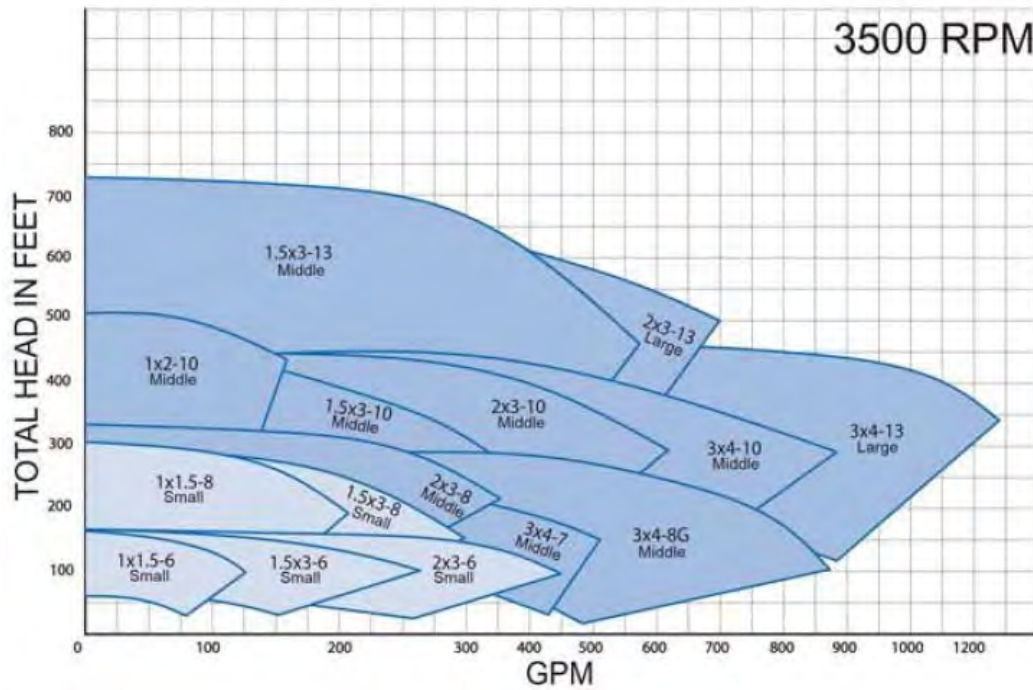
- Impeller
- Casing
- Cover
- Adaptor
- Bearing frame & housing
- Shaft & Sleeve
- Foot



**OPERATING PARAMETERS**

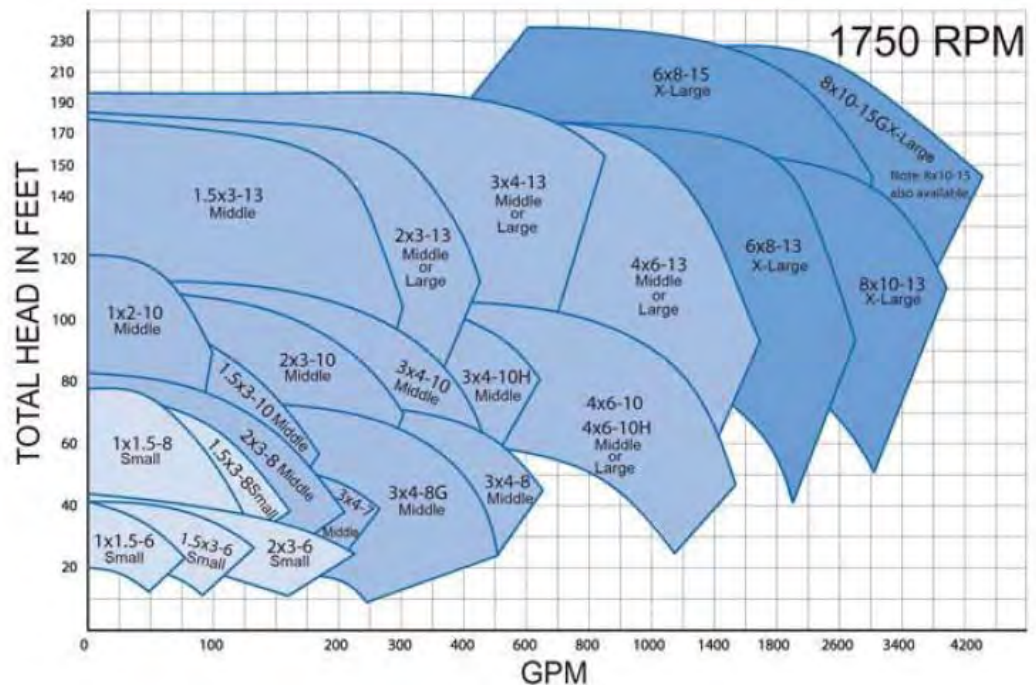
Capacities to 7000 GPM (1590 m<sup>3</sup> /h)  
 Heads to 730 feet (223 m)  
 Temperatures to 700° F (371° C)  
 Pressures to 375 PSI G (26 bar)

**Curve and Dimensions**  
**intMPE ANSI MP6913 Series**  
*(\*Goulds 3196 Series)*



**Application**

- Chemical Processing*
- General Industries*
- Mining*
- Water Resources*
- Power Generation*
- Primary Metals*
- Pulp and Paper*
- Oil and Gas*





## intMPE 6913 PUMPS

ASME (ANSI)

# Size and Codes intMPE ANSI MP6913 Series (\*Goulds 3196 Series)

### MP 6913 Series Impeller

Size	intMPE Code	OEM Code
1x1.5-6	G1A03	76781
1.5x3-6	G1B03	76792
2x3-6	G1C03	0B10176
1x1.5-8	G1D03	76793
1.5x3-8	G1E03	76794
2x3-8	G2F03	100161
3X4-8	G2G03	100163
3X4-8G	G2GG03	100165
1X2-10	G2H03	0B10009
1.5X3-10	G2J03	100593
2X3-10	G2L03	100595
3X4-10	G2N03	100597
3X4-10H	G2P03	0C00262A02
4X6-10	G2Q03	101528
4X6-10H	G2R03	0C02521A
1.5X3-13	G2S03	100537
2X3-13	G2T03	100539
3X4-13	G2U03	0B10542
4X6-13	G2W03	101500
6X8-13	G3A03	103609
8X10-13	G3B03	0D02490A02
6X8-15	G3C03	256116
8X10-15G	G3E03	256122
Material	CF8M	CD4M

### MP 6913 Series Adapter

Size	intMPE Code	OEM Code
STX 8"	G1C08	76782
MTX 8"	G2F08	R26292
MTX 10"	G2H08	R26293
MTX 13"	G2S08	R26294
XLTX 13"	G3A08	R102812
XLTX 15"	G3F08	R102814
Material	Ductile Iron	

### MP 6913 Series Bearing Frames

Size	intMPE Code	OEM Code
STX	G119	RD04539AA
MTX	G219	RD04540AA
LTX	G2L19	RD04548AA
XLTX	G319	RE00666AA
Material	Ductile Iron	

### MP 6913 Series Series Casing

Size	intMPE Code	OEM Code
1x1.5-6	G1A01	104554
1.5x3-6	G1B01	104555
2x3-6	G1C01	105204
1x1.5-8	G1D01	104556
1.5x3-8	G1E01	104557
2x3-8	G2F01	24741
3X4-8	G2G01	24743
3X4-8G	G2GG01	24745
1X2-10	G2H01	104878
1.5X3-10	G2J01	24960
2X3-10	G2L01	24961
3X4-10	G2N01	24962
3X4-10H	G2P01	D00452A02
4X6-10	G2Q01	25189
4X6-10H	G2R01	D03123A
1.5X3-13	G2S01	24963
2X3-13	G2T01	D02450A
3X4-13	G2U01	24965
4X6-13	G2W01	D04930A
6X8-13	G3A01	25450
8X10-13	G3B01	D02488A02
6X8-15	G3C01	25494
8X10-15	G3D01	2555
8X10-15G	G3E01	25665
Materials	CF8M	CD4M Cast Steel

### MP 6913 Series Bearing Housing

Size	intMPE Code	OEM Code
STX	G112	C03340A
MTX	G212	D04872A
LTX	G2L12	D04628A
XLTX	G312	D04871A
Material	Ductile Iron	

### MP 6913 Series Foot

Size	intMPE Code	OEM Code
MTX 8 & 10"	G2H09	B02092A
MTX 10H &	G2S09	B02091A
XLTX 15"	G3E09	C04366A
Material	Ductile Iron	

### MP 6913 Series Series Cover

Size	intMPE Code	OEM Code
STX-6"	G1A06	R104562
	G1A06B	RC04056A01
STX-8"	G1B06	R104564
	G1B06B	RC04057A01
MTX-8"	G2F06	R100788
	G2F06B	RC04058A01
MTX-10"	G2H06	R100585
	G2H06B	RC04059A01
MTX-13"	G2S06	R100529
	G2S06B	RC04060A01
LTX-13"	G2L06	R100533
	G2L06B	RC04062A01
XLTX-13"	G3A06	R104707
	G3A06B	RC04063A01
XLTX-15"	G3E06	R104710
	G3E06B	RC04064A01
Materials	CF8M	CD4M Cast Steel

### MP 6913 Series Shaft and Sleeve

Model	intMPE Code	OEM Code
SHAFT		
STX	G115	R104434
	G115S	R104435
MTX	G215	R104731
	G215S	R104733
LTX	G2L15	R11062
	G2L15S	RC03044A
XLTX	G315	R103615
	G315S	R103614
Material	316SS	4140

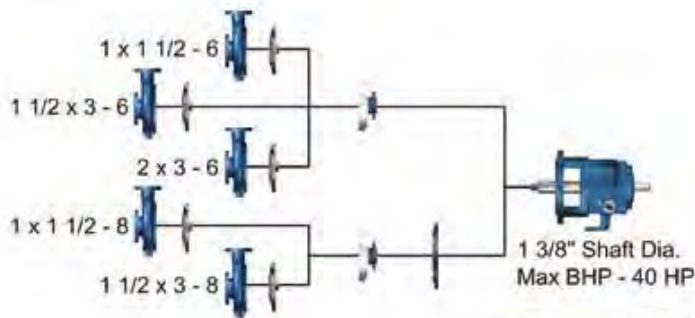
Model	intMPE Code	OEM Code
SLEEVES		
STX	G117	76772X
MTX	G217	73705X
LTX	G2L17	91967X
XLTX	G317	76230
Material	316SS	

**intMPE 6913  
PUMPS**

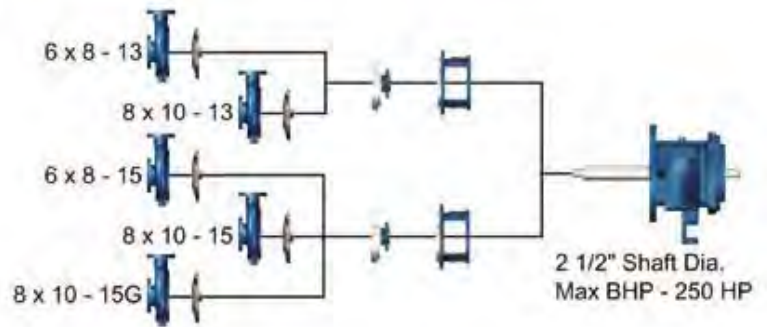
**ASME (ANSI)**

**Interchangeability  
intMPE ANSI MP6913 Series  
(\*Goulds 3196 Series)**

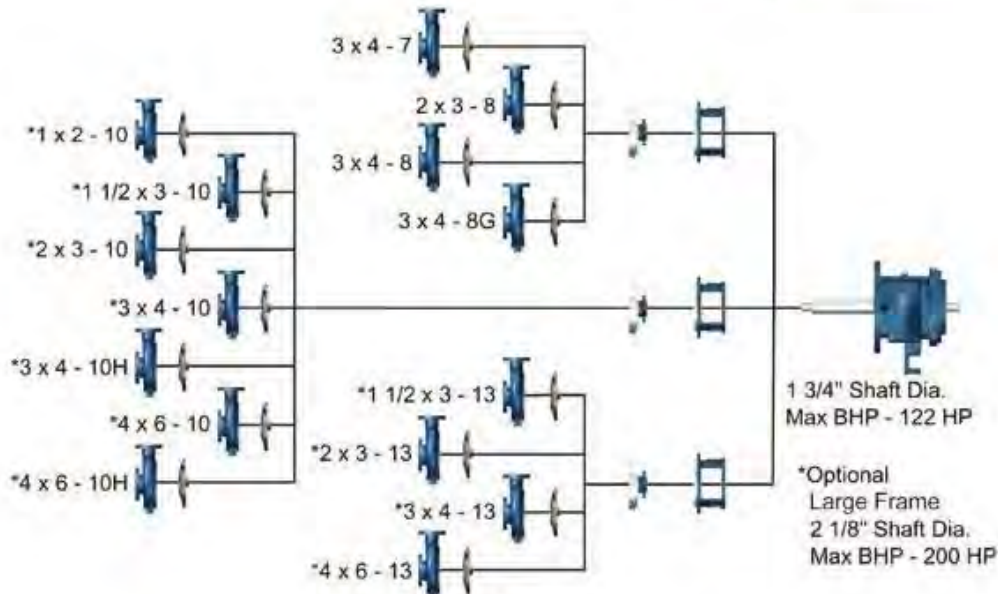
**Small-Size**



**X-Large-Size**



**Middle-Size**





*intMPE MP 6913  
Pumps  
After Market Spare Parts*

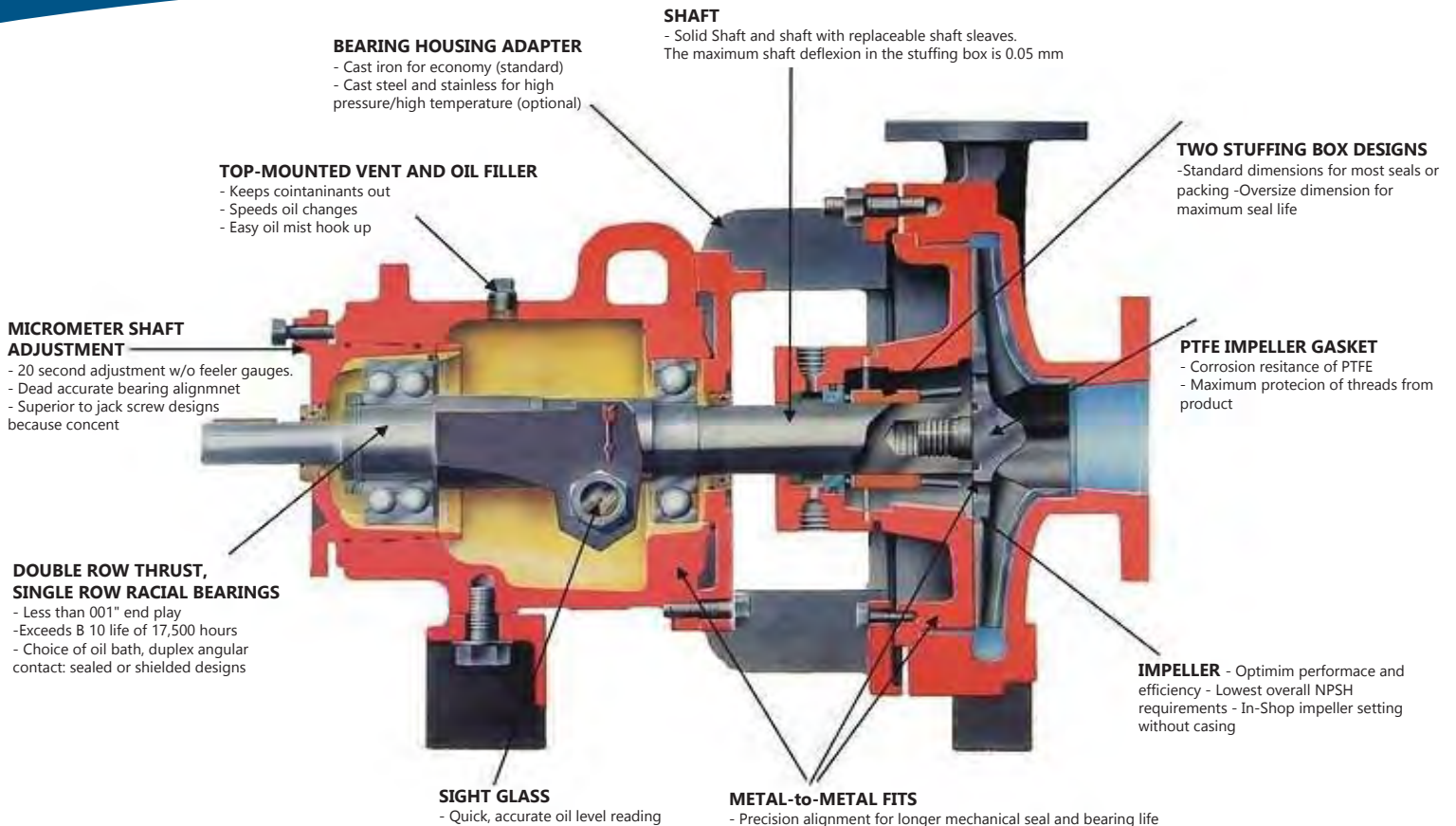
**100% interchangeability intMPE  
ANSI MP III™ G1, G2, G3  
(\*Durco Mark III Series)**

- Impeller
- Casing
- Cover
- Adaptor
- Bearing frame & housing
- Shaft & Sleeve
- Foot



**intMPE MP III Series**  
**G 1, G2, G3**  
**ASME (ANSI)**

**Characteristics Overview**  
**intMPE ANSI MPIII™ G1, G2, G3**  
**(\*Durco Mark III Series)**



**LOW - FLOW**

**Heads**

- 60 Hz to 985 FT (300m)
- 50 Hz to 655 FT (200m)

**Capacities**

- 60 Hz to 220 GPM (50 m3/h)
- 50 Hz to 175 GPM (40 m3/h)

**All Materials Offered plus Application Engineering**

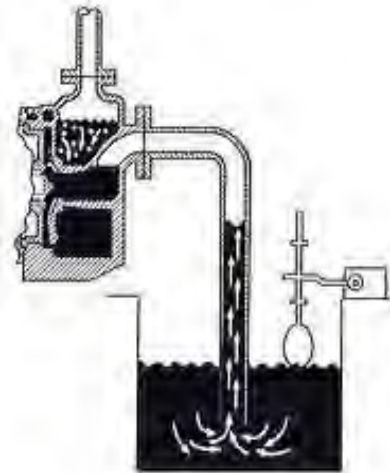
**Improved Pump Reliability with Extended MTBPM at Low Flow Rates. Intmpe extends its ANSI pump design for high head/low flow rates.**

- 1L 1.5 x 1BF-4
- 1L 1.5 x 1BF-8
- 2L 2 x 1BF-10
- 3L 3 x 1.5BF-13

Pressures to 450 psi (3100 kPa) Temperatures to 700°F (370°C)

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*intMPE MP III Series  
G 1, G 2, G 3  
ASME (ANSI)*



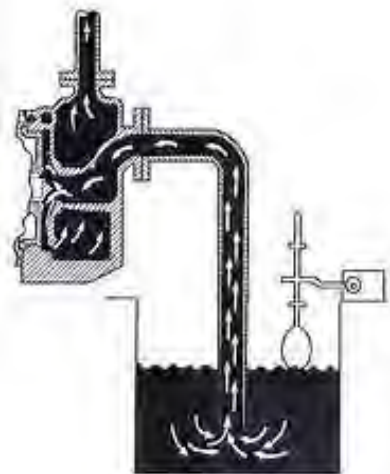
## **Self Priming**

*Conveniently located high and dry at ground level where installation is simple and maintenance more easily and more economically performed.*

*Costing less to buy, install and maintain than submersible pumps, is designed to draw from liquid sources below ground level or from sources which have no positive pressure to naturally prime the pump. Its compact design enables it to fit in tight clearance locations ... it can be easily mounted on a trailer for movement to various pumping locations such as wastewater lagoon service.*

## **Applications**

Sump service tank car unloading  
Duplex pumping lift station



*intMPE MP III Series  
G 1, G2, G3  
ASME (ANSI)*



## **intMPE MP III G 1-2-3 PUMPS**

### **CBL**

Oversize, cylindrical step bore designed for seals with large gland bolt and gasket circles: -Dual internal component seals isolate the seal chamber from the process with external source flush.- Single seal with throttle bushing and flush to boost pressure over flash point.



### **CBS**

Cylindrical bore designed for packing arrangements and conventional seals with small gland bolt and gasket circles.



### **FML**

Preferred selection in most applications. Designed for seals with large gland bolt and gasket circles: Single internal cartridge seals Dual internal/external cartridge seals Single internal component seals with flexibly mounted seats Dual internal "true" tandem design cartridge



### **FMS**

Same as FML but accommodates seals with small gland bolt and gasket circles: Single seals with all seat mounting configurations can be installed - This design is our secondary recommendation to the FML



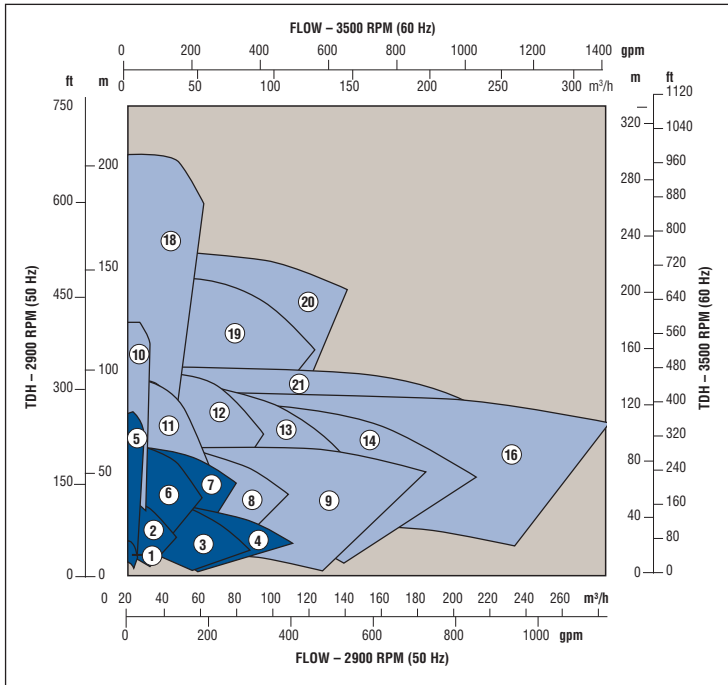
### **Typical Applications**

- Mining Industry
- Construction Industry
- Steel and primary metals
- Water and wastewater treatment
- Petrochemical processing
- Pulp and paper
- Slurries
- Food and beverage processing
- Hydrocarbon processing
- Pharmaceuticals

## OPERATING PARAMETERS

Capacities to 7000 GPM (1590 m<sup>3</sup> / h)  
 Heads to 730 feet (223 m)  
 Temperatures to 700° F (371° C)  
 Pressures to 375 PSIG (26 bar)

# Curve and Dimensions intMPE ANSI MPIII™ G1, G2, G3 (\*Durco Mark III Series)

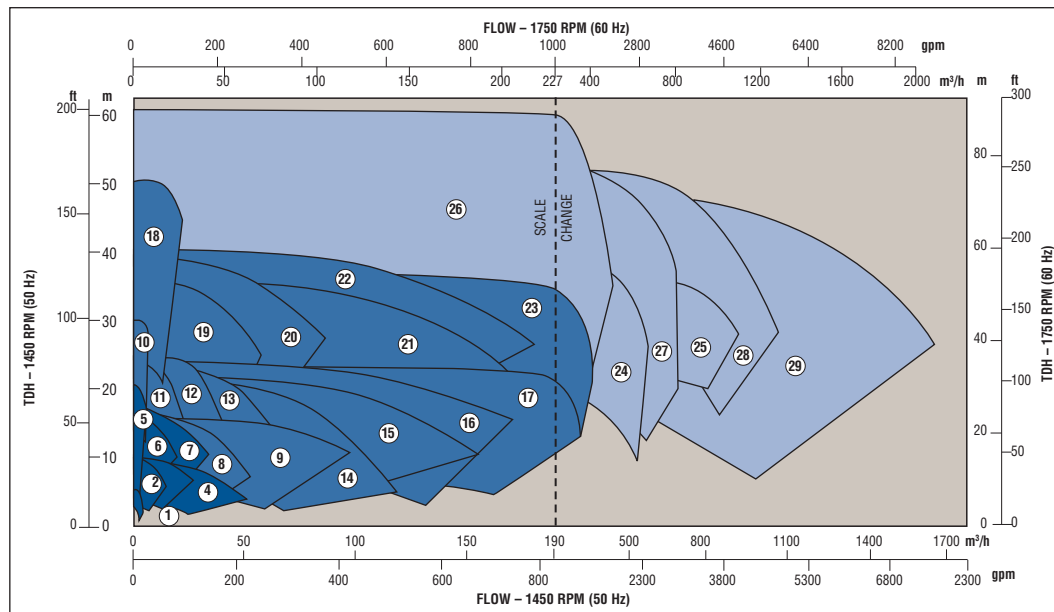


### intMPE MP III G 1

1. 1 1/2 X 1LF-4
2. 1 1/2 x 1-6
3. 3 X 1 1/2-6
4. 3 X 2-6
5. 1 1/2 X 1LF-8
6. 1 1/2 X 1-8
7. 3 X 1 1/2-8

### intMPE MP III G 2

8. 3 X 2-8
9. 4 X 3-8
10. 2 X 1LF-10
11. 2 X 1-10A
12. 3 X 1 1/2-10A
13. 3 X 2-10A
14. 4 X 3-10
15. 4 X 3-10H
16. 6 X 4-10
17. 6 X 4-10H
18. 3 X 1/2 LF-13
19. 3 X 1 1/2-13
20. 3 X 2-13
21. 4 X 3-13
22. 4 X 3-13HH
23. 6 X 4-13A



### intMPE MP III G 3

24. 8 x 6 - 14A
25. 10 x 8 - 14
26. 6 x 4 - 16
27. 8 x 6 - 16A
28. 10 x 8 - 16
29. 10 x 8 - 16H
30. 10 x 8 - 17<sup>3</sup>



**intMPE MP III Series**  
**G 1, G2, G3**  
**ASME (ANSI)**

**Sizes and Codes**  
**intMPE ANSI MPIII™ G1, G2,**  
**G3 (\*Durco Mark III Series)**

**intMPE MP III Series Impeller**

Size	intMPE Code	OEM
1.5x1-62	D1A03	MY50798A62
3x1.5-62	D1B03	MY50746A62
3X2-62	D1C03	MY50723A62
1.5x1-82	D1D03	MY50754A82
3x1.5-82	D1E03	MY50656A82
3x2-82	D2F03	MY46066A82
4x3-82	D2G03	MY46157A82
2x1-10A	D2H03	MY46952AA100
3x1.5-10	D2J03	MY36861A100
3x1.5-10A	D2K03	MY51157A100
3x2-10	D2L03	MY36862A100
3x2-10A	D2M03	MY51049A100
4x3-10	D2N03	MY35641AA100
4x3-10H	D2P03	MY36877A100
6x4-10	D2Q03	MY47210AA100
6X4-10H	D2R03	MY50824A100
3x1.5-13	D2S03	MY36649AA130
3x2-13	D2T03	MY49112A130
4x3-13	D2U03	MY36847AA130
4x3-13HH	D2V03	MY50171AA130
6x4-13A	D2W03	MY36846AA130
8x6-14A	G3A03	MY40103AA140
10X8-14A	G3B03	MY48879A140
6X4-16	G3C03	MY51017A160
8X6-16	G3D03	MY39056AA160
8X6-16A	G3E03	MY48888A160
10X8-16	G3F03	MY48902A160
10X8-16H	G3G03	MY48928A160

Materials	CF8M	CD4M
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**intMPE MP III Series Adapter**

Size	intMPE Code	OEM Code
Group 2 8"	D2F08	DY46074AAP
Group 2 10"	D2H08	DY21806ACP
Group 2 13"	D2S08	DY21857ABP
Group 3 14"	D3A08	DY28285ACP
Group 3 16"	D3E08	DY27463ACP

Material	Ductile Iron
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**intMPE MP III Series**  
**Bearing Housing**

Size	intMPE Code	OEM Code
Group 1	D112	CY55739AP
Group 2	D212	CY55742AP
Group 3	D312	DY55743AP

Material	Ductile Iron
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**intMPE MP III Series Casing**

Size	intMPE Code	OEM
1.5x1-62	D1A01-CF8M	DY50772
3x1.5-62	D1B01-CF8M	DY50794A
3X2-62	D1C01-CF8M	DY50733A
1.5x1-82	D1D01-CF8M	DY52981A
3x1.5-82	D1E01-CF8M	DY50659A
3x2-82	D2F01-CF8M	DY46070A
4x3-82	D2G01-CF8M	DY46161A
2x1-10A	D2H01-CF8M	DY46950A
3x1.5-10	D2J01-CF8M	CY22118A
3x1.5-10A	D2K01-CF8M	DY50995A
3x2-10	D2L01-CF8M	CY21802A
3x2-10A	D2M01-CF8M	DY51040A
4x3-10	D2N01-CF8M	CY22235A
4x3-10H	D2P01-CF8M	CY22385A
6x4-10	D2Q01-CF8M	DY47208A
6X4-10H	D2R01-CF8M	DY51022A
3x1.5-13	D2S01-CF8M	CY21853A
3x2-13	D2T01-CF8M	CY22312A
4x3-13	D2U01-CF8M	CY22344A
4x3-13HH	D2V01-CF8M	DY50172A
6x4-13A	D2W01-CF8M	DY33074A
8x6-14A	D3A01-CF8M	DY32218AA
10X8-14A	D3B01-CF8M	DY48876AA
6X4-16	D3C01-CF8M	DY51013A
8X6-16	D3D01-CF8M	DY30546A
8X6-16A	D3E01-CF8M	DY48891AA
10X8-16	D3F01-CF8M	DY48899AA
10X8-16H	D3G01-CF8M	DY48925AA

Materials	CF8M	CD4M	Cast Steel
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**intMPE MP III Series**  
**Bearing Frame**

Size	intMPE Code	OEM Code
Group 1	D119	DY55721B
Group 2	D219	DY55718A
Group 3	D319	DY55723A

Material	Ductile Iron
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**intMPE MP III Series Foot**

Size	intMPE Code	OEM Code
6" & 8"	D1A09	CY55732AK
3x1.5-8	D1A09D	CY55733AK
8" & 10" small	D2F09	CY55736AK
10" large &	D2S09	CY55737AK
Group 3	D3A09	CY55738AK

Material	Ductile Iron
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**intMPE MP III Series Cover**

Size	intMPE Code	OEM Code
Group 1 6" & 8"	D1A06	CY50617A
	D1A06B	CY52022A
	D1A06D	CY53428A
	D1A06E	CY53429A
Group 2 8"	D2F06	CY46072A
	D2F06B	CY52024A
	D2F06D	CY53432A
	D2F06E	CY53433A
Group 2 10"	D2H06	CY21805A
	D2H06B	DY52026A
	D2H06D	DY53439A
	D2H06E	DY53440A
Group 2 13"	D2S06	DY21855A
	D2S06B	DY52028A
	D2S06D	DY53442A
	D2S06E	DY53443A
Group 3 14"	D3A06	DY28284AA
	D3A06B	DY52030A
	D3A06D	DY53499A
	D3A06E	DY53501A
Group 3 16"	D3E06	DY27457AA
	D3E06B	DY52032A
	D3E06D	DY53502A
	D3E06E	DY53504A

Material	CF8M	CD4M	Cast Steel
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**intMPE MP III Series**  
**Shaft and Sleeve**

Model	intMPE Code	OEM Code
SHAFT		
Group 1	D115	CY50683A
	D115S	CY50686A
Group 2	D215	CY21361BA
	D215S	CY32768B
Group 3	D315	CY50463A
	D315S	CY50467A

Material	316SS	4140
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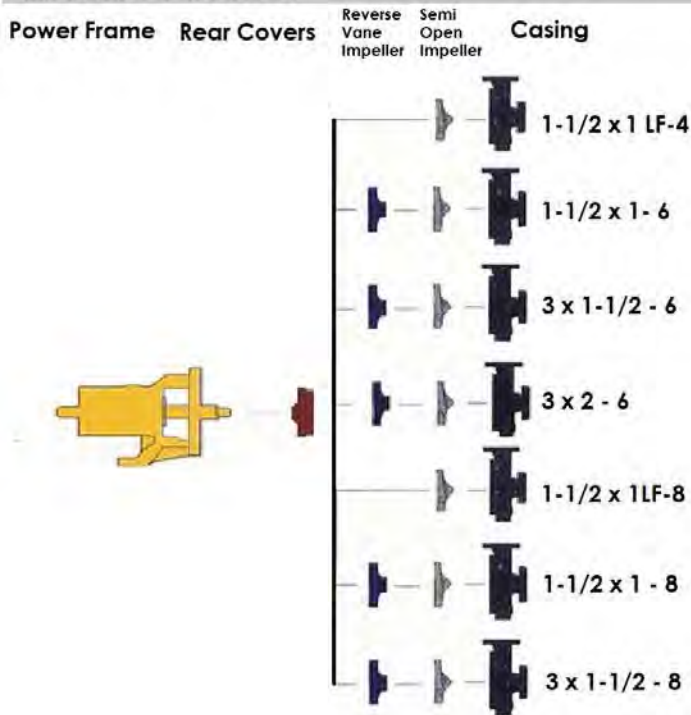
Model	intMPE Code	OEM Code
SLEEVES		
Group 1	D117	AY50691A
Group 2	D217	AY38913AA
Group 3	D317	BY39477A

Material	316SS
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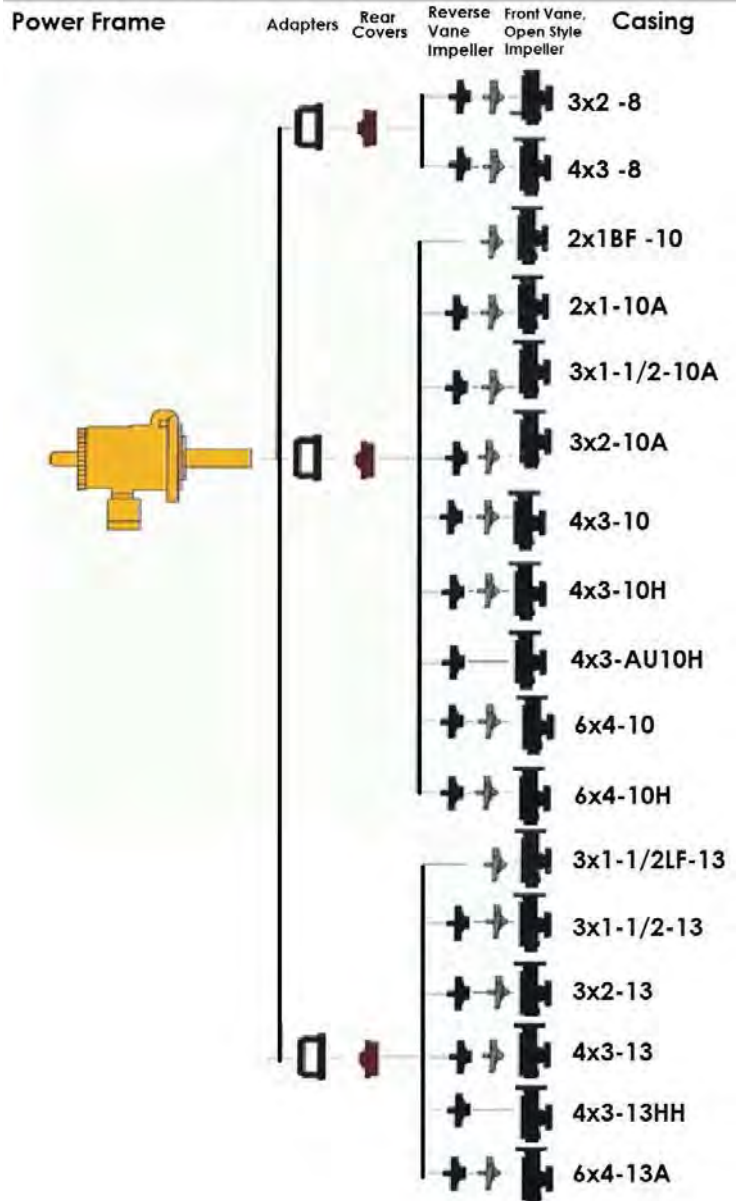
*intMPE MP III Series*  
*G 1, G2, G3*  
*ASME (ANSI)*

**Interchangeability**  
**intMPE ANSI MPIII™ G1, G2, G3**  
 (\*Durco Mark III Series)

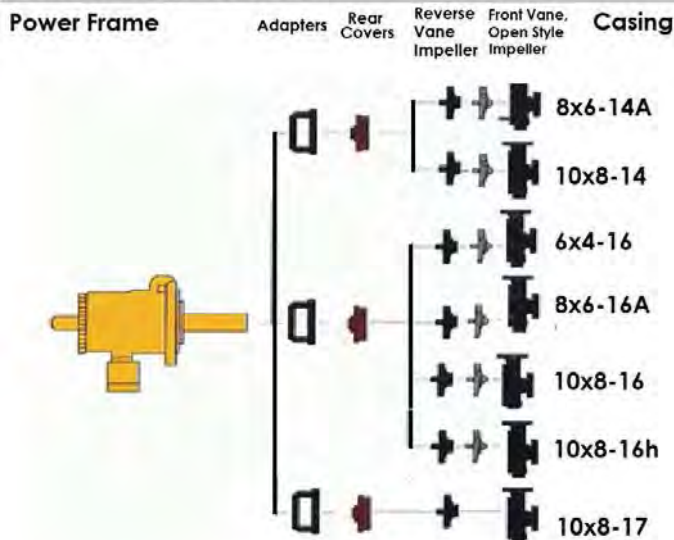
**intMPE MP3 Standard G1**



**intMPE MP3 Standard G2**



**intMPE MP3 Standard G3**



*intMPE MP III Series  
G 1, G2, G3  
ASME (ANSI)*

## Impeller Types



### ***Reverse Vane Impeller***

Exclusive reverse vane impeller with balance holes offers important performance enhancing maintenance reducing advantages. Repeatable performance and seal chamber pressures allow repeatable MTBPM cycle.



### ***Semi-Open Impeller***

Front vane, semi-open impeller is fully interchangeable with the reverse vane impeller. Excellent choice for stringy and certain applications requiring high shear against the casing.



### ***Low-Flow Impeller***

Front vane, Low Flow, semi-open impeller for operation at low flow with minimal thrust loads and vibration. Radial loads are reduced up to 90% and shaft vibration is reduced up to 50% at low flows.



**Table 1: Bearing Comparison**

Group 2	I.B. Bearing	Dynamic Load Rating	O.B. Bearing	Dynamic Load Rating
INTMPE	6310	6078 kg (13 400 lb)	5310	8709 kg (19 200 lb)
Major Competitor	6309	5398 kg (11 900 lb)	5309	7439 kg (16 400 lb)

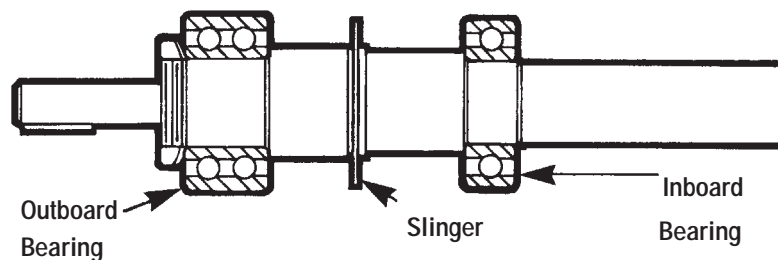
**Extended Bearing Life Comparison**

I.B. = 1.43 (+43% EXTRA SERVICE LIFE)

O.B. = 1.61 (+61% EXTRA SERVICE LIFE)

**Table 2: Deflection Comparison**

Group 2	Overhang Length	Solid Shaft		Sleeve	
		Shaft Diameter	Deflection Index	Shaft Diameter	Deflection Index
INTMPE	189 mm (7.687 in)	48 mm (1.875 in)	37	38 mm (1.5 in)	90
Major Competitor	213 mm (8.375 in)	45 mm (1.75 in)	63	38 mm (1.5 in)	116





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