

# ISO-Magna



## ISM ISO 2858 Horizontal Single Stage End Suction Back Pull-out Centrifugal Pump

### General

**INTERNATIONAL STANDARD** | Conforming with **ISO2858 Standard** means dimensional interchangeability with other makes of pumps, manufactured to the same international standard, however because of design superiority **MONOFLO ISO-Magna** exceed the performance standard.

**DESIGN EXCELLENCE** | Superior hydraulic design and manufacturing processes, make **ISO-Magna** a robust pump, ensuring extended life and performing at significantly higher efficiencies and greater performance at reduced running costs and minimum maintenance.

Depending on pumping requirements and specific applications, **ISO-Magna** can be engineered in various material executions, and seal types to meet the needs.

Now Available  
As OPTION...

**'XcelBond'**  
coating  
Performance at it's Best in  
Rugged Conditions...

### Design Features

**VOLUTE CASING** | Manufactured in high-grade cast iron as standard with integral cast feet and vertical centerline discharge for automatic self-venting. Cast stainless steel casings are available as an option.

**TAPER MOUNTED IMPELLER** | The hydraulically & dynamically balanced impeller is taper mounted and keyed to shaft for positive drive during operation, and easy removal from shaft during servicing & maintenance.

**RIGID SHAFT** | Heavy duty designed stainless steel shaft for minimum deflection, smoother running and longer bearing life.

**HEAVY DUTY BEARINGS** | Fitted as standard, design-rated "heavy duty" sealed for life bearings to ensure safe operation, and exceptionally long, trouble-free life.

**REPLACEABLE WEAR RINGS** | Replaceable wear rings are available for pump impeller and casing where abrasive liquids are pumped.

**'BACK PULLOUT' FEATURE** | Feature allows the whole rotating element to be removed for maintenance, without disturbing pipework.

### Applications

**BUILDING SERVICES** | Water transfer & pressure systems; central air-conditioning systems; fire protection; swimming pools & water feature applications.

**INDUSTRIAL** | Circulation for machine cooling, process water in paper& pulp, iron & steel mills and sugar industry; marine & shipbuilding; and other manufacturing processes

**MINING** | Mine general water supply; mine dewatering; generation of power; mining process.

**AGRICULTURAL** | Irrigation; stock watering

**MUNICIPAL WATER SUPPLY**

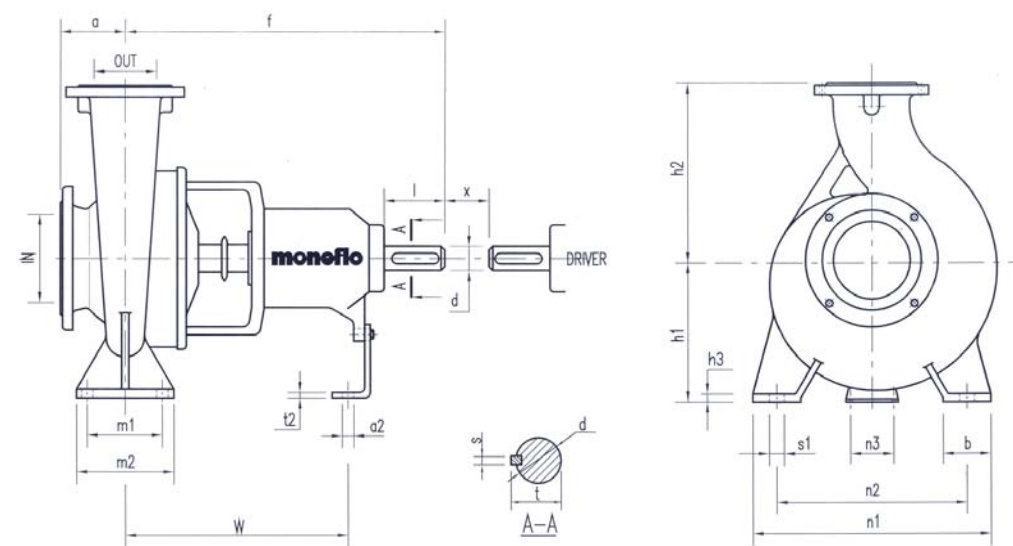


Computer 3-D model of the ISO-Magna impeller. Optimising hydraulic profile to achieve high efficiency performance

**monoflo PUMPS**

...engineering flow in our lives

### Dimensions



Pump models	Shaft No.	Nominal flange size		Dimensions																Wt (kg)			
		Inlet	Outlet	Pump				Foot mount						Shaft end									
				a	f	h <sub>1</sub>	h <sub>2</sub>	b	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	n <sub>3</sub>	w	h <sub>1</sub>	Ø <sub>s1</sub>	Ø <sub>s2</sub>	d	l	t	s	x <sub>≥*</sub>	
ISM 50x32-160	1	50	32	80	385	132	160	50	100	70	240	190	110	285	12	M12	M12	24	50	27	8	100	38
ISM 50x32-200	1	50	32	80	385	160	180	50	100	70	240	190	110	285	12	M12	M12	24	50	27	8	100	46
ISM 65x50-160	1	65	50	80	385	132	160	50	100	70	240	190	110	285	12	M12	M12	24	50	27	8	100	40
ISM 65x40-200	1	65	40	100	385	160	180	50	100	70	265	212	110	285	13	M12	M12	24	50	27	8	100	48
ISM 65x40-250	2	65	40	100	500	180	225	65	125	95	320	250	110	370	14	M12	M12	32	80	35	10	100	70
ISM 65x40-315	2	65	40	125	500	200	250	65	125	95	345	280	110	370	16	M12	M12	32	80	35	10	100	80
ISM 80x65-160	1	80	65	100	385	160	180	50	100	70	265	212	110	285	13	M12	M12	24	50	27	8	100	46
ISM 80x50-200	1	80	50	100	385	160	200	50	100	70	265	212	110	285	13	M12	M12	24	50	27	8	100	52
ISM 80x50-250	2	80	50	125	500	180	225	65	125	95	320	250	110	370	15	M12	M12	32	80	35	10	100	72
ISM 80x50-315	2	80	50	125	500	225	280	65	125	95	345	280	110	370	18	M12	M12	32	80	35	10	100	87
ISM 100x80-160	2	100	80	100	500	160	200	65	125	95	280	212	110	370	14	M12	M12	32	80	35	10	100	68
ISM 100x65-200	2	100	65	100	500	180	225	65	125	95	320	250	110	370	14	M12	M12	32	80	35	10	140	70
ISM 100x65-250	2	100	65	125	500	200	250	80	160	120	360	280	110	370	16	M16	M12	32	80	35	10	140	80
ISM 100x65-315	3	100	65	125	530	225	280	80	160	120	400	315	110	370	18	M16	M12	42	110	45	12	140	118
ISM 125x80-400	3	125	80	125	530	280	355	80	160	120	435	355	110	370	20	M16	M12	42	110	45	12	140	165
ISM 125x100-200	2	125	100	125	500	200	280	80	160	120	360	280	110	370	17	M16	M12	32	80	35	10	140	85
ISM 125x100-250	3	125	100	140	530	225	280	80	160	120	400	315	110	370	18	M16	M12	42	110	45	12	140	126
ISM 125x100-315	3	125	100	140	530	250	315	80	160	120	400	315	110	370	19	M16	M12	42	110	45	12	140	135
ISM 125x100-400	3	125	100	140	530	280	355	100	200	150	500	400	110	370	20	M20	M12	42	110	45	12	140	175
ISM 125x100-500	4	125	100	160	670	355	450	100	200	150	550	450	110	500	25	M20	M16	48	110	51.5	14	180	313
ISM 150x125-250	3	150	125	140	530	250	355	80	160	120	400	315	110	370	19	M16	M12	42	110	45	12	140	140
ISM 150x125-315	3	150	125	140	530	280	355	100	200	150	500	400	110	370	20	M20	M12	42	110	45	12	140	150
ISM 150x125-400	3	150	125	140	530	315	400	100	200	150	500	400	110	370	21	M20	M12	42	110	45	12	140	186
ISM 150x125-500	4	150	125	160	670	355	450	100	200	150	550	450	140	500	25	M20	M16	48	110	51.5	14	180	336
ISM 200x150-315	4	200	150	160	670	315	400	100	200	150	550	450	140	500	25	M20	M16	48	110	51.5	14	180	222
ISM 200x150-400	4	200	150	160	670	315	450	100	200	150	550	450	140	500	25	M20	M16	48	110	51.5	14	180	300
ISM 200x150-500	4	200	150	160	670	400	500	100	200	150	550	450	140	500	25	M20	M16	48	110	51.5	14	180	382
ISM 250x200-315	4	250	200	180	670	315	450	100	200	150	550	450	140	500	25	M20	M16	48	110	51.5	14	180	277
ISM 250x200-400	4	255	200	180	670	355	500	100	200	150	550	450	140	500	25	M20	M16	48	110	51.5	14	180	340

\* Minimum distance between pump & driver shafts for 'back pulling' out the bearing housing, back cover & impeller assembly towards the drive end, when installed with spacer coupling.

Note | Where units are not indicated, all dimensions in millimetres (mm)

[www.monoflopumps.com](http://www.monoflopumps.com)

As MONOFLO Pumps is constantly improved, we reserve the right to make specification changes without prior notice and without incurring liability.

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cat.iso-magna/revA/03

# Your ANSWER To... Performance + Ruggedness = ISO-Magna

now available as option...  
**'XcelBond'**  
coating  
Performance at it's Best in  
Rugged Conditions...

- ✓ **PROTECT AGAINST CORROSION**  
...No more rusty water! Resistance to water effluent, sea water, sea mist, most hydrocarbons, solvents, large number of chemicals! (to verify with XcelBOND resistance chart)
- ✓ **GOOD RESISTANCE TO WEATHERING & TOUGH ENVIRONMENT!**
- ✓ **PRESERVING WATER QUALITY**  
...Meets most international requirements on suitability in contact with drinking water.
- ✓ **ABRASION & IMPACT RESISTANCE!**
- ✓ **LOW FRICTION COEFFICIENT**  
...Improve flow of fluids, hence improve pump performance!
- ✓ **AESTHETICALLY PLEASING**  
...smooth, attractive & quality surface finish!



## Model Designation

ISO-Magna model prefix | **ISM 65 x 40 - 200 / M G**

### Dimensions |

Pump nominal suction diameter in mm  
Pump nominal discharge diameter in mm  
Impeller nominal diameter in mm

### Type of shaft seal |

**M** - Mechanical seal  
**P** - Packed gland

### Material execution |

**G** - Cast iron casing; cast iron impeller  
**B** - Cast iron casing; bronze impeller  
**NG** - Nodular cast iron casing; cast iron impeller  
**NB** - Nodular cast iron casing; bronze impeller  
**S** - Stainless steel casing; stainless steel impeller

## Operating Limits

### WORKING PRESSURE |

Pressure rating from 16 to 24 bar.  
[Dependant on pump material of construction. Refer to ISO-Magna technical manual.]

### CAPACITY |

Capacity range up to maximum of 250 litres/sec (900 m<sup>3</sup>/hr).

### DISCHARGE PRESSURE |

Discharge pressure range up to maximum of 160 metres (16 bar).

### OPERATING TEMPERATURE |

Up to 80°C with standard seals or packing. Liquids up to 140°C can be handled using special seals.

### OPERATING SPEED |

Maximum operating speed up to 3500 r.p.m.

### FLANGE |

**PN16 & PN 25** in accordance to **B.S. 4504** (DIN2501). Optional flange standards upon request.

## Material of Construction

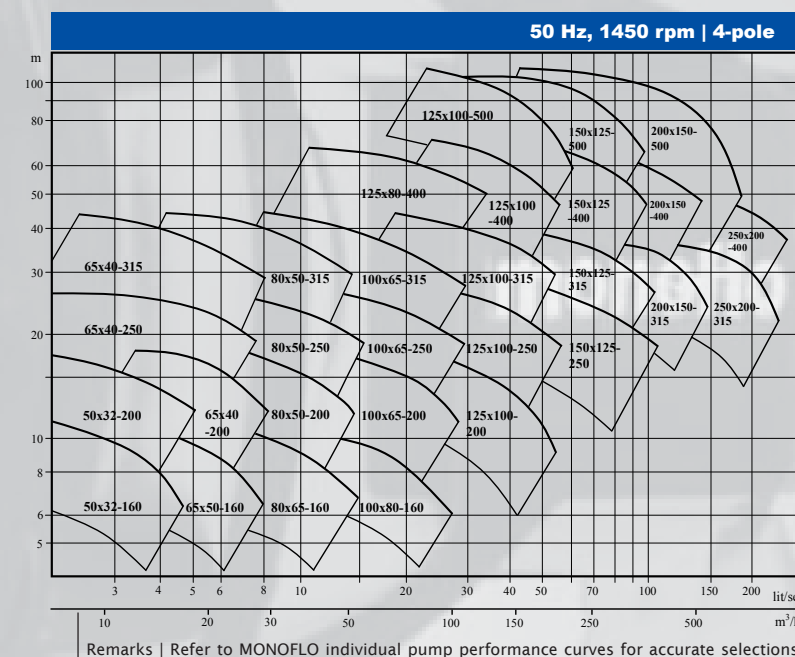
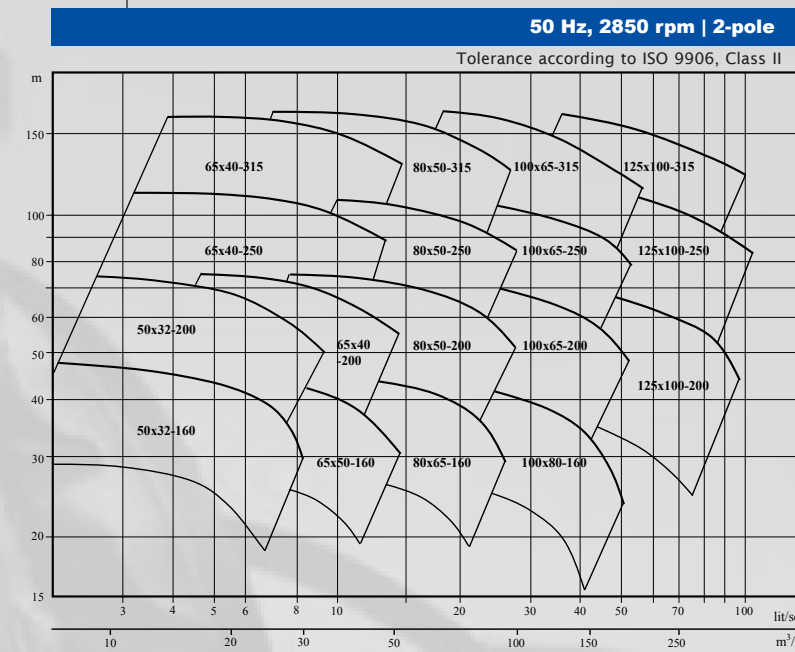
Parts	Standard	Optional		
<b>Casing</b>	Cast iron GG25 AS 1830/T260   BS 1452Gr260	Nodular (Ductile) cast iron AS 1831/400   BS2789Gr500/7	Cast stainless steel AS 2074/H6B   BS1 504Gr316	Zinc-free bronze
<b>Impeller</b>	Cast iron GG25 AS 1830/T260   BS 1452Gr260	Bronze (Gunmetal) AS 1565/836   BS1400 LG2	Cast stainless steel AS 2074   BS 1504Gr316	Zinc-free bronze
<b>Shaft</b>	Stainless steel 420 AS 1444/420   BS 970Gr.420 S37	Stainless steel 316 AS 1444/316   BS 970Gr.316 S16		
<b>Casing wear ring</b>	Cast iron GG25 AS 1830/T260   BS 1452Gr260	Bronze (Gunmetal) AS 1565/836   BS1400 LG2	Zinc-free bronze	
<b>Impeller wear ring</b>	-	Bronze (Gunmetal) AS 1565/836   BS1400 LG2	Zinc-free bronze	
<b>Seal type</b>	Mechanical seal [Carbon   Silicon Carbide   Nitrile]	Mechanical seal [Carbon   Silicon Carbide   EPDM]	Mechanical seal [Carbon   Silicon Carbide   Viton]	Packed gland

Note | A S - Australian Standard; B S: British Standard

Remark | For more comprehensive pump construction material, and equivalent material specification, refer to MONOFLO Pumps technical data sheets

## Hydraulic Performance

50Hz (Also available in 60Hz)



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