

## DinEnd and DinIn-Line - MonoBlock Motor Pumps

DinEnd and DinIn-Line motor pumps belong to Din Pumps families. DinEnd is a range of horizontal end suction motor pumps, while DinIn-Line is a range of vertical in-line motor pumps.

### Standard Design

- Close coupled versions of DIN 24255 pumps.
- Max. Pressure: 10 bar; And basic test pressure 21Bar.
- Liquid temperature: -20 °C to +120 °C.

### Back-pull-out Design

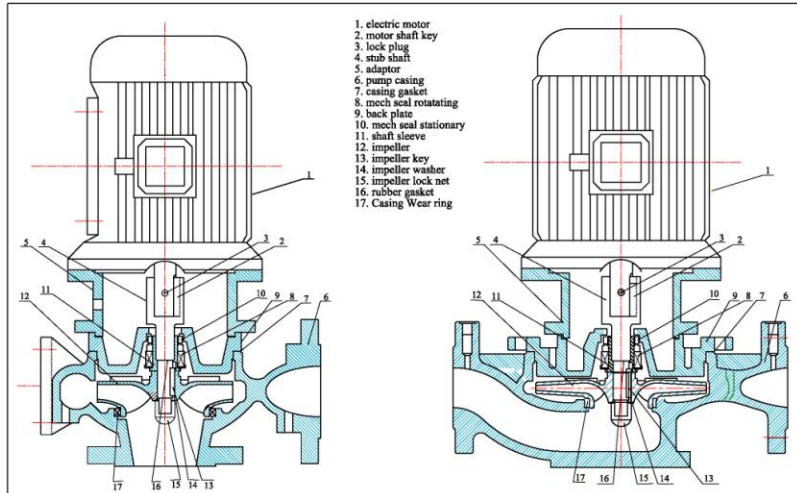
All DinEnd and DinIn-Line motor pumps incorporate the "back-Pull-Out" facility allowing the removal of the complete rotating element without disturbing the pipework. This feature enables quick and simple maintenance to take place.

### Interchangeability

The modular design maximises the interchangeability of the components, resulting in the reduction of spare parts and stock cost.

### Standard Motor Options

The design allows the use of standard motors, which mean particular motors can be used to meet the application requirements, or the users can buy pump kits instead of whole unit.



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## DinBare

The DinBare range of pumps complies fully with International Standard DIN 24255. This standard covers both performances and dimensions.

**VOLUTE CASING** The volute casing has integrally cast feet, axial suction and vertical discharge and fitted with a replaceable wear ring. An inlet cast vane improves the flow to impeller eyes. The back casing covers on larger sizes of pumps are also fitted with wear rings.

**BEARING HOUSING ASSEMBLY** There are only four shaft and bearing housing assemblies for the whole range of pumps, which gives high interchangeability of parts across the entire range.

**MECHANICAL SEALS** The standard pumps are fitted with mechanical seals. The casing back covers which are only for mechanical seals have open chambers allowing more water to flush mechanical seals. The packed gland pumps are supplied upon request.

### Applications

- Air Conditioning
- Heating and Ventilation
- Refrigeration
- Fire Protection
- Plumbing
- Circulating
- Transfer
- Irrigation
- Drainage
- Water Pressure Boosting
- Factory Plumbing
- Process Industry
- Petroleum Products
- General Industry
- Food and Drink Manufacture
- Water Treatment and Supply

### Material Specification

Material	Nearest Equivalent Standard			
	Australian	British	American	DIN
Cast Iron	AS 1830/T200	BSI 452:GR 220	ASTM A48 CLASS 30	DIN 1691 GG 20
Bronze	AS 1565/836B	BSI 400:LG2	ASTM BI 45 CDA836	DIN 1705
Stainless Steel	AS1444 GR 420	BS 970:420/S37	AISI420	DIN 17440

### Materials of Construction

Most of combinations of Cast Iron, Bronze and Stainless Steel are available for pump casing and back covers and impellers.

### PUMP SETS FOR HVAC APPLICATIONS

Smoothflo Pumps can supply the DinBare pumps as a bare shaft unit or complete with baseplate, coupling, motor or engine.

- Spacer coupling
- Spring mount
- Stainless steel drip tray
- Galvanized or painted base
- Inertia base

## Bare shaft pumps



### Back pull-out feature

The pump is of back pull-out design, and when a suitable spacer coupling is fitted to a direct coupled unit, the casing and motor can remain in position while all other pump parts can be removed for simple and quick maintenance.

### Operating Temperatures

With standard packed gland - minus 10°C to 105°C.  
 Maximum with cooled stuffing box -160°C.  
 With mechanical seal - maximum depends upon seal used.

### Operating Pressure

Maximum operating pressure 1600kPa.  
 Maximum test pressure up to 2100kPa.  
 Maximum pressure will vary depending on particular pump model - higher ratings available on application).

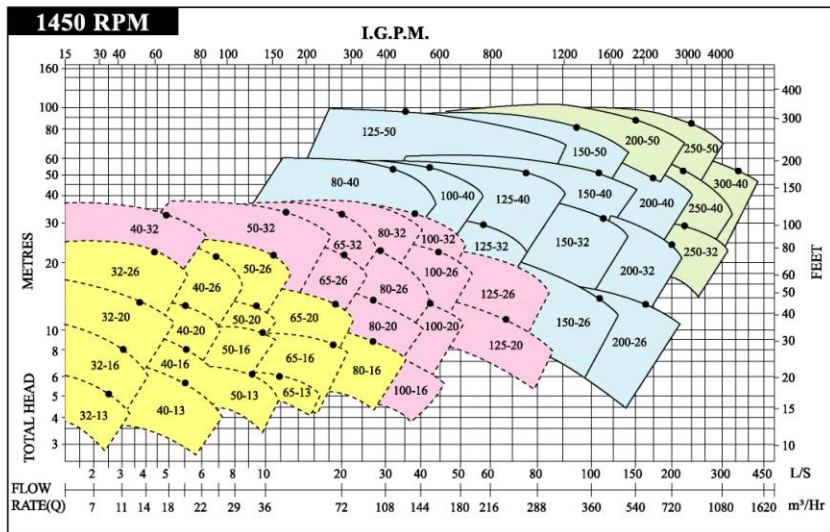
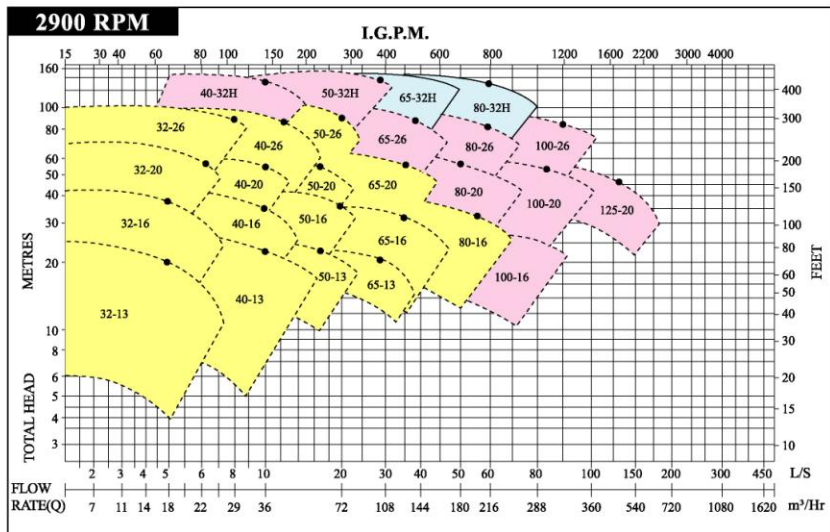
### Maximum Speed

Maximum directly coupled speed for DinBare pumps varies between 3600 RPM and 1800 RPM, depending upon pump size.

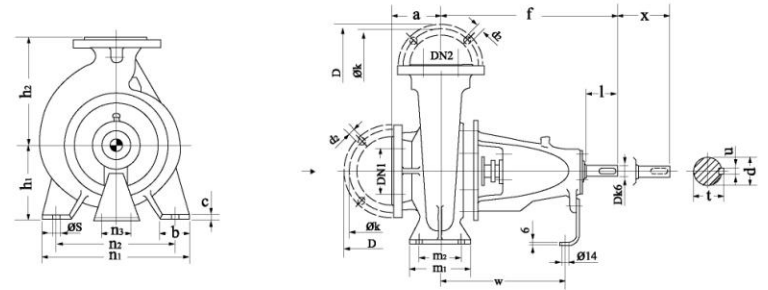
### Specifications

Maximum Flow: up to 300 L/s  
 Maximum Head: up to 150m  
 Maximum Working Pressure: 16 bar on most models  
 Direction of Rotation: Clockwise viewing from drive end





### Outline & Installing Dimensions



Pump Model	Bearing housing	DN <sub>1</sub>	DN <sub>2</sub>	a	f	h <sub>1</sub>	h <sub>2</sub>	b	c	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	n <sub>3</sub>	ØK	w	d	l	t	u	x
32/13	25	32	50	80	360	112	140	50	14	100	70	199	140	100	14	267	24	50	27	8	140
32/16	25	32	50	80	360	132	160	50	14	100	70	240	190	100	14	267	24	50	27	8	140
32/20	25	32	50	80	360	160	180	50	14	100	70	240	190	110	14	267	24	50	27	8	140
32/26	25	32	50	100	360	180	225	65	14	125	95	320	250	110	14	267	24	50	27	8	140
40/13	25	40	65	80	360	112	140	50	14	100	70	210	160	100	14	267	24	50	27	8	140
40/16	25	40	65	80	360	132	160	50	14	100	70	240	190	100	14	267	24	50	27	8	140
40/20	25	40	65	100	360	160	180	50	14	100	70	265	212	110	14	267	24	50	27	8	140
40/26	25	40	65	100	360	180	225	65	14	125	95	320	250	110	14	267	24	50	27	8	140
40/32	35	40	65	125	470	200	250	65	14	125	95	345	280	110	14	342	32	80	35	10	140
40/32H	35	40	65	125	470	200	250	65	14	125	95	345	280	110	14	342	32	80	35	10	140
40/32G	45	40	65	125	523	200	250	65	14	125	95	345	280	110	14	364	42	110	45	12	140
50/13	25	50	65	100	360	132	160	50	14	100	70	240	190	100	14	267	24	50	27	8	140
50/16	25	50	65	100	360	160	180	50	14	100	70	265	212	110	14	267	24	50	27	8	140
50/20	25	50	65	100	360	180	225	65	14	125	95	320	250	110	14	267	24	50	27	8	140
50/26	25	50	65	100	360	180	225	65	14	125	95	320	250	110	14	267	24	50	27	8	140
50/32	35	50	65	125	470	225	280	65	14	125	95	345	280	110	14	342	32	80	35	10	140
50/32H	35	50	65	125	470	225	280	65	14	125	95	345	280	110	14	342	32	80	35	10	140
50/32G	45	50	65	125	523	225	280	65	14	125	95	345	280	100	14	364	42	110	45	12	140
65/13	25	65	80	100	360	160	180	65	14	125	95	280	212	110	14	267	24	50	27	8	140
65/16	25	65	80	100	360	180	225	65	14	125	95	320	250	110	14	267	24	50	27	8	140
65/20	25	65	80	100	360	180	225	65	14	125	95	320	250	110	14	267	24	50	27	8	140
65/26	35	65	80	100	470	200	250	80	15	160	120	360	280	110	18	342	32	80	35	10	140
65/32	35	65	80	125	470	225	280	80	18	160	120	400	315	110	18	342	32	80	35	10	140
65/32H	35	65	80	125	470	225	280	80	18	160	120	400	315	110	18	342	32	80	35	10	140
65/32G	45	65	80	125	523	225	280	80	18	160	120	400	315	110	18	364	42	110	45	12	140
80/16	25	80	100	125	360	180	225	65	14	125	95	320	250	110	14	267	24	50	27	8	140
80/20	35	80	100	125	470	180	250	65	15	125	95	345	280	110	14	342	32	80	35	10	140
80/26	35	80	100	125	470	200	280	80	15	160	120	400	315	110	18	342	32	80	35	10	140
80/32	35	80	100	125	470	250	315	80	16	160	120	400	315	110	18	342	32	80	35	10	140
80/32H	35	80	100	125	470	250	315	80	16	160	120	400	315	110	18	342	32	80	35	10	140
80/32G	45	80	100	125	523	250	315	80	16	160	120	400	315	110	18	364	42	110	45	12	140
80/40	45	80	100	125	530	280	355	85	18	160	120	435	355	110	18	370	42	110	45	12	140
100/16	35	100	125	125	470	200	250	80	16	160	120	360	280	110	18	342	32	80	35	10	140
100/20	35	100	125	125	470	200	280	80	16	160	120	360	280	110	18	342	32	80	35	10	140
100/26	35	100	125	140	470	225	280	80	16	160	120	400	315	110	18	342	32	80	35	10	140
100/32	35	100	125	140	470	250	315	80	16	160	120	400	315	110	18	342	32	80	35	10	140
100/40	45	100	125	140	530	280	355	100	20	200	150	500	400	110	22	370	42	110	45	12	140
125/20	35	125	150	140	470	250	315	80	20	160	120	400	315	110	18	342	32	80	35	10	140
125/26	35	125	150	140	470	250	355	80	16	160	120	400	315	110	18	342	32	80	34	10	140
125/32	45	125	150	140	530	280	355	100	16	200	150	500	400	110	23	370	42	110	45	12	140
125/40	45	125	150	140	530	315	400	100	18	200	150	500	400	110	23	370	42	110	45	12	140
150/20	35	150	200	165	530	280	400	100	18	200	150	400	315	110	23	367	42	80	35	10	140
150/26	45	150	200	165	530	250	355	100	18	200	150	400	315	110	23	370	42	110	45	12	140
150/32	45	150	200	165	530	280	400	100	18	200	150	550	450	110	23	370	42	110	45	12	140
150/40	45	150	200	165	530	315	450	100	18	200	150	550	450	110	23	370	42	110	45	12	140
200/26	45	200	250	180	530	315	450	100	20	200	150	550	450	110	28	370	42	110	45	12	140
200/32	55	200	250	180	670	315	480	120	20	200	170	600	480	110	28	505	48	110	51	14	140
200/40	55	200	250	180	670	335	480	120	20	200	170	600	480	110	28	505	48	110	51	14	140
250/32	55	250	300	220	691	355	520	150	22	250	200	660	510	110	28	525	48	110	51	14	140
250/40	55	250	300	220	682	400	560	150	22	250	200	660	510	110	28	516	48	110	51	14	140

\*Pumps dimension may vary, please refer to manufacturer.

Flange mating dimensions to ISO2084 PN16 (DIN232 PN10RF)										
PN10										
DN <sub>2</sub> / DN <sub>1</sub>	32	40	50	65	80	100	125	150	200	250
ØD	140	150	165	185	200	220	250	285	340	405
ØK	100	110	125	145	160	120	210	240	295	350
d <sub>2</sub> = number	Ø18 × 4	Ø18 × 4	Ø18 × 4	Ø18 × 4	Ø18 × 8	Ø18 × 8	Ø18 × 8	Ø22 × 8	Ø22 × 8	Ø26 × 12