

**Regent pumps**  
AUSTRALIA

*founded 1948*

## Megaflow Series Horizontal (Vertical) Split Case Pump



**Commercial**

**Industrial**

**Pump Station**

**Marine**



*..... all about moving fluids*

## Megaflow Horizontal /Vertical Split Pump

Casing is axially split , thus allowing quick and easy maintenance as the top half of the casing can be removed allowing access to the rotating element without disturbing pipe work or removing electric motor.

- ❑ · Double suction design reduces radial hydraulic thrust.
- ❑· Renewable casing wear rings fitted as standard.
- ❑· Meets Fire Pump – NFPA 20 & Australian Fire Pump Standard AS2941 (NFPA20)
- ❑· Lloyd Registered Certification available
- ❑· Variety choice and selection on materials of construction to your specific need
- ❑· Shaft Sealing—Gland Packing or Mechanical Seal
- ❑· Cartridge Type Mechanical Seal, single or double with flushing option available
- ❑· IMI Vibration Sensors® (4-20mA/0-10V output) for “Alarm or shut down” mode as option
- ❑· Inpro/Seal ® bearing Isolator available on request

### General Applications

- ❖ Cooling Tower
- ❖ Pumping Station
- ❖ Fire fighting systems
- ❖ Irrigation
- ❖ Mine Dewatering
- ❖ Pipeline water transfer



Constructions Materials			
	Parts	Materials	DIN
	Casing	Cast Iron Ductile Iron SS316 SS316L SS Duplex	GG 25 GGG 40 1.4401 1.4404 1.4410
	Impeller	SS304 Bronze Ductile Iron SS316 SS316L SS Duplex	1.4301 G-CuSn10 GGG 40 1.4401 1.4404 1.4410
	Shaft	SS420 SS316 Alloy Steel	1.4021 1.4401 ANSI4140

## General and Construction

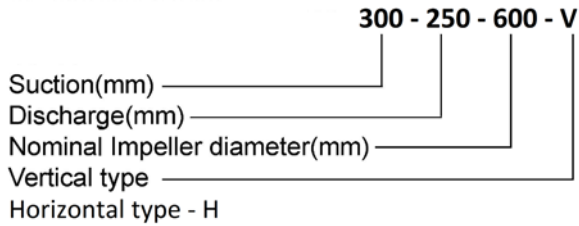
### 1. Applications

Waterworks, Irrigation, Drainage pumping stations, Power stations, Industrial water supply systems & fire fighting applications in refineries.

### 2. Operating data

Pump sizes	DN	80	to	900mm
Capacities	Q	up to		5000l/s
Total heads	H	up to		200m
Operating pressure	P	up to		30bar
Operating temperature	t	up to		+105°C

### 3. Model code



### 4. Pump Casing

The casing is axially split, which permits removal of the complete rotor without disturbing either piping or the motor.

Pumps generating high heads have double volutes to reduce radial forces, ensuring minimal shaft deflection and low bearing loads.

Replaceable wear rings protect the casing at the impeller running clearances. High head pumps are also fitted with replaceable impeller wear rings.

Flanges drilled to ISO, DIN, BS or ANSI.

### 6. Bearings

Both sides are grease lubricated deep groove ball bearings, sealed for life. Oil lubrication are also available as optional.

### 7. Shaft seal

Uncooled soft - packed stuffing box or uncooled single acting. Unbalanced mechanical seal. According to DIN 24960, independent of direction of rotation.

For operating pressure  $\geq 16$  bar balanced mechanical seal is used.

## Features

#### 1. Your technical advantage

##### Innovative casing

- in-line design
- short distance between bearings and correspondingly short shaft
- leak-tight due to compact joint flange with long, prestressed bolts
- counter-rotation possible with similar parts
- double volute version for appropriate total heads
- easy mounting-self-aligning upper casing

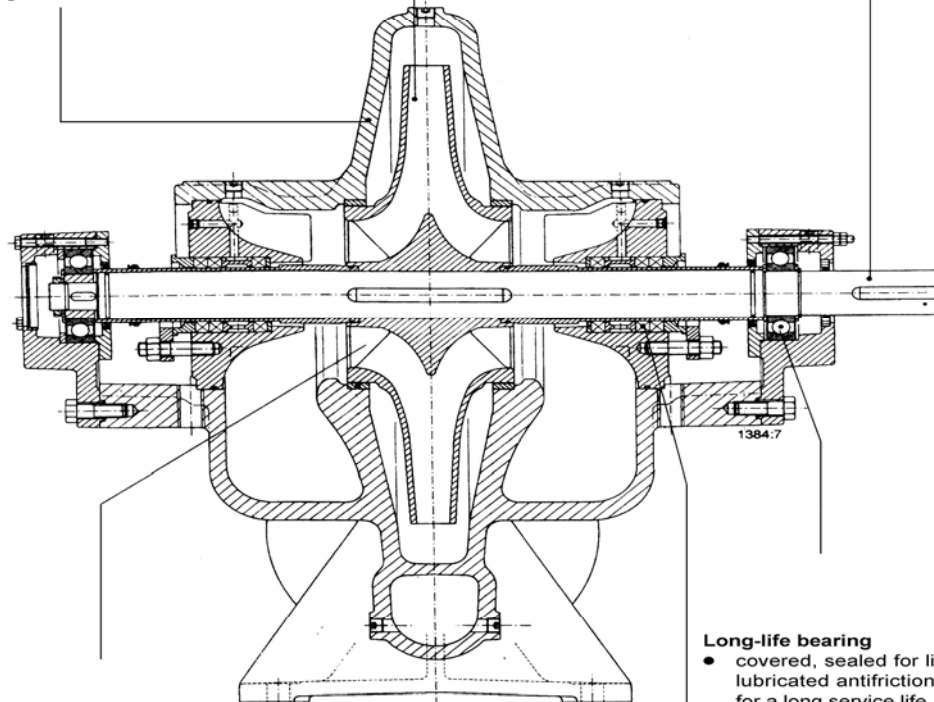
##### High-performance impeller

- minimal axial thrust due to double-entry impeller
- optional impeller wear rings
- new vane passage with excellent hydraulic characteristics

#### 2. Your service advantage

##### Service – friendly shaft

- completely sealed and dry for zero corrosion
- short and rigid with negligible vibrations
- replaceable shaft protecting sleeves
- no threads exposed to pumped medium, long operating life and no corrosion
- adjustment-free assembly
- quick and easy assembly/dismantling of the rotor components due to elastically prestressed mountings



##### Excellent efficiencies Outstanding NPSH

- computer-optimized double entry impellers
- smooth surfaces inside the casing and on the impeller
- smooth, quiet running also guaranteed by a large impeller eye area
- no drop in efficiency due to cost effective replaceable casing wear rings and impeller wear rings
- smooth, low loss running due to a swirl-free inlet

##### Long-life bearing

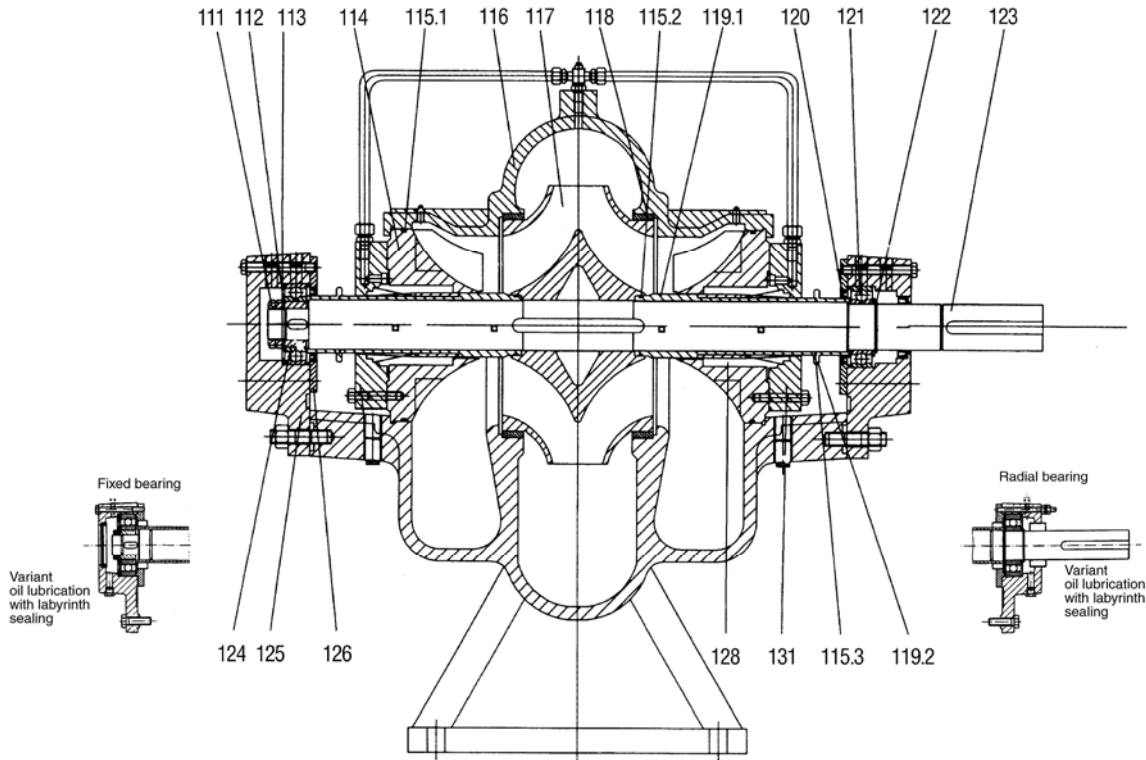
- covered, sealed for life grease lubricated antifriction bearings for a long service life
- open gland, i.e. enough space for service activities
- optional: oil lubrication with constant level oiler

##### Application-orientated seals

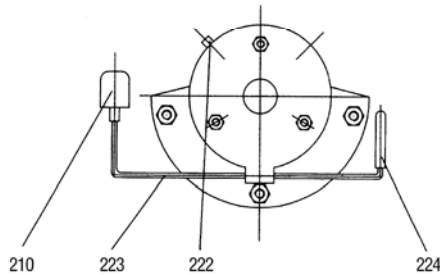
- asbestos-free, potable water quality soft-packed stuffing boxes
- optional: mechanical seals

## Cross- Section

### Double Suction Single Stage Split Casing Pump Horizontal



Oil supply fixed and radial bearing



**Part No. Description**

- 111 Nut
- 112 Spring
- 113 Washer
- 114 Shaft seal housing
- 115 O-Ring
- 116 Volute casing
- 117 Impeller
- 118 Casing wear ring

**Part No. Description**

- 119 Shaft protecting sleeve
- 120 Radial shaft seal ring
- 121 Deep groove ball bearing
- 122 Circlip
- 123 Pump shaft
- 124 Sleeve
- 125 Bearing housing
- 126 Bearing cover

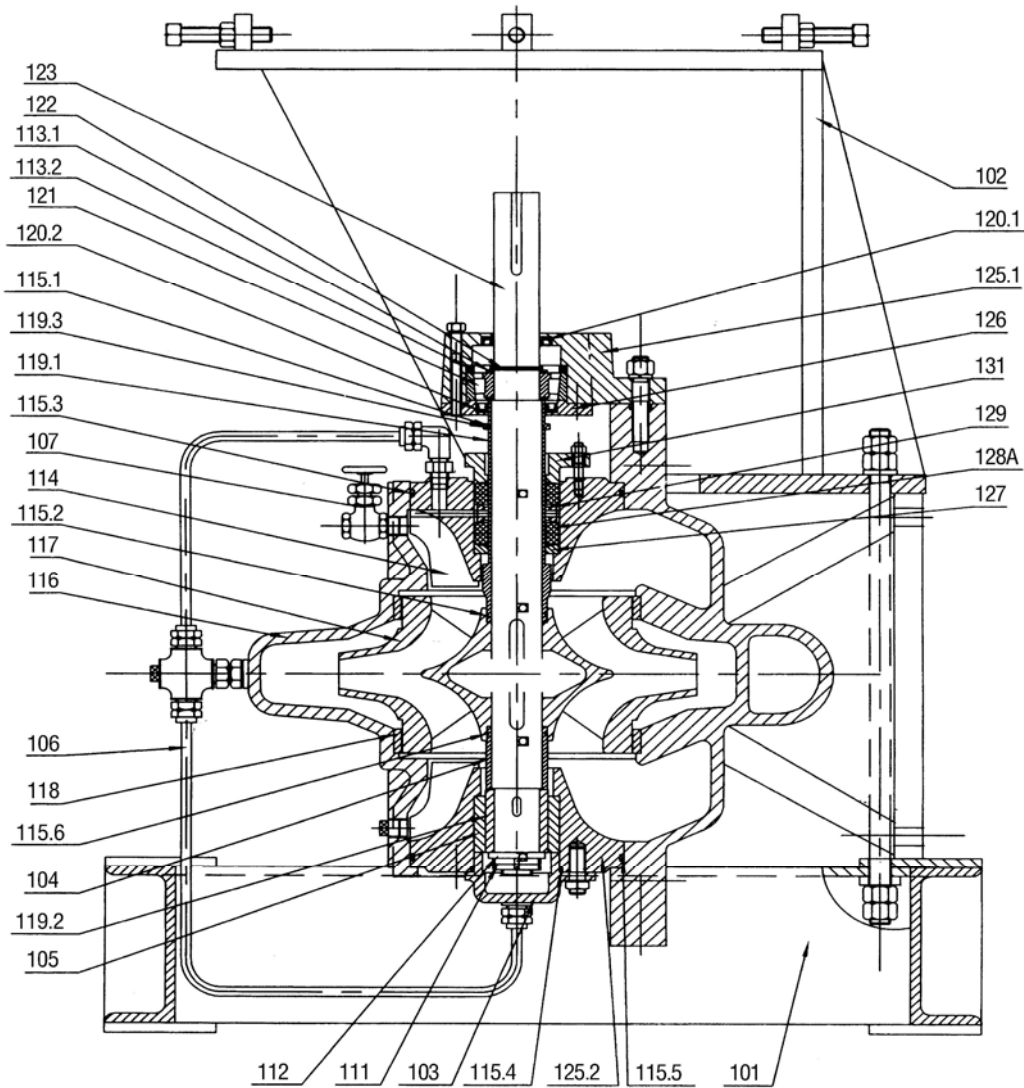
**Part No. Description**

- 128 Seal
- 131 Cover



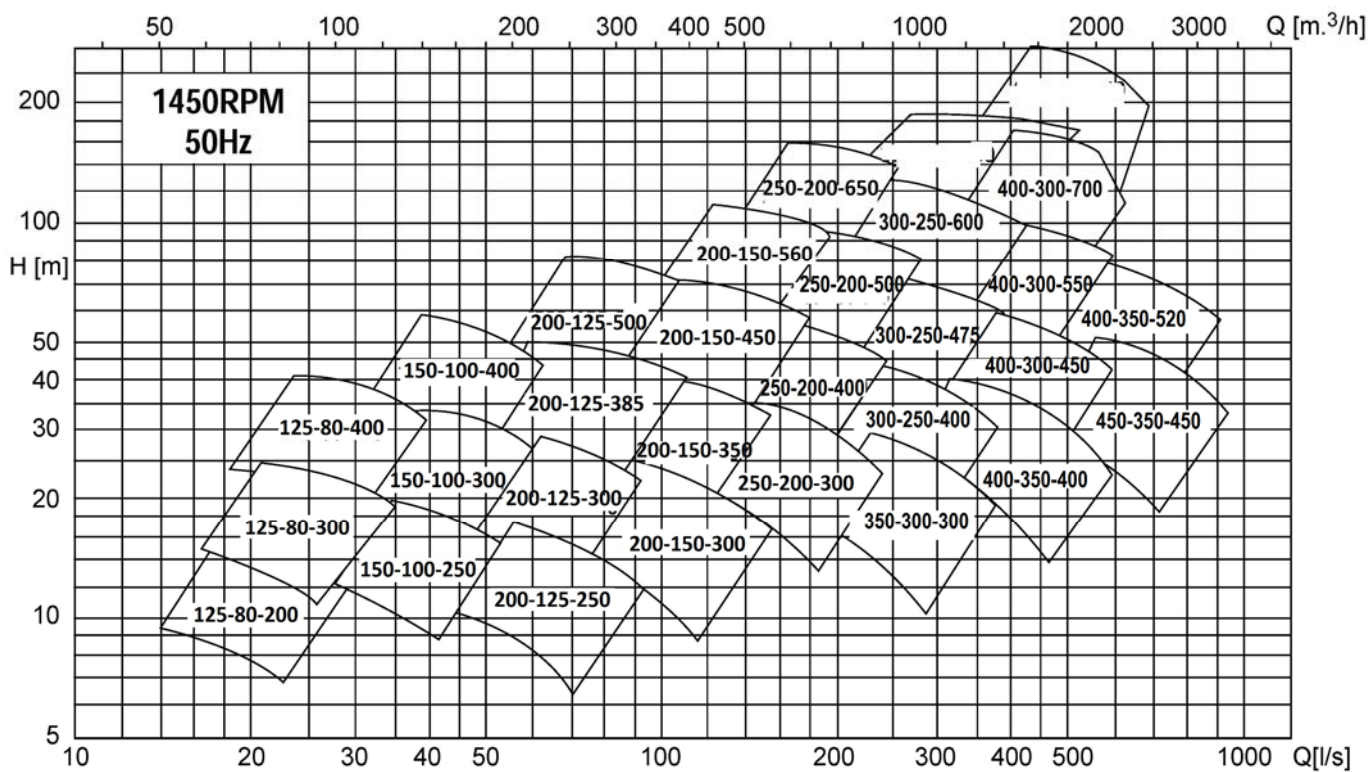
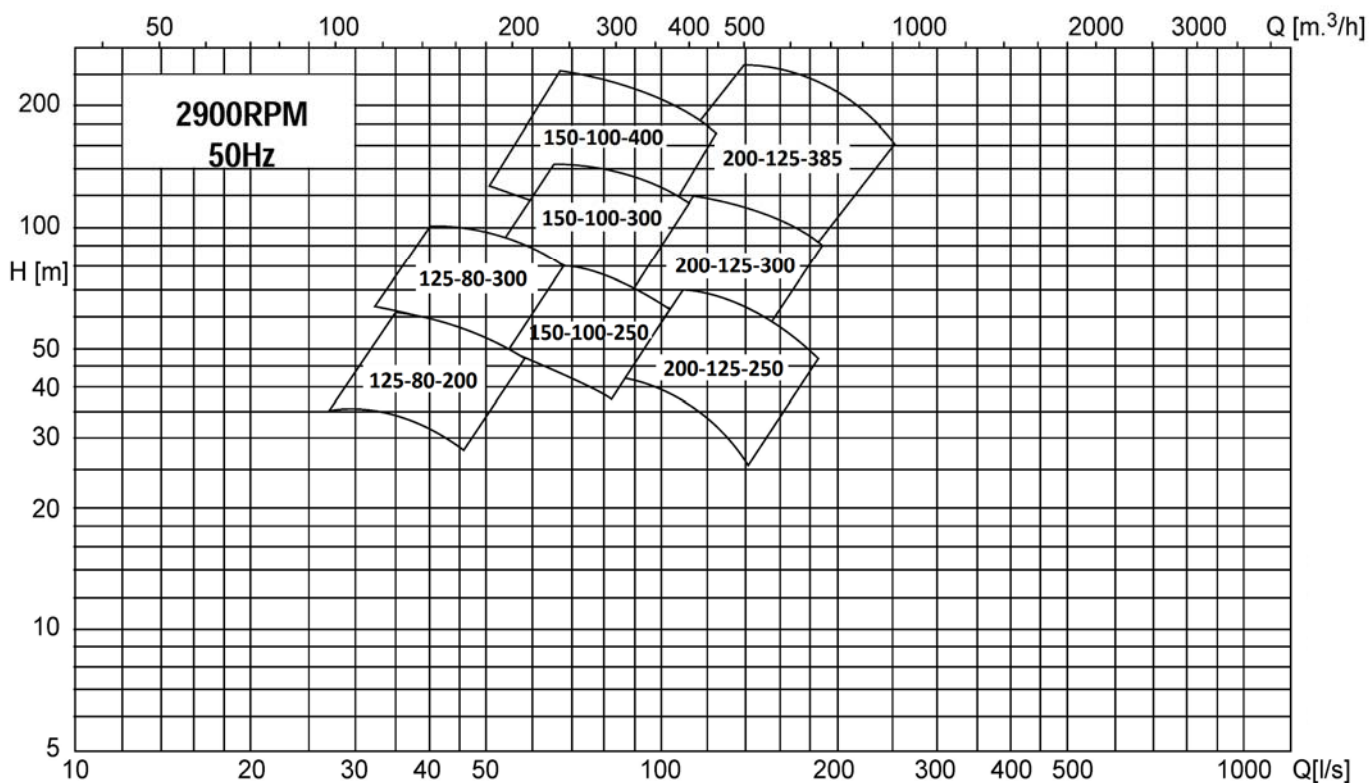
## Cross- Section

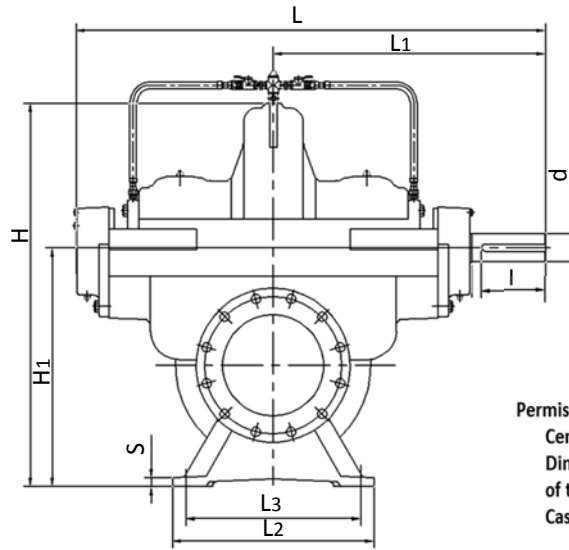
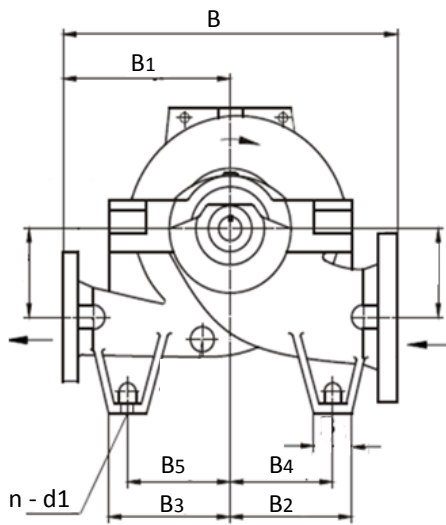
### Double Suction Single Stage Split Casing Pump Vertical



Part No.	Description	Part No.	Description	Part No.	Description
116	Volute casing	112	Spring	118	Casing wear ring
103	Cover	115	O-Ring	119	Shaft protecting sleeve
101	Foot	120	Radial shaft seal ring	104	Spacer sleeve
123	Pump shaft	114	Shaft seal housing	105	Bearing bush
117	Impeller	107	Valve	113	Washer
121	Bearing	128A	Gland packing	106	Flexible tube
102	Motor stool	131	Stuffing box insert	111	Nut
125	Bearing housing	127	Neck ring	122	Circlip
126	Bearing cover	129	Lantern ring		

## Curve Selection





Keyway and key to  
DIN 6885 sheet 1  
Shaft diameter.  
Tolerance h6 to DIN7155

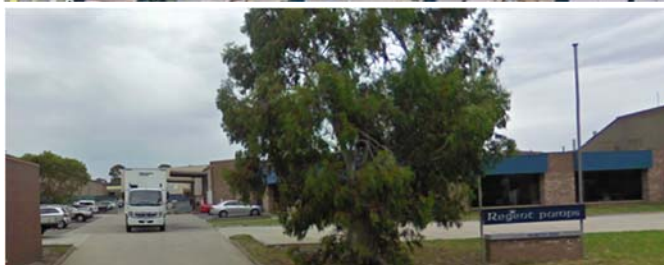
Permissible deviations for :  
Centre line heights DIN 747  
Dimensions without indication  
of tolerances DIN 7168, MEDIUM  
Cast iron parts DIN 1686 GTB 18

Pump	Range		Pump Dimensions																	Shaft		Wt-Kgs		
	SIZE	Inlet	Outlet	L	L1	B	B1	H	H1	H2	H3	L2	L3	B2	B3	B4	B5	B6	S	n-d1	l	d	Pump	
125-80-200							300	483															185	
125-80-300	125	80	715	415	600	300	505	315	140	140	320	270	205	205	170	170	70	25	4xφ19	80	35	195		
125-80-350					660	330	540															205		
150-100-250					660	330	550															210		
150-100-300	150	100	715	415	660	330	580	355	170	170	320	270	235	235	200	200	70	25	4xφ19	80	35	225		
150-100-400					740	370	615															245		
200-125-300					740	370	630															275		
200-125-385	200	125	881	515	740	370	660	400	200	200	390	340	260	260	225	225	70	25	4xφ23	100	45	300		
200-125-480					900	450	705							315	315	280	280					335		
200-150-300					800	400	645						390	340	260	260	225	225	70	25	4xφ23	100	45	350
200-150-350	200	150	881	515	800	400	665	400	200	200	390	340	260	260	225	225	70	25	4xφ23	100	45	360		
200-150-450					900	450	705						480	430	315	315	280	280			125	55	440	
200-150-560					1100	500	870	500	300	300	480	430	385	385	350	350			4xφ27	125	55	650		
250-200-350					900	450	785	500	240	240					315	315	280	280	70	25	4xφ23	125	55	450
250-200-400	250	200	989	590	1000	500	810				480	430			385	385						520		
250-200-550					1100	500	930	560	300	300					385	385	350	350			140	65	840	
250-200-650					1200	550	1030	600	350	350			400	400	400	400		100	32	4xφ27	140	65	990	
300-250-400					1100	500	920	600	300	300	480	400								4xφ27	140	65	665	
300-250-475	300	250	1119	655	1100	550	955	600						400	400	350	350	100	32	4xφ34	160	75	830	
300-250-600					1200	550	1045	630	350	350	600	520								4xφ34	160	75	1215	
350-250-550*	350	250	1170	680	1250	600	1070	620	275	355	580	500	340	340	300	300	100	32	4xφ32	140	75	880		
350-300-350	350	300	1119	655	1050	500	990	630	300	300	480	400	400	400	350	350	100	32	4xφ32	140	65	630		
400-300-450					1200	550	1035	670	350	350					400	400	350	350			160	75	905	
400-300-550	400	300	1245	730	1350	650	1140	710			600	520			525	525	475	475	100	32	4xφ34	180	85	1425
400-300-700					1400	650	1230	750	400	400					525	525	475	475					1690	
400-350-400					1200	550	1080	670	350	350					400	400	350	350			160	75	865	
400-350-450	400				1400		1215																1285	
400-350-520		350	1395	810	1350	650	1170	750	400	400	600	520			525	525	475	475	100	32	4xφ34	180	85	1395
450-350-450	450				1400		1215																2440	

## A Generation of Quality Pump Manufacturing

For over 60 years, Regent Pumps has been at the forefront of pump manufacturing in Australia. Over this period, Regent has achieved steady growth and today has become a leading supplier of quality pumps to commercial, industrial and domestic applications, both in Australia and globally. Regent operates a modern manufacturing plant in Melbourne and markets its range of products through an international network of specialist distributors. Manufacture a range of truck and trailer mounted high pressure sewer, drain cleaning machines and mine water dewatering package. The corner stone of Regent's success has been the focus on developing innovative, quality pumping solutions that will stand the test of time at a competitive price.

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