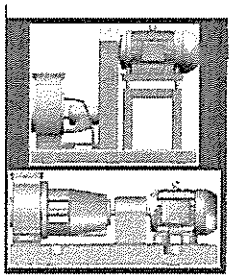
Total Pump Solutions Australia Pty Ltd



Pacifichem, Pacifichem Corro & Corro Pumps
- Overview
- Construction
- Materials

Pump Design

Horizontal Pumps

Vertical VS pump

Configurations
- Closed Coupled
- Long Coupled
- Belt Driven
- Chemical Road Tanker
- Vertical Spindle

Mechanical Seals

Where Used

Pacifichem and Corro CRP Pumps offer the best solution to increase pump service life and reduce spare component and pump maintenance costs.

Overview:

- **Pacifichem and Corro CRP** non-metallic chemical process pumps are high quality robust pumps manufactured in synthetic thermosetting corrosion and wear resistant resin materials
- Materials of construction offer excellent performance & service life on corrosive chemical & solvent applications, including chemical based slurries that are of a corrosive & erosive nature
- Cost effective alternative to exotic metal chemical pumps (Alloy 20, Hastalloy, Titanium etc)
- Ideal replacement for rubber lined slurry type pumps on corrosive/erosive applications.
- Single material concept and simple robust design offers improved performance and service life compared to most lined or unlined pumps manufactured in Engineered Plastics such as CPVC, PVC, PE, PVDF, ECTFE, FEP, PTFE & PFA and also internally epoxy or ceramic coated pumps
- Flow rates up to 1,200m□/hour & heads up to 100 metres.
- Pumps manufactured from smallest size CRP 25-25-160 (1 x 1 x 6) up to largest pump size of CRP 300-250-400 (12 x 10 x 16)

Construction(top)

- Complete pump is manufactured in solid synthetic thermosetting resin materials apart from the shaft
- Shaft has "cast on" sleeve manufactured in the same synthetic thermosetting resin material
- Supplied standard with synthetic thermosetting resin material base, including drip tray, ensuring complete pump set is not affected by the corrosive applications & corrosive environment.

Materials of Construction:(top)

- Three standard materials of construction supplied offering different corrosion resistance, temperature & abrasive resistant capabilities.
- Material suitable for most liquids ranging from sea water and chlorinated water to the most corrosive and erosive chemicals and solvents

The material has advantages over other non-metallic pump materials and metal pumps by offering the following:

- Broadest range of chemical resistance for full operational coverage
- Suitable for process temperatures from -20□C to +140□C
- Excellent strength and stability
- Low vibration and noise due to inherit attenuating properties of material
- Non sparking and non-galling
- Non-magnetic
- Does not support bacteria growth
- Can be steam sterilised if a process requirement
- No expensive paint specifications and ongoing maintenance
- Low initial cost compared to exotic metal alloys & advanced thermoplastics
- Realistically priced spare components

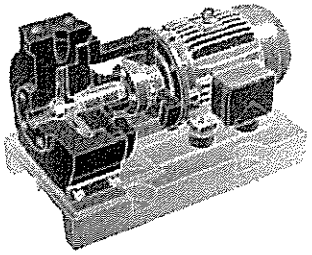
Pump Design:(top)

- Designed to European DIN 24256 chemical pump specifications
- Standard open impeller featuring expeller vanes to reduce stuffing box pressure and solid ingress into seal housing, thereby improving life of the mechanical seal
- Impeller is bolt-on design and will not damage pump if run in the wrong direction
- Vortex designed impeller now available on certain size pumps for improved handling of solids in suspension
- Seal chamber dimensions accept mechanical seals to DIN 24960 specifications
- Standard synthetic thermosetting resin base with built in drip tray ensures complete pump set is not effected by the corrosive pumped liquid and corrosive atmosphere
- Synthetic thermosetting resin base exceeds stiffness of comparable steel base, whilst offering corrosion resistance

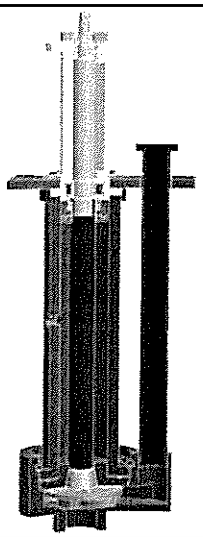
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Horizontal Pumps:(top)

Seal chamber accepts seals designed to DIN 24960	
Resin labyrinth installed	

in resin motor adaptor provides superior bearing and motor protection				
All fasteners and non-motor accessories in stainless for durability and serviceability				
All wetted parts are manufactured from synthetic thermosetting resin material, ensuring corrosion resistance				
Resin motor adaptor and base plate protect pump set from corrosive liquids & corrosive environment				
Split collar shaft mounting guarantees accurate and secure assembly	"Cast-on" resin shaft-sleeve for maximum corrosion performance of seal-set	Open impeller with back expeller vanes	Back pullout volute design assists with ease of servicing	Key pump dimensions to DIN 24256 and flange details to BS 4504

Vertical VS Pump:(top)

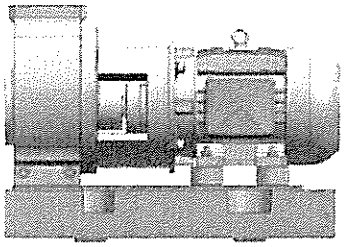
Heavy Duty bearing sets consisting (upper) double row angular contact and (lower) roller ensure good operating life			
All product wetted pump surfaces manufactured from thermosetting synthetic resins - grade selected to suit pumped product			
Pump supplied complete with mounting plate and discharge pipe in synthetic thermosetting materials			
Double vapour seal and resin flinger provide superior protection for lower bearing			
Selection of column lengths available gives flexibility of application in even the most challenging duties	Ceramic shaft support bushing available. External clean-product flushing to bush can be provided for use in difficult duties	Open faced impeller configuration improves resistance to blockage	

Configurations Available

CLOSED COUPLED PUMP(top)

The preferred and most popular design is the close coupled pump due to the advantage it offers related to reliability and ease of maintenance. Benefits using this design include:

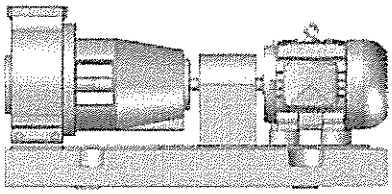
- Electric motors up to 90kW
- Back pullout design
- Less maintenance
- Easier installation
- No coupling alignment issues, the biggest reason for premature bearing & mechanical seal failure
- Reduced space requirement



LONG COUPLED PUMP(top)

Many industries still prefer long coupled pump sets. Pacifichem Corro CRP pumps offer the added advantage of using a synthetic thermosetting bearing pedestal and base ensuring the same corrosion resistance as the wet end of the pump. Design features include:

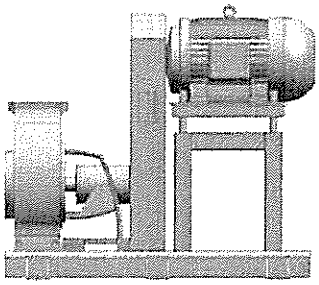
- Use same wet end components as the close coupled pump
- Heavy duty pump and bearing design
- Bearing pedestal & base manufactured in synthetic thermosetting resin materials
- Back pullout when used with spacer type coupling



BELT DRIVEN PUMP(top)

Still popular in many industries, especially the mining industry. Allows easy change of duty if necessary by changing pulleys and belts. Advantage is also to be derived from the safety from flooding that an over-mounted belt drive can provide. Design features include:

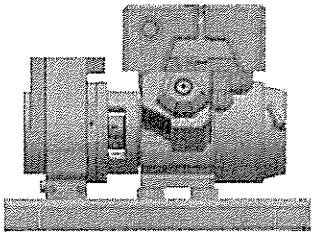
- All wetted components are same as close coupled pump ensuring corrosion resistance
- Heavy duty bearing pedestal design (metal bearing pedestal) allows safe belt drive



CHEMICAL ROAD TANKER PUMP(top)

The road tanker pump provides the chemical transport industry with a pump package that will handle most chemicals. Driven by either a petrol engine or hydraulic motor and PTO package, this pump represents the most cost effective and reliable solution to an extremely difficult duty. Design features include:

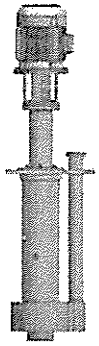
- All wetted components are same as close coupled pump ensuring corrosion resistance



VERTICAL SPINDLE PUMP(top)

The sealess cantilever vertical spindle pump has a specialised role in chemical pumping. As the pump operates with its volute and impeller immersed directly in the process tank or sump, it is often the most convenient method of achieving NPSHR in challenging applications. The pump can also be side mounted on tanks when top access is not possible. The VS pump is manufactured with all wetted components in synthetic thermosetting resin materials. Design features include:

- All wetted components are manufactured in synthetic thermosetting resin materials ensuring corrosion resistance
- Pump can run dry due to sealess design and non-galling materials of construction
- Can be mounted in liquid or externally for dry mounting
- Column lengths up to 2.5m
- Tail pipe supplied if longer lengths required
- Suction strainer available

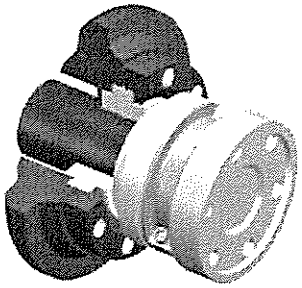


MECHANICAL SEALS (top)

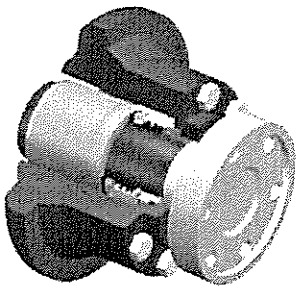
The shaft seal of chemical pumps is often the weak link that limits acceptable pump service life. In recognising this and in understanding those factors that can affect seal performance, we have provided a seal chamber design that is both functionally correct and versatile. Dimensioned to suit seals with installation dimensions to DIN 24960 and the intelligent use of the resin material of construction allow full advantage to be gained from an array of common seal configurations. The seals fitted as standard are supplied by internationally respected mechanical seal manufacturers.

STANDARD SEALING CONFIGURATIONS(top)

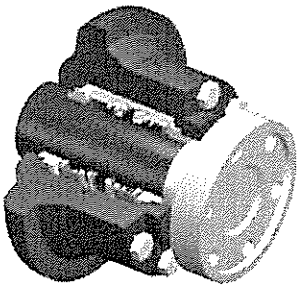
Single Externally Mounted Corrosion Resistant Seal



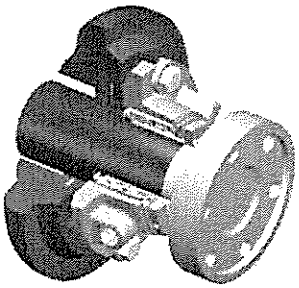
Single Internally Mounted Seal



Back-to-back Double Seal



Cartridge Mounted Seal

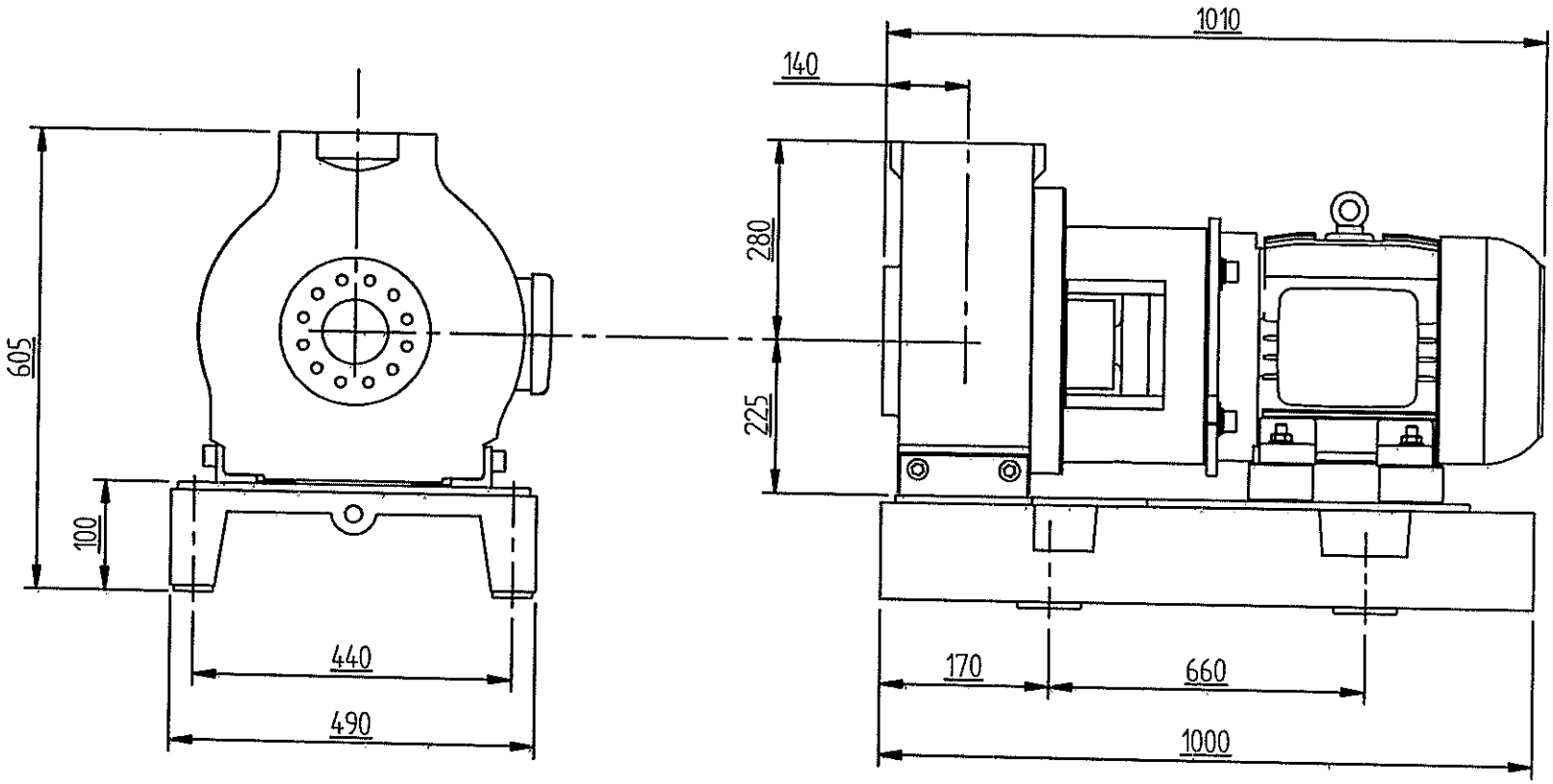


Where Used:(top)

Pacifichem, Corro & Pacifichem Corro CRP Pumps Where Used Listing:

- Chemical Process Plants
- Fertiliser Plants
- Oil Refineries and Petrochemical Plants
- Aquaculture (including aquariums, zoos, leisure centres)
- Scrubber Systems and Odour Control Systems
- Water and Waste Water Plants
- Desalination Plants
- Mining and Precious Metal Refining
- Steel Mills
- Power Generation Plants
- Pulp and Paper Mills
- Electronics Industry
- Galvanising and Metal Finishing Plants
- Food and Beverage Plants
- Pharmaceutical Plants
- Textile Industry
- Leather Tanning Industry

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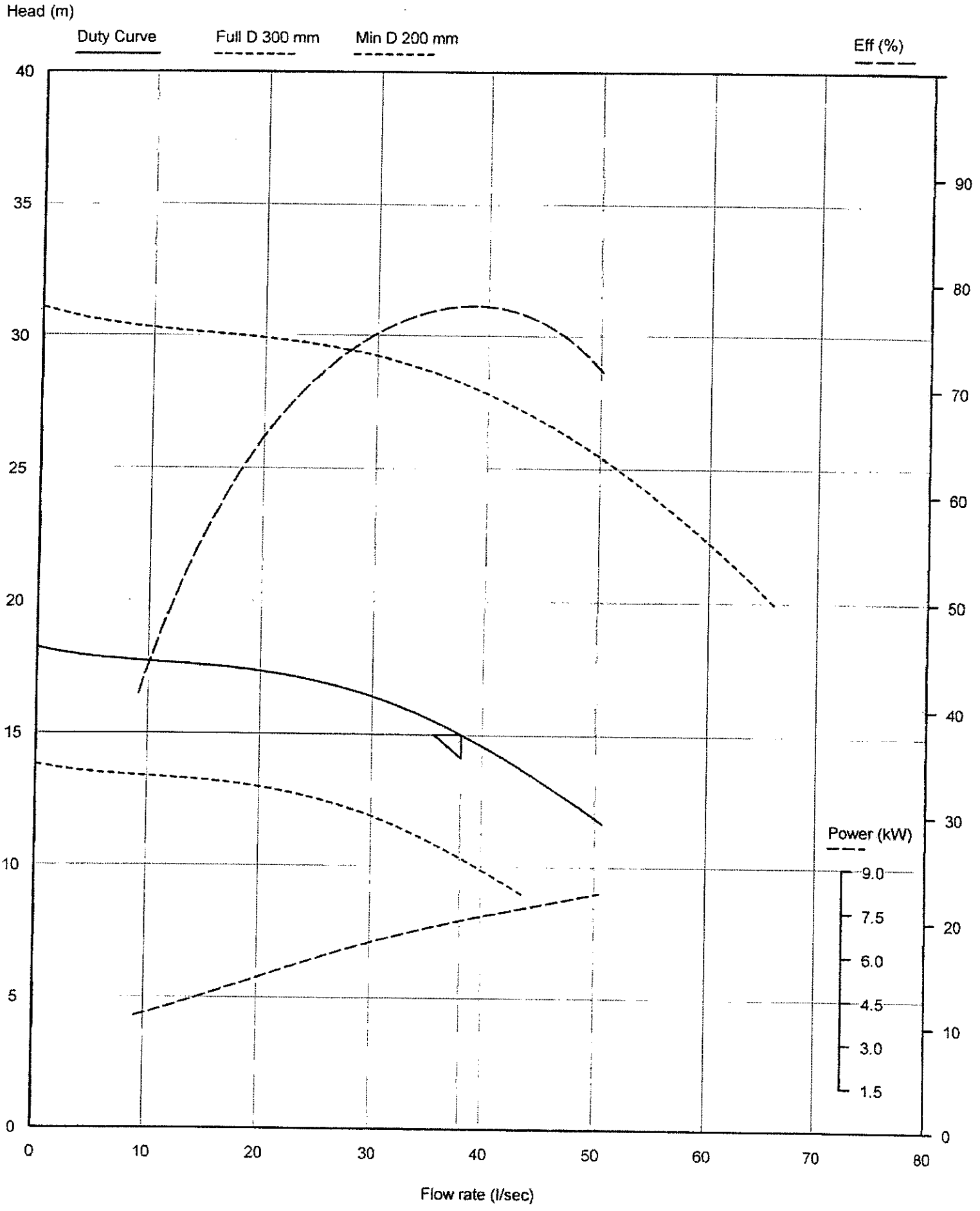
MODEL	CRP125 x 100 - 250CCH			
SUCTION	125mm	DIN2533 PN16	POWER	11kW
DISCH.	100mm	DIN2533 PN16	RPM	1460
WEIGHT	250kg		BASE	CRP #5

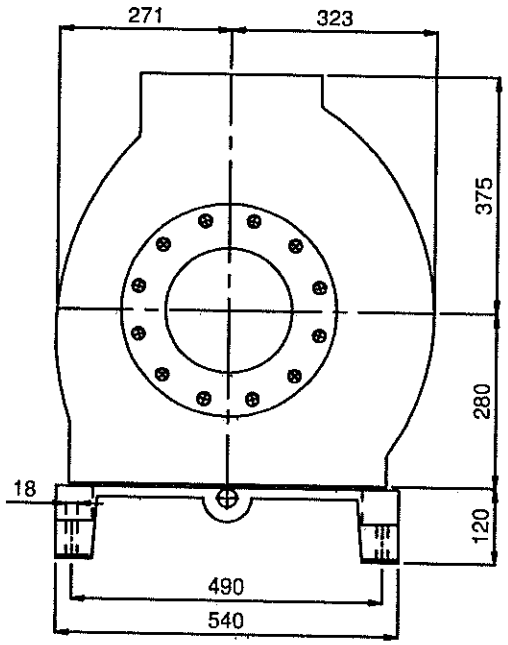
PACIFICHEM PUMPS

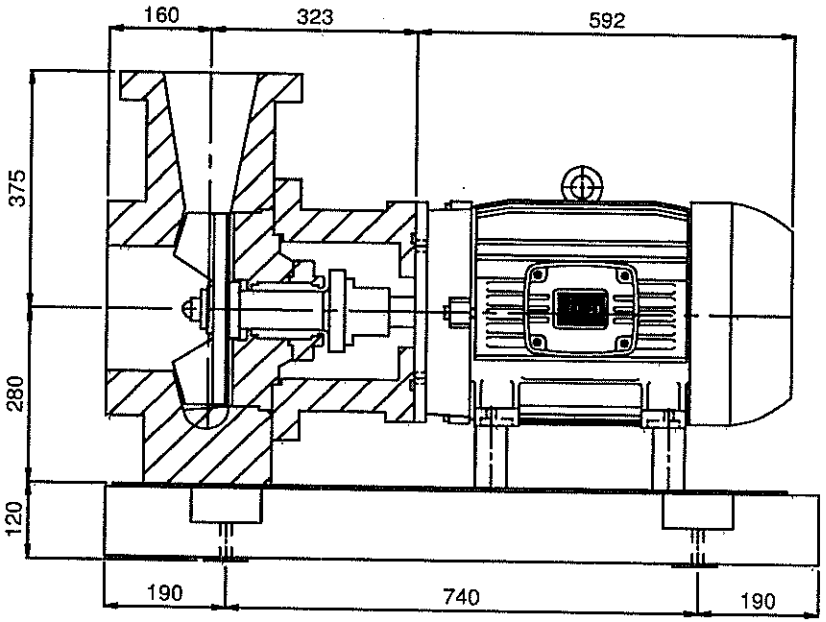
TOTAL PUMP SOLUTIONS AUSTRALIA PTY LTD

PO BOX 438 ALTONA, VICTORIA 3018, AUSTRALIA
TEL. +61 3 9395 4186 FAX. +61 3 93954186

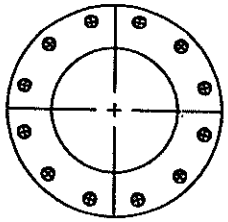
CORRO PUMP	CRP	125-100-250	
Ref: DARWIN WAVE POOL	DUTY POINT Flow 38 l/sec Head 15 m SG 1	Power Abs 7.178 kW Motor Size 11 kW Efficiency 77.85 % Pump Speed 1481 RPM Imp Diameter 229.7 mm	Stages 1 NPSHr 0 m Qbep 98 % Motor service Factor 1.53



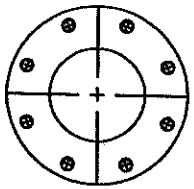




200mm
SUCTION
BS4504
TABLE 16



150mm
DELIVERY
BS4504
TABLE 16



PACIFICHEM PUMPS

TOTAL PUMP SOLUTIONS AUSTRALIA PTY LTD

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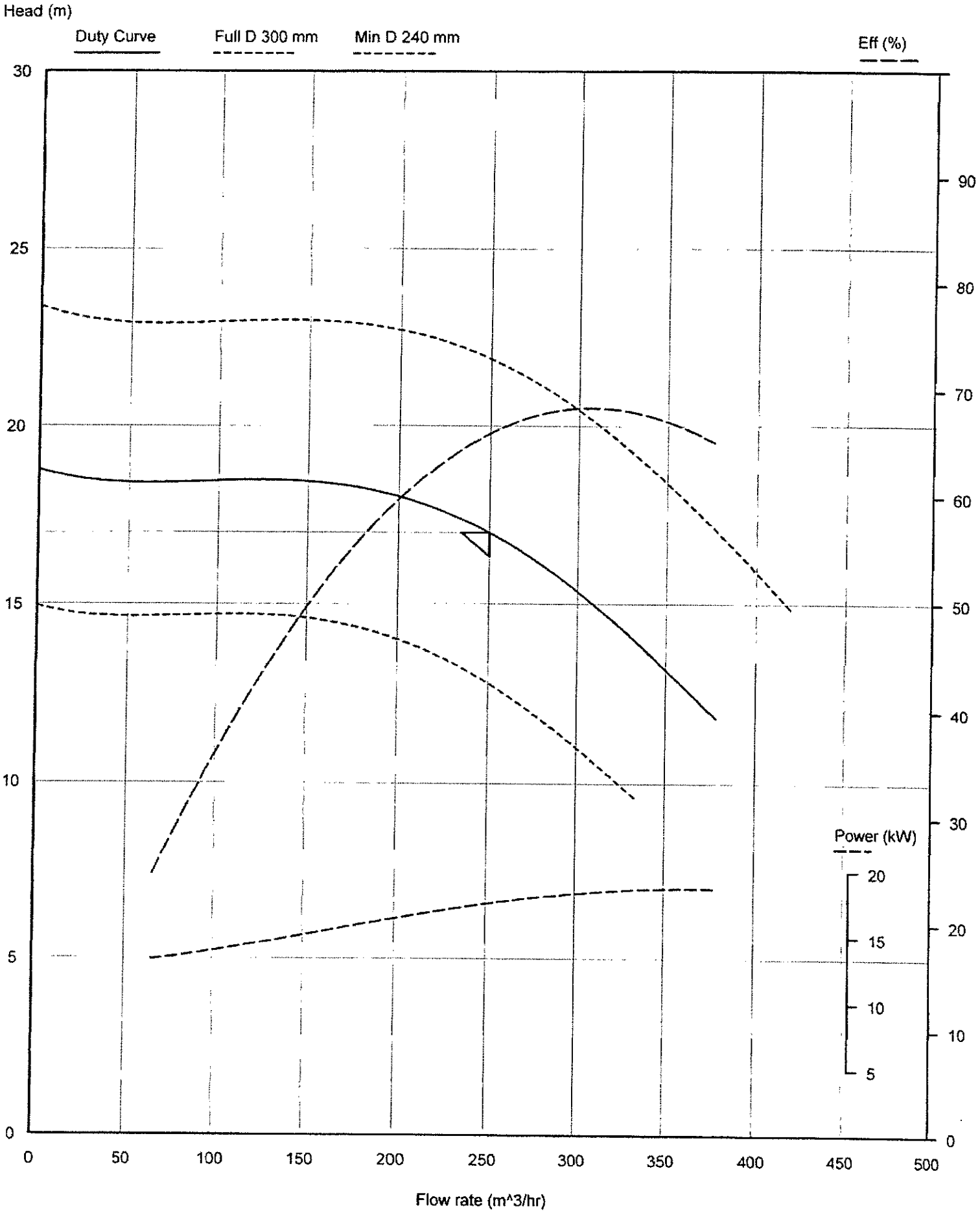
200-150-250 PUMP WITH 22 kW 4 POLE
MOTOR AND ADAPTOR ON SIZE 6 CORRO BASE

01 of 01

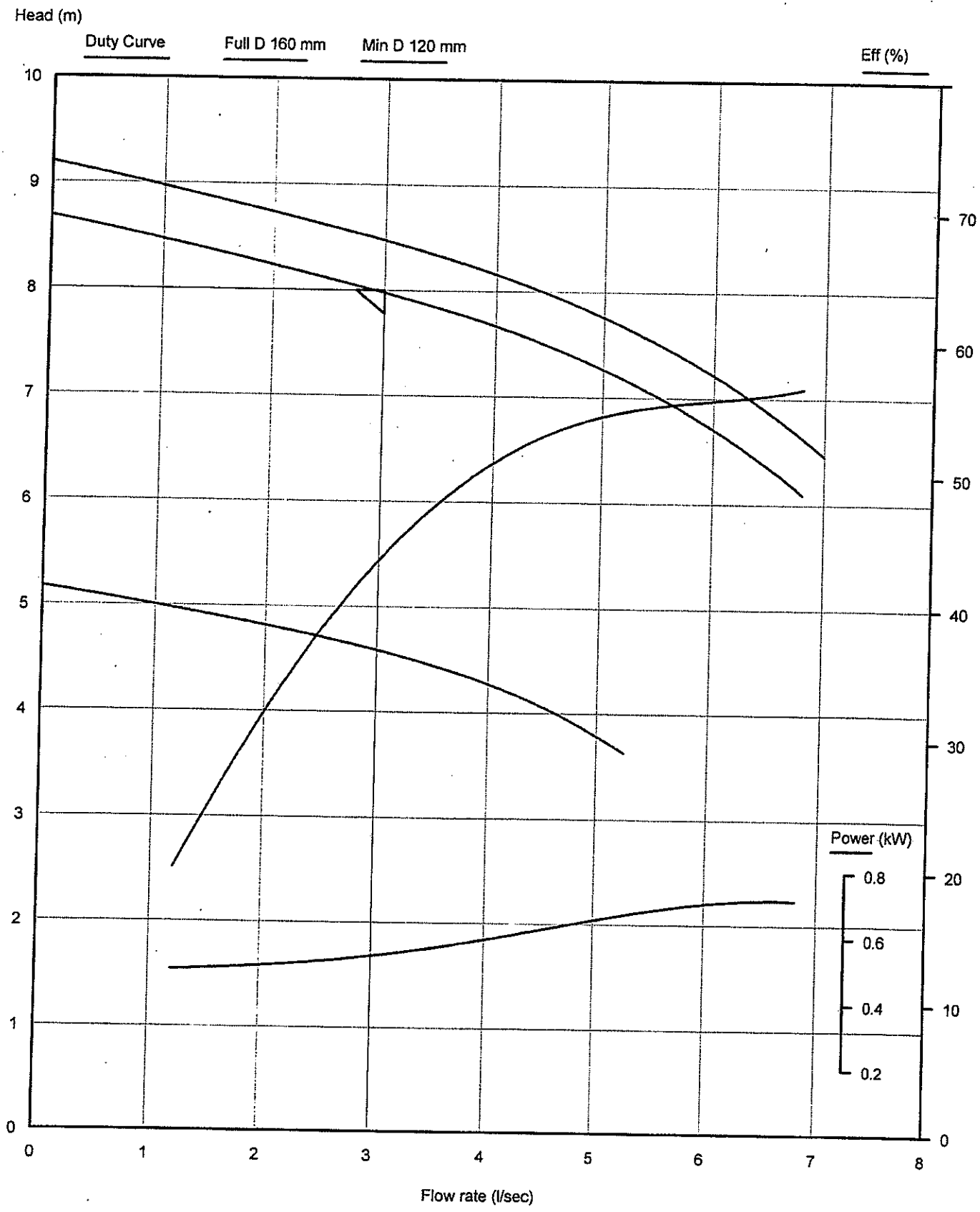
FILENAME 200-150-250 22kW 4 POLE BASE 6 SHT

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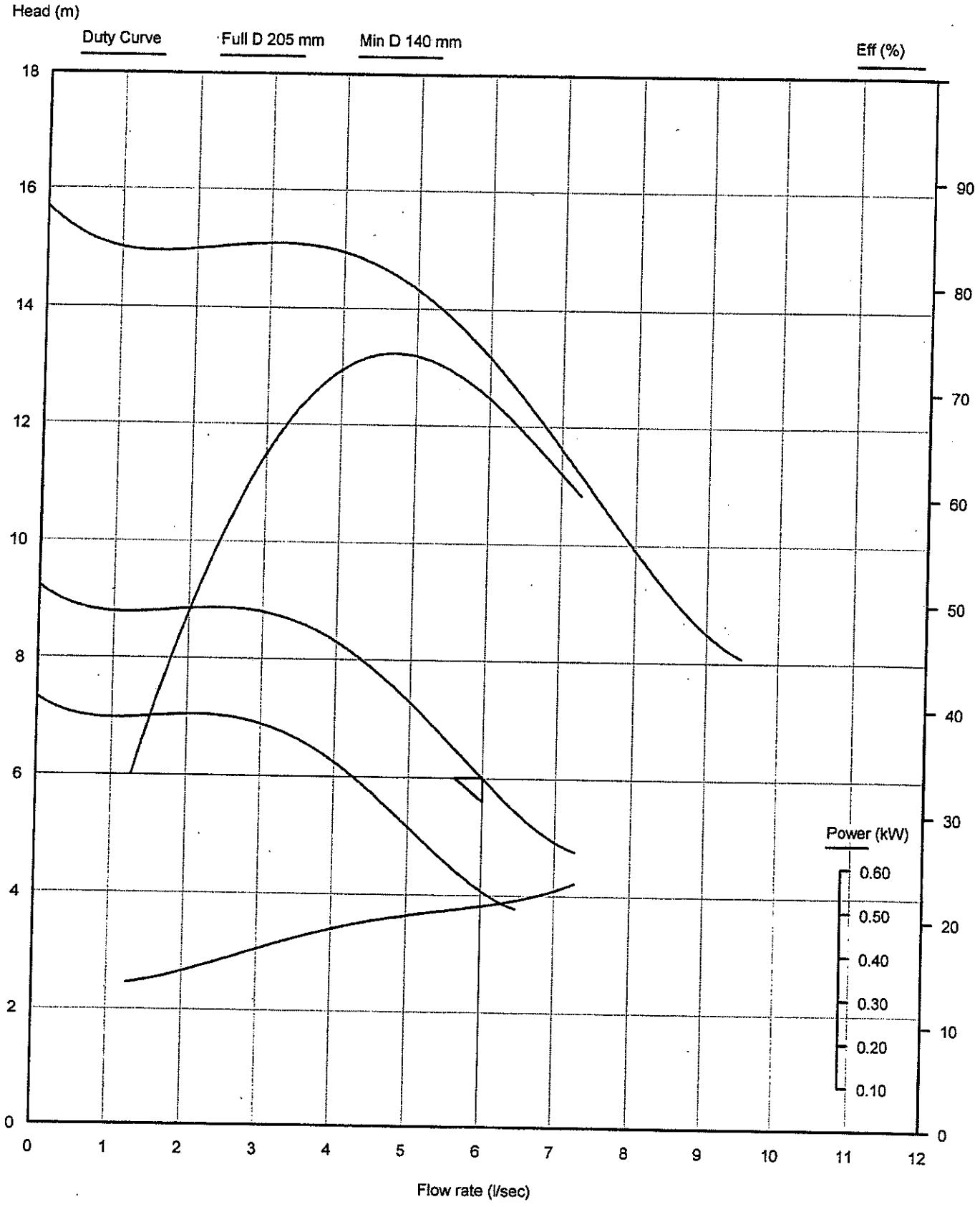
CORRO PUMP	CRP				200-150-250	
Ref: DARWIN WAVE POOL	DUTY POINT		Power Abs	17.54 kW	Stages	1
	Flow	250 m^3/hr	Motor Size	22 kW	NPSHr	0 m
	Head	17 m	Efficiency	65.99 %	Qbep	82 %
	SG	1	Pump Speed	1481 RPM	Motor service Factor	1.25
			Imp Diameter	269.0 mm		



		CRP				**50-32-160**	
		DUTY POINT		Power Abs	0.541 kW	Stages	1
		Flow	3 l/sec	Motor Size	0.75 kW	NPSHr	0 m
		Head	8 m	Efficiency	43.49 %	Qbep	44 %
		SG	1	Pump Speed	1482 RPM	Motor service	
				Imp Diameter	155.5 mm	Factor	1.39
Ref	DC - WASTE PUMP						



	CRP			**50-32-200**	
	DUTY POINT		**Power Abs**	**0.509 kW**	**Stages** 1
	Flow	**6 l/sec**	**Motor Size**	**0.75 kW**	**NPSHr** 0 m
	Head	**6 m**	**Efficiency**	**69.32 %**	**Qbep** 127 %
	SG	1	**Pump Speed**	**1471 RPM**	**Motor service**
Ref	**DC - SC BOOSTER PUMP**		**Imp Diameter**	**157.1 mm**	**Factor** 1.47



	CRP		50-32-160		
	DUTY POINT				
	Flow	4 l/sec	Power Abs	0.444 kW	Stages 1
	Head	6 m	Motor Size	0.55 kW	NPSHr 0 m
	SG	1	Efficiency	53.03 %	Qbep 66 %
			Pump Speed	1482 RPM	Motor service
Ref	DC - SC BOOSTER PUMP		Imp Diameter	139.1 mm	Factor 1.24

