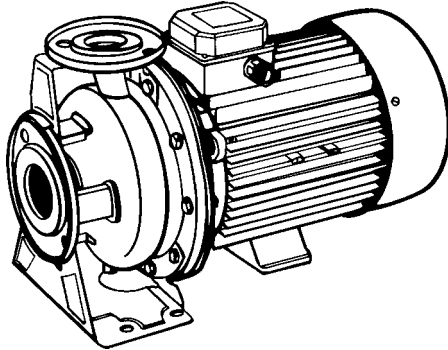


ongga[®]

pumps

Centrifugal Pumps Stainless Steel OCS Series



Owner's Manual

Should the installer or owner be unfamiliar with the correct installation or operation of this type of equipment you should contact the distributor/manufacturer for the correct advice before proceeding with the installation or operation of the product.

Relax - you've bought an onga ...

Congratulations on your decision to purchase an onga product. onga is one of the best known companies in its field, with a proud local and international reputation.

In fact, wherever people need to move water from one point to another - whether in industry, horticulture, agriculture or in and around the home - onga is a byword for reliability, value for money and technological innovation. So why does onga lead its field? Here are a few simple reasons ...

1. Continual Product Improvement

onga employ the best engineers both in Australia and around the world to develop new and better ways to pump and handle water.

2. Dedication to Quality

There is only one standard that we at onga set ourselves for both product quality and the quality of our service. That standard is excellence ... to have no-one better than us at what we do ... nothing short of that is acceptable.

3. A Fair Price

onga pumps are neither the cheapest nor the most expensive in their field. Our products do, on the other hand, always represent very good value for money - they always have and they always will.

4. Our Team of Dealers

We believe onga's hand picked authorised dealer network - throughout Australia and worldwide - are second to none. We invest a huge sum training them and supporting them. They are your link to us, and we value their expertise and trust.

OPERATING INSTRUCTIONS

onga Centrifugal Pumps

OCS Series

Pump Protection

Warranty on these pumps is void unless they are housed correctly and protected from weather, floods, chemicals, dust, vermin, insects etc. Housings should be weather-proof and well vented so that motor heat can flow through. To obtain best possible performance, pumps should be installed as close to the water source as possible.

Suction and Discharge Pipes

Suction should be laid so that it rises evenly from water source to pump. This makes priming easier and avoids airlocks.

Pipes should be the same size or larger than the pump inlet threads. If piping is longer than 15 m (50 ft) then a pipe friction table should be consulted to obtain the correct sized piping.

If using larger pipes, please ensure eccentric reducers/expansion couplings are used and installed correctly (*see fig 1*)

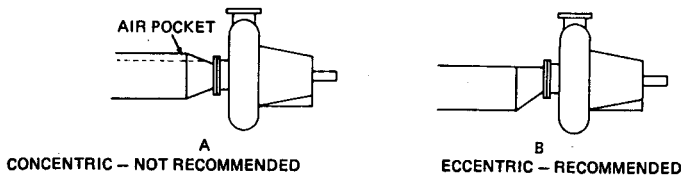


FIG 1

All pipe joints must be sealed to ensure they are airtight and a foot or check valve must be used in the suction pipe. If using a check valve make sure that it is installed in the correct direction.

Priming

To prime the OCS400 series, remove priming plug and fill pump and suction pipe with liquid, replace priming plug and start pump. The OCS500, 650 & 800 series are primed via the discharge outlet, fill pump and suction pipe with liquid and start pump. If the unit pumps a small amount of liquid then stops discharging, then turn the pump off, check suction pipe for possible leaks and repeat priming procedure until pump operates satisfactorily.

Suction Limit

The maximum practical and recommended limit is within 6 metres (20 feet), depending on the installation. If pump fails to operate check vertical suction lift and friction losses.

Please ensure there is a foot valve fitted to the suction pipe if the pump is located above the liquid source. Should the liquid be level with or above the pump, we recommend the fitting of a check-valve to the suction pipe. Make sure the valve is installed correctly. (*see fig 2*)

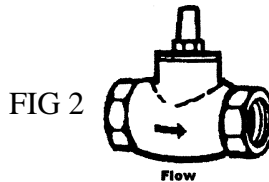


FIG 2

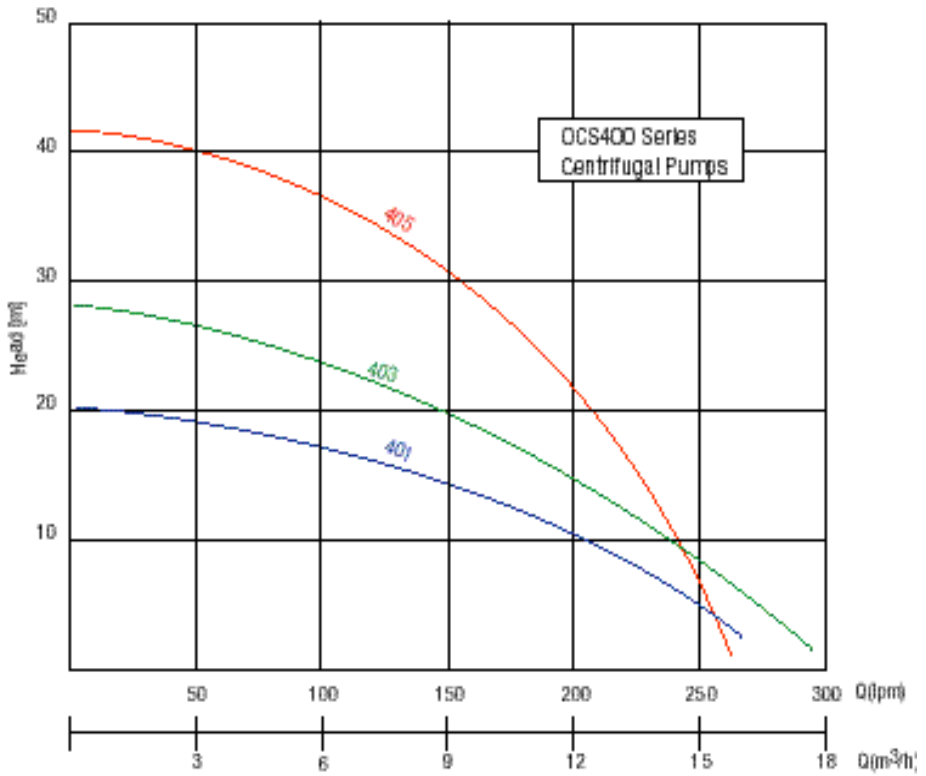
Electrical

All OCS400 series single phase pumps are supplied with a 2 m. long power lead with standard side entry 3 pin plug. All single phase motors are fitted with thermal overload protection with automatic reset after the pump motor cools down. Three phase pumps must be fitted with external motor protection by the user. If thermal overload continues to trip there is a service problem with the pump which should be corrected before major damage can occur. These include fouled impeller, jammed pump, blown fuse, float switch not operating, motor burnt out.

onga pty ltd recommends that an earth leakage or residual current protection device be fitted to all installations.

Pump should not be connected to other than the rated voltage.

OCS400 Series Performance Curves



TECHNICAL DATA - OCS400 Series

MOTOR

Insulation Class: B Protection Class: IP55 Continuous duty.

Single phase version: 220V~240V - 50 Hz - 2 pole

Permanent split capacitor.

Standard power: 0.9 kW~2.0 kW

Overload protection fitted to all single phase motors.

GENERAL

No solids or suspended fibres

Effective working temperature 80°C

MATERIAL OF CONSTRUCTION

Volute Casing, Impeller, Baffle AISI304 AISI316 (OCS4031)

Motor Shaft AISI420 AISI316 (OCS4031)

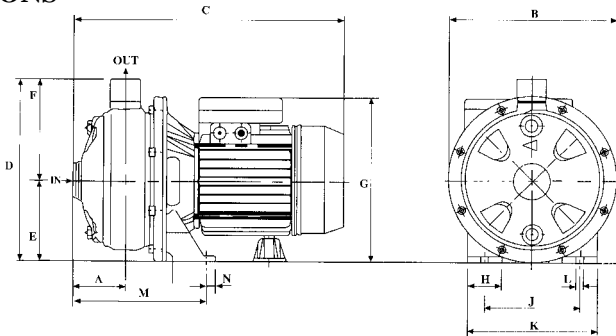
MECHANICAL SEAL

Stationary Face Ceramic

Rotating Face Resin Impregnated Carbon Graphite

Spring Stainless Steel

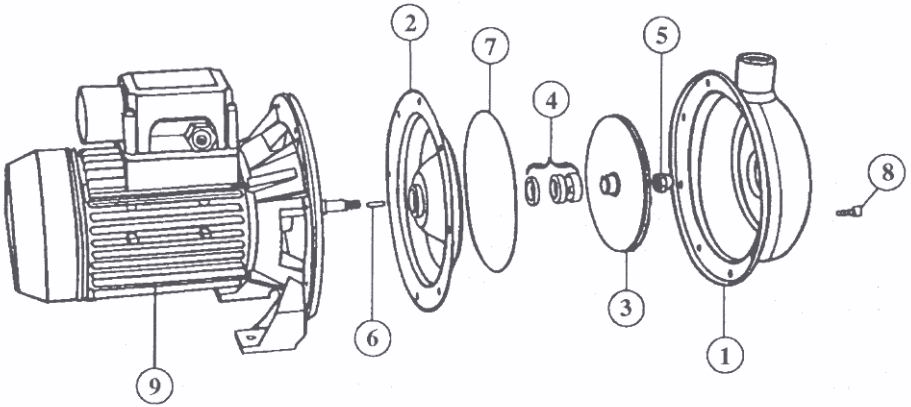
DIMENSIONS



Pump Type	Dimensions (mm)													Weight (Kg)
	A	B	C	D	E	F	G	H	J	K	L	M	N	
OCS401	52	214	350	230	106	124	236	39	120	158	10	147	13	12
OCS403	52	214	350	230	106	124	236	39	120	158	10	147	13	12
OCS405	52	236	392	254	122	132	278	39	140	180	10	147	13	21

Specifications								
Model	Motor					Port / Flange BSP F		Impeller Diam. mm
	Volts	Phase	kW	HP	Run Amps	Suction	Discharge	
OCS401	220 - 240	1	0.9	1.2	5.4	1¼"	1"	132
OCS403	220 - 240	1	1.1	1.5	7.3	1¼"	1"	155
OCS405	220 - 240	1	2	2.7	11.2	1¼"	1"	179

OCS400 Series



Spare Parts

Item	Description	401	403		405
			4030	4031	
1	Casing	XR051	XR051	XR351	XR050
2	Baffle	XR006	XR006	XR306	XR007
3	Impeller	XR074	XR075	XR375	XR076
4	Mechanical Seal	XR003	XR003	XR303	XR003
5	Locknut	XR004	XR004	XR304	XR004
6	Key	XR008	XR008	XR308	XR008
7	'O' Ring Casing	XR001	XR001	XR301	XR077
8	Bolt Casing	704367	704367	704367	704367
9	Motor	800733	800726	800734	800727

Drawing shows typical assembly, please note actual parts may vary in appearance

TECHNICAL DATA - OCS500 Series

MOTOR

Insulation Class: B Protection Class: IP55 Continuous duty.
 Three phase : 400V~415V - 50 Hz - 2 pole
 Standard power: 4.0 kW

GENERAL

No solids or suspended fibres
 Effective working temperature 80°C

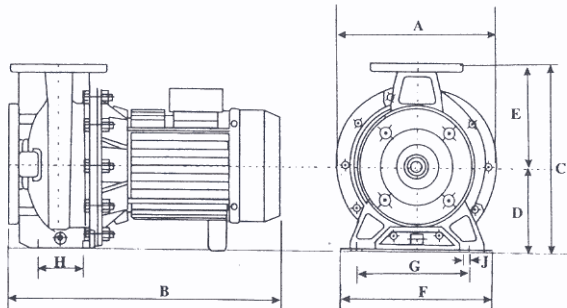
MATERIAL OF CONSTRUCTION

Volute Casing, Impeller, Baffle AISI304
 Motor Shaft AISI420

MECHANICAL SEAL

Stationary Face Ceramic
 Rotating Face Resin Impregnated Carbon Graphite
 Spring Stainless Steel

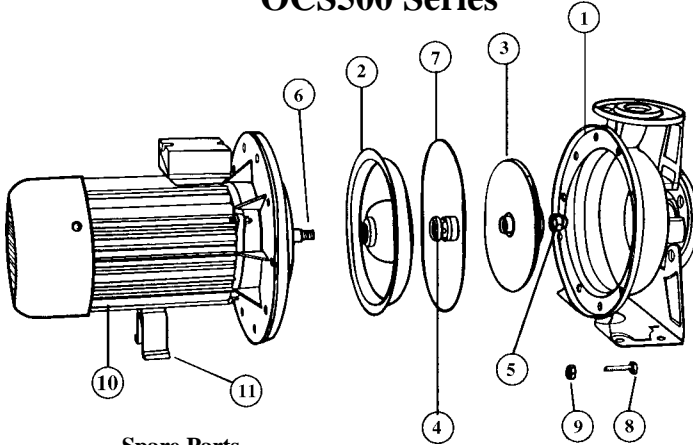
DIMENSIONS



Pump Type	Dimensions (mm)									Weight (Kg)
	A	B	C	D	E	F	G	H	J	
OCS5053	295	492	340	160	180	492	190	70	15	46

Specifications										
Model	Motor					Pump				Impeller Diam. mm
	Volts	Phase	kW	HP	Run Amps	Nominal Casing Bore		Port / Flange BSP F		
						Suction	Discharge	Suction	Discharge	
OCS505	415	3	4.0	5.5	7.4	50mm	32mm	2"	1¼"	175

OCS500 Series



Spare Parts

Item	Description	505
1	Casing	CS0002
2	Baffle	CS0046
3	Impeller	CS0012
4	Mechanical Seal	CS0033
5	Locknut	CS0047
6	Key	CS0029
7	'O' Ring Casing	CS0031
8	Bolt Casing	CS0052
9	Nut Casing	CS0053
10	Motor	800730
11	Foot Motor	CS0056
NOT SHOWN	Flange Suction	CS0013
NOT SHOWN	Gasket Suction	CS0059
NOT SHOWN	Flange Discharge	CS0006
NOT SHOWN	Gasket Discharge	CS0020
NOT SHOWN	Bolt Flange	CS0062
NOT SHOWN	Nut Flange	CS0063
Drawing shows typical assembly, please note actual parts may vary in appearance		

TECHNICAL DATA - OCS650 Series

MOTOR

Insulation Class: B Protection Class: IP55 Continuous duty.

Single phase version: 220V~240V - 50 Hz - 2 pole

Permanent split capacitor.

Three phase versions: 400V~415V - 50 Hz - 2 pole

Standard power: 2.8 kW~7.5 kW

Overload protection fitted to all single phase motors.

GENERAL

No solids or suspended fibres

Effective working temperature 80°C

MATERIAL OF CONSTRUCTION

Voluted Casing, Impeller, Baffle AISI304

Motor Shaft AISI420

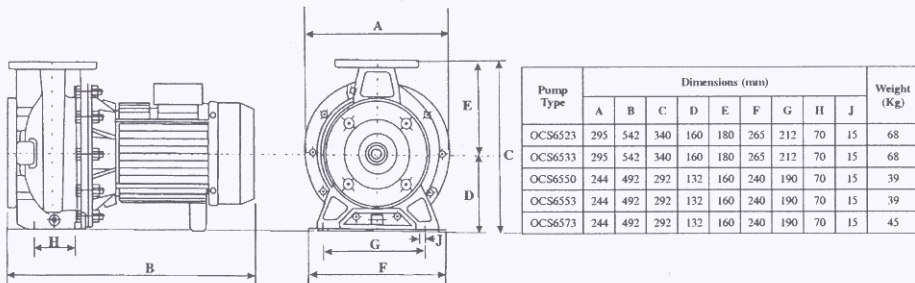
MECHANICAL SEAL

Stationary Face Ceramic

Rotating Face Resin Impregnated Carbon Graphite

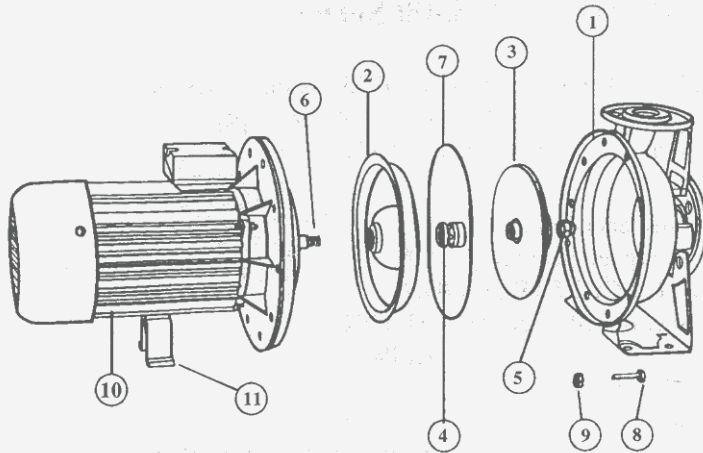
Spring Stainless Steel

DIMENSIONS



Specifications										
Model	Motor					Pump				
	Volts	Phase	kW	HP	Run Amps	Nominal Casing Bore		Port / Flange BSP F		Impeller Diam. mm
						Suction	Discharge	Suction	Discharge	
OCS652	415	3	7.5	10.0	13.7	65mm	40mm	2½"	1½"	190
OCS653	415	3	7.5	10.0	15.8	65mm	40mm	2½"	1½"	190
OCS655	240	1	2.8	3.8	13.5	65mm	50mm	2½"	2"	140
	415	3	2.8	3.8	5.1					
OCS657	415	3	4.0	5.5	6.7	65mm	50mm	2½"	2"	152

OCS650 Series



Spare Parts

Item	Description	652	653	655		657
				6550	6553	
1	Casing	CS0003	CS0003	CS0004	CS0004	CS0004
2	Baffle	CS0050	CS0050	CS0051	CS0051	CS0051
3	Impeller	CS0017	CS0014	CS0016	CS0016	CS0015
4	Mechanical Seal	CS0033	CS0033	CS0033	CS0033	CS0033
5	Locknut	CS0047	CS0047	CS0047	CS0047	CS0047
6	Key	CS0029	CS0029	CS0029	CS0029	CS0029
7	'O' Ring Casing	CS0031	CS0031	CS0030	CS0030	CS0030
8	Bolt Casing	CS0052	CS0052	CS0052	CS0052	CS0052
9	Nut Casing	CS0053	CS0053	CS0053	CS0053	CS0053
10	Motor	800732	800732	800728	800729	800730
11	Foot Motor					CS0057
NOT SHOWN	Flange Suction	CS0018	CS0018	CS0018	CS0018	CS0018
NOT SHOWN	Gasket Suction	CS0060	CS0060	CS0060	CS0060	CS0060
NOT SHOWN	Flange Discharge	CS0011	CS0011	CS0013	CS0013	CS0013
NOT SHOWN	Gasket Discharge	CS0058	CS0058	CS0059	CS0059	CS0059
NOT SHOWN	Bolt Flange	CS0062	CS0062	CS0062	CS0062	CS0062
NOT SHOWN	Nut Flange	CS0063	CS0063	CS0063	CS0063	CS0063

Drawing shows typical assembly, please note actual parts may vary in appearance

TECHNICAL DATA - OCS800 Series

MOTOR

Insulation Class: B Protection Class: IP55 Continuous duty.

Three phase versions: 400V~415V - 50 Hz - 2 pole

Standard power: 5.5 kW~7.5 kW

GENERAL

No solids or suspended fibres

Effective working temperature 80°C

MATERIAL OF CONSTRUCTION

Voluted Casing, Impeller, Baffle AISI304

Motor Shaft AISI420

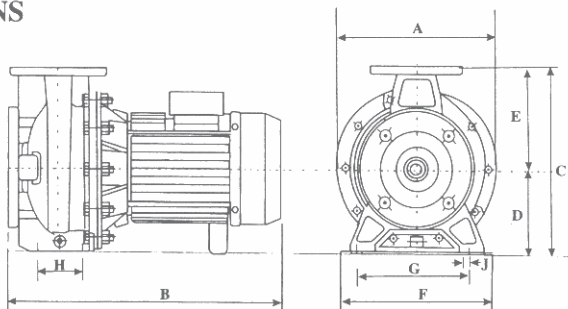
MECHANICAL SEAL

Stationary Face Ceramic

Rotating Face Resin Impregnated Carbon Graphite

Spring Stainless Steel

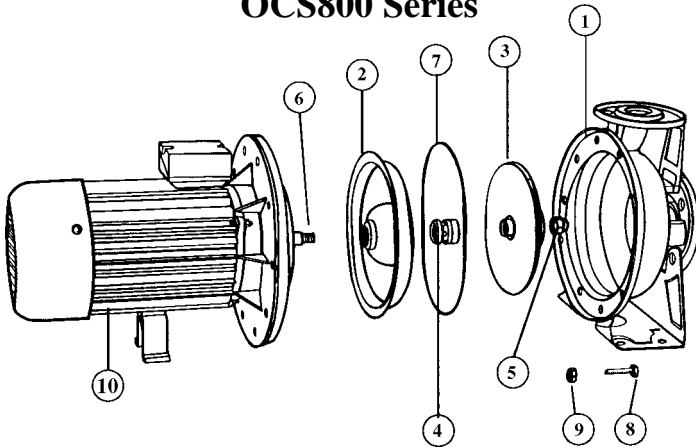
DIMENSIONS



Pump Type	Dimensions (mm)									Weight (Kg)
	A	B	C	D	E	F	G	H	J	
OCS8043	244	554	340	160	180	265	212	70	15	60
OCS8053	244	554	340	160	180	265	212	70	15	68

Specifications										
Model	Motor					Pump				
	Volts	Phase	kW	HP	Run Amps	Nominal Casing Bore		Port / Flange BSP F		Impeller Diam. mm
						Suction	Discharge	Suction	Discharge	
OCS804	415	3	5.5	7.5	8.5	80mm	65mm	3"	2½"	140
OCS805	415	3	7.5	10.0	15.2	80mm	65mm	3"	2½"	170

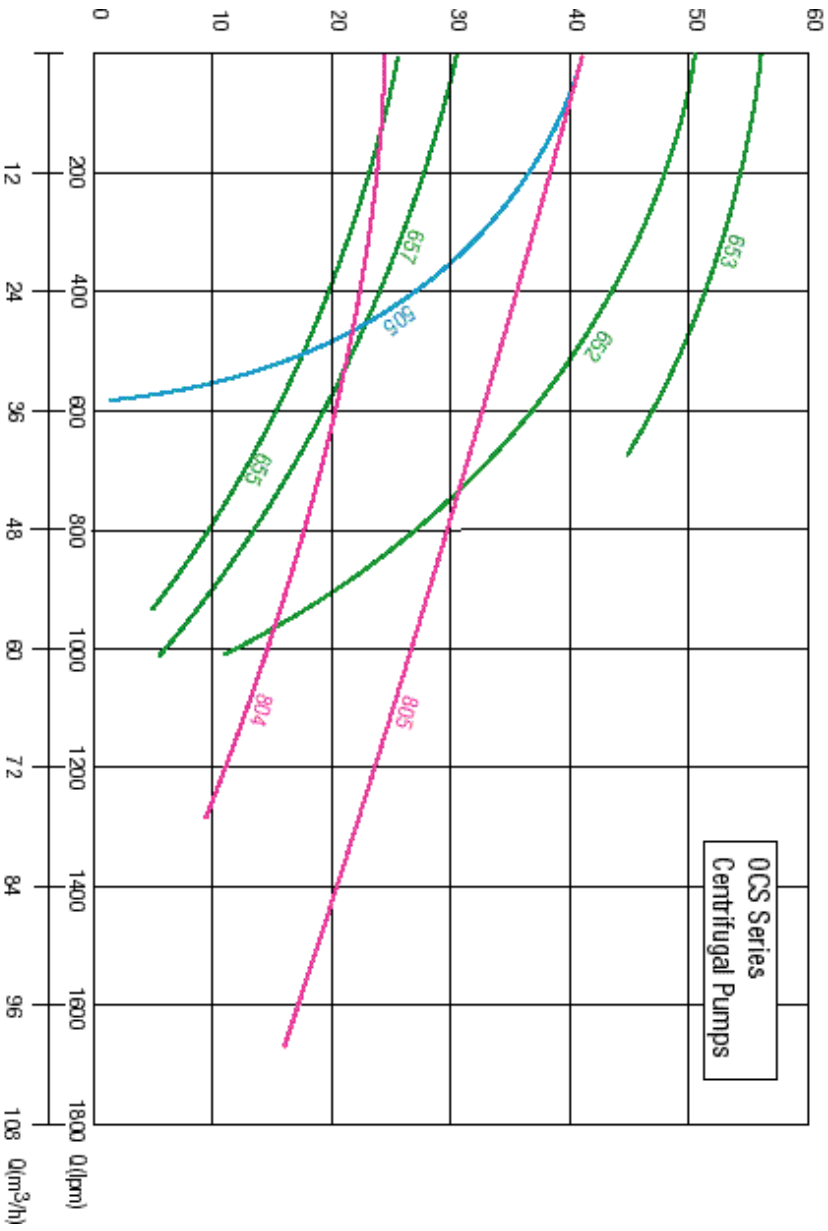
OCS800 Series



Spare Parts

	Description	804	805
1	Casing	CS0005	CS0005
2	Baffle	CS0045	CS0045
3	Impeller	CS0022	CS0021
4	Mechanical Seal	CS0033	CS0033
5	Locknut	CS0047	CS0047
6	Key	CS0029	CS0029
7	'O' Ring Casing	CS0030	CS0030
8	Bolt Casing	CS0052	CS0052
9	Nut Casing	CS0053	CS0053
10	Motor	800731	800736
NOT SHOWN	Flange Suction	CS0019	CS0019
NOT SHOWN	Gasket Suction	CS0061	CS0061
NOT SHOWN	Flange Discharge	CS0018	CS0018
NOT SHOWN	Gasket Discharge	CS0060	CS0060
NOT SHOWN	Bolt Flange	CS0062	CS0062
NOT SHOWN	Nut Flange	CS0063	CS0063
Drawing shows typical assembly, please note actual parts may vary in appearance			

OCS500, OCS650 & OCS800 Series Performance Curves



Onga Pty. Ltd. - Warranty

1. Your Onga unit, when used for its designed purpose, correctly housed and vented against weather, vermin, dirt etc should render trouble free service. You should carefully read the instructions supplied and your unit should be installed and operated in accordance with these, otherwise this warranty will not apply. The warranty does not cover damage, malfunction or failure resulting from, use on incorrect voltages, alteration, accident, misuse, neglect, abuse, faulty or improper installation, misadjustment, mains supply problems, thunderstorms, lightning, infestation by insects or vermin, tampering by unauthorised persons, failure due to non company supplied components or products being substituted as part of the system, or exposure to abnormal corrosive conditions.

2. Onga Pty Ltd (The Company) hereby warrants in accordance with and subject to the provisions herein contained your unit against defects in material and workmanship under normal use and service and when properly installed and connected for a period of (Domestic) 12 months or 2000 hours operation (whichever occurs first) and (commercial) 3 months or 2000 hours (whichever occurs first) from the date of purchase of new equipment to the original owner and used in the original installation. This warranty is limited in time to two years from date of manufacture. In the event of a breakdown or failure of your unit or part thereof, within the period of 12 months or 2000 hours which prevents normal working, the Company will, if your unit is returned to one of the addresses listed, repair the breakdown or failure and replace any defective part free of charge. Freight charges to us both ways and risk of loss or damage will be your responsibility. If new or replacement parts are supplied for in field replacement work, any labour or travelling charges will be your responsibility. Spare parts are normally stocked for a period of 5 years and generally stocked for the life of the unit.

Failure of underwater light bulbs will only be warranted if wiring is to approved standards, and an approved transformer incorporating thermistors has been used.

Hydrostatic relief valves supplied separately or incorporated in products are sold with the express understanding that such products offer limited hydrostatic relief and no offer is made or implied as to the suitability of such products for a specific application, as the conditions of use are unknown and beyond the company's control. It is the purchaser's responsibility to ensure that the performance of the valve meets the required application.

3. This warranty does not extend to engines, pressure gauges, or component parts of Units not manufactured by the company but where permissible and possible the Company will make available to you the benefit of any warranty of that manufacturer thereof.

4. The Company will not be liable for costs involved with the taking out and re-installing of equipment that has failed under the warranty period. This includes electrician's time with wiring costs, and plumber's time and materials.

5. This warranty does not extend to or cover your Unit or any part of it which in the reasonable opinion of the Company has worn by fair wear and tear, abraded or corroded by fluid pumped, run in a dry condition, operated at high temperatures or outside the technical specification of the equipment, or has been damaged or rendered defective by accident, wilful act, negligence (other than that of the Company) misuse, alteration, or repair carried out by other than the Company (or by permission with its dealers), usage of other than the Company's parts, operation on voltages or frequencies other than indicated on the rating plate, incorrectly set voltage regulator, electrical fusion, lightning, or by force majeure. This warranty is an exclusive warranty and is in lieu of all other warranties and conditions, expressed or implied, whether statutory or otherwise.

Swimming pools or spa equipment will not be warranted where the Langelier saturation index "pH" range is outside 7.4 to 7.8 and they have not been regularly treated with Chlorine or Bromine based sanitising system. Use of any other chemical treating system voids warranty.

6. Save as foresaid the Company shall not be liable for any loss or damage of any kind whatsoever (including injury or death to persons or animals or loss or damage to property) whether suffered or incurred by you or by some third party where such loss or damage arises in relation to or as a result of the Unit or any part thereof and whether arising wholly or partly as a result of negligence of the Company, its servants or agents or otherwise. Without limitation upon the provisions of the foregoing provisions of this clause the Company shall not be liable for any consequential loss or damage (including financial loss or damage) and in no event and in no circumstances shall the liability of the Company to you or any third party exceed the total purchase price of the Unit or parts thereof in question.

7. Nothing in this warranty limits or restricts, or is intended to derogate from, any right or remedy which the purchaser or ultimate user of the Unit may have pursuant to Australian State and/or Australian Federal Consumer Protection Legislation and where necessary shall be so read and construed.

8. Claims under this warranty must give evidence of date of purchase, model and serial number of the pump or equipment. Also the claimant's name, address and telephone number.

IMPORTANT

Please attach your sales invoice/docket here as proof of purchase should warranty service be required.

Please do not return Warranty - Retain for your records.

Purchased From _____

Purchase Date _____ **Serial No** _____ **Model No** _____



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