



P U M P

OPERATION, PERFORMANCE,
SPECIFICATIONS and PARTS MANUAL

ANC200/300/500/750, ANCV200/300/500/750, ANC1000/1500/2000 & ANCV1000/1500/2000 Heavy Duty Solids Handling Pumps

- Thank you for purchasing this pump. Take the time to read the instructions carefully before using this product. We strongly recommend that you keep this instruction manual in a safe place for future reference.
- Please refer to our website and the Products Center for additional installation and operation instructions and replacement parts information.

MARKS AND MEANING:

⚠ DANGER "Danger" indicates an imminent hazardous situation which, if not avoided, **WILL** result in death or serious injury.

⚠ WARNING "Warning" indicates an imminent hazardous situation which, if not avoided, **MAY** result in death or serious injury.

⚠ CAUTION "Caution" indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury.



Models: ANC1000, ANC1500,
ANC2000, ANCV1000,
ANCV1500 & ANCV2000

Models: ANC200, ANC300,
ANC500, ANC750, ANCV200,
ANCV300, ANCV500, ANCV750



Solids Handling Pumps

Models: ANC200/300/500/750/1000/1500 /2000 & ANCV200/300/500/750/1000/1500 /2000

General Safety Information

Before installation, read the following instructions carefully. Failure to follow instruction and safety information could cause serious bodily injury, death and/or property damage. Each Ashland Pump is individually factory tested to ensure proper performance. Closely following these instructions will eliminate potential operating problems assuring years of trouble-free service.

Most accidents can be avoided by using common sense.

IMPORTANT - Ashland Pump is not responsible for losses, injury or death resulting from failure to observe these safety precautions, misuse, abuse or misapplication of pumps or equipment.

⚠ DANGER All returned products must be cleaned, sanitized, or decontaminated prior to shipment, to insure employees will not be exposed to health hazards in handling said materials. All applicable laws and regulations shall apply.



⚠ WARNING Bronze/brass fitted pumps may contain lead levels higher than considered safe for potable water systems. Government agencies have determined that leaded copper alloys should not be used in potable water applications.

⚠ WARNING Installation, wiring, and junction connections must be in accordance with the National Electric Code and all applicable state and local codes. Requirements may vary depending on usage and location.

⚠ WARNING Installation and servicing is to be conducted by qualified personnel only.

⚠ DANGER Rotating machinery, amputation or severe lacerations can result. Keep clear of suction and discharge openings. DO NOT insert fingers into pump with power connected.



⚠ WARNING Always wear eye protection when working on pumps. Do not wear loose clothing that may become entangled in moving parts.

⚠ DANGER Pumps build up heat and pressure during operation. Allow time for pumps to cool before handling or servicing.

⚠ DANGER Hazardous Voltage can shock, burn or cause death. This pump is not intended for use in swimming pools or water installations where human contact with pumped fluid is possible.



⚠ DANGER Risk of electrical shock. To reduce risk of electrical shock, always disconnect pump from source before handling. Lock out power & tag.



⚠ WARNING Do Not use these pumps in water over 145°F. Do not exceed manufactures recommended maximum performance, as this could cause the motor to overheat.

⚠ CAUTION Make sure lifting handles are securely fastened each time before lifting.

⚠ DANGER Do not lift, carry or hang pump by the electrical cables. Damage to the electrical cables can cause shock, burns or death. Never handle connected power cords with wet hands. Use appropriate lifting device.



⚠ WARNING Pumps often handle materials which could cause illness or disease. Wear adequate protective clothing when working on a used pump or piping. Never enter a basin after it has been used.

⚠ DANGER Failure to permanently ground the pump, motor and controls before connecting to power can cause shock, burns or death.



⚠ DANGER These pumps are NOT to be installed in locations classified as hazardous in accordance with the National Electric Code, ANSI/NFPA 70.



⚠ WARNING Do not introduce into any sewer, either directly, or through a kitchen waste disposal unit or toilet: Seafood Shells, Aquarium Gravel, Cat Litter, Plastic Objects, Sanitary Napkins or Tampons, Diapers, Rags, Disposable Wipes or Cloth, Medications, Flammable Material, Oil or Grease, Strong Chemicals, Gasoline.

- Operation against a closed discharge valve will cause premature bearing and seal failure on any pump.
- Any wiring of pumps should be performed by a qualified electrician.
- Cable should be protected at all times to avoid punctures, cuts, bruises, and abrasions-inspect frequently.
- Never handle connected power cords with wet hands.
- Never let cords or plugs lie in water outside the sump pit.
- These pumps are offered in a three phase and single phase wiring configuration. Voltages will vary according to the application and can be seen in the tables in this manual.



Solids Handling Pumps

Models: ANC200/300/500/750/1000/1500 /2000 & ANCV200/300/500/750/1000/1500 /2000

Specifications

IMPORTANT Prior to installation, record Model Number, MFG Date, Amps, Voltage, Phase and HP, from pump nameplate for future reference. Also record the voltage and current readings at startup:	1 Phase Models		Model Number: _____
	Amps:	Volts:	MFG Date: _____
	3 Phase Models		Phase: _____
	Amps L1-2:	Volts L1-2:	HP: _____
	Amps L2-3:	Volts L2-3:	SN: _____
Amps L3-1:	Volts L3-1:		

MODEL	HP	HZ	VOLTS/PH	RPM	FULL LOAD AMPS	NEMA START CODE	CORD TYPE	POWER CORD SIZE	CORD O.D.	POTENTIAL RELAY	START CAPACITOR	RUN CAPACITOR
ANC200M2-35	2	60	230/1	1750	16	G	SOW	14AWG/4C	.62	CONT. COIL VOLTAGE: 332 V PICK-UP MAX: 182V DROP-OUT MAX: 90 V	161-193UF-220VAC	15 UF+/-5%-370VAC
ANC200M3-35	2	60	230/3	1750	8.8	L	SOW	14AWG/4C	.62	N/A	N/A	N/A
ANC200M4-35	2	60	460/3	1750	4.4	L	SOW	14AWG/4C	.62	N/A	N/A	N/A
ANC200M5-35	2	60	208/1	1750	18	G	SOW	14AWG/4C	.62	CONT. COIL VOLTAGE: 350 V PICK-UP MAX: 200V DROP-OUT MAX: 75 V	161-193UF-220VAC	15UF+/-5%-370VAC
ANC200M6-35	2	60	208/3	1750	10	L	SOW	14AWG/4C	.62	N/A	N/A	N/A
ANC300M2-35	3	60	230/1	1750	19.3	G	SOW	12AWG/4C	.71	CONT. COIL VOLTAGE: 332 V PICK-UP MAX: 182V DROP-OUT MAX: 90 V	430-516UF-220VAC	30 UF+/-5%-370VAC
ANC300M3-35	3	60	230/3	1750	13.2	K	SOW	14AWG/4C	.62	N/A	N/A	N/A
ANC300M4-35	3	60	460/3	1750	6.6	K	SOW	14AWG/4C	.62	N/A	N/A	N/A
ANC300M5-35	3	60	208/1	1750	22	G	SOW	12AWG/4C	.71	CONT. COIL VOLTAGE: 400 V PICK-UP MAX: 250V DROP-OUT MAX: 80 V	430-516UF-220VAC	30 UF+/-5%-370VAC
ANC300M6-35	3	60	208/3	1750	14	K	SOW	14AWG/4C	.62	N/A	N/A	N/A
ANC500M2-35	5	60	230/1	1750	37.4	C	SOW	8AWG/4C	1.05	CONT. COIL VOLTAGE: 395 V PICK-UP MAX: 225V DROP-OUT MAX: 120 V	270-324UF-220VAC	25 UF+/-5%-370VAC
ANC500M3-35	5	60	230/3	1750	19.8	G	SOW	12AWG/4C	.71	N/A	N/A	N/A
ANC500M4-35	5	60	460/3	1750	9.9	G	SOW	12AWG/4C	.71	N/A	N/A	N/A
ANC500M5-35	5	60	208/1	1750	43	C	SOW	8AWG/4C	1.05	CONT. COIL VOLTAGE: 400 V PICK-UP MAX: 200V DROP-OUT MAX: 80 V	270-324UF-220VAC	25 UF+/-5%-370VAC
ANC500M6-35	5	60	208/3	1750	20	G	SOW	12AWG/4C	.71	N/A	N/A	N/A
ANC750M2-35	7.5	60	230/1	1750	58.2	D	SOW	6AWG/4C	1.2	ICM CONTROLS UMSR-50-LF	750 UF+/-5%-220VAC	40 UF+/-5%-370VAC
ANC750M3-35	7.5	60	230/3	1750	30.8	E	SOW	8AWG/4C	1.05	N/A	N/A	N/A
ANC750M4-35	7.5	60	460/3	1750	15.4	E	SOW	8AWG/4C	1.05	N/A	N/A	N/A
ANC750M5-35	7.5	60	208/1	1750	60	D	SOW	6AWG/4C	1.2	ICM CONTROLS UMSR-50-LF	750 UF+/-5%-220VAC	40 UF+/-5%-370VAC
ANC750M6-35	7.5	60	208/3	1750	31	E	SOW	8AWG/4C	1.05	N/A	N/A	N/A
ANC1000M3-35	10	60	230/3	1750	35.2	G	SOW	8AWG/4C	1.05	N/A	N/A	N/A
ANC1000M4-35	10	60	460/3	1750	17.6	G	SOW	8AWG/4C	1.05	N/A	N/A	N/A
ANC1500M3-35	15	60	230/3	1750	57.2	F	SOW	6AWG/4C	1.2	N/A	N/A	N/A
ANC1500M4-35	15	60	460/3	1750	28.6	F	SOW	6AWG/4C	1.2	N/A	N/A	N/A
ANC2000M3-35	20	60	230/3	1750	55	G	SOW	4AWG/4C	1.45	N/A	N/A	N/A
ANC2000M4-35	20	60	460/3	1750	27.5	G	SOW	4AWG/4C	1.45	N/A	N/A	N/A
ANCV200M2-35	2	60	230/1	1750	16	G	SOW	14AWG/4C	.62	CONT. COIL VOLTAGE: 350 V PICK-UP MAX: 200V DROP-OUT MAX: 75 V	161-193UF-220VAC	15 UF+/-5%-370VAC
ANCV200M3-35	2	60	230/3	1750	8.8	L	SOW	14AWG/4C	.62	N/A	N/A	N/A
ANCV200M4-35	2	60	460/3	1750	4.4	L	SOW	14AWG/4C	.62	N/A	N/A	N/A
ANCV200M5-35	2	60	208/1	1750	18	G	SOW	14AWG/4C	.62	CONT. COIL VOLTAGE: 350 V PICK-UP MAX: 200V DROP-OUT MAX: 75 V	161-193UF-220VAC	15UF+/-5%-370VAC
ANCV200M6-35	2	60	208/3	1750	10	L	SOW	14AWG/4C	.62	N/A	N/A	N/A
ANCV300M2-35	3	60	230/1	1750	19.3	G	SOW	12AWG/4C	.71	CONT. COIL VOLTAGE: 350 V PICK-UP MAX: 200V DROP-OUT MAX: 75 V	430-516UF-220VAC	30 UF+/-5%-370VAC
ANCV300M3-35	3	60	230/3	1750	13.2	K	SOW	14AWG/4C	.62	N/A	N/A	N/A
ANCV300M4-35	3	60	460/3	1750	6.6	K	SOW	14AWG/4C	.62	N/A	N/A	N/A
ANCV300M5-35	3	60	208/1	1750	22	G	SOW	12AWG/4C	.71	CONT. COIL VOLTAGE: 400 V PICK-UP MAX: 200V DROP-OUT MAX: 80 V	430-516UF-220VAC	30 UF+/-5%-370VAC
ANCV300M6-35	3	60	208/3	1750	14	K	SOW	14AWG/4C	.62	N/A	N/A	N/A
ANCV500M2-35	5	60	230/1	1750	37.4	C	SOW	8AWG/4C	1.05	CONT. COIL VOLTAGE: 400 V PICK-UP MAX: 200V DROP-OUT MAX: 80 V	270-324UF-220VAC	25 UF+/-5%-370VAC
ANCV500M3-35	5	60	230/3	1750	19.8	G	SOW	12AWG/4C	.71	N/A	N/A	N/A
ANCV500M4-35	5	60	460/3	1750	9.9	G	SOW	12AWG/4C	.71	N/A	N/A	N/A
ANCV500M5-35	5	60	208/1	1750	43	C	SOW	8AWG/4C	1.05	CONT. COIL VOLTAGE: 400 V PICK-UP MAX: 200V DROP-OUT MAX: 80 V	270-324UF-220VAC	25 UF+/-5%-370VAC
ANCV500M6-35	5	60	208/3	1750	20	G	SOW	12AWG/4C	.71	N/A	N/A	N/A
ANCV750M2-35	7.5	60	230/1	1750	58.2	D	SOW	6AWG/4C	1.2	ICM CONTROLS UMSR-50-LF	750 UF+/-5%-220VAC	40 UF+/-5%-370VAC
ANCV750M3-35	7.5	60	230/3	1750	30.8	E	SOW	8AWG/4C	1.05	N/A	N/A	N/A
ANCV750M4-35	7.5	60	460/3	1750	15.4	E	SOW	8AWG/4C	1.05	N/A	N/A	N/A
ANCV750M5-35	7.5	60	208/1	1750	60	D	SOW	6AWG/4C	1.2	ICM CONTROLS UMSR-50-LF	750 UF+/-5%-220VAC	40 UF+/-5%-370VAC
ANCV750M6-35	7.5	60	208/3	1750	31	E	SOW	8AWG/4C	1.05	N/A	N/A	N/A
ANCV1000M3-35	10	60	230/3	1750	35.2	G	SOW	8AWG/4C	1.05	N/A	N/A	N/A
ANCV1000M4-35	10	60	460/3	1750	17.6	G	SOW	8AWG/4C	1.05	N/A	N/A	N/A
ANCV1500M3-35	15	60	230/3	1750	57.2	F	SOW	6AWG/4C	1.2	N/A	N/A	N/A
ANCV1500M4-35	15	60	460/3	1750	28.6	F	SOW	6AWG/4C	1.2	N/A	N/A	N/A
ANCV2000M3-35	20	60	230/3	1750	55	G	SOW	4AWG/4C	1.45	N/A	N/A	N/A
ANCV2000M4-35	20	60	460/3	1750	27.5	G	SOW	4AWG/4C	1.45	N/A	N/A	N/A



Solids Handling Pumps

Models: ANC200/300/500/750/1000/1500 /2000 & ANCV200/300/500/750/1000/1500 /2000

Specifications

TECHNICAL DATA

DESCRIPTION:

To handle up to 3" spherical solids in suspension

PHYSICAL DATA:

Discharge Size 4"
 Impeller Type 2-Vane, Enclosed for ANC Series, 9-Vane for ANCV Series
 Cable Length 35'

LIQUID HANDLING:

Solids Size 3" Spherical
 Maximum Liquid Temp. 140°F - Intermittent,
 104°F - Continuous
 Acceptable Ph Range 6-8

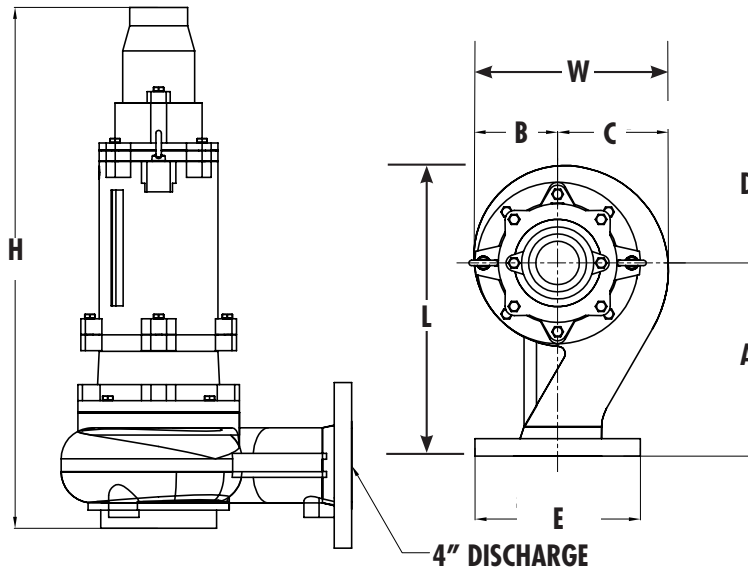
TEMPERATURE:

Maximum Stator 130/135°C

TECHNICAL DATA:

Power Cord Type SOW
 Sensor Cord Type SOW
 Motor Housing Cast Iron
 Impeller Cast Iron
 Motor Shaft SUS416
 Hardware SS
 "O" Rings Viton
 Mechanical Seals Silicon Carbon/Carbon/Viton

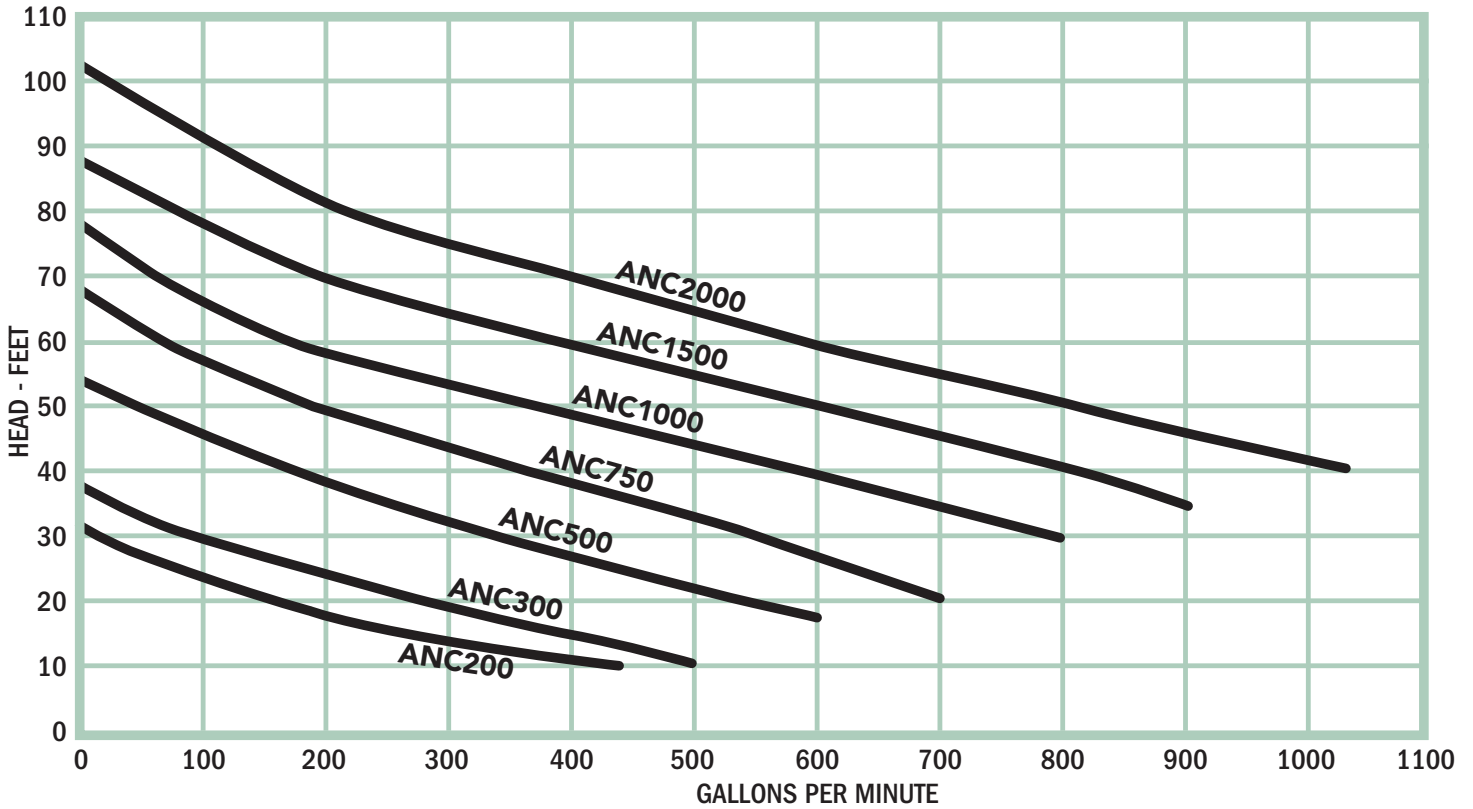
	ANC200	ANC300	ANC500	ANC750	ANC1000	ANC1500	ANC2000
Upper Bearing	6203	6203	6204	6204	6405	6405	6405
Lower Bearing	3208	3208	3308	3308	3309	3309	3309



Model	Dimensions (inches)						Model	Dimensions (inches)					
	A	B	C	D	E	H		A	B	C	D	E	H
ANC200	10-1/2	4-1/2	6	5-5/16	9	28-3/8	ANCV200	10-1/2	4-1/2	6	5-5/16	9	28-3/8
ANC300	10-1/2	4-1/2	6	5-5/16	9	28-3/8	ANCV300	10-1/2	4-1/2	6	5-5/16	9	28-3/8
ANC500	10-1/2	5-1/2	7	6-5/16	9	29-5/16	ANCV500	10-1/2	5-1/2	7	6-5/16	9	29-5/16
ANC750	10-1/2	5-1/2	7	6-5/16	9	29-5/16	ANCV750	10-1/2	5-1/2	7	6-5/16	9	29-5/16
ANC1000	10-3/8	6-5/16	8-1/16	7-1/8	9	33-5/8	ANCV1000	10-3/8	6-5/16	8-1/16	7-1/8	9	33-5/8
ANC1500	10-3/8	6-5/16	8-1/16	7-1/8	9	33-5/8	ANCV1500	10-3/8	6-5/16	8-1/16	7-1/8	9	33-5/8
ANC2000	10-3/8	6-5/16	8-1/16	7-1/8	9	33-5/8	ANCV2000	10-3/8	6-5/16	8-1/16	7-1/8	9	33-5/8



Solids Handling Pumps
Models: ANC200, ANC300, ANC500,
ANC750, ANC1000, ANC1500 & ANC2000
Performance



ANC200 PERFORMANCE CHART

Total Lift(feet)	10	15	20	25	30	32
GPM	440	315	200	80	25	0

ANC300 PERFORMANCE CHART

Total Lift(feet)	10	15	20	25	30	37
GPM	500	400	280	180	85	0

ANC500 PERFORMANCE CHART

Total Lift(feet)	18	20	30	40	50	54
GPM	600	550	370	190	50	0

ANC750 PERFORMANCE CHART

Total Lift(feet)	20	30	40	50	60	69
GPM	700	545	360	190	80	0

ANC1000 PERFORMANCE CHART

Total Lift(feet)	30	40	50	60	70	77
GPM	800	600	380	190	55	0

ANC1500 PERFORMANCE CHART

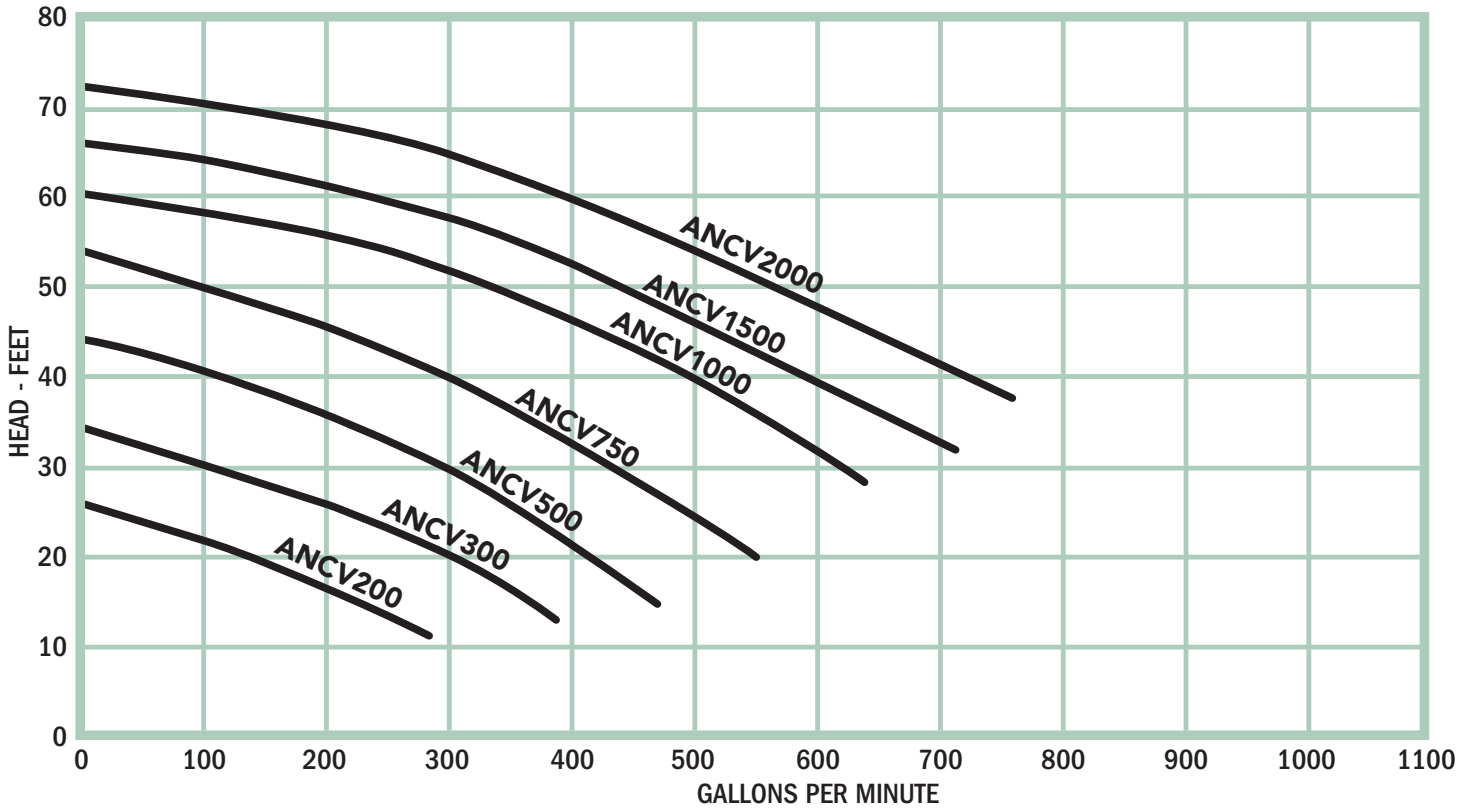
Total Lift(feet)	35	50	60	70	80	87
GPM	900	610	400	195	75	0

ANC2000 PERFORMANCE CHART

Total Lift(feet)	40	50	60	70	80	101
GPM	1020	802	595	400	205	0



Solids Handling Pumps
Models: ANCV200, ANCV300, ANCV500,
ANCV750, ANCV1000, ANCV1500 & ANCV2000
Performance



ANCV200 PERFORMANCE CHART

Total Lift(feet)	10	15	20	25	27
GPM	290	200	100	25	0

ANCV300 PERFORMANCE CHART

Total Lift(feet)	10	15	20	25	30	34
GPM	375	300	200	150	75	0

ANCV500 PERFORMANCE CHART

Total Lift(feet)	15	20	30	40	48
GPM	450	400	275	100	0

ANCV750 PERFORMANCE CHART

Total Lift(feet)	18	30	40	50	57
GPM	500	375	260	100	0

ANCV1000 PERFORMANCE CHART

Total Lift(feet)	20	30	40	50	58
GPM	520	440	350	225	0

ANCV1500 PERFORMANCE CHART

Total Lift(feet)	25	40	50	60	68
GPM	620	500	400	250	0

ANCV2000 PERFORMANCE CHART

Total Lift(feet)	30	40	50	60	70	77
GPM	700	600	500	375	150	0



Solids Handling Pumps

Models: ANC200/300/500/750/1000/1500 /2000 & ANCV200/300/500/750/1000/1500 /2000

Receiving and Installation

Receiving Inspection

Upon receiving the pump, it should be inspected for damage or shortages. If damage has occurred, file a claim immediately with the company that delivered the pump. If the manual is removed from the packaging, do not lose or misplace.

Storage

Any product that is stored for a period longer than six (6) months from the date of purchase should be bench tested prior to installation. A bench test consists of, checking the impeller to assure it is free turning and a run test to assure the motor (and switch if provided) operate properly. Do not pump out of liquid.

WARNING IMPORTANT! A clearance under the pump for entrance of sewage solids must be a minimum of 3 inches to a maximum of 4.5 inches.

Submergence

The pump should always be operated in the submerged condition. The minimum sump liquid level should never be less than above the pump's volute (see fig. 1)

Installation

The sump or basin shall be sealed and vented in accordance with local plumbing codes. This pump is designed to pump domestic wastewater, nonexplosive and noncorrosive liquids and shall NOT be installed in locations classified as hazardous in accordance with the National Electrical Code (NEC) ANSI/ NFPA 70 or Canadian Electric Code (CEC). The pump should never be installed in a trench, ditch, or hole with a dirt bottom. The legs will sink into the dirt and the suction will become plugged.

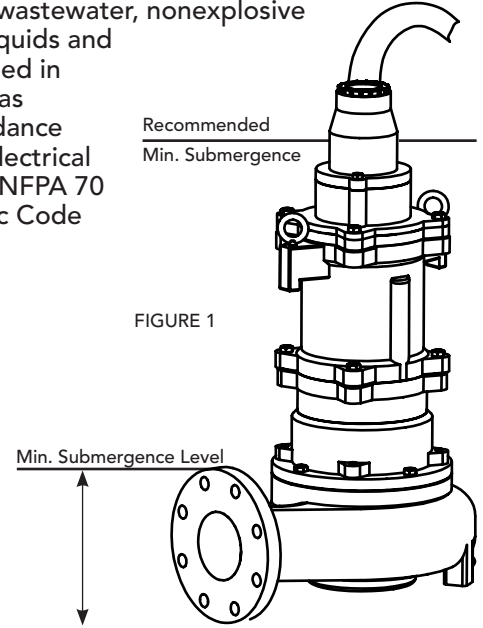


FIGURE 1



Solids Handling Pumps

Models: ANC200/300/500/750/1000/1500 /2000 & ANCV200/300/500/750/1000/1500 /2000

Installation

Discharge Piping

Install discharge piping or hose assembly to the pump. Discharge piping should be as short as possible and sized no smaller than the pump discharge. Do not reduce the discharge pipe size below that which is provided on the pump. Both a check valve and a shut-off valve are recommended for each pump. The check valve is used to prevent backflow into the sump. The shut-off valve is used to manually stop system flow during pump servicing. Be sure the discharge pipe has a 1/8" diameter hole approx. 5" from end nearest volute and oriented towards the pump body.

Control Panel

All pumps require a control panel. Single/phase models require start components in panel.

Motor Seal Failure Warning

All phase models, the seal chamber is oil filled and provided with moisture sensing probes to detect water leakage through the lower shaft seal. The probes can also detect moisture present in the upper motor housing.

The presence of water energizes a red seal leak warning light at the control panel. This is a warning light only, and does not stop the motor. It indicates a leak has occurred and the pump must be repaired. Normally, this indicates the outboard seal has leaked. Allowing the unit to operate too long after the warning could cause upper seal leakage along with motor failure.

The resistance across the moisture sensing (seal failure) probes should be checked after a seal leak warning light has lit. This can be done by disconnecting the red and orange control wires from the control panel, and measuring the resistance with an ohmmeter between the wires.

The reading should be 100,000 ohms or greater. If the measured values are below those indicated above, then the pump may have a lower seal failure and require service.

Note: Failure to use proper circuitry and to connect the motor overheat protection in the control panel would negate all warranties.

Motor power cord, control cord and cord cap assembly

Each motor power cord has 4 conductors: white, black, red and green. See Figure 3 for internal wiring schematic.

Note: Rotation should be clockwise when observed from the top of the pump. This can be checked by noting which direction the pump torque is upon initial starting. A properly rotating pump will torque counterclockwise upon start.

The control cable has 5 conductors: black, white, red, yellow and green. White and black connect to the heat sensor terminals; red and yellow connect to the seal failure leads; and the green connects to the ground in the control panel. (Figure 3)

Note: Each cable has a green ground wire and must be properly grounded per the National Electric Code and local codes.

Electrical Motor Controls

All electrical controls and motor starting equipment should be as specified in these instructions.

Pre-operation

CHECK VOLTAGE AND PHASE

Before operating pump, check to make sure that voltage and phase information stamped on the pump's identification plate matches the available power.

CHECK PUMP ROTATION

Before putting pump into service for the first time, the motor rotation must be checked. Improper motor rotation can result in poor pump performance and can damage the motor and/or pump.

IDENTIFICATION PLATE

Note the numbers on the pumps identification plate and record at the end of this manual for future reference.



Solids Handling Pumps

Models: ANC200/300/500/750/1000/1500 /2000 & ANCV200/300/500/750/1000/1500 /2000

Installation and Service

Electrical Connections



Turn circuit breaker off before wiring the pump to the control panel.

Always rely upon a Certified Electrician for installation.

Level Control

It is recommended that the level control float should be set to insure that the liquid in the sump never drops below the top of the motor housing. The level control should have adequate clearance so it cannot hang up in its swing and that the pump is completely submerged when the level control is in the "Off" mode. Minimum tether length is 3.50".

DO NOT USE THE POWER CABLE TO LIFT PUMP.

Thermal Protection

Motors are protected by a thermo-overload or thermo sensor depending on the model and single or three phase.

Pre-Operation

1. Check Voltage and Phase compare to the voltage and phase information stamped on the pump name plate.
2. Check Pump Rotation - Improper motor rotation can result in poor pump performance and can damage the motor and/or pump. Check rotation by momentarily applying power and observe the "kickback". Kickback should always be in a counter-clockwise direction as viewed from motor end or opposite to impeller rotation. Incorrect rotation for Single-Phase pumps is unlikely. If the rotation is incorrect contact factory.

3. Name Plate - Record the information from the pump name plate for future reference.
4. Pump-Down Test - Be sure pump has been plugged in, lowered into the basin or sump, check the system by filling with liquid and allowing the pump to operate through its pumping cycle. The time needed to empty the system, or pump-down time along with the volume of water, should be recorded.

Maintenance

Minimal maintenance is required. Perform the following checks when pump is removed from operation or when pump performance deteriorates:

- a). Inspect motor and sealchambers for oil level and contamination.
- b). Inspect impeller and volute for excessive build-up or clogging.
- c). Inspect motor and bearings.
- d). Inspect seal for wear or leakage.

Servicing

NOTE: Item numbers in () refer to part numbers shown on pages 17, 18 and 19.

Cooling Oil

Anytime the pump is removed from operation, the cooling oil in the motor housing and seal housing should be checked visually for oil level and contamination. To check oil, set unit upright. Remove pipe plug from housing. With a flashlight, visually inspect the oil in the housing to make sure it is clean and clear, light amber in color and free from suspended particles. Milky white oil indicates the presence of water. Oil level should be just above the motor when pump is in vertical position.

Oil Testing

- Drain oil into a clean, dry container by placing pump on its side. Remove pipe plug, from housing .
- Check oil for contamination using an oil tester with a range to 30 Kilovolts breakdown.
- If oil is found to be clean and uncontaminated (measuring above 15 KV. breakdown), refill the housing.
- If oil is found to be dirty or contaminated (or measures below 15 KV. breakdown), the pump must be carefully inspected for leaks at the shaft seal, cable assembly, o- ring and pipe plug, before refilling with oil. To locate the leak, perform the following pressure tests.

After leak is repaired, dispose of old oil properly, and refill with new oil.



Solids Handling Pumps Models: ANC200, ANC300, ANC500, ANC750, ANC1000, ANC1500 & ANC2000 Installation and Service

Motor Housing Pressure Test:

If oil has been drained, fill to normal level before performing pressure test (See Figure 3). Remove pipe plug from motor housing.

Apply pipe sealant to pressure gauge assembly and tighten into hole. Pressurize motor housing to 10 P.S.I. Use soap solution around the sealed areas above the oil level and inspect joints for "air bubbles". For sealed areas below oil level, leaks will seep oil. If, after five minutes, the pressure is still holding constant, and no "bubbles" / oil seepage is observed, slowly bleed the pressure and remove the gauge assembly. Replace oil. Leak must be located and repaired if pressure does not hold.

Seal Chamber Pressure Test

Set pump on its side with fill plug downward, remove plug and drain all oil from seal chamber. Apply pipe sealant to pressure gauge assembly and tighten into hole in seal housing. Pressurize seal chamber to 10 P.S.I. and check for leaks.

Oil Replacement Motor Housing

Remove pipe plug from motor housing.

Drain all oil (if not already done so) from motor housing and dispose of properly per Local Code. Set pump upright and refill with new cooling oil, see "Cooling Oil" chart. Fill to just above motor as an air space must remain in the top of the motor housing to compensate for oil expansion. Apply pipe thread compound to threads of pipe plug then assemble to motor housing. Check that o-ring is in place and does not need to be replaced. Reassemble cord cap to motor housing.

Oil Replacement Seal Chamber

Drain all oil (if not already done so) from seal chamber and dispose of properly per Local Code. Place pump on its side with plug upward, and refill with new oil (.75L), see "Cooling Oil" chart. Apply pipe thread compound to threads of pipe plug and assemble to intermediate coupling.



DO NOT overfill oil. Overfilling of housing with oil can create excessive and dangerous hydraulic pressure which can destroy the pump and create a hazard. Overfilling oil voids warranty.

Cooling Oil Recommended Supplier/Grade	
BP	Enerpar SE100
Conoco	Pale Paraffin 22
Mobile	D.T.E. Oil Light
Shell Canada	Transformer-10
Texaco	Diala-Oil-AX



Solids Handling Pumps

Models: ANC200/300/500/750/1000/1500 /2000 & ANCV200/300/500/750/1000/1500 /2000

Installation and Service



WARNING Before any service work is done, disconnect and lock out electrical power to pump.



IMPORTANT! - All parts must be clean before reassembly. Handle seal parts with extreme care. **DO NOT** damage lapped surfaces.

Volute

Remove hex bolt from volute.

Impeller

Remove impeller (7) by pulling the impeller off the motor shaft and key. **Do Not** store pump without impeller in place.

Outer Seal

Handle seal parts with care. Remove spring and rotate member from shaft. Examine all seal parts. Inspect contact faces for signs of uneven wear tracks on stationary face, chips and scratches on either seal face. **DO NOT** interchange seal components, replace the entire shaft seal if necessary.

Seal Plate

Remove cap screws from seal plate. Remove seal plate and o-ring from seal housing. With flat screwdriver, press out seal (10) stationary member. Inspect o-ring for cuts or abrasions.

Inner Seal

Remove seal rotating member and spring from rotor shaft. Press stationary from seal housing with flat screwdriver. Examine all seal parts. Inspect contact faces for signs of uneven wear tracks on stationary, chips and scratches on either seal face.

DO NOT interchange seal components, replace the entire shaft seal.

Bearings

Using a bearing puller or arbor press remove bearing from shaft. Remove upper motor bearing from shaft with a bearing puller.

REASSEMBLY

Bearing

Be careful not to damage the rotor shaft when replacing bearing. Using an arbor press, hold the rotor and press the upper bearing on the rotor shaft, applying force to the inner race of the bearing only. In the same manner replace lower bearing onto rotor shaft.

Inner Seal

Clean and oil seal cavity in seal housing. Lightly oil (Do not use grease) outer surface of stationary member. Press seal's stationary member firmly into seal housing, using a seal tool or pipe. Nothing should come in contact with the seal face except the seal tool. Be sure the stationary is in straight. Place seal's retaining ring and spring over shaft until seated. Slide a bullet tool over rotor shaft threads.

Lightly oil (**Do not use grease**) shaft, bullet, and inner surface of bellows on rotating member, slide rotating member over bullet and onto shaft until it engages spring. Make sure spring is seated in retaining ring and spring is lined up on rotating member and not cocked or resting on bellows tail. Compress spring and install retaining ring.

Seal Housing

Lubricate and set o-ring in bottom groove of seal plate. Place seal plate over shaft and onto seal housing, being sure o-ring is not twisted and in the groove. Place four capscrews through holes in seal housing and into seal plate and torque to 6.5 ft/lbs.

Outer Seal

Clean and oil stationary seal cavity in seal plate. Slide seal guide tool over motor shaft. Lightly oil (**Do not use grease**) outer surface of seal's stationary member.

Press stationary firmly into seal plate using a seal pusher tool. Be sure the stationary member is in straight. Nothing but the seal tool is to come in contact with seal face.



IMPORTANT ! Do not hammer on the seal pusher. It will damage the seal face.

With lapped surface of rotating member facing inward toward stationary, slide rotating member and onto shaft, until lapped faces of stationary and rotating seal are together. Place spring over shaft and rotating member. Be sure it is seated on the retainer and not cocked or resting on bellows tail.

Impeller

Install impeller (7) on the motor shaft by installing key on motor shaft, slide the impeller on the motor shaft aligning the key. **Do Not** store pump without impeller in



Solids Handling Pumps Models: ANC200, ANC300, ANC500, ANC750, ANC1000, ANC1500 & ANC2000 Installation and Service

Cable Assembly:

Check power cord for cracks or damage and replace if required. Insert one friction ring, grommet, one friction ring, and gland nut into cord cap and tighten gland nut.

Volute - Place volute on seal plate. Place hex nut through seal plate and into volute and torque

Upper Housing

Place o-ring onto motor housing. Connect wires per schematic, see Figure 3. Set cord cap onto motor housing, place cap screws into housings and torque to 6.5 ft/lbs.

Installing Pump in Sump

These pumps are usually installed in concrete or fiber-glass basins with the lift-out rail system. Figure 2 shows pump mounted on the rail system. Instructions for installing rail system are furnished with rail package.

If pump is not installed with lift-out rail system it must be properly supported on legs and connected to discharge pipe so that space is provided under pump for entrance of sewage. Pump inlet should not be closer than 3 inches from bottom of sump.

It is not generally desirable to install these pumps without the rail system except on special O.E.M. packaged systems. Check valves should always be installed along with shut-off valves. This allows for easier service and prevents backflow into basin.

Starting Pump After Installing in Sump Basin:

If pump is 3 phase, pump rotation must be checked.

Before lowering pump into basin, connect power lines and start motor using H-O-A switch in the Hand position. Grinder impeller should turn counterclockwise when looking at grinder impeller. If rotation is wrong, interchange any two line leads at control box.

Service and Repair

Important: Pump should be thoroughly cleaned of trash and deposits before starting disassembly operations.

CAUTION

Disconnect all power and control wires to motor at control panel before starting disassembly operation. Never rely on opening circuit breaker only.

CAUTION

Operating pump builds up heat and pressure; allow time for pump to cool to room temperature



Solids Handling Pumps

Models: ANC200/300/500/750/1000/1500 /2000
 & ANCV200/300/500/750/1000/1500 /2000

Installation and Service

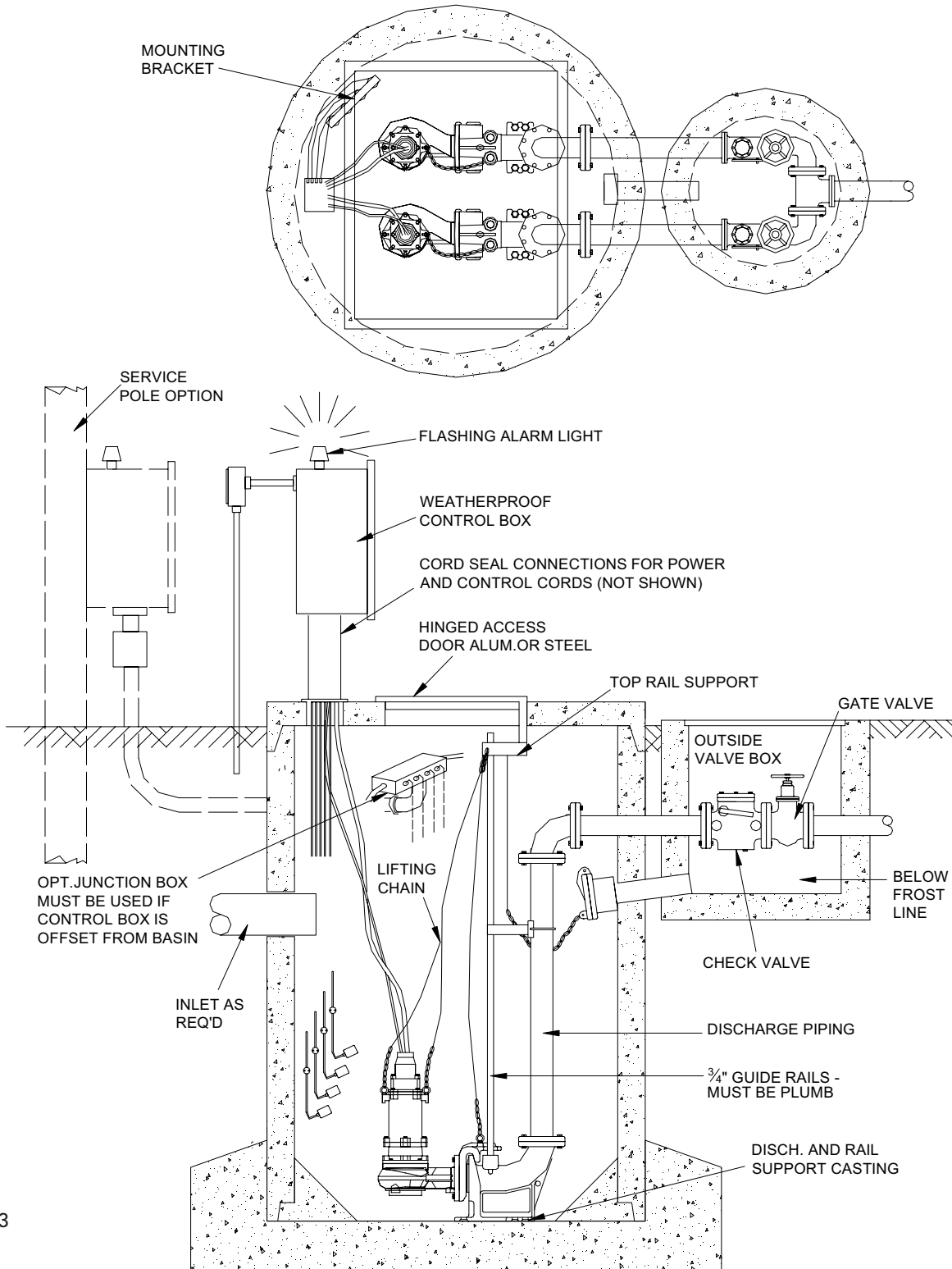


FIGURE 3

Figure 2
TYPICAL INSTALLATION FOR DUPLEX SYSTEM WITH CONCRETE BASIN AND OUTSIDE VALVE BOX



Solids Handling Pumps

Models: ANC200/300/500/750/1000/1500 /2000 & ANCV200/300/500/750/1000/1500 /2000

Wiring Diagram

WIRING CONNECTIONS

1. All electrical wiring must be in accordance with local code and only qualified electricians should make the installations.
2. Three phase pumps - instructions for wiring to control panel will be included with control panel.
3. All wires should be checked for shorts to ground with an ohmmeter or megger after the connections are made. This is IMPORTANT, as one grounded wire can cause failure of the pump, control panel or personal injury.

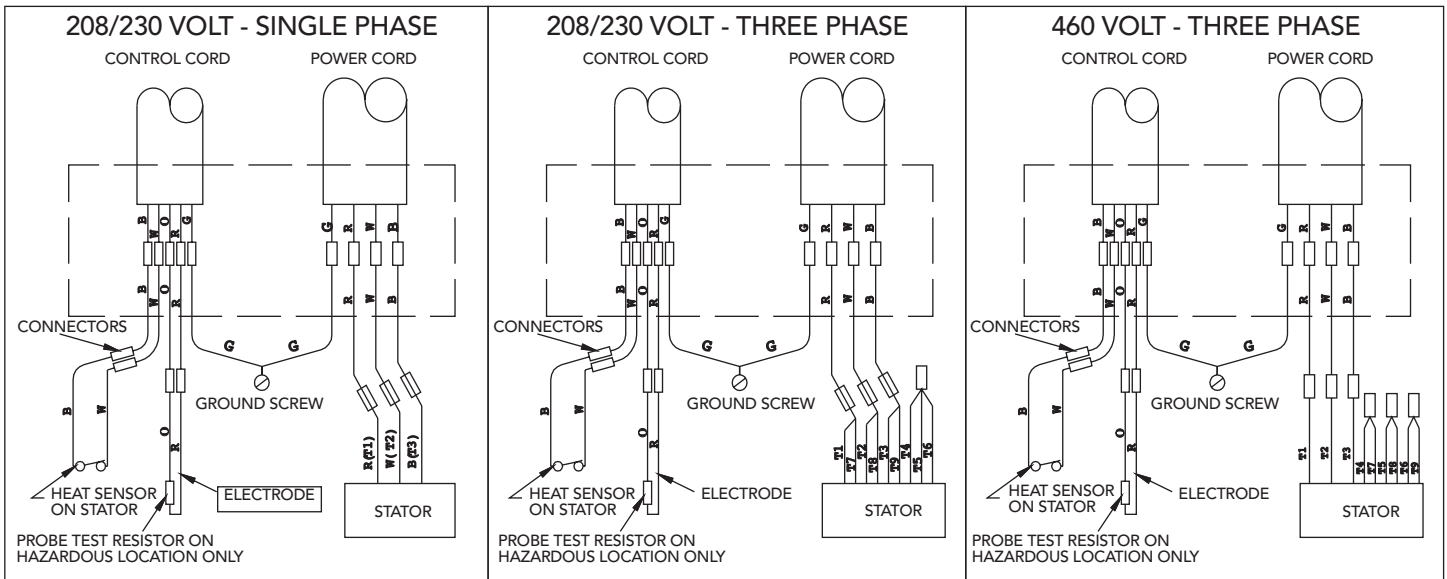


Figure 3



Solids Handling Pumps

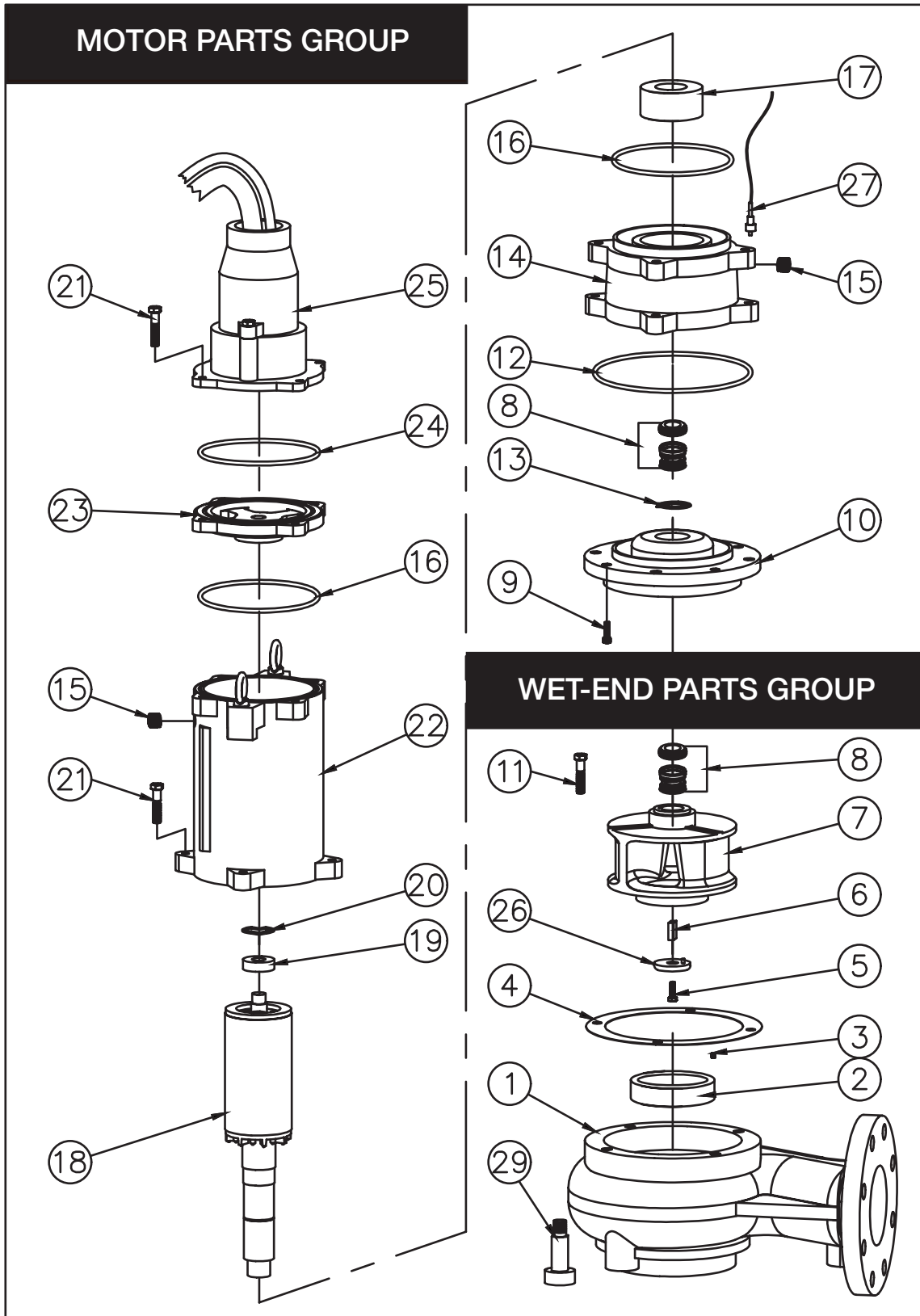
Models: ANC200/300/500/750/1000/1500 /2000 & ANCV200/300/500/750/1000/1500 /2000

Trouble Shooting



Always discount the pump from the electrical power source before handling. If the system fails to operate properly, carefully read instructions and perform maintenance recommendations. If operating problems persist, the following chart may be of assistance in identifying and correcting them.

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
Red light comes on at control box	1. This indicates some water has leaked past the lower seal and has entered the seal chamber and made contact with the electrode probe.	1. Replace the lower seal
Overload trips at control box and alarm buzzer or due to high water level in basin.	1. Impeller may be partially clogged with foreign objects. 2. Component in the control box may be faulty. 3. Pump has some damaged.	1. Check impeller for freedom of operation, security and condition. Clean impeller cavity and inlet of any obstruction. 2. Check control box, if need repair it. 3. Check pump, if need repair it.
Yellow run light stays on continuously	1. H-O-A switch may be in the hand position 2. Level control switch may have failed causing pump to continue to operate when water is below lower control. 3. Impeller may be partially clogged causing pump to operate at very reduced capacity. 4. Gate valve or check valve may be clogged causing low pump flow. 5. Pump may be air clogged.	1. Reposition pump or clean basin as required to provide adequate clearance for float 2. Disconnect level control. Set ohmmeter for a low range, such as 100 ohms full scale and connect to level control leads. Actuate level control manually and check to see that ohmmeter shows zero ohms for closed switch and full scale for open switch (Float Switch) 3. Check impeller for freedom of operation, security, and condition. Clean impeller cavity and inlet of any obstruction 4. Remove and examine check valve for proper installation and freedom of operation 5. Loosen union slightly to allow trapped air to escape. Verify that turn-off level of switch is set so that impeller cavity is always flooded. Clean vent hole.
Circuit breaker trips with control	1. Excessive load probably caused by a short in the motor or control box. 2. If this condition happens after an electrical storm, motor or control box may be damaged by lightning.	1. Check out instructions given box before pulling pump 2. Reset breaker by pushing completely down on handle then back to ON position. If breaker trips again in a few seconds it indicates.
Pump is noisy and pump rate is low	1. Impeller may be partially clogged with some foreign objects causing noise and overload on the motor. 2. Impeller may be rubbing on wear ring due to bent shaft or misalignment. 3. Pump may be operating too close to shut-off	1. Check impeller for freedom of operation, security, and condition. Clean impeller cavity and inlet of any obstruction. 2. If need replace shaft 3. Check if the pump is operating too close to shut-off.
Grease and solids have accumulated around pump and will not pump out of basin.	1. Lower control switch may be set too high. 2. Trash and grease may have accumulated around floats causing pump to operate erratically	1. Check and reset the control switch 2. Run pump on hand operation for several minutes with small amount of water running into basin to clean out solids and grease.





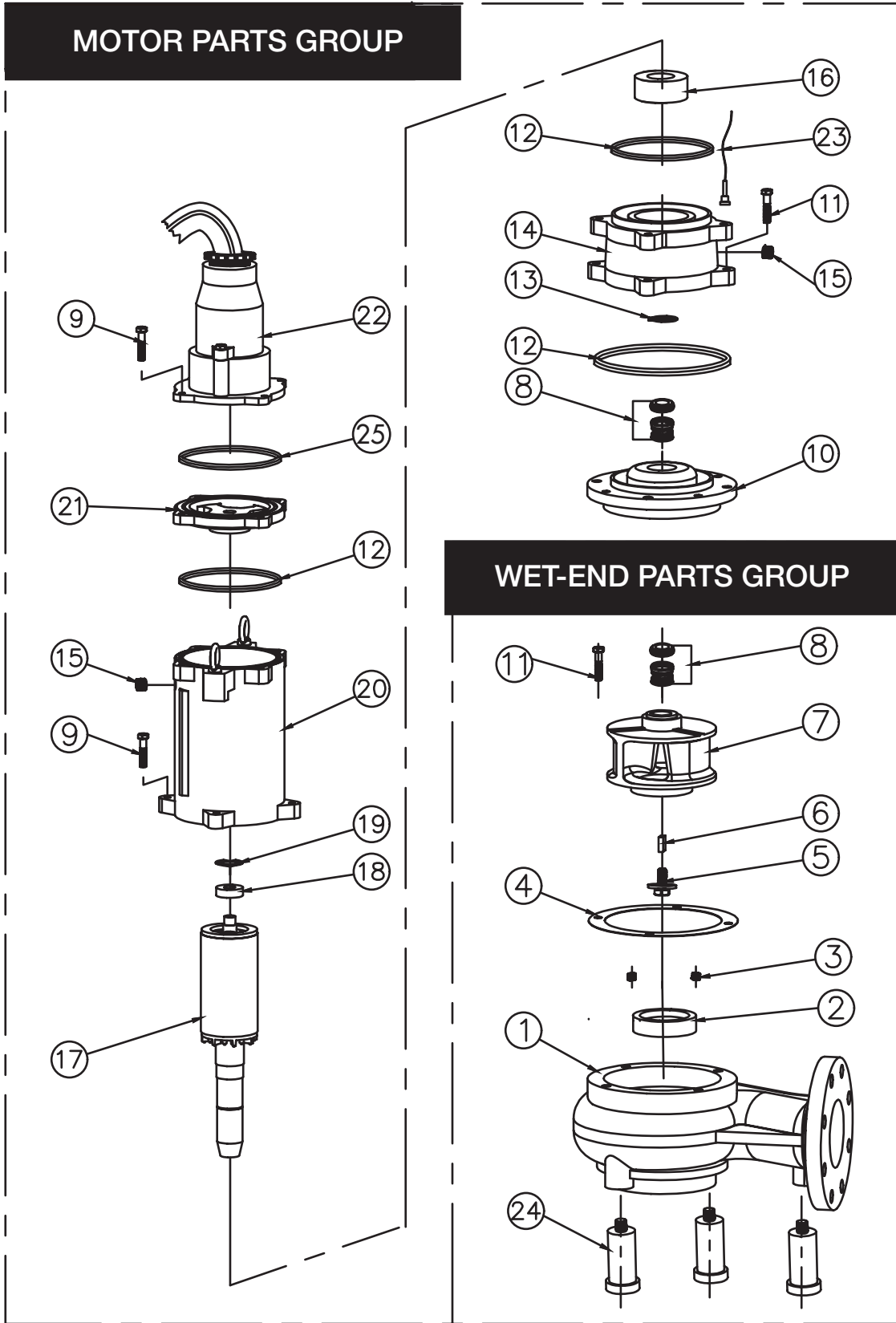
Solids Handling Pumps

Models: ANC200, ANC300, ANC500 & ANC750

Repair Parts List

No.	Part Description	Part No. for pump models										Qty
		ANC200M2-35	ANC200M3-35	ANC200M4-35	ANC200M5-35	ANC200M6-35	ANC300M2-35	ANC300M3-35	ANC300M4-35	ANC300M5-35	ANC300M6-35	
		2HP 230V 1PH	2HP 230V 3PH	2HP 460V 3PH	2HP 208V 1PH	2HP 208V 3PH	3HP 230V 1PH	3HP 230 3PH	3HP 460V 3PH	3HP 208V 1PH	3HP 208V 3PH	
WET-END PARTS GROUP												
1	VOLUTE ASSY	091ANC205A	091ANC205A	091ANC205A	091ANC205A	091ANC205A	091ANC301A	091ANC301A	091ANC301A	091ANC301A	091ANC301A	1
2	WEAR RING	091ANC225	091ANC225	091ANC225	091ANC225	091ANC225	091ANC225	091ANC225	091ANC225	091ANC225	091ANC225	1
3	SET SCREW	091ANC226	091ANC226	091ANC226	091ANC226	091ANC226	091ANC226	091ANC226	091ANC226	091ANC226	091ANC226	2
4	GASKET	091ANC202	091ANC202	091ANC202	091ANC202	091ANC202	091ANC202	091ANC202	091ANC202	091ANC202	091ANC202	1
5	SCREW	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	1
6	KEY	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	1
7	IMPELLER	091ANC205	091ANC205	091ANC205	091ANC205	091ANC205	091ANC301	091ANC301	091ANC301	091ANC301	091ANC301	1
8	SHAFT SEAL	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	1
11	SCREW	091ANC212	091ANC212	091ANC212	091ANC212	091ANC212	091ANC212	091ANC212	091ANC212	091ANC212	091ANC212	4
26	WASHER	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	1
29	LEG	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	3
MOTOR PARTS GROUP												
8	SHAFT SEAL	091ANC218A	091ANC224A	091ANC224A	091ANC227A	091ANC224A	091ANC302A	091ANC304A	091ANC304A	091ANC327A	091ANC304A	1
9	SCREW	091ANC203	091ANC203	091ANC203	091ANC203	091ANC203	091ANC203	091ANC203	091ANC203	091ANC203	091ANC203	4
10	SEAL PLATE	091ANC208	091ANC208	091ANC208	091ANC208	091ANC208	091ANC208	091ANC208	091ANC208	091ANC208	091ANC208	1
12	O-RING 01	091ANC209	091ANC209	091ANC209	091ANC209	091ANC209	091ANC209	091ANC209	091ANC209	091ANC209	091ANC209	1
13	RETAINER RING	091ANC210	091ANC210	091ANC210	091ANC210	091ANC210	091ANC210	091ANC210	091ANC210	091ANC210	091ANC210	1
14	SEAL HOUSING	091ANC211	091ANC211	091ANC211	091ANC211	091ANC211	091ANC211	091ANC211	091ANC211	091ANC211	091ANC211	1
15	PLUG	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	2
16	O-RING 02	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	2
17	BEARING	091ANC214	091ANC214	091ANC214	091ANC214	091ANC214	091ANC214	091ANC214	091ANC214	091ANC214	091ANC214	1
18	ROTOR ASSY	091ANC215	091ANC228	091ANC228	091ANC215	091ANC228	091ANC315	091ANC328	091ANC328	091ANC315	091ANC328	1
19	BEARING	091ANC216	091ANC216	091ANC216	091ANC216	091ANC216	091ANC216	091ANC216	091ANC216	091ANC216	091ANC216	1
20	WAVE WASHER	091ANC217	091ANC217	091ANC217	091ANC217	091ANC217	091ANC217	091ANC217	091ANC217	091ANC217	091ANC217	1
21	SCREW	091ANC219	091ANC219	091ANC219	091ANC219	091ANC219	091ANC219	091ANC219	091ANC219	091ANC219	091ANC219	8
22	MOTOR ASSY	091ANC218	091ANC224	091ANC224	091ANC227	091ANC224	091ANC302	091ANC304	091ANC304	091ANC327	091ANC304	1
23	BEARING PLATE	091ANC220	091ANC220	091ANC220	091ANC220	091ANC220	091ANC220	091ANC220	091ANC220	091ANC220	091ANC220	1
24	O-RING 03	091ANC221	091ANC221	091ANC221	091ANC221	091ANC221	091ANC221	091ANC221	091ANC221	091ANC221	091ANC221	1
25	CORD ASSY	091ANC222	091ANC222	091ANC222	091ANC303	091ANC222	091ANC303	091ANC222	091ANC222	091ANC303	091ANC222	1
27	MOISTURE SENSOR ASSY	091ANC229	091ANC229	091ANC229	091ANC229	091ANC229	091ANC229	091ANC229	091ANC229	091ANC229	091ANC229	1

No.	Part Description	Part No. for pump models										Qty
		ANC500M2-35	ANC500M3-35	ANC500M4-35	ANC500M5-35	ANC500M6-35	ANC750M2-35	ANC750M3-35	ANC750M4-35	ANC750M5-35	ANC750M6-35	
		5HP 230V 1PH	5HP 230V 3PH	5HP 460V 3PH	5HP 208V 1PH	5HP 208V 3PH	7.5HP 230V 1PH	7.5HP 230V 3PH	7.5HP 460V 3PH	7.5HP 208V 1PH	7.5HP 208V 3PH	
WET-END PARTS GROUP												
1	VOLUTE ASSY	091ANC504A	091ANC504A	091ANC504A	091ANC504A	091ANC504A	091ANC701A	091ANC701A	091ANC701A	091ANC701A	091ANC701A	1
2	WEAR RING	091ANC225	091ANC225	091ANC225	091ANC225	091ANC225	091ANC225	091ANC225	091ANC225	091ANC225	091ANC225	1
3	SET SCREW	091ANC226	091ANC226	091ANC226	091ANC226	091ANC226	091ANC226	091ANC226	091ANC226	091ANC226	091ANC226	2
4	GASKET	091ANC502	091ANC502	091ANC502	091ANC502	091ANC502	091ANC502	091ANC502	091ANC502	091ANC502	091ANC502	1
5	SCREW	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	1
6	KEY	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	1
7	IMPELLER	091ANC504	091ANC504	091ANC504	091ANC504	091ANC504	091ANC701	091ANC701	091ANC701	091ANC701	091ANC701	1
8	SHAFT SEAL	091ANC505	091ANC505	091ANC505	091ANC505	091ANC505	091ANC505	091ANC505	091ANC505	091ANC505	091ANC505	1
11	SCREW	091ANC510	091ANC510	091ANC510	091ANC510	091ANC510	091ANC510	091ANC510	091ANC510	091ANC510	091ANC510	4
26	WASHER	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	1
29	LEG	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	3
MOTOR PARTS GROUP												
8	SHAFT SEAL	091ANC516A	091ANC521A	091ANC521A	091ANC527A	091ANC521A	091ANC702A	091ANC703A	091ANC703A	091ANC727A	091ANC703	1
9	SCREW	091ANC503	091ANC503	091ANC503	091ANC503	091ANC503	091ANC503	091ANC503	091ANC503	091ANC503	091ANC503	4
10	SEAL PLATE	091ANC506	091ANC506	091ANC506	091ANC506	091ANC506	091ANC506	091ANC506	091ANC506	091ANC506	091ANC506	1
12	O-RING 01	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	1
13	RETAINER RING	091ANC508	091ANC508	091ANC508	091ANC508	091ANC508	091ANC508	091ANC508	091ANC508	091ANC508	091ANC508	1
14	SEAL HOUSING	091ANC509	091ANC509	091ANC509	091ANC509	091ANC509	091ANC509	091ANC509	091ANC509	091ANC509	091ANC509	1
15	PLUG	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	2
16	O-RING 02	091ANC511	091ANC511	091ANC511	091ANC511	091ANC511	091ANC511	091ANC511	091ANC511	091ANC511	091ANC511	2
17	BEARING	091ANC512	091ANC512	091ANC512	091ANC512	091ANC512	091ANC512	091ANC512	091ANC512	091ANC512	091ANC512	1
18	ROTOR ASSY	091ANC513	091ANC513	091ANC513	091ANC513	091ANC513	091ANC713	091ANC713	091ANC713	091ANC713	091ANC713	1
19	BEARING	091ANC514	091ANC514	091ANC514	091ANC514	091ANC514	091ANC514	091ANC514	091ANC514	091ANC514	091ANC514	1
20	WAVE WASHER	091ANC515	091ANC515	091ANC515	091ANC515	091ANC515	091ANC515	091ANC515	091ANC515	091ANC515	091ANC515	1
21	SCREW	091ANC517	091ANC517	091ANC517	091ANC517	091ANC517	091ANC517	091ANC517	091ANC517	091ANC517	091ANC517	8
22	MOTOR ASSY	091ANC516	091ANC521	091ANC521	091ANC527	091ANC521	091ANC702	091ANC703	091ANC703	091ANC727	091ANC703	1
23	BEARING PLATE	091ANC518	091ANC518	091ANC518	091ANC518	091ANC518	091ANC518	091ANC518	091ANC518	091ANC518	091ANC518	1
24	O-RING 03	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	1
25	CORD ASSY	091ANC520	091ANC522	091ANC522	091ANC520	091ANC522	091ANC704	091ANC520	091ANC520	091ANC704	091ANC520	1
27	MOISTURE SENSOR ASSY	091ANC529	091ANC529	091ANC529	091ANC529	091ANC529	091ANC529	091ANC529	091ANC529	091ANC529	091ANC529	1



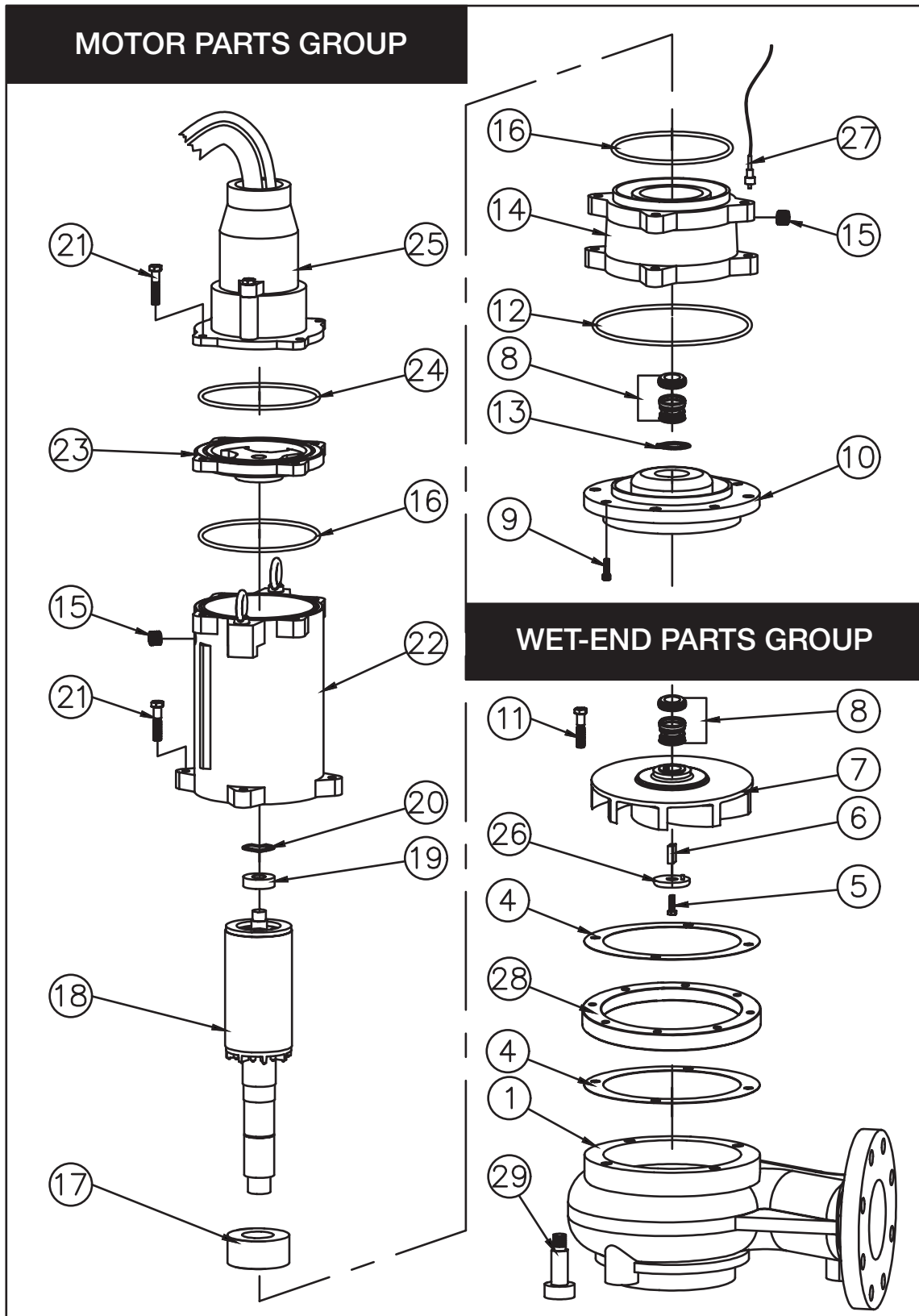


Solids Handling Pumps

Models: ANC1000, ANC1500 and ANC2000

Repair Parts List

No.	Part Description	Part No. for pump models						QTY
		ANC1000M3-35	ANC1000M4-35	ANC1500M3-35	ANC1500M4-35	ANC2000M3-35	ANC2000M4-35	
		10HP 230V 3PH	10HP 460V 3PH	15HP 230V 3PH	15HP 460V 3PH	20HP 230V 3PH	20HP 460V 3PH	
WET-END PARTS GROUP		091ANC007A	091ANC007A	091ANC008A	091ANC008A	091ANC009A	091ANC009A	
1	VOLUTE	091ANC001	091ANC001	091ANC001	091ANC001	091ANC001	091ANC001	1
2	WEAR RING	091ANC031	091ANC031	091ANC031	091ANC031	091ANC031	091ANC031	1
3	SET SCREW	091ANC030	091ANC030	091ANC030	091ANC030	091ANC030	091ANC030	2
4	GASKET	091ANC002	091ANC002	091ANC002	091ANC002	091ANC002	091ANC002	1
5	IMPELLER BOLT & WASHER	091ANC004	091ANC004	091ANC004	091ANC004	091ANC004	091ANC004	1
6	KEY	091ANC008	091ANC008	091ANC008	091ANC008	091ANC008	091ANC008	1
7	IMPELLER	091ANC005	091ANC005	091ANC006	091ANC006	091ANC007	091ANC007	1
8	SHAFT SEAL	091ANC009	091ANC009	091ANC009	091ANC009	091ANC009	091ANC009	1
11	SCREW	091ANC014	091ANC014	091ANC014	091ANC014	091ANC014	091ANC014	4
24	LEG	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	3
MOTOR PARTS GROUP		091ANC024A	091ANC024A	091ANC025A	091ANC025A	091ANC026A	091ANC026A	
8	SHAFT SEAL	091ANC009	091ANC009	091ANC009	091ANC009	091ANC009	091ANC009	1
9	SCREW	091ANC003	091ANC003	091ANC003	091ANC003	091ANC003	091ANC003	8
10	SEAL PLATE	091ANC010	091ANC010	091ANC010	091ANC010	091ANC010	091ANC010	1
11	SCREW	091ANC014	091ANC014	091ANC014	091ANC014	091ANC014	091ANC014	4
12	O-RING	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	3
13	RETAINER RING	091ANC012	091ANC012	091ANC012	091ANC012	091ANC012	091ANC012	1
14	SEAL HOUSING	091ANC013	091ANC013	091ANC013	091ANC013	091ANC013	091ANC013	1
15	PLUG	091ANC029	091ANC029	091ANC029	091ANC029	091ANC029	091ANC029	2
16	BEARING	091ANC015	091ANC015	091ANC015	091ANC015	091ANC015	091ANC015	1
17	ROTOR ASSY	091ANC016	091ANC016	091ANC017	091ANC017	091ANC018	091ANC018	1
18	BEARING	091ANC019	091ANC019	091ANC019	091ANC019	091ANC019	091ANC019	1
19	WAVE WASHER	091ANC020	091ANC020	091ANC020	091ANC020	091ANC020	091ANC020	1
20	MOTOR ASSY	091ANC021	091ANC021	091ANC022	091ANC022	091ANC023	091ANC023	1
21	BEARING PLATE	091ANC024	091ANC024	091ANC024	091ANC024	091ANC024	091ANC024	1
22	CORD ASSY	091ANC026	091ANC026	091ANC027	091ANC027	091ANC028	091ANC028	1
23	MOISTURE SENSOR ASSY	091ANC032	091ANC032	091ANC032	091ANC032	091ANC032	091ANC032	2
25	O-RING	091ANC037	091ANC037	091ANC037	091ANC037	091ANC037	091ANC037	1





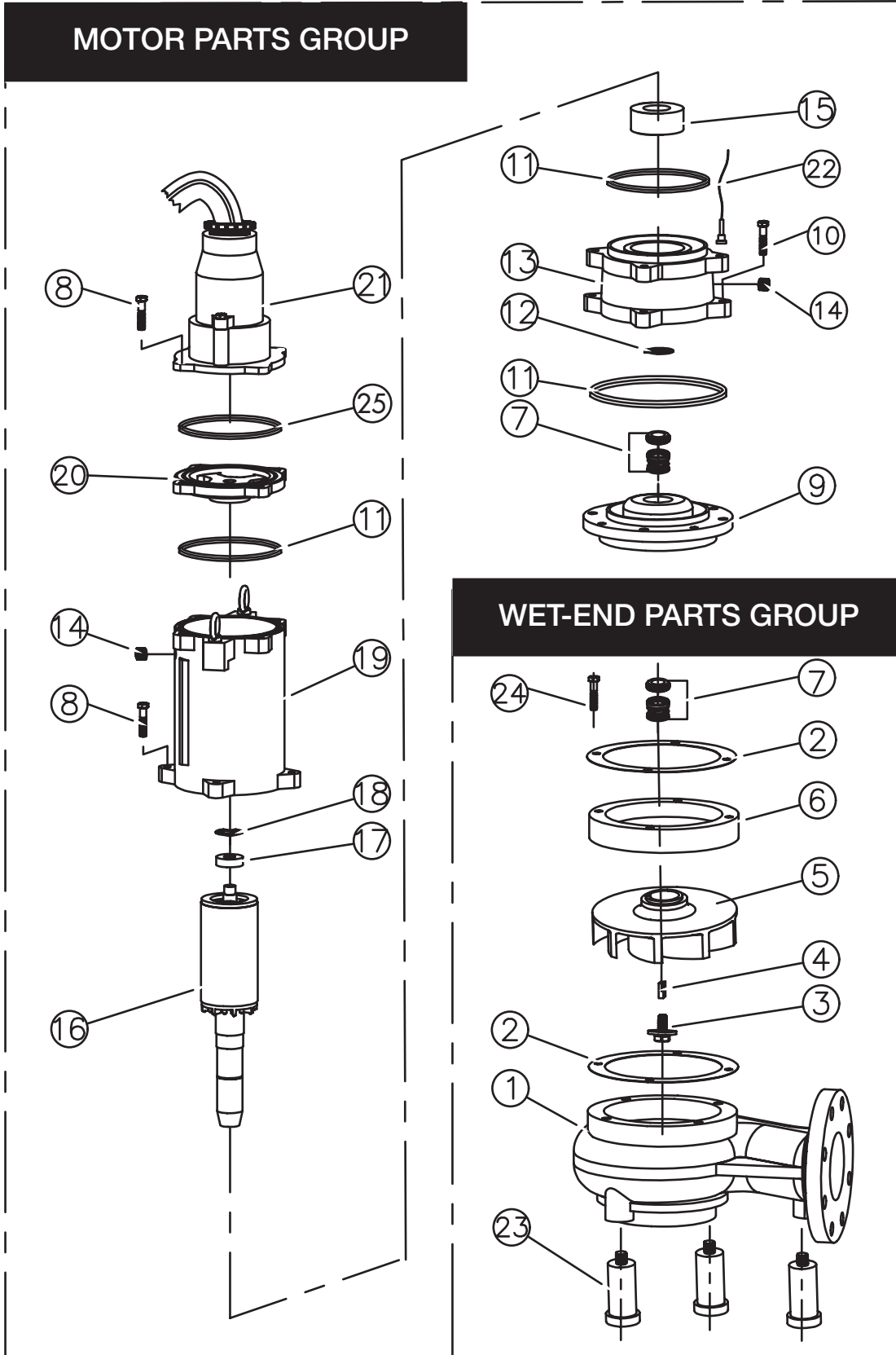
Solids Handling Pumps

Models: ANCV200, ANCV300, ANCV500 & ANCV750

Repair Parts

No.	Part Description	Part No. for pump models										Qty
		ANCV200M2-35	ANCV200M3-35	ANCV200M4-35	ANCV200M5-35	ANCV200M6-35	ANCV300M2-35	ANCV300M3-35	ANCV300M4-35	ANCV300M5-35	ANCV300M6-35	
		2HP 230V 1PH	2HP 230V 3PH	2HP 460V 3PH	2HP 208V 1PH	2HP 208V 3PH	3HP 230V 1PH	3HP 230 3PH	3HP 460V 3PH	3HP 208V 1PH	3HP 208V 3PH	
WET-END PARTS GROUP												
1	VOLUTE ASSY	091ANCV01A	091ANCV01A	091ANCV01A	091ANCV01A	091ANCV01A	091ANCV02A	091ANCV02A	091ANCV02A	091ANCV02A	091ANCV02A	1
2	WEAR RING	\	\	\	\	\	\	\	\	\		
3	SET SCREW	\	\	\	\	\	\	\	\	\		
4	GASKET	091ANC202	091ANC202	091ANC202	091ANC202	091ANC202	091ANC202	091ANC202	091ANC202	091ANC202	2	
5	SCREW	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	1	
6	KEY	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	1	
7	IMPELLER	091ANCV01	091ANCV01	091ANCV01	091ANCV01	091ANCV01	091ANCV02	091ANCV02	091ANCV02	091ANCV02	1	
8	SHAFT SEAL	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	1	
11	SCREW	091ANCV12	091ANCV12	091ANCV12	091ANCV12	091ANCV12	091ANCV12	091ANCV12	091ANCV12	091ANCV12	4	
26	WASHER	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	1	
28	SPACER RING	091ANCV05	091ANCV05	091ANCV05	091ANCV05	091ANCV05	091ANCV05	091ANCV05	091ANCV05	091ANCV05	1	
29	LEG	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	3	
MOTOR PARTS GROUP												
8	SHAFT SEAL	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	091ANC207	1	
9	SCREW	091ANC203	091ANC203	091ANC203	091ANC203	091ANC203	091ANC203	091ANC203	091ANC203	091ANC203	4	
10	SEAL PLATE	091ANC208	091ANC208	091ANC208	091ANC208	091ANC208	091ANC208	091ANC208	091ANC208	091ANC208	1	
12	O-RING 01	091ANC209	091ANC209	091ANC209	091ANC209	091ANC209	091ANC209	091ANC209	091ANC209	091ANC209	1	
13	RETAINER RING	091ANC210	091ANC210	091ANC210	091ANC210	091ANC210	091ANC210	091ANC210	091ANC210	091ANC210	1	
14	SEAL HOUSING	091ANC211	091ANC211	091ANC211	091ANC211	091ANC211	091ANC211	091ANC211	091ANC211	091ANC211	1	
15	PLUG	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	2	
16	O-RING 02	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	2	
17	BEARING	091ANC214	091ANC214	091ANC214	091ANC214	091ANC214	091ANC214	091ANC214	091ANC214	091ANC214	1	
18	ROTOR ASSY	091ANC215	091ANC228	091ANC228	091ANC215	091ANC228	091ANC315	091ANC328	091ANC328	091ANC315	1	
19	BEARING	091ANC216	091ANC216	091ANC216	091ANC216	091ANC216	091ANC216	091ANC216	091ANC216	091ANC216	1	
20	WAVE WASHER	091ANC217	091ANC217	091ANC217	091ANC217	091ANC217	091ANC217	091ANC217	091ANC217	091ANC217	1	
21	SCREW	091ANC219	091ANC219	091ANC219	091ANC219	091ANC219	091ANC219	091ANC219	091ANC219	091ANC219	8	
22	MOTOR ASSY	091ANC218	091ANC224	091ANC224	091ANC227	091ANC224	091ANC302	091ANC304	091ANC304	091ANC327	1	
23	BEARING PLATE	091ANC220	091ANC220	091ANC220	091ANC220	091ANC220	091ANC220	091ANC220	091ANC220	091ANC220	1	
24	O-RING 03	091ANC221	091ANC221	091ANC221	091ANC221	091ANC221	091ANC221	091ANC221	091ANC221	091ANC221	1	
25	CORD ASSY	091ANC222	091ANC222	091ANC222	091ANC303	091ANC222	091ANC303	091ANC222	091ANC222	091ANC303	1	
27	MOISTURE SENSOR ASSY	091ANC229	091ANC229	091ANC229	091ANC229	091ANC229	091ANC229	091ANC229	091ANC229	091ANC229	1	

No.	Part Description	Part No. for pump models										Qty
		ANCV500M2-35	ANCV500M3-35	ANCV500M4-35	ANCV500M5-35	ANCV500M6-35	ANCV750M2-35	ANCV750M3-35	ANCV750M4-35	ANCV750M5-35	ANCV750M6-35	
		5HP 230V 1PH	5HP 230V 3PH	5HP 460V 3PH	5HP 208V 1PH	5HP 208V 3PH	7.5HP 230V 1PH	7.5HP 230V 3PH	7.5HP 460V 3PH	7.5HP 208V 1PH	7.5HP 208V 3PH	
WET-END PARTS GROUP												
1	VOLUTE ASSY	091ANCV03A	091ANCV03A	091ANCV03A	091ANCV03A	091ANCV03A	091ANCV04A	091ANCV04A	091ANCV04A	091ANCV04A	1	
2	WEAR RING	\	\	\	\	\	\	\	\	\		
3	SET SCREW	\	\	\	\	\	\	\	\	\		
4	GASKET	091ANC502	091ANC502	091ANC502	091ANC502	091ANC502	091ANC502	091ANC502	091ANC502	091ANC502	2	
5	SCREW	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	091ANC204	1	
6	KEY	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	091ANC206	1	
7	IMPELLER	091ANCV03	091ANCV03	091ANCV03	091ANCV03	091ANCV03	091ANCV04	091ANCV04	091ANCV04	091ANCV04	1	
8	SHAFT SEAL	091ANC505	091ANC505	091ANC505	091ANC505	091ANC505	091ANC505	091ANC505	091ANC505	091ANC505	1	
11	SCREW	091ANCV13	091ANCV13	091ANCV13	091ANCV13	091ANCV13	091ANCV13	091ANCV13	091ANCV13	091ANCV13	4	
26	WASHER	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	091ANC230	1	
28	SPACER RING	091ANCV06	091ANCV06	091ANCV06	091ANCV06	091ANCV06	091ANCV06	091ANCV06	091ANCV06	091ANCV06	1	
29	LEG	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	3	
MOTOR PARTS GROUP												
8	SHAFT SEAL	091ANC505	091ANC521A	091ANC521A	091ANC527A	091ANC521A	091ANC702A	091ANC703A	091ANC703A	091ANC727A	091ANC703A	
9	SCREW	091ANC503	091ANC503	091ANC503	091ANC503	091ANC503	091ANC503	091ANC503	091ANC503	091ANC503	4	
10	SEAL PLATE	091ANC506	091ANC506	091ANC506	091ANC506	091ANC506	091ANC506	091ANC506	091ANC506	091ANC506	1	
12	O-RING 01	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	1	
13	RETAINER RING	091ANC508	091ANC508	091ANC508	091ANC508	091ANC508	091ANC508	091ANC508	091ANC508	091ANC508	1	
14	SEAL HOUSING	091ANC509	091ANC509	091ANC509	091ANC509	091ANC509	091ANC509	091ANC509	091ANC509	091ANC509	1	
15	PLUG	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	091ANC223	2	
16	O-RING 02	091ANC511	091ANC511	091ANC511	091ANC511	091ANC511	091ANC511	091ANC511	091ANC511	091ANC511	2	
17	BEARING	091ANC512	091ANC512	091ANC512	091ANC512	091ANC512	091ANC512	091ANC512	091ANC512	091ANC512	1	
18	ROTOR ASSY	091ANC513	091ANC513	091ANC513	091ANC513	091ANC513	091ANC713	091ANC713	091ANC713	091ANC713	1	
19	BEARING	091ANC514	091ANC514	091ANC514	091ANC514	091ANC514	091ANC514	091ANC514	091ANC514	091ANC514	1	
20	WAVE WASHER	091ANC515	091ANC515	091ANC515	091ANC515	091ANC515	091ANC515	091ANC515	091ANC515	091ANC515	1	
21	SCREW	091ANC517	091ANC517	091ANC517	091ANC517	091ANC517	091ANC517	091ANC517	091ANC517	091ANC517	8	
22	MOTOR ASSY	091ANC516	091ANC521	091ANC521	091ANC527	091ANC521	091ANC702	091ANC703	091ANC703	091ANC727	1	
23	BEARING PLATE	091ANC518	091ANC518	091ANC518	091ANC518	091ANC518	091ANC518	091ANC518	091ANC518	091ANC518	1	
24	O-RING 03	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	091ANC213	1	
25	CORD ASSY	091ANC520	091ANC522	091ANC522	091ANC520	091ANC522	091ANC704	091ANC520	091ANC520	091ANC704	1	
27	MOISTURE SENSOR ASSY	091ANC529	091ANC529	091ANC529	091ANC529	091ANC529	091ANC529	091ANC529	091ANC529	091ANC529	1	





Solids Handling Pumps

Models: ANCV1000, ANCV1500 & ANCV2000

Repair Parts

No.	Part Description	Part No. for pump models						QTY
		ANCV1000M3-35 10HP 230V 3PH	ANCV1000M4-35 10HP 460V 3PH	ANCV1500M3-35 15HP 230V 3PH	ANCV1500M4-35 15HP 460V 3PH	ANCV2000M3-35 20HP 230V 3PH	ANCV2000M4-35 20HP 460V 3PH	
WET-END PARTS GROUP		091ANCV09A	091ANCV09A	091ANCV10A	"091ANCV10A	091ANCV11A	091ANCV11A	
1	VOLUTE	091ANCV09	091ANCV09	091ANCV09	091ANCV09	091ANCV09	091ANCV09	1
2	GASKET	091ANC002	091ANC002	091ANC002	091ANC002	091ANC002	091ANC002	2
3	IMPELLER BOLT & WASHER	091ANC004	091ANC004	091ANC004	091ANC004	091ANC004	091ANC004	1
4	KEY	091ANC008	091ANC008	091ANC008	091ANC008	091ANC008	091ANC008	1
5	IMPELLER	091ANC033	091ANC033	091ANC034	091ANC034	091ANC035	091ANC035	1
6	CASTING RING	091ANC036	091ANC036	091ANC036	091ANC036	091ANC036	091ANC036	1
7	SHAFT SEAL	091ANC009	091ANC009	091ANC009	091ANC009	091ANC009	091ANC009	1
23	LEG	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	091AGP037	3
24	SCREW	091ANCV14	091ANCV14	091ANCV14	091ANCV14	091ANCV14	091ANCV14	4
MOTOR PARTS GROUP		091ANC024A	091ANC024A	091ANC025A	091ANC025A	091ANC026A	091ANC026A	
7	SHAFT SEAL	091ANC009	091ANC009	091ANC009	091ANC009	091ANC009	091ANC009	1
8	SCREW	091ANC003	091ANC003	091ANC003	091ANC003	091ANC003	091ANC003	8
9	SEAL PLATE	091ANC010	091ANC010	091ANC010	091ANC010	091ANC010	091ANC010	1
10	SCREW	091ANC014	091ANC014	091ANC014	091ANC014	091ANC014	091ANC014	4
11	O-RING	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	091ANC507	3
12	RETAINER RING	091ANC012	091ANC012	091ANC012	091ANC012	091ANC012	091ANC012	1
13	SEAL HOUSING	091ANC013	091ANC013	091ANC013	091ANC013	091ANC013	091ANC013	1
14	PLUG	091ANC029	091ANC029	091ANC029	091ANC029	091ANC029	091ANC029	2
15	BEARING	091ANC015	091ANC015	091ANC015	091ANC015	091ANC015	091ANC015	1
16	ROTOR ASSY	091ANC016	091ANC016	091ANC017	091ANC017	091ANC018	091ANC018	1
17	BEARING	091ANC019	091ANC019	091ANC019	091ANC019	091ANC019	091ANC019	1
18	WAVE WASHER	091ANC020	091ANC020	091ANC020	091ANC020	091ANC020	091ANC020	1
19	MOTOR ASSY	091ANC021	091ANC021	091ANC022	091ANC022	091ANC023	091ANC023	1
20	BEARING PLATE	091ANC024	091ANC024	091ANC024	091ANC024	091ANC024	091ANC024	1
21	CORD ASSY	091ANC026	091ANC026	091ANC027	091ANC027	091ANC028	091ANC028	1
22	MOISTURE SENSOR ASSY	091ANC032	091ANC032	091ANC032	091ANC032	091ANC032	091ANC032	2
25	O-RING	091ANC037	091ANC037	091ANC037	091ANC037	091ANC037	091ANC037	1



Solids Handling Pumps Models: ANCV1000, ANCV1500 & ANCV2000 Warranty

For a period of time no greater than one (1) year after the original purchase of the subject product, and subject to the conditions of this Limited Warranty, Ashland Pump will repair or replace for the original purchaser only, any portion of your new Ashland Pump product that proves to contain defective materials or defective workmanship, provided the product is properly installed, serviced and operated under normal conditions and according to the manufacturer's instructions. Ashland Pump disclaims all liability, including liability under this Limited Warranty, for improper installation, application or use of its products. Ashland Pump shall have and possess the sole discretion to determine whether to repair or replace defective equipment, parts or components with a new or remanufactured part. Any item to be replaced under this Warranty must be returned to Ashland Pump, or such other place as Ashland Pump may designate, freight prepaid. In the absence of suitable proof of purchase date, the effective date of this warranty will be based upon the date of manufacture as evidenced by the serial number of the product.

There is no other express or implied warranty covering your Ashland Pump product. Without limiting the foregoing, Ashland Pump specifically disclaims the implied warranties of merchantability and fitness for a particular purpose. No warranties or representations at any time made by any representative of Ashland Pump shall vary or expand the provisions of this written Limited Warranty. This Limited Warranty contains the purchaser's exclusive remedy for any alleged defect in the product.

To the greatest extent permissible by applicable law, Ashland Pump shall not be liable or responsible for consequential, incidental or special damages resulting from or related in any manner to any Ashland Pump product or parts. Personal injury and/or property damage may result from improper installation, application or use of your Ashland Pump product. Ashland Pump shall not be liable for any loss, damage, or expenses resulting from the installation or use of its products other than as expressly set forth in this Limited Warranty. Ashland Pump shall in no event be responsible or liable for the cost of field labor or other charges incurred by any purchaser or user in removing and/or reaffixing any Ashland Pump product, part or component or any temporary pumping or other equipment. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.



Honest, Professional, Dependable

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