

Pump specification

SUCT.FLANGE SIZE 6"	DRILLING ANSI 125#	FACING FF	FINISH SMOOTH
DISCH.FLANGE SIZE 3"	DRILLING ANSI 125#	FACING FF	FINISH SMOOTH
PUMP ROTATION (LOOKING AT PUMP FROM MOTOR)		CW	
TYPE OF LUBRICATION FLOOD OIL		COOLED NO	
TYPE OF STUFFING BOX TAPER BORE PLUS		COOLED NO	
TYPE OF SEALING MECHANICAL SEAL			

Weights and Measurements

PUMP	468.0 lb
MOTOR/CPLG	755.0/18.0 lb
BASEPLATE	580.0 lb
TOTAL	1,821.0 lb
GR.VOLUME w/BOX	52.6 ft ³
GR.WEIGHT w/BOX	2,084.0 lb

Motor specification

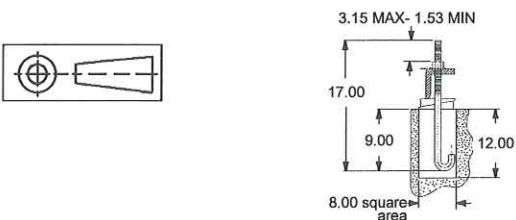
MOTOR BY PUMP MFG	MOUNT BY PUMP MFG	MFG. RELIANCE
FRAME 364T	POWER 60.0 hp	RPM 1800
PHASE 3	FREQUENCY 60 HZ	VOLTS 460
INSULATION F	S.F. 1.15	
ENCLOSURE IEEE841		

Notes and References

- MTR DIMENSIONS ARE APPROXIMATE
 - INSTALL FOUNDATION BOLTS IN PIPE SLEEVES
 - ALLOW FROM 0.75 to 1.50in. FOR GROUTING. SEE INSTRUCTION BOOK FOR DETAILS.
 - * Tolerance is +0 -0.50 in.
 - ** Foundation bolt grip thickness
- FOR PUMP TAPPED OPENINGS REFER TO DWG.: A264834T

Auxiliary specification

COUPLING BY PUMP MFG	CPLG TYPE REYNORD OMEGA REX ELASTOMER- ES-20 (STANDARD ORANGE ELEMENT)
CPL GUARD BY PUMP MFG.	CPLG GUARD MATL STEEL
BASEPLATE FEATURE FABRICATED STEEL	
MECH.SEAL FLOWSERVE QB CODE: 5A5X	



All dimensions are in inches.
Drawing is not to scale
Weights (lbs) are approximate

DIMENSIONS ARE CERTIFIED FOR CONSTRUCTION BY:

Janice Howard

DATE August 24, 2009

Customer: DDCE
Goulds Serial No: A264C834
Customer P.O. No: DDCE11-0126
Item No: P84100-1
Service: CHILLED WATER SUPPLY PUMP

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DRAWING NO A2648340 **Rev. 0** Date: August 24, 2009

SUPERSEDES ANY PREVIOUS DRAWINGS

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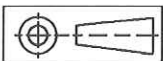
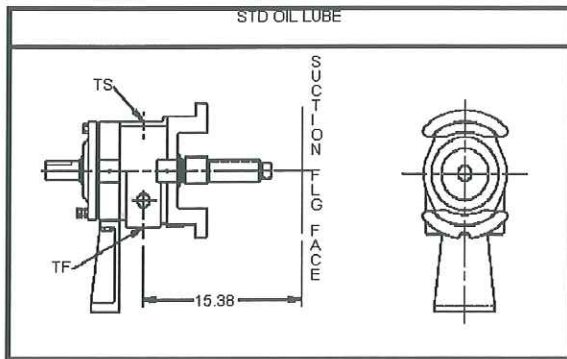
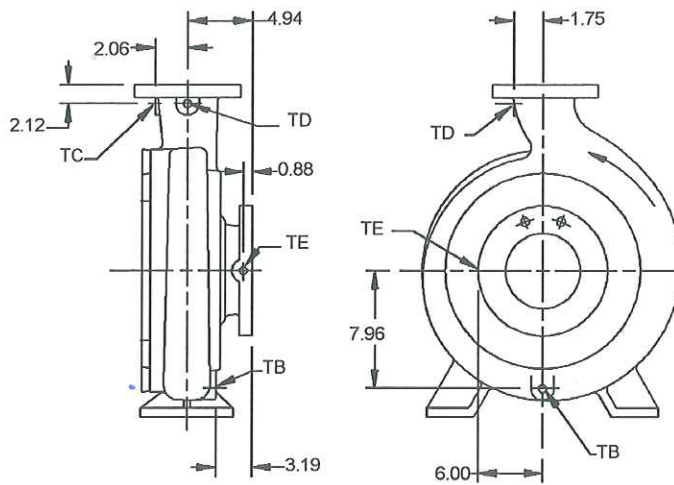


GOULDS PUMPS TAPPED OPENINGS Model 3180 S Size 3x6-14



TAPPED OPENINGS MODEL 3180 S 3x6-14

NO.	SIZE	QTY.	PURPOSE	FURNISHED		NO.	SIZE	QTY.	PURPOSE	FURNISHED	
				YES/NO	YES/NO					YES/NO	
TB	3/4	1	CASING DRAIN	YES		TF	1/2	1	BEARING FRAME DRAIN	YES	
TC	1/2	1	BY-PASS CONNECTION	YES		TS	1/2	1	OIL FILL	YES	
TD	1/2	1	DISCH. GAUGE CONNECTION	YES							
TE	1/2	1	SUCTION GAUGE CONNECTION	YES							



*All casing tap locations have a tolerance of +0 -0.5

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DRAWING NO A264834T **Rev. 0** Date: August 24, 2009

SUPERSEDES ANY PREVIOUS DRAWINGS

Model: 3180	Size: 3x6-14	Group: S	60Hz	RPM: 1780	Stages: 1
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Customer: DDCE
 Goulds Serial No: A264C834
 Customer P.O. No: DDCE11-0126
 Item No: P84100-1
 Service: CHILLED WATER SUPPLY PUMP

Designed by : Patricia Haviland
 Rotation No. : PH09002 REV 4
 Date : 07/31/2009
 Certified By :
 Rev. : 0

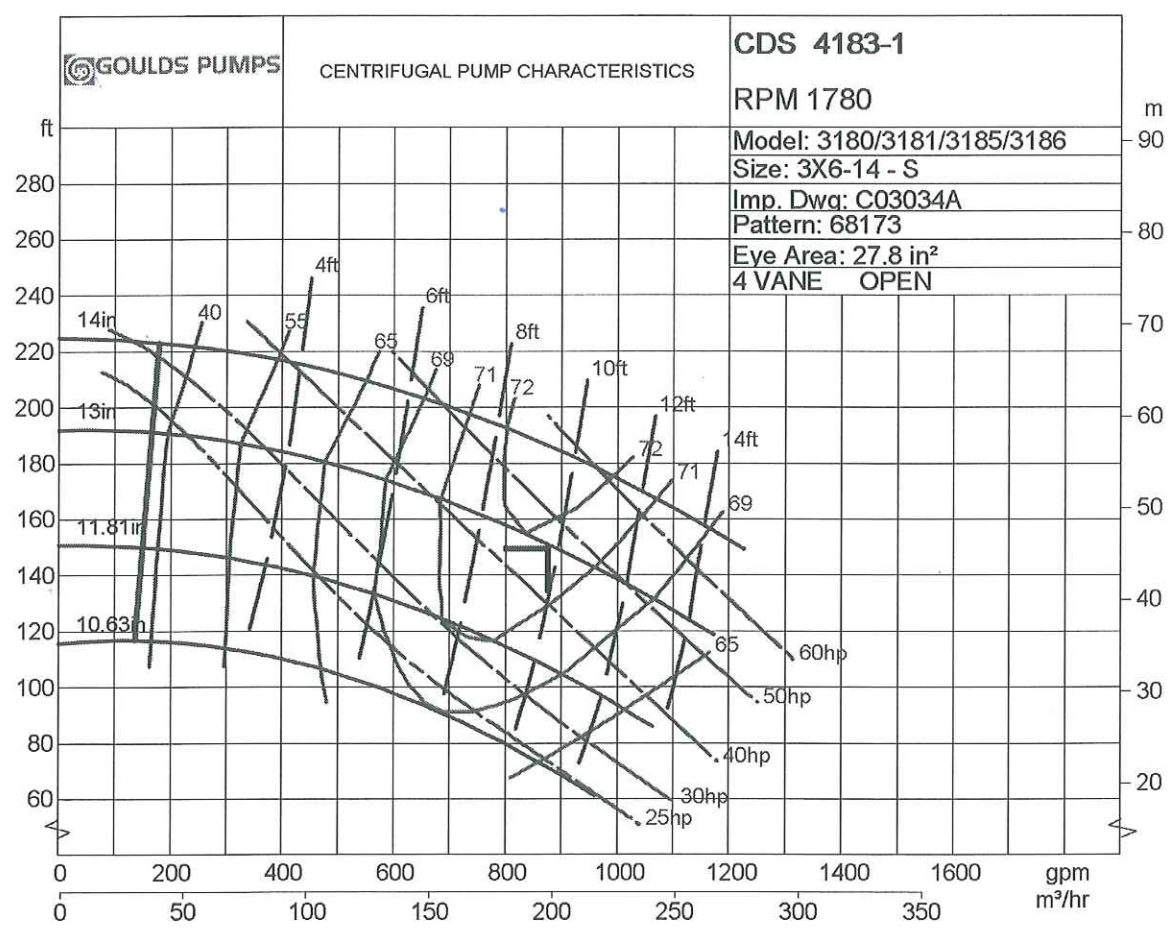
Operating Conditions

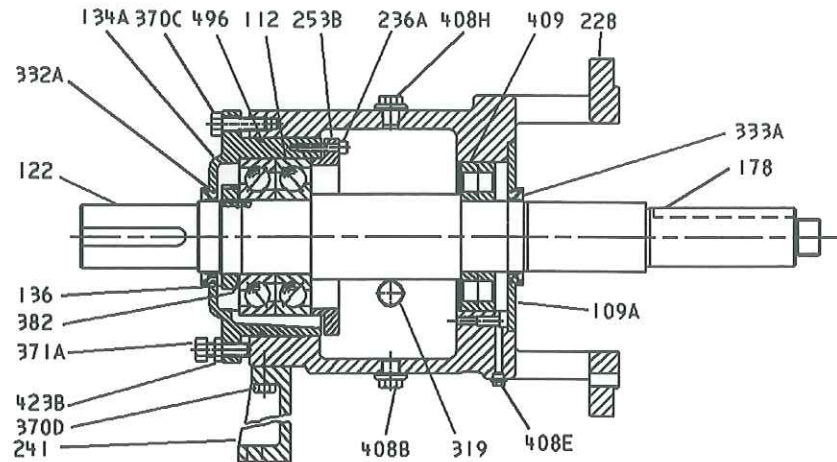
Liquid: Treated process water
 Temp.: 50.0 deg F
 S.G./Visc.: 1.000/1.000 cp
 Flow: 881.0 gpm
 TDH: 149.0 ft
 NPSHa: 27.3 ft
 Solid size:
 % Susp. Solids (by wtg):
 Max. Solids Size: 1.0000 in

Pump Performance

Published Efficiency: 72.0 %
 Rated Pump Efficiency: 71.0 %
 Rated Total Power: 46.7 hp
 Non-Overloading Power: 53.8 hp
 Imp. Dia. First 1 Stg(s): 13.0000 in
 NPSHr: 9.8 ft
 Shut off Head: 191.9 ft
 Vapor Press:
 Suction Specific Speed: 9,835 gpm(US) ft
 Min. Hydraulic Flow: 166.1 gpm
 Min. Thermal Flow: N/A

- Notes:** 1. Power and efficiency Losses are not reflected on the curve below.
 2. Elevated temperature effects on performance are not included.





* Recommended spare parts
Items not illustrated

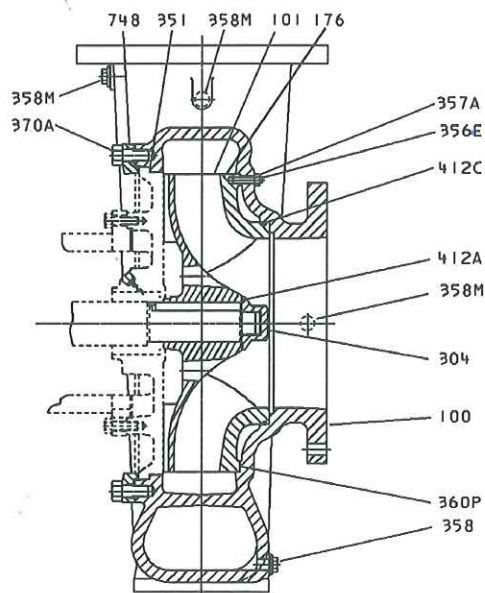
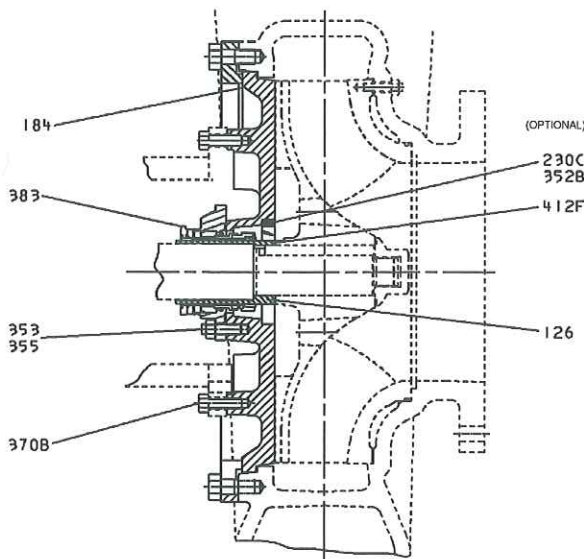
BILL OF MATERIAL

ITEM	QTY	PART NAME	MATERIAL	CI	ASTM#
100	1	CASING	CAST IRON	CI	A48
101	*	IMPELLER	316SS	316SS C	A743, A744
109A	1	COVER, END	CAST IRON		A48
112	1	BALL BEARING			
122	*	SHAFT ASSY	ALLOY STL 4340		A322
126	1	SLEEVE, SHAFT	316SS		
134A	1	HOUSING BRG	CAST IRON	CI 45	A48
136	1	BRG LOCKNUT			
176	1	SIDEPLATE	CAST IRON		A48
178	1	KEY, IMPLR	CARBON STEEL	1018/1020	A108
183	1	BEDPLATE	CARBON STEEL		
184	1	ST BOX COVER	CAST IRON	CI 45	A48
228	1	FRAME	CAST IRON	CI 45	A48
232	1	HUB, CPLG(MOTOR)			
233	1	HUB, CPLG(PUMP)			
235G	1	FLEX ELEMENT			
236A	8	SCREW, HHC(RTNR-HSG)	ISO 898-1 12.9		
241	1	FOOT, FRAME	CAST IRON		A48
253B	1	RETAINER, BRG	CAST IRON	CI 45	A48
304	1	NUT, IMPLR	316SS	316SS C	A743, A744
319	1	WINDOW, SIGLT			
332A	1	OIL SEAL (LAB)			
333A	1	SEAL, OIL			
351	1	GASKET CASE	ARAMID FIBER W/EPDM RUBBER		
353	1	STUD, GLAND QTY 4			
355	1	STUD, GLAND QTY 2			
356E	3	STUD	SS F738M A1-50 AF		F738M-91
357A	3	NUT, HEX	SS F738M A1-50 AF		F738M-91
358	1	PLUG, PIPE(CASE DRAIN)			
358H	1	PLUG, PIPE			
358M	3	PLUG, PIPE, GA, BYP	CARBON STEEL GR B		A307
360P	1	GASKET, SIDEPLATE	ARAMID FIBER W/EPDM RUBBER		
370A	12	SCREW, HHC	ISO 898-1 12.9		
370B	8	SCREW, HHC(FR-STBC)	CS ISO 898-1 8.8		
370C	3	HCAP SCREW(HSG-FRAME)	CS ISO 898-1 8.8		
370D	2	SCREW, HHC(FR-FR, FT)	CS ISO 898-1 8.8		
371A	3	SCREW, HHC(ADJ)	CS ISO 898-1 8.8		
382	1	BRG LOCKWASHING			
383	1	MECH SEAL (ORDERED)			
400	1	KEY, CPL2	CARBON STEEL 1018/1020		A108
408B	1	PLUG (OIL DRN)			
408E	4	PLUG (GRS RLF)			
408H	1	PLUG (FRAME)			
409	1	BEARING, ROLLER	CARBON STEEL GR B		A307
412A	1	O-RING IMPLR	TEFLON		A3651
412C	1	O-RING (SIDEPLATE)	VITON		
412F	1	O-RING (SLV)	TEFLON		A3651
423B	3	NUT, HEX (JAM)	CS ISO 898-1 8.8		
496	1	O-RING	BUNA-N		
497K	1	O-RING (LABSL RAD I.B)	VITON		
497L	1	O-RING (LAB SL THST I.B)	VITON		
497M	1	O-RING (LAB SL RAD O.D)	VITON		
497N	1	O-RING (LAB SL THST O.D)	VITON		
501	1	GUARD, ASSY	CARBON STEEL		
748	12	LUG, CASING	DUCTILE IRON	DI 6	A536-84
902	1	MAINTENANCE KIT			
920A	1	POWER END			

TAPERBORE PLUS SEAL CHAMBER

LIQUID END OPEN IMPELLER

WITH OPTIONAL TAPPED CONN.



Customer: DDCE
Goulds Serial No: A264C834
Customer P.O. No: DDCE11-0126
Item No: P84100-1
Service: CHILLED WATER SUPPLY PUMP

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REFER TO SEAL DRAWING NO. TO FOLLOW

FORM # ED0794 +831 +836

DRAWING NO A264834C Rev. 0 Date: August 24, 2009

SUPERSEDES ANY PREVIOUS DRAWINGS