

3625, 3859 900166

CENTRIFUGAL PUMP HORIZONTAL, VERTICAL AND VERTICAL IN - LINE

SPEC NO.

67-5018

CI	C	CAST IRON
DI	D	DUCTILE IRON
NR	N	NI-RESIST
STL	S	STEEL
4140	4	4140
BRZ	B	BRONZE
M	M	MONEL
18-8	1	STN. STEEL
SS	S	STN. STEEL (316)
5CR	5	5% CHROME
12CR	1	12% CHROME
H	H	HARDENED
F	F	HARD FACED
X	X	SPECIFY

53. API-810 CLASS _____ EXCEPTION (YES) (NO).
 54. CASE: (OUTER) (INNER). A395D-I/Δ
 55. IMPELLER 3/16 SS Δ
 56. *WEAR RINGS: CASE _____, IMPELLER _____
 57. BASKET STRAINER _____
 58. SHAFT 3/16 SS Δ
 59. PUMP BOWL (VERTICAL) _____
 60. SHAFT SLEEVE (IMPELLER) (MECH SEAL). 3/16 S/S
 61. *THROAT BUSHING _____
 62. *INTERSTAGE: SLEEVE(S) _____
 BUSHING(S) _____
 63. GLAND, MECH SEAL 3/16 S/S
 THROTTLE BUSH NON-SPARK BRONZE

64. BEARING HOUSING ADAPTER _____
 65. BEARING HOUSING (STEEL PREFERRED) CI
 66. *MATING WEAR SURFACES OF HARDENABLE MATERIALS SHALL HAVE A MINIMUM HARDNESS DIFFERENCE OF 50 BHN. UNLESS BOTH SURFACES HAVE A HARDNESS OF AT LEAST 400 BHN.
 67. PIPING AND APPURTENANCES PER API-810 MODIFIED (YES) (NO).
 68. THE FOLLOWING ARE UNACCEPTABLE FITTINGS WITH SUBSTITUTES SHOWN:
 A. BUSHINGS (USE SHAPE NIPPLES)
 B. ALL-THREAD OR CLOSE NIPPLE (USE 3 INCH MINIMUM LENGTH).
 C. HEX HEAD PLUGS (USE SOLID PLUGS)
 D. STREET ELBOW.
 69. VENT AND DRAIN VALVES SHALL BE SEAL WELDED. PIPING OFF PUMP TO THE FIRST VALVE SHALL BE SCHEDULE 180 AND STAMPED WITH A SHARP FACE STEEL HAND STAMP. PIPING SHALL BE 3/4 INCH NPS EXCEPT 1/2 INCH NPS IS ACCEPTABLE FOR PUMPS WITH DISCHARGE FLANGE 2 INCHES OR SMALLER. DRAIN VALVE SHALL BE 800# GATE.
 70. VIBRATION MONITORING: (NON-WIT) (WIT) (PROX PROBE).
 TYPE DETECTOR: (ACCELEROMETER) (VELOCITY) (ACOUSTICAL) (PROX PROBE).
 FURNISHED BY (PURCHASER) (VENDOR), MOUNTED BY (PURCHASER) (VENDOR).
 MONITOR INBOARD END: (YES) (NO), PLANE: (X) (Y), MONITOR OUTBOARD END (YES) (NO).
 PLANE (X) (Y) (THRUST), APPROVED (YES) (NO), ALL REFINING EQUIPMENT VIBRATION MONITORING REQUIREMENT MUST BE APPROVED BY REFINING ROTATING EQUIPMENT SECTION. SPECIAL NOTE TO PARTY FILLING OUT INQUIRY. APPROVAL SHALL BE OBTAINED BEFORE RELEASING INQUIRY TO PURCHASING.
 71. SHORTEST, INSPECTION AND PROCEDURES: (NON-WIT) (WIT) (PROX PROBE).
 72. PERFORMANCE: (NON-WIT) (WIT) (PROX PROBE).
 73. *MECHANICAL RUN: (WIT) (PROX PROBE) HOURS _____
 74. NPSH: (NON-WIT) (WIT) N.A. Δ
 75. INSPECT LONG TERM STORAGE PACKAGING BEFORE SHIPMENT: REQUIRED (YES) (NO).
 76. DISMANTLING AND INSPECTION AFTER TEST: REQUIRED (YES) (NO), (WIT) (PROX PROBE).
 77. PREPRODUCTION ENGINEERING MEETING: REQUIRED (YES) (NO).
 78. WELD MAPS AND PROCEDURES APPROVAL BEFORE START OF FABRICATION: REQUIRED (YES) (NO).
 79. **WELD MAPS AND PROCEDURES APPROVAL BEFORE START OF CASTING REPAIR: REQUIRED (YES) (NO).
 80. MATERIAL CERTIFICATION: REQUIRED (YES) (NO), (WIT) (PROX PROBE).
 81. INSPECTION REQUIRED FOR CASTINGS: REQUIRED (YES) (NO).
 (RADIOGRAPH) (ULTRASONIC).
 82. **REPAIR OF LEAKS AND DEFECTS, OTHER THAN MINOR BLENDING BY GRINDING, OF PRESSURE CONTAINING CASTINGS OR FORGINGS SHALL NOT BE DONE UNTIL REPAIR PROCEDURE HAS BEEN SUBMITTED TO AND APPROVED BY BUYER'S INSPECTION GROUP. ALREADY REPAIRED, IN STOCK PRESSURE CONTAINING CASTINGS OR FORGINGS MAY BE USED IF THE REPAIR PROCEDURE THAT WAS USED IN MAKING THE REPAIRS IS SUBMITTED AND APPROVED BY BUYER'S INSPECTION GROUP. THE PROCEDURE SHALL BE FOR THE SPECIFIC PUMP AND MATERIAL INVOLVED AND SHALL INCLUDE THE REQUIREMENTS AS SET OUT IN SECTION IX OF ASME UNFIRE PRESSURE VESSEL CODE.

FOR: ☐ INQUIRY, SH 3 OF 4, NO. _____ (DATE) _____
☐ QUOTATION, SH 3 OF 4, NO. _____
☒ PURCHASE, SH 3 OF 4, P O NO. 6014-0201-J350-01
☐ PROCESS, SH 3 OF 4

153. (IMPELLER) (IMPELLER) (IMPELLER) (FLANGED). (PIPE) Δ
 154. SEAL FLUSH COOLER: (YES) (NO).
 155. EXTERNAL SEAL FLUSH TO BE REQUIRED: (YES) (NO) _____ GPM. _____ PSIG.
 156. COOLING WATER PIPING API-810 N/A _____ GPM REQUIRED
 157. COOLING WATER PIPING MATERIAL: (COPPER) (CARBON STEEL) (STAINLESS STEEL) (TUBING) (PIPE) (SCREWED) (TUBE-FITTINGS) (FLANGED).
 BASEPLATE
 158. TYPE PER API-810: (DRIP RIM) (CHANNEL) (FABRICATED) (CAST) (CAST IRON) (STEEL) (1/16-1/8 INCH SHIM ALLOWANCE UNDER DRIVER) (LEVELLING SCREWS) (DRIVER POSITIONING) (SCREWS FOR LATERAL AND AXIAL ALIGNMENT MOVES), DRILLED AND TAPPED FOR DRIVER: (YES) (NO). PHILLIPS HEAVY DUTY BASE SHALL APPLY PER ATTACHED SKETCH
 159. IN-LINE PUMP HAS FLAT MOUNTING SURFACE: (YES) (NO) (N/A).
 160. RECOMMENDED HP 7.5 Δ RPM 1200 FURNISH DETAIL INFORMATION ON DRIVER SPEC. FORM IF DRIVER TO BE FURNISHED WITH PUMP
 161. MINIMUM SUBMERGENCE REQUIRED _____ FEET, COLUMN PIPE: (FLANGED) (THREADED)
 162. PUMP, LINE AND TOP SHAFT: (ALL ONE PIECE) (COUPLED).
 163. LINE SHAFT COUPLINGS ARE LOCKED (YES) (NO), LINE SHAFTS ARE (OPEN) (CLOSED).
 164. IMPELLER ATTACHMENT: (COLLETS) (KEYED) (SCREWED).
 165. BOWLS ARE: (FLANGED) (SCREWED).
 166. GUIDE BUSHINGS, MATERIAL: BOWL _____, LINE SHAFT _____
 167. GUIDE BUSHINGS, NUMBER: BOWL _____, LINE SHAFT _____
 168. DIAMETRICAL CLEARANCE: BOWL _____, LINE SHAFT _____
 169. GUIDE BUSHING LUBE: (WATER) (OIL) (GREASE).
 170. PUMP THRUST IN LBS: AT MINIMUM FLOW _____, AT DESIGN FLOW _____
 171. IT IS PURCHASER'S INTENT TO BUY SOME OR ALL OF THE SPARE PARTS AND/OR WEAR PARTS ALONG WITH THE BASIC EQUIPMENT COVERED BY THIS SPECIFICATION. PURCHASER ALSO INTENDS TO BUY OPERATIONAL SPARES WELL AHEAD OF ACTUAL UNIT OPERATION.
 172. QUOTATIONS SHALL COVER THE BASIC EQUIPMENT PLUS THE FOLLOWING AS CHECKED:
☐ RECOMMENDED LIST OF CONSTRUCTION SPARES, ITEMS AS RECOMMENDED BY VENDOR, INCLUDING GASKETS, SEALING COMPOUND, BOLTS, NECESSARY TO INSURE THAT EQUIPMENT CAN BE MECHANICALLY COMPLETED. LIST SHALL BE COMPLETE WITH ORIGINAL MANUFACTURER, PART NUMBERS, DESCRIPTIONS, PRICE AND DELIVERY: ☐ LIST OF SPARE ROTATING ELEMENTS (TESTED) (NOT TESTED) COMPLETE WITH DESCRIPTIONS, PRICE AND DELIVERY: ☐ WEAR PARTS PACKAGE SHALL BE PARTS REQUIRED FOR EQUIPMENT CHECK OUT AND START UP FOR MECHANICAL EQUIPMENT ONLY, COMPLETE WITH ORIGINAL MANUFACTURER PART NUMBER SUCH AS BEARINGS, SEALS, ETC. DESCRIPTIONS, PRICE AND DELIVERY: ☐ EXPENDABLE PARTS PACKAGE, PARTS REQUIRED FOR EQUIPMENT CHECK OUT AND START UP FOR ELECTRICAL AND INSTRUMENTATION COMPLETE WITH ORIGINAL MANUFACTURER PART NUMBERS, DESCRIPTIONS, PRICE AND DELIVERY: ☐ OPERATIONAL SPARE PARTS (SHAFTS SLEEVES, BEARINGS, WEAR RINGS, PKG. OR MECH. SEAL, GASKETS) ARE ALSO TO BE QUOTED IF POSSIBLE. VENDOR QUOTATION SHOULD INDICATE WHAT, IF ANY, ECONOMIC BENEFIT THERE WILL BE IF ALL OR PART OF THESE ARE MANUFACTURED AT THE SAME TIME AS THE EQUIPMENT. INCLUDE THE LATEST DATE OPERATIONAL SPARE PARTS CAN BE ORDERED TO TAKE ADVANTAGE OF LOWER PRICE AND/OR BETTER DELIVERY.
 173. TWO SETS OF THE ABOVE DOCUMENTS SHALL BE SUBMITTED WITH YOUR QUOTATION. SOME OR ALL OF THIS INFORMATION MAY BE INCLUDED ON ONE OR MORE OF THE FOLLOWING DOCUMENT CATEGORIES: (DOCUMENT CODE 03-PARTS LIST) (DOCUMENT CODE 04-CROSS-SECTIONAL DRAWINGS) (DOCUMENT CODE 08-RECOMMENDED SPARE PARTS) (DOCUMENT CODE 10-BILL OF MATERIAL).
 174. SEE TABLE IN VENDOR DOCUMENTS REQUIRED FOR P.O./CONTRACT FOR FULL DESCRIPTION OF THE DATA CONTAINED IN THE ABOVE DOCUMENT CODES.
 175. THE DOCUMENTS DESIGNATED AS VENDOR DOCUMENTS REQUIRED WITH P.O./CONTRACT WILL BE REQUIRED AS SOON AS POSSIBLE AFTER A PURCHASE ORDER IS ISSUED TO SUCCESSFUL VENDOR. EACH VENDOR SHALL INDICATE NUMBER OF DAYS AFTER COMMITMENT THAT WILL BE REQUIRED TO FURNISH THOSE DOCUMENTS TO PURCHASER. DOCUMENTS FURNISHED WITH YOUR BID ARE IN ADDITION TO VENDOR DOCUMENTS REQUIRED WITH P.O./CONTRACT.

SEE VENDOR FORMS ATTACHED

CENTRIFUGAL PUMP HORIZONTAL, VERTICAL AND VERTICAL IN - LINE

SPEC NO. _____

67-5018

FOR: ☐ QUOTATION, SH 4 OF 4, NO. _____ (DATE) _____
☒ PURCHASE, SH 4 OF 87 P O NO. 6014-024-J350-01
☐ PROCESS, SH 4 OF 4

83. MECHANICAL RUN SHALL BE DEFINED AS A STEADY STATE ENDURANCE RUN OF _____ HOURS
 DURATION. DURING THE RUN, VIBRATION LEVEL, AND BEARING (OIL) TEMPERATURES SHALL BE
 LOGGED EVERY _____ MINUTES FROM START TO END OF RUN.

RISE-DURING PERF. TEST.

84. VIBRATION READINGS ARE TO BE PER _____

85. PAINTING SHALL BE: (HEAD) (IMPELLER) (SPECIMEN) (OTHER) EPOXY, 5 MILS THK. MIN.

86. DRIVER TYPE: (MOTOR) (STEAM TURB) (GAS TURB) (ENGINE) (HYD TURB) SPEC NO(S) _____

ELECTRIC MOTOR

87. SPEC FORM(S) _____ ATTACHED. 88. DIMENSIONAL PRINT ATTACHED (YES) (NO).

89. MOTOR ENCLOSURE: (ODP) (TEFC) (EXPROOF) (WP) (TENVAC), VOLTS _____
 PHASE _____, HERTZ _____, FRAME _____

90. FURNISHED BY: (PURCHASER) (VENDOR), MOUNTED BY: (PURCHASER) (VENDOR).

91. MOTOR SHALL BE SIZED AS FOLLOWS:

DRIVER HORSEPOWER RATING FOR THE RATED POINT (WITH THE IMPELLER DIAMETER SELECTED.)
 SHALL BE AS FOLLOWS: (NOTE: END OF CURVE SHALL BE DEFINED AS 1.25 TIME CAPACITY
 AT B.E.P. ON PUMP CURVE.)

92. FOR U-FRAME MOTORS: PUMPS REQUIRING 3HP OR LESS AT THE END OF THE PUMP CURVE, THE
 DRIVER SHALL BE THE NEXT SIZE LARGER THAN THAT REQUIRED FOR THE END OF THE PUMP
 CURVE. SELECTED MOTOR SHALL NOT BE LARGER THAN REQUIRED FOR THE END OF MAXIMUM
 IMPELLER DIAMETER CURVE.

93. FOR RATED POINT HORSEPOWER REQUIREMENTS OVER 3.1 BHP THRU 99 BHP THE MOTOR SHALL
 BE SIZED FOR END OF CURVE OR 115% OF RATED BHP WHICHEVER IS LARGER.

94. FOR RATED POINT REQUIREMENTS OVER 100 BHP, THE MOTORS SHALL BE SIZED 110% RATED
 BHP MINIMUM, OR UP TO THE END OF CURVE BHP WHICHEVER IS SMALLER.

95. WHEN T-FRAME MOTORS: IF REQUIRED BY THE PUMP DESIGN AND APPROVED BY THE COMPANY,
 ARE USED THEY SHALL BE SIZED AS FOLLOWS: a. DERATE T-FRAME MOTORS BY MULTIPLYING
 NAMEPLATE HP BY 0.87. b. USING THE DERATED HP APPLY ABOVE GUIDE FOR U-FRAME MOTORS
 TO OBTAIN SIZE MOTOR REQUIRED. c. MOTORS QUOTED IN BASE BID SHALL BE U-FRAME. T-
 FRAME MOTORS SIZED AS ABOVE MAY BE QUOTED AS ALTERNATE, BUT WILL BE GIVEN CONSID-
 ERATION ONLY IF MOTOR DELIVERIES ARE A PROBLEM.

96. PREPARATION AND PACKAGING FOR DOMESTIC SHIPMENT SHALL BE MFR'S STANDARD PLUS
 FOLLOWING: FLANGED OPENINGS TO BE CLOSED WITH 3/16 INCH MINIMUM THICKNESS METAL
 COVERS WITH RUBBER GASKET AND A MINIMUM OF 4 FULL DIAMETER BOLTS. THREADED OPEN-
 INGS TO BE CLOSED WITH STEEL CAPS OR SOLID ROUND PLUGS WITH 1 1/2 INCH MINIMUM LONG
 SHANK OF SAME MATERIAL AS PUMP CASE EXCEPT USE STEEL PLUGS ON CAST IRON CASES.

97. PREPARATION AND PACKAGING FOR OVERSEAS SHIPMENT SHALL BE MFR'S STANDARD "EXPORT
 BOXING" PLUS CLOSURE REQUIREMENTS AS ABOVE FOR DOMESTIC SHIPMENT.

98. LONG TERM STORAGE PROTECTION SHALL BE APPLIED BY VENDOR. IN-SHOP INSPECTION BY
 PURCHASER'S INSPECTOR IS REQUIRED PRIOR TO ITS SHIPMENT: (YES) (NO).

99. FOR ENGINEERING DETAILS CONTACT: _____

100. OTHER INFORMATION _____

A. FLANGE PRESSURE RATING SHALL BE
 DE-RATED BY 20%.

B. PROVIDE DURAMETALLIC R&M
 MAGNETIC TYPE BEARING GUARD,
 BULL'S EYE LEVEL INDICATOR
 AND DIAPHRAGM VENT.

VENDOR DOCUMENTS REQUIRED WITH PURCHASE ORDER/CONTRACT
 176. AS A PART OF YOUR QUOTATION, YOU HAVE AGREED TO FURNISH THE VENDOR DOCUMENTS
 BELOW IN THE TIMES AND QUANTITIES INDICATED. THESE DOCUMENTS ARE NECESSARY FOR
 THE PURCHASER TO MEET DESIGN AND OPERATING SCHEDULES.

A. VENDOR SHALL MARK APPLICABLE PURCHASE ORDER NUMBER, EQUIPMENT SPECIFICATION
 NUMBER, AND DOCUMENT CODE ON ALL DOCUMENTS.

B. DO NOT DUPLICATE DOCUMENTS FOR IDENTICAL EQUIPMENT ON THE SAME PURCHASE ORDER.

C. IF VENDOR'S NORMAL METHOD OF FURNISHING DOCUMENTS COMBINES TWO OR MORE OF
 THE REQUIRED DOCUMENT CODES FOR EXAMPLE, AN 04 MIGHT ALSO INCLUDE 03, 08 AND
 10 DOCUMENT CODES. VENDOR SHALL FURNISH THE MAXIMUM QUANTITY OF DOCUMENTS
 REQUIRED FOR ANY ONE OF THE COMBINATIONS. IN THE ABOVE EXAMPLE, ASSUME 10
 DOCUMENT CODE REQUIRED THE MOST COPIES-FURNISH THAT NUMBER, BUT CODE ALL
 DOCUMENTS 03, 04, 08 AND 10.

D. A TRANSPARENCY MAY BE FURNISHED IN LIEU OF THE QUANTITY OF CERTIFIED DOCUMENTS
 REQUIRED.

E. MAIL DOCUMENTS TO: _____

VENDOR TO COMPLETE AS PART OF BID: SHOW NUMBER OF CALENDAR DAYS VENDOR REQUIRES FOR DELIVERY OF DOCUMENTS AFTER COMMITMENT.				
DOC- CODE	CR	DOCUMENT DESCRIPTION	APPROVAL QTY DAYS	CERTIFIED QTY DAYS
01		DIMENSIONAL DRAWINGS:		
02		INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS		
03		PARTS LIST: CONSTRUCTION AND QUANTITIES.		
04		CROSS SECTIONAL DRAWINGS:		
06		RECOMMENDED SPARE PARTS: SUPPLY AND DELIVERY		
07		PERFORMANCE DATA: PERFORMANCE CURVES COVERING CAPACITY, HEAD, HP, NPSH AND EFFICIENCY FOR FURNISHED. MAXIMUM AND MINIMUM DIAMETER IMPELLERS.		
10		BILL OF MATERIAL		
12		FOUNDATION DESIGN DATA: ANCHOR BOLT LAYOUT, BOLT DETAIL AND LOADING REQUIRED FOR FOUNDATION DESIGN.		
18		SEAL SYSTEM: DIMENSIONAL DRAWINGS, PARTS LISTS AND BILLS OF MATERIAL FOR MECHANICAL SEALS AND SEAL FLUSH PIPING.		
38		COUPLING		

THE DOCUMENTS DESCRIBED ABOVE ARE PART OF THE PURCHASE
 AND MUST BE FURNISHED BEFORE RENDERING FINAL INVOICE

REMARKS _____

177. NET WEIGHT EACH: WITH DRIVER _____ LBS. LESS DRIVER _____ LBS

PRICE FOR ORIGIN

178. COMPLETE UNIT AS SPECIFIED, LESS DRIVER EACH.....0

179. EXTRA FOR DRIVER, EACH.....0

180. TOTAL PUMP UNIT WITH DRIVER, EACH.....0

181. COST TO MOUNT DRIVER FURNISHED BY PURCHASER.....0

182. DELIVERY, WEEKS: LESS DRIVER _____, WITH DRIVER _____

183. COST FOR TESTS, ITEMIZE _____

184. EXCEPTIONS SHOULD BE NOTED BELOW OR ATTACHED _____

185. OTHER INFORMATION HEAD RISE TO SHUTOFF = 27.57' @

USE THIS FORM ONLY WHEN MOTOR IS FURNISHED
AS AN INTEGRAL PART OF A COMPLETE UNIT

☐ INQUIRY, SH 1 OF 1, NO. _____
☐ QUOTATION, SH 1 OF 1, NO. _____
☒ PURCHASE, SH 5 OF 7, NO. 6014-0231-J350-01
☐ PROCESS, SH 1 OF 1

A	(AFE)	(INV. UNIT) (CLASS)	(ITEM NO. OR NO'S)
E			
I			
M			
S			
FM			
		QUANTITY	UNIT(S)

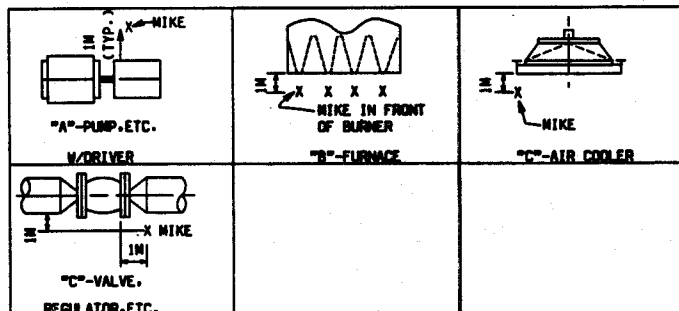
SPEC FOR: ☐ INQUIRY, SH OF .NO. _____
☐ QUOTATION, SH OF .NO. _____ (DATE) _____
☒ PURCHASE, SH 6 OF 7, P O NO. 6014-0261-J350-01

1. CERTIFIED DATA SECTION SHALL BE COMPLETELY FILLED IN.
2. THE ACTUAL NOISE PRODUCED BY THE EQUIPMENT SHALL BE MEASURED IN ACCORDANCE WITH RECOGNIZED TEST STANDARDS.
3. ATTACH SKETCH SHOWING THE MEASURING POINTS AND THE POINT AT WHICH THE MAXIMUM SOUND LEVEL OCCURS.
4. COMPLETE TABLE WITH ACTUAL SOUND LEVELS REGARDLESS OF WHAT SOUND LEVELS ARE CERTIFIED.
5. THE VALUE OF B FOR EACH OCTAVE BAND SHALL BE INSERTED INTO ABOVE TABLE WHEN FREE FIELD CORRECTION PROCEDURE DESCRIBED IN NOISE LEVELS OF STANDARD NO. 15-07-4 IS UTILIZED.
6. PHILLIPS STANDARD NO. 15-07-4, NOISE-INDUSTRIAL EQUIPMENT, BECOMES A PART OF THIS SPECIFICATION.

PROJECT EQUIPMENT

7. MAXIMUM PERMISSIBLE SOUND LEVEL MEASURED AS INDICATED SHALL BE:
_____ dBA RE 20 MICROPASCALS, _____ dBA RE 10^{-12} WATT (TOTAL A-WEIGHTED SOUND POWER LEVEL).


8. THE MAXIMUM PERMISSIBLE A-WEIGHTED SOUND LEVEL APPLIES TO THE EQUIPMENT DURING ITS RANGE OF OPERATION: ☐ MICROPHONE LOCATION DURING MEASUREMENT SHALL BE AS SHOWN IN SKETCH _____ BELOW, ☐ MEASURED 1 METRE FROM MAJOR BOUNDING SURFACES IN ACCORDANCE WITH AN ACCEPTABLE TEST STANDARD RECOGNIZED BY THE INDUSTRY OR WITH ANSI S1.13 USING THE FIELD METHOD AS A MINIMUM.





8. OTHER INFORMATION

EQUIPMENT INFORMATION

10. DESCRIPTION

MODEL NO. 3196 MTX , SIZE 4X6-10 H 

DESIGN: CAPACITY 621 

POWER 7.5 Hp , SPEED 1180 

TEST CONDITION

11. FLOW: RATE _____, PRESSURES _____

TEMP _____, FLUID _____

12. PIPING: SIZE _____, SCHEDULE _____

RPM _____, % RATED LOAD _____

13. ☐ SOUND PRESSURE LEVEL db RE 20 MICROPASCALS. ☐ SOUND POWER LEVEL db RE 10⁻¹² WATT.

[illegible]

NOISE CONDITION

14. DATA COLLECTED USING TEST STANDARD _____

15. WE CERTIFY THAT THE NOISE DUE TO THIS EQUIPMENT ~~WILL~~ WILL NOT EXCEED THE SPECIFIED MAXIMUM PERMISSIBLE SOUND LEVEL. ☐ WILL NOT EXCEED THE LEVELS LISTED IN TABLE ABOVE OBTAINED BY: ☐ ACTUAL TEST ON THE EQUIPMENT, ☐ TEST ON SIMILAR UNIT IN OPERATION, ☐ TEST ON SIMILAR UNIT IN OUR PLANT, ☐ INDEPENDENT LABORATORY TEST (ATTACH REPORT), ☐ ESTIMATED USING PREDICTION SCHEME (ATTACH DESCRIPTION).

16. DESCRIPTION OF SPECIAL ACOUSTICAL TREATMENT OR DEVICE PROPOSED FOR THE EQUIPMENT (USE ADDITIONAL SHEETS IF REQUIRED): _____

17. EXCEPTIONS SHOULD BE NOTED BELOW OR ATTACHED: _____

MAXIMUM NOISE LEVEL: 85dBA AT 1 METER

67-5018
Pg 7 of 7

GOULDS SERIAL NO:
772D107

GOULDS PUMPS, INC

Engineered Products Div.
Seneca Falls, N.Y. 13148

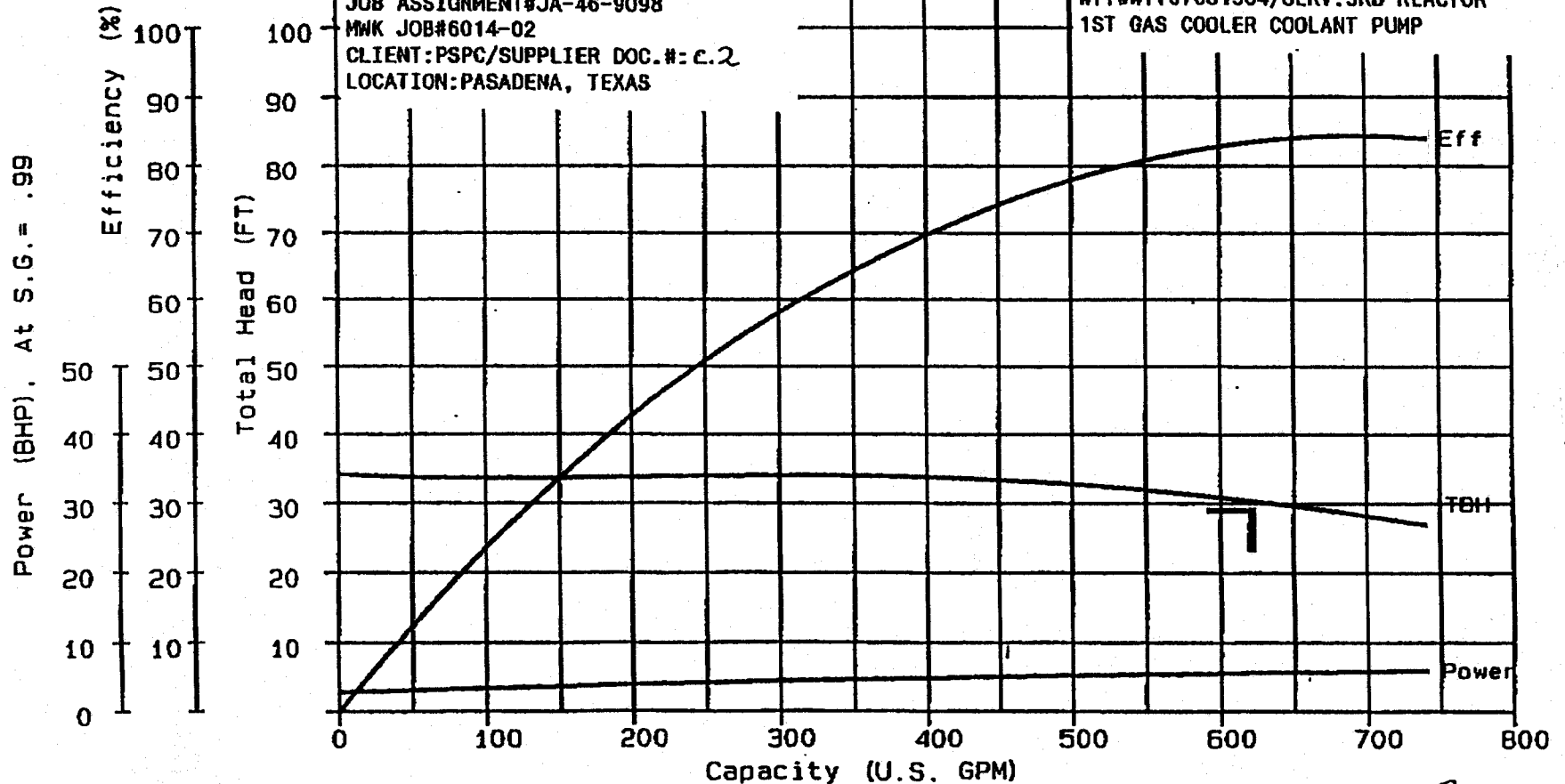
Model: 3196MTX
Speed: 1180 RPM
Drawing No: C02521A

Size: 4X6-10H
Impeller Dia.: 9.125
Pattern No: 63773

TEST DATE: 4-18-95
AS-BUILT PERFORMANCE CURVE

GOULDS SER#772D107
CUST:M.W. KELLOGG/PO#6014-02D1-
J350-01/ITEM#PS-2001-220000-67-5018
WTT#WTT67001504/SERV:3RD REACTOR
1ST GAS COOLER COOLANT PUMP

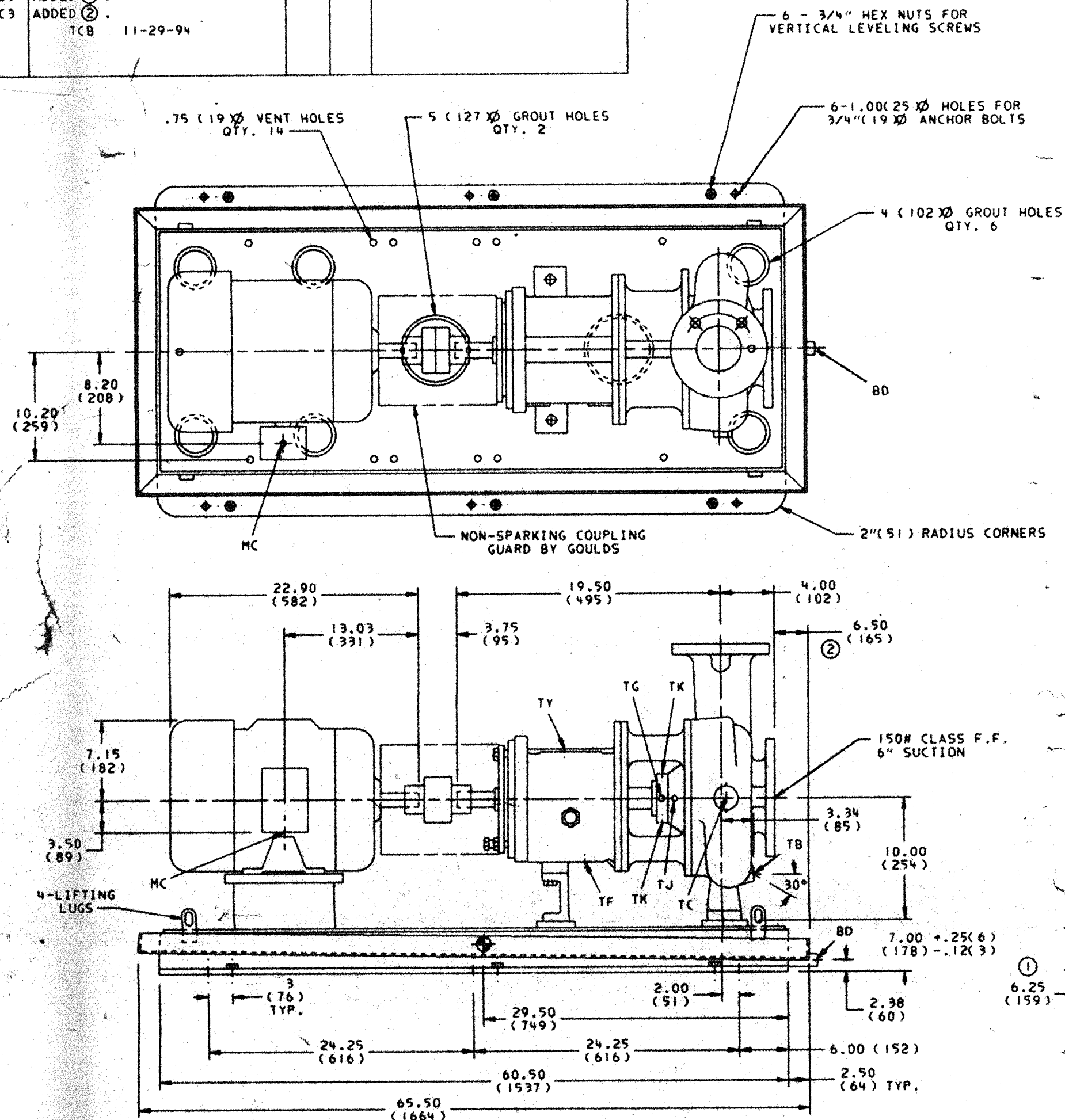
REQ#6014-02D1-J350-01
JOB ASSIGNMENT#JA-46-9098
MWK JOB#6014-02
CLIENT:PSPC/SUPPLIER DOC.#:C.2
LOCATION:PASADENA, TEXAS



Certified Test Data
By: *[Signature]*
Date: 4-18-95

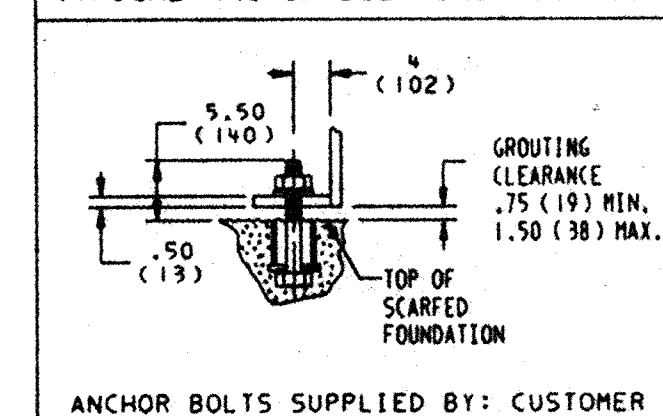
VENDOR DATA

REV.	ZONE	DESCRIPTION	REV.	ZONE	DESCRIPTION
1	B1	ADDED MOTOR ITEM NO. AND WTT NO.			
	B2-3	DIMENSIONALLY LOCATED 'TB' CASING DRAIN CONNECTION.			
	B3	ADDED ①.			
	C3	ADDED ②.			
		TCB 11-29-94			



CONNECTIONS TABLE						
NO.	SIZE	TYPE	QTY	PURPOSE	STATUS	FOR USE BY
TB	1/2	NPT	1	CASE DRAIN	PLUGGED	CUSTOMER
TC	1/2	NPT	1	BYPASS CONNECTION	PLAN II	GOULDS
TF	3/8	NPT	1	BEARING FRAME DRAIN (OIL)	PLUGGED	CUSTOMER
TG	1/2	NPT	1	MECHANICAL SEAL GLAND FLUSH	PLAN II	GOULDS
TJ	3/8	NPT	1	STUFFING BOX FLUSH CONNECTION	PLUGGED	CUSTOMER
TK	1/2	NPT	2	MECHANICAL SEAL GLAND VENT & DRAIN	PLUGGED	CUSTOMER
TY	1/2	NPT	1	OIL FILL CONNECTION	EXP.CHAM.	GOULDS
BD	2	NPT	1	BASEPLATE DRAIN	-----	CUSTOMER
MC	1-1/4	NPT	1	MOTOR CONDUIT CONNECTION	-----	CUSTOMER

TYPICAL ANCHOR BOLT INSTALLATION



MODEL 3196

GROUP: MTX SIZE: 4X6-10H
 BASEPLATE: FABRICATED STEEL - PHILLIPS STYLE
 PUMP LUBRICATION: FLOOD OIL

MOTOR SPECIFICATIONS

MANUFACTURER: SIEMENS FRAME: 256U
 H.P.: 7.5 R.P.M.: 1200
 PHASE: 3 HERTZ: 60 VOLTAGE: 460
 ENCLOSURE: TEFC

COUPLING SPECIFICATIONS

MANUFACTURER: WOODS
 TYPE: SC SIZE: 7

MECHANICAL SEAL SPECIFICATIONS

MANUFACTURER: CRANE
 TYPE: 8B1 (ART. MFR. CODE: XF(51)(X(15))
 GLAND TYPE: FLUSH. V&O W/BUSHING

WEIGHTS-LBS(KG)

ITEM	WET	DRY
PUMP	351 (159)	336 (153)
MOTOR	316 (143)	316 (143)
BASEPLATE	600 (272)	600 (272)
TOTAL	1267 (574)	1252 (568)

MAINTENANCE WEIGHT (BACK PULLOUT) = 165 (75)

NOTES

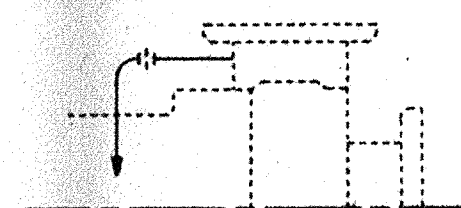
- FLANGES CONFORM TO ANSI B16.1. BOLT HOLES STRADDLE ϕ .
- ROTATION CW FACING COUPLING END.
- DESIGNATES UNIT CENTER OF GRAVITY
- MAINTENANCE CLEARANCE IS INHERENT IN THE SHAFT SEPARATION.
- PLUGGED CONNECTIONS ARE PLUGGED WITH EITHER PIPE PLUGS OR METAL FLANGE COVERS.
- LIFT UNIT UTILIZING BASEPLATE LIFTING LUGS. TO AVOID POSSIBLE DAMAGE OF MOUNTED EQUIPMENT. SPREADER BARS MAY BE REQUIRED.
- FOR NOZZLE LOADS SEE DWG. # FL196 REV. 1
- HORIZONTAL POSITIONING SCREWS FOR MOTOR ARE SUPPLIED BY GOULDS.

CUSTOMER DATA

GOULDS SERIAL ORDER NO.: 772D107
 CUSTOMER: M.V. KELLOGG
 CUSTOMER P.O. NO.: 6014-0201-J350-01
 PROJECT NO.: 6014-02
 ITEM NO.: PS-2001-220000-67-5018 (PUMP)
 PS-2001-220000-30-5018 (MOTOR)
 SERVICE: 3RD REACTOR 1ST GAS COOLER COOLANT
 CLIENT: PSPC
 LOCATION: PASADENA, TEXAS
 REQ. NO.: 6014-0201-J350-01
 JOB ASSIGNMENT NO.: JA-46-9098
 WTT NO.: WTT 67001504 (PUMP)
 WTT 30002594 (MOTOR)

API PLAN 11 316LSS SOCKET WELDED PIPE (A312) 1/2" NOMINAL SCHEDULE 80 WITH 3000# FITTINGS

PARTS LIST			
PART NAME	MAT'L	SIZE	DESCRIPTION
PIPE FITTINGS	316LSS	1/2"	3000# (A182)
ORIFICE UNION	316LSS	1/2"	1/8" ORIFICE



RECIRCULATION FROM PUMP CASE THROUGH ORIFICE TO SEAL.

KELLOGG VDT# 7-211

ACCEPTANCE FOR ENGINEERING USE

THIS DOCUMENT IS:

ACCEPTED (AC) ☒
 ACCEPTED WITH COMMENTS (AC-C) ☐
 NOT REVIEWED-ACCEPTED (NR) ☐
 NOT ACCEPTED (NAC) ☐

ACCEPTANCE DOES NOT RELIEVE VENDOR FROM FURNISHING MATERIAL IN CONFORMANCE WITH ORDER. REFER TO VDR-1 FOR FULL DEFINITION OF ACCEPTANCE CONDITIONS.

TECHNOLOGY *MACH* SIGNED *[Signature]* DATE 12 DEC 94

CERTIFIED FOR CONSTRUCTION PURPOSES ONLY WHEN SIGNED.
 SIGNATURE TIMOTHY BAXTER DATE 10-06-94

GOULDS PUMPS, INC.
 INDUSTRIAL PRODUCTS GROUP
 ENGINEERED PRODUCTS DIV.

PUMP OUTLINE DRAWING MODEL 3196 MTX

DRAWN	DATE	APPROVED	DATE	THIRD ANGLE PROJECTION
TCB	10-03-94	RNP	10-06-94	<input checked="" type="checkbox"/>

DRAWING IS NOT TO SCALE
 DIMENSIONS IN INCHES(MM)
 WEIGHTS ARE APPROXIMATE

DRAWING 772107#C1
 SHEET 1 OF 1