

MATERIALS OF CONSTRUCTION		
ITEM NO.	DESCRIPTION	MATERIAL
1	HEAD	SA516 GR70
2	FOLLOWER	SA516 GR70
3	END SUPPORT	A36
4	TOP BAR	STN.STL
5	BOTTOM BAR	STN.STL
6	M30 DIA. TIE BAR	SA193 GRB7
7	TIE BAR HEX NUTS	SA194 GR2H
8	HEAT TRANSFER PLATES	SA240 GR316
9	NOZZLES	316L STAINLESS STEEL
10	FLANGES	CARBON STEEL GALVANIZED

APV
FACTORY SERVICE
FOR PARTS AND SERVICE
CALL OUR CUSTOMER
SERVICE DEPARTMENT
1-888-278-4321



10034 45END
R0234 00
L1234 45
R1234 00

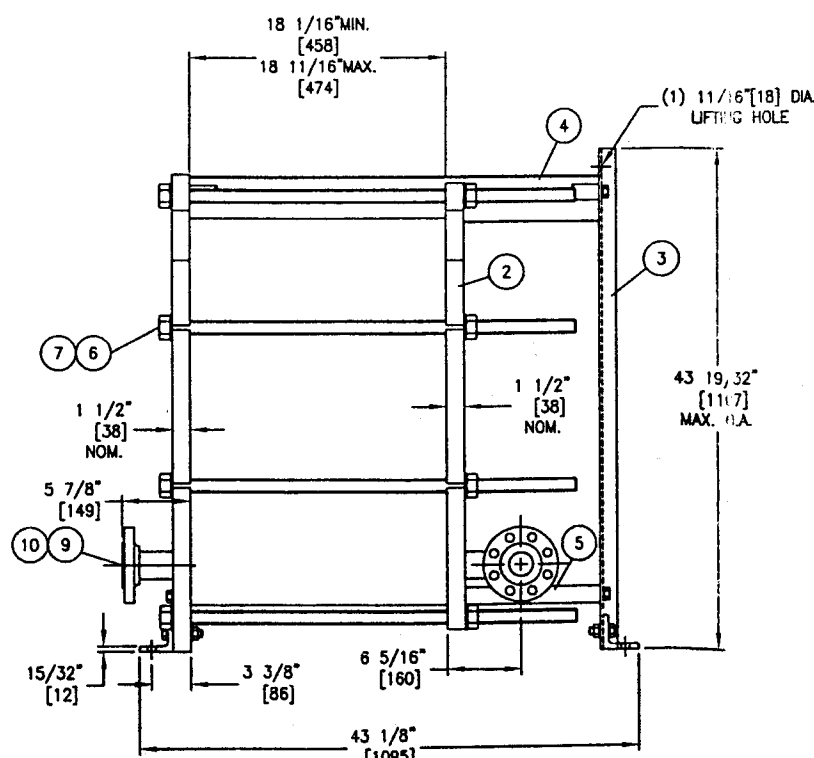
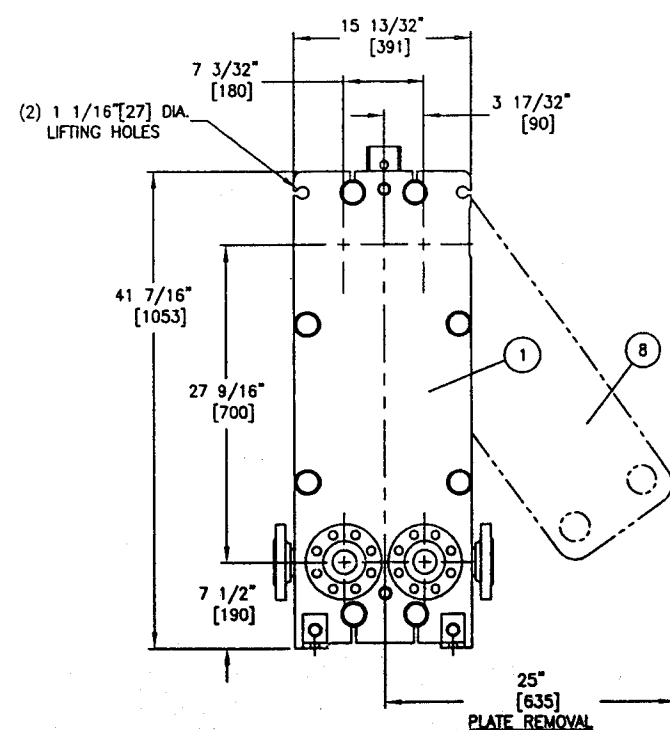
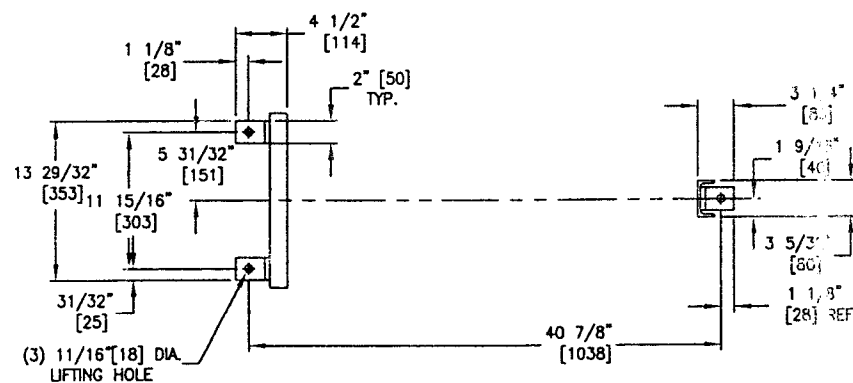
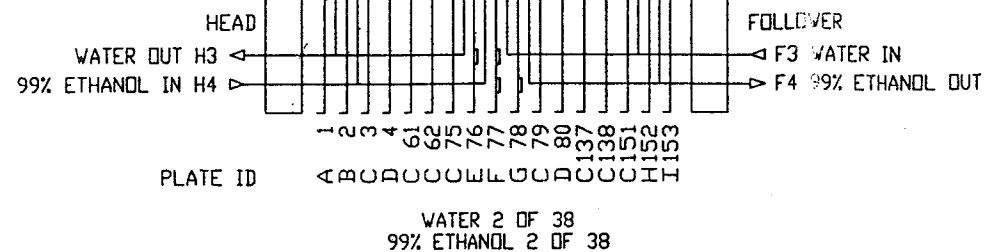
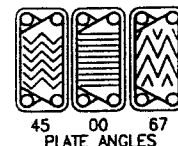


PLATE IDENTIFICATION VIEWED FROM GASKETED SIDE OF PLATE



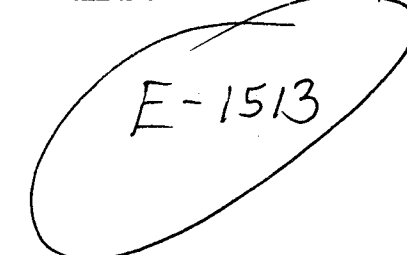
O - BLANKED (HOLE) ● - UNBLANKED (NO HOLE)



L K = END PLATE
PLATE ANGLE
PUNCH CODE BY POSITION
NUMBER = HOLE
0 = NO HOLE
R=RIGHT, L=LEFT PLATE

NOTES

- THE INSTALLATION, OPERATION AND MAINTENANCE OF THIS HEAT EXCHANGER SHALL BE IN ACCORDANCE WITH THE APV PARAFLOW PLATE HEAT EXCHANGER INSTRUCTION MANUAL.
- THIS MODEL HEAT EXCHANGER IS TIGHTENED USING A WRENCH ON THE TIE BAR HEX NUTS AT THE HEAD AND FOLLOWER ENDS. CLEAN AND LUBRICATE THE THREADS BEFORE OPENING OR CLOSING USING A LUBRICANT COMPATIBLE WITH CARBON STEEL. APV RECOMMENDS NEVER-SEEZ REGULAR GRADE. DO NOT USE COMMON GREASE. THE PLATE PACK IS TO BE TIGHTENED IN ACCORDANCE WITH THE INSTRUCTION MANUAL SUPPLIED. DO NOT TIGHTEN BELOW THE MINIMUM DIMENSION SHOWN.
- THE CUSTOMER IS RESPONSIBLE FOR PROVIDING:
 - ANCHOR BOLTS PER ASTM A36 MINIMUM WITH A RECOMMENDED DIAMETER OF 5/8".
 - PROTECTION AGAINST START UP OR OPERATING PRESSURES EXCEEDING THE MAXIMUM ALLOWABLE WORKING PRESSURE.
 - PIPING TO THE FOLLOWER OR CONNECTOR GRIDS THAT ALLOWS FOR FREE MOVEMENT WHEN THE UNIT IS OPENED FOR SERVICE AND PROVIDES FLEXIBILITY FOR THE VARIATION OF THE COMPRESSED PLATAGE DIMENSIONS.
- NOZZLES ARE PROVIDED WITH A SMOOTH RAISED FACE FINISH.
- BOLT HOLES STRADDLE CENTERLINES SHOWN.
- DIMENSIONS ARE SHOWN IN INCHES. DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS.
- STANDARD TOLERANCES:
FRAME AND FOUNDATION BOLT LOCATIONS: $\pm 1/4$ INCH [± 6 mm]
NOZZLE CENTERLINE AND FACE DIMENSIONS: $\pm 1/8$ INCH [± 3 mm]



DESIGN SPECIFICATIONS

DESIGN CODE	ASME SECTION VIII DIV 1 2001 EDITION, 2003 ADDENDA
MAX. ALLOWABLE WORKING PRESSURE	200 PSIG.
MINIMUM DESIGN METAL TEMPERATURE	-20 °F. @ 200 PSIG.
HYDROTEST PRESSURE	300 PSIG.
MINIMUM OPERATING TEMPERATURE	-20°F.
MAXIMUM OPERATING TEMPERATURE	320° F.
SERIAL NUMBER	30325.1
HEAT TRANSFER AREA	279.4 SQ. FT.
FRAME SIZE	NO. 2
MAXIMUM FRAME CAPACITY	162 PLATES
DRY WEIGHT	1090 LBS.
FLOODED (OPERATING) WEIGHT	1242 LBS.
TOTAL LIQUID VOLUME	18.2 GALS.
FINISH	APV STANDARD PAINT 3196
ACCESSORIES SUPPLIED	

OPERATING CONDITIONS

LIQUID	FLOW RATE	TEMP. °F.	ΔP(PSIG)
99% ETHANOL	39885 lb/hr	189° — 90°	2.9
WATER	87249 lb/hr	85° — 115.4°	9.8

NOZZLE SCHEDULE

PORT	SIZE	TYPE	CLASS	SERVICE
[H3]	2"	SCH. 10S 316L S.S. STUB END W/ C.S. LAP JT. FLG. (SEE NOTE 4)	300# ANSI B16.5	WATER IN
[H4]	2"	SCH. 10S 316L S.S. STUB END W/ C.S. LAP JT. FLG. (SEE NOTE 4)	300# ANSI B16.5	99% ETHANOL OUT
[F4]	2"	SCH. 10S 316L S.S. STUB END W/ C.S. LAP JT. FLG. (SEE NOTE 4)	300# ANSI B16.5	99% ETHANOL IN
[F3]	2"	SCH. 10S 316L S.S. STUB END W/ C.S. LAP JT. FLG. (SEE NOTE 4)	300# ANSI B16.5	WATER OUT

PLATES AND GASKETS

153 - SR2, 0.6mm STN. STL. PLATES.
152 - SR2, EPDM CLIP-IN GASKETS.
1 - SR2, EPDM CLIP-IN END GASKETS
4 - SR2, EPDM PORT GASKETS.

TOTAL "L" PLATES - 77	TOTAL "R" PLATES - 76
74 : L1234 45	58 : R1234 00
1 : L1200 45	14 : R1234 45
1 : L0034 45	1 : R1230 45
1 : L0034 45END	1 : R0234 45
- : -	1 : R1204 00
- : -	1 : R1034 00

153 Plates

Changed at 4-25-2012

AGP Corn Processing, Inc.
Hastings, NE
W.O. No.: 30325

20043003001106

P.O.NO: 142472

invensys
APV
APV Products
1200 W. Ash Street
Goldsboro, NC 27530
Tel: (919) 735-4570/Fax: (919) 581-1134

Description: SR2 MGS-27
PLATE HEAT EXCHANGER

Checked: Date: _____
Approved: Date: _____
Supervised: 4.30325.0001
Scale: N.T.S.
Sheet: 1 OF 1
Drawing No.: 30325
Rev: 00

REV. BY / DATE CL. BY / DATE DESCRIPTION AND LOCATION

CAD File: 30325

A