Corrected Copy*

FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

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1. **Manufactured and certified by** SPX HEAT TRANSFER, INC. 2121 N. 161ST EAST AVENUE Tulsa, OK 74116
(Name and address of Manufacturer)

2. **Manufactured for** SPX Flow Technology USA, Inc. Ocala, FL 34474
(Name and address of Purchaser)

3. **Location of installation** Mississippi Power Company, Kemper County IGCC, Unit 1, Project Kemper County, MS
(Name and address)

4. **Type:**

Vertical	HP Assembly Chamber (Tank) LH	WUH/790.110100-3A	N/A	7405265 R-A	8716	2012
(Horiz., vert., or sphere)	(Tank, separator, jkt. Vessel, heat exch., etc.)	(Mfg's serial number)	(CRN)	(Drawing No.)	(Nat'l Bd. No.)	(Year Built)

5. **ASME Code, Section VIII, Div. 1** 2010 Edition [Edition and Addenda, if applicable (date)] | N/A (Code Case number) | N/A [Special service per UG-120(d)]

Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, shell of heat exchangers, or chamber of multichamber vessels.

6. **Shell: (a) Number of course(s)** 1 **(b) Overall length** 96"

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A,B, &C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	132" OD	96"	SA-516-70N	1.500"	.0625"	1	Full	100%	1	Full	100%	N/A	N/A

7. **Heads: (a)** SA-516-70N HT-N/A (Material spec. number, grade or type (H.T. – Time and temp.)) **(b)** SA-516-70N HT-N/A (Material spec. number, grade or type (H.T. – Time and temp.))

	Location (Top, Bottom, Ends)	Thickness Min.	Thickness Corr.	Radius Crown	Radius Knuckle	Elliptical Ratio	Conical Apex Angle	Hemis. Radius	Flat Diameter	Side to Pressure Convex	Side to Pressure Concave	Category A Type	Category A Full, Spot, None	Category A Eff.
(a)	TOP	1.375"	.0625"			2:1					X	N/A	N/A	N/A
(b)	BOTTOM	1.375"	.0625"			2:1					X	N/A	N/A	N/A

If removable, bolts used (describe other fastening) N/A (Mat'l Spec. No., Grade, size, No.)

8. **Type of jacket** N/A **Jacket closure** N/A (Describe as ogee and weld, bar, etc.)
If bar, give dimensions N/A **If bolted, describe or sketch**

9. **MAWP** 350 (Internal) N/A (External) **psi at max. temp.** 450 (Internal) N/A (External) **F Min. design metal temp.** 10 **F at** 350 **psi**

10. **Impact Test** No-exempt per UCS 66 (Indicate yes or no and the component(s) impact tested) **at test temperature of** N/A **F**

11. **Hydro., pneu., or comb. test pressure** 455 psi **Proof test** N/A

Items 12 and 13 to be completed for tube sections.

12. **Tubesheet**
(Stationary (material spec. no.)) (Diameter (subject to press.)) (Nominal thickness) (Corr. Allow.) (Attachment (welded or bolted))
(Floating (material spec. no.)) (Diameter) (Nominal thickness) (Corr. Allow.) (Attachment)

13. **Tubes**
(Material spec.no, grade or type) (O.D.) (Nominal thickness) (Number) (Type (straight or U))

Items 14-18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14. **Shell: (a) Number of course(s)** **(b) Overall length**

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A,B, &C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time

15. **Heads: (a)** (Material spec. number, grade or type (H.T. – Time and temp.)) **(b)** (Material spec. number, grade or type (H.T. – Time and temp.))

	Location (Top, Bottom, Ends)	Thickness Min.	Thickness Corr.	Radius Crown	Radius Knuckle	Elliptical Ratio	Conical Apex Angle	Hemis. Radius	Flat Diameter	Side to Pressure Convex	Side to Pressure Concave	Category A Type	Category A Full, Spot, None	Category A Eff.
(a)														
(b)														

If removable, bolts used (describe other fastening) (Mat'l Spec. No., Grade, size, No.)

16. **MAWP** _____ (Internal) _____ (External) **psi at max. temp.** _____ (Internal) _____ (External) **F Min. design metal temp.** _____ **F at** _____ **psi**

17. **Impact Test** _____ **at test temperature of** _____ **F**
(Indicate yes or no and the component(s) impact tested)

18. **Hydro., ~~pneu.~~, or ~~comb~~. test pressure** _____ **Proof test** _____

19. **Nozzles, inspection, and safety valve openings:**

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
Manway	1	20'	RFLWN	SA-105		300#	.0625'		Weld	-	Shell
Drain	2	8'	RFLWN	SA-105		300#	.0625'	-	Weld	-	Shell
Connection	1	1.500'	RFLWN	SA-105		300#	.0625'	-	Weld	-	Shell
Inlet	1	20'	RFLWN	SA-105		300#	.0625"	-	Weld	-	Top-Head
Inlet	1	8"	RFLWN	SA-105		300#	.0625'	-	Weld	-	Top-Head
Relief	1	2.000'	RFLWN	SA-105		300#	.0625'	-	Weld	-	Top-Head
Outlet	1	20"	RFLWN	SA-105		300#	.0625"	-	Weld	-	Bottom-Head

20. **Supports: Skirt** YES (Yes or no) **Lugs** N/A (Number) **Legs** N/A (Number) **Other** N/A (Describe) **Attached** Bottom-Weld (Where and how)

21. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report (list the name of part, item number, Manufacturer's name and identifying number) :
Shell Head-Top and Bottom, Uni-Form Components, Inc. , Top-S/N 6292 (No NB assigned) Bottom-S/N 6298 (No NB assigned)

22. Remarks: Outlet Nozzle(N10) Bottom-Head Assembly cont'd- (1) 20" LR 90 Elbow-Sch STD, SA-234-B, CA-.0625", Weld (1) PIPE SMLS 20'-SCH 20, SA-53B-ERW, CA-.0625', Weld (1) FORGING 24.25" OD-19.251D, SA-105, CA-.0625', Weld
Manway cont'd (N02)-(1) 20' RF Blind Flange CLS300, SA-105, CA-.0625", Bolt (36) Stud-Thread 1.250"-8X 11.500 GALVANIZED, A153, SA193B7
(72) Nut Hexagon 1.250"-8 GALVANIZED A153,SA194-2H Relief Valve supplied by other

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.

U Certificate of Authorization Number 11,178 Expires 06/04/13

Date 04/26/2016 Name SPX Heat Transfer, Inc. (Manufacturer) Signed _____ (Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of OK and employed by OneBeacon Contract Inspection Services of Lynn, MA have inspected the pressure vessel described in this Manufacturer's Data Report on 04/06/12 , and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 04/26/2016 Signed John Ash (Authorized Inspector) Commissions 15649 A+ [National Board (incl. endorsements)]

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements in this report are correct and that the field assembly construction of all parts of this vessel conforms with the requirements of ASME CODE, Section VIII, Division 1.

U Certificate of Authorization Number _____ Expires _____

Date _____ Name _____ (Assembler) Signed _____ (Representative)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of _____ and employed by _____ of _____

have compared the statements in this Manufacturer's Data Report with the described pressure vessel and state that parts referred to as data items _____, not included in the certificate of shop inspection, have been inspected by me and to the best of my knowledge and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance with ASME CODE, Section VIII, Division 1. The described vessel was inspected and subjected to a hydrostatic test of _____ psi. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date _____ Signed _____ (Authorized Inspector) Commissions _____ [National Board (incl. endorsements), State, Province, and Number]

#8716 2/3

FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)
A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by UNI FORM COMPONENTS CO. 10703 SHELDON ROAD HOUSTON TEXAS 77044 (Name and address of Manufacturer)
2. Manufactured for YUBA HEAT TRANSFER 2121 N 161ST EAST AVE. TULSA, OK 74116 (Name and address of Purchaser)
3. Location of installation UNKNOWN (Name and address)
4. Type: TWO-PIECE HEAD [Description of vessel part (shell, two-piece head, tube bundle)] | S/N 6292 (Manufacturer's serial number) | N/A (CRN) | (National Board number) | NO DRAWING BY UCC (Drawing number) | (Drawing prepared by) | 2012 (Year built)
5. ASME Code Section VIII Div 1 | 2010E/2011A [Edition and Addenda (date)] | N/A (Code Case number) | N/A [Special Service per UG-120(d)]
6. Shell (a) No. of course (s): N/A (b) Overall Length: N/A

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff	Temp.	Time

7. Heads: (a) SA 516-70 (NORMALIZED 1650° @ 100 MIN.) (Material spec. number, grade or type) (H.T. – time & temp) (b) N/A (Material spec. number, grade or type) (H.T. – time & temp)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff
(a)	N/A	1.375				2:1						1	FULL	
(b)														

If removable, bolts used (describe other fastenings) (Material spec. number, grade, size, number)

8. MAWP (Internal) (External) at max temp. (Internal) (External) Min. design metal temp. at
9. Impact Test (Indicate yes or no and the component(s) impact tested) at test temperature of
10. Hydro., pneu., or comb. test press. Proof Test
11. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	

12. Identification of parts

Name of Part	Quantity	Line No.	Mfr's Identification No.	Mfr's Drawing no.	CRN	National Board No.	Year Built

13. Supports: Skirt (Yes or No) Lugs (Number) Legs (Number) Others (Describe) Attached (Where and how)
14. Remarks 1 HEAD: 129" I.D. X 1.625" NOM.
UCC JOB NUMBER 100468
DESIGN BY OTHERS HYDRO BY OTHERS PWHT BY OTHERS

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of material, construction and workmanship of this pressure vessel part conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.

U Certificate of Authorization No. 18.206 Expires 11/03/2013

Date 1/31/12 Name UNI FORM COMPONENTS CO. (Manufacturer) Signed (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of TEXAS and employed by ONE BEACON AMERICA INSURANCE of LYNN,MA. have inspected the pressure vessel part described in this Manufacturer's Data Report on 1/31/12 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel part in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel part described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 1/31/12 Signed (Authorized Inspector) Commissions NB9604A [National Board (incl endorsements) State, Province and number]

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FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)

A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer

As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by: UNI FORM COMPONENTS CO. 10703 SHELDON ROAD HOUSTON TEXAS 77044
   (Name and address of Manufacturer)
2. Manufactured for: YUBA HEAT TRANSFER 2121 N 161ST EAST AVE. TULSA, OK 74116
   (Name and address of Purchaser)
3. Location of installation: UNKNOWN
   (Name and address)
4. Type: TWO-PIECE HEADS [Description of vessel part (shell, two-piece head, tube bundle)] | S/N 6298-S/N 6299 (Manufacturer's serial number) | N/A (CRN)
   (National Board number) | NO DRAWING BY UCC (Drawing number) | (Drawing prepared by) | 2012 (Year built)
5. ASME Code Section VIII Div 1 | 2010E/2011A [Edition and Addenda (date)] | N/A (Code Case number) | N/A [Special Service per UG-120(d)]
6. Shell (a) No. of course (s): N/A (b) Overall Length: N/A

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff	Temp.	Time

7. Heads: (a) SA 516-70 (NORMALIZED 1650° @ 100 MIN.) (Material spec. number, grade or type) (H.T. – time & temp) (b) N/A (Material spec. number, grade or type) (H.T. – time & temp)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff
(a)	N/A	1.375				2:1						1	FULL	
(b)														

If removable, bolts used (describe other fastenings): (Material spec. number, grade, size, number)

8. MAWP (Internal) (External) at max temp. (Internal) (External) Min. design metal temp. at
9. Impact Test (Indicate yes or no and the component(s) impact tested) at test temperature of
10. Hydro., pneu., or comb. test press. Proof Test
11. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	

12. Identification of parts

Name of Part	Quantity	Line No.	Mfr's Identification No.	Mfr's Drawing no.	CRN	National Board No.	Year Built

13. Supports: Skirt (Yes or No) Lugs (Number) Legs (Number) Others (Describe) Attached (Where and how)
14. Remarks: 2 HEADS: 129" I.D. X 1.625" NOM.
UCC JOB NUMBER 100468
DESIGN BY OTHERS HYDRO BY OTHERS

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of material, construction and workmanship of this pressure vessel part conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.

U Certificate of Authorization No. 18.206 Expires 11/03/2013

Date 2/13/12 Name UNI FORM COMPONENTS CO. (Manufacturer) Signed (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of TEXAS and employed by ONE BEACON AMERICA INSURANCE of LYNN,MA. have inspected the pressure vessel part described in this Manufacturer's Data Report on 2/13/12 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel part in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel part described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 2/13/12 Signed (Authorized Inspector) Commissions NB 96044 [National Board (incl endorsements) State, Province and number]