







<b>Contractor:</b>  <b>TIANCHEN CORP. CHINA</b>	<b>Project :</b>	<b>MKP Methanol Project</b>			<b>Owner :</b>  شرکت کیمیای پارس خاورمیانه <b>Middle East Kimiya Parsa Co.</b>
	<b>Unit :</b>	<b>Flare</b>	<b>Phase</b>	<b>Detail Engineering</b>	
	<b>Doc. Title :</b>	<b>Comprehensive Materials</b>			
<b>Vendor:</b>  <b>SUNPOWER GROUP LTD.</b>	<b>Owner No. :</b>	<b>MKP-VD-8500-237-512-A4</b>			
	<b>Contr. No.:</b>	<b>MKP-11-DE-9000-FE-REQ-237</b>			
	<b>Vendor No.</b>	<b>17013D85000PE00-17</b>			
				<b>Rev. : 0</b>	<b>Page : 1 of 14</b>

## Comprehensive Materials

REV.	DATE	PURPOSE OF ISSUE	PREPARE	CHECK	REVIEW	APPROVE
0	22.11.2017	Final Issue	Geng Yunfei	Bai Yang	Ji Ningbo	
A	17.07.2017	Issued For Approval	Geng Yunfei	Bai Yang	Ji Ningbo	

<b>Contractor:</b>  <b>TIANCHEN CORP. CHINA</b>	<b>Project :</b> MKP Methanol Project			<b>Owner :</b>  شرکت کیمیای پارس خاورمیانه <i>Middle East Kemiya Parsi Co.</i>	
	<b>Unit :</b>	Flare	Phase		Detail Engineering
	<b>Doc. Title :</b> Comprehensive Materials				
<b>Vendor:</b>  <b>SUNPOWER GROUP LTD.</b>	<b>Owner No. :</b> MKP-VD-8500-237-512-A4			<b>Rev. : 0</b>	
	<b>Contr. No.:</b> MKP-11-DE-9000-FE-REQ-237				<b>Page : 2 of 14</b>
	<b>Vendor No.</b> 17013D85000PE00-17				

### REVISION INDEX

REV.	A	0	REV.	REV.	REV.	REV.
PAGE			PAGE	PAGE	PAGE	PAGE
1	X					
2	X					
3	X	X				
4	X	X				
5	X	X				
6	X	X				
7	X	X				
8	X	X				
9	X	X				
10	X	X				
11	X	X				
12	X	X				
13	X	X				
14		X				
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						



江苏中圣高科技产业有限公司  
JIANGSU SUNPOWER TECHNOLOGY CO., LTD

管道材料表  
PIPING MATERIAL TAKE-OFFS

工程号 PROJ. NO.	17013
文件号 DOC. NO.	17013D85000PE00-17
单元号 UNIT NO.	8500
设计阶段 DES. STAGE	Detail Engineering
第PAGE 3 页	共OF 14 页

MKP Methanol Project  
Flare

0	Final Issue	22.11.2017	Geng Yunfei	Bai Yang	Ji Ningbo	
A	Issued For Approval	17.7.2017	Geng Yunfei	Bai Yang	Ji Ningbo	
版次REV	说明DESCRIPTION	日期DATE	设计PREP.	校对CHKD	审核APPR	



江苏中圣高科技产业有限公司

JIANGSU SUNPOWER TECHNOLOGY CO., LTD

## 管道材料表

PIPING MATERIAL TAKE-OFFS

文件号  
DOC. NO.

17013D85000PE00-17

版次REV.

0

第 4 页 共 14 页

序号 NO.	规格 SPEC.	材料描述 (名称、标准、特征等) DESCRIPTION	单位 UNIT	数量 QTY			重量WT (Kg)		编码 CODE	备注 REMARKS
				DESIGN	SPARE	TOTAL	单EACH	总TOTAL		
1	NPS	PIPES								
	64	PIPE;EFW, BE, ASTM A672 Gr. B60 CL. 12, ASME B36. 10M;14. 27mm (Provide by TCC)	m	15. 1					PPEP1523A_64_AE:1600	
	2	PIPE;SMLS;BE;A312-TP304;ASME B36. 19M;SCH10S	m	20. 6					PPSB3501A_02_1S:50	
	2	PIPE;SMLS;BE;ASTM A106 Gr. B;ASME B36. 10M;SCH40	m	133					PPSB1506A_02_S4:50	
	3	PIPE;SMLS;BE;ASTM A106 Gr. B;ASME B36. 10M;SCH40	m	8. 8					PPSB1506A_03_S4:80	
	4	PIPE;SMLS;BE;ASTM A106 Gr. B;ASME B36. 10M;SCH40	m	75. 4					PPSB1506A_04_S4:100	
	2	PIPE;SMLS;BE;ASTM A106 Gr. B;ASME B36. 10M;SCH80	m	8. 3					PPSB1506A_02_S8:50	
	4	PIPE;SMLS;BE;ASTM A106 Gr. B;ASME B36. 10M;SCH80	m	0. 3					PPSB1506A_04_S8:100	
	1	PIPE;SMLS;PE;A312-TP304;ASME B36. 19M;SCH40S	m	607. 8					PPSP3501A_01_4S:25	
	3/4	PIPE;SMLS;PE;A312-TP304;ASME B36. 19M;SCH40S	m	0. 7					PPSP3501A_0J_4S:20	
	1	PIPE;SMLS;PE;A312-TP304L;ASME B36. 19M;SCH40S	m	5. 3					PPSP3502A_01_4S:25	
	1/2	PIPE;SMLS;PE;A312-TP304L;ASME B36. 19M;SCH40S	m	0. 2					PPSP3502A_0G_4S:15	
	3/4	PIPE;SMLS;PE;A312-TP304L;ASME B36. 19M;SCH40S	m	0. 9					PPSP3502A_0J_4S:20	
	3/4	PIPE;SMLS;PE;ASTM A106 Gr. B;ASME B36. 10M;SCH160	m	0. 8					PPSP1506A_0J_A6:20	
	1. 1/2	PIPE;SMLS;PE;ASTM A106 Gr. B;ASME B36. 10M;SCH160	m	0. 2					PPSP1506A_1G_A6:40	
	1	PIPE;SMLS;PE;ASTM A106 Gr. B;ASME B36. 10M;SCH80	m	94. 6					PPSP1506A_01_S8:25	
	3/4	PIPE;SMLS;PE;ASTM A106 Gr. B;ASME B36. 10M;SCH80	m	3. 5					PPSP1506A_0J_S8:20	
2	NPS	VALVES								
	1	BALL VALVE;A182-F304L, BALL;SS304, PTFE SEAT;CL150;RF;FLOATING, FULL BORE, SPLIT BODY, API608;ANTIC STATIC AND FIRE SAFE	pc	6					Q41F1-150P3_01:25	
	3/4	BALL VALVE;A182-F304L, BALL;SS304, PTFE SEAT;CL600;SW;FLOATING, FULL BORE, SPLIT BODY, API608;ANTIC STATIC AND FIRE SAFE	pc	3					Q41F1-600C1_0J:20	



江苏中圣高科技产业有限公司

JIANGSU SUNPOWER TECHNOLOGY CO., LTD

## 管道材料表

PIPING MATERIAL TAKE-OFFS

文件号  
DOC.NO.

17013D85000PE00-17

版次REV.

0

第 5 页 共 14 页

序号 NO.	规格 SPEC.	材料描述 (名称、标准、特征等) DESCRIPTION	单位 UNIT	数量 QTY			重量WT (Kg)		编码 CODE	备注 REMARKS
				DESIGN	SPARE	TOTAL	单EACH	总TOTAL		
1		CHECK VALVE;BC;LIFT;CL150;RF;A105;Trim:13Cr/STL;API602	pc	1					H41H1-150C1_01:25	
1		CHECK VALVE;BC;LIFT;CL150;RF;A182-F304L;Trim:304L;API602	pc	2					H41E1-150P3_01:25	
2		CHECK VALVE;BC;Swing;CL150;RF;ASTM A216-WCB;Trim:13Cr/STL;BS1868	pc	1					H44H1-150C2_02:50	
1		GATE VALVE;BB;OS&Y;CL150;RF;A105;Trim:13Cr/STL;API602;SOLID WEDGE	pc	3					Z41H1-150C1_01:25	
2		GATE VALVE;BB;OS&Y;CL150;RF;A351-CF8;Trim:304;API600;FLEXIBLE WEDGE	pc	5					Z40E1-150P2_02:50	
2		GATE VALVE;BB;OS&Y;CL150;RF;ASTM A216-WCB;Trim:13Cr/STL;API600;FLEXIBLE WEDGE	pc	6					Z40H1-150C2_02:50	
3		GATE VALVE;BB;OS&Y;CL150;RF;ASTM A216-WCB;Trim:13Cr/STL;API600;FLEXIBLE WEDGE	pc	1					Z40H1-150C2_03:80	
4		GATE VALVE;BB;OS&Y;CL150;RF;ASTM A216-WCB;Trim:13Cr/STL;API600;FLEXIBLE WEDGE	pc	3					Z40H1-150C2_04:100	
1		GATE VALVE;BB;OS&Y;CL300;RF;A105;Trim:13Cr/STL;API602;SOLID WEDGE	pc	2					Z41H1-300C1_01:25	
1.1/2		GATE VALVE;BB;OS&Y;CL300;RF;A105;Trim:13Cr/STL;API602;SOLID WEDGE	pc	1					Z41H1-300C1_1G:40	
2		GATE VALVE;BB;OS&Y;CL300;RF;ASTM A216-WCB;Trim:13Cr/STL;API600;FLEXIBLE WEDGE	pc	6					Z40H1-300C2_02:50	
3		GATE VALVE;BB;OS&Y;CL300;RF;ASTM A216-WCB;Trim:13Cr/STL;API600;FLEXIBLE WEDGE	pc	3					Z40H1-300C2_03:80	
2		GATE VALVE;BB;OS&Y;CL600;RF;ASTM A216-WCB;Trim:STL/STL;API600;FLEXIBLE WEDGE	pc	2					Z40Y1-600C2_02:50	
1		GATE VALVE;BB;OS&Y;CL800;SW;A105;Trim:13Cr/STL;API602;SOLID WEDGE	pc	2					Z51H1-800C1_01:25	
3/4		GATE VALVE;BB;OS&Y;CL800;SW;A105;Trim:13Cr/STL;API602;SOLID WEDGE	pc	14					Z51H1-800C1_0J:20	
3/4		GATE VALVE;BB;OS&Y;CL800;SW;A105;Trim:STL/STL;API602;SOLID WEDGE	pc	2					Z51Y1-800C1_0J:20	
3/4		GATE VALVE;BB;OS&Y;CL800;SW;A182-F304;Trim:304;API602;SOLID WEDGE	pc	4					Z51E1-800P1_0J:20	
3/4		GATE VALVE;BB;OS&Y;CL800;SW;A182-F304L;Trim:304L;API602;SOLID WEDGE	pc	2					Z51E1-800P3_0J:20	
1		GLOBE VALVE;BB;OS&Y;CL150;RF;A105;Trim:13Cr/STL;API602;SWIVEL PLUG	pc	2					J41H1-150C1_01:25	
1		GLOBE VALVE;BB;OS&Y;CL150;RF;A182-F304;Trim:304;API602;SWIVEL PLUG	pc	4					J41E1-150P1_01:25	
3/4		GLOBE VALVE;BB;OS&Y;CL150;RF;A182-F304;Trim:304;API602;SWIVEL PLUG	pc	1					J41E1-150P1_0J:20	





江苏中圣高科技产业有限公司

JIANGSU SUNPOWER TECHNOLOGY CO., LTD

## 管道材料表

PIPING MATERIAL TAKE-OFFS

文件号  
DOC. NO.

17013D85000PE00-17

版次REV.

0

第 7 页 共 14 页

序号 NO.	规格 SPEC.	材料描述 (名称、标准、特征等) DESCRIPTION	单位 UNIT	数量 QTY			重量WT (Kg)		编码 CODE	备注 REMARKS
				DESIGN	SPARE	TOTAL	单EACH	总TOTAL		
	1 x 1/2	COUPLING REDU;SW;ASME A182-F304L;ASME B16.11;CL3000	pc	2					JCRFS3802GL3_010G:25 x15	
	2	ELBOW 45° ;SMLS;LR;BW;ASTM A234 WPB;ASME B16.9;SCH40	pc	7					JEKSB1506D_02_S4:50	
	4	ELBOW 45° ;SMLS;LR;BW;ASTM A234 WPB;ASME B16.9;SCH40	pc	2					JEKSB1506D_04_S4:100	
	1	ELBOW 45° ;SW;ASME A182-F304;ASME B16.11;CL3000	pc	32					JEPFS3801GL3_01:25	
	1	ELBOW 45° ;SW;ASTM A105;ASME B16.11;CL3000	pc	3					JEPFS1801GL3_01:25	
	2	ELBOW 90° ;SMLS;LR;BW;ASME A403-WP304;ASME B16.9;SCH10S	pc	6					JELSB3601D_02_1S:50	
	2	ELBOW 90° ;SMLS;LR;BW;ASTM A234 WPB;ASME B16.9;SCH40	pc	43					JELSB1506D_02_S4:50	
	3	ELBOW 90° ;SMLS;LR;BW;ASTM A234 WPB;ASME B16.9;SCH40	pc	6					JELSB1506D_03_S4:80	
	4	ELBOW 90° ;SMLS;LR;BW;ASTM A234 WPB;ASME B16.9;SCH40	pc	28					JELSB1506D_04_S4:100	
	2	ELBOW 90° ;SMLS;LR;BW;ASTM A234 WPB;ASME B16.9;SCH80	pc	3					JELSB1506D_02_S8:50	
	1	ELBOW 90° ;SW;ASME A182-F304;ASME B16.11;CL3000	pc	89					JEQFS3801GL3_01:25	
	1	ELBOW 90° ;SW;ASME A182-F304L;ASME B16.11;CL3000	pc	9					JEQFS3802GL3_01:25	
	1	ELBOW 90° ;SW;ASTM A105;ASME B16.11;CL3000	pc	20					JEQFS1801GL3_01:25	
	3/4	ELBOW 90° ;SW;ASTM A105;ASME B16.11;CL3000	pc	3					JEQFS1801GL3_0J:20	
	3/4	ELBOW 90° ;SW;ASTM A105;ASME B16.11;CL6000	pc	1					JEQFS1801GL6_0J:20	
	64	ELBOW 90° ;WELDED;LR;BW;ASTM A234 WPB;ASME B16.9;14.27mm (Provide by TCC)	pc	4					JELWB1601F_64_AE:160 0	
	2	FIGURE 8;CL150;RF;ASTM A240 Gr. 304;ASME B16.48	pc	1					BBG62P3801K_02:50	
	4	FIGURE 8;CL150;RF;ASTM A515 Gr. 70;ASME B16.48	pc	1					BBG62P1801K_04:100	
	2	FIGURE 8;CL600;RF;ASTM A515 Gr. 70;ASME B16.48	pc	1					BBG66P1801K_02:50	
	4	Pping Sight glass;CL150;RF;A105/Tempered boron glass;See data table	pc	1					SJA62R70AF_04:100	
	2 x 1	REDUCER CON. ;SMLS;BW;ASME A403-WP304;ASME B16.9;SCH10SXSCH40S	pc	1					JRCSB3601D_0201_1S4S :50x2	



江苏中圣高科技产业有限公司

JIANGSU SUNPOWER TECHNOLOGY CO., LTD

## 管道材料表

PIPING MATERIAL TAKE-OFFS

文件号  
DOC. NO.

17013D85000PE00-17

版次REV.

0

第 8 页 共 14 页

序号 NO.	规格 SPEC.	材料描述 (名称、标准、特征等) DESCRIPTION	单位 UNIT	数量 QTY			重量WT (Kg)		编码 CODE	备注 REMARKS
				DESIGN	SPARE	TOTAL	单EACH	总TOTAL		
	2 x 1	REDUCER ECC.;SMLS;BW;ASME A403-WP304;ASME B16.9;SCH10XSCH40S	pc	1					JRESB3601D_0201_1S4S :50x2	
	3 x 2	REDUCER ECC.;SMLS;BW;ASTM A234 WPB;ASME B16.9;SCH40XSCH40	pc	1					JRESB1506D_0302_S4S4 :80x5	
	2 x 1	REDUCER ECC.;SMLS;BW;ASTM A234 WPB;ASME B16.9;SCH40XSCH80	pc	2					JRESB1506D_0201_S4S8 :50x2	
	4 x 2	REDUCER ECC.;SMLS;BW;ASTM A234 WPB;ASME B16.9;SCH80XSCH80	pc	2					JRESB1506D_0402_S8S8 :100x	
	2 x 1	SOCKETOLET;SW;ASTM A105;MSS SP-97;CL3000	pc	1					JOOFS18010L3_0201:50 x25	
	2 x 3/4	SOCKETOLET;SW;ASTM A105;MSS SP-97;CL3000	pc	5					JOOFS18010L3_020J:50 x20	
	3 x 1	SOCKETOLET;SW;ASTM A105;MSS SP-97;CL3000	pc	1					JOOFS18010L3_0301:80 x25	
	4 x 3/4	SOCKETOLET;SW;ASTM A105;MSS SP-97;CL3000	pc	2					JOOFS18010L3_040J:10 0x20	
	64 x 3/4	SOCKETOLET;SW;ASTM A105;MSS SP-97;CL3000	pc	1					JOOFS13030L3_640J:16 00x20	
	2 x 3/4	SOCKETOLET;SW;ASTM A105;MSS SP-97;CL6000	pc	1					JOOFS18010L6_020J:50 x20	
	4 x 1.1/2	SOCKETOLET;SW;ASTM A105;MSS SP-97;CL6000	pc	1					JOOFS18010L6_041G:10 0x40	
	2 x 1	SOCKETOLET;SW;ASTM A182-F304;MSS SP-97;CL3000	pc	4					JOOFS38010L3_0201:50 x25	
	2 x 3/4	SOCKETOLET;SW;ASTM A182-F304;MSS SP-97;CL3000	pc	5					JOOFS38010L3_020J:50 x20	
	1.1/2 x 3/4	SWG;PE;ASTM A106 Gr. B;CON;MSS SP-95;CL3000	pc	2					JSCFP1801HL3_1G0J:40 x20	
	2 x 2	TEE EQUAL;SMLS;BW;ASME A403-WP304;ASME B16.9;SCH10S	pc	3					JTSSB3601D_02_1S:50	
	2 x 2	TEE EQUAL;SMLS;BW;ASTM A234 WPB;ASME B16.9;SCH40	pc	8					JTSSB1506D_02_S4:50	
	1 x 1	TEE EQUAL;SW;ASME A182-F304L;ASME B16.11;CL3000	pc	3					JTSFS3802GL3_01:25	
	1 x 1	TEE EQUAL;SW;ASTM A105;ASME B16.11;CL3000	pc	5					JTSFS1801GL3_01:25	
	3/4 x 3/4	TEE EQUAL;SW;ASTM A105;ASME B16.11;CL3000	pc	2					JTSFS1801GL3_0J:20	
	3/4 x 3/4	TEE EQUAL;SW;ASTM A105;ASME B16.11;CL6000	pc	1					JTSFS1801GL6_0J:20	
	3 x 2	TEE REDU;SMLS;BW;ASTM A234 WPB;ASME B16.9;SCH40XSCH40	pc	1					JTRSB1506D_0302_S4S4 :80x5	





江苏中圣高科技产业有限公司

JIANGSU SUNPOWER TECHNOLOGY CO., LTD

## 管道材料表

PIPING MATERIAL TAKE-OFFS

文件号  
DOC. NO.

17013D85000PE00-17

版次REV.

0

第 9 页 共 14 页

序号 NO.	规格 SPEC.	材料描述 (名称、标准、特征等) DESCRIPTION	单位 UNIT	数量 QTY			重量WT (Kg)		编码 CODE	备注 REMARKS
				DESIGN	SPARE	TOTAL	单EACH	总TOTAL		
	1 x 3/4	TEE REDU;SW;ASME A182-F304L;ASME B16.11;CL3000	pc	5					JTRFS3802GL3_010J:25 x20	
	1 x 3/4	TEE REDU;SW;ASTM A105;ASME B16.11;CL3000	pc	2					JTRFS1801GL3_010J:25 x20	
4	NPS	FLANGE								
	1	FLANGE;SW;CL150;RF;A105;ASME B16.5	pc	15					FFS62R1801H_01:25	
	1.1/2	FLANGE;SW;CL150;RF;A105;ASME B16.5	pc	1					FFS62R1801H_1G:40	
	1	FLANGE;SW;CL150;RF;ASME A182 F304;ASME B16.5	pc	22					FFS62R3801H_01:25	
	3/4	FLANGE;SW;CL150;RF;ASME A182 F304;ASME B16.5	pc	2					FFS62R3801H_0J:20	
	1	FLANGE;SW;CL150;RF;ASME A182 F304L;ASME B16.5	pc	33					FFS62R3802H_01:25	
	1/2	FLANGE;SW;CL150;RF;ASME A182 F304L;ASME B16.5	pc	2					FFS62R3802H_0G:15	
	1	FLANGE;SW;CL300;RF;A105;ASME B16.5	pc	12					FFS63R1801H_01:25	
	3/4	FLANGE;SW;CL300;RF;A105;ASME B16.5	pc	4					FFS63R1801H_0J:20	
	1.1/2	FLANGE;SW;CL300;RF;A105;ASME B16.5	pc	1					FFS63R1801H_1G:40	
	1.1/2	BL FLANGE;BL;CL300;RF;A105;ASME B16.5	pc	1					FFS63R1801H_1G:40	
	3/4	FLANGE;SW;CL600;RF;A105;ASME B16.5	pc	2					FFS63R1801H_0J:20	
	1.1/2	FLANGE;SW;CL600;RF;A105;ASME B16.5	pc	1					FFS63R1801H_1G:40	
	2	FLANGE;WN;CL150;RF;A105;ASME B16.5;SCH40	pc	27					FFW62R1801H_02_S4:50	
	3	FLANGE;WN;CL150;RF;A105;ASME B16.5;SCH40	pc	2					FFW62R1801H_03_S4:80	
	4	FLANGE;WN;CL150;RF;A105;ASME B16.5;SCH40	pc	9					FFW62R1801H_04_S4:10 0	
	2	FLANGE;WN;CL150;RF;ASME A182 F304;ASME B16.5;SCH10S	pc	16					FFW62R3801H_02_1S:50	
	2	FLANGE;WN;CL300;RF;A105;ASME B16.5;SCH40	pc	18					FFW63R1801H_02_S4:50	



江苏中圣高科技产业有限公司

JIANGSU SUNPOWER TECHNOLOGY CO., LTD

## 管道材料表

PIPING MATERIAL TAKE-OFFS

文件号  
DOC. NO.

17013D85000PE00-17

版次REV.

0

第 10 页 共 14 页

序号 NO.	规格 SPEC.	材料描述 (名称、标准、特征等) DESCRIPTION	单位 UNIT	数量 QTY			重量WT (Kg)		编码 CODE	备注 REMARKS
				DESIGN	SPARE	TOTAL	单EACH	总TOTAL		
	3	FLANGE;WN;CL300;RF;A105;ASME B16.5;SCH40	pc	3					FFW63R1801H_03_S4:80	
	2	FLANGE;WN;CL600;RF;A105;ASME B16.5;SCH80	pc	6					FFW63R1801H_02_S8:50	
5	NPS	GASKETS								
	1	FLAT RING GASKET, MOD. PTFE, RF, CL150, ASME B16.21, ASME B16.5, T=3.2mm KLINGER PSM-AS OR EQUAL	pc	22					GSD62A5SGD_01:25	
	2	FLAT RING GASKET, MOD. PTFE, RF, CL150, ASME B16.21, ASME B16.5, T=3.2mm KLINGER PSM-AS OR EQUAL	pc	17					GSD62A5SGD_02:50	
	3/4	FLAT RING GASKET, MOD. PTFE, RF, CL150, ASME B16.21, ASME B16.5, T=3.2mm KLINGER PSM-AS OR EQUAL	pc	2					GSD62A5SGD_0J:20	
	1	FLAT RING GASKET, SS REINFORCED GRAPHITE, RF, CL150, ASME B16.21, ASME B16.5, T=3.2mm KLINGER PSM-AS OR EQUAL.	pc	28					GSD62A6SGD_01:25	
	1/2	FLAT RING GASKET, SS REINFORCED GRAPHITE, RF, CL150, ASME B16.21, ASME B16.5, T=3.2mm KLINGER PSM-AS OR EQUAL.	pc	2					GSD62A6SGD_0G:15	
	1	FLAT RING GASKET, SS REINFORCED GRAPHITE, RF, CL150, ASME B16.21, ASME B16.5, T=3.2mm KLINGER PSM-AS OR EQUAL	pc	15					GSD62A4SGD_01:25	
	2	FLAT RING GASKET, SS REINFORCED GRAPHITE, RF, CL150, ASME B16.21, ASME B16.5, T=3.2mm KLINGER PSM-AS OR EQUAL	pc	27					GSD62A4SGD_02:50	
	3	FLAT RING GASKET, SS REINFORCED GRAPHITE, RF, CL150, ASME B16.21, ASME B16.5, T=3.2mm KLINGER PSM-AS OR EQUAL	pc	2					GSD62A4SGD_03:80	
	4	FLAT RING GASKET, SS REINFORCED GRAPHITE, RF, CL150, ASME B16.21, ASME B16.5, T=3.2mm KLINGER PSM-AS OR EQUAL	pc	10					GSD62A4SGD_04:100	
	1.1/2	FLAT RING GASKET, SS REINFORCED GRAPHITE, RF, CL150, ASME B16.21, ASME B16.5, T=3.2mm KLINGER PSM-AS OR EQUAL	pc	1					GSD62A4SGD_1G:40	
	2	FLAT RING GASKET, SS REINFORCED GRAPHITE, RF, CL300, ASME B16.21, ASME B16.5, T=3.2mm KLINGER PSM-AS OR EQUAL	pc	4					GSD63A4SGD_02:50	
	3	FLAT RING GASKET, SS REINFORCED GRAPHITE, RF, CL300, ASME B16.21, ASME B16.5, T=3.2mm KLINGER PSM-AS OR EQUAL	pc	6					GSD63A4SGD_03:80	
	1.1/2	FLAT RING GASKET, SS REINFORCED GRAPHITE, RF, CL300, ASME B16.21, ASME B16.5, T=3.2mm KLINGER PSM-AS OR EQUAL	pc	3					GSD63A4SGD_1G:40	
	1	GASKET SS316L WND FLEXIBLE GRAPHITE, SS316IR & CS CR, SPIRAL WND, RF, CL300, ASMEB16.20, ASME B16.5, T=4.5mm.	pc	12					GSD63A1SGD_01:25	
	2	GASKET SS316L WND FLEXIBLE GRAPHITE, SS316IR & CS CR, SPIRAL WND, RF, CL300, ASMEB16.20, ASME B16.5, T=4.5mm.	pc	18					GSD63A1SGD_02:50	
	3	GASKET SS316L WND FLEXIBLE GRAPHITE, SS316IR & CS CR, SPIRAL WND, RF, CL300, ASMEB16.20, ASME B16.5, T=4.5mm.	pc	1					GSD63A1SGD_03:80	
	3/4	GASKET SS316L WND FLEXIBLE GRAPHITE, SS316IR & CS CR, SPIRAL WND, RF, CL300, ASMEB16.20, ASME B16.5, T=4.5mm.	pc	4					GSD63A1SGD_0J:20	



江苏中圣高科技产业有限公司

JIANGSU SUNPOWER TECHNOLOGY CO., LTD

## 管道材料表

PIPING MATERIAL TAKE-OFFS

文件号  
DOC.NO.

17013D85000PE00-17

版次REV.

0

第 11 页 共 14 页

序号 NO.	规格 SPEC.	材料描述 (名称、标准、特征等) DESCRIPTION	单位	数量 QTY			重量WT (Kg)		编码	备注
			UNIT	DESIGN	SPARE	TOTAL	单EACH	总TOTAL	CODE	REMARKS
2		SS316L WND FLEXIBLE GRAPHITE, SS316 IR & CS CR, SPIRAL WND, RF, CL600, ASME B16.20, ASME B16.5, T=4.5mm.	pc	7					GSD66A4SGD_02:50	
3/4		SS316L WND FLEXIBLE GRAPHITE, SS316 IR & CS CR, SPIRAL WND, RF, CL600, ASME B16.20, ASME B16.5, T=4.5mm.	pc	2					GSD66A4SGD_0J:20	
1.1/2		SS316L WND FLEXIBLE GRAPHITE, SS316 IR & CS CR, SPIRAL WND, RF, CL600, ASME B16.20, ASME B16.5, T=4.5mm.	pc	1					GSD66A4SGD_1G:40	
6	NPS	BOLTS/NUTS								
M3/4X110		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B7/A194 2H, GALVANISED, ASME B18.2.1/18.2.2	set	16					LS3433A:M20	
M3/4X125		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B7/A194 2H, GALVANISED, ASME B18.2.1/18.2.2	set	64					LS3433A:M20	
M5/8X100		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B7/A194 2H, GALVANISED, ASME B18.2.1/18.2.2	set	12					LS3433A:M16	
M5/8X105		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B7/A194 2H, GALVANISED, ASME B18.2.1/18.2.2	set	240					LS3433A:M16	
M5/8X120		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B7/A194 2H, GALVANISED, ASME B18.2.1/18.2.2	set	8					LS3433A:M16	
M5/8X125		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B7/A194 2H, GALVANISED, ASME B18.2.1/18.2.2	set	40					LS3433A:M16	
M5/8X135		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B7/A194 2H, GALVANISED, ASME B18.2.1/18.2.2	set	8					LS3433A:M16	
M5/8X90		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B7/A194 2H, GALVANISED, ASME B18.2.1/18.2.2	set	16					LS3433A:M16	
M5/8X95		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B7/A194 2H, GALVANISED, ASME B18.2.1/18.2.2	set	148					LS3433A:M16	
M1/2X70		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B7/A194 2H, GALVANISED, ASME B18.2.1/18.2.2	set	8					LS3433A:M14	
M1/2X75		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B7/A194 2H, GALVANISED, ASME B18.2.1/18.2.2	set	56					LS3433A:M14	
M1/2X80		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B7/A194 2H, GALVANISED, ASME B18.2.1/18.2.2	set	4					LS3433A:M14	
M5/8X105		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B8 CL2/ASTM A194 8, ASME B18.2.1/18.2.2	set	4					LS3433A:M16	
M5/8X95		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B8 CL2/ASTM A194 8, ASME B18.2.1/18.2.2	set	60					LS3433A:M16	
M1/2X65		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B8 CL2/ASTM A194 8, ASME B18.2.1/18.2.2	set	8					LS3433A:M14	
M1/2X70		FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B8 CL2/ASTM A194 8, ASME B18.2.1/18.2.2	set	32					LS3433A:M14	



江苏中圣高科技产业有限公司

JIANGSU SUNPOWER TECHNOLOGY CO., LTD

## 管道材料表

PIPING MATERIAL TAKE-OFFS

文件号  
DOC. NO.

17013D85000PE00-17

版次REV.

0

第 12 页 共 14 页

序号 NO.	规格 SPEC.	材料描述 (名称、标准、特征等) DESCRIPTION	单位 UNIT	数量 QTY			重量WT (Kg)		编码 CODE	备注 REMARKS
				DESIGN	SPARE	TOTAL	单EACH	总TOTAL		
	M1/2X75	FULL THREADED STUD BOLT/2 HEAVY NUTS (II TYPE, m=1.0d), ASTM A193 B8 CL2/ASTM A194 8, ASME B18.2.1/18.2.2	set	176					LS3433A:M14	
7		PAINTING								
		Silicone Aluminum Primer(650℃)	kg	40						
		Silicone Aluminum Primer(650℃),Surface : Grey RAL7035	kg	34						
		Epoxy Zinc Rich Prime Paint	kg	5.5						
		Epoxy Mica/Iron Oxide Anticorrosive Paint	kg	10						
		Aliphatic Polyurethane Finish, Surface : Yellow RAL1004	kg	4						
8		INSULATION (Provide by TCC)								
		Preformed Mineral Fiber	m <sup>3</sup>	3.5						
		Mineral Fiber Blanket (Metal Mesh Covered) Thickness=60mm	m <sup>3</sup>	0.06						
		Mineral Fiber Blanket (Metal Mesh Covered) Thickness=70mm	m <sup>3</sup>	0.11						
		Mineral Fiber Blanket (Metal Mesh Covered) Thickness=80mm	m <sup>3</sup>	0.04						
		Aluminum Silcate Blanket Thickness=50mm	m <sup>3</sup>	0.16						
		Aluminum Silcate Blanket Thickness=60mm	m <sup>3</sup>	2.75						
		Aluminium Sheets, Thickness=0.8mm	m <sup>2</sup>	137						
9	NPS	PIPE SUPPORTS								
	64	SEAT TYPE SUPPORT[II];J10[II];A=309.2mm;C.S	set	1					Manufacture by 10mm steel plate	
	64	SEAT TYPE SUPPORT[II];J10[II];A=293.2mm;C.S	set	1					Manufacture by 10mm steel plate	



江苏中圣高科技产业有限公司

JIANGSU SUNPOWER TECHNOLOGY CO., LTD

## 管道材料表

PIPING MATERIAL TAKE-OFFS

文件号  
DOC. NO.

17013D85000PE00-17

版次REV.

0

第 13 页 共 14 页

序号 NO.	规格 SPEC.	材料描述 (名称、标准、特征等) DESCRIPTION	单位 UNIT	数量 QTY			重量WT (Kg)		编码 CODE	备注 REMARKS
				DESIGN	SPARE	TOTAL	单EACH	总TOTAL		
64		SEAT TYPE SUPPORT[II];J10[II];A=277.2mm;C.S	set	1					Manufacture by 10mm steel plate	
64		SEAT TYPE SUPPORT[II];J10[II];A=234.2mm;C.S	set	1					Manufacture by 10mm steel plate	
64		SEAT TYPE SUPPORT[II];J10[II];A=187.2mm;C.S	set	1					Manufacture by 10mm steel plate	
4		GUIDE OF HORIZONTAL PIPE;E1;A=100mm;C.S	set	1						
4		"I" TYPE HANGER[I];B14[I];A=800mm;C=600mm;C.S	set	1						
4		"U" BOLT(Inch) [I];A1-2(4) [I];C.S	set	17						
4		"U" BOLT(Inch) [II];A1-2(4) [II];C.S	set	3						
4		"T" SHOE SUPPORT (CLAMP);J2-1a with 2 A5-2(4);A=100mm;B=200mm;C.S	set	2						
4		ELBOW SUPPORT (CLAMP);G11 with 1 A8-2(4);A=800;C.S	set	1						
4		GUIDE SUPPORT;E9;A=1290mm;B=200mm;J2-1a with 2 A5-2(4);A=100mm;B=200mm;C.S	set	1						
2		"U" BOLT(Inch) [I];A1-2(2) [I];C.S	set	11						
2		"U" BOLT(Inch) [II];A1-2(2) [II];C.S	set	1						
2		"T" SHOE SUPPORT (CLAMP);J2-1a with 2 A5-2(2);A=100mm;B=300mm;C.S	set	7						
2		"T" SHOE SUPPORT (CLAMP);J2-1a with 2 A5-2(2);A=100mm;B=200mm;C.S	set	11						
2		"T" SHOE SUPPORT (CLAMP);J2-1a with 2 A5-2(2);A=100mm;B=100mm;C.S	set	5						
2		"T" SHOE SUPPORT (WELDING);J1-1a;A=100mm;B=300mm;C.S	set	4						
2		"T" SHOE SUPPORT (WELDING);J1-1a;A=100mm;B=200mm;C.S	set	1						
2		GUIDE SUPPORT[I];E5[I];A=80mm;J2-1a with 2 A5-2(2);A=100mm;B=200mm;C.S	set	2						
2		GUIDE SUPPORT[I];E5[I];A=80mm;J2-1a with 2 A5-2(2);A=100mm;B=300mm;C.S	set	16						
2		BOTTOM LEG OF ELBOW;F8;A=620mm;C=200mm;C.S	set	1					Leg Spec. 11/2' 'sch80	
2		"L" TYPE HANGER;B24;A=800mm;B=300mm;C.S	set	1						

