

## Model

**SIA-24-L25-CR-TSB-6050-DC-S**

Model Type	Simplex Dual Seal Plunger with dust cover (special)
Motor Type	60w 24V DC Std Area
Max Continuous Output Pressure	207 barg / 3000 psig
Max Intermittent Output Pressure	207 barg / 3000 psig
Plunger Diameter	0.25"
Displacement / Cycle	0.8cc (100% stroke length setting)
Flow-rate @ 60 cycles / min (max flow)	2.88 LPH / 0.76 GPH
Liquid Inlet Connection	¼" NPTM
Liquid Outlet Connection	¼" NPTF

## Materials of Construction

Pump Section	316 Stainless Steel
Primary Seal	TSB - PTFE + Glass + Bronze + Buna energiser with Delrin
Non-Metallic	Viton & Ceramic

## Seal Kits

Fluid Section	SK-L25-2-TSB
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Solar Injection Australia Pty Ltd		<b>MECHANICAL DATA SHEET FOR CONTROLLED VOLUME PUMP</b>		PAGE No.:		
				CONTRACT No.:		
TITLE : <i>Chemical Injection Pump</i>		SHT. 1 OF 3	REV. <i>D</i>	REVISION MARK		
DOC.No. :		EQUP. No. :				QTY.: <i>1</i>
PROJECT :		REQN. No. :				PO No.:
1	APPLICABLE TO : <input checked="" type="checkbox"/> INQUIRY <input type="checkbox"/> PURCHASE <input type="checkbox"/> AS BUILT					
2	SITE : <i>OUTDOOR LOCATION</i> <input type="checkbox"/> UNDERGROUND <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>					
3	QTY REQUIRED : <i>1</i> NORMAL: <i>1</i> STANDBY : <i>NIL</i> SPARE : <i>NIL</i>					
4	MANUFACTURER : <i>Solar Injection Australia Pty Ltd</i> MODEL No. : <i>SIA-24-L25-CR-TSB-6050-DC-S</i>					
5	PUMP SERIAL NO.: _____ No. OF FEEDS : <i>Simplex (1)</i>					
6	<b>GENERAL</b>					
7	PUMP DRIVEN BY: <input checked="" type="checkbox"/> ELECTRIC MOTOR <input type="checkbox"/> AIR <input type="checkbox"/> GAS <input type="checkbox"/> STEAM <input type="checkbox"/> HAND					
8	DUTY : <input type="checkbox"/> CONTINUOUS <input checked="" type="checkbox"/> INTERMITTENT					
9	CODES / STDs : <i>API 675, 2ND EDITION</i>					
10	DRIVER ITEM NO : <i>NA</i> DRIVER DATA SHEET NO. : <i>NA</i>					
11	<b>OPERATING DATA</b>					
12	CAPACITY: MIN.- <i>0</i> lph MAX.- <i>2.88</i> lph NORMAL - _____ lph					
13	SUCTION PRESSURE: MIN.- <i>0</i> barg MAX.- <i>5</i> barg NORMAL - _____ barg					
14	DISCHARGE PRESSURE: MIN.- <i>1</i> barg MAX.- <i>207</i> barg NORMAL - _____ barg					
15	DIFFERENTIAL PRESSURE: MIN.- _____ barg MAX.- _____ barg NORMAL - _____ barg					
16	PUMPING TEMP. (P.T): MIN.- <i>-34</i> Deg. C MAX.- <i>82</i> Deg. C DESIGN - <i>90</i> Deg. C					
17	NPSH AVAILABLE WITHOUT ACC. HEAD: _____ Meters					
18	PUMPING LIQUID :					
19	DENSITY : _____ kg/m <sup>3</sup> @ <i>PT</i> Deg. C		SOLID CONTENT: _____ mg/L			
20	VAP. PRESSURE : _____ barg @ <i>PT</i> Deg. C		PARTICLE SIZE: _____ mm			
21	VISCOSITY : _____ cP @ <i>PT</i> Deg. C		PUMPING LIQUID: <input type="checkbox"/> CORROSIVE <input type="checkbox"/> ROSIVE			
22	SUCTION PIPE LENGTH : _____ Meters		<input type="checkbox"/> FLAMMABLE <input type="checkbox"/> TOXIC			
22	SUCTION PIPE DIAMETER : _____ mm					
23	<b>PERFORMANCE</b>		<b>CONSTRUCTION</b>			
24	RATED CAPACITY (PER FEED) : <i>2.88</i> lph		PUMP TYPE: <input checked="" type="checkbox"/> PLUNGER <input type="checkbox"/> SINGLE DIAPHRAGM			
25	NPSH REQD. (WITH ACC. HEAD) : _____ meters		<input type="checkbox"/> DOUBLE DIAPHRAGM			
26	VALUE OF ACCELERATION HEAD : _____ meters		<input checked="" type="checkbox"/> SINGLE ACTING <input type="checkbox"/> DOUBLE ACTING			
27	RELIEF VALVE SET PRESSURE : _____ barg		CYLINDER MOUNTING: <input type="checkbox"/> HORIZONTAL <input checked="" type="checkbox"/> VERTICAL			
28	PUMP VOLUMETRIC EFFICIENCY : <i>98</i> %		LIQUID END PLUNGER DIA. : <i>0.25</i> inches			
29	PUMP MECHANICAL EFFICIENCY : <i>52</i> %		STROKE LENGTH : <i>1</i> inches			
30	BKW AT DISCHARGE PRESSURE : _____ hP		DIAPHRAGM DIAMETER: <i>n/a</i> inches			
31	BKW AT R.V. SET PRESSURE: _____ hP		PLUNGER / DIAPHRAGM ACTUATION -			
32	MAX. DISCH PR. WITH JOB DRIVER : <i>207</i> barg		<input type="checkbox"/> HYDRAULIC <input checked="" type="checkbox"/> MECHANICAL			
33	PLUNGER SPEED- NOR.: <i>60</i> MAX.: <i>60</i> Strokes/min		AIR/GAS PLUNGER DIA. : <i>n/a</i> inches			
34	DESIGN TEMPERATURE : <i>90</i> Deg. C		SUCT. / DISCH. VALVE TYPE : <i>Ball Check</i>			
35	M.A.W.P : <i>207</i> barg @ <i>82</i> Deg. C		NO. OFF VALVES PER FEED(HEAD) : <i>two (2)</i>			
36	HYDROTEST PRESSURE : <i>207</i> barg					
37	<b>CONSTRUCTION (Cont...)</b>					
38	POWER TRANSMISSION : <input type="checkbox"/> DIRECT / COUPLING <input checked="" type="checkbox"/> GEAR BOX <input type="checkbox"/> BELT					
39	DIRECTION OF ROTATION VIEWED FROM PUMP CPLG. END: <input type="checkbox"/> CW <input checked="" type="checkbox"/> CCW					
40	ANTI-FRICTION BEARING - MAKE: <i>N/A</i>		BEARING TYPE : <i>N/A</i>			
41	QTY.: <i>N/A</i>		BEARING NO. : <i>N/A</i>			
42	COUPLING - MAKE : <i>N/A</i> TYPE : <i>N/A</i> MODEL : <i>N/A</i>					
43	GEARBOX - <input checked="" type="checkbox"/> BUILT-IN <input type="checkbox"/> SEPARATE					
44	MAKE : <i>SIA</i> MODEL : <i>SIA40069-24-6050</i> SERVICE FACTOR : <i>N/A</i>					
45	PACKING - MAKE : <i>SIA</i> TYPE : <i>Lip Seal</i> MOC : <i>Teflon Stainless</i>					
46	PACKING SIZE - ID: <i>n/a</i> mm, OD : <i>n/a</i> mm, LENGTH : <i>n/a</i> mm,					
47	BASE PLATE : <input checked="" type="checkbox"/> COMMON <input type="checkbox"/> INDEPENDENT TYPE : _____					
48						
<i>D</i>	<i>27/4/2018</i>	<i>Changed inlet check valve information</i>	<i>ATS</i>	<i>ATS</i>	<i>ATS</i>	
<i>C</i>	<i>25/10/2017</i>	<i>Fixed rounding of Pressure 200 bar to 207 bar</i>	<i>ATS</i>	<i>ATS</i>	<i>ATS</i>	
<i>B</i>	<i>22/05/2013</i>	<i>CORRECTION OF TEMPERATURE RATINGS</i>	<i>ATS</i>	<i>ATS</i>	<i>ATS</i>	
REV.	DATE	DESCRIPTION	PREPD.	CHKD.	APPD.	

Solar Injection Australia Pty Ltd		<b>MECHANICAL DATA SHEET FOR CONTROLLED VOLUME PUMP</b>		PAGE No.:		REVISION MARK	
				CONTRACT No.:			
TITLE : <i>Chemical Injection Pump</i>		SHT. 2 OF 3	REV. <i>D</i>				
DOC.No. : <i>0</i>		EQUIP. No. :		QTY. <i>1</i>			
PROJECT : <i>0</i>		REQN. No. :		PO No.:			
<b>1 ACCESSORIES</b>							
2	SUCTION STRAINER -	<input checked="" type="checkbox"/> REQUIRED	<input type="checkbox"/> NOT REQUIRED	TYPE : <i>SiA</i>			
3	PRESSURE GAUGE -	<input type="checkbox"/> SUCTION SIDE	<input checked="" type="checkbox"/> DISCHARGE SIDE	<input type="checkbox"/> FOR PULSATION DAMPNER			
4	PRESSURE RELIEF VALVE -	<input checked="" type="checkbox"/> REQUIRED	<input type="checkbox"/> NOT REQUIRED	<i>(NOTE 3)</i>			
5		<input type="checkbox"/> INBUILT	<input checked="" type="checkbox"/> EXTERNAL (LINE MOUNTED)				
6		MAKE : _____		SIZE : _____			
7	PULSATION DAMPNER:	<input type="checkbox"/> SUCTION SIDE	<input type="checkbox"/> DISCHARGE SIDE				
8		TYPE - <input type="checkbox"/> VOLUME BOTTLE		<input type="checkbox"/> AIR/GAS FILLED VESSEL			
9		DESIGN CODE FOR PULSATION DAMPNER : _____					
10	PRESSURE CONTROL VALVE FOR AIR/GAS DRIVE:	<input type="checkbox"/> REQUIRED	<input checked="" type="checkbox"/> NOT REQUIRED				
<b>11 MATERIAL OF CONSTRUCTION (NOTE -9)</b>							
12	LIQUID END/CASING :	<i>316 SS</i>		PULSATION DAMPNER :		<i>N/A</i>	
13	PLUNGER :	<i>Ceramic</i>		VALVE BODY :		<i>316 SS</i>	
14	PROCESS DIAPHRAGM :	<i>N/A</i>		VALVE GUIDE :		<i>316 SS</i>	
15	HYDRAULIC DIAPHRAGM :	<i>N/A</i>		VALVE SEAT :		<i>316 SS</i>	
16	PACKING :	<i>SS Filled PTFE with Buna</i>		VALVE GASKET :		<i>PTFE</i>	
17	PACKING GLAND :	<i>N/A</i>		GAS/AIR PLUNGER :			
18	LANTERN RING :	<i>N/A</i>		GAS/AIR CYLINDER :			
19	COUPLING :	<i>N/A</i>		SEALS:		<i>SS Filled PTFE with Buna</i>	
20	BASE PLATE :	<i>N/A</i>		HOUSING/ FRAME :		<i>Aluminium - Anodised</i>	
<b>21 CAPACITY CONTROL</b>							
22	CAPACITY CONTROL:	<input checked="" type="checkbox"/> REQUIRED	<input type="checkbox"/> NOT REQUIRED				
23	TURNDOWN RATIO :	<i>10:1</i>		CAPACITY CONTROL RANGE : <i>0 TO 100</i> %			
24	CAPACITY CONTROL METHOD :	<input checked="" type="checkbox"/> STROKE CONTROL	<input checked="" type="checkbox"/> SPEED CONTROL				
25	CAPACITY CONTROL TYPE:	<input checked="" type="checkbox"/> MANUAL	<input type="checkbox"/> AUTOMATIC				
26	CAPACITY CONTROL DURING OPERATION:	<input checked="" type="checkbox"/> REQUIRED	<input type="checkbox"/> NOT REQUIRED				
27	CAPACITY CONTROL BY :	<input checked="" type="checkbox"/> LOCAL	<input type="checkbox"/> REMOTE				
28	CAPACITY CONTROL SIGNAL (FOR REMOTE CONTROL) :	<input type="checkbox"/> PNEUMATIC	<input type="checkbox"/> ELECTRIC	<input checked="" type="checkbox"/> N/A			
29	PNEUMATIC PRESSURE:	MIN.- _____	psia	MAX.- _____	psia		
30	ELECTRIC SIGNAL :	MIN.- _____	mA	MAX.- _____	mA		
<b>31 NOZZLE DETAILS</b>							
32	<b>DESCRIPTION</b>	<b>SIZE</b>	<b>RATING</b>	<b>PART NO.</b>	<b>POSITION</b>		
33	PUMP SUCTION NOZZLE :	<i>1/4"</i>	<i>MNPT</i>	<i>40130-M</i>	<i>Bottom</i>		
34	PUMP DISCHARGE NOZZLE :	<i>1/4"</i>	<i>FNPT</i>	<i>40063-B</i>	<i>Side</i>		
35	AIR/GAS INLET :	_____	_____	_____	_____		
36	AIR/GAS OUTLET :	_____	_____	_____	_____		
37	BASE PLATE/SKID DRAIN :	_____	_____	_____	_____		
<b>38 DRIVER DETAILS</b>							
39	<b>ELECTRIC MOTOR DRIVEN</b>			<b>AIR / GAS / STEAM DRIVEN</b>			
40	SUPPLIED BY :	<i>Solar Injection Australia Pty Ltd</i>		DRIVEN BY :	<input type="checkbox"/> AIR	<input type="checkbox"/> GAS	<input type="checkbox"/> STEAM
41	MOUNTED BY :	<i>Solar Injection Australia Pty Ltd</i>		SOUR GAS :	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
42	MANUFACTURER :	<i>Solar Injection Australia Pty Ltd</i>		SUPPLY PRESSURE :	<i>TO</i> _____		psia
43	ENCLOSURE :	_____		SUPPLY TEMPERATURE :	_____		°F
44	IP CLASS FOR PROTECTION :	<i>56</i>		REQUIRED PR. AT PUMP :	_____		psia
45	RATED OUTPUT :	<i>0.060</i> kW		CONSUMPTION RATE :	_____		Nm <sup>3</sup> /hr
46	SPEED (SYN) :	<i>3000</i> rpm		RETURN PRESSURE :	_____		psia
47	SERVICE FACTOR :	<i>*</i>		DESIGN PRESSURE :	_____		psia
48	STARTING METHOD :	<input type="checkbox"/> SOFT START	<input checked="" type="checkbox"/> DOL	DESIGN TEMPERATURE :	_____		°F
<b>49 SITE DATA</b>							
50	ELEVATION ABOVE MSL :	_____		meters			
51	ATM. PRESSURE :	_____		psia			
52	RANGE OF AMB. TEMPERATURE :	MIN. _____	°F,	MAX. _____	°F		
53	RELATIVE HUMIDITY :	MIN. _____	%,	MAX. _____	%		
54	HAZ. AREA CLASSIFICATION :	CLASS _____,	DIVISION _____,	GAS GROUP _____,	TEMP CLASS _____		
55	UNUSUAL CONDITION :	DUST	FUMES	MARINE CONDITIONS			

Solar Injection Australia Pty Ltd	<b>MECHANICAL DATA SHEET FOR CONTROLLED VOLUME PUMP</b> TITLE : <i>Chemical Injection Pump</i>	PAGE No.: CONTRACT No.: SHT. 3 OF 3 REV. <i>D</i>	REVISION MARK
DOC.No. : <i>0</i>	EQUIP. No. :	QTY.: <i>1</i>	
PROJECT <i>0</i>	REQN. No. :	PO No.:	
<b>1 UTILITIES</b>			
<b>2 COOLING WATER :</b>			
3 QUANTITY - <i>n/a</i> gpm	SUPPLY PR.- <i>n/a</i> psia	SUPPLY TEMP - <i>n/a</i> °F (MAX)	
4 TEMP RISE (ΔT) - <i>n/a</i> (MAX)	RETURN PR.- <i>n/a</i> psia	RETURN TEMP. - <i>n/a</i> °F (MAX)	
<b>5 OTHERS</b>			
6 GEARBOX LUBE OIL -	GRADE: <i>n/a</i>	QTY. - <i>n/a</i> Litres	
7 HYDRAULIC FLUID -	GRADE: <i>n/a</i>	QTY. - <i>n/a</i> Litres	
8 INTERMEDIATE FLUID -	GRADE: <i>n/a</i>	QTY. - <i>n/a</i> Litres	
9 STARTING TORQUE OF PUMP:	<i>n/a</i> kg-m	GD <sup>2</sup> VALUE - <i>n/a</i> kg-m <sup>2</sup>	
<b>10 NOISE &amp; VIBRATION</b>			
11 NOISE LEVEL :	<i>75</i> dBA		
12 VIBRATION LEVEL (GUARANTEED) :	<i>Not Measurable</i>		
<b>13 PAINTING &amp; PACKING</b>			
13 PAINTING : <input type="checkbox"/> AS PER ATTACHED SPECIFICATION		PACKING : <input checked="" type="checkbox"/> DOMESTIC <input type="checkbox"/> EXPORT	
14 <input checked="" type="checkbox"/> MANUFACTURER'S STANDARD		<input type="checkbox"/> STORAGE MORE THAN 6 MONTHS	
<b>15 WEIGHTS &amp; DIMENSIONS</b>			
16 PUMP :	<i>n/a</i> kg ,	DRIVER :	<i>n/a</i> kg ,
17 COUPLING :	<i>n/a</i> kg ,	GEARBOX :	<i>n/a</i> kg ,
		BASE PLATE (SKID) :	<i>n/a</i> kg
		TOTAL WEIGHT :	<i>7</i> kg
18			
19 OVERALL DIMENSION :	(L X B X H) _____ mm X _____ mm X _____ mm		
<b>20 INSPECTIONS &amp; TESTS</b>			
<b>21 DESCRIPTION</b>		<b>DESCRIPTION</b>	
22 <u>1.</u> QA/QC PLAN <input type="checkbox"/> REQD.		<u>7.</u> REPEATABILITY <input checked="" type="checkbox"/> REQD. <input type="checkbox"/> WITNESS	
23 <u>2.</u> MATL. CERTIFICATES <input type="checkbox"/> REQD.		<u>8.</u> RELIEF VALVE TEST <input type="checkbox"/> REQD. <input type="checkbox"/> WITNESS	
24 <u>3.</u> HYDRO STATIC <input checked="" type="checkbox"/> REQD. <input type="checkbox"/> WITNESS		<u>9.</u> NPSH TEST <input type="checkbox"/> REQD. <input type="checkbox"/> WITNESS	
25 <u>4.</u> PERFORMANCE <input checked="" type="checkbox"/> REQD. <input type="checkbox"/> WITNESS		<u>10.</u> NOISE & VIBRATION <input type="checkbox"/> REQD. <input type="checkbox"/> WITNESS	
26 <u>5.</u> LINEARITY <input checked="" type="checkbox"/> REQD. <input type="checkbox"/> WITNESS		<u>11.</u> STRIP DOWN <input type="checkbox"/> REQD. <input type="checkbox"/> WITNESS	
27 <u>6.</u> STEADY STATE ACCURACY <input type="checkbox"/> REQD. <input type="checkbox"/> WITNESS		<u>12.</u> DIMENSIONS CHECK <input checked="" type="checkbox"/> REQD. <input type="checkbox"/> WITNESS	
<b>28 SCOPE OF SUPPLY / SCOPE OF WORK</b>			
29 <input checked="" type="checkbox"/> PUMP <input checked="" type="checkbox"/> GEAR BOX (BUILT-IN) <input checked="" type="checkbox"/> ELECTRIC MOTOR <input type="checkbox"/> COUPLING & COUPLING GUARD			
30 <input checked="" type="checkbox"/> BASE PLATE <input type="checkbox"/> FOUNDATION/FIXING BOLTS & NUTS <input type="checkbox"/> SUCTION STRAINER			
31 <input type="checkbox"/> PRESSURE RELIEF VALVE <input type="checkbox"/> SUCTION PULSATION DAMPNER <input type="checkbox"/> DISCH. PULSATION DAMPNER			
32 <input type="checkbox"/> SUCTION PR. GAUGE <input type="checkbox"/> DISCH. PR. GAUGE <input type="checkbox"/> PR. GAUGE FOR PULSATION DAMPNER			
33 <input type="checkbox"/> FILTER, REGULATOR AND LUBRICATOR (FRL) <input type="checkbox"/> COMPANION FLANGES SUCTION/DISCHARGE			
34 <input type="checkbox"/> OTHER INSTRUMENTS AS PER P&ID <input type="checkbox"/> PIPING & VALVES AS PER P&ID <input type="checkbox"/> INSPECTION & TEST			
35 <input type="checkbox"/> DRAWINGS & DOCUMENTS <input type="checkbox"/> COMMISSIONING SPARES <input type="checkbox"/> 2 YEARS OPERATIONAL SPARES LIST			
36 <input type="checkbox"/> SPECIAL TOOLS & TACKLES <input type="checkbox"/> CONSUMABLES (CHEMICALS, LUBE OIL ETC)			
37 <input type="checkbox"/> PAINTING & COATING <input type="checkbox"/> PACKING & FORWARDING <input type="checkbox"/> TRANSPORT <input type="checkbox"/> INSTALLATION			
38 <input type="checkbox"/> SUPERVISION OF INSTALLATION <input type="checkbox"/> COMMISSIONING <input type="checkbox"/> SUPERVISION OF COMMISSIONING			
<b>39 NOTES :</b>			
40 <b>1. <input checked="" type="checkbox"/> INDICATES APPLICABLE REQUIREMENT / CHOICE. FILL APPLICABLE <input type="checkbox"/> BOXES WITH <input checked="" type="checkbox"/> MARK.</b>			
41 <b>2. FILL THIS DATA SHEET WHEREVER MARKED '*'. IN CASE, IF ANY OF THE PARAMETER IS NOT APPLICABLE,</b>			
42 <b>THEN SPECIFY N/A. SUBMIT FILLED IN DATA SHEET, DULY SIGNED &amp; STAMPED ALONG WITH</b>			
43 <b>OFFER.</b>			
44 <b>3. RELIEF VALVE OUTLET SHALL BE CONNECTED BACK TO SUCTION.</b>			
45 <b>4. N/A</b>			
46			
47 <b>N/A</b>			
48 <b>6. CLIENT TO PROVIDE PULSATION DAMPNER IF REQUIRED.</b>			
49 <b>7. N/A</b>			
50			
51 <b>8. N/A</b>			
52			
53 <b>9. ALL DRIVES TO BE ANODISED</b>			
54			
55			