Page:

1 of 9

Revision:

Customer: PROCESS FLOW SYSTEMS LTD---502809

Description: Process Flow / Marathon Pulp

Worthington 5LFG8

3x4-7

Prod Qty: 1.00 Order Qty: 1.00 Total Qty: 1.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

SUBASSEMBLY COMPONENTS:							
Asm	Part Number	Description	Required Qty		from Stock	Whse	Status
1	Dissassembly&Inspect	Dissassembly clean and inspect	1.00	EA	0.00		
2	Shaft	Chrome repair	1.00	EA	0.00		
3	Impellers	Skim rings/balance	1.00	EA	0.00		
4	Diffusers	Skim case hub rings	1.00	EA	0.00		
5	Diffuser Casings	Install new case rings	1.00	EA	0.00		
6	Suction Housing	Installnew ring	1.00	EA	0.00		
7	Discharge Housing	skim balance drum wear face	1.00	EA	0.00		
8	Impeller Spaces	Manufacture	1.00	EA	0.00		
9	Packing Sleeves	Manufacture	1.00	EA	0.00		
10	OE Stuffing Box	Skim bore	1.00	EA	0.00		
11	Restriction Sleeve	Manufacture	1.00	EA	0.00		
12	CE Bearing Spacer	Manufacture	1.00	EA	0.00		
13	Bearing Housings	Sleeve bearing bores	1.00	EA	0.00		
14	Balance Sleeve	Manufacture	1.00	EA	0.00		

Job Number:

076706-1-1

Date: 7/10/2019

2 of 9 Page:

Revision: Customer:

PROCESS FLOW SYSTEMS LTD---502809

RAW MATERIAL COMPONENTS:						
Seq No.	Part Number	Description	Required Qty	Whse	Rel. OP	Status
10	3" dia x 12" lg	CD4	1.00	EA	0	Issued Complete
20	CD4	6-5/8 x 3-3/4" x 6-1/4" lg	1.00	EA	0	Issued Complete
30	CD4	3" Dia x 6" lg	1.00	EA	0	Issued Complete
40	CD4	7-1/4" x 2" x 3-1/2" lg	1.00	EA	0	Issued Complete
50	#10050	EZEE-Sleeves	2.00	EA	0	Issued Complete
60	PO FRT	Shipping Charges	1.00	EA	0	Issued Complete
70	2-1/4" x 23" lg	410 SS	1.00	EA	0	Issued Complete
80	Subcontract	Balance sleeve heat treat to 44Rc	1.00	EA	0	Issued Complete
90	Shipping Box	5' lg x 3' H x 3' W c/w lid and runners	1.00	EA	0	Issued Complete
100	10mm	end mill cutter 2 flute	1.00	EA	0	Issued Complete
110	8mm	end mill cutter 2 flute	2.00	EA	0	Issued Complete
120	Style 1070 "B" Box	35 ft Size 12MM Packing Qu# 0810DC	1.00	EA	0	Issued Complete
130	Pt# 98810A140	7x8MM Keystock	1.00	EA	0	Issued Complete
140	Pt# 90457A170	10MM Keystock	1.00	EA	0	Issued Complete
150	PO FRT	Fuel Surcharge	1.00	EA	0	Issued Complete
160	CON NU 407 M	Bearing	2.00	EA	0	Issued Complete
170	FAG 6407 C3	Bearing	1.00	EA	0	Issued Complete
180	REM KM 07	Lock nut	1.00	EA	0	Issued Complete
190	REM W07	Bearing Lock Washer	1.00	EA	0	Issued Complete
200	5mmx280mm	Viton O-Ring	5.00	EA	0	Issued Complete
210	3MM x 50MM	Viton O-Ring	4.00	EA	0	Issued Complete
220	40627DL	DMR Oil Seal	4.00	EA	0	Issued Complete
230	PO FRT	Shipping Charges	1.00	EA	0	Issued Complete
240	Pt# UT1615	15" Rubber cords	10.00	EA	0	Issued Complete

OPERATIONS

Seq No. Oper.	Description	Oper. Qty	Res.	Status

ASM **Shop Production** 1.00 1.00

Assemble pump complete.

Revision:

Customer: PROCESS FLOW SYSTEMS LTD---502809

Page: 3 of 9

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

20 INS Shop Production 1.00 1.00 **CMPL**

Final inspection by shop supervisor.

1 Part: Dissassembly&Inspect Description: Dissassembly clean and inspect

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

10 DAS Shop Production 1.00 1.00

Incoming photos
Dismantle

Clean Parts for Inspection

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

20 INS Shop Production 1.00 1.00

Dimensional Inspection of all components

Record 'as found' condition

101 Part: Shaft **Description:** Chrome repair

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

Job Number: 076706-1-1 Job Traveler

Traveler Date: 7/10/2019

Page: 4 of 9

Revision: 00

Customer: PROCESS FLOW SYSTEMS LTD---502809

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

5 MCH Shop Production 1.00 1.00

Manufacture new shaft as per sample. NOTE: drawing started in folder. Use CD4 shafting.

201 Part: Impellers Description: Skim rings/balance

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

10 MCH Shop Production 5.00 1.00

Skim all impeller rings to 4.650" +.000-.002. Skim hub faces parallel minimal clean up.

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

20 BAL Shop Production 1.00 1.00

Assemble impellers onto shaft for balancing. Balance impellers to ISO G 2.5 specs @ 3550 RPM.

301 Part: Diffusers Description: Skim case hub rings

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

Revision: Page: 5 of 9

Customer: PROCESS FLOW SYSTEMS LTD---502809

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

10 MCH Shop Production 4.00 1.00

Skim diffuser hub rings (4). Finish ID for all is 2.400" +.002-.000. Hand dress and machine diffuser with test weld. (Diffuser vanes appear good, no welding required.)

401 Part: Diffuser Casings **Description:** Install new case rings

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

10 MCH Shop Production 4.00 1.00

Remove existing casing rings (Large). Manufacture and install new rings as per samples and line bore in casing. Finish ID for all (4) rings is 4.671" +.002-.000. NOTE: Material is CD4.

501 Part: Suction Housing **Description:** Installnew ring

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

10 MCH Shop Production 1.00 1.00

Remove existing case ring. Manufacture and install new ring as per sample. Finish ID size is 4.671" +.002-.000.

Page:

6 of 9

Revision:

Customer: PROCESS FLOW SYSTEMS LTD---502809

601 Part: Discharge Housing **Description:** skim balance drum wear face

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

10 MCH Shop Production 1.00 1.00

Skim balance drum wear face minimal clean up.

701 Part: Impeller Spaces Description: Manufacture

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

10 MCH Shop Production 4.00 1.00

Manufacture (4) new impeller spacers as per sample. Finish OD for all (4) is 2.382" +.000-.002 NOTE: material is CD4

801 Part: Packing Sleeves Description: Manufacture

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

10 MCH Shop Production 2.00 1.00

Manufacture (2) new packing sleeves as per samples. NOTE: Material is CD4

7 of 9

Page:

Revision:
Customer:

PROCESS FLOW SYSTEMS LTD---502809

901 Part: OE Stuffing Box Description: Skim bore

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

10 MCH Shop Production 1.00 1.00

Skim Outboard end stuffing box restriction bushing bore to 2.580" +.002-.000.

1001 Part: Restriction Sleeve Description: Manufacture

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

10 MCH Shop Production 1.00 1.00

Manufacture new restriction sleeve as per sample. Finish OD is 2.562" +.000-.002. Use CD4.

1101 Part: CE Bearing Spacer Description: Manufacture

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

10 MCH Shop Production 1.00 1.00

Skim CE bearing spacer OD minimal clean up.

Page:

8 of 9

Revision:

Customer: PROCESS FLOW SYSTEMS LTD---502809

1201 Part: Bearing Housings **Description:** Sleeve bearing bores

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

5 WLD Shop Production 2.00 1.00

Weld repair bearing housing spigots. Machine spigots to suit suction and discharge housings with 0.004" clearance.

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

10 MCH Shop Production 2.00 1.00

Sleeve both bearing housing bores. Finish ID for both is 3.9370 to 3.9379" Use eze-sleeves.

1301 Part: Balance Sleeve **Description:** Manufacture

Prod Qty: 1.00 Order Qty: 0.00 Total Qty: 0.00 Start Date: 12/31/2009 Due Date: 12/31/2009 Required Date: 12/31/2009

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

10 MCH Shop Production 1.00 1.00 **CMPL**

Manufacture new roughed out balance sleeve as per sample. Leave wear face 1/8" longer for set up at assembly Use 410 SS material. Balance sleeve to be heat treated to 44 Rc.

Revision: Page: 9 of 9

Customer: PROCESS FLOW SYSTEMS LTD---502809

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

20 HTR Subcontract 1.00 1.00

Heat treat balance sleeve to 44 Rc.

OPERATIONS

Seq No. Oper. Description Oper. Qty Res. Status

30 MCH Shop Production 1.00 1.00

Finish machine balance sleeve as per sample. Leave 1/8" on wear face for final assembly.