GENESIS AIR SCREEN CONDITIONER

OPERATING MAINTENANCE
AND
SPARE PARTS MANUAL

SERIAL NO.: 1013
WA011213

Manufactured by:
ArrowCorp Inc.
61 Airport Road
Winnipeg, Manitoba
Canada R3H 0V5

INFORMATION

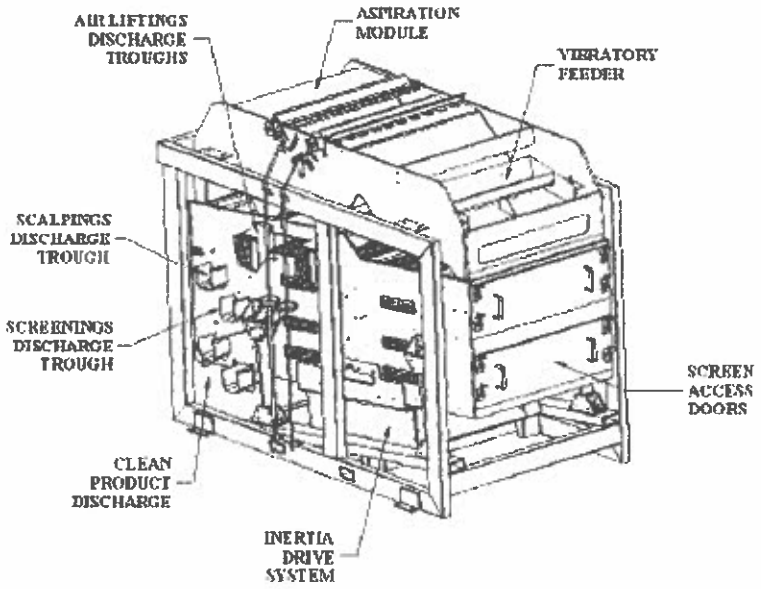
DESCRIPTION

The Genesis Air / Screen Seed Conditioner is modular in design which allows for future expansion of the machine by the addition of individual modular elements.

Each modular screen boat contains multiple screen decks measuring 48" wide x 96" long. Each screen deck is comprised of 2 screen frames measuring 48" wide x 48" long each. An optional screen deck is available with 3 screen frames measuring 48" wide x 32" long. A rubber ball screen cleaning system is incorporated using the shaking action of the shoe to activate the rubber ball cleaning action. The rubber balls are contained in the ball box frames. The ball box frame can either be removed with the screen frame or they can remain in the machine during screen changeover.

The Genesis is powered by a unique inertia drive system, which incorporates rotating counter weights that provide the proper shoe action while counterbalancing the machine for virtually vibrationless operation. The inertia drive system incorporates an electronic variable frequency motor controller, which provides variable stroke length. Reducing the rpm of the motor increases the stroke length and lowers screen retention time. Increasing the rpm of the motor reduces stroke length and increases screen retention time.

The Genesis incorporates a pre and after air suction system that efficiently aspirates the product before it enters the machine and as it is discharged from the machine.



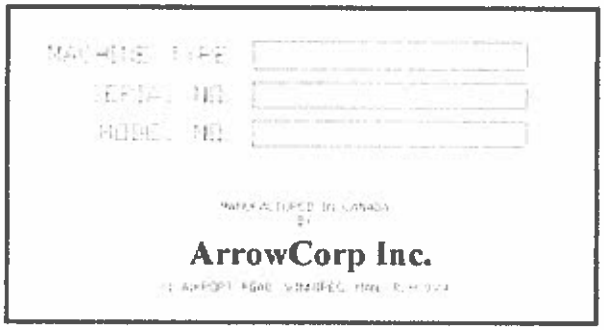
PRE-OPERATION CHECK LIST

Carefully unpack the equipment and inspect. Compare against the shipping documents for any shortages. Report any discrepancies to ArrowCorp immediately.

ARROW GENESIS AIR AND SCREEN CONDITIONER
OPERATION AND MAINTENANCE MANUAL

IMPORTANT INFORMATION

Whenever contacting ArrowCorp Inc. with questions, requests for information or requests for parts for your Genesis Air and Screen machine, always refer to the model number and serial number found below. This information is necessary for a quick and accurate response to your requests.



CONTACTING ARROWCORP INC.

Our head office and factory is located in Winnipeg.
Our mailing address is:

	In Canada	*In the U.S.A and Mexico*
	ArrowCorp Inc 61 Airport Rd. Winnipeg, Manitoba Canada R3H 0V5	**ArrowCorp Inc. P.O. Box 952 Alma, Michigan U.S.A. 48801**
You can reach us by phone at:	**204-632-1000**	**517-466-2356**
You can reach us by fax at:	**204-632-0643**	**517-466-0917**
You can reach us by e-mail at:	**arrow@arrowcorp.com**	**bdonnell@arrowcorp.com**

INSTALLATION

INTRODUCTION

The Genesis Air / Screen Seed Conditioner can be easily installed in most sites. It is the customer's responsibility to provide a suitable site and site preparation to insure safe operation and optimum machine performance.

FOUNDATION

In planning the location of your Genesis Air and Screen machine, the following factors should be considered:

- A level foundation is required.
- Incoming power lines must be located in such a way as not to interfere with the operation, and maintenance of the machine.
- Consideration must be given to the location of the machine to allow for easy screen removal, perform cleaning and for accessibility of parts for maintenance.

Refer to the general arrangement drawing located at the back of this manual for dimensional information for each specific model.

	MODEL		
	2x96	3x96	4x96
STATIC LOAD	**4395 lb.** (1998 kg.)	**5640 lb.** (2564 kg.)	**5640 lb.** (2564 kg.)

POWER REQUIREMENTS

The Genesis inertia drive system is powered by a single 2-hp 1200-rpm electric motor mounted under the shoe in the power unit. Use flexible electrical conduit when connecting to the motor as the motor is an integral part of the shaking components of the shoe. The speed of the motor must be regulated by a variable frequency AC motor controller. The controller should be mounted in a convenient location to allow easy operator adjustment.

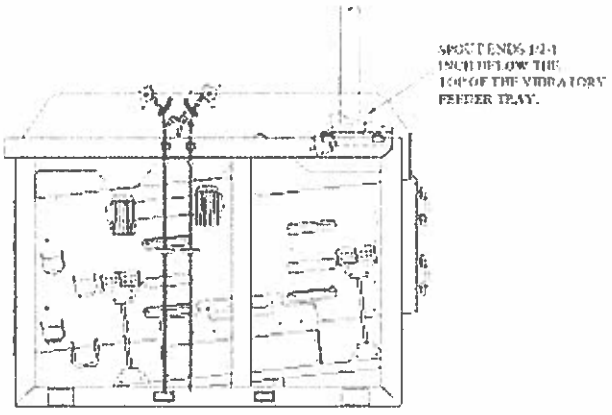
Product is fed to the Genesis via. a vibrating feeder tray (if so equipped). A single-phase 110v or 220v ½ hp DC vibrating motor powers the vibratory feeder. The motor is mounted to the backside of the feeder tray. The frequency is adjustable via. a rheostat supplied with the unit. The rheostat should be mounted in a convenient place for operator adjustments.

INSTALLATION PROCEDURES

Mount or lag the Genesis to a suitable foundation. Insure the machine is leveled in all directions. If a stand is required, it must be of sufficient strength to support the machine and the forces generated. Consult ArrowCorp for recommendations.

We recommend that there be a 1-meter (3-ft.) clearance zone around the machine for cleaning and maintenance. A 1.5-meter (5-ft) clearance zone is recommended for screen removal at the screen removal end of the machine.

Product can be spouted directly to the vibratory feed tray. We recommend that the end of the spout discharges 1/2-1 inches below the top of the vibratory feeder tray (see illustration). The feeder tray is supported on 4 air shocks that are pressurized with air. The pitch or angle of the tray can be adjusted by increasing or decreasing the air pressure in the air shocks to suit specific product characteristics.

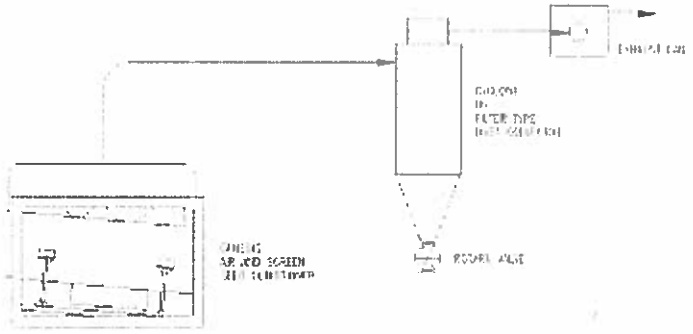


The screening products are discharged from either side of the Genesis and should be spouted to a small receiving hopper. **Do not connect directly to the discharge troughs**, as they are a vibrating component.

The clean seed discharges the full width of the shoe, directly from the bottom of the shoe. We recommend a small receiving hopper be constructed to collect the clean seed as it is being discharged from the machine. **Do not connect directly to the shoe** as this is a vibrating component.

The aspiration section (if so equipped) incorporates pre and after air settling chambers. The air liftings are discharged from either side of the Genesis and should be spouted to a small receiving hopper. **Do not connect directly to the discharge troughs**, as they are a vibrating component. Aspiration air is to be

provided by an external fan (not included). Total air volume requirements are 8000 CFM at 1.5" static pressure water gauge. See the following air system schematic.



OPERATION

FOREWARD

Product from the vibrating feeder passes through the pre-air aspiration nozzle where light impurities are drawn off and transported to the pre air-settling chamber. The through product is deposited onto a flow divider that transfers it to the appropriate screen deck(s) where the product is either scalped to remove large impurities, or sifted to remove small impurities. The through product carries on and drops down through the vertical after-air column where additional light impurities are aspirated out and deposited in the after-air-settling chamber. The clean product then discharges out the bottom of the shoe. All of the scalpings, siftings, pre-air and after-air products are out the side of the shoe via individual discharge troughs.

A variety of flow configurations give the operator the ability to change the scalp / sift ratios as required. See Product flow arrangement section in the back of this manual. Flow configurations are changed by the use of removable pans, flow dividers, flop valves and/or gate valves. The flop valves and the gate valves are accessible by external controls located on the side of the shoe. Access to the flow dividers and the removable pans are possible through the removable screen access doors.

SETTINGS

Speed adjustment is accomplished by the use of an electronic frequency controller. All settings on the frequency controller are factory preset and should not require changes. Should any parameters need to be re-set, read the attached operation manual thoroughly before any making any changes.

Note: The maximum and minimum rpm presets must not be exceeded. These values are as follows:

For 60 hertz application;	**For 50 hertz application;**
▪ Minimum – 41 hertz.	Minimum – 49 hertz
▪ Maximum – 55 hertz.	Maximum – 66 hertz

Adjustments to the speed throughout the recommended speed range has the following affects:

- Reducing the rpm of the inertial drive motor increases the stroke length and lowers product retention time on the screen.
- Increasing the rpm of the motor reduces stroke length and increases product retention time on the screen.

A full width vibratory feeder controls the rate of feed to the machine. Increasing or decreasing the speed on the vibratory feeder controller regulates the rate of feed to the machine. Shutting off the vibratory feeder controller will stop the flow of product to the machine.

The pre air system and the after air system are adjusted by independent air controls. These controls can be positioned vertically down to the level of the operator. Individual controls for each chamber operate air bleed valves, which give a fine adjustment to the volume of air passing through each air system. An internal baffle is used to vary the percentage of air flowing from the pre and after air chambers. This baffle is adjusted by operating a lever located at the center of the aspirator.

Two way flop valve operation is accomplished by removing the location pin on the valve control shaft lever and rotating the lever to the next location on the valve position quadrant. When the lever is horizontal, the valve is in the scalp position, and when the lever is vertical, the valve is in the sift position.

The gate valve operation is set by turning the locking handwheel ccw to release the adjustment handwheel. The valve is retracted for scalping and the valve is extended for sifting.

FLOW COMBINATIONS

Please refer to the flow diagrams section in the back of this manual.

MAINTENANCE

GENERAL INFORMATION

Periodic inspections of the following areas on the machine are recommended.

- Visually inspect the four fiberglass springs for cracks and indications of wear. Check the torque on the spring mounting brackets. The bracket to shoe bolts (the 3/8" NC bolts that connect the angle bracket to the shoe) should be torqued to 35 ft./lb. The bracket to spring bolts (the 1/2" NC bolts that connect the spring to the angle bracket) should be torqued to 80 ft./lb.
- Check the torque on the drive hanger bracket bolts (the 1/2" NC bolts connecting the hanger bracket to the shoe). These bolts should be torqued to 40 ft./lb.
- Check the condition and tension on the gear belts located in the inertia drive unit. Belt tension is correct when the belt can be twisted 45 deg. by hand pressure, midway between the greatest span.

SCREEN REMOVAL AND REPAIR

- Screen changeover is easily accomplished by removing the screen access door located at the feed end of the machine. To remove the screen access doors, first release the screen hold-down strips by loosening the handwheel and by gently pushing on the through bolt. This will release any tension on the screen hold down strips. Remove the handwheels completely and remove the screen access doors to gain access to the inner components.
- The screen frame is fabricated from hardwood and is coated with a moisture repelling coating. The screen material is stapled to the wooden frame. Remove the screen material by removing the staples used to secure the screen to the screen frame.

BEARINGS

- The bearings used on the Genesis are sealed, heavy-duty bearings that are designed to give years of trouble free performance. These bearings are factory lubricated and **do not** require greasing.
- Refer to the parts drawings at the end of this manual for part numbers and parts location.

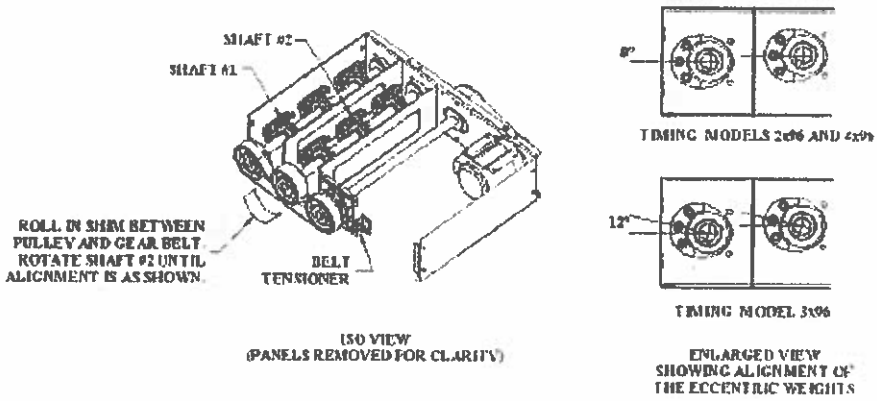
BELT REPLACEMENT

- Remove the two side guards to gain access to the gear belt drives.
- Remove worn belts by removing the tension from the belts.
- The motor drive belt is tensioned by adjusting the position of the motor on the slide base. The eccentric drive belt is tensioned by adjusting the belt take-up bracket and by loosening the jam nut on the adjustment bolt and rotating the adjustment bolt.

TIMING OF THE ECCENTRIC SHAFTS

The correct timing of the eccentric weights is crucial to the performance of the machine. The eccentric shafts are in time when the eccentric weights align themselves parallel to the direction of shoe travel (see the following diagram). Belt timing procedures follow.

- Remove the tension on the timing belt (refer to preceding instruction)
- Roll a small piece of shim stock or light gauge steel sheet between the belt and the middle gear pulley. This will disengage the belt cogs from the pulley and will allow the eccentric shaft to be rotated by hand.
- Rotate the middle shaft until the eccentric weights are in exact alignment with one another. Insure the eccentric weights do not jump out of time when removing the shim.
- Remove the shim and re-tension the timing belt. Belt tension is correct when the belt can be twisted 45 degrees, midway between the greatest belt span, using hand pressure only. Re-check the eccentric timing to insure the timing belt has not slipped a cog.



ISO VIEW
(PANELS REMOVED FOR CLARITY)

ENLARGED VIEW
SHOWING ALIGNMENT OF
THE ECCENTRIC WEIGHTS

NOTE THE POSITION OF ECCENTRIC WEIGHTS. TIMING IS CORRECT WHEN SHAFT #1 AND SHAFT #2 ARE IN PERFECT ALIGNMENT AS SHOWN.

PARTS CATALOGUE

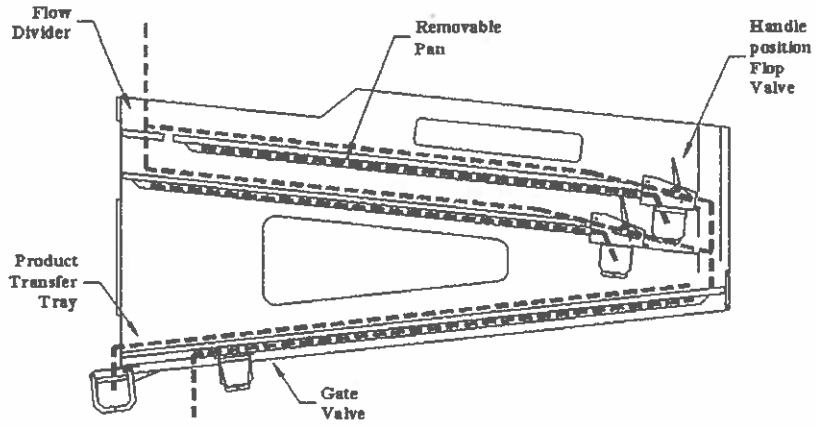
Parts drawings can be found in the following pages of the manual. The drawings have been organized to make parts location and part identification easy.

Always state Model and Serial Number of the machine when ordering parts.

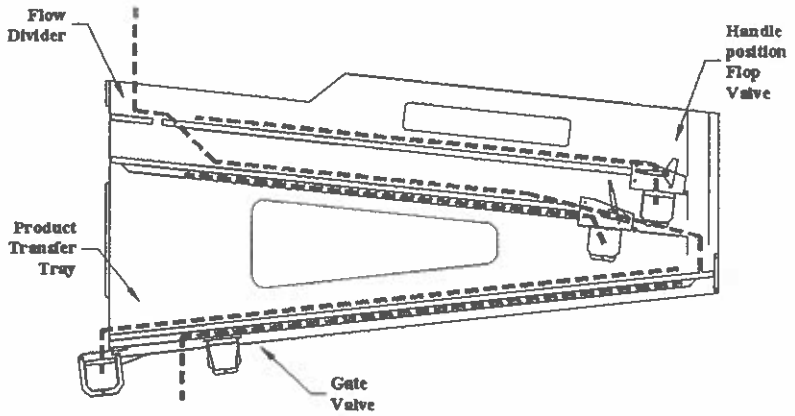
You will also find the manual for the Variable Frequency Drive attached. Operation and maintenance of the unit will be found here.

PRODUCT FLOW ARRANGEMENTS
GENESIS MODEL 3x96 SEED CONDITIONER

Model 3x96 – Flow combinations



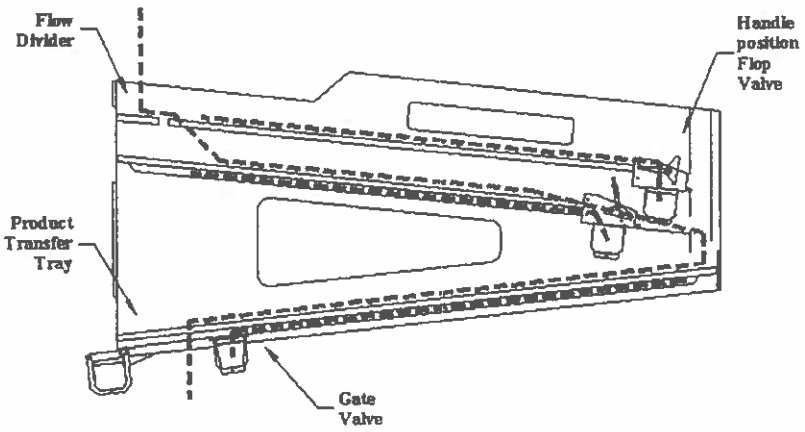
Split Sift + Scalp	Screen Deck No.	Flow divider style	Lever position Flop Valve	Position Gate Valve	Removable Pan	Position Transfer Tray Opening
32 sq.ft. sift area	1	50 / 50	Closed	----	Yes	----
32 sq.ft. sift area	2	----	Closed	Closed	----	----
32 sq.ft. scalp area	3	---	----	Closed	----	Reverse



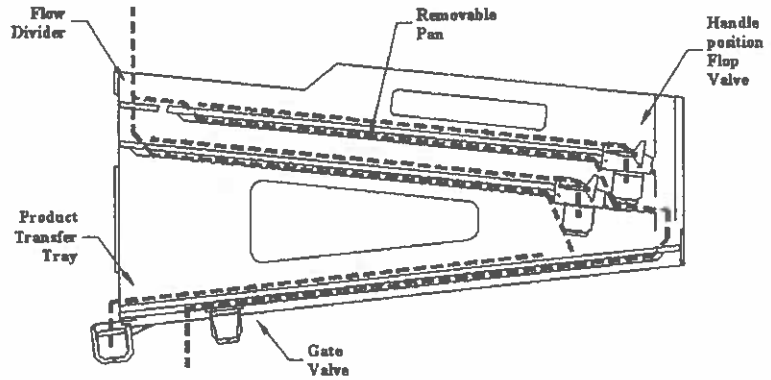
Scalp / Sift / Scalp	Screen Deck No.	Flow divider style	Lever position Flop Valve	Position Gate Valve	Removable Pan	Position Transfer Tray Opening
32 sq.ft. scalp area	1	100 / 0	Open	----	No	----
32 sq.ft. sift area	2	----	Closed	Closed	----	----
32 sq.ft. scalp area	3	---	----	Closed	----	Reverse

PRODUCT FLOW ARRANGEMENTS
GENESIS MODEL 3x96 SEED CONDITIONER

Model 3x96 – Flow combinations



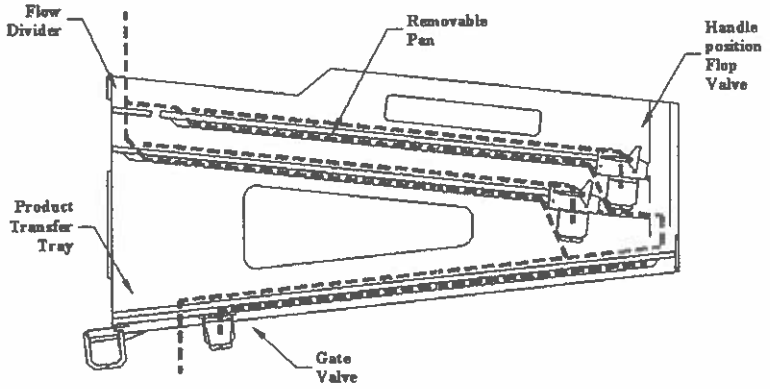
Scalp / Sift / Sift	Screen Deck No.	Flow divider style	Lever position Flop Valve	Position Gate Valve	Removable Pan	Position Transfer Tray Opening
32 sq.ft. scalp area	1	100 / 0	Open	----	No	----
32 sq.ft. sift area	2	----	Closed	Closed	----	----
32 sq.ft. sift area	3	---	----	Open	----	Forward



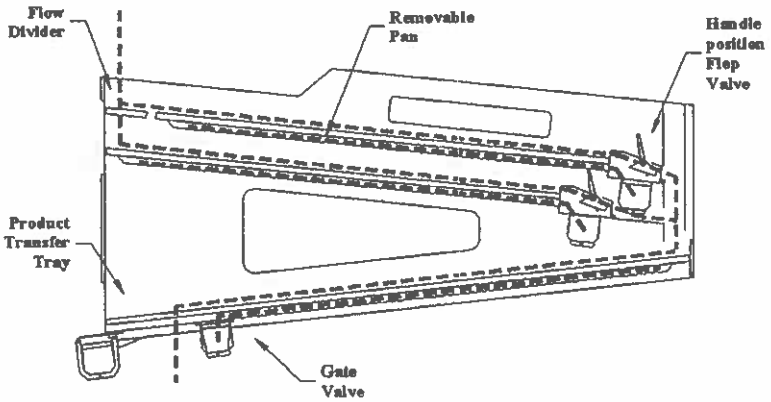
Split Scalp + Scalp	Screen Deck No.	Flow divider style	Lever position Flop Valve	Position Gate Valve	Removable Pan	Position Transfer Tray Opening
32 sq.ft. scalp area	1	50 / 50	Open	----	Yes	----
32 sq.ft. scalp area	2	----	Open	Open	----	----
32 sq.ft. scalp area	3	---	----	Closed	----	Reverse

PRODUCT FLOW ARRANGEMENTS
GENESIS MODEL 3x96 SEED CONDITIONER

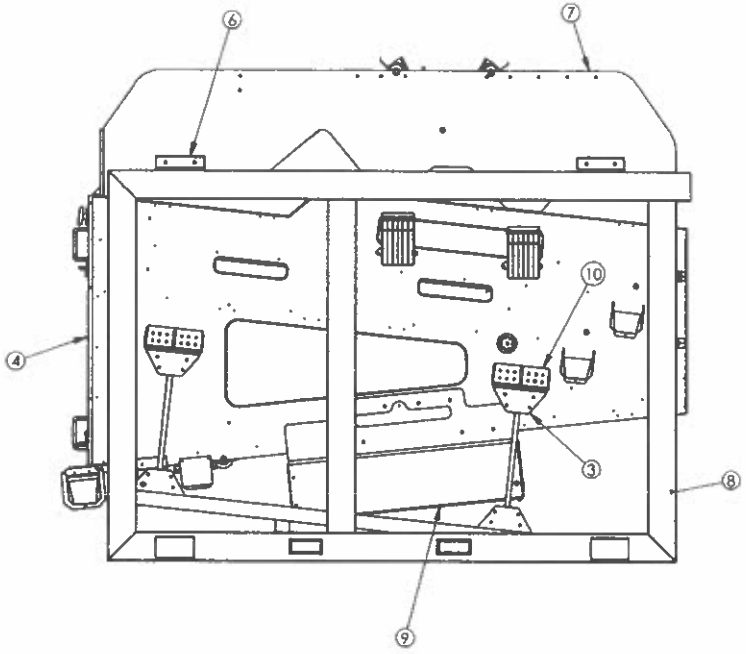
Model 3x96 – Flow combinations

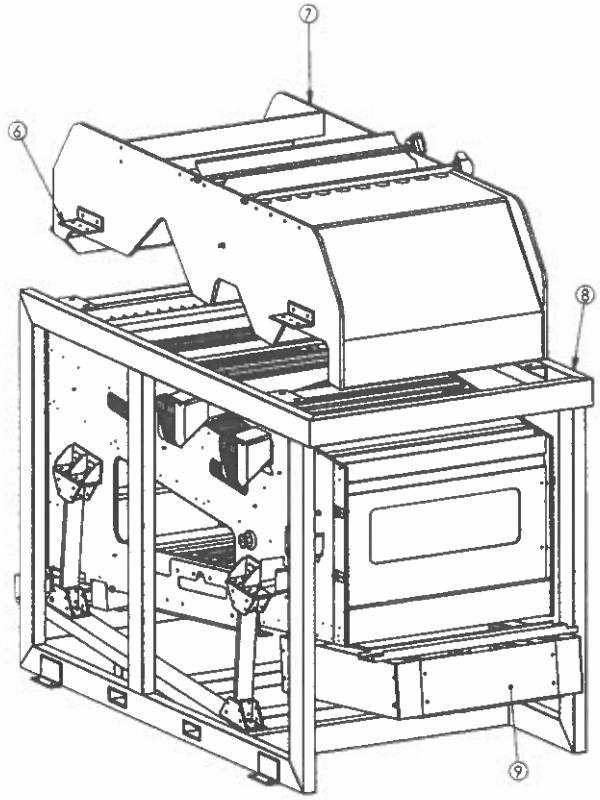


Split Scalp + Sift	Screen Deck No.	Flow divider style	Lever position Flop Valve	Position Gate Valve	Removable Pan	Position Transfer Tray Opening
32 sq.ft. scalp area	1	50 / 50	Open	----	Yes	----
32 sq.ft. scalp area	2	----	Open	Open	----	----
32 sq.ft. sift area	3	---	----	Open	----	Forward



Split Sift + Sift	Screen Deck No.	Flow divider style	Lever position Flop Valve	Position Gate Valve	Removable Pan	Position Transfer Tray Opening
32 sq.ft. sift area	1	50 / 50	Closed	----	Yes	----
32 sq.ft. sift area	2	----	Closed	Open	----	----
32 sq.ft. sift area	3	---	----	Open	----	Forward





ITEM NO.	QTY.	PART NO.	DESCRIPTION
3	4	20-101962	MAIN SPRING ASSEMBLY
4	1	20-101819-REV1	MODULE 3 SHOE ASSEML8Y
6	4	20-101744-1	ANGLE MOUNTING BRACKET
7	1	20-102119	ASPIRATOR SECTION ASSEMBLY
8	1	20-102168-REV2	MAIN FRAME WELDMENT
9	1	20-101818-REV5	POWER UNIT ASSEMBLY
10	4	20-101963-REV2	SHOE SUPPORT BRACKET

DATE	NO.	DESCRIPTION - REVISION
.	.	.
.	.	.
.	.	.

STANDARD TOLERANCES UNLESS OTHERWISE SPECIFIED

DECIMAL: XXX ± 0.30 XX ± 0.030 / XX ± 0.125 XXX ± 0.015 / X ± 0.060 XXXX ± 0.002
FRACTIONS: ±1/32
ANGULAR FORMED: ± 1.0 DEG MACHINED: ± 0.25 DEG.

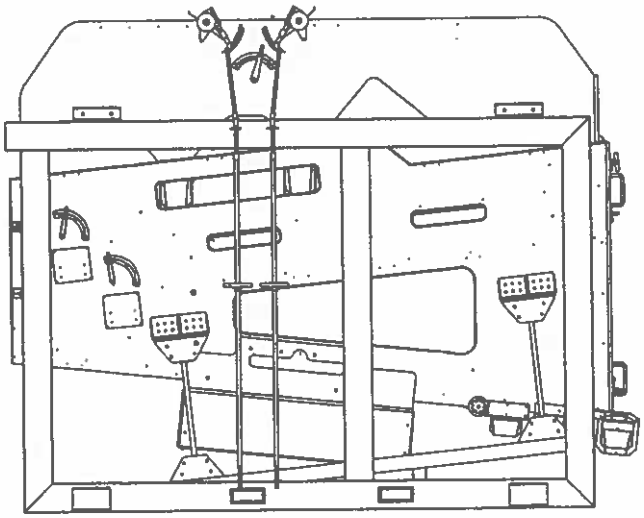
DATE:
DRAWN BY:
CHECKED BY:
Mat. Ref. No.

ArrowCorp Inc. Page 1

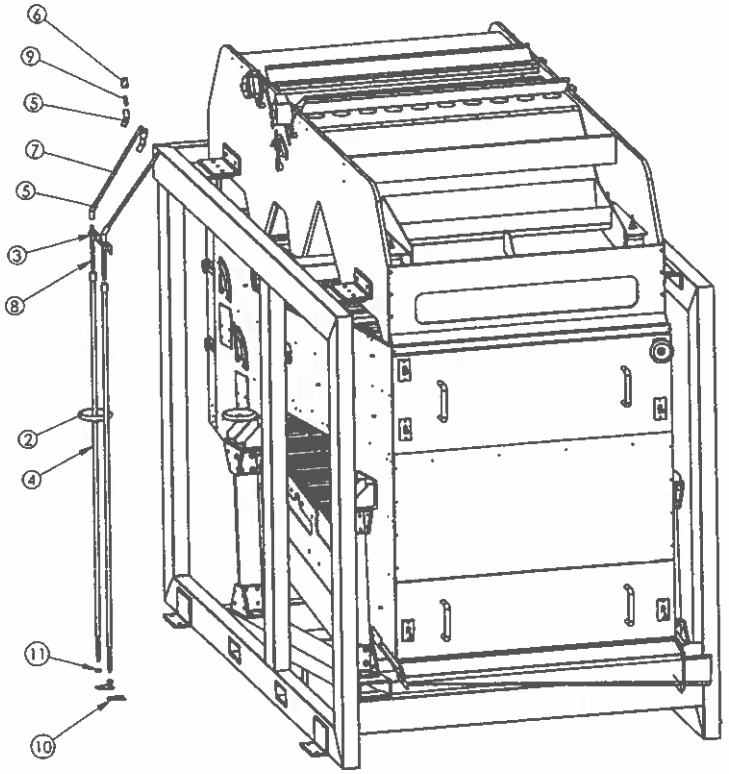
GENESIS 3x96
PARTS

ISSUE DATE:
DO NOT SCALE DIMENSIONS
SCALE: NTS
DRAWING NO: PartsManual3X96
REV: 0

ITEM NO.	QTY.	PART NO.	DESCRIPTION
2	2	20-101761	HANDWHEEL
3	2	20-101763	SUPPORT BRACKET
4	2	20-101764	CONTROL ROD
5	4	20-101758	UNIVERSAL JOINT
6	2	20-102302	SHAFT COUPLING
7	2	20-102303	INTERMEDIATE SHAFT #1
8	2	20-101879	INTERMEDIATE SHAFT #2
9	2	20-101880	INTERMEDIATE SHAFT #3
10	2	20-101816	SUPPORT BRACKET
11	2	102074	GROMMET - 1/2"



SIDE VIEW SHOWING
CONTROL SHAFTS AND BRACKETS



DATE	NO.	DESCRIPTION - REVISION

STANDARD TOLERANCES UNLESS OTHERWISE SPECIFIED

DECIMAL .XX ± 0.030 .XXX ± 0.015 .X ± 0.060 .XXXX ± 0.002 .XX ± 0.125

FRACTIONS ± 1/32

ANGULAR FORMED ± 1.0 DEG. MACHINED ± 0.25 DEG.

DATE

DRAWN BY

CHECKED BY

ENG. DEPT. MGR.

ArrowCorp Inc.

GENESIS 396
PARTS

ISSUE DATE:

DO NOT SCALE DIMENSIONS

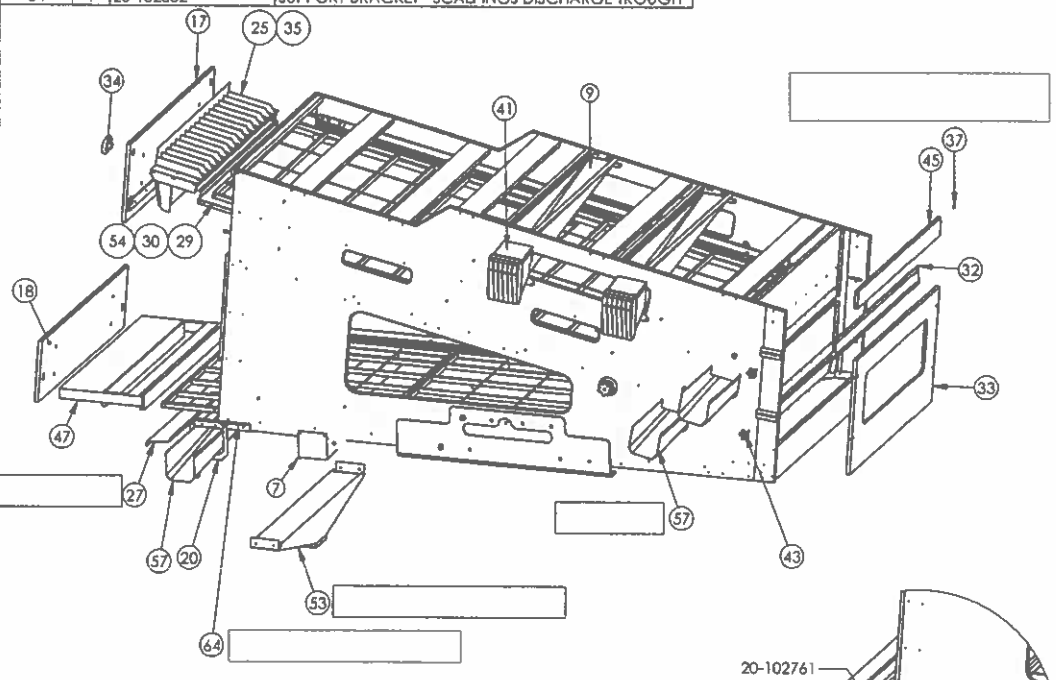
SCALE: NTS

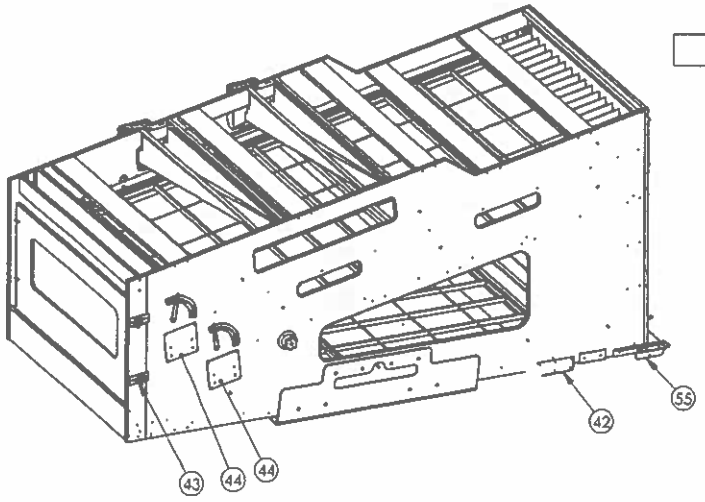
DRAWING NO: PartsManual3x96

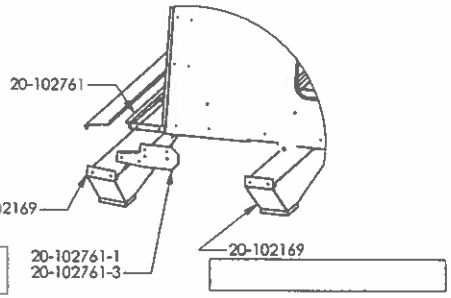
REV: 0

ITEM NO.	QTY.	PART NO.	DESCRIPTION
2	6	20-102404	BALL BOX
7	1	20-102035-Rev1	DISCHARGE TROUGH - SCREENINGS
9	2	20-101629-REV2	DISCHARGE TROUGH - ASPIRATION
17	1	20-101943	SCREEN ACCESS DOOR
18	1	20-102117	SCREEN ACCESS DOOR
20	1	20-101707	TROUGH HANGER BRACKET - FRONT
21	2	20-101625-REV2	SIFTINGS DISCHARGE VALVE
25	1	20-102055	FLOW DIVIDER - 50/50 SPLIT
27	1	20-101942-REV1	COVER PLATE - SCALPINGS DISCHARGE TROUGH
29	1	20-102745-R	REMOVABLE PAN - REAR
30	1	20-102745-S	REMOVABLE PAN - FRONT WITH GAP
32	1	20-101742	FLEXABLE CONNECTION
33	1	20-102137	FRONT PANEL MODULE 3 - ASPIRATION
34	6	20-102030	HANDWHEEL - SCREEN HOLD DOWN
35	1	20-101845	FLOW DIVIDER - PAN 0/0 SPLIT
37	4	101789	THREADED INSERT - 1/4-20 NC
41	2	20-101756	DISCHARGE SEAL - ASPIRATOR DISCH.
42	1	20-101955	SUPPORT BRACKET - SCREENINGS TROUGH
43	4	20-101871	CLAMPING KNOB
44	2	20-101795	TROUGH SUPPORT AND PLUG
45	1	20-101638-22B	SUPPORT BRACKET
47	1	20-102002	PRODUCT DISCHARGE TRAY
51	1	20-102118-RH	SCREEN HOLD DOWN LH

ITEM NO.	QTY.	PART NO.	DESCRIPTION
53	1	20-102097	DISCHARGE TROUGH - SCREENINGS
54	1	20-102745-F	REMOVABLE PAN - FRONT
55	1	20-102332-2	SUPPORT BRACKET - REAR
57	3	20-101701-REV1	DISCHARGE TROUGH - SCREENINGS
64	1	20-102332	SUPPORT BRACKET - SCALPINGS DISCHARGE TROUGH







ALTERNATE SCALP / SIFT DISCHARGE ARRANGEMENT

DATE	NO.	DESCRIPTION - REVISION

STANDARD TOLERANCES UNLESS OTHERWISE SPECIFIED

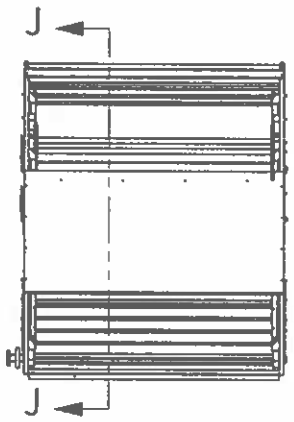
DECIMAL: XXX ± 0.50, X.Y ± 0.030, XX ± 0.125, X.XX ± 0.015, X ± 0.060, X.XXX ± 0.002
FRACTIONS: ±1/32
ANGULAR FORMED: ± 1.0 DEG. MACHINED: ± 0.25 DEG.

DATE:
DRAWN BY:
CHECKED BY:
ENG. APP. MGR.

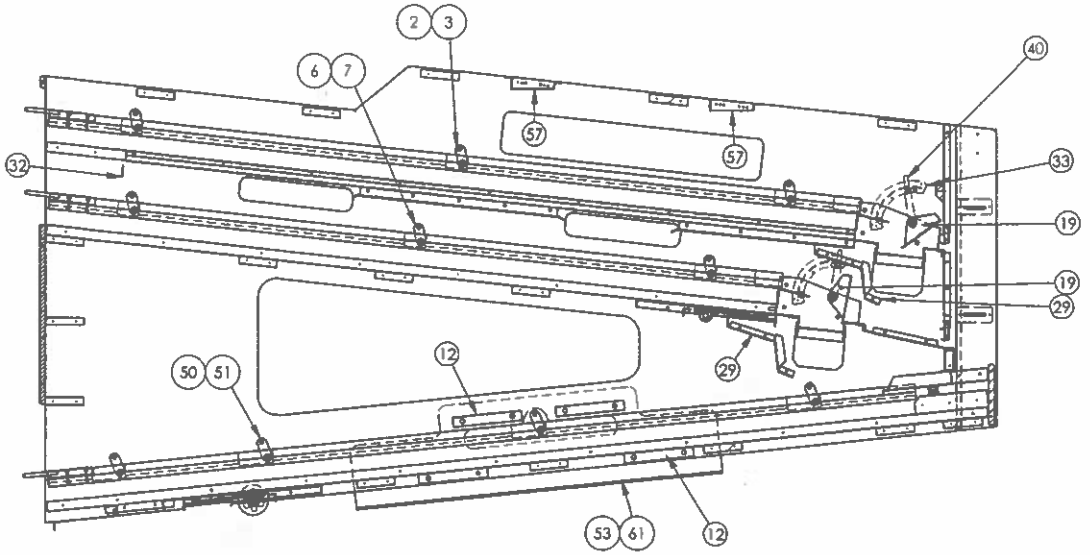
ArrowCorp Inc.

SHOE ASSEMBLY - STEP 4
GENESIS 396

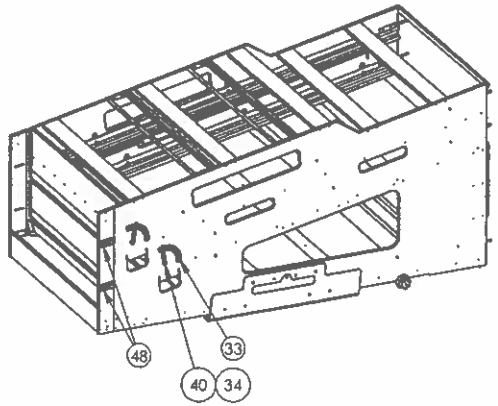
ISSUE DATE:	DO NOT SCALE DIMENSIONS	
SCALE: NTS	DRAWING NO: 20-101819	REV: 1



END VIEW
SHOE ASSEMLBY



SECTION J-J
SCALE 1 : 15



ITEM NO.	QTY.	PART NO.	DESCRIPTION
2	1	20-101656-LH	SCREEN HOLD DOWN LH
3	1	20-101656	SCREEN HOLD DOWN RH
6	1	20-101935-LH	SCREEN HOLD DOWN LH
7	1	20-101935	SCREEN HOLD DOWN RH
12	8	20-101693-2	BACKING STRIP - HANGER BRKT.
19	2	20-101625	SIFTINGS DISCHARGE VALVE
29	2	20-101819-13	SIFTINGS TRANSFER TRAY
32	2	20-101856	HOLD DOWN CLIP - REMOVABLE PAN
33	2	20-101625-5	VALVE POSITIONING QUADRANT
34	2	3097	1/2" SET COLLAR
39	2	101983	SEALING STRIP - MODIFIED
40	2	20-101625-6	VALVE CONTROL SHAFT
48	4	20-101870-A	COVER PLATE
50	1	20-102118-LH	SCREEN HOLD DOWN LH
51	1	20-102118-RH	SCREEN HOLD DOWN LH
53	1	20-101693-1LH-REV3	HANGER BRACKET - LH
57	2	20-101753	HANGER BRACKET - ASP. DISCH.
61	1	20-101693-1-REV3	HANGER BRACKET - RH

DATE	NO.	DESCRIPTION - REVISION

STANDARD TOLERANCES UNLESS OTHERWISE SPECIFIED

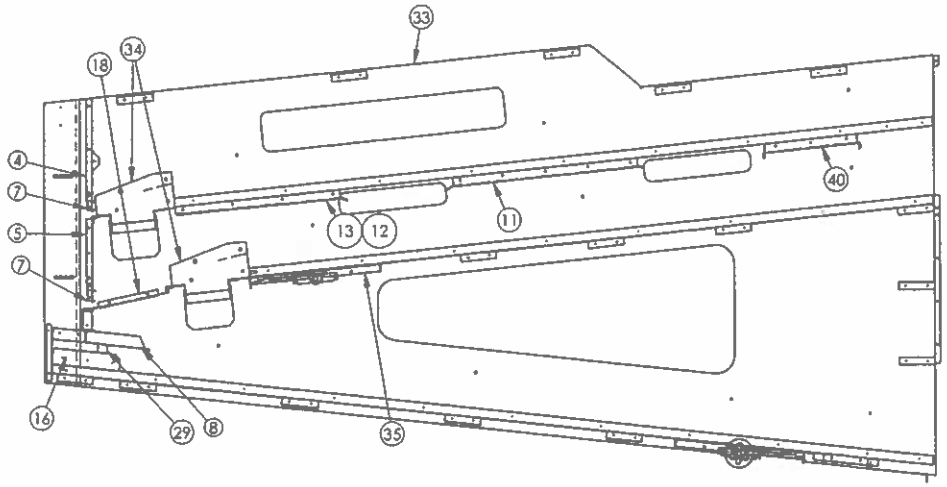
DECIMAL XXX ± 0.50 X.X ± 0.030
XX ± 0.125 X.XX ± 0.015
X ± 0.060 X.XXX ± 0.002
FRACTIONS ±1/32
ANGULAR FORMED ± 1.0 DEG
MACHINED ± 0.25 DEG.

DATE
DRAWN BY
CHECKED BY
ENG. REF. NO.

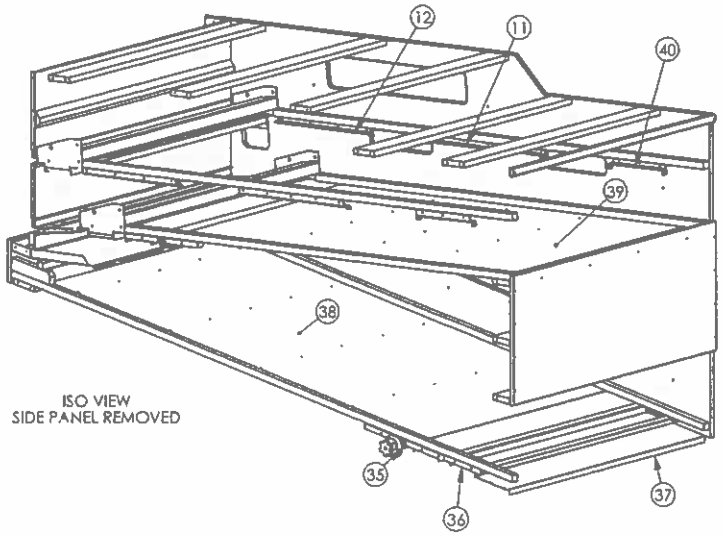
ArrowCorp Inc. Page 4

GENESIS 396
PARTS - SHOE ASSEMBLY

ISSUE DATE:
DO NOT SCALE DIMENSIONS
SCALE: NTS
DRAWING NO. 20-101819
REV: 1



SIDE VIEW
SIDE PANEL REMOVED



ISO VIEW
SIDE PANEL REMOVED

ITEM NO.	QTY.	PART NO.	DESCRIPTION
4	1	20-101638-7E	PANEL ASSY #1 - VERTICAL ASP. SECTION
5	1	20-101939	PANEL #2 - VERTICAL ASPIRATOR SECTION
7	2	20-101875	AIR RESTRICTOR STRIP
8	1	20-101819-6A	PRODUCT TRANSFER TRAY
11	2	20-101737-2	CENTER SUPPORT BRACKET - REMOVABLE PAN
12	1	20-101737-3	FRONT SUPPORT BRACKET RH - REMOVABLE PAN
13	1	20-101737-3L	FRONT SUPPORT BRACKET LH - REMOVABLE PAN
16	2	20-101819-D	TRANSFER TRAY SUPPORT
18	1	20-101819-12	DISCHARGE CHUTE
29	1	20-101819-14	WOODEN BRACE - PRODUCT TRANSFER TRAY
32	1	20-101819-3	PANEL #3 - VERTICAL ASPIRATION SECTION
33	1	20-101910-REV2	WOODEN SHOE ASSEMLBY - MODULE 3
34	2	20-101624-REV3	BALL BOX SUPPORT FRAME UPPER
35	2	20-101896-REV1	GUILLOTINE VALVE
36	1	20-102001-2	BALL BOX SUPPORT FRAME UPPER
37	1	20-102004	SCALPINGS DISCHARGE TRAY - EXTENDED
38	1	20-102401	STATIONARY PAN - LOWER
39	1	20-102402	STATIONARY PAN - UPPER
40	2	20-101737-1-REV2	REAR SUPPORT BRACKET - REMOVABLE PAN

DATE	NO.	DESCRIPTION - REVISION

STANDARD TOLERANCES UNLESS OTHERWISE SPECIFIED

DECIMAL: XXX ± 0.30 X.X ± 0.020; XX ± 0.130 X.XX ± 0.015; X ± 0.060 X.XXX ± 0.002
FRACTIONS: ±1/32
ANGULAR: FORMED ± 1.0 DEG; MACHINED ± 0.25 DEG

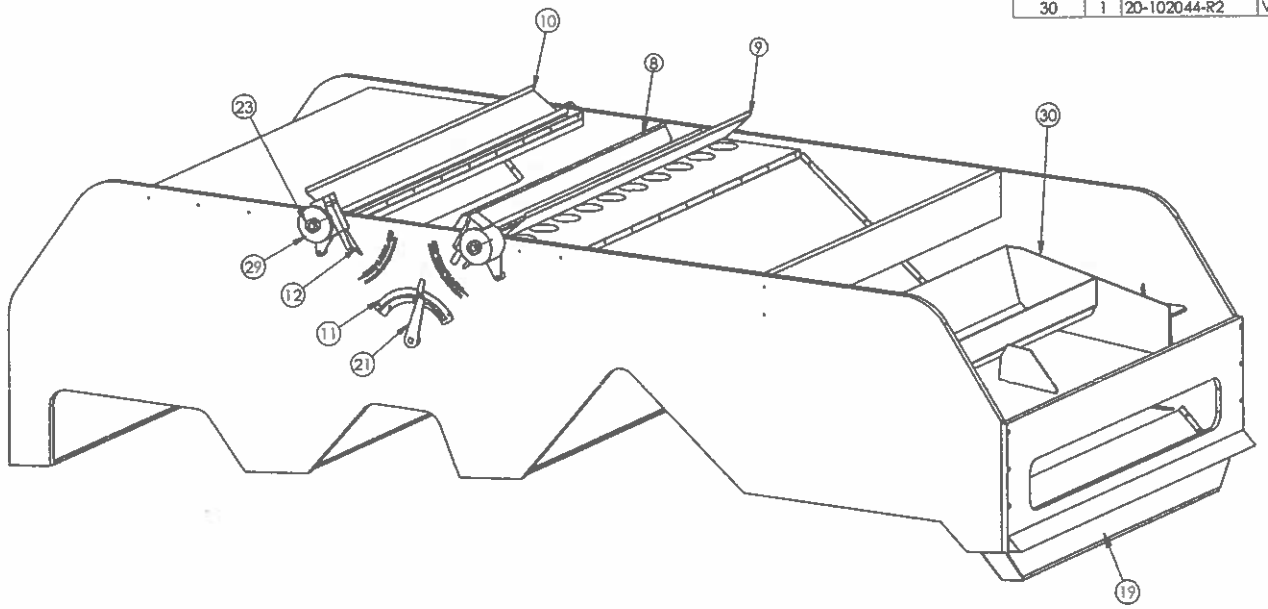
DATE:
DRAWN BY:
CHECKED BY:
ENG. MGR. OK

ArrowCorp Inc.

GENESIS 396
PARTS - SHOE ASSEMBLY

ISSUE DATE:
DO NOT SCALE DIMENSIONS
SCALE: NTS
DRAWING NO: 20-101819
REV: 1

ITEM NO.	QTY.	PART NO.	DESCRIPTION
8	1	20-102119-11	ASPIRATOR MAIN DAMPER
9	1	20-102119-12	AIR BLEED VALVE
10	1	20-102119-12LH	AIR BLEED VALVE - LH
11	1	20-101638-9-REV1	VALVE POSITIONING QUADRANT
12	2	20-102119-15	POSITION INDICATOR POINTER
19	1	20-102119-9	FEED TRANSFER CHUTE
21	1	20-101890	ADJUSTMENT LEVER
23	4	0191	3/4" SET COLLAR
29	2	H518201	GEAR REDUCER
30	1	20-102044-R2	VIBRATORY FEEDER TRAY WELDMENT



DATE	NO.	DESCRIPTION - REVISION

STANDARD TOLERANCES UNLESS OTHERWISE SPECIFIED

DECIMAL XXX ± 0.50 XX ± 0.030
XX. ± 0.125 X.XX ± 0.015
X. ± 0.060 X.XXX ± 0.002
FRACTIONS ±1/32

ANGULAR FORMED ± 1.0 DEG
MACHINED ± 0.25 DEG

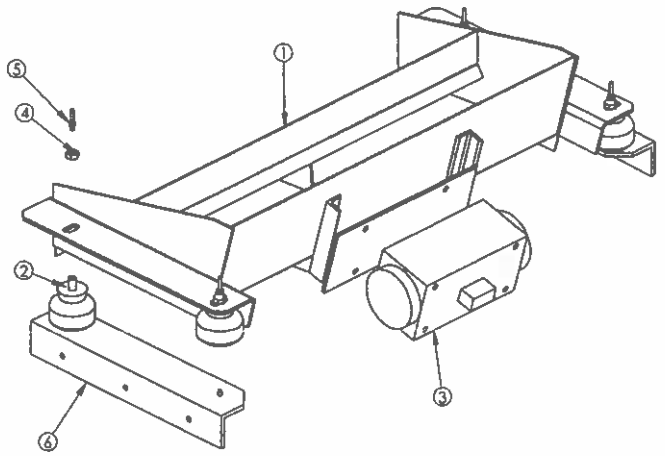
DATE:
DRAWN BY:
CHECKED BY:
ENG. REL. NO.:

ArrowCorp Inc. Page 6

GENESIS 396
ASPIRATOR SECTION PARTS

ISSUE DATE:
DO NOT SCALE DIMENSIONS
SCALE: NTS
DRAWING NO: 20-102119
REV: 0

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	20-102044-1	VIBRATORY FEED TRAY
2	4	IS3-013	AIR SPRING
3	1	SCR-500	VIBRATING MOTOR C/W SPEED CONTROL
4	4	100504	HEX JAM NUT 5/8 NC
5	4	9538K41	AIR VALVE - AIR SPRING.
6	2	20-102038-4	SUPPORT ANGLE - VIBRATORY FEED



DATE	NO.	DESCRIPTION - REVISION

STANDARD TOLERANCES UNLESS OTHERWISE SPECIFIED

DECIMAL: XXX ± 0.80 X.X ± 0.030 XX ± 0.135 X.XX ± 0.015 X ± 0.060 X.XXX ± 0.002
FRACTIONS: ± 1/32
ANGULAR: FORMED ± 1.0 DEG MACHINED ± 0.25 DEG

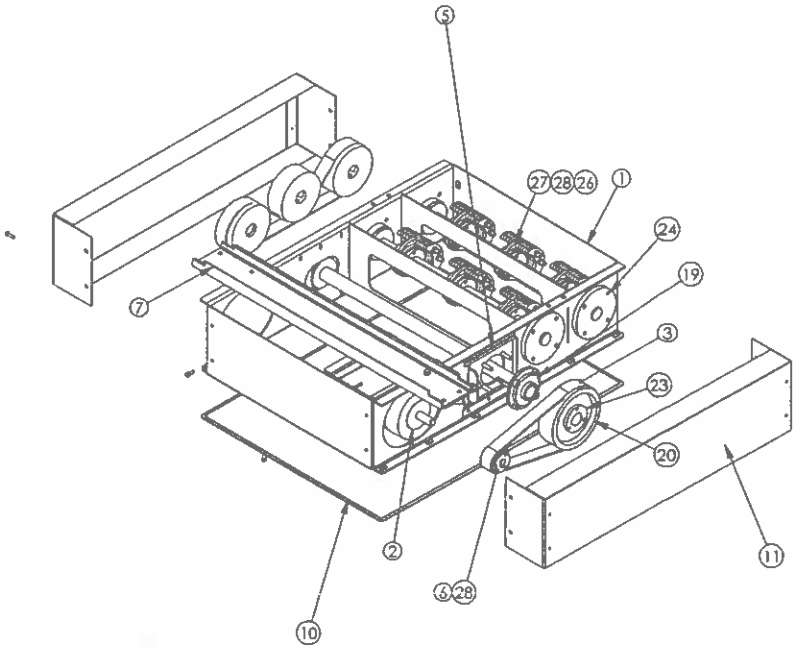
DATE
DRAWN BY:
CHECKED BY:
ENG. APP. BY:

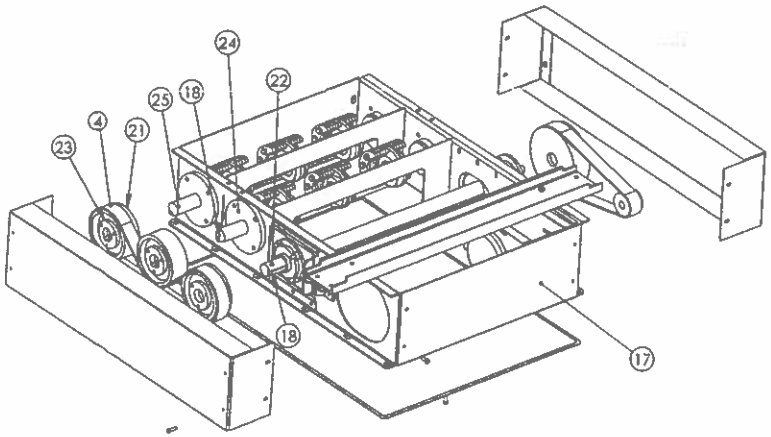
ArrowCorp Inc.

GENESIS 396
VIBRATORY FEEDER PARTS

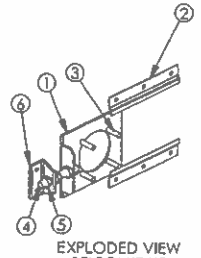
ISSUE DATE:
DO NOT SCALE DIMENSIONS
SCALE: NTS
DRAWING NO: 20-102044
REV: 0

ITEM NO	QTY	PART NO.	DESCRIPTION
1	1	20-101692-REV2	POWER BOX HOUSING - WELDMENT
2	1	T.B.A.	MOTOR - 2 HP, 1200 RPM, 184T
3	1	510H200	GEAR BELT
4	1	D700H200	TIMING BELT
5	2	20-101687	BELT TAKE UP ASSEMBLY
6	1	22HP200	GEAR PULLEY
7	1	20-101818-2-REV	MOTOR MOUNTING BRACKET
10	1	20-101692-10	BOTTOM COVER - REMOVABLE
11	2	20-101804-REV1	MAIN DRIVE GUARD
17	1	20-101692-5-REV	REMOVABLE ACCESS PANEL
18	4	101889	1/2 x 1/2 x 2 1/2 KEY
19	2	UCFCX10-115D1	BEARING
20	1	60HQ200	GEAR PULLEY
21	3	48HQ200	GEAR PULLEY
22	1	20-101578	COUNTER SHAFT
23	4	BUQ131	Q1-1 15/16 T.L. BUSHING
24	4	SFCW2211-115N	BEARING
25	2	20-101577-REV3	ECCENTRIC SHAFT
26	6	102399	1/2 x 1/2 x 2 1/2 KEY
27	6	20-101800	ECCENTRIC WEIGHT
28	1	BUP118	P1-1 1/8 T.L. BUSHING
29	1	20-101686-1F-REV	CROSS SUPPORT - FRONT





ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	20-101645-REV2	ADJUSTABLE BEARING MOUNTING PLATE
2	2	20-101646-REV1	SLIDE FOR BELT TAKEUP
3	4	KK51039	1/2 NC x 1 3/4 FSHMS
4	1	20-101862	ADJUSTMENT BOLT - BELT TAKE-UP
5	3	3160	3/4 NC JAM NUT
6	1	20-101647	END BRACKET - BELT TAKEUP



EXPLODED VIEW
BELT TAKE UP

12/28/00	4	KEY'S SHORTENED - ECCENT. WEIGHTS
08/05/00	3	PER ECN 1210, 1211
DATE	NO.	DESCRIPTION - REVISION

STANDARD TOLERANCES UNLESS OTHERWISE SPECIFIED

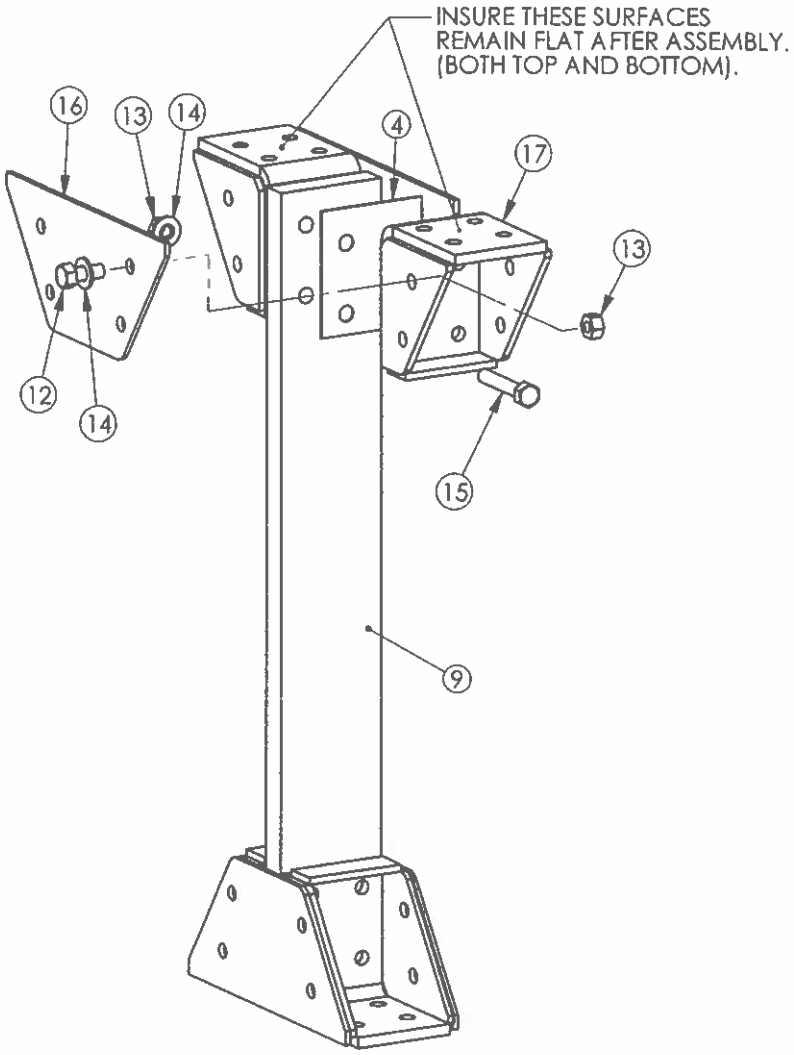
DECIMAL: XXX +/- 0.10, XX +/- 0.030, X +/- 0.06, XXX +/- 0.005, XXX +/- 0.010, XXXX +/- 0.002
FRACTIONS +/- 1/32
ANGULAR: FORMED +/- 1.0 DEG, MACHINED +/- 0.5 DEG.

DATE:
DRAWN BY:
CHECKED BY:
ENG. REF. NO.

ArrowCorp Inc.
POWER UNIT ASSEMBLY
ARROW AIR AND SCREEN

ISSUE DATE:
DO NOT SCALE DIMENSIONS
SCALE: NTS
DRAWING NO: 20-101818
REV: 4

ITEM NO.	QTY.	PART NO.	DESCRIPTION
4	4	20-101697-1	1/16 GASKET
9	1	20-101769-rev1	FIBERGLASS SPIRNG
12	16	101009	1/2 NC x 1 1/4 HHCS GRADE 8
13	24	101801	UNI TORQUE LOCK NUT 1/2 NC
14	24	101734-F	1/2 FLAT WASHER GRADE 8
15	8	102428	1/2 NC x 2 3/4 HHCS GRADE 8
16	4	20-101962-2A	BRACE - SPRING BRACKET
17	4	20-101962-1-REV4	ANGLE BRACKET



ASSEMBLY NOTES:

1) PRE-FIT SPRING, GASKETS, AND SPRING BRACKETS. REAM HOLES WITH Ø 1/2" DRILL (IF REQUIRED). INSTALL 1/2 x 2 3/4" BOLTS, NUTS AND FLAT WASHERS.
2) TORQUE BOLTS TO 70 LB/FT3.
3) PRE-FIT BRACE TO THE OUTSIDE OF THE SPRING BRACKETS AND REAM HOLES WITH Ø 1/2" DRILL (IF REQUIRED). INSTALL 1/2 NC x 1 1/4 BOLTS, NUTS AND WASHERS.
4) TORQUE BOLTS TO 70 LB/FT3.

DATE	NO.	DESCRIPTION - REVISION
02/01/01	1	PER ECN 1228

STANDARD TOLERANCES UNLESS OTHERWISE SPECIFIED

DECIMAL: XXX. ± 0.50 X.X ± 0.030
XX. ± 0.125 X.XX ± 0.015
X. ± 0.060 X.XXX ± 0.005

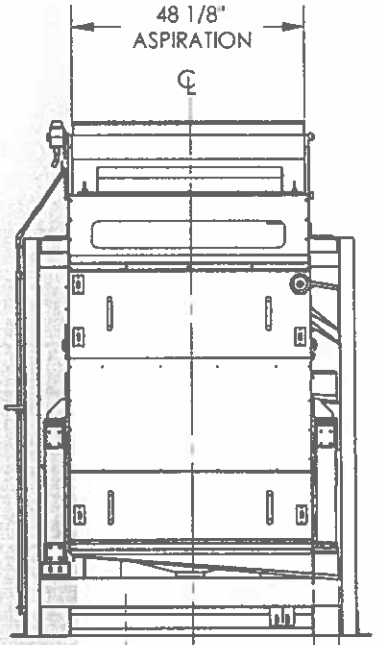
FRACTIONS: ±1/32

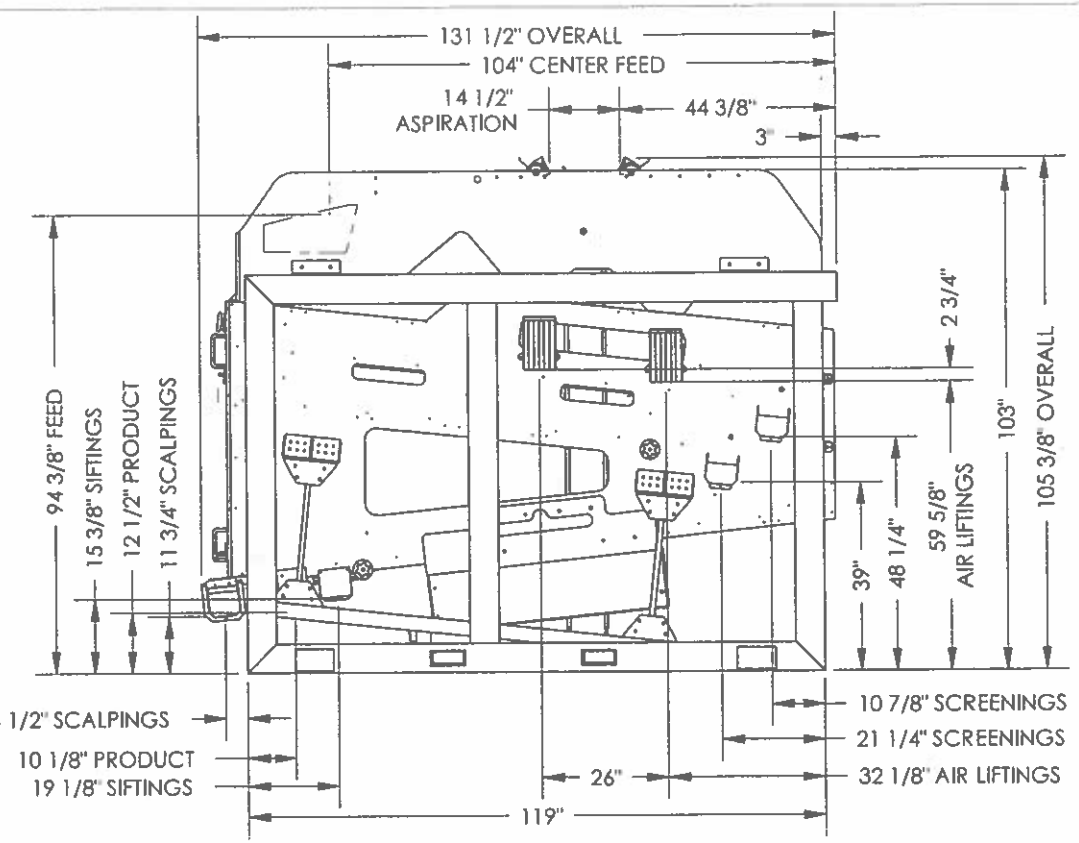
ANGULAR
FORMED: ± 1.0 DEG.
MACHINED: ± 0.25 DEG.

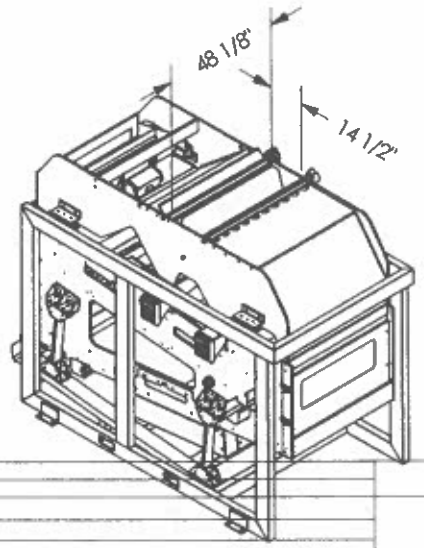
DATE:
DRAWN BY:
CHECKED BY:
ENG. REF. NO.

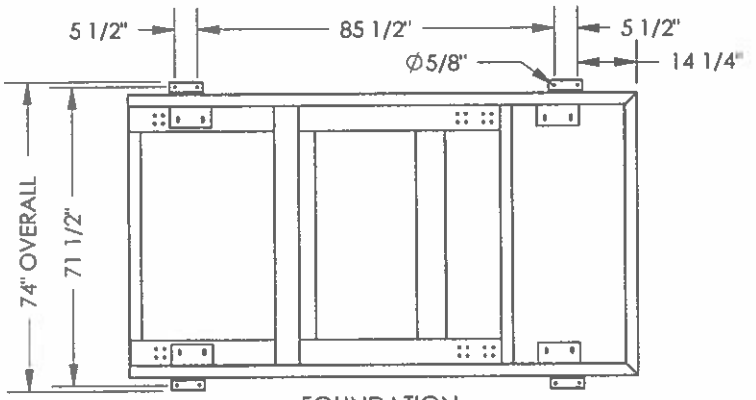
ArrowCorp Inc.
MAIN SPRING ASSEMBLY
ARROW AIR AND SCREEN

ISSUE DATE:
DO NOT SCALE DIMENSIONS
SCALE: NTS
DRAWING NO: 20-101962
REV: 1









FOUNDATION
ANCHOR BOLT LOCATION

DATE	NO.	DESCRIPTION - REVISION

STANDARD TOLERANCES UNLESS OTHERWISE SPECIFIED

DECIMAL: XXX. ± 0.50 X.X ± 0.030
XX. ± 0.125 X.XX ± 0.015
X. ± 0.060 X.XXX ± 0.005

FRACTIONS: ±1/32

ANGULAR
FORMED: ± 1.0 DEG.
MACHINED: ± 0.25 DEG.

DATE:
DRAWN BY:
CHECKED BY:
ENG. REF. NO:

ArrowCorp Inc.

DIMENSIONAL DRAWING - MODULE 3
COUNTER FLOW AIR AND SCREEN

ISSUE DATE:
DO NOT SCALE DIMENSIONS
SCALE: NTS
DRAWING NO: MOD3-CF
REV: 1