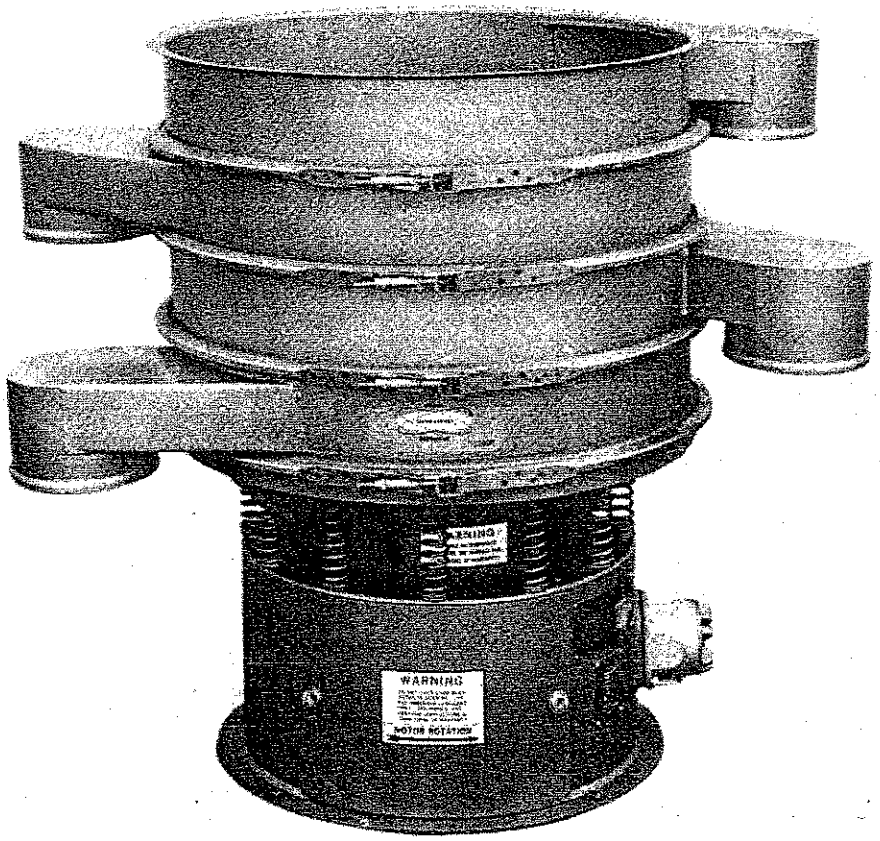
SWECO
VIBRO-ENERGY® SEPARATOR

18", 24", 30" DIAMETER MODELS



A MANUAL OF DIRECTIONS FOR:

- ***INSTALLATION***
- ***OPERATION***
- ***MAINTENANCE***

SWECO, INC., 7120 NEW BUFFINGTON RD., FLORENCE, KY 41042 (606) 727-5147

LIST OF ILLUSTRATIONS

F. Check the direction of motion generator rotation. The weight should move from left to right when viewed through the base door. If rotation is incorrect, interchange any two of the main power leads.

G. Install spout connectors. Connectors between all inlet and outlet spouts and material conveyors must be flexible so as not to hinder the action of Separator. (SWECO spout connectors are available for all standard SWECO Separator models.)

H. Check the clamp rings. They must be kept tight to prevent frame rotation and damage to the gasket.

II. OPERATION

A. Feed Flow

The material being screened, whether dry or wet, must be fed to the screen in a controlled flow, perpendicular to the screen surface and at a constant, even rate of speed. Flow control devices for both dry and wet screening must be used to achieve the above characteristics.

1. Dry screening

The material may be fed by any of the commonly used conveyors or feeders if the final distribution is controlled with baffles or other flow control devices to ensure constant, even flow perpendicular to the screen surface. (See Figure 1.)

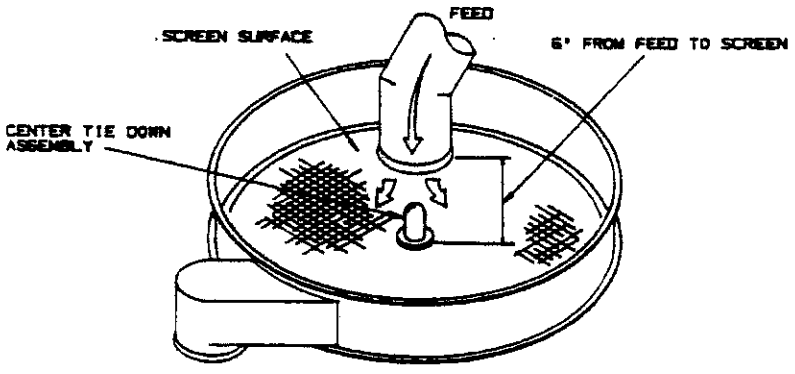


FIGURE 1

d. Examples of average material travel patterns are shown below in Figure 3.

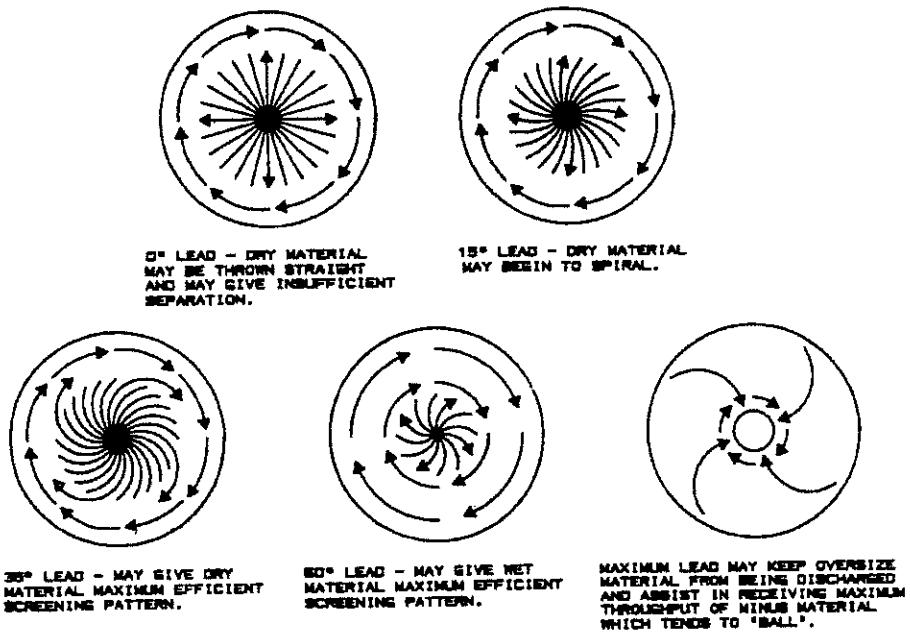


FIGURE 3

e. If, after starting the motion generator and feeding the material onto the screen, you do not have the desired pattern, change the lead of the bottom weight as follows:

(1) Shut off the power and lock the circuit breaker.

(2) When all vibration has ceased, open access door in the base.

(3) Loosen the safety set screw.

(4) Loosen the adjusting nut.

(5) Rotate the motion generator shaft inside the bottom weight until the open slot in the bottom weight is aligned with the degree of lead desired on the indicator. (See Figure 5.)

(6) Tighten the adjusting nut.

(7) Tighten the safety set screw.

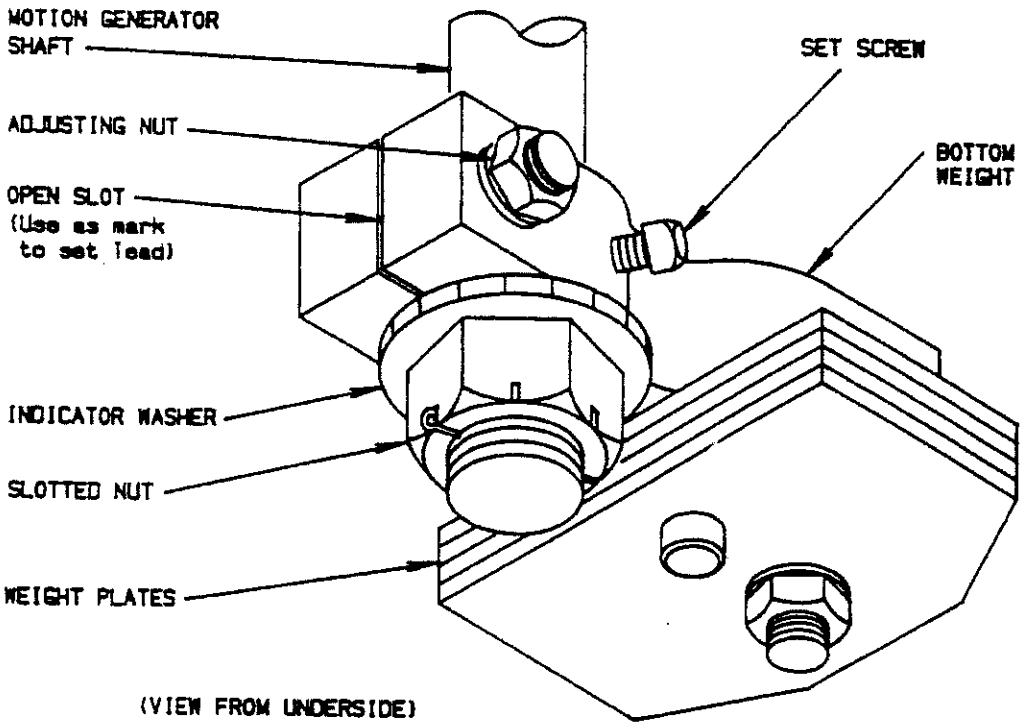


FIGURE 5 BOTTOM WEIGHT ASSEMBLY

If vertical movement is not satisfactory, add or remove one or more of the bottom weight plates.

a. Shut off power and lock circuit breaker.

b. After all vibration has ended, open access door in base.

c. Remove the nut and lock washer holding weight plates and slip desired number of weight plates off or on the stud.

d. Replace the lock washer and nut.

e. Close the access door and start the motion generator.

f. Repeat the procedure until an optimum vertical movement is accomplished.

g. Standard bottom weight arrangements are shown in Figure 5.

e. Standard top weight arrangement is shown in Figure 6.

CAUTION: Do not exceed the recommended maximum number of weight plates you may add to the top weight. More plates will overload motion generator bearings and may cause permanent damage.

For recommended number of weights please refer to the chart on page 36, Unit Specifications.

III. MAINTENANCE

A. Clamp rings

Clamp rings MUST be tightened periodically to prevent their working loose and causing damage to the gasket, spacing frame, and screen.

B. Motion generator bearing lubrication

BEARINGS ARE VERY HIGHLY LOADED DURING OPERATION AND REQUIRE FREQUENT LUBRICATION. Lubricate as follows:

Standard and explosion-proof motion generators:

1. Turn off power by placing disconnect in "OFF" position.
2. Check the relief fittings to make sure they are free to move.
3. Carefully clean all old grease and dirt from the grease inlet fittings and from the grease gun.
4. The following is the grease interval for the motion generator.

HP	Amount of Grease	Grease Interval
1/3 1/2	1/4 oz.	Every 400 hours of operation

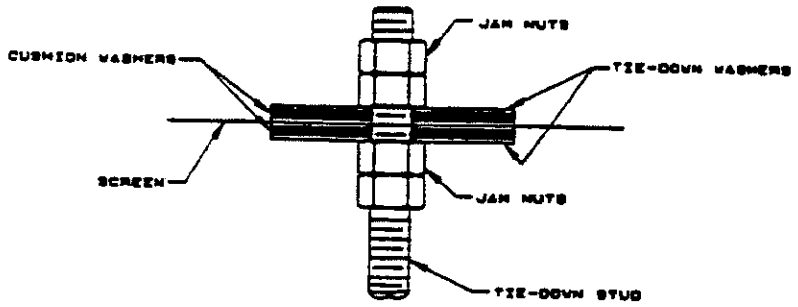


FIGURE 7

D. Channel gaskets

The channel gasket is made of the very best quality soft neoprene rubber and will not easily lose its shape. When this gasket is shipped from the SWECO plant, it is the correct size for use with the unit purchased. Silicone and Viton channel gaskets are also available by special order. Always store spare gaskets on a shelf, never on a hook.

E. Recommended spare parts

For continuous, uninterrupted service from your SWECO Separator, we recommend the following spare parts for each unit:

1. One each of every mesh screen cloth used (specify mesh)
2. One over-center clamp ring assembly
3. Two channel gaskets (specify material)
4. One center tie-down assembly
5. Six spring assemblies
6. Three top spring spools
7. Three bottom spring spools

NOTE: When three or more Separators are in operation, we also recommend stocking of a spare motion generator.

8. Insert an eyebolt in the top end of the shaft and carefully lift the motion generator up, at the same time feed the cord through the coupling in the center column.

C. Assembly notes

1. Be sure that the motion generator mounting ring contact surface and wedges are clean and rust free.

2. After placing motion generator in the center column, position wedges and tighten wedge nuts to a maximum torque as indicated below. Apply even pressure to all wedges to ensure centering of the motion generator. Go around several times before reaching the maximum torque.

Separator	Maximum Kg.m	Torque lb. ft.
S18	5	35
S24	7.5	55
S30	9	65

3. Allow the following free length of cable between the motion generator and the base:

Separator	TENV	TEEP
S18	11" (281 mm)	8" (200 mm)
S24	11" (281 mm)	10" (250 mm)
S30	14" (357 mm)	11" (281 mm)

4. Connect the lube lines, power leads, and cord grips and run the motion generator 15 minutes. Then, retighten the wedges. For safety, table frame and base door must be installed when running. BEFORE assembling the frames, screens, and cover:

   a. Take a short piece of shaft or a heavy punch and hammer and set the wedges.

CAUTION: If screen assembly does not fall free, do not lift frame more than 2". If this occurs, gently tap the screen tension ring downwards until the screen assembly falls free.

d. Carefully lift screen assembly from Separator, taking care to handle screen by tension ring only.

2. Screen replacement

CAUTION: Make certain that screen is right side up by checking position of the tension ring with Figure 8. Also note position of the channel gasket.

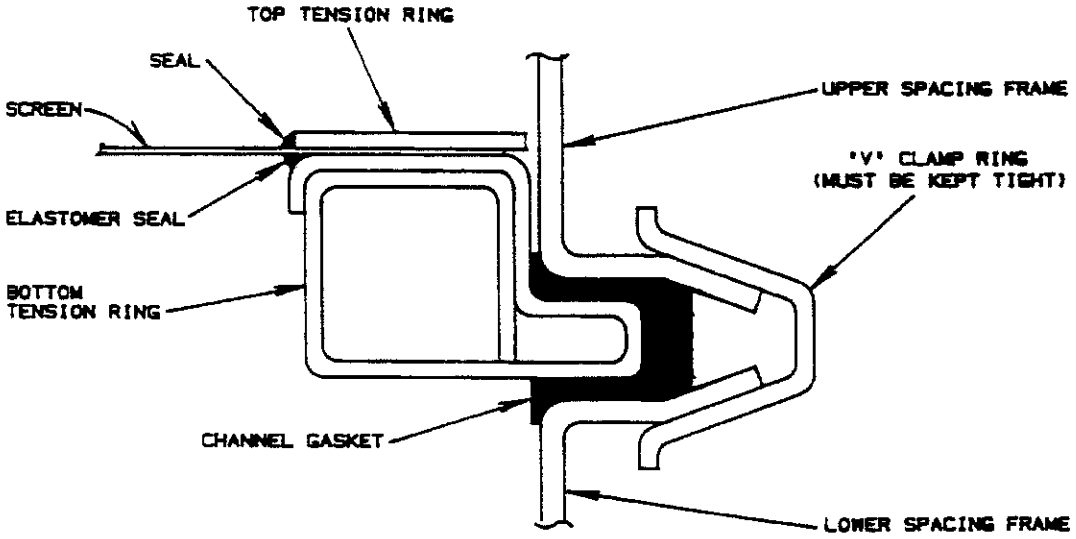


FIGURE 8

a. Replace channel gasket on screen tension ring.

b. Place screen assembly on frame, taking care that center stud does not touch screen.

c. Replace clamp ring and tighten snugly while tapping ring with soft-faced hammer to ensure a tight fit.

2. Exploded view:

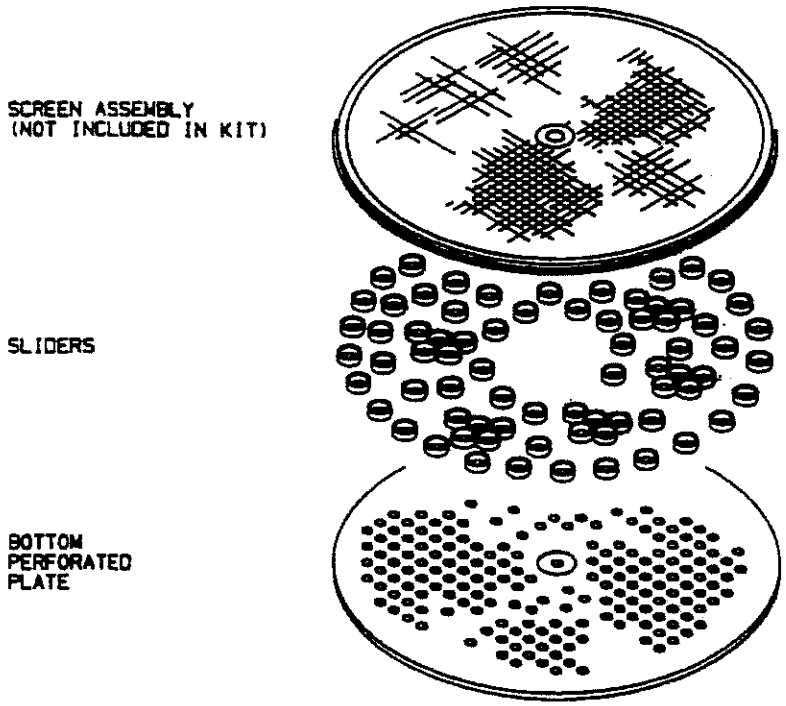


FIGURE 10

The SWECO Self-cleaning Kit prevents screen blinding and stapling, improves dry sizing and liquid/solid separation. The Self-cleaning Kit assembly is held together between the Separator frames by the outside clamping ring. When the Separator is operating, the sliders bounce and rotate between the perforated plate and the Separator screen. The combination bouncing-rotating action of the cleaning sliders dislodges mesh-clogging materials and scrapes away fibrous materials that tend to staple to the screen cloth.

To add SCK: Remove the clamp ring, frame, center tie-down assembly, and screen from above the frame on which the kit is to be assembled. Follow steps 1 - 6 as illustrated on page 17.

COMPARISON OF SCREEN OPENINGS

TENSIL BOLTING CLOTH				MARKET GRADE				CLEAR OPENING				U.S. STD. SIEVE		
MESH TBC	OPEN-ING	WIRE DIA.	% OPEN AREA	MESH MG	OPEN-ING	WIRE DIA.	% OPEN AREA	CLEAR OPEN-ING	DECI-MAL FRAC-TION	WIRE DIA.	% OPEN AREA	CLOS-EST U.S. STD. SIEVE	OPEN-ING	APPROX. OPEN-ING IN MICRONS
								1"		.105	81.9			25,400
								3/4"	(.75)	.063	82.0			19.050
								5/8"	(.625)	.063	82.5			15.875
								9/16"	(.5625)	.063	81.0			14,288
								1/2"	(.50)	.047	86.0			12,700
				2	.437	.063	76.4	7/16"	(.4375)	.047	79.3			11.112
								3/8"	(.375)	.047	79.2			9525
								5/16"	(.3125)	.047	75.5			7938
				3	.279	.054	70.1	1/4"	(.25)	.047	70.9			7087
				4	.2023	.0475	65.9					3.5	.223	5660
				4	.187	.063	56.0	3/16"	(.1875)	.041	67.3	4	.187	4760
				5	.159	.041	63.2					5	.157	4000
				6	.1318	.0348	62.7	1/8"	(.125)	.041	56.7	6	.132	3360
				7	.108	.035	57.2					7	.111	2830
				8	.0964	.0286	60.2					8	.0937	2380
				10	.0742	.0258	56.3					10	.0787	2000
				11	.073	.018	64.5							1854
14	.0620	.009		12	.0603	.0230	51.8					12	.0661	1680
16	.0535	.009	73.3	14	.0510	.0204	51.0					14	.0555	1410
18	.0466	.009	70.2	16	.0445	.0181	50.7					16	.0469	1190
20	.0410	.009	67.2											1041
22	.0380	.0075	69.7	18	.0386	.0173	48.3					18	.0394	1000
24	.0342	.0075	67.2	20	.0340	.0162	46.2					20	.0331	841
26	.0310	.0075	64.8											784
28	.0282	.0075	62.4	24	.0277	.0140	44.2					25	.0278	707
30	.0268	.0065	64.8											681
32	.0248	.0065	62.7											630
34	.0229	.0065	60.7									30	.0234	595
36	.0213	.0065	58.7	30	.0203	.0128	37.1							541
38	.0198	.0065	56.7									35	.0197	500
40	.0185	.0065	54.8											470
42	.0183	.0055	59.1											465
44	.0172	.0055	57.4	35	.0176	.0118	37.9							437
46	.0162	.0055	55.8									40	.0165	420
48	.0153	.0055	54.2	40	.0150	.0104	36.0							389
50	.0145	.0055	52.6											368
52	.0137	.0055	51.0									45	.0139	354
54	.0130	.0055	49.4											330
58	.0127	.0045	54.6											323
60	.0122	.0045	53.3											310
62	.0116	.0045	51.7									50	.0117	297
64	.0111	.0045	50.7	50	.0110	.0090	30.3							282
70	.0106	.0037	54.9											270
72	.0102	.0037	53.8											260
74	.0098	.0037	52.7									60	.0098	250
76	.0095	.0037	51.7											241
78	.0091	.0037	50.6	60	.0092	.0075	30.5							231
80	.0088	.0037	49.6											224
84	.0084	.0035	49.8									70	.0083	210
88	.0079	.0035	47.9											193
90	.0076	.0035	47.8											200
94	.0071	.0035	45.0	80	.0070	.0055	31.4					80	.0070	177
105	.0065	.0030	46.9											165
120	.0058	.0025	47.3	100	.0055	.0045	30.3					100	.0059	149
145	.0047	.0022	46.4	120	.0046	.0037	30.5					120	.0049	125
165	.0042	.0019	47.1	150	.0041	.0026	37.9					140	.0041	105
200	.0034	.0016	46.2	170	.0035	.0024	35.1					170	.0035	88
230	.0029	.0014	46.0	200	.0029	.0021	33.6					200	.0029	74
				250	.0024	.0016	36.0					230	.0025	63
				270	.0021	.0016	32.2					270	.0021	53
				325	.0017	.0014	30.5					325	.0017	44
				400	.0015	.0010	36.0					400	.0015	37
				500	.0010	.0010	25.0							25
				635	.0008	.0008	25.0							20

ALL SCREENS LISTED ARE SQUARE WEAVE STAINLESS STEEL. MANY SIZES ARE ALSO AVAILABLE IN POLY-ESTER OR NYLON.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	S18C50110	Base Weldment	1
2	06-106	3/32 Dia. x 1.5 Long Cotter Pin	1
3	S18C00106	Base Door	1
4	F20K19007	Junction Box Label	1
5	M18K19014	Junction Box Assembly (3 Phase)	1
	M18K19015	Junction Box Assembly (1 Phase)	1
6	S48K01921	Warning Label	1
7	04-408	5/16-18 unc. Thumb Screw	2
8	05-143	5/16 Nom. Flatwasher	2
9	S18C50400	Flat Table	1
10	S18C00719	Top Motor weight assembly includes Items #12 thru #16	1
11	Supplied w/motor	Woodruff Key	1
12	S18C02729	Additional Top Motor Weight Plate	3
13	03-161	1/2-13 Unc Hex Jam Nut	1
14	04-106	1/4-20 Unc Square Head Bolt	2
15	05-131	1/2" Nom. Shakeproof Lockwasher	1
16	S18C02725	Top Motor Weight	1
17	S18S00220	Spring Assembly	6
18	S18C00739	Bottom Motor Weight Assy. Includes Items #19 thru #23	1
19	S18C00730	Bottom Motor Weight	1
20	S18C00737	Additional Bottom Motor Weight Plate	4
21	03-102	3/8-16 Unc Hex Nut	18
22	05-115	3/8 Nom. Split Lockwasher	18
23	04-109	3/8-16 Unc Square Head Bolt	1
24	S18C00745	Indicator Washer Assembly	1
25	S18C51900	Shipping Bracket	3
26	S18B00701	Motor 1/4 HP, 115V, 60HZ, 1 PH, 1200 RPM Std.	1
	S18B00702	Motor 1/4 HP, 230V, 60HZ, 3 PH, 1200 RPM Std.	1
27	F10K19149	Shipping Bracket Tag	4
29	04-646	3/8-16 Unc x 1.50 Long Hex Bolt	6
30	04-262	3/8-16 Unc x .75 Long Hex Bolt	3
31	03-104	5/8-11 Unc Slotted Hex Nut	1

ITEM NO.	PART NO.	DESCRIPTION
	S24C50100	Base Assembly (3 Phase)
1	S24C50105	Base Assembly (1 Phase)
2	S24C50101	Base weldment
3	S24C00106	Base door
4	S48K01921	Warning label
5	M18K19014	Junction box assembly
6	F20K19007	"J" box label
7	04-369	5/16-18 Unc. 1.0" L.G. Thumscrew
8	05-143	5/16 Nom. flat washer
9	S24C50400	Flat table
10	S24C00719	Top weight assembly (Incl. Items 14 - 19)
11	S24C00720	Top weight weldment
12	S24C00729	Top weight plate (1/4" thick) (3 max.)
13	S24C00728	Top weight plate (10 ga. thick) (1 max.)
14	03-105	1/2" NC stl. std. reg. patt. hex nut
15	05-124	1/2" stl. split lock washer, cad. pl.
16	04-109	3/8" NC x 1" lg. stl. sq. hd. set screw w/cup point
17	S30C51900	Shipping bracket
18	S24S01021	Bottom tension ring (not shown)
19	S30S50200	Spring assembly
20	S18C00745	Indicator washer assembly
21	S18C00739	Bottom weight assembly (Incl. Items 25 - 29)
22	S18C00730	Bottom weight weldment
23	S18C00737	Bottom weight plate (4 max.)
24	03-102	3/8" NC stl. std. reg. patt. hex nut
25	05-115	3/8" stl. split lock washer, cad. pl.
26	S18B00701	Motion generator, 1/3 hp, 115 volt
27	03-104	5/8-11 UNC slotted hex nut
28	04-231	3/8-16 UNC x 1.00 lg. hex head bolt
29	04-262	3/8-16 UNC x .75 lg. hex head bolt
30	04-617	1/2-13 UNC x 1.50 lg. hex head bolt, Gr. 5
31	05-109	3/8 Nom. split lock washer
32	05-124	1/2 Nom. split lock washer
33	06-106	3/32 dia. x 1-1/2 lg. cotter pin
34	06-141	5/32 square x 1/4 long key (not shown)
35	03-205	1/2-13 UNC hex nut - SST
36	03-144	3/8-16 UNC hex nut - SST
37	F10K19149	Shipping bracket tag
38	01-108	Ground terminal
39	F10K19153	Ground terminal tag (not shown)
40	S18N81104	Gasket (not shown on drawing)
41	S24C01910	"J" box assembly (115 V)
42	01-180	Gasket
43	03-121	1/4-20 UNC hex nut, cad. pl.
44	04-264	1/4-20 UNC x .625 lg. hex hd. bolt
45	05-113	1/4 Nom. split lock washer, cad. pl.
46	01-176	Connector
47	01-185	1/2" electrical locknut
48	01-104	Cable

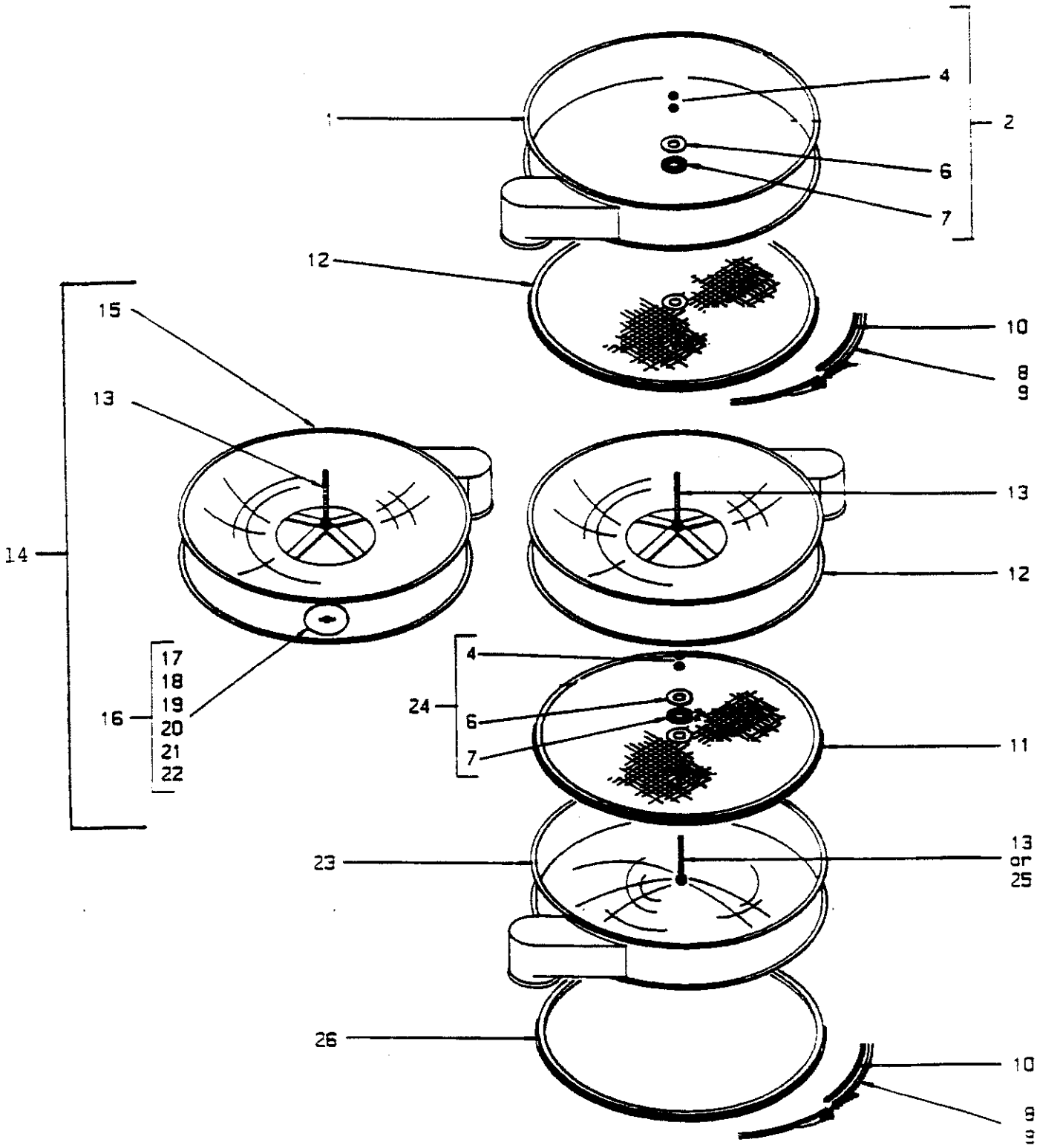
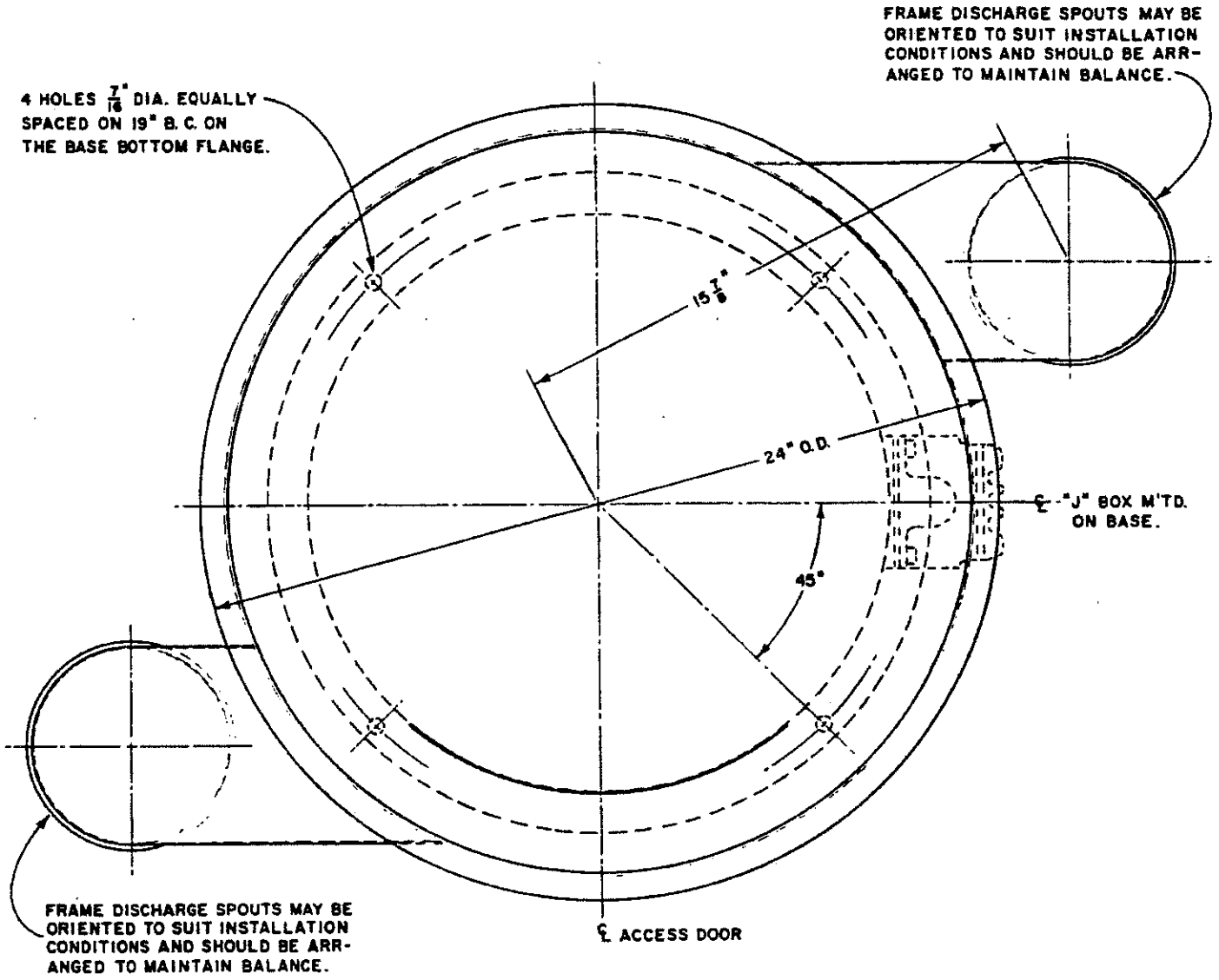


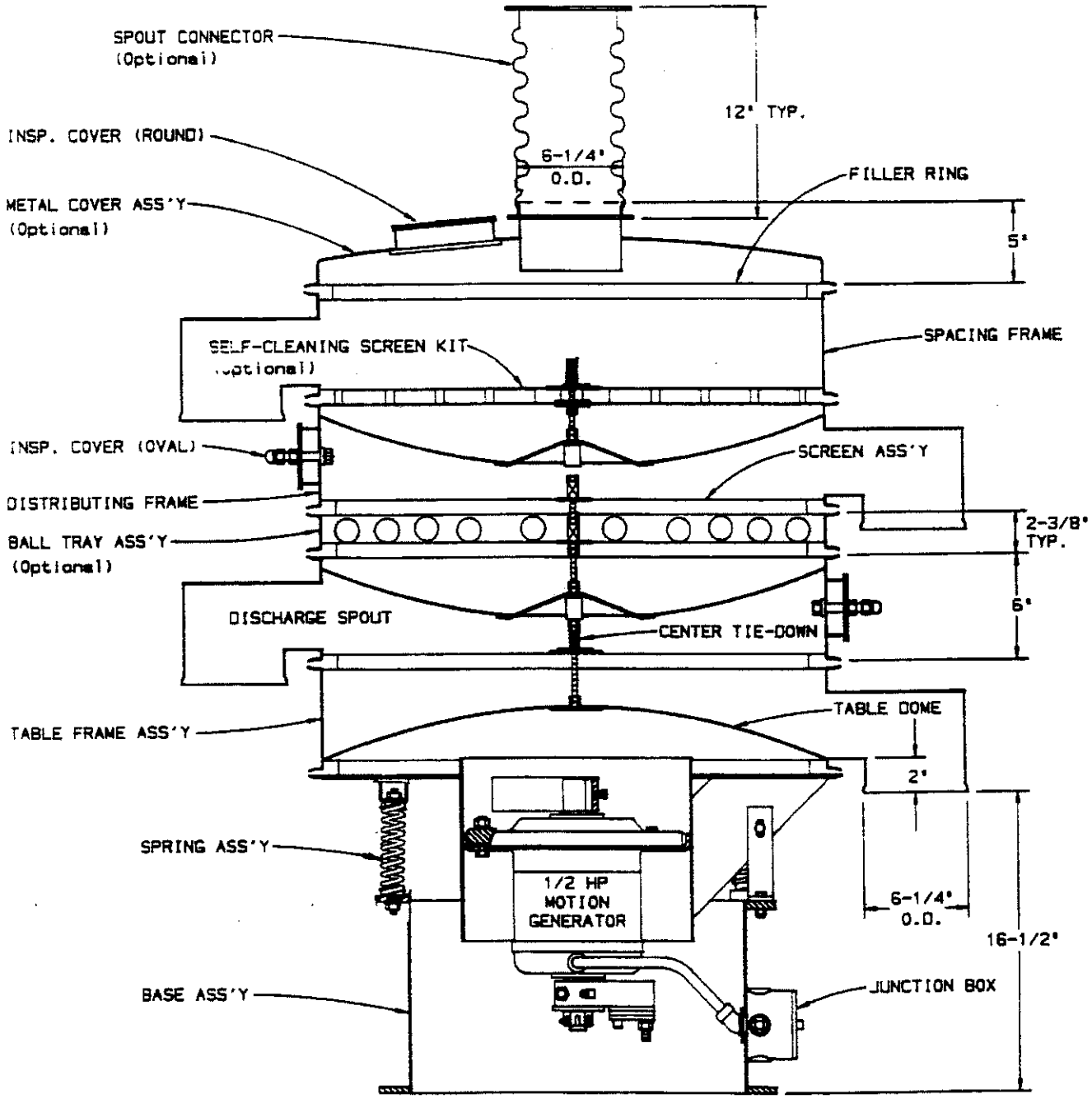
FIGURE 14 FRAMES & ACCESSORIES (FOR 18",24",30" UNITS)

ITEM NO.	PART NO.	DESCRIPTION
1	S18S80300	3" Spacing frame w/one 2" x 3" spout (LS 18)
	or	
	S18S80500	5" Spacing frame w/one 3" x 4" spout (LS 18)
	S24S02400	4" Spacing frame w/one 3" x 6" spout (LS 24)
	S30S80600	6" Spacing frame w/one 4" x 6" spout (LS 30)
2	S18S00942	Center tie-down assembly (Opt. on 18" see p. 10)
	S30S00940	Center tie-down assembly (LS 24 & LS 30)
4	03-159	Jam nut (4 per assembly)
6	S30S00922	Center tie-down washer (2 per assembly)
7	S30W00921	Screen cushion washer (2 per assembly)
8	S18S81125	Over-center clamp ring assembly (w/gasket) (LS 18)
	S24S81125	Over-center clamp ring assembly (w/gasket) (LS 24)
	S30S81125	Over-center clamp ring assembly (w/gasket) (LS 30)
9	S18S81124	O/C clamp ring (without gasket) (LS 18)
	S24S81124	O/C clamp ring (without gasket) (LS 24)
	S30S81124	O/C clamp ring (without gasket) (LS 30)
10	S18W81104	Channel gasket (white neoprene) (Other materials available) (LS 18)
	S24W81104	Channel gasket (white neoprene) (Other materials available) (LS 24)
	S30W81104	Channel gasket (white neoprene) (Other materials available) (LS 30)
11		Screen (Specify material and mesh)
12	S18S82320	3" Distributing frame (LS 18)
	or	
	S18S82520	5" Distributing frame (LS 18)
	S24S03405	4" Frame assembly w/3" x 6" spout, incl. center tie-down assembly and welded dist. frame (LS 24)
13	S18S00915	Center tie-down stud for 3" table or dist. frame (LS 18)
	S18S00916	Center tie-down stud for 5" table frame (LS 18)
	S24S00913	Center tie-down stud for 4" dist. frame (LS 24)
14	S30S82615	6" Distributing frame assembly w/4" x 6" spout insp. opng. ass'y & center tie-down ass'y (LS 30)
15	S30S02624	Center tie-down stud for 6" dist. frame (LS 30)
16	S48S00525	Oval inspection cover assembly (LS 30)
17	S48S00530	Oval inspection plate (LS 30)
18	S48W00526	Oval inspection cover gasket (LS 30)
19	S48S00835	Locking bar weldment
20	03-142	1/2" Nut
21	S48S00539	Inspection opening handle
22	06-138	.156 x 1" lg. SS roll pin
23	S18S82900	3" Table frame w/one 2" x 3" spout assembly and welded table dome (LS 18)
	S18S82950	5" Table frame w/one 3" x 4" spout assembly and welded table dome (LS 18)
	S24S02900	4" Table frame w/3" x 6" spout assembly (LS 24)
	S30S82900	6" Table frame w/4" x 6" spout, center
24	S18S00940	Center tie-down assembly (LS 18) see page 10
	S30S00940	Center tie-down assembly (LS 24 & LS 30) see p.10
25	S30S00916	Center tie-down stud, 4-5/8" lg. (LS 30)
26	S18S01021	Bottom tension ring (LS 18)
	S24S01021	Bottom tension ring (LS 24)
	S30S01085	Bottom tension ring (LS 30)

VI. ORIENTATION DRAWING



ORIENTATION
24" SWECO SEPARATOR



SWECO SEPARATOR MODEL LS30

Unit Specification

Unit Size & RPM	18" 1200 RPM	24" 1200 RPM	24" 1800 RPM	30" 1200 RPM	30" 1800 RPM
Maximum Quantity of Top Weight Plates	3	3 - 1/4" 1 - 1/8"	1 - 1/4"	10	3
Top Weight Assembly Part Number	S18C00719	S24C00719	S24C00709	S30C00723	S30C00757
Maximum Quantity of Bottom Weight Plates	4	4	2	3	3
Bottom Weight Assembly Part Number	S18C00739	S18C00739	S18C02734	S30C00733	S30C00754
Motor Cord Free Length (Motor to Base)	11" Std. 8" E.P.	11" Std. 10" E.P.	11"	14" Std. 11" E.P.	14"
Motor HP	1/4	1/3	1/3	1/2	1/2
Motor Mounting Bolt Torque	35 ft./lbs.	55 ft./lbs.	55 ft./lbs.	65 ft./lbs.	65 ft./lbs.
Quantity of SCK Sliders	54	126	126	86	86
Maximum Amp. Draw	115V 3.0a 230V 3ph. 1.2a 460V 3ph. .6a	115 V 3.8a 230V 3ph. 1.2a 460V 3ph. .6a		230V 3ph. 2.0a 460V 3ph. 1.0a	230V 3ph. 1.9a 460V 3ph..95a
Quantity of Springs	6* or 12	12	12	12	12

Table 1

* 18" Separator has 6 springs for single or double screen units and uses 12 springs with three or more screens.

ScreenerKing.com™ INC.
P.O. Box 11244 Chicago, IL 60611 ❦ 1-866-265-1575 ❦ www.screenerking.com

BALL TRAY ASSEMBLY INSTRUCTIONS

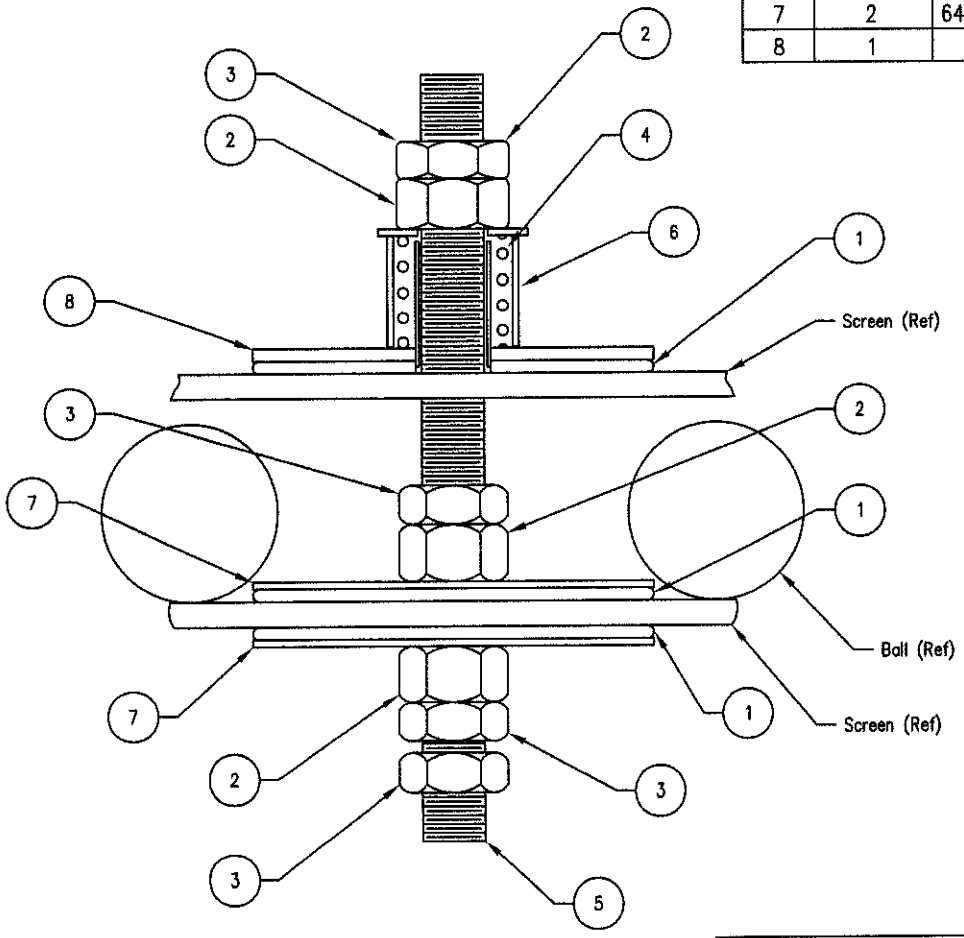
24" & 30" SHAKER SCREENS

1. Remove the top spacing frame from the Shaker Screen. Remove the existing tensioning assembly and screen.
2. Remove the existing center stud and install new center stud #5. Lock into place with jam nut (#3).
3. Install jam nut (#3), hex nut (#2), flat washer (#5), and gasket (#1) on stud. Adjust to proper height so the ball support screen will be level when placed over stud and set ball support screen over center stud. Install gasket (#1), flat washer (#5), hex nut (#2), and jam nut (#3) on stud; tighten hex nut (#2) down against flat washer (#5) to create good seal to the screen. Tighten jam nut (#3) against hex nut (#2) to lock into place. Install ball support screen.
4. Install 2" blank frame and lock into place with clamp ring assembly. Put balls on screen.
5. Set upper screen over center stud; replace top spacing frame and clamp ring assembly.
6. Install gasket (#1), flat washer (#5), hex nut (#2) and jam nut (#3) on center stud. Screw hex nut (#2) down on center stud until it contacts the flat washer then tighten approximately 2 full turns. Tighten jam nut (#3) against hex nut (#2) to lock into place. Proper tension is achieved when slack is taken out of screen and gasket makes a good seal to the screen. It is important not to over or under tension screen as it may cause premature screen failure.

40" – 60" SHAKER SCREENS

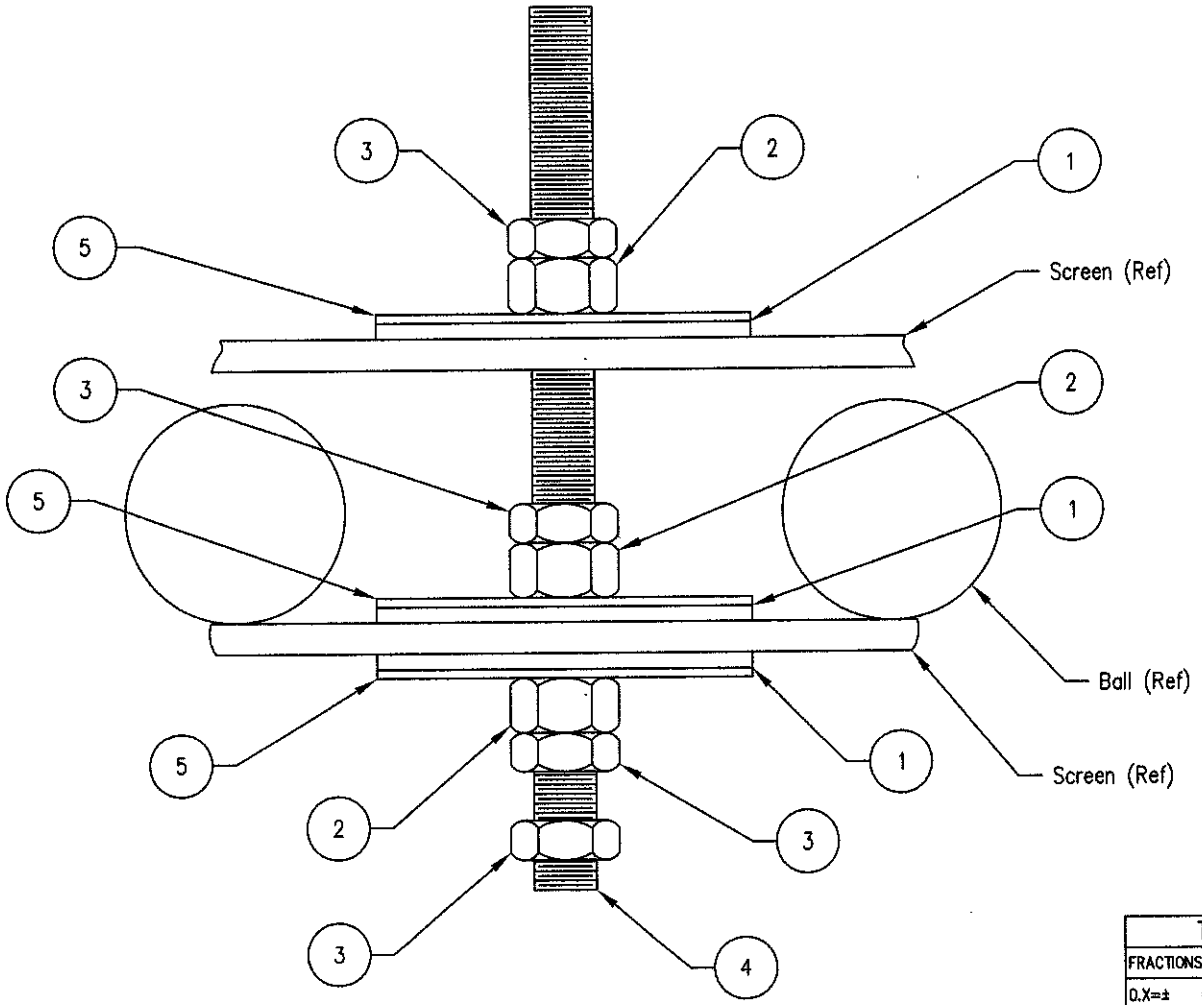
1. Remove the top spacing frame from the Shaker Screen. Remove the existing tensioning assembly and screen.
2. Remove the existing center stud and install new center stud (#5). Lock into place with jam nut (#3).
3. Install jam nut (#3), hex nut (#2), flat washer (#7), and gasket (#1) on stud. Adjust to proper height so the ball support screen will be level when placed over stud. Install gasket (#1), flat washer (#7), hex nut (#2), and jam nut (#3) on stud; tighten hex nut (#2) down against flat washer (#5) to create good seal to the screen. Tighten jam nut (#3) against hex nut (#2) to lock into place. Install ball support screen.
4. Install 2" blank frame and lock into place with clamp rings assembly. Put balls on screen.
5. Set upper screen over center stud; replace top spacing frame and clamp ring assembly.
6. Install gasket (#1), post washer assembly (#8), spring (#4), spring shield assembly (#6), hex nut (#2) and jam nut (#3) on center stud. Screw hex nut (#2) down on center stud until the spring shield touches the post washer assembly. Tighten jam nut (#3) against hex nut (#2) to lock into place. It is important not to over or under tension screen as it may cause premature screen failure.

PARTS LIST				
ITEM	NO. REQ'D	PART NO.	DESCRIPTION	TOTAL MAT'L
1	3	645201400062	Gasket, Washer, White, 1/8" x 4"	1
2	3	640510062011	Nut, Hex, 18/8 SS, 5/8-11 NC	
3	4	640512062011	Nut, Hex, Jam, 18/8 SS, 5/8-11 NC	
4	1	640700470150	Spring, SS, 1 1/2" x 1.09" OD	
5	1	MA4831Z	Stud, SS, 5/8-11 x 8"	
6	1	MA8987Z	Spring Shield	
7	2	640580200004	Washer, Flat, SS, 4" OD, 11/16" ID, 1/16"	
8	1	MA1118A	Post Washer Assembly	



TOLERANCES	REVISIONS
FRACTIONS=±1/16" ANGLES=±3°	A -
0.X=± 0.0X=± 0.00X= ±	
MAT.-	
STOCK P/N	
FINISH-	TAKEN FROM MB6430

PARTS LIST			
ITEM	PART NO.	QTY.	DESCRIPTION
1	645201300050	3	Gasket, Washer, White, 1/8" x 3"
2	640510050013	3	Nut, Hex, 18/8 SS, 1/2-13 NC
3	640512050013	4	Nut, Hex, Jam, 18/8 SS, 1/2-13 NC
4	MA3796	1	Stud, SS, 1/2-13 x 7"
5	640580100003	3	Washer, Flat, SS, 3" OD, 9/16" ID, 1/16"



TOLERANCES	REVISIONS
FRACTIONS=± 1/16 ANGLES=±	
0.X=± 0.0X=± 0.00X=±	
MAT.-	
STOCK P/N	
FINISH-	

DRAWN J. Mo DATE 9/22/97
CHECKED
ENGR. APPR.
MFG APPR.
PROJ. ENG.
OTHER
PROF. S.O.

THERMAL ENGINEERING OF ARIZONA, INC.
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Ball Tensioning Assembly 24-30 Shaker

SCALE 1:1 DWG. NO. MB6573 SHEET 1 OF 1 REV