



Sonic Corporation
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The Model BT K400 Sonolator™



Assembly/Disassembly Instructions

Assembly And Disassembly

Note: Nomenclature referred to below appears on Drawings K400-A-01-A.dwg in the back of this manual. All tools necessary for assembly and disassembly of the unit have been included in the tool kit provided.

BEFORE OPENING THE SONOLATOR, ALWAYS CHECK THE PUMP DISCHARGE PRESSURE GAUGE TO ASSURE PRESSURE IS ZERO PSIG.

Orifice Removal and Replacement for Standard Mono and Dual-feed BT Sonolator™

All Orifices are marked with a part number that includes the area in square inches.

1. Remove the large Acme nut, (# 2), near the Sonolator inlet.
2. Remove the 4 bolts on the mounting base.
3. Slide the entire Sonolator assembly back to expose the Orifice pocket on the Orifice Piston (# 1).
4. Push the Orifice Back-up Block (# 6) out of the pocket.
5. Slide the Orifice (# 7) back and out. Make sure Orifice O-ring (# 9) is with the Orifice.

Re-assembly is accomplished in reverse order. Be sure to check condition of 'O' rings before re-assembly.

Note: Be sure to properly lubricate all O-rings when reassembling,

Blade Removal and Replacement

NOTE: Be certain the blade you install is the proper thickness. The Model K400 BT Sonolator uses a 0.254 Blade.

BLADES ARE AVAILABLE IN THE FOLLOWING MATERIALS: 316 Stainless Steel, Armco 17-7 Stainless Steel, and Tungsten Carbide.

1. Remove large Acme retaining nut on the Sonolator OUTLET, (# 2A).
2. Remove the Blade Piston, (# 15), by pulling on the adjusting handle. Be careful with brittle tungsten carbide blades; pulling too vigorously on the piston may cause the operator to hit the blade against the side of Sonolator. **Note:** If the blade piston is difficult to remove, first remove large nut as in step one, then turn calibrating handle counter clock-wise as far as it will go. This causes the blade to withdraw. Then, by turning the handle clock-wise as far as possible, the the entire blade piston will withdraw.
3. Remove the Blade Clamp Socket Screws (# 14) to remove the Blade Clamp (# 13).
4. Remove the Blade (# 12)

Reassemble in reverse order.

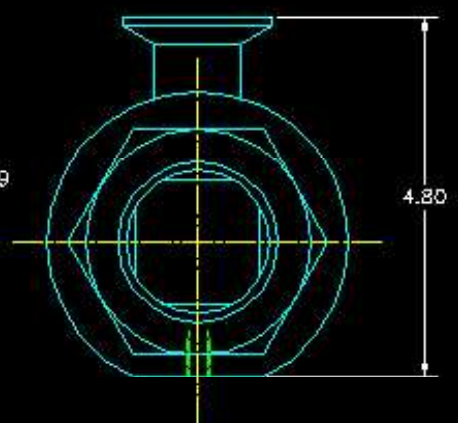
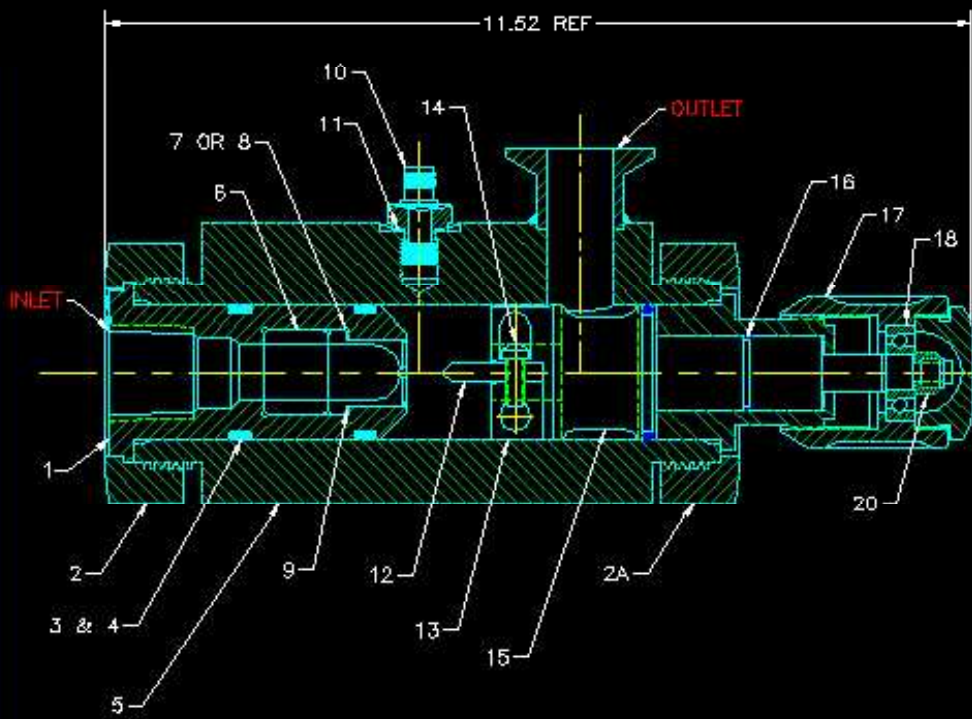
Additional Disassembly

1. Remove the Acoustic Intensity Probe, (# 10) and Probe O-ring (# 11).

2. Unscrew the Calibrator's End Cap (# 19), to expose the Bearings (# 18), inside; *not required for routine cleaning.*
3. Unscrew the Locking Nut (# 20); *not required for routine cleaning.*
4. Remove Handle from the Blade Piston Stem; *not required for routine cleaning.*
5. Press Bearing (# 18) out the Blade Calibrator Handle and replace if necessary; *not required for routine cleaning.*

Assembly accomplished in reverse order.

REVISIONS			
REV	DESCRIPTION	BY	DATE
A	INITIAL REVISION		
B	HOLDING WAS STANDARD CAST VERSION	IC	9/13/83



NO	DESCRIPTION	QTY	UNIT	REV
20	WASHER	1	WASHER	1
19	NUT	1	NUT	1
18	WASHER	1	WASHER	1
17	WASHER	1	WASHER	1
16	WASHER	1	WASHER	1
15	WASHER	1	WASHER	1
14	WASHER	1	WASHER	1
13	WASHER	1	WASHER	1
12	WASHER	1	WASHER	1
11	WASHER	1	WASHER	1
10	WASHER	1	WASHER	1
9	WASHER	1	WASHER	1
8	WASHER	1	WASHER	1
7	WASHER	1	WASHER	1
6	WASHER	1	WASHER	1
5	WASHER	1	WASHER	1
4	WASHER	1	WASHER	1
3	WASHER	1	WASHER	1
2	WASHER	1	WASHER	1
1	WASHER	1	WASHER	1

2. CUSTOMER TO SPECIFY ORDRG AREA WHEN RE-ORDERING.
 1. CUSTOMER TO SPECIFY ELASTOMER MATERIALS TO BE USED.
 NOTES

ORDERED BY: [Name] TO: [Name] DATE: [Date]
 DRAWN BY: [Name] CHECKED BY: [Name] DATE: [Date]

APPROVED: [Signature] DATE: [Date]	CHECKED: [Signature] DATE: [Date]		1 Research Dr., Shelton, CT 06484 203-253-2860 FAX 203-253-4770
TITLE: MOWO-FEED, BT SOLICULATOR HIGH PRESSURE ASSEMBLY DRAWING	MATERIAL: [Material] FINISH: [Finish] REF: [Ref]	SCALE: 1:10 DO NOT SCALE DRAWING	REV: B SHEET 1 of 1

20	NUT, HEX, 3/8-16, S. ST.	1	COMMERCIAL	ST-1023
19	CALIBRATOR END CAP	1	SONIC	K127
18	BEARING	1	COMMERCIAL	ST4003A
17	CALIBRATOR, BT SONOLATOR	1	SONIC	K152
16	O-RING, 2-020	1	COMMERCIAL	SL-1007
15	BLADE PISTON, .254 BLADE	1	SONIC	K106-3 OR K405
14	SOCKET HD CAP SCREW, 1/4-20 X 5/8 LG, LOW HEAD, 316 S. ST.	2	COMMERCIAL	
13	BLADE CLAMP, .254 BLADE	1	SONIC	K108-2 OR K406
12	BLADE, .254 THK	1	SONIC	K107AV4 OR K404
11	O-RING, 2-014	1	COMMERCIAL	SL-1002
10	PROBE	1	SONIC	IN-1027
9	O-RING, 2-018	1	COMMERCIAL	SL-1006
8	ORIFICE, HIGH PRESSURE, TUNGSTEIN CARBIDE	1	SONIC	K408
7	ORIFICE, HIGH PRESSURE, STAINLESS	1	SONIC	K403
6	BACK-UP BLOCK, HIGH PRESSURE BT SONOLATOR	1	SONIC	K401
5	HIGH PRESSURE HOUSING	1	SONIC	K410
4	PAR-BAC RING, 222 SIZE	4	COMMERCIAL	SL-1071
3	O-RING, 2-222	3	COMMERCIAL	SL-1021
2	2" ACME NUT	2	COMMERCIAL	ST-2002
1	ORIFICE PISTON, HIGH PRESSURE	1	SONIC	K402
ITEM	DESCRIPTION	QTY	MFG	PART #