W.S. TYLER RO-TAP®

EXPLORE THE W.S. TYLER RO-TAP® IN ACTION AT WWW.WSTYLER.COM

RO-TAP® RX-29 AND RX-30 MODELS

The industry standard in test sieve shakers, the original W.S. Tyler Ro-Tap® has a unique two-dimensional operation: a horizontal, circular motion, and a vertical tapping motion. This special action allows material particles to stratify and "seek" critical openings in the test media. This unit provides the most accurate and consistent particle analysis testing and requires minimal maintenance. The RX-29 is designed for testing with 8-inch diameter test sieves. The RX-30 model is designed for testing with 12 in. diameter test sieves. Each unit is test run and serialized prior to shipment and features a 99-minute digital timer/clock with a tolerance of .1 seconds.

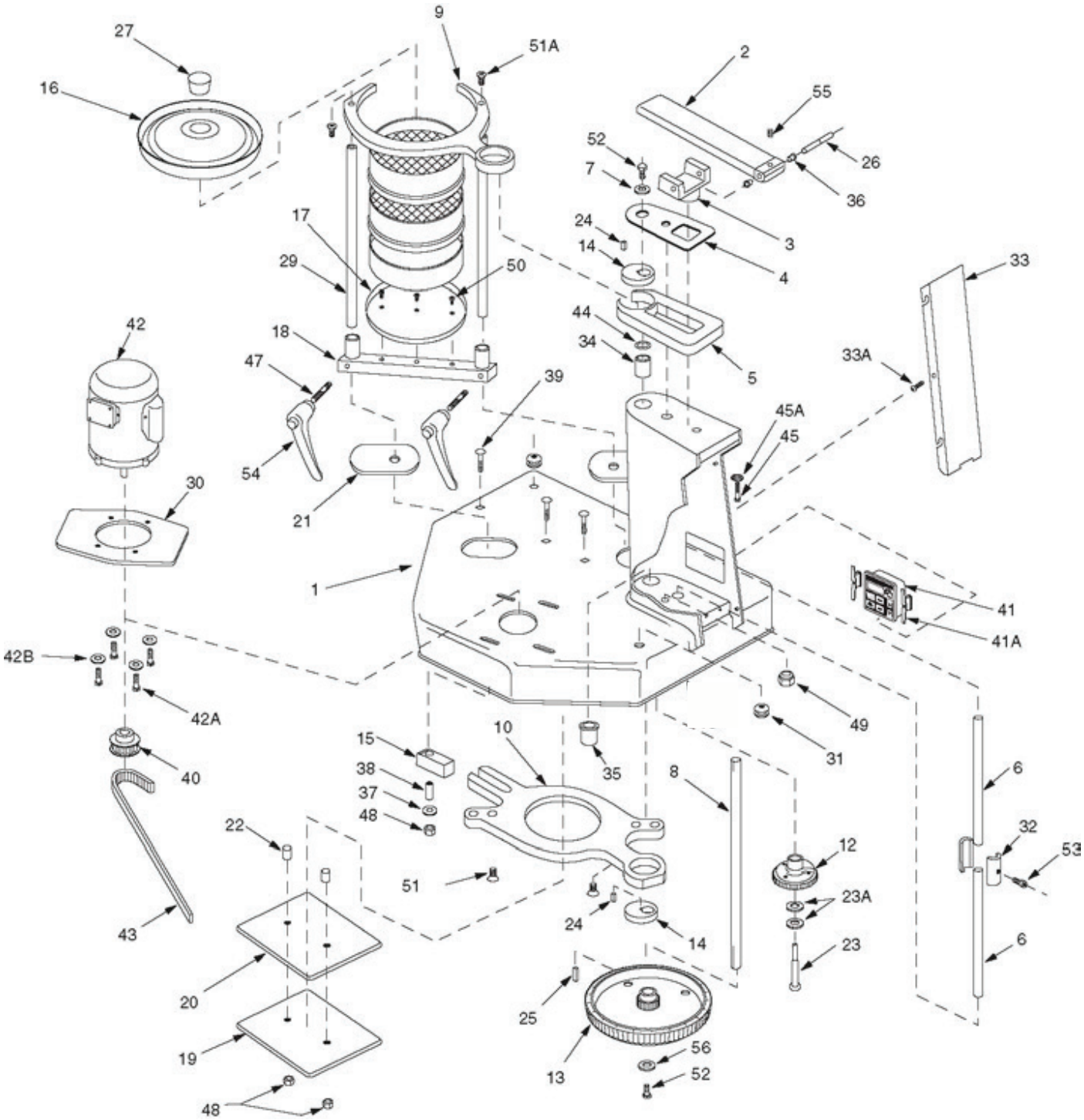
Number of Sieves		
Model	Full Height	Half Height
RX-29 (8 in. or 200 mm diameter)	6 sieves with full height pan	13 sieves with half height pan
RX-30 (12 in. or 300 mm diameter)	4 sieves with full height pan	8 sieves with half height pan
RX-30 (12 in. or 300 mm diameter)	6 sieves with half height pan	8 sieves with half height pan

At 1725 RPM, 60 Cycle Current	
Description	Part #
115v (8 in. test sieve)	RX-29
230v (8 in. test sieve)	RX-29-16
115v (12 in. test sieve)	RX-30
230v (12 in. test sieve)	RX-30-16

At 1425 RPM, 50 Cycle Current	
Description	Part #
115v (8 in. test sieve)	RX-29-2
230v (8 in. test sieve)	RX-29-10
115v (12 in. test sieve)	RX-30-2
230v (12 in. test sieve)	RX-30-10

Specifications	
Oscillations per Minute	278 ± 10
Oscillations Displacement	1-1/8 in. x 7/16 in.
Taps per Minute	150 ± 10
Dimensions	28 in. wide x 21 in. deep x 25 in. high (71 cm x 54 cm x 64 cm)
Weight	180 lbs. (82 kg)
Testing Applications	RX-29: 2 in. through US #635 mesh (20 µm) RX-30: 4 in. through US #500 mesh (25 µm)

RO-TAP® RX-29 AND RX-30 PARTS DIAGRAM



RO-TAP® RX-29 AND RX-30 PARTS

Item #	Part #	Description	Required
1	107770	Base	1
2	R-20029	Hammer	1
3	R-20023	Hammer Block	1
4	R-30019	Sheet Guard	1
5	R-30010	Rotating Guard	1
6	R-10036	Lift Rod	2
7	R-10038	Upper Main Shaft Washer	1
8	R-20027	Main Shaft	1
9	R-30008	Upper Carrying Plate: RX-29 (plastic)	1
9A	R-30008-1	Upper Carrying Plate: RX-29 (heavy-duty cast aluminum)	1
9B	R-30027	Upper Carrying Plate: RX-30 (steel)	1
10	R-30009	Lower Carrying Plate	1
12	R-20039	Cam Gear	1
13	R-30015	Timing Belt Pulley	1
14	R-10034	Eccentric Discs	2
15	R-10032	Block	1
16	R-30007	Sieve Cover (RX-29)	1
	R-30011	Sieve Cover (RX-30)	1
17	R-30006	Sieve Support Plate (RX-29)	1
	R-30013	Sieve Support Plate (RX-30)	1
18	R-30023	Sieve Support Clamp Bar (RX-29)	1
	R-30022	Sieve Support Clamp Bar (RX-30)	1
19	R-20019	Backup Plate	1
20	R-20020	Bearing Plate	1
21	R-20033	Shield	2
22	R-10028	Tube Spacer	2
23	R-10029	Cam Shoulder Screw	1
23A	106582	1/2 in. ID Shim	2
24	R-10042	Main Shaft Key – Eccentric	2
25	R-10039	Main Shaft Key – Lower	1
26	R-10035	Hammer Pin	1
27	R-10066-A	Cork Plug (10 per pk.)	1 pk.
29	R-10033	Tie Rod	2
30	R-30018	Motor Adapter	1
31	ZA11167	Grommet	2
32	R-10030	Lift Rod Coupling (2-1/2 in. long)	1
33	R-40011	Pedestal Cover	1
34	R-10061	Flange Bushing	1
35	R-10062	Bearing	1
36	R-10063	Flange Bearing	2
37	ZF10168	Thrust Washer	1
38	R-10065	Steel Bushing	1
39	ZF10174	3/8-16 NC x 2-1/4 in. Carriage Bolt	3
40	R-10070	Sprocket w/ Set Screw: 14 teeth (1800 RPM)	1
	R-10048	Sprocket w/ Set Screw: 17 teeth (1500 RPM)	1
41	R-40029	Electronic Timer: 115v	1
	R-40037	Electronic Timer: 230v	1
41 A	R-40040	Timer Clips	2
42	RP-1500-23	Motor: 1/4 HP (115v/230v) (60Hz/50Hz) 1 Phase	1
42A	ZF10183	3/8 -16 x 1 in. Long Hex Head Screw	4
42B	ZF10168	3/8 ID Flat Washer	4
43	R-10058	Timing Belt	1
44	R-10055	Shim	1
45	ZZ10068	1/2- 13 x 2-1/2 in. Long Head Bolt	1
45A	ZZ10323	1/2 ID Lock Washer	1
47	R-10079	Clamp Screw	2
48	ZF10221	3/8 in. Lock Nut	3
49	ZF10222	1/2 in. Lock Nut	1
50	ZF10231	10- 32 x 1/2 in. Long Flat Head Socket Cap Screw	3
51	ZF10241	3/8- 16 x 3/4 in. Long Flat Head Socket Cap Screw	2
51A	ZF10240	3/8- 16 x 3/4 in. Long Hex Head Screw	2
52	114162	3/8- 16 x .62 in. Long Hex Head Screw	2
53	ZF10251	5/16- 24 X 1-1/4 in. Long Socket Head Cap Screw	1
54	R-20082	Adjustable Handles (pair)	1
55	ZA10148	#10-24 x 1/4 in. Socket Head Set Screw	1
56	ZF10271	3/8 ID x 1-1/2 in. OD Fender Washer	1
60*	R-10017	Timer Cord w/ Plug (110v)	1
60A*	R-10017-220	Timer Cord w/ Plug (220v)	1

DISCOVER THE LEGACY OF W.S. TYLER TEST SIEVES AT WWW.WSTYLER.COM

RO-TAP® RX-94 MODEL

The RX-94 Test Sieve Shaker utilizes the same traditional design as the RX-29 model. In addition, the unit features a cavity that allows for two "stacks" of 8 in. or 200 mm diameter test sieves. This allows for twice the processing capacity in nominally the same time required to complete one test. The RX-94 model is designed for use with 8 in. or 200 mm diameter test sieves only and feature a newly designed easy lock clamping system. Each unit is test run and serialized prior to shipment and features a 99-minute digital timer with a tolerance of .1 seconds.

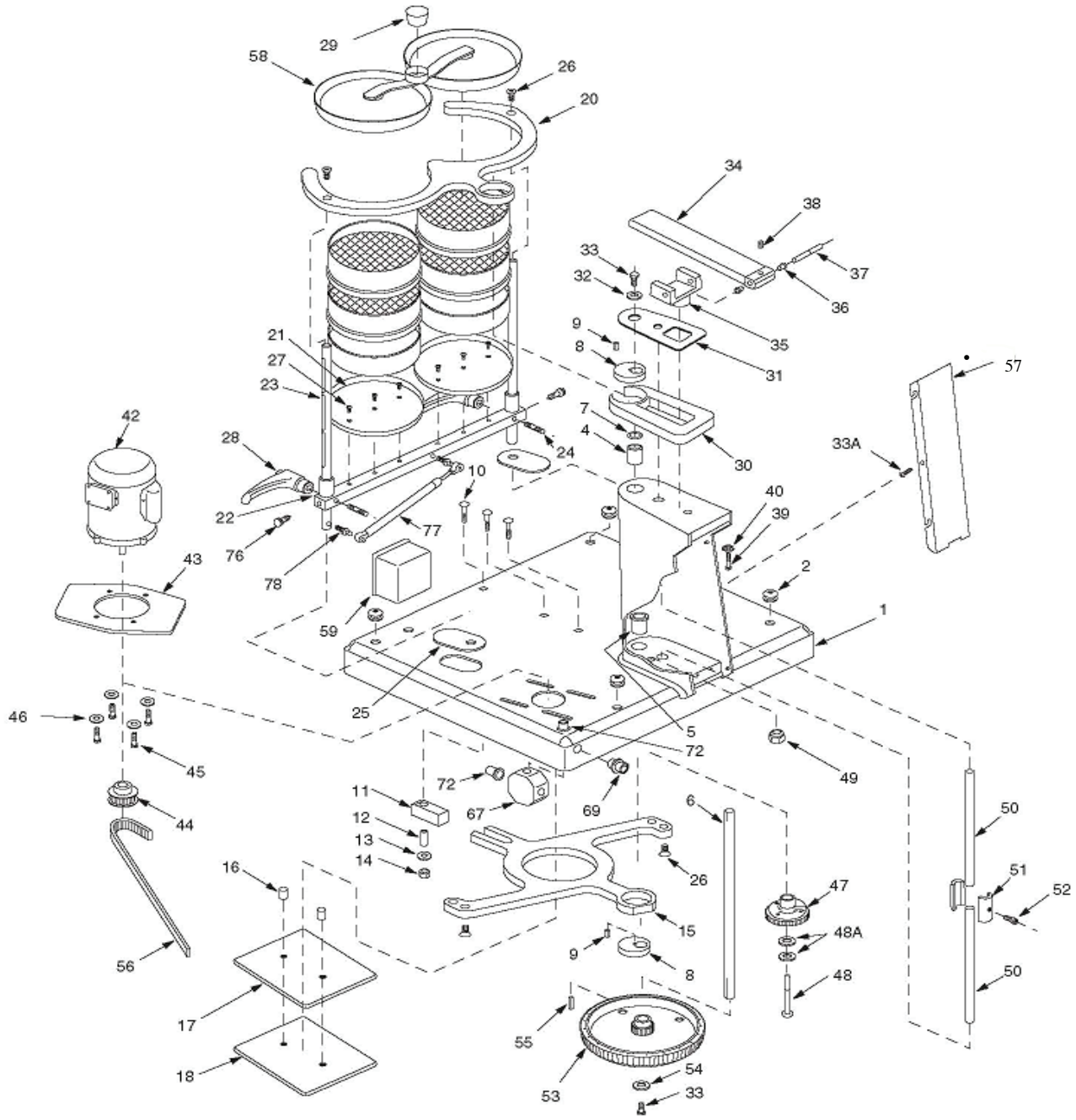
Number of Sieves		
Model	**Full Height**	**Half Height**
RX-94 (8 in. or 200 mm diameter)	2 stacks of 6 sieves with	2 stacks of 13 sieves with half height pan

Description	Part #
115v 60Hz current	RX-94
230v 60Hz current	RX-94-1
115v 50Hz current	RX-94-2
230v 50Hz current	RX-94-3

Specifications	
Oscillations per Minute	278 ± 10
Oscillations Displacement	1 – 1/8 in. x 7/16 in.
Taps Per Minute	150 ± 10
Dimensions	30 in. wide x 27 deep x 26 in. high (75 cm x 68 cm x 56 cm)
Weight	220 lbs. (110 kg)
Testing Applications	2 in. through US #635 mesh (20 µm)

All models are wired with single phase current
Test sieves are sold separately

RO-TAP® RX-94 PARTS DIAGRAM



RO-TAP® RX-94 PARTS

Item #	Part #	Description	Required
1	R-40023	Painted Base Weldment	1
2	ZA11167	Grommet	4
4	R-10061	Flanged Bearing	1
5	R-10062	Bearing	1
6	R-20027	Main Shaft	1
7	R-10055	Shim 1.42 OD x .0155 Thick	1
8	R-10034	Eccentric Discs	2
9	R-10042	Main Shaft Key	2
10	ZF10174	3/8 -16 x 2-1/4 in. Carriage Bolt	3
11	R-10032	Block	1
12	R-10065	Steel Bushing .62 OD x .385 ID x 1-1/4 in.	1
13	ZF10168	3/8 in. Flat Washer	1
14	ZF10221	3/8 - 16 Locknut	1
15	R-40017	Lower Carrying Plate	1
16	R-10028	Tube Spacer	2
17	R-20020	Bearing Plate	1
18	R-20019	Back-up Plate	1
19	ZF10221	3/8 -16 Locknut	2
20	R-40019	Upper Carrying Plate	1
21	R-30006	Support Plate	2
22	R-40018	Dual Sieve Support Clamp Bar	1
23	R-40021	Tie Rod	2
24	R-10079	Clamp Screw	2
25	R-20033	Shield	2
26	ZF10241	3/8 -16 x 3/4 in. Long Flat Head Screw	4
27	ZF10231	#10-32 x 1/2 in. Long Flat Head Screw	6
28	R-20082	Adjustable Handles (pair)	1
29	R-10066-A	Cork Plug (10 per pk.)	1
30	R-30010	Rotating Guard Assembly	1
31	R-30019	Sheet Guard	1
32	R-10038	Upper Main Shaft Washer	1
33	114162	3/8 -16 x .62 Long Head Hex Cap Screw	2
34	R-20029	8 in. Hammer	1
35	R-20023	Hammer Block	1
36	R-10063	Flanged Bearing	2
37	R-10035	Hammer Pin	1
38	ZA10148	#10-24 x 1/4 in. Long Flat Point Socket Head Cap Screw	1
39	ZZ10068	1/2-13 x 2-1/2 in Long Hex Head Bolt	1
40	ZZ10068	1/2 ID Lock Washer	1
41*	R-10017	Stand Motor Cord w/ Plug	1
42	P-1500-23	Motor: 1/4 HP (115v/230v) (60Hz/50Hz) 1 Phase	1
43	R-30018	Motor Adapter Plate	1
44	R-10070	Sprocket -14 teeth (1800 RPM) w/ Set Screw	1
45	ZF10183	3/8- 16 x 1 in. Long Hex Head Screw	4
46	ZF10168	38/ ID Flat Washer	4
47	R-20039	Cam Gear	1
48	R-10029	Cam Shoulder Screw	1
48A	106582	1/2 ID Shim	2
49	ZF10222	1/2- 13 Locknut	1
50	R-10036	Lift Rod	2
51	R-10030	Lift Rod Coupling	1
52	ZF10251	5/16- 24 x 1-1/4 in. Long Socket Head Cap Screw	1
53	R-30015	Timing Belt Pulley	1
54	ZF10271	3/8 ID x 1-1/2 in. OD Fender Washer	1
55	R-10039	Main Shaft Key (lower)	1
56	R-10058	Timing Belt	1
57	R-40011	Pedestal Cover	1
58	R-40020	Dual Sieve Cover	1
59	R-40030	Timer Enclosure	1
60*	R-40029	Electronic Timer (115v)	1
60A*	R-40037	Electronic Timer (230v)	2
66	R-10118	3-1/4 in. Octagon Box (Appleton #30)	1
77	R-10099-30	Gas Spring (Guden #CGS24-30)	1
78	114165	Spring Stud (Guden #BS11-02)	2

RO-TAP® E SIEVE SHAKERS

RO-TAP E PURE

RO-TAP E PREMIUM

RO-TAP E PREMIUM REMOTE

The newly designed test sieve shaker stands out with its simple and quick operation. Two specific regulated amplitudes for coarse or fine material can be selected by the user. Sieving begins immediately once the timer is set and an amplitude has been selected. The Ro-Tap E is recommended as a basic machine for standard sieve analysis.

The Ro-Tap E Premium unit is one of two new W.S. Tyler Sieve Shaker offerings. This machine is our most quiet design ever with the improved dampening system. The control panel allows users to self select the amplitude and interval of the sieving motions.

The extra large display offers operators an excellent overview of the settings and is user-friendly. The new Ro-Tap E Premium unit is ideally suited for users who demand precision and reproducible sieve analysis.

The Ro-Tap E Premium Remote offers a separate control unit for wet sieve analysis. The design and function of the lid has been specifically developed for tests where water needs to be used to assist in the particle separation. The wide-spreading spray diffuser is integrated into the cover, offering improved handling. The cover includes an inspection glass which allows observation during the sieving process.

Model Name	Amplitude	Diameter Sieves	Wet Testing	Part #
E Pure	Fine and Coarse	8 in. or 200 mm	N	RX-29-E
E Premium	Adjustable up to 3 mm	8 in. or 200 mm	N	RX-29-E Premium
E Premium Remote	Adjustable up to 3 mm	8 in. or 200 mm	Y	550100
EML 315	Adjustable up to 3 mm	12 in. or 300 mm	Y	550075

RO-TAP® RX-812 MODEL

Designed to be used in coarse testing applications, the affordable RX-812 coarse sieve shaker has the unique capability of using both 8 in. and 12 in. diameter test sieves, simply by using the quick-change adapters provided. The RX-812 has a quiet operation and utilizes an effective action that gives consistent accurate results. The RX-812 is recommended for use with test sieves 100 mesh and coarser.

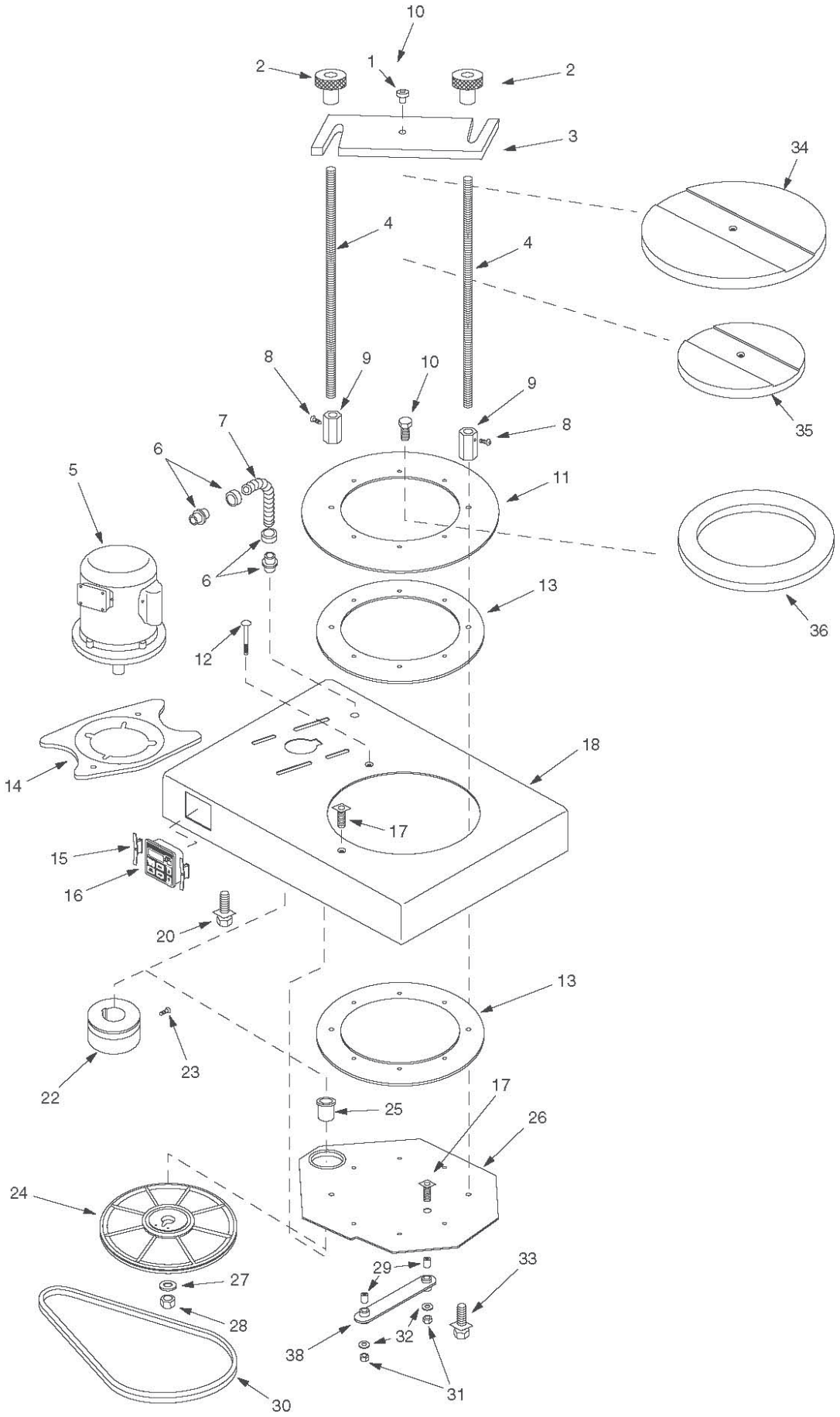
Number of Sieves		
Model	Full Height	Half Height
RX-812 (8 in. or 200 mm diameter)	6 sieves	13 sieves
RX-812 (12 in. or 300 mm diameter)	4 sieves	6 sieves
	4 sieves	8 sieves

Description	Part #
115v 60Hz current	RX-812
230v 60Hz current	RX-812-1
115v 50Hz current	RX-812-2
230v 50Hz current	RX-812-3

Specifications	
Oscillations per Minute	280 ± 10 (60 HZ), 231 ± 10 (50Hz)
Oscillations Displacement	1 – 1/8 in. x 7/16 in.
Dimensions	23 in. wide x 15 deep x 13 in. high (59 cm x 38 cm x 33 cm)
Weight	55 lbs. (25 kg)
Testing Applications	80 mesh and coarser

All models are wired with single phase current.
Test sieves are sold separately.

RO-TAP® RX-812 PARTS DIAGRAM



RO-TAP® RX-812 PARTS

Item #	Part #	Description	Required
1	LC10016	Locating Pin	1
2	LC10017	Clamping Knobs	2
3	LC10008	Clamp Bar	1
4	LC10015	Clamping Rods	2
5	P-1500-23	Motor: 1/4 HP (115v/230v) (60Hz/50Hz) 1 Phase	1
6	R-10112	Flexible Conduit Connector	2
7	102542	Oilite Flexible Conduit – 8-1/2 in.	1
8	ZA10956	10-24 Cup Point Set Screw	4
9	LC10014	Coupling	2
10	LB10266	Rolok 10-24 Self Tap Screw	6
11	LC10007	Shield	1
12	LB10041	Special Carriage Bolt	1
13	LC10005	Bearing Ring	2
14	R-30018	Adapter	1
15	R-40040	Timer Mounting Clip	2
16*	R-40029	Electronic Timer (115 v.)	1
	R-40037	Electronic Timer (230v.)	1
17	ZZ10792	1/4- 28 x 3/8 in. Cup Point Set Screw	2
18	LC10003	Base, Sieve Shaker	1
20	ZF10183	3/8 in. -16 x 1 in. Hex Head Bolt	3
22	LB10111	Drive Pulley (1-1/2 in. OD)	1
23	ZA10148	10-24 x 3/8 in. Cup Point Set Screw	1
24	LB10051	Pulley/ Eccentric Assembly	1
25	LB10191	Flanged Standoff Bushing	1
26	LC10006	Carrying Plate	1
27	ZF10168	3/8 in. Hard Washer	1
28	ZF10221	3/8 in. -16 Locknut	1
29	LB10201	Stand Off Bushing	2
30	LB10211	Drive Belt- 2L310	1
31	ZZ10801	1/4 in. -28 Black Lock Nut	2
32	ZZ10301	1/4 in. Flat Washer	6
33	ZF10184	5/16 in. -18 Black Hex Head Bolt	2
34	LC10010	12 in. Cover Clamping Plate	1
35	LC10011	8 in. Cover Clamping Plate	1
36	LC10009	12 in. to 8 in. Conversion Plate	1
37*	R-10018	110v Cord Set	1
38	LC10012	Arm	1

RO-TAP® SIEVE SHAKER MAINTENANCE

W.S. Tyler can also test the condition operation, and safety of test sieves shakers on your behalf, in our laboratory. When tests are conducted in our factory, the units are subjected to comprehensive system diagnostics and special functionality tests on a test rig. These tests are used to determine and, if necessary, readjust the amplitude characteristics. Additionally, we assess the screening machines electrics, mechanics, and safety.

To ensure lasting dependable service Ro-Tap® Sieve Shakers must occasionally be upgraded with parts that are long-wearing, durable and cost effective. Maintenance kits are available for the replacement of parts due to normal wear and tear. W.S. Tyler recommends the use of these kits as a means to minimize the down-time due to minor repairs. The purchase of a minor maintenance kit is also recommended with each new Ro-Tap® Sieve Shaker.

Description	Includes:	Part #
Minor Maintenance Kit (RX-29, RX-30, & RX-94)	2 eccentric discs (R-10034) 1 Flange Bushing (R-10061) 1 Bearing (R-10062) 1 Cork Plug Pk. (R-10066-A) 2 Flange Bearings (R-10063)	10121
Major Maintenance Kit	1 Minor Maintenance Kit (10121) 1 Timing Belt (R-10058) 1 Upper Carrying Plate (R-30008) 1 Cam Gear (R-20039) 1 Timing Belt Pulley (R-30015)	10122
Maintenance Kit for (RX-94)	Kit Part # 10122 Without Part #R-30008	10123

Sieve Conversion Kit

Description	Part #
Ro-Tap® 12 in. diameter – 8 in. diameter test sieve kit	RX-32
Ro-Tap® 8 in. diameter – 3 in. diameter test sieve kit	RX-30033-1

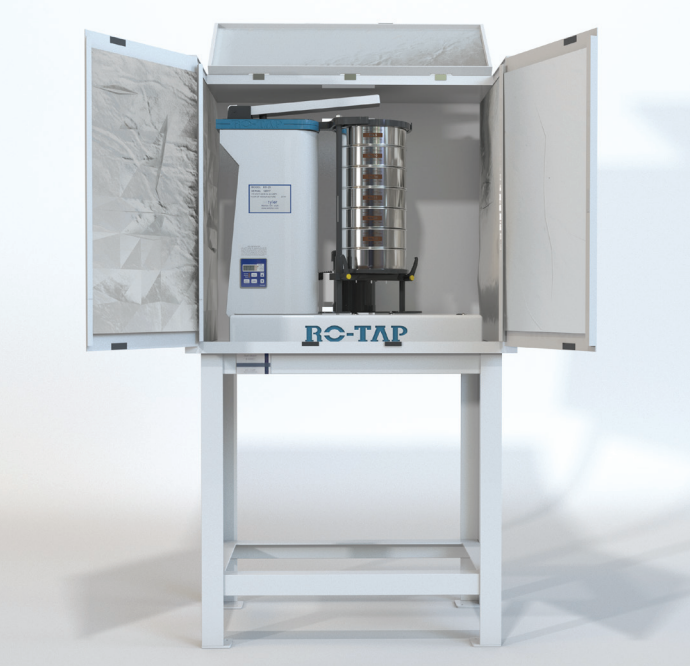
We offer inserts for the standard Ro-Tap® to allow RX-30 to accept 8” sieves and RX-29 to accept 3” sieves.

Timer Conversion

Description	Part #
Ro-Tap® Digital Timer Conversion Kit – 115v	R-40038
Ro-Tap® Digital Timer Conversion Kit – 230v	R-40039

To replace turn knob timers on old RX-29 and RX-30.

LAB KIT & SAMPLING SPLITTERS



SOUND ENCLOSURE

W.S. Tyler's Sound Enclosure is designed to be used exclusively with Ro-Tap Sieve Shakers. The operating noise levels are reduced from approximately 85dB to 78 dB. The cabinets are fabricated with 18 gauge steel and a 1 in. metal faced acoustic foam inner liner.

TEST STAND

Specifically designed for W.S. Tyler's RX-29, RX-30, and RX-812 Sieve Shakers, the Test Stand can be used with or without the Sound Enclosure Cabinet. The test stand is fast and easy to install while offering an attractive and sturdy construction that can be fastened to the floor or foundation.

Description	Dimensions	Weight	Part #
Sound Enclosure (RX-29, RX-30)	35 in. wide x 24 in. deep x 29 in. high (89 cm x 60 cm x 74 cm)	125 lbs. (57 kg)	R-30050
Sound Enclosure (RX-94)	34 in. wide x 33 in. deep x 31 in. high (86 cm x 83 cm x 78 cm)	150 lbs. (69 kg)	RX-99
Test Stand (RX-29, RX-30, RX-812)	20 in. wide x 32 in. high x 28 in. deep (50 cm x 81 cm x 71 cm)	65 lbs. (30 kg)	R-40041
Cover Springs with Ball Stud (RX-99 only)	N/A	N/A	R-10099-30

SAMPLING SPLITTERS

Reduces or halves material samples for making sieve tests. The Splitters maintain representative particle size distribution while reducing the original sample size.

Description	Max Particle Size	Dimensions	Weight	Part #
Sample Splitter with 14-1/2 in. Discharge Chutes	1/8 in.	12 in. wide x 14 in. deep x 12 in. high (30 cm x 36 cm x 30 cm)	10 lbs. (5 kg)	SS-50
Sample Splitter with 16-1 in. Discharge Chutes	1/4 in.	22 in. wide x 16 in. deep x 16 in. high (56 cm x 41 cm x 41 cm)	25 lbs. (10 kg)	SS-100