

# RSX

## Extreme Force Actuator

# Tolomatic™

Powerful.

Precise.

Efficient.

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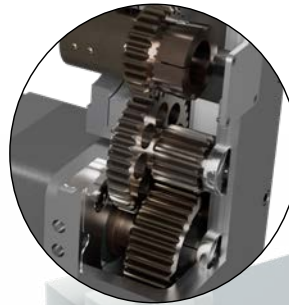


**Air-Oil Systems, Inc.**

AUTOMATION SOLUTIONS

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### RSX50 Optional Geared Motor Reduction

4:1 and 6:1 Ratio geared reduction available

### High Power Timing Belt

Carbon fiber tensile reinforced synchronous belt to ensure smooth transmission of high torques in a compact design.

### High Force Angular Contact Bearings

Four ball bearings to support high axial loads & forces for long life

### High Positional Accuracy

Precision ground planetary roller screws provide the highest force and life ratings available



SCREW ACCURACY		
Roller Screw	± 0.0004"/ft.	± 0.0102mm/300mm
Ball Screw	± 0.004"/ft.	± 0.102mm/300mm

Ball screw option also available

### Internal Anti-Rotate

Composite bearings prevent rotation of the thrust tube

### Thrust Tube

Salt bath nitride treatment provides excellent corrosion resistance, surface hardness and is very resistant to adherence of potential contaminants

### Field Replaceable Cartridge

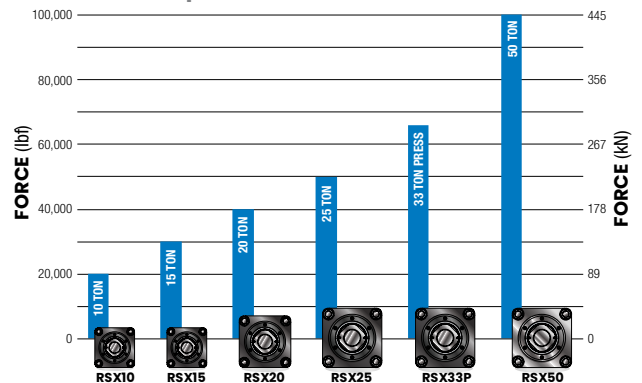
Durable seal design prevents contaminants from entering the housing for extended life of the actuator

Additional rod scraper available with IP67 option for high contaminate environments

See RSX catalog for additional features and RSX50 features

RSX actuators are an ideal choice for replacing hydraulic cylinders. These high force electric actuators with planetary roller screws are available for forces up to 100,000 lbf (445 kN). Designed for 100% duty cycle, rugged service and long life.

### RSX Force Comparison



## Extreme Force Actuator

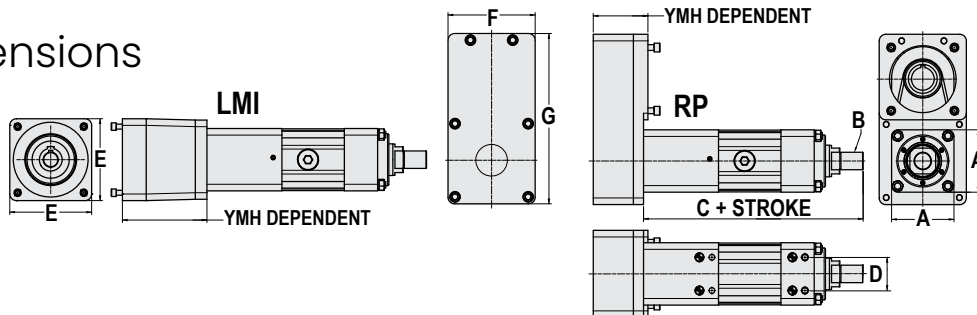
### Specifications

RSX SIZE (Tonnage Rating)	MAX STROKE**	SCREW TYPE	SCREW LEAD	MAX THRUST	DYNAMIC LOAD RATING	LEAD ACCURACY	BACKLASH	SCREW DIAMETER	BASE ACTUATOR INERTIA	INERTIA PER in OF STROKE	MAXIMUM DYNAMIC FRICTION TORQUE
	in		turns/in	lbf	lbf	in/ft	in	in	lb-in <sup>2</sup>	lb-in <sup>2</sup>	lb-in
10	59.1	BN01	1.00	20,000	22,500	0.0040	0.0150	2.00	19.968	0.405	46.9
	59.1	BN02	2.00	20,000	37,420	0.0040	0.0150	2.25	21.852	0.599	46.9
	50.0	RN12	2.12	20,000	58,921	0.0004	0.0012	1.89	19.105	0.345	51.0
15	59.1	BN01	1.00	30,000	22,500	0.0040	0.0150	2.00	19.968	0.405	46.9
	59.1	BN02	2.00	30,000	37,420	0.0040	0.0150	2.25	21.852	0.599	46.9
	50.0	RN12	2.12	30,000	60,541	0.0004	0.0012	1.89	19.105	0.345	51.0
20	50.0	RN12	2.12	40,000	60,541	0.0004	0.0012	1.89	19.105	0.345	51.0
25	26.0	RN10	2.54	50,000	99,519	0.0004	0.0012	2.48	105.883	1.026	112.5
33P*	26.0	RN10	2.54	66,000	99,519	0.0004	0.0012	2.48	105.883	1.026	112.5
50	24.8	RN10	2.54	100,000	113,529	0.0009	0.0012	2.95	301.906	2.086	133.9
	24.8	RN15	1.69	100,000	187,940	0.0009	0.0012	2.95	302.809	2.098	133.9
	mm		mm/rev	kN	kN	mm/300mm	mm	mm	kg-cm <sup>2</sup>	kg-cm <sup>2</sup>	N-m
10	1500	BN01	25.4	88.96	100.08	0.103	0.381	50.80	58.434	0.047	5.3
	1500	BN02	12.7	88.96	166.45	0.103	0.381	57.15	63.948	0.069	5.3
	1270	RN12	12.0	88.96	262.09	0.010	0.030	48.00	55.909	0.040	5.8
15	1500	BN01	25.4	133.45	100.08	0.103	0.381	50.80	58.434	0.047	5.3
	1500	BN02	12.7	133.45	166.45	0.103	0.381	57.15	63.948	0.069	5.3
	1270	RN12	12.0	133.45	269.30	0.010	0.030	48.00	55.909	0.040	5.8
20	1270	RN12	12.0	177.93	269.30	0.010	0.030	48.00	55.909	0.040	5.8
25	660	RN10	10.0	222.41	442.68	0.010	0.030	63.00	309.856	0.118	12.7
33P*	660	RN10	10.0	293.58	442.68	0.010	0.030	63.00	309.856	0.118	12.7
50	630	RN10	10.0	444.82	505.00	0.023	0.030	75.00	883.497	0.240	15.1
	630	RN15	15.0	444.82	836.00	0.023	0.030	75.00	886.139	0.242	15.1

\*Call Tolomatic for availability

\*\*Max. force only in extend

### Dimensions



See RSX catalog (2171-4001) for complete dimensions

†RSX50 has different drawing than other sizes, mounting holes on side, not bottom, see RSX catalog (2171-4001)

	A	B	C min	C max	D	E	F	G
10 & 15	5.9	1 7/8-12 UN-2A	23.2	27.7	3.1	7.8	8.3	16.8
20	7.5	2 1/2-12 UN-2A	24.5	24.9	3.1	7.8	8.3	16.8
25 & 33P	8.7	2 1/2-8 UN-2A	31.7	31.7	4.5	11.3	11.3	23.0
50†	9.25	M72 x 3.0-6g	-	35.0	4.7†	11.6	11.9	23.0

Dimensions in inches (in)

	A	B	C min	C max	D	E	F	G
10 & 15	150	M42 x 4.5-6g	588	703	80	197	210	426
20	190	M64 x 3.0-6g	622	632	80	197	210	426
25 & 33P	220	M64 x 3.0-6g	806	806	115	288	286	584
50†	235	M72 x 3.0-6g	-	889	120†	295	295	583

Dimensions in millimeters (mm)

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