

92 Series Actuators

The Shore Western 92 Series Linear Actuator is designed for structural testing applications. They are fatigue rated, double acting, single ended linear actuators that come standard with either 10 inch (250 mm), 20 inch (500 mm), 30 inch (750 mm) or 40 inch (1000 mm) stroke lengths and force ratings from 7.5 KIP tension/14 KIP compression (33.4/62.3 kN) to 1000 KIP tension/1350 KIP compression (4448/6005 kN). Typical applications include

- **Aviation and aerospace component static testing**
- **Civil engineering low frequency cyclic testing of structures**
- **Vehicle quasi-static durability tests**

92 Series actuators are designed for low frequency and static test applications. They are a heavy duty, cost effective solution for high-force, quasi-static applications and unlike MTS Series 243 actuators, which they are designed to replace, these units are fatigue rated.

Features

Bonded polymer bearings

Shore Western utilizes non metallic bearing surfaces for all bearings to provide long life and resist bearing-to-rod galling failures.

Ease of service

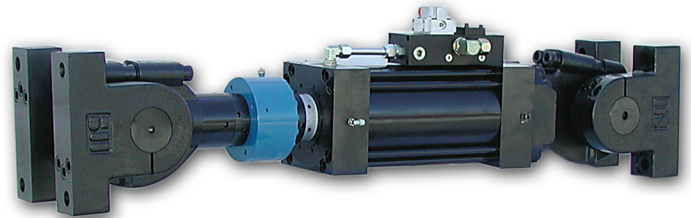
Innovative design permits the piston rod bearings and cylinder seals to be replaced easily. The bearing retainer assembly acts as a bearing puller when removing the gland assembly.

High performance and long stroke

Aviation, aerospace and civil engineering customer's testing requirements for precision control of large loads through long displacements are easily met.

Displacement transducer

All actuators have an internally mounted Temposonics® transducer that provides repeatable and accurate displacement measurements.



Options

Compression side relief valve

Applying a relief valve to the compression side of the actuator enables you to equalize the tensile and compressive forces. This gives you the equal force performance of a double ended actuator with the compact size of a single-ended, double-acting model.

Swivels and base ends

The 98 Series Rod End Swivels, 99 Series Base Ends or Shore Western's Ball Swivels can help reduce side loads and force alignment problems and eliminate backlash in test setups.

Load washers

Load washers preload force train element connections to avoid backlash and fatigue failure between attached components. Available in varying thickness load washers let you quickly preload attached components.

Stroke lengths

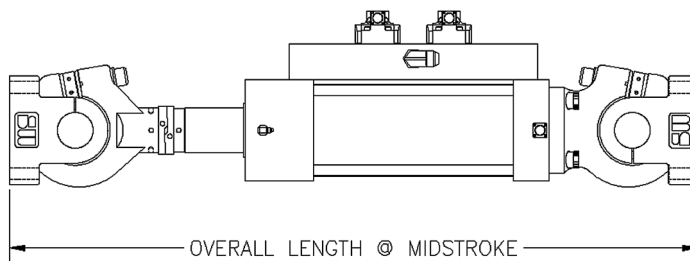
The 92 Series Actuators may be adapted to test requirements not served by the standard strokes of 10, 20, 30 or 40 inches (250,500,750 and 1,000 mm). Custom stroke lengths are available upon request.

Special manifolds

A variety of servo-valves, manifolds and close-coupled accumulator options can help customize an actuator for various applications.

Model #	RATING TENSION/ COMPRESSION RATING KIP	DIAMETER		PISTON AREA		OVERALL LENGTH @ MIDSTROKE			
		ROD INCHES	PISTON INCHES	ROD END IN2	BASE END IN2	10" STROKE	20" STROKE	30" STROKE	40" STROKE
921	7.5/14	1.75	2.50	2.50	4.91	40.4	57.4	NA	NA
921	15/24	1.75	3.75	8.64	11.04	40.4	57.4	NA	NA
922	25/42	2.75	4.25	8.25	14.19	47.4	64.4	81.4	NA
922	35/53	2.75	4.75	11.78	17.72	47.4	64.4	81.4	NA
923	55/84	3.75	6.25	19.63	30.68	51.8	68.8	85.8	102.8
923.5	67/115	4.50	7.00	22.58	38.48	56.8	73.8	90.8	107.8
923.5	100/150	4.50	8.00	34.36	50.27	62.5	79.5	96.5	113.5
924	150/235	5.25	10.00	56.89	78.54	68.3	85.3	102.3	119.3
925	220/335	6.00	11.50	75.59	103.87	76.5	93.5	110.5	127.5
926	300/450	8.00	14.00	103.67	153.94	87.6	104.6	121.6	138.6
926	450/600	8.00	16.00	150.80	201.06	*	*	*	*
927	700/940	10.00	20.00	235.62	314.16	*	*	*	*
927	900/1100	10.00	22.00	301.59	380.13	*	*	*	*
928	1100/1400	12.00	25.00	377.78	490.87	*	*	*	*
Model #	TENSION/ COMPRESSION RATING KIP	ROD MM	PISTON MM	ROD END MM2	BASE END MM2	250 mm STROKE	500 mm STROKE	750 mm STROKE	1000 mm STROKE
921	33/62	44	64	1,615	3,167	1026	1458	NA	NA
921	67/107	44	95	5,574	7,126	1026	1458	NA	NA
922	111/165	70	108	5,320	9,152	1204	1636	2068	NA
922	156/258	70	121	7,601	11,433	1204	1636	2068	NA
923	245/374	95	159	12,668	19,793	1314	1746	2178	2610
923.5	298/512	114	178	14,568	24,829	1443	1875	2306	2738
923.5	445/667	114	203	22,168	32,429	1588	2019	2451	2883
924	667/1045	133	254	36,705	50,671	1735	2167	2598	3030
925	979/1490	152	292	48,771	67,012	1943	2375	2807	3239
926	1334/2002	203	356	66,885	99,315	2225	2657	3089	3520
926	2002/2669	203	406	97,288	129,717	*	*	*	*
927	3114/4181	254	508	152,012	202,683	*	*	*	*
927	4000/5050	254	559	194,576	245,246	*	*	*	*
928	5000/6550	305	635	243,726	316,692	*	*	*	*

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