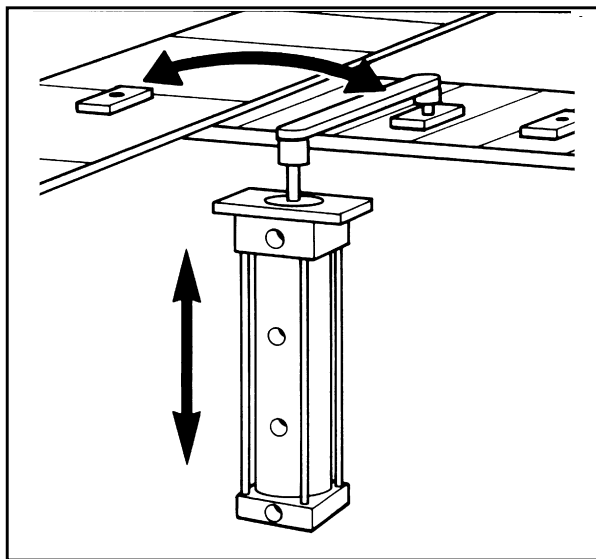
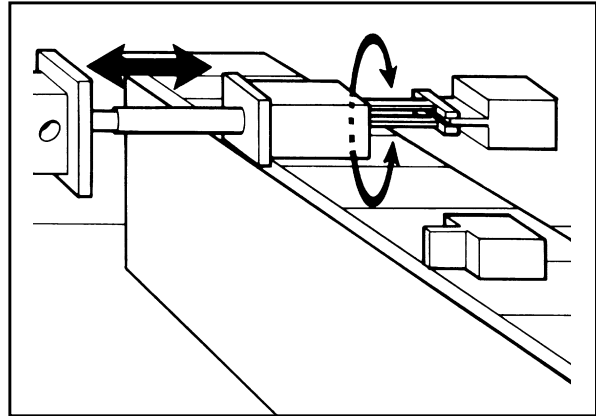


# Linear/Rotary Actuators — Air or Hydraulic (Patent Pending)



## DESIGN FEATURES

- Rotation and linear travel are completely independent motions
- Self-contained for protection against contaminants
- Precision cam track
- Hardened cam and cam follower
- Air or hydraulic available as standard
- Rotation and stroke are infinitely variable, built to custom specification: rotation up to 180°; stroke up to 3"
- Rotation is achieved through a separately-controlled cylinder within the main cylinder
- Special internal thrust bearing and washers insure smooth, precise rotational motion
- Standard tap for ease of mounting

## APPLICATION

- Parts Positioning
- Orientation
- Pick-n-Place
- Parts Removal
- Parts Clamping

## APPLICATION GUIDELINES

**Guide Pins:** For applications where exact positioning is required, guide pins should be used to eliminate backlash at pick-up and placement points to insure proper handling.

**Counter Balance:** When a single arm is used, a counter balance should be considered to eliminate extreme side load on the rod and minimize deflection and bushing wear.

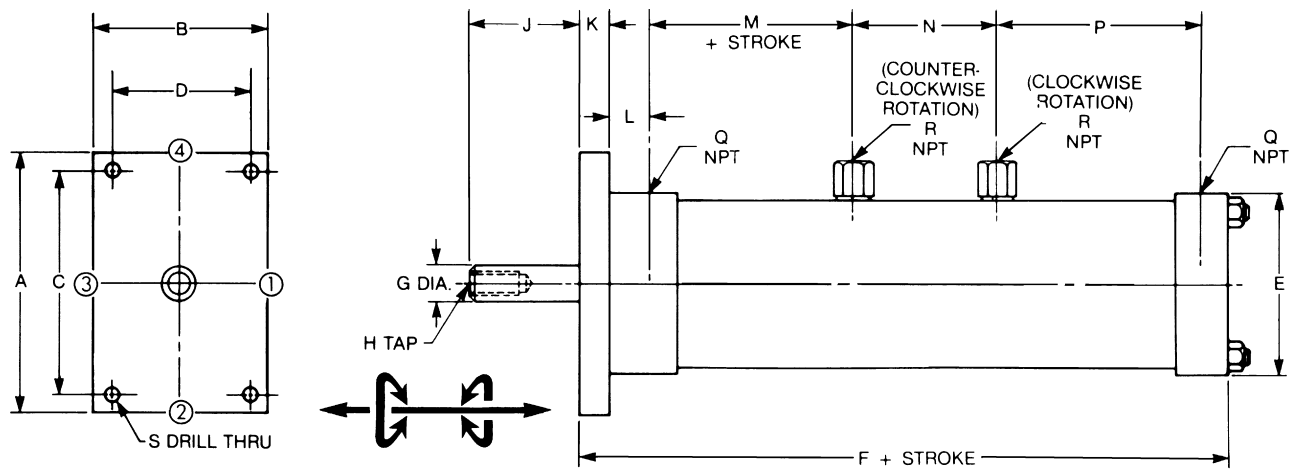
**External Stops:** The use of external stops is essential for pick-n-place applications. Inertial shock at the end of rotation can cause damage and premature failure. Shock absorbers or similar devices should be installed to stop the arm's motion.

Consult factory for more information.

# Linear-Rotary-Actuator



Linear/Rotary Motion



CAD FILE NAME	PART NUMBER	DIMENSIONS																
		A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q NPT	R NPT	S
LRA1A	E-12200118	4.62	3.00	3.88	2.19	3.00	9.66	.50	3/8-24 .75 DP	2.12	.38	.75	1.75	2.81	3.56	1/4	1/8	3/8
LRA2A	E-34212112	5.50	3.75	4.69	2.76	3.75	11.75	.75	7/16-20 1.00 DP	2.25	.62	.88	2.25	3.06	4.38	3/8	1/4	3/8
LRA3A	E-10314200	6.25	4.50	5.44	3.32	4.50	14.00	1.00	3/4-16 1.50 DP	2.75	.62	.78	2.34	4.25	5.47	1/2	1/4	7/16

PART NUMBER	AVAILABLE ROTATION	ROTATIONAL		ALLOWABLE TORQUE	LINEAR		AVAILABLE STROKE
		BORE DIA.	MAX. LINE PRES.		BORE DIA.	MAX LINE PRES.	
E-12200118	0°-180°	1.12	1000 PSI †	185 IN LBS.	2.00	150 PSI	0-1.50
E-34212112	0°-180°	1.50	800 PSI †	440 IN LBS.	2.50	275 PSI	0-2.00
E-10314200	0°-180°	2.00	500 PSI †	625 IN LBS.	3.25	300 PSI	0-3.00

AIR/HYDRAULIC.

† MAX LINE PRESURE MAY DEVELOP TORQUES IN EXCESS OF ALLOWABLE RATES, DEPENDING ON DEGREES OF ROTATION. FOR TORQUE VS. ROTATION, CONSULT FACTORY FOR THEORETICAL LINE PRESSURES.

## ORDERING INFORMATION

**E-12200118 90 1.50**

Part Number      Degree of Rotation      Length of Stroke