



A Galveston-Houston Company

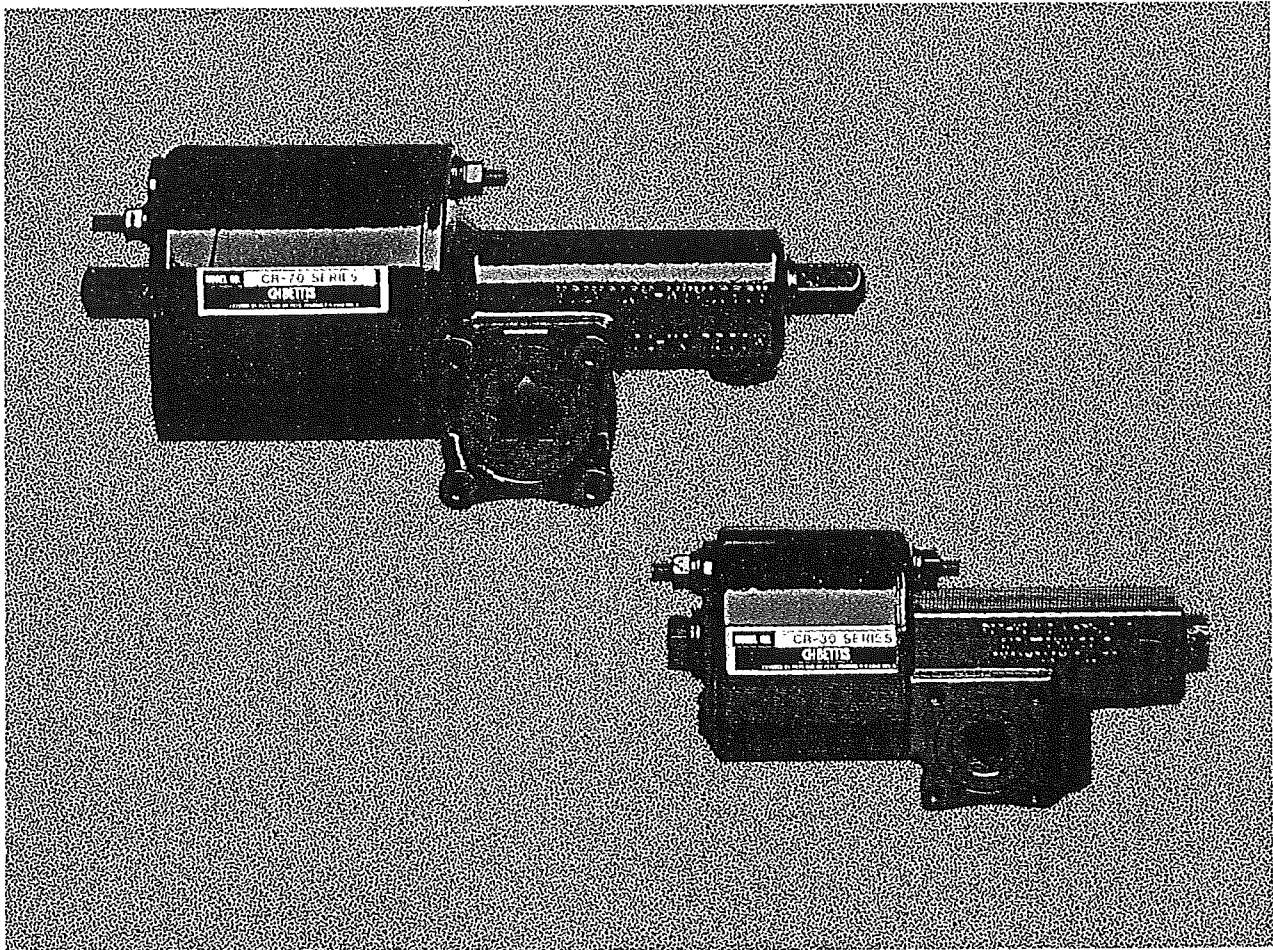
CR-Series Rack and Pinion Actuators

GH-Bettis "CR Series" of Rotary Rack and Pinion Actuators are proven rugged designs for 90° or 180° turn applications. Double acting and spring return units are capable of providing needed torque in an economical and compact package.

The design and construction features include a totally enclosed sealed housing, positive remote control, built-in adjustable stops for precise position repeatability and a center bar which eliminates the friction of piston to cylinder side thrust. Units are designed to be driven by gas or air. A GH-Bettis exclusive is the unique internal spring loading design which allows the actuator to be safely dismantled in the field without the need of special tools.

Other features include a fail safe spring return to "open" or "close" on loss of operating pressure. Spring return units may be easily converted from open to close or vice versa simply by turning the actuator over and mounting on the opposite fixing pad. These complete features also include square mounting pads which allow parallel or right angle mounting to the flow of the pipeline.

Accessories include the BettiSwitch, solenoid control valves and pilot operated control valves. The BettiSwitch is a versatile position indicating switch designed to meet NEMA requirements and is listed for UL, CSA, Baseefa and SAA ratings.



Torques

DOUBLE ACTING Maximum Working Pressure 120 p.s.i. (8.4Kgf/cm² - 8.3 bars)

Actuator Model	Torque lb f. in.	Operating Pressure - lb/in ²							
		40	50	60	70	80	90	100	120
CR30	Running	115	145	180	210	240	275	305	370
CR70	Running	300	375	450	525	600	675	750	900

Actuator Model	Torque Kpm	Operating Pressure - Kgf/cm ²							
		2.8	3.5	4.2	4.9	5.6	6.3	7.0	8.4
CR30	Running	1.32	1.67	2.07	2.42	2.77	3.17	3.51	4.26
CR70	Running	3.46	4.32	5.19	6.05	6.91	7.78	8.64	10.37

Actuator Model	Torque Nm	Operating Pressure - bars							
		2.7	3.4	4.1	4.8	5.5	6.2	6.9	8.3
CR30L	Running	13.0	16.4	20.3	23.7	27.1	31.1	34.5	41.8
CR70	Running	33.9	42.4	50.8	59.3	67.8	76.3	84.7	101.7

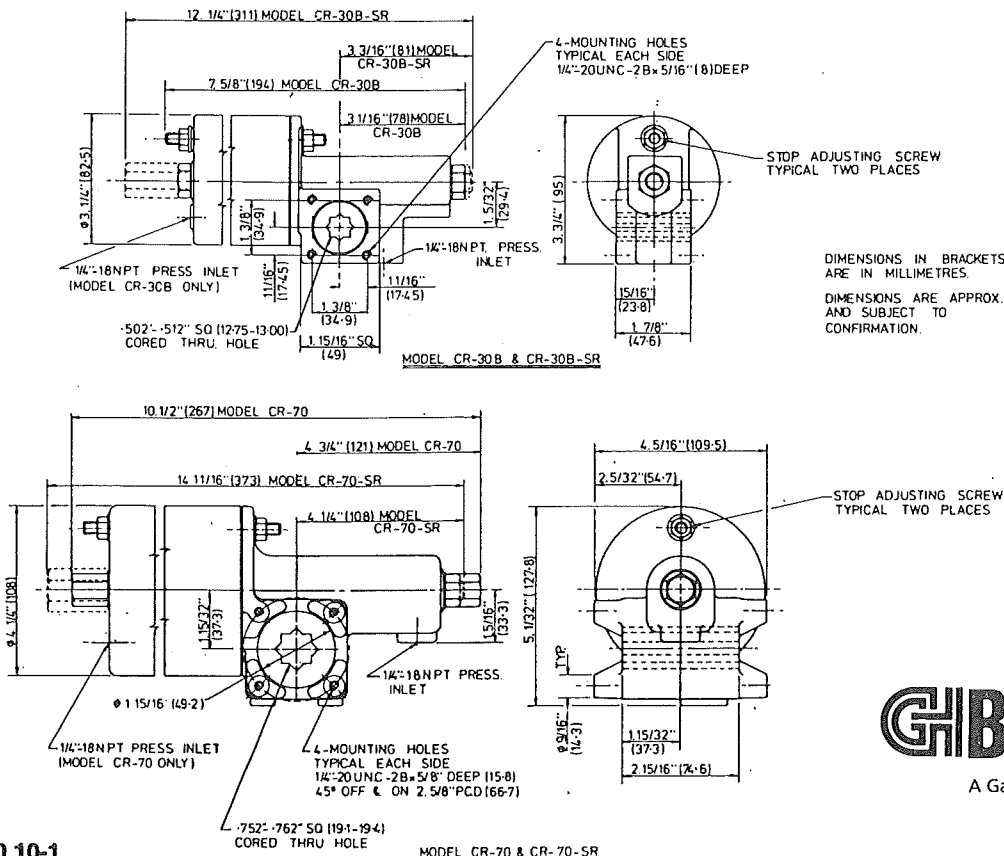
SPRING RETURN Maximum Working Pressure 100 p.s.i. (7.0Kgf/cm² - 6.9 bars)

Actuator Model	Torque lb f. in.	Operating Pressure - lb/in ²							
		40	50	60	70	80	90	100	
CR30-SR	Break			80	80	100	100	135	
	Ending			40	40	50	50	65	
CR70-SR	Break	120	120	200	200	240	240	300	
	Ending	60	60	100	100	120	120	150	

Actuator Model	Torque Kpm	Operating Pressure - Kgf/cm ²							
		2.8	3.5	4.2	4.9	5.6	6.3	7.0	
CR30-SR	Break			0.92	0.92	1.15	1.15	1.56	
	Ending			0.46	0.46	0.57	0.57	0.75	
CR70-SR	Break	1.38	1.38	2.30	2.30	2.76	2.76	3.46	
	Ending	0.69	0.69	1.15	1.15	1.38	1.38	1.73	

Actuator Model	Torque Nm	Operating Pressure - bars							
		2.7	3.4	4.1	4.8	5.5	6.2	6.9	
CR30-SR	Break			9.0	9.0	11.3	11.3	15.2	
	Ending			4.5	4.5	5.6	5.6	7.3	
CR70-SR	Break	13.6	13.6	22.6	22.6	27.1	27.1	33.9	
	Ending	6.8	6.8	11.3	11.3	13.6	13.6	16.9	

Dimensions



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