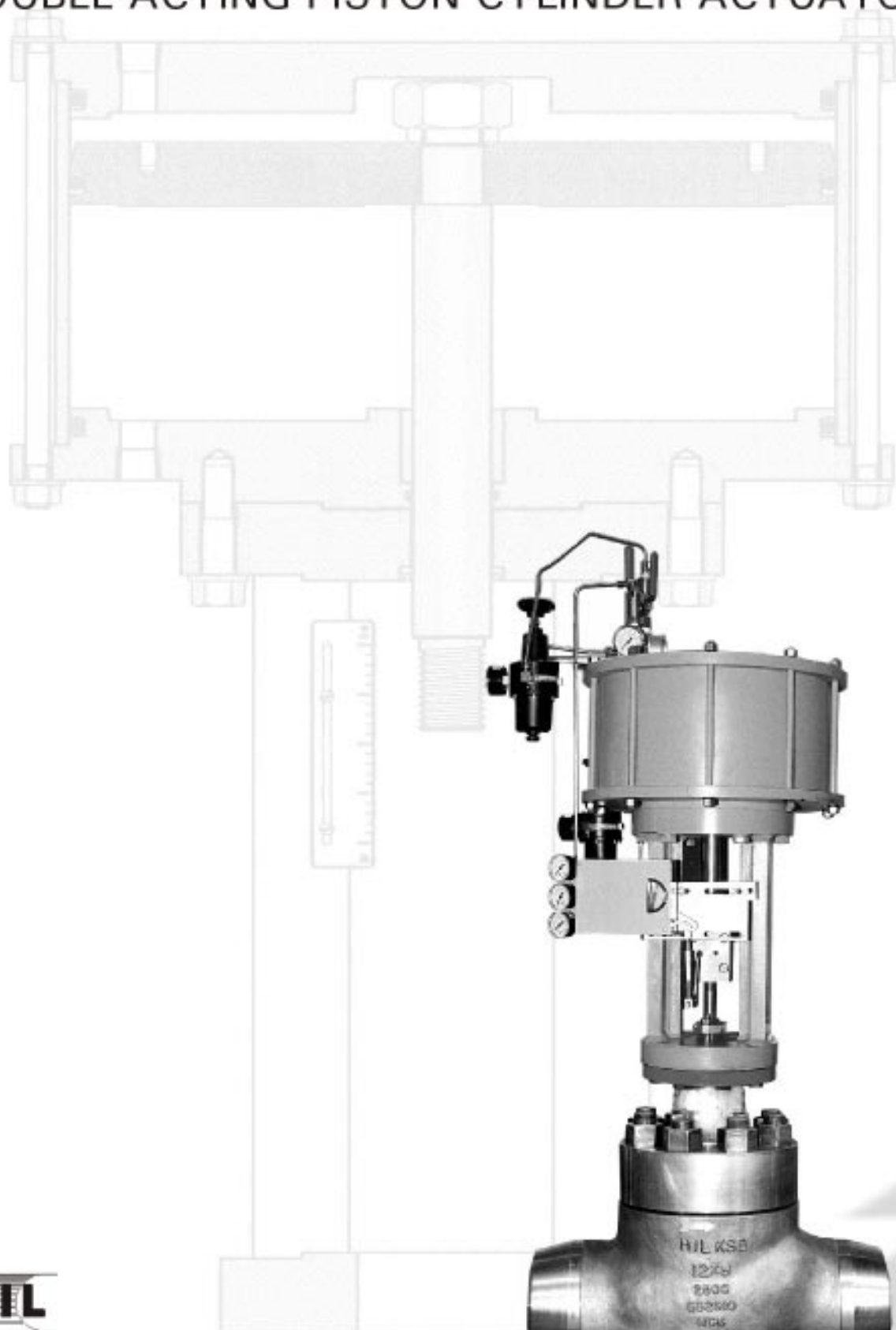


MIL 67-68

DOUBLE ACTING PISTON CYLINDER ACTUATORS



MIL Controls Limited

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FOREWORD

The MIL 67/68 Double Acting Piston Cylinder Actuator is a high-power, high-performance, pneumatic actuator that provides either positive throttling or on-off operation for automatic control valves. These actuators & positioners have the capability to work upto 100 psi, making very high thrust obtainable from a small and compact unit. Positioners are normally yoke mounted and double acting type, which, by providing air to both sides of the piston, give an exceptionally stiff and precise unit which is resistant to load fluctuations and transients and has very high frequency response.

KEY FEATURES INCLUDE.

WIDE RANGE OF STROKES AND SIZES

To actuate entire range of sliding stem control valves, actuators are available from 1½" to 12" strokes. Higher strokes available on request. Actuators available in 16", 20" & 24" size to meet any thrust requirement.

HIGH THRUST CAPABILITY

100 psi operating pressure allows substantially higher thrust capabilities than other comparable actuators.

HIGH FREQUENCY RESPONSE

Double-acting configuration responds quickly to signal changes.

FIELD REVERSIBLE

Failure mode can be easily reversed without additional parts.

STABLE OPERATION

Supply pressure is sent to both sides of the piston for stable actuator operation.

FASTER TRAVEL

With faster response and the higher air supply pressures, travel times are lesser with piston cylinder actuators.

COMPACT AND LIGHTWEIGHT

MIL double acting piston cylinder actuators are substantially lighter and more compact than other comparable designs and are easier to install and maintain. Smaller size allows linear cylinder actuators to be installed in more positions.

DURABLE COMPONENTS

High quality materials require very little maintenance.

SIMPLE MAINTENANCE

Periodic maintenance is easy to perform with MIL's yoke-to-cylinder attachment system. Actuators have fewer parts and hence reduced inventory.

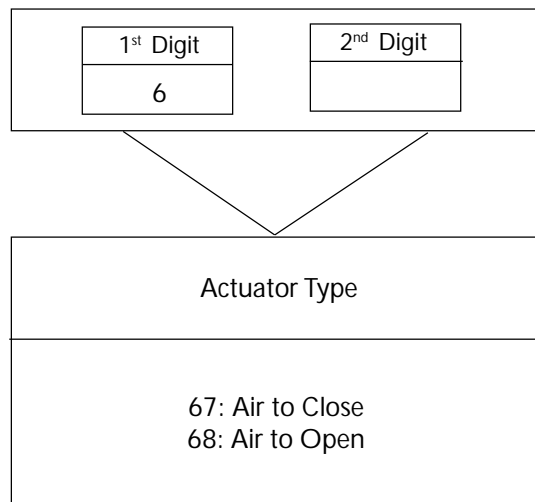
TIGHT SHUTOFF

High operating pressures (100 psi) ensures tight shutoff.

HIGH-LEVEL POSITIONAL STIFFNESS

Small air volume between the piston and the bottom of the cylinder provides powerful pneumatic snubbing-allowing high pressure, flow over the plug operation without plug slamming.

NUMBERING SYSTEM



GENERAL DATA

MIL's Double Acting Piston Cylinder Actuator is a powerful pneumatic positioning actuator, which incorporates the following features.

- Accurate positioning in response to any common pneumatic controller signal.
- Sufficient stiffness to ensure stability under severe operating condition.
- Long strokes which ensure better controllability.
- Good dynamic response & High thrust capability.

TYPE
Double acting piston cylinder

AMBIENT TEMPERATURE LIMIT
82°C

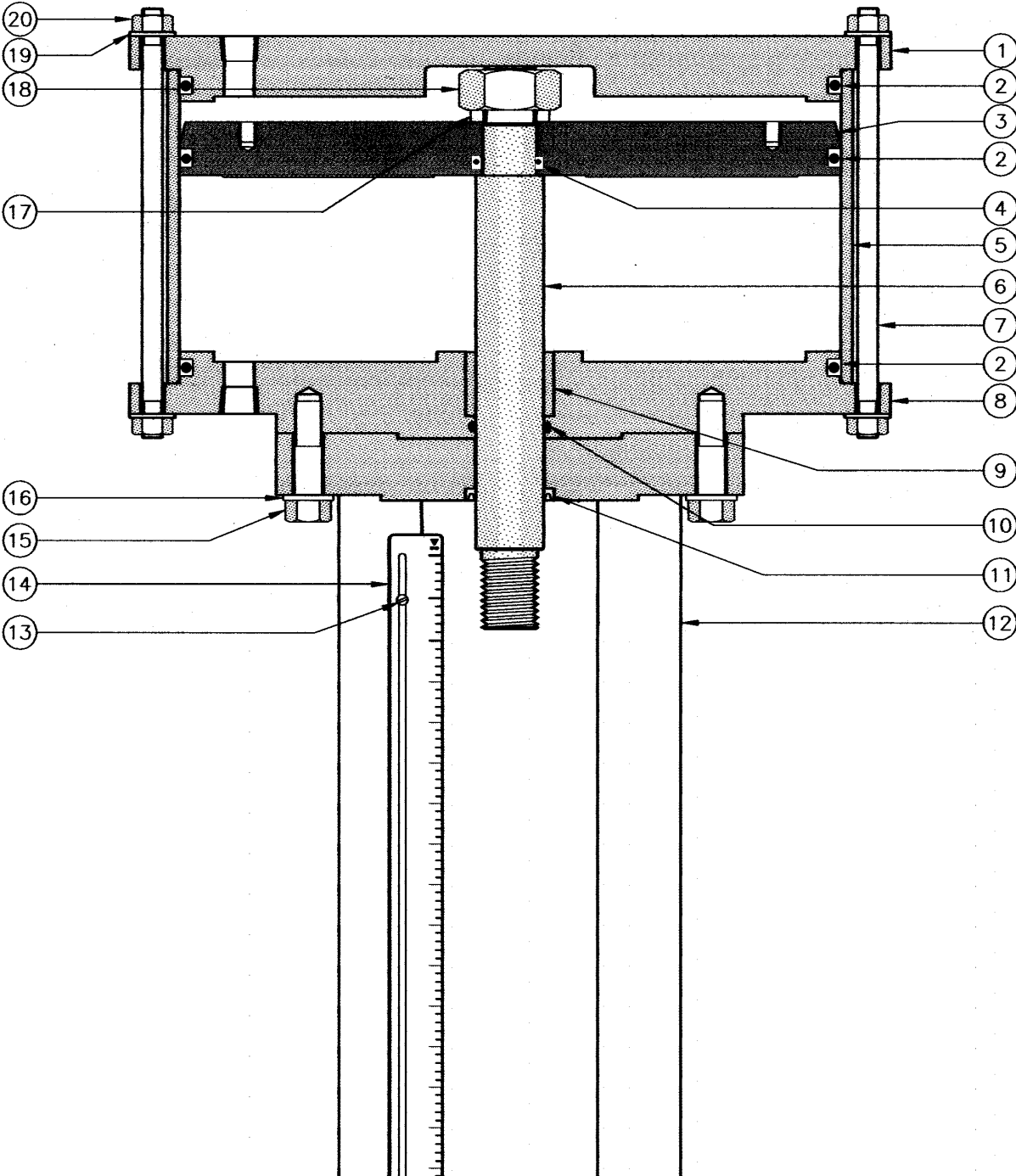
ACTION
Direct or Reverse

SUPPLY PRESSURE
Upto 100 psi

ACTUATOR SIZES
16" , 20" , 24"

HANDWHEEL
Gear Drive Operated Worm Handwheel

CONSTRUCTION



MATERIAL OF CONSTRUCTION

Ref. No.	Part Description	Material
1	Upper Cover	IS 2062
2	'O' Ring	Nitrile Rubber
3	Piston	IS 2062
4	'O' Ring	Nitrile Rubber
5	Cylinder	Carbon Steel
6	Piston Rod	SS 410
7	Tie Rod	Carbon Steel
8	Lower Cover	IS 2062
9	Guide Bush	IS 318 Gr. 2
10	'O' Ring	Nitrile Rubber
11	Oil Seal	-
12	Yoke	IS 2062
13	Screw	SS
14	Stroke Scale	SS
15	Bolt	EN8
16	Washer	EN8
17	Spring Washer	-
18	Nut	EN8
19	Washer	EN8
20	Nut	EN8

For other material, consult MIL. MIL reserves right to provide superior material, owing to continuous product upgrading.

TYPE-68 ACTUATORS: ALLOWABLE SHUT-OFF THRUST (AIR-TO-OPEN)

Act. Size	Stem Travel (Inch)	Thrust w/o Volume Tank				Thrust with 20 liter Volume Tank			
		Supply 60psi		Supply 100psi		Supply 60psi		Supply 100psi	
		lbs	Kg	lbs	Kg	lbs	Kg	lbs	Kg
16"	1½	6324	2869	12090	5484	7812	3544	13950	6328
	2	5580	2531	10230	4640	7254	3290	13392	6075
	4	1860	844	4650	2109	5394	2447	10416	4725
	6	-	-	-	-	3720	1687	7812	3544
20"	2	9452	4287	17792	8070	10842	4918	19460	8827
	4	5004	2270	10564	4792	7784	3531	15290	6936
	6	834	378	4170	1892	5004	2270	11120	5044
	8	-	-	-	-	2502	1135	6394	2900
24"	6	6834	3100	14874	6747	9246	4194	18492	8388
	8	2814	1276	8040	3647	6030	2735	13266	6017
	10	-	-	1608	729	2814	1276	8040	3647
	12	-	-	-	-	-	-	2814	1276

TYPE-67 ACTUATORS: ALLOWABLE SHUT-OFF THRUST (AIR-TO-CLOSE)

Act. Size	Stem Travel (Inch)	Thrust w/o Volume Tank				Thrust with 20 liter Volume Tank			
		Supply 60psi		Supply 100psi		Supply 60psi		Supply 100psi	
		lbs	Kg	lbs	Kg	lbs	Kg	lbs	Kg
16"	1½	7626	3459	15252	6918	8370	3797	15810	7171
	2	7068	3206	14694	6665	8184	3712	15624	7087
	4	2604	1181	11160	5062	7254	3290	14694	6665
	6	-	-	-	-	5952	2700	13392	6075
20"	2	9174	4161	22518	10214	12232	5548	23352	10592
	4	8340	3783	19460	8827	10842	4918	21962	9962
	6	-	-	10008	4540	8618	3909	19738	8953
	8	-	-	-	-	4448	2018	15568	7062
24"	6	12000	-	28000	12701	14472	6564	30552	13858
	8	4800	-	20800	9435	10854	4923	25326	11488
	10	-	-	-	-	4824	2188	20904	9482
	12	-	-	-	-	-	-	7638	3465



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