

Milwaukee Controls Milwaukee/Hammond Valve Actuation Sizing Charts

April 2020

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**2 Piece Ball Valve
Milwaukee 20 Series Hammond 8400 Series**

VALVE SIZE (INCHES)	PNEUMATIC A/A	PNEUMATIC S/R	ELECTRIC
1/4	MC20	MC20S5	MCR100I
3/8	MC20	MC20S5	MCR100I
1/2	MC20	MC20S5	MCR100I
3/4	MC20	MC34S5	MCR100I
1	MC20	MC34S5	MCR200I
1 1/4	MC20	MC34S5	MCR200I
1 1/2	MC34	MC75S5	MCR200I
2	MC34	MC75S5	MCR300I

**3 Piece Ball Valve
Milwaukee 30 Series**

VALVE SIZE (INCHES)	PNEUMATIC A/A	PNEUMATIC S/R	ELECTRIC
1/4	MC20	MC20S5	MCR100I
3/8	MC20	MC20S5	MCR100I
1/2	MC20	MC20S5	MCR100I
3/4	MC20	MC20S5	MCR100I
1	MC20	MC48S5	MCR200I
1 1/4	MC34	MC75S5	MCR300I
1 1/2	MC34	MC104S5	MCR675I
2	MC75	MC237S5	MCR675I

PNEUMATIC ACTUATOR SIZING BASED ON 80 PSI AIR PRESSURE

THE ACTUATORS LISTED ABOVE ARE FOR USE WITH SEAT MATERIAL/01/02 S

3 PIECE BALL VALVE
Milwaukee 35 Series Std Port

VALVE SIZE (INCHES)	BREAK TORQUE	PNEUMATIC A/A 80 PSI	PNEUMATIC S/R	ELECTRIC ACTUATOR
1/4	42	MC20	MC20S5	MCR100I
3/8	42	MC20	MC20S5	MCR100I
1/2	42	MC20	MC20S5	MCR100I
3/4	45	MC20	MC20S5	MCR100I
1	90	MC20	MC34S5	MCR200I
1 1/4	225	MC34	MC75S5	MCR300I
1 1/2	300	MC34	MC105S5	MCR675I
2	420	MC48	MC157S5	MCR675I

THE ACTUATORS LISTED ARE FOR 01/02 SEAT MATERIALS

VALVE SIZE (INCHES)	BREAK TORQUE	PNEUMATIC A/A 60 PSI	PNEUMATIC S/R	ELECTRIC ACTUATOR
1/4	42	MC20	MC20S4	MCR100I
3/8	42	MC20	MC20S4	MCR100I
1/2	42	MC20	MC20S4	MCR100I
3/4	45	MC20	MC20S4	MCR100I
1	90	MC20	MC48S5	MCR200I
1 1/4	225	MC48	MC105S5	MCR300I
1 1/2	300	MC48	MC105S5	MCR675I
2	420	MC75	MC237S5	MCR675I

THE ACTUATORS LISTED ARE FOR NXT/01/02 SEAT MATERIALS

3 PIECE BALL VALVE
Milwaukee 35 Series Full Port

VALVE SIZE (INCHES)	BREAK TORQUE	PNEUMATIC A/A 80 PSI	PNEUMATIC S/R	ELECTRIC ACTUATOR
1/2	55	MC20	MC34S5	MCR100I
3/4	135	MC20	MC48S5	MCR100I
1	200	MC34	MC75S5	MCR200I
1 1/4	350	MS48	MC157S5	MCR300I
1 1/2	400	MC48	MC157S5	MCR675I
2	550	MC75	MC237S5	MCR675I

THE ACTUATORS LISTED ARE FOR 01/02 SEAT MATERIALS

VALVE SIZE (INCHES)	BREAK TORQUE	PNEUMATIC A/A 60 PSI	PNEUMATIC S/R	ELECTRIC ACTUATOR
1/2	55	MC20	MC34S4	MCR100I
3/4	135	MC20	MC48S4	MCR100I
1	200	MC34	MC75S4	MCR200I
1 1/4	350	MC48	MC157S4	MCR300I
1 1/2	400	MC75	MC157S4	MCR675I
2	550	MC105	MC237S4	MCR675I

THE ACTUATORS LISTED ARE FOR NXT/01/02 SEAT MATERIALS

**2 Piece Seal Welded Ball Valve
Milwaukee 41 Series**

VALVE SIZE (INCHES)		FULL PORT	REDUCED PORT	PNEUMATIC A/A	PNEUMATIC S/R	ELECTRIC
1/2	3/4			MC20	MC20S5	MCR100I
3/4	1			MC20	MC34S5	MCR200I
1	1 1/4			MC34	MC105S5	MCR300I
1 1/2	2			MC75	MC157S5	MCR675I
2	2 1/2			MC75	MC237S5	MCR675I

THE ACTUATORS LISTED ABOVE ARE FOR USE WITH SEAT MATERIAL 01-VIRGIN PTFE OR 02 REINFORCED PTFE ONLY

**Three Way Ball Valve
Milwaukee BA3WDSLH**

VALVE SIZE (INCHES)		PNEUMATIC A/A	PNEUMATIC S/R	ELECTRIC
1/2		MC20	MC20S5	MCR100I
3/4		MC20	MC34S5	MCR100I
1		MC20	MC34S5	MCR200I
1 1/2		MC20	MC48S5	MCR200I
2		MC34	MC105S5	MCR300I

NOTE: PNEUMATIC ACTUATOR SIZING BASED ON 80 PSI AIR SUPPLY PRESSURE

**Butterball® Butterfly
Milwaukee BB1-10AO**

VALVE SIZE (INCHES)		PNEUMATIC A/A	PNEUMATIC S/R	ELECTRIC
3/4		MC20	MC20S5	MCR100I
1		MC20	MC20S5	MCR100I
1 1/2		MC20	MC20S5	MCR100I
2		MC20	MC34S5	MCR200I

NOTE: PNEUMATIC ACTUATOR SIZING BASED ON 80 PSI AIR SUPPLY PRESSURE

FLANGED BALL VALVES
150 # CLASS
Milwaukee F90/91 Series
Line Pressure 0 - 285 PSI

VALVE SIZE (INCHES)	PNEUMATIC A/A	PNEUMATIC S/R	ELECTRIC
1/2	MC20	MC20S5	MCR100I
3/4	MC20	MC34S5	MCR100I
1	MC20	MC48S5	MCR200I
1 1/2	MC34	MC75S5	MCR200I
2	MC34	MS105S5	MCR300I
3	MC75	MS237S5	MCR675I
4	MC105	MC406S5	OA15-15
6	MC237	MC1009S5	AT25-25

FLANGED BALL VALVES
300 # CLASS
Milwaukee F90/91 Series
Line Pressure 285 - 740 PSI

VALVE SIZE (INCHES)	PNEUMATIC A/A	PNEUMATIC S/R	ELECTRIC
1/2	MC20	MC20S5	MCR100I
3/4	MC20	MC34S5	MCR100I
1	MC20	MC48S5	MCR200I
1 1/2	MC34	MC7S5	MCR200I
2	MC34	MC105S5	MCR300I
3	MC105	MC331S5	MCR675I
4	MC105	MC406S5	OA15-15
6	MC237	MC1260S5	AT25-25

PNEUMATIC ACTUATOR SIZING BASED ON 80 PSI AIR PRESSURE

THE ACTUATORS LISTED ABOVE ARE FOR USE WITH SEAT MATERIAL NXT 75 N- 01-PTFE OR 02 REINFORCED PTFE ONLY

FLANGED BALL VALVES**150 # CLASS****Milwaukee F20 Series****LINE PRESSURE 0 - 285 PSI**

VALVE SIZE (INCHES)	VALVE TORQUE	PNEUMATIC A/A	PNEUMATIC S/R	ELECTRIC
1	140	MC20	MC48S5	MCR200I
1 1/2	220	MC34	MC105S5	MCR300I
2	450	MC48	MC237S5	MCR675I
2 1/2	510	MC75	MC237S5	MCR675I
3	700	MC75	MC237S5	OA8-5
4	1600	MC237	MC406S5	AT25-25
6	2700	MC331	MC1260S5	AT50-25
8	7200	MC1009	MC2928S5	AT100
10	8280	MC1009	MC295S5	AT100
12	13200	MC1831	C.F.	C.F.

PNEUMATIC ACTUATOR SIZING BASED ON 80 PSI AIR PRESSURE

THE ACTUATORS LISTED ABOVE ARE FOR USE WITH SEAT MATERIAL NXT 75 -N, 01- VIRGIN PTFE OR 02 REINFORCED PTFE ONLY

FLANGED BALL VALVES**300 # CLASS****Milwaukee F20 Series****LINE PRESSURE 285 - 740 PSI**

VALVE SIZE (INCHES)	VALVE TORQUE	PNEUMATIC A/A	PNEUMATIC S/R	ELECTRIC
1	180	MC34	MC75S5	MCR300I
1 1/2	300	MC34	MC105S5	MCR675I
2	450	MC48	MC237S5	MCR675I
2 1/2	N/A	N/A	N/A	N/A
3	880	MC105	MC406S5	OA15-15
4	1600	MC237	MC633S5	AT25-25
6	3000	MC331	MC1260S5	AT50-25
8	10000	MC1260	CF	CF
10	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A

PNEUMATIC ACTUATOR SIZING BASED ON 80 PSI AIR PRESSURE

THE ACTUATORS LISTED ABOVE ARE FOR USE WITH SEAT MATERIAL NXT 75 -N, 01- VIRGIN PTFE OR 02 REINFORCED PTFE ONLY

BUTTERFLY VALVES
2" THRU 24" RESILIENT SEATED
SERVICE: WATER AND OTHER NON-LUBRICATED LIQUIDS

LINE PRESSURE (PSI)					
SIZE (INCHES)	ACTUATOR TYPE	50	100	150	200
2	PNEUMATIC A/A	MC34	MC34	MC34	MC34
	PNEUMATIC S/R	MC34S5	MC34S5	MC34S5	MC34S5
	ELECTRIC	MCRB200I	MCRB200I	MCRB200I	MCRB200I
2 1/2	PNEUMATIC A/A	MC34	MC34	MC34	MC34
	PNEUMATIC S/R	MC34S5	MC3S4	MC3S4	MC3S4
	ELECTRIC	MCRB200I	MCRB200I	MCRB200I	MCRB200I
3	PNEUMATIC A/A	MC34	MC34	MC34	MC34
	PNEUMATIC S/R	MC75S4	MC75S4	MC75S4	MC75S4
	ELECTRIC	MCRB200I	MCRB200I	MCRB200I	MCRB200I
4	PNEUMATIC A/A	MC48	MC48	MC48	MC48
	PNEUMATIC S/R	MC75S5	MC75S5	MC105S5	MC105S5
	ELECTRIC	MCRB300I	MCRB675I	MCRB675I	MCRB675I
5	PNEUMATIC A/A	MC75	MC75	MC75	MC75
	PNEUMATIC S/R	MC237S5	MC237S5	MC237S5	MC237S5
	ELECTRIC	MCRB675I	MCRB675I	MCRB675I	OA8-5
6	PNEUMATIC A/A	MC105	MC105	MC105	MC105
	PNEUMATIC S/R	MC331S5	MC331S5	MC331S5	MC331S5
	ELECTRIC	OA8-5	OA15-15	OA15-15	OA15-15
8	PNEUMATIC A/A	MC157	MC157	MC237	MC237
	PNEUMATIC S/R	MC633S5	MC633S5	MC633S5	MC633S5
	ELECTRIC	OA15-15	OA15-15	AT25-25	AT25-25
10	PNEUMATIC A/A	MC331	MC331	MC331	MC331
	PNEUMATIC S/R	MC1009S5	MC1009S5	MC1009S5	MC1260S5
	ELECTRIC	AT25-25	AT25-25	AT25-25	AT25-25
12	PNEUMATIC A/A	MC633	MC633	MC633	MC633
	PNEUMATIC S/R	MC1260S5	MC1260S5	MC1831S5	MC1831S5
	ELECTRIC	AT50-25	AT50-25	AT50-25	AT50-25
14	PNEUMATIC A/A	MC633	MC633	MC633	N/A
	PNEUMATIC S/R	MC1831S5	MC1831S5	MC1831S5	N/A
	ELECTRIC	AT100	AT100	AT100	N/A
16	PNEUMATIC A/A	MC1009	MC1009	MC1009	N/A
	PNEUMATIC S/R	MC2928S5	MC2928S5	MC2928S5	N/A
	ELECTRIC	AT100	AT100	AT100	N/A
18	PNEUMATIC A/A	MC1009	MC1009	MC1009	N/A
	PNEUMATIC S/R	CF	CF	CF	N/A
	ELECTRIC	AT100	AT100	AT200	N/A
20	PNEUMATIC A/A	MC1831	MC1831	MC1831	N/A
	PNEUMATIC S/R	MC236S4	MC295S4	N/A	N/A
	ELECTRIC	AT200	AT200	AT200	N/A
24	PNEUMATIC A/A	MC1831	MC1831	MC2928	N/A
	PNEUMATIC S/R	CF	CF	CF	N/A
	ELECTRIC	AT200	AT200	AT200	N/A

NOTE: PNEUMATIC ACTUATOR SIZING BASED ON 80 PSI AIR SUPPLY PRESSURE. IF LINE PRESSURE EXCEEDS LISTED PRESSURE, ADVANCE TO HIGHER PSI COLUMN FOR CORRECT ACTUATOR.

BUTTERFLY VALVES
2" THRU 24" RESILIENT SEATED
SERVICE: OIL AND OTHER LUBRICATING LIQUIDS

LINE PRESSURE (PSI)					
SIZE (INCHES)	ACTUATOR TYPE	50	100	150	200
2	PNEUMATIC A/A	MC34	MC34	MC34	MC34
	PNEUMATIC S/R	MC34S5	MC34S5	MC34S5	MC34S5
	ELECTRIC	MCRB200I	MCRB200I	MCRB200I	MCRB200I
2 1/2	PNEUMATIC A/A	MC34	MC34	MC34	MC34
	PNEUMATIC S/R	MC34S5	MC34S5	MC34S5	MC34S5
	ELECTRIC	MCRB200I	MCRB200I	MCRB200I	MCRB200I
3	PNEUMATIC A/A	MC34	MC34	MC34	MC34
	PNEUMATIC S/R	MC34S5	MC34S5	MC34S5	MC34S5
	ELECTRIC	MCRB200I	MCRB200I	MCRB200I	MCRB200I
4	PNEUMATIC A/A	MC34	MC34	MC34	MC34
	PNEUMATIC S/R	MC75S5	MC75S5	MC75S5	MC75S5
	ELECTRIC	MCRB200I	MCRB200I	MCRB200I	MCRB200I
5	PNEUMATIC A/A	MC34	MC34	MC34	MC34
	PNEUMATIC S/R	MC75S5	MC75S5	MC105S5	MC105S5
	ELECTRIC	MCRB300I	MCRB300I	MCRB300I	MCRB300I
6	PNEUMATIC A/A	MC48	MC48	MC48	MC75
	PNEUMATIC S/R	MC157S5	MC157S5	MC237S5	MC237S5
	ELECTRIC	MCRB675I	MCRB675I	MCRB675I	MCRB675I
8	PNEUMATIC A/A	MC105	MC105	MC105	MC105
	PNEUMATIC S/R	MC237S5	MC237S5	MC406S5	MC406S5
	ELECTRIC	OA8-5	OA8-5	OA15-15	OA15-15
10	PNEUMATIC A/A	MC157	MC157	MC237	MC237
	PNEUMATIC S/R	MC406S5	MC633S5	MC633S5	MC633S5
	ELECTRIC	AT25-25	AT25-25	AT25-25	AT25-25
12	PNEUMATIC A/A	MC237	MC3237	MC331	MC331
	PNEUMATIC S/R	MC1260S5	MC1260S5	MC1260S5	MC1260S5
	ELECTRIC	AT25-25	AT25-25	AT25-25	AT25-25
14	PNEUMATIC A/A	MC237	MC331	MC331	N/A
	PNEUMATIC S/R	MC1260S5	MC1260S5	MC1260S5	N/A
	ELECTRIC	AT50-25	AT50-25	AT50-25	N/A
16	PNEUMATIC A/A	MC406	MC406	MC633	N/A
	PNEUMATIC S/R	MC1260S5	MC1260S5	MC1260S5	N/A
	ELECTRIC	AT100	AT100	AT100	N/A
18	PNEUMATIC A/A	MC331	MC406	MC633	N/A
	PNEUMATIC S/R	MC1831S5	MC1813S5	MC1813S5	N/A
	ELECTRIC	AT100	AT100	AT100	N/A
20	PNEUMATIC A/A	MC331	MC633	MC1009	N/A
	PNEUMATIC S/R	MC1831S5	MC1813S5	MC2928S5	N/A
	ELECTRIC	AT100	AT100	AT100	N/A
24	PNEUMATIC A/A	MC1009	MC1009	MC1260	N/A
	PNEUMATIC S/R	MC2928S5	MC2928S5	CF	N/A
	ELECTRIC	AT100	AT100	AT200	N/A

NOTE: PNEUMATIC ACTUATOR SIZING BASED ON 80 PSI AIR SUPPLY PRESSURE. IF LINE PRESSURE EXCEEDS LISTED PRESSURE, ADVANCE TO HIGHER PSI COLUMN FOR CORRECT ACTUATOR.

BUTTERFLY VALVES
2" THRU 24" RESILIENT SEATED
SERVICE: AIR

LINE PRESSURE (PSI)					
SIZE (INCHES)	ACTUATOR TYPE	50	100	150	200
2	PNEUMATIC A/A	MC34	MC34	MC34	MC34
	PNEUMATIC S/R	MC48S5	MC48S5	MC48S5	MC48S5
	ELECTRIC	MCRB200I	MCRB300I	MCRB300I	MCRB300I
2 1/2	PNEUMATIC A/A	MC34	MC34	MC34	MC34
	PNEUMATIC S/R	MC75S5	MC75S5	MC75S5	MC75S5
	ELECTRIC	MCRB300I	MCRB300I	MCRB300I	MCRB300I
3	PNEUMATIC A/A	MC48	MC48	MC48	MC48
	PNEUMATIC S/R	MC105S5	MC105S5	MC105S5	MC105S5
	ELECTRIC	MCRB675I	MCRB675I	MCRB675I	MCRB675I
4	PNEUMATIC A/A	MC75	MC75	MC75	MC75
	PNEUMATIC S/R	MC237S5	MC237S5	MC237S5	MC237S5
	ELECTRIC	OA8-5	OA8-5	OA8-5	OA8-5
5	PNEUMATIC A/A	MC105	MC105	MC105	MC105
	PNEUMATIC S/R	MC237S5	MC237S5	MC331S5	MC331S5
	ELECTRIC	OA15-15	OA15-15	OA15-15	OA15-15
6	PNEUMATIC A/A	MC157	MC157	MC157	MC157
	PNEUMATIC S/R	MC406S5	MC46S5	MC633S5	MC633S5
	ELECTRIC	OA15-15	OA15-15	OA15-15	OA15-15
8	PNEUMATIC A/A	MC331	MC331	MC331	MC331
	PNEUMATIC S/R	MC1009S5	MC1009S5	MC1009S5	MC1009S5
	ELECTRIC	AT50-25	AT50-25	AT50-25	AT50-25
10	PNEUMATIC A/A	MC633	MC633	MC633	MC633
	PNEUMATIC S/R	MC1009S5	MC1260S5	MC1260S5	MC1260S5
	ELECTRIC	AT50-25	AT50-25	AT50-25	AT100
12	PNEUMATIC A/A	MC633	MC633	MC1009	MC1009
	PNEUMATIC S/R	MC1831S5	MC1831S5	MC1831S5	MC236S4
	ELECTRIC	AT100	AT100	AT100	AT100
14	PNEUMATIC A/A	MC1009	MC1009	MC1009	N/A
	PNEUMATIC S/R	MC1831S5	MC2928S5	MC2928S5	N/A
	ELECTRIC	AT100	AT100	AT100	N/A
16	PNEUMATIC A/A	MC1260	MC1260	MC1260	N/A
	PNEUMATIC S/R	MC2928S5	CF	CF	N/A
	ELECTRIC	AT100	AT200	AT200	N/A
18	PNEUMATIC A/A	MC1009	MC1009	MC1831	N/A
	PNEUMATIC S/R	CF	CF	CF	N/A
	ELECTRIC	AT200	AT200	AT200	N/A
20	PNEUMATIC A/A	MC1831	MC1831	MC2928	N/A
	PNEUMATIC S/R	CF	CF	CF	N/A
	ELECTRIC	AT200	AT200	AT200	N/A
24	PNEUMATIC A/A	MC2928	MC2928	MC2928	N/A
	PNEUMATIC S/R	CF	CF	CCCCF	N/A
	ELECTRIC	AT400	AT400	AT400	N/A

NOTE: PNEUMATIC ACTUATOR SIZING BASED ON 80 PSI AIR SUPPLY PRESSURE. IF LINE PRESSURE EXCEEDS LISTED PRESSURE, ADVANCE TO HIGHER PSI COLUMN FOR CORRECT ACTUATOR.

VALVE TORQUE INCH LBS.

THREADED BALL VALVE

SIZE	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
20 SERIES	20	40	40	50	100	140	190	240
30 SERIES	30	30	50	70	125	210	360	600
35 SERIES	30	30	42	45	90	225	300	420
41 SERIES	60	60	60	110	130	130	330	550

TORQUE'S ARE FOR NXT 75 PTFE SEATS IN CLEAN WATER SERVICE AT FULL RATED PSI

FLANGED BALL VALVE 150 LB CLASS

SIZE	1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8	10	12
90/91 SERIES	40	60	125	190	240	N/A	500	900	1900	N/A	N/A	N/A
F20 SERIES	60	100	140	220	450	510	700	1,800	2700	7200	8280	13200

TORQUE'S ARE FOR NXT 75 PTFE SEATS IN CLEAN WATER SERVICE AT FULL RATED PSI

FLANGED BALL VALVE 300 LB CLASS

SIZE	1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8	10	12
90/91 SERIES	40	60	125	190	300	N/A	750	1000	2700	N/A	N/A	N/A
F20 SERIES	65	105	180	300	450	N/A	880	1600	3000	N/A	N/A	N/A

TORQUE'S ARE FOR NXT 75 PTFE SEATS IN CLEAN WATER SERVICE AT FULL RATED PSI

BUTTERFLY VALVE

TORQUE'S ARE BASED ON CLEAN WATER SERVICE FOR BUNA,EPDM, & VITON SEATS

SIZE	2	2 1/2	3	4	5	6	8	10	12
B/F 200 PSI	122	128	195	360	575	900	1690	2880	4360

TORQUE'S ARE BASED ON CLEAN WATER SERVICE FOR BUNA,EPDM, & VITON SEATS

SIZE	14	16	18	20	24
B/F 150 PSI	5508	7608	10200	13104	18888

CONSULT FACTORY FOR BF 30" OR ABOVE

Valve Torque Adjustment Factor

(Multiply the published break torque by factor shown to arrive at the proper actuator sizing)

<u>Service</u>	<u>Adjustment Factor</u>
1 Cycle/week	x1.5
1 to 2 Cycles/day	x1.0
Reinforced PTFE	x1.0
20 to 25% Reinforced PTFE	x1.3
Above 400° to 0° F	x1.25
Below -20° to 0° F	x1.25
Black Liquor, Lime Water	x1.8 to 2.0
Chlorine Gas, Oxygen	x1.5
Clean Non-lubricating liquids	x1.0
Dirty Air Slurry, Natural Gas, Dirty Slurry, Raw Water	x1.5 to 1.8
Modulating Service	x1.25
Oil, lubricating liquids	x1.0
On/Off Service	x1.0
Saturated Steam, Wet	x1.2
Superheated Steam, Dry	x1.5
Virgin PTFE, RPTFE, Teflon®NXT -75	x1.0
Viscous Liquids, Molasses	x1.3

Teflon is a Registered Trademark of Dupont

MC SERIES PNEUMATIC ACTUATOR TORQUE AT 80 PSI

DOUBLE ACTING	INCH POUNDS	SPRING RETURN	INCH POUNDS
MC20	191	MC20S5	71
MC34	340	MC34S5	115
MC48	482	MC48S5	178
MC75	738	MC75S5	268
MC105	1088	MC106S5	393
MC157	1574	MC157S5	533
MC237	1379	MC237S5	883
MC331	3316	MC331S5	1094
MC406	4069	MC406S5	1158
MC633	6332	MC633S5	2347
MC1009	10099	MC1009S5	3366
MC1260	12594	MS1260S5	4628
MC1831	18316	MC1831S5	6908
MC2928	29282	MC2928S5	9422

MC SERIES ELECTRIC ACTUATORS

MODEL	TORQUE/INCH POUNDS	SPEED/ 90 DEGREES
MCR100I	100	2.5
MCR200I	200	5
MCR300I	300	5
MCR675I	675	15
MCRB200I	200	5
MCRB300I	300	5
MCRB675I	675	15

LB SERIES ELECTRIC ACTUATORS

MODEL	TORQUE/INCH POUNDS	SPEED/ 90 DEGREES
OA8-5	720	5
OA15-15	1350	15
AT25-25	2250	25
AT50-25	4500	25
AT100	10000	24
AT200	22000	58
AT400	35400	85