

## MO-Series Manual Gear Override

### **General:**

Chemline MO-series manual declutchable overrides offer simple and reliable manual positioning of valves, dampers and other quarter-turn devices when overriding existing pneumatic actuators. All MO units are suitable for indoor and outdoor use and combine rugged construction, light weight and modular design to provide the most efficient and cost-effective solution to a full range of manual override requirements. The self-locking worm gear design means safe and easy operation, positive manual positioning and extremely long life. The MO-series override can be adapted to any quarter-turn actuator and may even be installed in the field on existing valves.



### **Specifications:**

Body:	Cast iron	Fasteners:	Zinc-coated steel
Finish:	Epoxy coating	Gear quadrant:	Ductile iron
Movement:	0 to 90 degrees	Stroke adjustment:	+/- 5 degrees at each end
Temperature:	-20C to 80C	Worm shaft:	Stainless Steel

Part	Weight (lb)	No. of turns (at rim)	Max. input force (lb, at rim)	Max output force (in-lb, at output shaft)
RD-415	9.7	10.25	28	1106
RD-420	10.4	10	45	2389.7
RD-330	37.5	10.25	110	7080.6
RD-440	49.8	10.25	96	10178.36
RD-345	46.3	11	142	22126.88

### **Manual operation:**

To engage manual operation, first pull out the spring-loaded system lock, then rotate the clutching bar lever up until it engages the unit. To disengage manual operation, pull out the system lock and rotate the clutching bar lever down until it disengages the unit.

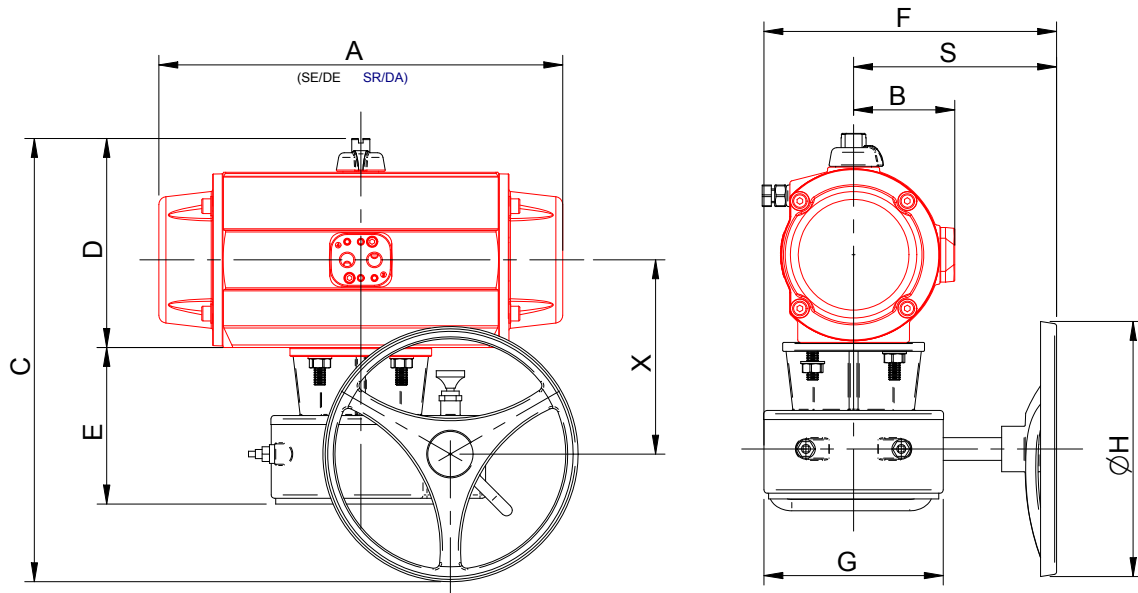
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**MO-Series Manual Gear Override cont.*****Installation:*****Refer to above picture and proceed as follows:**

1. Attach mounting bracket to top of valve as per the actuator maintenance manual.
2. Align bottom of center override shaft on top of valve stem.
3. Slide down the override unit on top of the shaft, position on bracket and affix loosely.
4. Align bottom of actuator output shaft onto top of override shaft and slide down the actuator until it contacts the override unit.
5. Affix actuator to top of override unit with appropriate nuts/bolts/washers.
6. Align all components of the assembly and tighten all hardware.
7. Operate the actuator to the fully open and fully closed positions to check for proper coupling alignment. Eccentricity of shaft must be no greater than .01" from centerline. Adjust if necessary and snug down the adjustment bolts tightly.

***Setting the Travel Stops:***

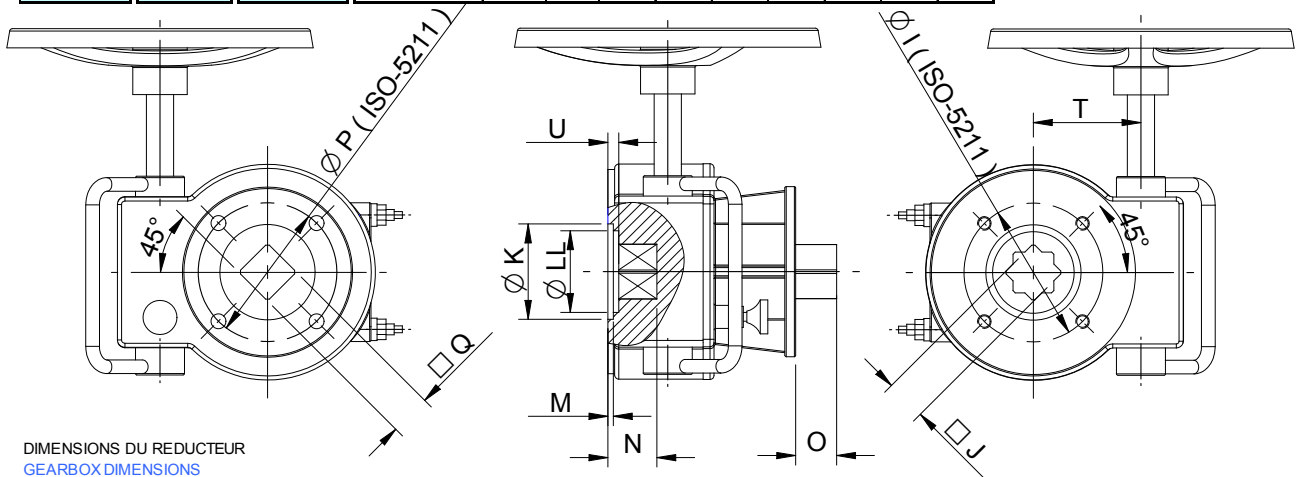
1. Loosen the adjusting nuts and completely back out both adjusting bolts, on the side of the override unit.
2. Engage the override unit and move the valve to the fully open position, by checking visually.
3. Adjust the left bolt, as seen from the bolts side of the override, until it encounters some resistance. This means that the open travel stop is adjusted for the fully open position.
4. Move the valve to the fully closed position, by checking visually.
5. Adjust the right bolt, as seen from the bolts side of the override, until it encounters some resistance. This means that the closed travel stop is adjusted for the fully closed position.



DIMENSIONS DE L'ACTUATEUR + REDUCTEUR

DIMENSIONS ACTUATOR + GEARBOX

ACTUATEUR ACTUATOR	REDUCTEUR GEARBOX	INSTALLATION INSTALLATION	DIMENSIONS (mm)										
			A S,E/S,R   D,E/D,A	B	C	D	E	F	G	S	H	X	
PA00-PA00S	RD-415	IRD-41500	152	52	267	111	116	188	118	129	140	129	
PA05-PA05S			201	62	168	128						135	
PA10-PA10S			224	63	172	132						138	
PA15-PA15S			264	71	188	148						146	
PA20-PA20S	RD-420	IRD-42020	310	75	313	156	122	242	142	171	200	151	
PA25-PA25S		IRD-42025	356	89	219	184						164	
P30-P30S	RD-330	IRD-33030	479	349	94	375	211	145	350	194	253	300	167
P40-P40S	RD-440	IRD-44040	598	444	120	465	272	163	380	205	278	500	221
P50-P50S	RD-345	IRD-34550	694	524	135	487	313	160	393	223	282	400	240
	RD-350	IRD-35050				503	313	175	460	250	335	600	238
PA70-PA70S	RD-360	IRD-36070	743	216	630	428	194	516	280	376	700	304	
	RD-370	IRD-37070				635	428	209	581	345	409	800	313



DIMENSIONS DU REDUCTEUR

GEARBOX DIMENSIONS

REDUCTEUR GEARBOX	COTE VALVE					COTE ACTUATEUR					POIDS WEIGHTS	PAR (Nm) Torque (Nm)				
	ISO-5211		Q		U	K	LL	M	N min.	O max.			ISO-5211		T	
STANDARD	OPTION	STAND.	OPTION	STANDARD							OPTION	STANDARD	OPTION	Q		T
RD-415	F05-F07	-	17	-	6,5	35	30	1	35	19	F05-F07	-	17	40,5	4,4 Kg	125
RD-420	F07	-	17	-	5	55	38	4	35	19	F07	-	17	52	7,4 Kg	270
RD-330	F07-F10-F12	-	27	17	-	60	-	6	30	29	F07-F10-F12	-	27	64,5	17 Kg	750
RD-440	F12	-	36	-	6	95	85	1	30	38	F12	-	36	86	22,6 Kg	1150
RD-345	F14	F10-F12	27	-	-	75	-	4	65	38	F14	F10-F12	36	84	21 Kg	1450
RD-350	F14	F10-F12-F16	36	27	-	88	-	3	60	38	F14	F12-F16	36	107,5	34 Kg	2485
RD-360	F16	F12-F14	46	27-36	-	102	-	7	65	48	F16	F12-F14	46	127	54 Kg	3390
RD-370	F16-F25	-	46	55	-	130	-	6	70	48	F16-F25	-	46	155	80 Kg	7450

DIMENSIONS EN (mm)

DIMENSIONS IN (mm)