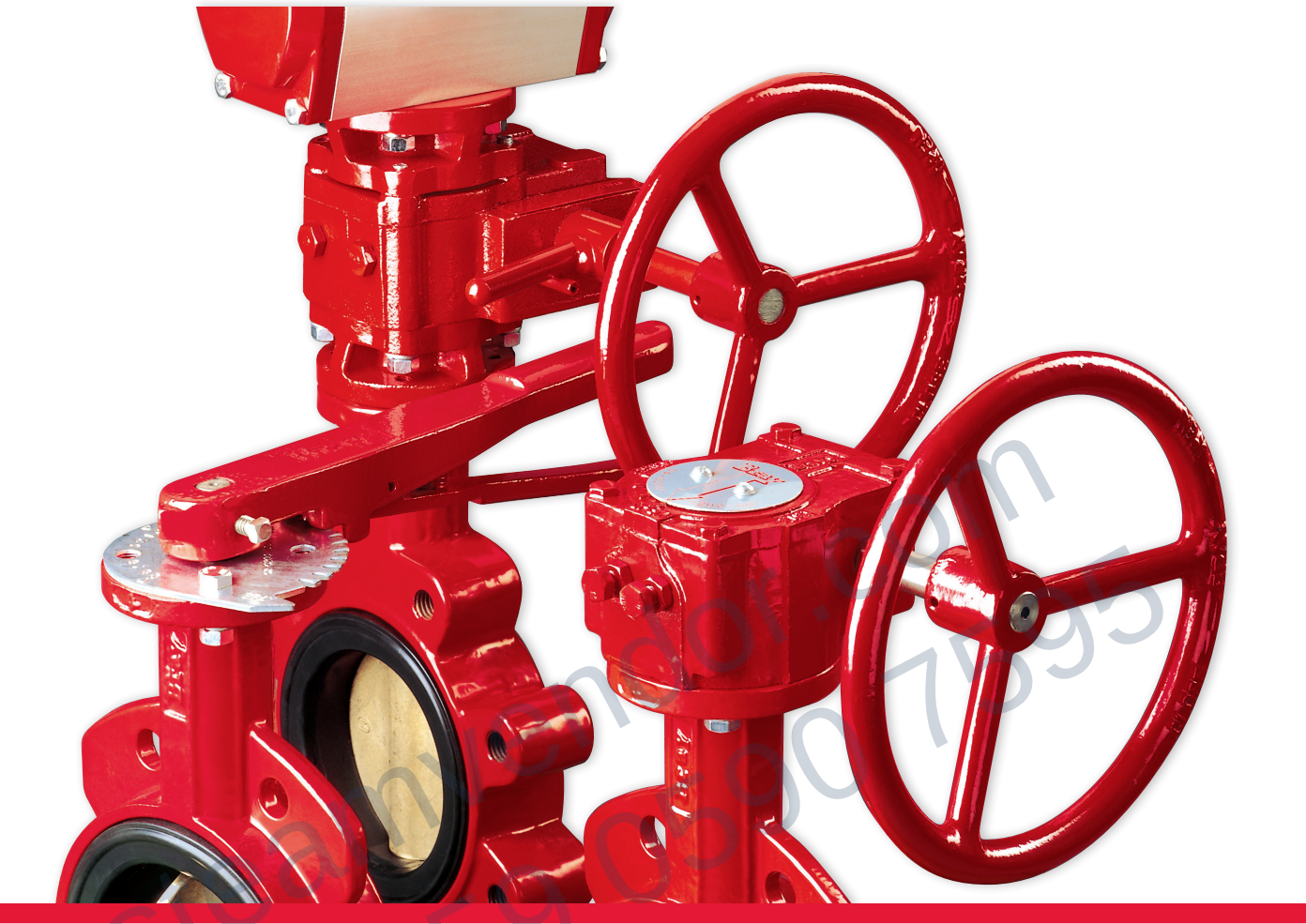




MANUAL OPERATORS

Bray offers three operators for manual control of valve position. All manual operators mount directly to Bray valves, and all are epoxy coated for excellent corrosion, abrasion and impact resistance.

SERIES 01 - Handle	1"-12" (25mm -300mm)
SERIES 04 - Gear Operator	2"-48" (50mm -1200mm)
SERIES 05 - Declutchable Gear Operator	2"-36" (50mm -900mm)

SERIES 01 - HANDLE & NOTCH PLATE

Bray offers two handles for on-off and throttling service – one for resilient seated valves from 1"-12" (25mm-300mm), and a high torque handle for high pressure valves from 2½"- 8" (65mm-200mm). These quarter turn handles have a locking spring and a directional pointer for valve disc position indication. Bolted notch plates are offered. For resilient seated valves a 10 position plate is standard. For high pressure valves a 9 position plate is standard. Both contain on-off stops to prevent over rotation of the valve. Optionally available are an infinite position plate, a 180° notch plate, a memory stop, a padlock kit, and a 2" square nut version.

SERIES 04 - GEAR OPERATOR

For heavy duty on-off and throttling service of 2"-48" (50mm-1200mm) valves, the Series 04 is self lubricated for smooth, trouble-free operation. The rugged, cast iron body with O-ring body seals is weatherproof to IP65. A self-locking worm and worm gear drive holds the valve in the desired position. Features include a readily accessible handwheel, a valve position indicator and mechanical travel stops which permit field adjustment of valve movement to specific degrees of rotation. Optionally available are chainwheel accessories, padlock kits and 2" square nut versions.

SERIES 05 - DECLUTCHABLE GEAR OPERATOR

Available for 2"-36" (50mm-900mm) valves. This operator is excellent for the safe handling of spring return actuators. During pneumatic operation, the worm of the gear unit is disengaged. Should the valve require opening or closing in the event of power loss, manual rotation of the declutch lever will provide a camming action and engage the worm to the segmented worm gear, allowing rotation of the valve using the handwheel. The Series 05 can be installed in the field with existing Bray pneumatic actuators.

SERIES 01



STANDARD 10 POSITION NOTCH PLATE

Designed to securely lock the handle in place in 10 distinct positions, spanning from open to close, safeguarding against unintended position changes of the disc caused by line pressure, vibration, or shock. Please note design is not available for high-pressure valves.



PADLOCK KIT

The padlock kit effectively prevents unauthorized operation of the valve. Users can lock the valve in either the fully closed or fully open position. In addition, drilling a hole in the top plate allows for locking the valve in a mid-position..



HANDLE AND 180° NOTCH PLATE

Allows the user to securely close the valve at both 0 degrees and 180 degrees, and to fully open the valve at 90 degrees. It also has the advantage of being able to switch the handle to the other side without needing to remove the notch plate from the valve.

D



INFINITE POSITION NOTCH PLATE

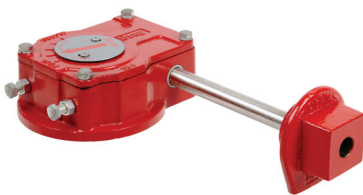
Ideal for throttling applications, as it allows precise adjustment of the valve disc's position ranging from full open to full closed, then secure it in the desired position using the screw knob.



MEMORY STOP

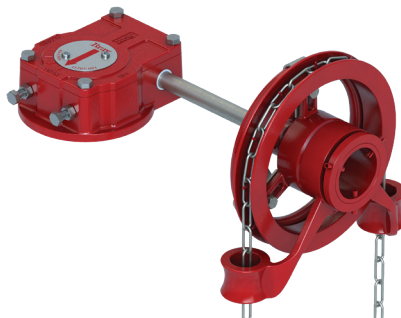
Enables the user to set the maximum opening of the disc, particularly useful for balancing applications where the desired flow is attained at a specific position.

SERIES 04



2" SQUARE NUT

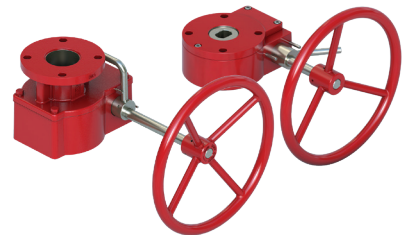
Used where the valve is buried under the surface. To rotate valve disc position, the nut is reached with a T-handle wrench.



CHAINWHEEL

The Chainwheel Manual Valve Operator offers safe, reliable manual operation of valves in high, difficult to reach locations.

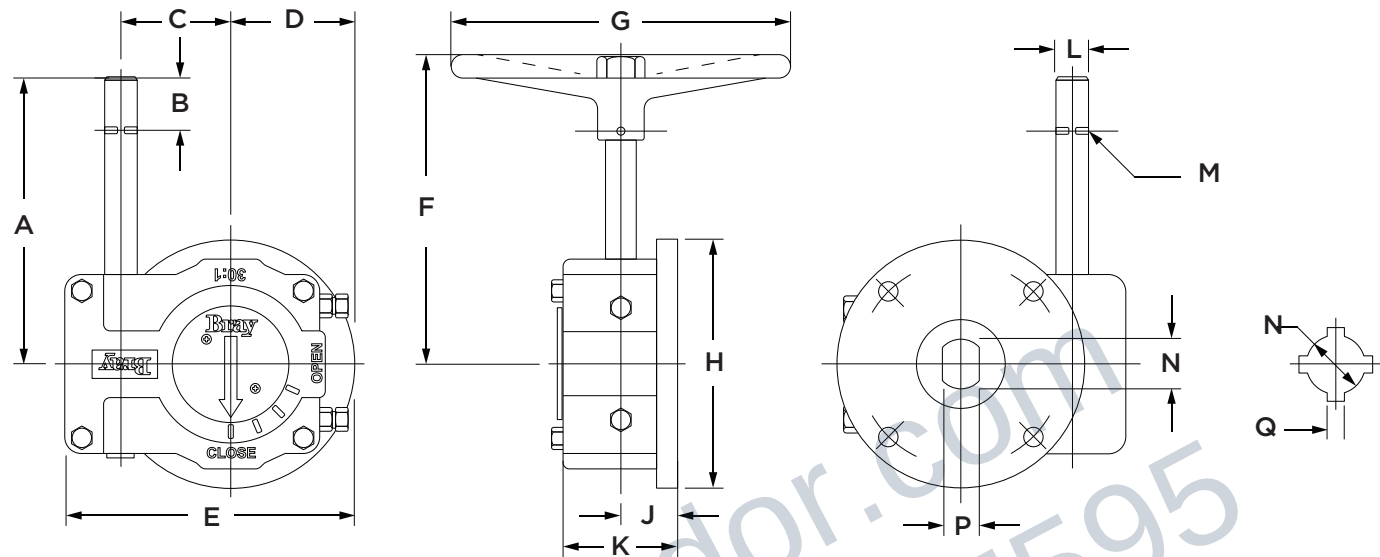
SERIES 05



DECLUTCHABLE GEAR OPERATOR

The Series 05 offers the same superior features as the Series 04 gear operator with the added ability to manually override pneumatic actuators or rotate the valve when air pressure is not available.

S04 WEIGHTS AND DIMENSIONS



Unit Size	Dimensions - Inches [mm]																
	A	B	C	D	E	F		G		H	J	K	L	M	N	P	Q
						STD	OPT	STD	OPT							Double D	Key Size
0200	4.69 [119]	1.25 [32]	1.63 [41]	1.75 [45]	4.50 [114]	5.35 [136]	-	8.0 [203]	-	3.50 [90]	1.44 [37]	2.59 [66]	0.63 [16]	0.16 [4]	0.75 [19]	0.51 [13]	-
0300	9.87 [251]	1.25 [32]	2.63 [67]	2.95 [75.0]	6.89 [175]	10.5 [266.5]	10.7 [272]	8.0 [203]	12.0 [305]	5.91 [150]	1.25 [32]	2.61 [66]	0.75 [19]	0.16 [4]	1.18 [30]	0.87 [22]	-
																	0.39 x 0.39 [10X10]
0500	11.0 [280]	1.63 [41]	3.13 [79]	2.95 [75]	7.50 [190]	11.81 [300]"	-	12.0 [305]	-	5.91 [150]	1.69 [43]	3.28 [83]	0.75 [19]	0.19 [5]	1.38 [35]	-	0.39 x 0.39 [10X10]
																	-
0800	14.01 [356]	1.63 [41]	4.56 [116]	4.14 [105]	10.45 [265]	14.84 [377]	-	12.0 [305]	-	8.27 [210]	2.38 [60]	4.41 [112]	1.0 [25]	0.19 [5]	1.970 [50]	-	0.47 x 0.39 [12X10]
0800	14.01 [356]	1.63 [41]	4.56 [116]	4.14 [105]	10.45 [265]	14.8 [375]	-	18.0 [457]	-	8.27 [210]	2.38 [60]	4.41 [112]	1.0 [25]	0.19 [5]	2.50 [64]	-	0.63 x 0.63 [16X16]
0800	14.01 [356]	1.50 [38]	4.56 [116]	4.14 [105]	10.45 [265]	14.8 [375]	-	18.0 [457]	-	8.27 [210]	2.38 [60]	4.41 [112]	1.0 [25]	0.25 [6]	2.50 [64]	-	0.63 x 0.63 [16X16]
1500	16.2 [410.4]	1.50 [38]	6.11 [155]	6.9 [175]	15.9 [404]	16.9 [429]	-	18.0 [457]	-	14 [350]	4 [102]	7.9 [200]	1.0 [25]	0.26 [7]	2.50 [64]"	-	0.63 x 0.63 [16X16]
1500	16.2 [410.4]	1.50 [38]	6.11 [155]	6.9 [175]	15.9 [404]	20.7 [526]	16.9 [429]	24.0 [610]	18.0 [457]	14 [350]	4 [102]	7.9 [200]	1.0 [25]	0.26 [7]	3.0 [76]	-	0.75 x 0.75 [19X19]
3500	16.0 [407]	1.50 [38]	6.11 [155]	6.9 [175]	15.9 [404]	16.9 [429]	-	18.0 [457]	-	14 [350]	4 [102]	7.9 [200]	1.0 [25]	0.26 [7]	4.0 [102]	-	1.0 x 1.0 [25X25]
3500	16.0 [407]	1.50 [38]	6.11 [155]	6.9 [175]	15.9 [404]	16.9 [429]	-	18.0 [457]	-	14 [350]	4 [102]	7.9 [200]	1.0 [25]	0.26 [7]	3.5 [90]	-	0.88 x 0.88 [22X22]

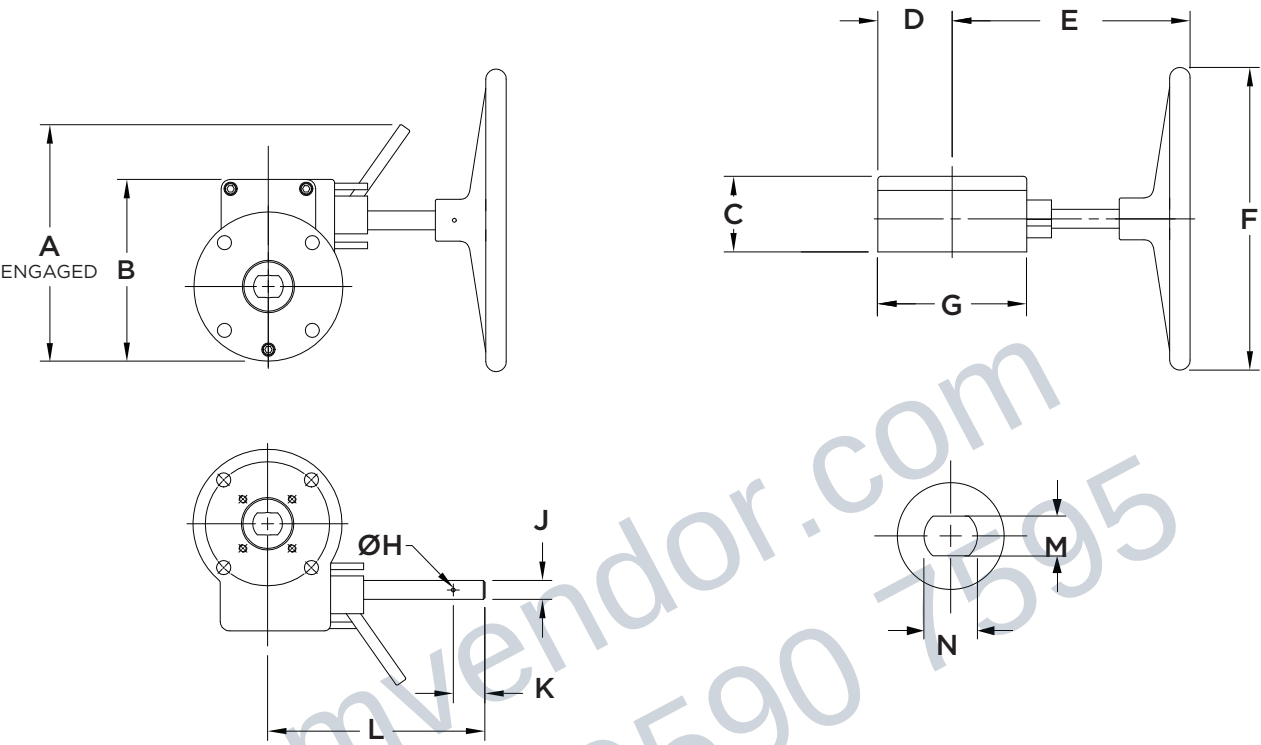
NOTE:
1 FKM is the ASTM D1418 designation for Fluorinated Hydrocarbon.
2 Size 0300 has a double D and a keyway connection
3 Size 0800 has 2 keyway size variations

S04 WEIGHTS AND DIMENSIONS

Unit Size	Ratio	Weight - Lb. [Kg]	Torque Output - Lb-in [Nm]
0200	20:1	10 [4.5]	2000 [226]
0300	30:1	16 [7.2]	8000 [964]
0500	50:1	29 [13.2]	13000 [1459]
0800	80:1	70 [31.7]	24000 [2710]
1500	150:1	152 [69]	75000 [8474]
3500	350:1	145 [65.6]	100000 [11299]

Unit Size	Mounting Pattern			
	BCD - in [mm]	No of Holes	Thread	Thread Depth - in [mm]
0200	2.76 [70]	4	5/16-18UNC	0.50 [12.7]
0300	2.76 [70]	4	5/16-18UNC	0.50 [12.7]
	4.92 [125]	4	1/2-13UNC	0.63 [16.0]
	2.76 [70]	4	5/16-18UNC	0.50 [12.7]
	4.92 [125]	4	1/2-13UNC	0.63 [16.0]
0500	4.92 [125]	4	1/2-13UNC	0.75 [19.0]
	4.92 [125]	4	1/2-13UNC	0.75 [19.0]
0800	4.92 [125]	4	1/2-13UNC	0.63 [16]
	6.50 [165]	4	3/4-10UNC	1.0 [25.4]
	4.92 [125]	4	1/2-13UNC	0.63 [16]
	6.50 [165]	4	3/4-10UNC	1.0 [25.4]
	4.92 [125]	4	1/2-13UNC	0.63 [16]
	6.50 [165]	4	3/4-10UNC	1.0 [25.4]
1500	6.50 [165]	4	3/4-10UNC	1.0 [25.4]
	8.50 [215.9]	4	1-1/8-7UNC	1.25 [31.8]
	10.00 [254.0]	8	5/8-11UNC	1.0 [25.4]
	11.73 [298.0]	8	3/4-10UNC	1.0 [25.4]
	6.50 [165]	4	3/4-10UNC	1.0 [25.4]
	8.50 [215.9]	4	1-1/8-7UNC	1.25 [31.8]
	10.00 [254.0]	8	5/8-11UNC	1.0 [25.4]
	11.73 [298.0]	8	3/4-10UNC	1.0 [25.4]
	11.73 [298]	8	3/4-10UNC	1.0 [25.4]
3500	8.50 [215.9]	4	1-1/8-7UNC	1.25 [31.8]
	10.00 [254.0]	8	5/8-11UNC	1.0 [25.4]
	11.73 [298]	8	3/4-10UNC	1.0 [25.4]
	8.50 [215.9]	4	1-1/8-7UNC	1.25 [31.8]
	10.00 [254.0]	8	5/8-11UNC	1.0 [25.4]

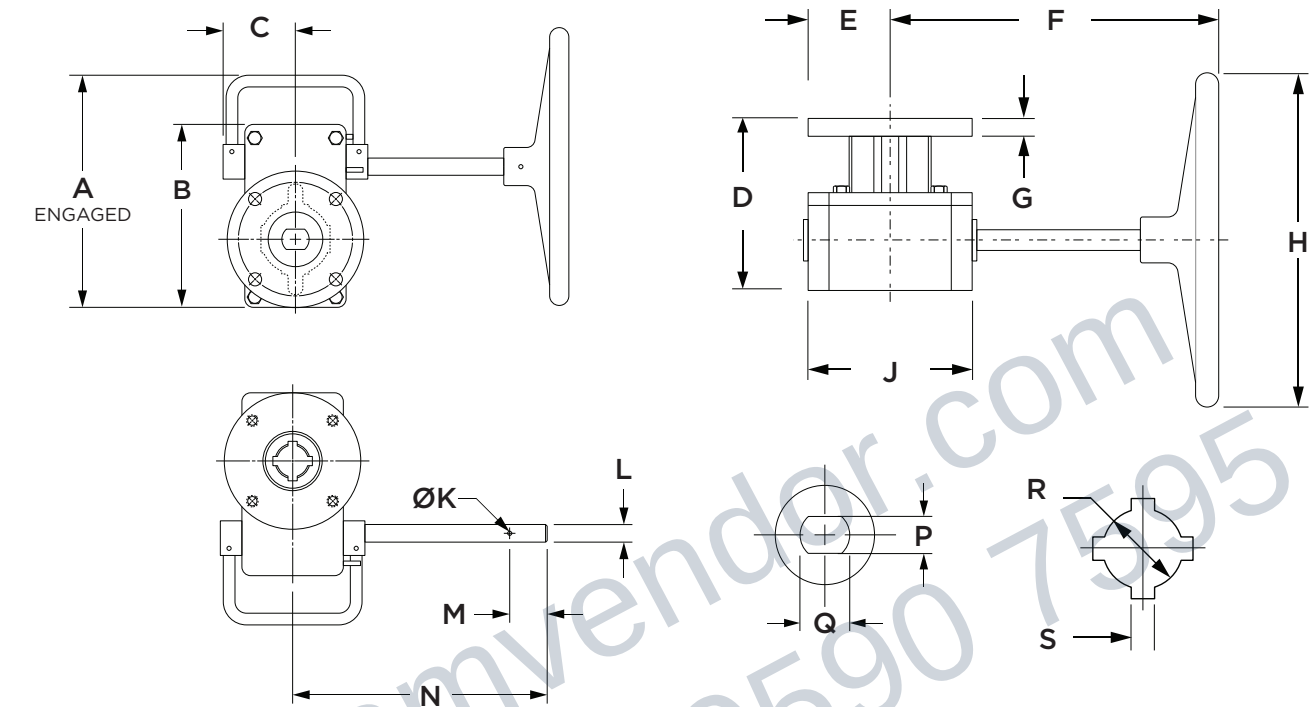
S05 WEIGHTS AND DIMENSIONS



Unit Size	Dimensions - Inches [mm]												
	A	B	C	D	E	F	G	ØH	J	K	L	M	N
0200	6.90 [175]	5.00 [127]	2.60 [66]	1.75 [45]	8.88 [226]	8.00 [203]	3.50 [89]	0.157 [4]	0.63 [16]	1.25 [32]	8.25 [210]	0.51 [13]	0.75 [19]
0300	9.36 [238]	7.20 [183]	3.00 [76]	2.95 [75]	9.43 [240]	12.00 [305]	5.91 [150]	0.156 [4]	0.75 [19]	1.25 [32]	8.62 [219]	0.87 [22]	1.18 [30]

Unit Size	Actuator Side Mounting				Valve Side Mounting							
	Ratio	Weight Lb. [Kg]	Torque Output Lb-in [Nm]	BCD in [mm]	No of Holes	Hole Dia in [mm]	Depth	BCD in [mm]	No of Holes	Hole Dia in [mm]	Thread	Thread Depth in [mm]
0200	20:1	10.1 [4.5]	2000 [226]	2.76 [70]	4	0.35 [9]	Thru	2.76 [70]	4	0.35 [9]	-	Thru
0300	30:1	18.7 [8.5]	8000 [904]	4.92 [125]	4	0.56 [14]	Thru	4.92 [125]	4	0.56 [14]	-	Thru
								2.76 [70]	4	5/16-18 UNC		0.5 [13]

S05 WEIGHTS AND DIMENSIONS



Unit Size	Dimensions - Inches [mm]																
	A	B	C	D	E	F	G	H	J	K	ØL	M	N	P	Q	R	S
0500	10.04 [255]	7.91 [201]	3.13 [80]	6.19 [157]	2.95 [75]	11.81 [300]	0.62 [16]	12.00 [305]	5.91 [150]	0.188 [5]	0.75 [19]	1.62 [41]	11.00 [279]	0.87 [22]	1.18 [30]	1.38 [35]	0.39 [10]
0800	13.33 [339]	10.76 [273]	4.75 [121]	8.00 [203]	4.14 [105]	14.88 [378]	0.75 [19]	18.00 [483]	8.27 [210]	0.250 [6]	1.00 [25]	1.50 [38]	14.00 [356]	-	-	1.97 [50]	0.47 [12]

Unit Size				Actuator Side Mounting				Valve Side Mounting				
	Ratio	Weight Lb. [Kg]	Torque Output Lb-in [Nm]	BCD in [mm]	No of Holes	Hole Dia in [mm]	Depth	BCD in [mm]	No of Holes	Hole Dia in [mm]	Thread	Thread Depth in [mm]
0500	50:1	30.8 [14]	13000 [1469]	4.92 [125]	4	0.56 [14]	Thru	4.92 [125.0]	4	-	1/2-13 UNC	0.75 [19]
0800	80:1	70.5 [32]	24000 [2712]	6.50 [165]	4	0.81 [21]	Thru	4.92 [125.0]	4	-	1/2-13 UNC	0.63 [16]
								6.50 [125.1]	4	-	3/4-10 UNC	1.00 [25]

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