



JDV  
CONTROL  
VALVES



# JEW/JEV Series

Pneumatic Actuator



## JMV Series

Manual Override





## DESIGN AND CONSTRUCTION

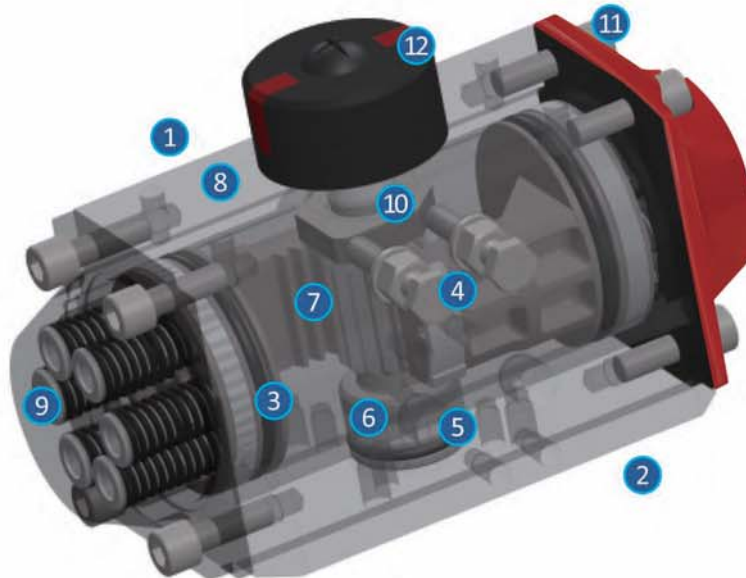
### DESIGN

JEW/JEV series pneumatic actuators have introduced improvement design for rack and pinion. It is always Duria's mission to offer initiative products by combining the long field experiences in products application and the latest production and materials technology available in the market today. The benefit of new design has long been verified in practice. With new technical features equipped, Duria series pneumatic actuators have advantageous characteristic in:

- Reliability
- High performance
- Fully compliance with all the latest international standards
- Extensive products range allows best versatility at lower price
- Innovations and patented solutions for a universal drive shaft
- Multifunction position indicator
- Compact and light

### CONSTRUCTION

1. A single compact design utilizing identical body and end caps for both double acting and spring return models. This feature reduces inventory and allows field conversion, by adding or removing modular spring cartridges.
2. Full conformance to following latest specifications: ISO 5211, DIN 3337 and VDI/VDE 3845 for product interchangeability and easy mounting of solenoids, limit switches and other accessories.
3. Dual piston rack and pinion design for compact construction, symmetric mounting position, high-cycle life and fast operation. Reverse rotation can be accomplished in the field by simply inverting the pistons.
4. Two independent external travel stop adjustments permit easy and precise adjustment of +/- 4° in both directions. This adjustment may be made in either the open or closed position and provides for accurate valve alignment.
5. Multiple bearings and guides on pistons and racks for precise operation, low friction, high cycle life and a blowout proof pinion shaft.
6. Electroless nickel-plated blowout resistant, bearing guided, one-piece pinion shaft for improved safety and maximum cycle life.
7. High precision teeth on piston racks and pinion shaft for accurate positioning, low backlash, and maximum engagement resulting in overall efficient operation.
8. Extruded aluminum body with both internal and external corrosion protections having a honed cylinder surface for longer life and a lower coefficient of friction.
9. Modular preloaded spring cartridges designed with coated springs for simple range versatility, greater safety and corrosion resistance.
10. Selected high quality bearings and seals that provide a wide operating temperature range, low friction, and high cycle life.
11. Internal and external stainless steel fasteners for long term corrosion resistance.
12. Multifunctional position indicator for visual position indication, and a direct, easy, economical way to mount popular sensors.



## RANGE OF OPTIONS, QUALITY MANUFACTURING, AND ACCESSORIES

### RANGE OF OPTIONS

- A. Stainless steel 304 or 316 drive shafts are available on request for all sizes no matter the type of corrosion protection selected.
- B. For extremely high or low temperature applications, all models may be equipped with FPM or Silicon O rings along with an Duria tested and certified suitable lubricant.
- C. Other than the standard double square bottom drive shaft connection, we can supply a keyed drive connection, a flat head connection or a special personalized drive connection.

### QUALITY MANAGEMENT

- Production conforms to ISO9001.
- Each individual actuator has been factory inspected and tested and given a serial number for full traceability.

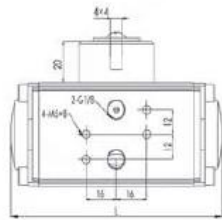
### ACCESSORIES AVAILABLE

- Different Square reductions suitable for drive shaft
- Centering rings for all sizes
- Brackets
- Couplings
- Solenoid valves
- Switch boxes
- Proximity switches
- Gear boxes
- Positioners

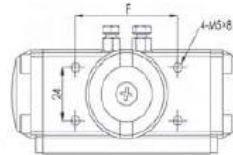
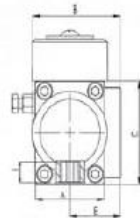




# INSTALLATION

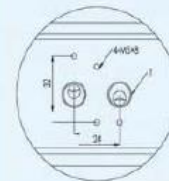


JEW-032

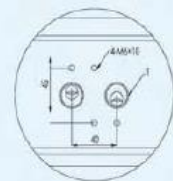


JEW-032

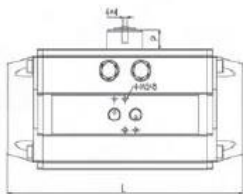
VDI/VDE3845 STANDARD



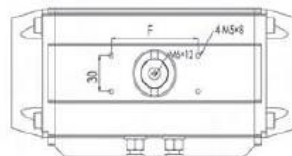
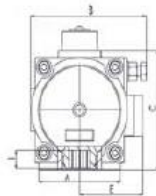
JEW/JEV-050-210



JEW/JEV-240-400



JEW/JEV-050-160

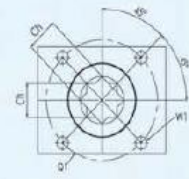


JEW/JEV-050-190

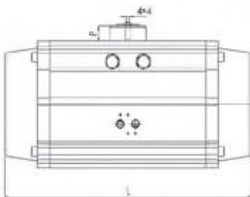
ISO5211 STANDARD



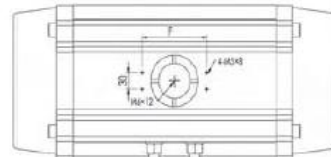
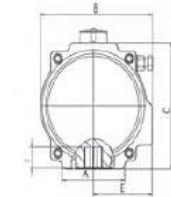
JEW/JEV-50-190



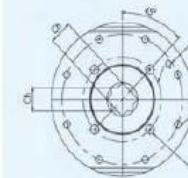
JEW/JEV-32 - JEW/JEV-210-300



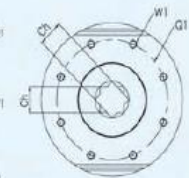
JEW/JEV-190-350



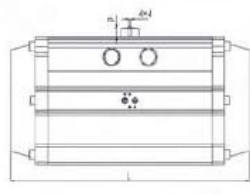
JEW/JEV-210-350



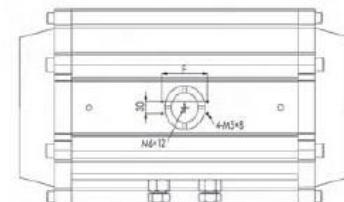
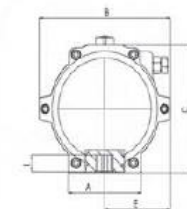
JEW/JEV-350



JEW/JEV-400



JEW/JEV-400



JEW/JEV-400

MODEL	A	B	C	L	E	F	P	øZ	N	I	FLANGE	Q	Q1	W	W1	Ch	T
JEW-032	37	47	50	110	27	50	20	40	10	10	F03	-	36	-	M5x9	9x9	G1/8"
JEV/W-050	45	70.5	70	154	41.5	80	20	40	10	12	F03/F05	36	50	M5x7.5	M6x9	11x11	G1/4"
JEV/W-065	62	89.5	89	189	51.5	80	20	40	10	16	F05/F07	50	70	M6x9	M8x12	14x14	G1/4"
JEV/W-075	68	102.5	100	210	59	80	20	40	14	16	F05/F07	50	70	M6x9	M8x12	14x14	G1/4"
JEV/W-085	68	112.5	113	229	63.5	80	20	40	14	19	F05/F07	50	70	M6x9	M8x12	17x17	G1/4"
JEV/W-095	92	126	123	264	71	80	20	40	14	19	F07/F10	70	102	M8x12	M10x15	17x17	G1/4"
JEV/W-110	93	138.5	136	266	76.5	80	20	40	14	19	F07/F10	70	102	M8x12	M10x15	17x17	G1/4"
JEV/W-125	96	157	161	337	85	80	30	56	22	25	F07/F10	70	102	M8x12	M10x15	22x22	G1/4"
JEV/W-140	110	178	178	346	97	80	30	56	22	31	F10/F12	102	125	M10x15	M12x18	27x27	G1/4"
JEV/W-160	112	196	200	412	106	130	30	56	22	31	F10/F12	102	125	M10x15	M12x18	27x27	G1/4"
JEV/W-190	136	216.5	232	488	112	130	30	56	22	41	F10/F14	102	140	M10x15	M16x24	36x36	G1/4"
JEV/W-210	140	235.5	255	550	120	130	30	80	32	40	F14	-	140	-	M16x24	36x36	G1/4"
JEV/W-240	159	262	292	602	131	130	30	80	32	50	F16	-	165	-	M20x28	46x46	G1/2"
JEV/W-270	159	295	331	672	147.5	130	30	80	32	50	F16	-	165	-	M20x28	46x46	G1/2"
JEV/W-300	180	335	354	784	173	130	30	80	32	50	F16	-	165	-	M20x28	46x46	G1/2"
JEV/W-350	270	385	410	845	195	130	30	80	32	50	F16/F25	165	254	M20x28	M16x30	46x46	G1/2"
JEV/W-400	290	520	466	956	260	130	30	80	32	60	F25	-	254	-	M16x30	55x55	G1/2"



# JMV Series

## Manual Override



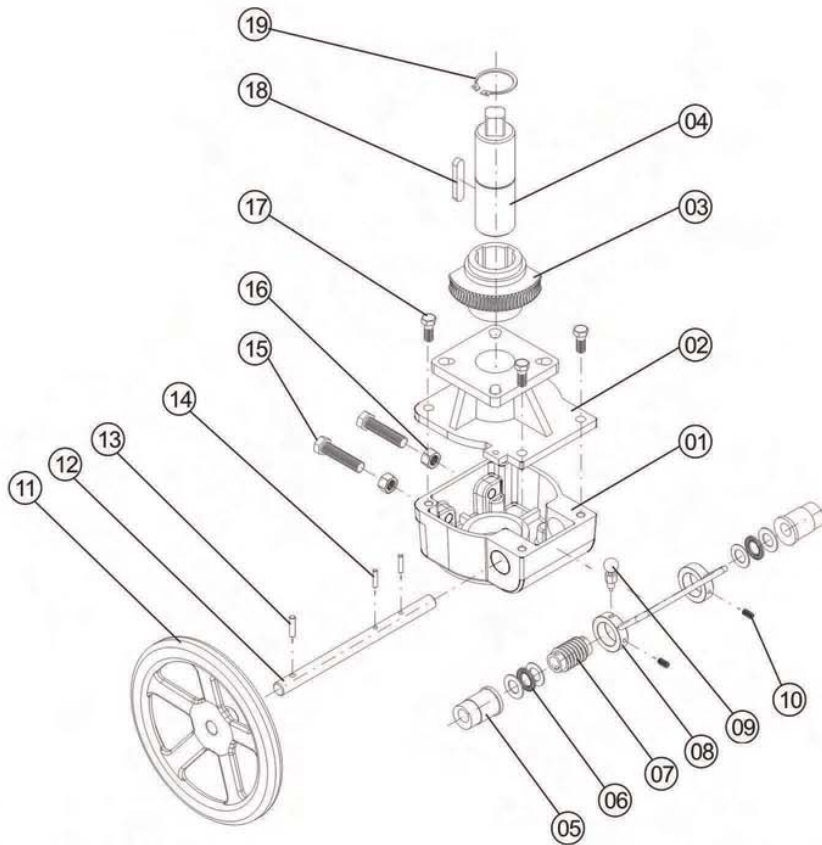
### Usage

This gear operator is used for butterfly valve, ball valve together with pneumatic to realize manual and pneumatic drive.

### Features

- 1、 Small in volume, light weight, reasonable design and novel pattern.
- 2、 It consists of a series of products, so output torque matches with all kinds of pneumatic devices and valves.
- 3、 There are two keyways apart 90° in the inner hole of worm gear so as to be convenient for customer to choose relative position.
- 4、 Pull out the position pin and rotate off center device with 180° to realize pneumatic drive by positioning pin acted or to realign.
- 5、 The gear operator is filled with special lubricant before leaving the factory. It is solid sealed with valve after installation possessing dustproof and waterproof function with protection grade Ip65.

## JMV SERIES CLUTCH GEAR OPERATOR



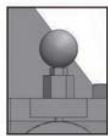
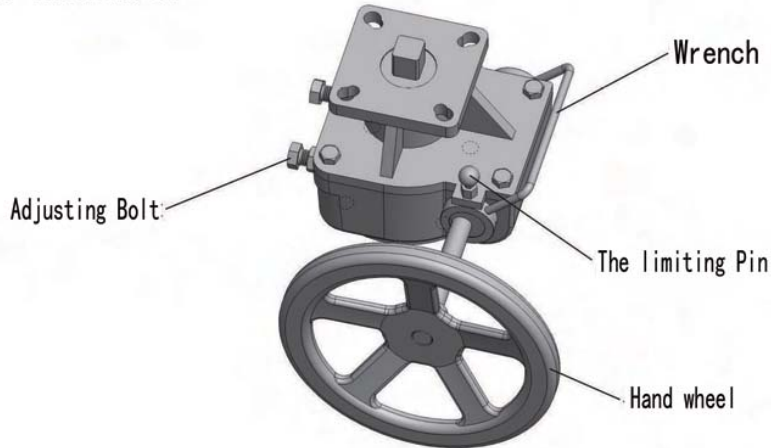
### Materials and partlist

NO	Q. TY	Item	Material	Optional material
01	1	Body	Aluminium polyster coating	Carbon steel
02	1	Bracket cap	Aluminium polyster coating	Carbon steel
03	1	Worm gear	Ductile iron	
04	1	Connecting shaft	Carbon steel 45#	
05	1	Eccentric shaft	Carbon steel 45#	
06	1	Bearing assembly	Powder metallurgy	
07	1	Worm	Carbon steel 45#	
08	1	Handle	Carbon steel 45#	
09	1	The limiting assembly	Carbon steel 45#	
10	1	The set screws	Carbon steel 45#	
11	1	Hand wheel	Carbon steel 45#	
12	1	Rotating shaft	SS304	Carbon steel 45#
13	1	Pin(Hand wheel)	Carbon steel 45#	
14	1	Pin(Worm gear)	Carbon steel 45#	
15	1	Adjusting Bolt	SS304	
16	1	Adjusting Nut	SS304	
17	1	Bolt	SS304	
18	1	Key	Carbon steel 45#	
19	1	Clip spring	Spring steel	



## JMV SERIES CLUTCH GEAR OPERATOR

### Operator Instruction



Lift the limit Pin



L to the manual



Dextrorotatory to automatica

### Operator Instruction

- 1、The bottom of gear operator should be connected with valve. bracket surface connected with cylinder, valve stem go through the inner hole of worm gear and the square on the end of stem matches with square hole of cylinder. (working procedures: The cylinder drives valve stem and worm gear rotating together when pneumatic drive, and worm shaft meshes with worm gear to drive valve stem rotating along with piston of cylinder moving when manual drive. When pneumatic drive, pull out the pneumatic drive by worm gear rotated following with pneumatic valve stem. Just make the worm shaft mesh to realize manual drive.)
- 2、No mesh may occur when move handle toward outside by 180° and close the worm shaft, please rotate hand-wheel by and angle to make it.
- 3、It cannot be operated by pneumatic and manual driven at the same time.

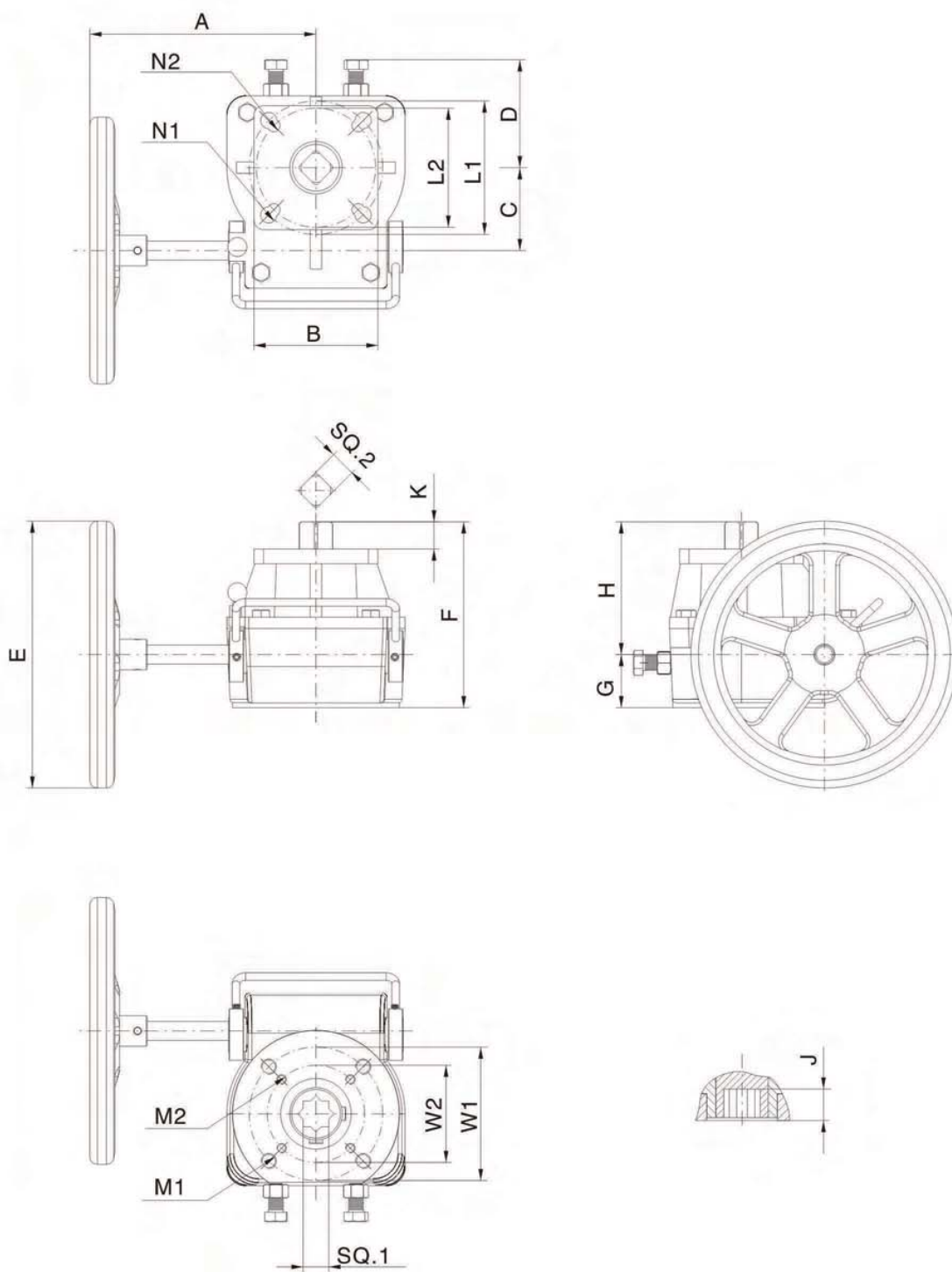
### Reference Selection

Model	Gear Ratio	Input Torque	Output Torque	Hand-wheel Di-a.	Wt(kg)
JMV-1	26: 1	50	280	Φ 180	2.6
JMV-2	28: 1	60	360	Φ 200	4
JMV-3	38: 1	90	620	Φ 280	6.5
JMV-4	54: 1	110	1310	Φ 300	13
JMV-5	80: 1	140	2600	Φ 400	32
JMV-6	78: 1	140	3500	Φ 500	43
JMV-7	98: 1	200	4200	Φ 600	65
JMV-8	100: 1	200	5500	Φ 600	95
JMV-9	320: 1	200	8000	Φ 600	125



# JMV SERIES CLUTCH GEAR OPERATOR

Dimension Table





## JMV SERIES CLUTCH GEAR OPERATOR

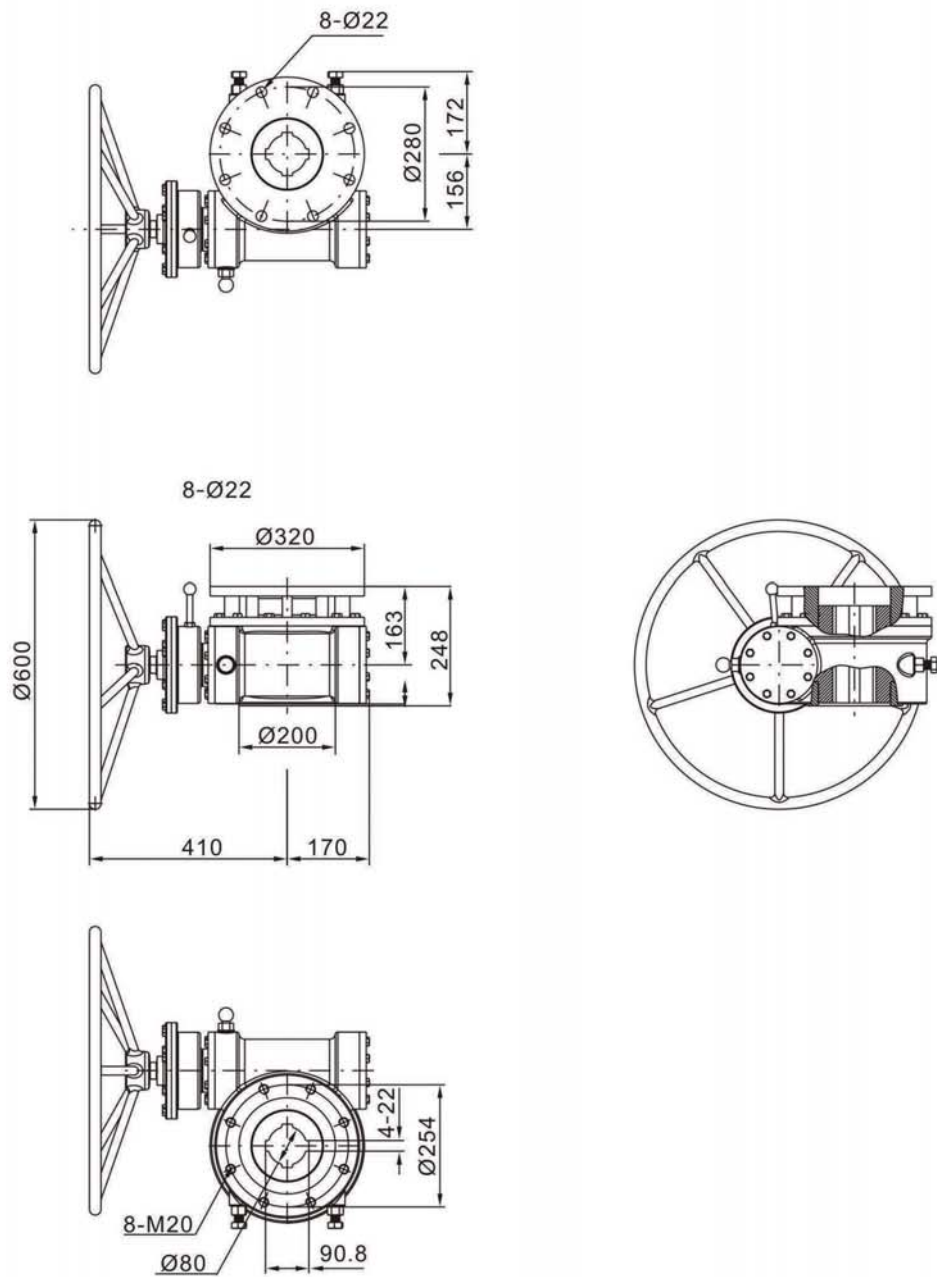
Dimension Table

Model	JMV-1	JMV-2	JMV-3	JMV-4	JMV-5	JMV-6	JMV-7	JMV-8
A	150	170	200	260	310	395	435	440
B	70	95	115	140	155	160	235	300
C	50	55	82	85	125	140	170	210
D	43	65	90	102	110	140	160	170
E	Φ180	Φ200	Φ280	Φ300	Φ400	Φ500	Φ600	Φ600
F	120	127	150	195	209	233	243	252
G	35	40	40	60	55	60	60	65
H	85	87	110	135	154	172	183	187
J	16	19	24	29	40	50	58	58
K	15	19	22	28	39	48	55	55
M1	M8X4	M10X4	M12X4	M16X4	M20X4	M20X4	M16X8	M16X8
M2	M6X4	M8X4	M10X4	.....	.....	.....	.....	.....
*W1	70	102	70/102/125	102/125/140	102/125/140/165	140/165	254	254
*W2	50	70	70/102/125	.....	.....	.....	.....	.....
SQ.1	11/14/17	14/17/19	22/27	22/27	27/36	36/46	46/55	46/55
N1	Φ10X4	Φ12X4	Φ14X4	Φ18X4	Φ22X4	Φ22X4	Φ18X8	Φ18X8
N2	Φ8X4	Φ10X4	Φ12X4	Φ16X4	Φ18X4	.....	.....	.....
*L1	70	102	70/102/125	102/125/140	125/140/165	140/165	254	254
*L2	50	70	70/102/125	102/125/140	125/140/165	.....	.....	.....
SQ.2	11/14/17	14/17/19	22/27	22/27	27/36	36/46	46/55	46/55

\* Can be customized

# JMV-9 SERIES CLUTCH GEAR OPERATOR

Dimension Table





■ HEADQUARTERS

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