

FS PART ROTATION

Cast iron body gear box



FS part rotary valve manual actuator

FS series gear box, cast iron body. Durable structure, up to the industrial grade requirements. This series is a 90° part rotary manual driving device. It is suitable for ball valves, butterfly valves, plug valves and so on. Box with precision casting, attractive designs, beautiful appearance. Using worm gear and worm to drive, worm gear with good self-locking function, internal with high performance thrust bearing to make the drive more flexible and high efficiency. The connect part of worm gear and valve stem all used in ISO5211 international standards, more convenient for valve installation. Protection grade is IP67. It can also reach IP68 under special environment. Actuator is widely used in chemical, industry, power plant, water plant, HVAC equipment and most industrial fields.

Products characteristics:

- Cast iron body (ductile cast iron for your choose)
- The box is totally sealed, internal is based on the grease filling to extend the service life
- Protected steel input shaft (stainless steel for your choose)
- Durable structure
- Axial needle roller bearing
- Stroke: 0-90° (+/-5°) Mechanical limit

Working environment instructions:

- Shell protection Ordinary type: IP67 seal, applicable to the standard environment
- -20°~+120° environment for use
- Special coating (for your choose) suitable in extreme working environment and marine environment.

FS PART ROTATION



Material instruction

Nb	Name	Material	Note	Nb	Name	Material	Note
1	Body	Grey cast iron	GG20/ASTM A30/FC20	9	Cap	Engineering Plastics	Engineering Plastics
2	Gasket	Sealed paper	PAPER	10	Worm	Carbon steel	C45/AISI 1045/S45C
3	O-ring	NBR	NBR	11	Needle bearing	Hardening steel	-
4	Worm gear	Ductile cast iron	GGG40/ASTM D60-4-18/FC40	12	Worm shaft	Carbon steel	C45/AISI 1045/S45C
5	Body cap	Grey cast iron	GG20/ASTM A30/FC20	13	Hand wheel	Cast iron	Cast iron
6	Indicator	Cast iron(engineering plastics for your choose)	-	14	Limiting screw	Steel	-
7	Pin	Spring steel	-	15	Limiting nut	Steel	-
8	Fuel nozzle	Stainless steel	SUS304				

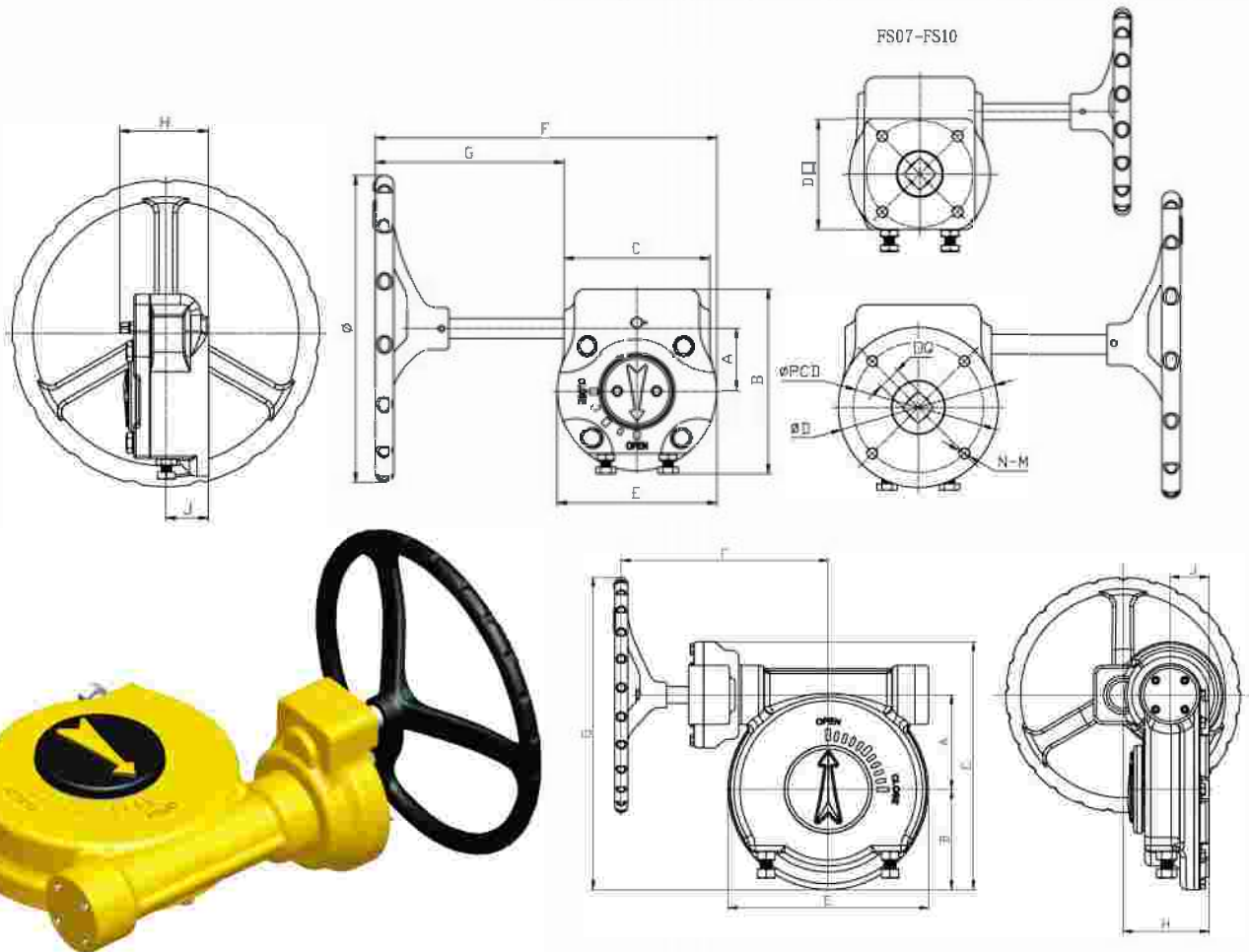
FS PART ROTATION

Dimension

Model	A	B	C	E	F	G	H	J	Ø
FS07	42	127	86	95	218	128	70	35	150
FS10	60	168	120	135	271	143	84	41	200
FS12	60	178	140	155	330	182	85	41	300
FS14	78.5	228	160	190	442	267	109	51	400
FA16	122	275	214	248	450	218	107	53	400

Connecting dimension

Model	Worm gear aperture □Q	PCD Ø	The hole number-bolt N-M	Flange outer diameter ØD	Number of flange ISO 521	Speed ratio	Output torque Nm	Input torque Nm	Weight kg
FS07	□14	70	4-M8	70□	F07	40:1	255	25	3.4
FS10	□22	102	4-M10	106□	F10	36:1	570	60	7.5
FS12	□27	125	4-M12	150	F12	36:1	930	90	10
FS14	□36	140	4-M16	180	F14	50:1	1400	110	18.3
FA16	Ø45-Ø75	165	4-M20	210	F16	70:1	2600	150	27
FA16B	Ø45-Ø75	165	4-M20	210	F16	140:1	5200	150	33
FA25B	Ø60-Ø80	254	8-M16	300	F25	207:1	8000	155	65



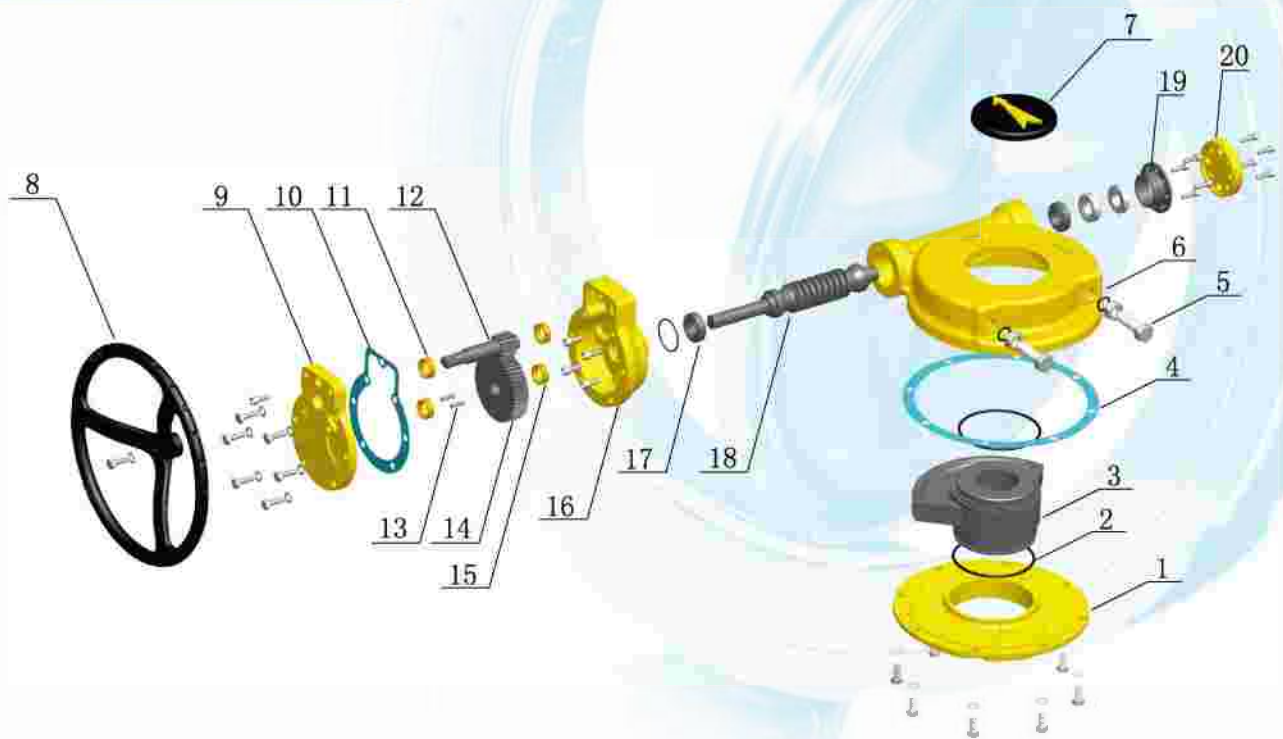
Dimension

Model	A	B	C	E	F	G	H	J	Ø
FA25B	160	170	420	340	351	528	145	66	400

Connecting dimension

Model	Worm gear aperture □Q	PCD Ø	The hole number-bolt N-M	Flange outer diameter ØD	Number of flange ISO 521	Speed ratio	Output torque Nm	Input torque Nm	Weight kg
FA25B	Ø60-Ø85	254	8-M16	300	F25	207:1	8000	155	65

FA PART ROTATION



Material instruction

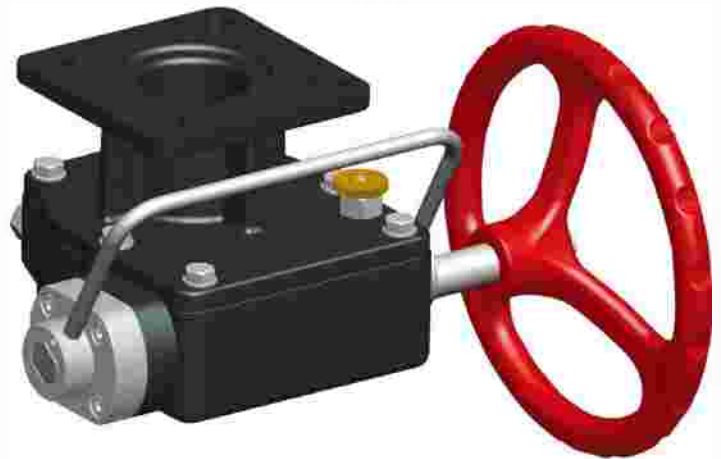
No	Name	Material	Note
1	Worm gear box base	Ductile Cast iron	ASTM 65-45-12/FCD45
2	O-ring	NBR	NBR
3	Worm gear	Ductile Cast iron	GGG70/ASTM DI00-70-03/FCD70
4	Gasket	Sealed paper	PAPER
5	Limiting screw	Steel	-
6	Worm gear box	Ductile Cast iron	ASTM 65-45-12/FCD45
7	Indicator	Cast iron(Engineering Plastics for your choose)	-
8	Hand wheel	Cast iron	CAST IRON
9	Gear box cap	Grey Cast iron	GG20/ASTM A30/FC20
10	Gasket	Sealed paper	PAPER
11	Copper bush	Copper	BC6
12	Input gear shaft	Carbon steel	C45/AISI 1045/S45C
13	Flat key	Carbon steel	C45/AISI 1045/S45C
14	Gear	Carbon steel	C45/AISI 1045/S45C
15	Copper bush	Copper	BC6
16	Gear box	Grey Cast iron	GG20/ASM A30/FC20
17	Bearing	Bearing steel	-
18	Worm	Carbon steel	C45/AISI 1045/S45C
19	Lock cap	Carbon steel	C45/AISI 1045/S45C
20	Side cap	Carbon steel	C45/AISI 1045/S45C

JHM SERIES

Cast iron body clutch type valve worm gear box

JHM series manual clutch type valve worm gear box

JHM series gear box, ductile cast iron body, durable structure. This series is a 90° part rotary manual drive device. This series only design for pneumatic actuator is widely used for pneumatic butterfly valve which is rotated 90° ball valve and plug valve in the system installation, commissioning and when the system loss of gas and power, it will converted into a manual operation device. The JHM series manual clutch worm gear box can also add security control function of the total gas source, and the valve control can be operated much safer. This is the indispensable part of the pneumatic valve control system, it's designed and manufactured according to the ISO5211 standard, with a reasonable structure and reliable performance.



Products characteristics:

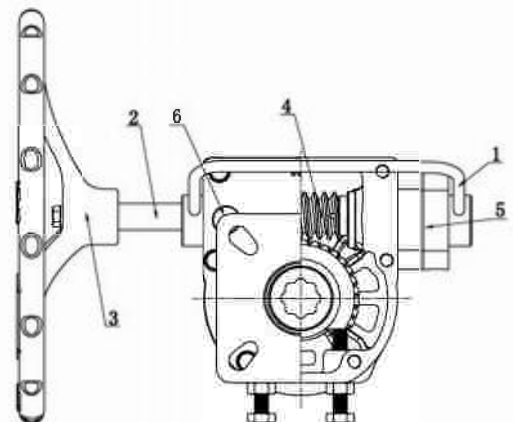
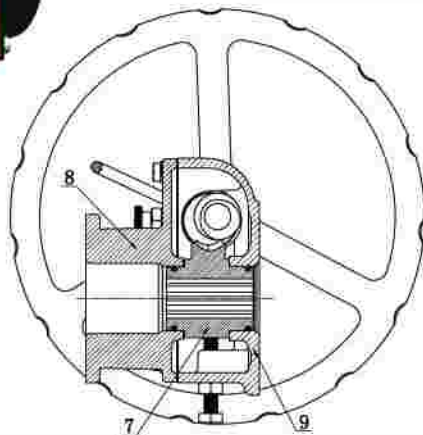
- Totally-sealed box, internal is based on the grease filling to extend the service life.
- Protected steel input shaft (stainless steel for your choose)
- Ductile cast iron shell, durable structure.
- Stroke: 0-90° (+/-5°) Mechanical limit
- Convenient conversion, lift the limit pin, rotate decentralizing device 100°, the limit pin spacing automatically to pneumatic; On the contrary, to manual.
- It can be installed total gas source security control functions.

Working environment instructions:

Shell protection Ordinary type: IP67 seal, applicable to the standard environment. -20°~ +120° use environment special coating (for your choose) suitable in extreme working environment and marine environment.

Structure and material

No	Name	Qty	Material
1	Handle	1	Stainless steel SUS304
2	Worm shaft	1	Carbon steel 45 S45C/AISI 1045
3	Hand wheel	1	Ductile iron FCD45/ASTM 65-45-12
4	Worm	1	Carbon steel 45 S45C/AISI 1045
5	Air source valve	1	High quality aluminum alloy
6	Limiting screw	1	Brass
7	Worm gear	1	Ductile iron FCD70/GGG70/ASTM D100-70-03
8	Cap	1	Ductile iron FCD45/ASTM 65-45-12
9	Body	1	Ductile iron FCD45/ASTM 65-45-12



JHM SERIES

Connection data

Model	Flange connection data								
	□J	K1	K2	h-Q1	n-Q2	D1	D2	n-P1	n-P2
JHM40	17	Ø50	Ø70	4-M6	4-M8	Ø50	Ø70	4-Ø7	4-Ø9
JHM28	22	Ø70	-	4-M8	-	Ø70	Ø102	4-Ø9	4-Ø11
JHM32	22	Ø70	Ø102	4-M8	4-M10	Ø102	Ø125	4-Ø11	4-Ø14
JHM50	27	Ø102	Ø125	4-M10	4-M12	Ø102	Ø125	4-Ø11	4-Ø14
JHM62	36	Ø140	-	4-M16	-	Ø140	Ø165	4-Ø18	4-Ø22
JHM70	46	Ø165	-	4-M20	-	Ø140	Ø165	4-Ø18	4-Ø22

Model	Dimension						
	A	B	C	E	F	□G	H
JHM40	85	130	110	146	55	70	99
JHM28	112	173	145	190	115	110	114
JHM32	138	188	160	202	122	120	124
JHM50	150	208	165	266	128	120	135
JHM62	175	253	210	230	138	160	129
JHM70	247	340	280	328	148	160	184

Model	Speed ratio	Torque(NM)		Hand wheel Ø	Valve connection	Actuator connection
		Input	Output			
JHM40	40: 1	30	300	Ø150	F05/F07	F05/F07
JHM28	28: 1	50	350	Ø200	F07	F07/F10
JHM32	32: 1	80	640	Ø200	F07/F10	F10/F12
JHM50	50: 1	95	1200	Ø300	F10/F12	F10/F12
JHM62	62: 1	130	2100	Ø300	F14	F14/F16
JHM70	70: 1	150	2800	Ø400	F16	F14/F16

