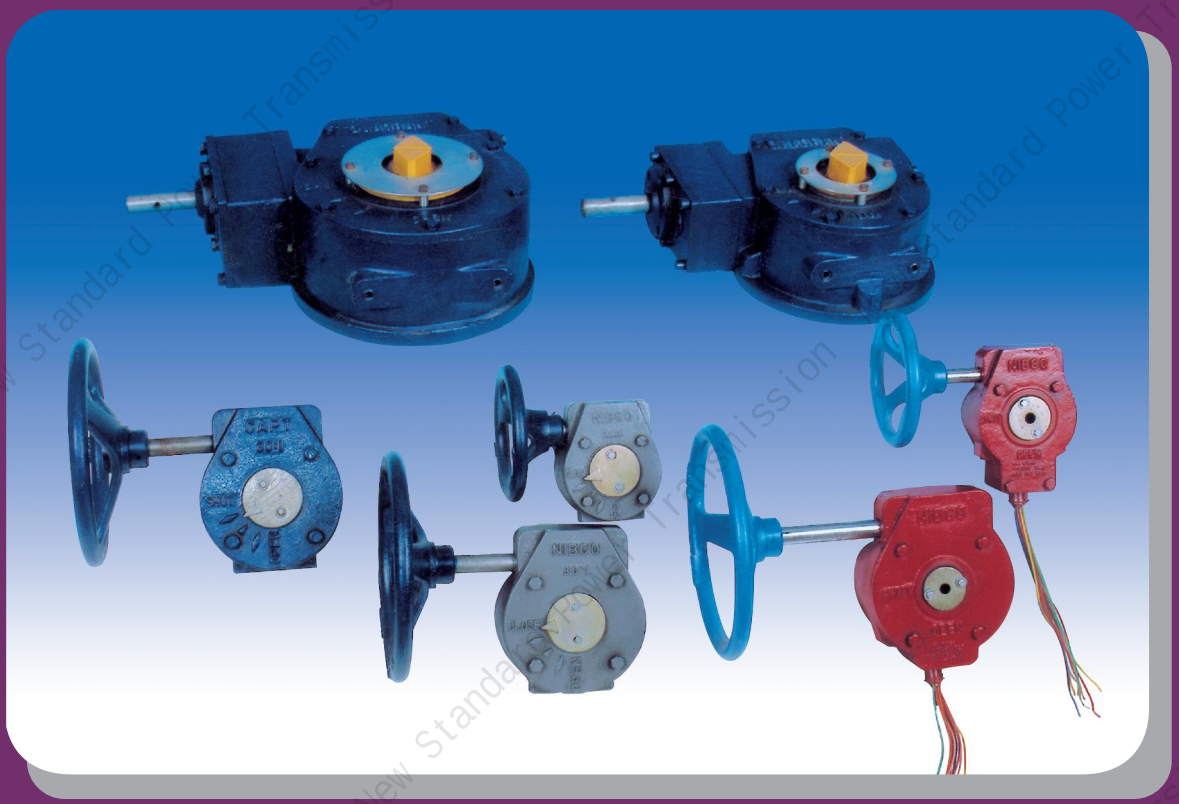
VALVE ACTUATOR

NSPT Series of Valve Actuator

Suitable component for wide range of ball valve, butterfly valve and so on







NSPT valve actuator is produced by high grade engineered materials for great efficiency, excellent performance and high safety and reliability. Other materials are available to choose from upon customers' requests.

VALVE ACTUATOR

Inches



CG Series of Worm Operators

A kind of drive device at 90° turning, suitable for ball valve, butterfly valve, cock valve and other types of valves. For large sizes, spur gear reducing device need to be installed to reduce manual operating force. There are two types: horizontal (H type) and vertical (V type).

Allowable output torque range:

Metric: 270~25000 N.m

Inches:2390~221250 LBF.IN



CFP Series of Worm Operators

It is a product derived from CG series. A micro-active switch is fixed in the device body. Suitable for ball valve, butterfly valve, cock valve and other types of valves that are mainly used in the fire fighting field.

Allowable output torque range:

Metric: 270~700 N.m

Inches: 2390~6018 LBF.IN



CWG Series of Worm Operators

A kind of high-efficiency device at 90° turning. The main components include gear body and cover made of ductile iron. Bearings installed inside the body, and the output torque is larger than other types. Suitable for ball valve, butterfly valve, cock valve and other types of valves.

Allowable output torque range:

Inches: 4000~141600 LBF.IN

VALVE ACTUATOR

Inches



BG Series of Bevel Gear Operators

This is a multi-turning type drive device suitable for gate valve, stop valve and other types of valves which use stem and unit type comection with the valve. There are two types: horizontal (H type) and vertical (V type)

Allowable ouput torque:

Inches: 188-12000 LBF.IN



CBG Series of Bevel Gear Operators

This is a multi-turning type drive device suitable for gate valve, stop valve and other types of valves using tooth scarf-joining type connection with the valve. An auxiliary gear box may be needed. The material for the main parts is high-quality ductile iron.

Allowable output torque range:

Inches: 750~5000 LBF.FT



CB Series of Bevel Gear Operators

This is a multi-turning economic type drive device suitable for gate valve, stop valve and other types of valves using tooth scarf-joining type connection with the valve. The material of the main parts is grey cast iron.

Allowable output torque range:

Inches: 9960~40000 LBF.FT

VALVE ACTUATOR

Inches

CGA Series of Worm Operators



- 90°-turning manual drive device suitable for ball valve, butterfly valve, cock valve and other types of valves.
- Allowable output torque range is 2390~221250 LBF. IN.
- Handwheel can be installed on both left and right sides.
- The dimensions joining with the valve are designed according to ISO5211/MSS SP-101.
- Loaded with grease inside gear body; shell sealed for waterproof protection (grade IP65), which are suitable for devices used indoor and outdoor.
- An anti-wrong-doing operation locking seat, a locking plate and an indication device are used together with a limiter switch at the customers' choice.
- There are two types: horizontal (H type) and vertical (V type).

CGA Valve Technical Parameters of Actuators

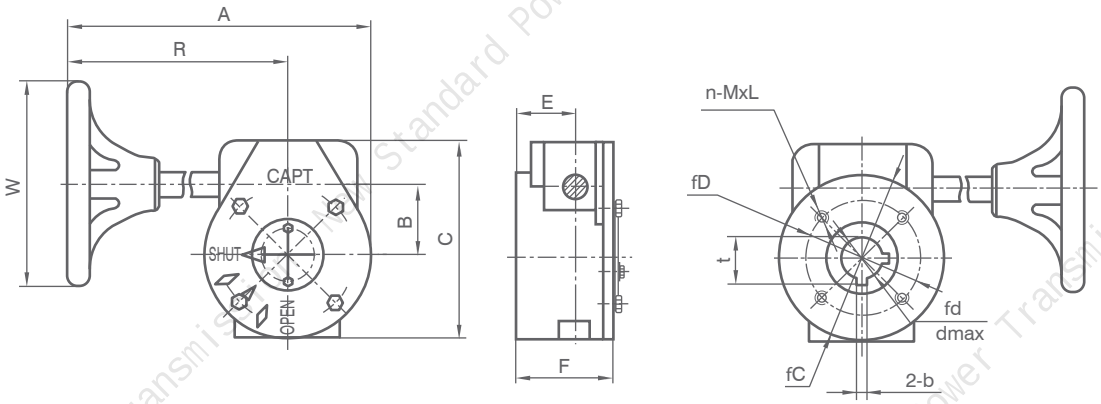
Model	CGA24	CGA30	CGA50	CGA80	CGA200	CGA300	CGA320	CGA330	CGA410	CGA520
Geat Ratio	24:1	30:1	50:1	80:1	200:1	291:1	319:1	330:1	407:1	518:1
Max Travel	90°±5°	90°±5°	90°±5°	90°±5°	90°±5°	90°±5°	90°±5°	90°±5°	90°±5°	90°±5°
Rated Input (lbf·in)	708	1062	1062	1328	885	443	885	2124	—	—
Rated Output (lbf·in)	2390	6195	10620	17700	26550	26550	61950	106200	150450	221250
Efficiency	14	19.44	20	16.66	15	20.6	21.94	15.15	—	—
Weight (lb)	11/14	23	26	55	106	90	153	269	529	838
Max. Stem Dia. (in.)	1.02	1.18	1.77	2.13	2.13	2.13	2.60	3.94	3.94	3.94

VALVE ACTUATOR

Inches

CGA one-step valve actuator-H type





CGA Dimension table of one-step valve actuator -H type

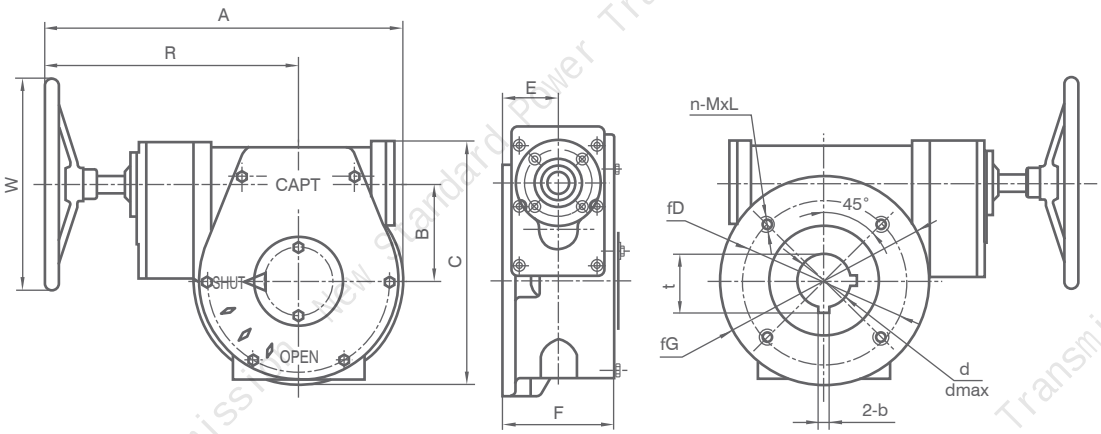
model	calibre dia DN	dmax	d	b	t	FG	FD	n-MxL	A	B	C	E	F	W optional	R optional
CGA24	2"~3"	1.02	0.50	0.13	0.56	4.25	2.0	4-1/4-20UNCx0.40	9.76	1.77	5.04	1.50	2.52	6	7.64
	14"		0.63	0.19	0.72		2.75	4-5/16-18UNCx0.5							
	5"~6"		0.75		0.84				11.65					10	9.53
CGA30	8"	1.18	0.87	0.19	0.96	6.06	4.0	4-3/8-16UNCx0.60	14.53	2.48	6.93	1.75	2.95	10	11.50
	10"	1.77	1.13	0.25	1.25				11.50					12	8.46
CGA50	12"~14"	1.77	1.25	0.25	1.38	5.51	4.0	4-3/8-16UNCx0.60	16.02	3.07	7.48	1.75	2.95	12	12.87
CGA80	16"	2.13	1.31	0.31	1.44	7.76	5.5	4-5/8-11UNCx0.94	18.50	4.72	10.24	2.17	3.86	12	13.58
	18"		1.50		1.63				19.96					16	15.04

VALVE ACTUATOR

Inches

CGA multi-steps valve actuator-H type





CGA Dimension table of multi-steps valve actuator-H type

Model	Calibre Dia.	dmax	d	b	t	fG	fD	n-MxL	A	B	C	E	F	W optional	R optional
CGA200	20"	2.13	1.63	0.39	1.76	7.76	6.25	4-5/8-11UNCx1.06	18.74	4.72	12.32	—	6.06	12	13.31
	24"		2.00	0.63	2.17	10.87	8.50	4-3/4-10UNCx1.18							
CGA300	20"	2.13	1.63	0.38	1.80	9.84	5.50	4-5/8-11UNCx0.98	23.03	4.13	11.42	2.36	4.72	12	18.11
	24"		2.00	0.50	2.22		6.50	4-3/4-10UNCx1.18							
CGA320	28"~32"	2.60	2.17	4-0.63	2.33	11.81	10	8-5/8-11UNCx0.98	20.87	5.51	13.78	2.76	5.59	12	14.96
CGA330	36"	3.94	2.95	4-0.79	3.15	11.81	10	8-5/8-11UNCx0.98	28.54	7.48	19.06	—	7.01	32	21.46
CGA410	42"	3.94	4.33	4-1.0	4.77	17.32	11.75	8-3/4-10UNCx1.18	31.73	8.86	22.28	—	8.27	28	22.80
CGA520	48"	3.94	5.12	4-1.26	5.41	21.26	14	8-1-8UNCx1.77	37.01	10.39	27.01	—	10.12	32	26.38

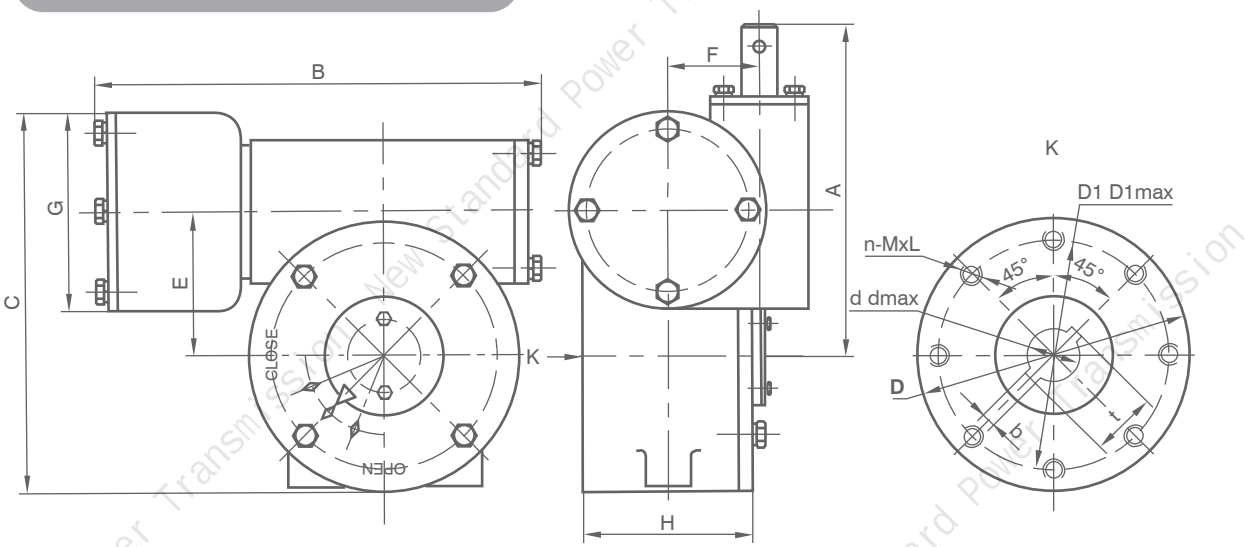
VALVE ACTUATOR

CGA two-steps valve worm gear operator-V type



CGA two-steps valve worm gear operator-V type

model	CGA350	CGA120
gear ratio	352:1	416:1
max travel	90°±5°	90°±5°
rated input (lbf. in)	1062	1150.5
rated output (lbf. in)	26550	35400
efficieney %	7.1	7.39
weight (lb)	93	121
max stem dia (in)	2.13	2.13



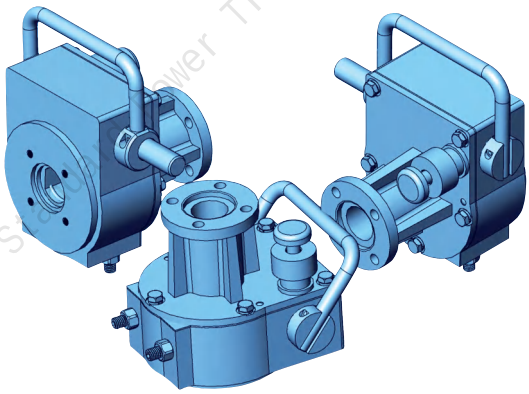
CGA Dimension table of two-step valve actuator -V type

model	calibre dia DN	dmax	d	b	t	D	D1	D1max	n-MxL	A	B	C	E	F	G	H
CGA350	18"~20"	2.13	1.63	0.38	1.81	9.06	6.25	6.50	4-5/8-11UNCx1.02	11.42	13.35	11.61	4.33	2.48	5.51	5.12
							6.50		4-3/4-10UNCx1.02							
CGA420	24"		2	0.5	2.24	10.04	6.50	8.50	8-3/4-10UNCx1.02	11.65	13.70	12.72	4.92			
							8.5									

VALVE ACTUATOR

Inches

CLGA Series of Worm Operators



- 90˚-turning clutching type drive that can be manual/pneumatic drive suitable for ball valve, butterfly valve, cock valve and other types of valves.
- Allowable output torque range: 147~15000 N.m.
- The dimensions connected with the valve designed and produced according to ISO5211/MSS SP-101.
- Loaded with grease inside device body; shell sealed for waterproof protection (grade IP65), which are suitable for devices used indoor and outdoor.

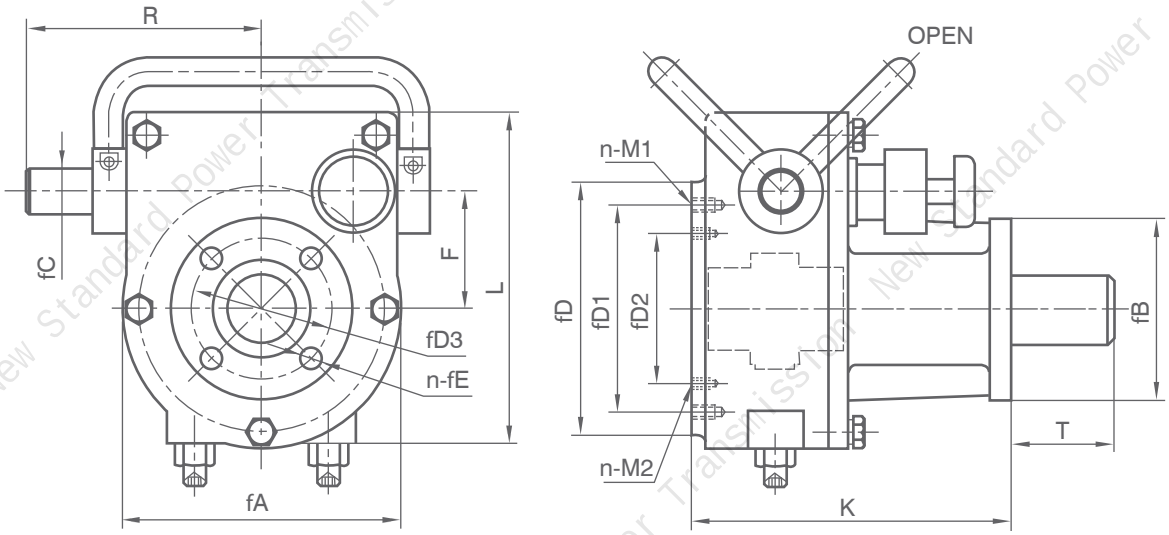
CLGA Technical Parameters of Valve Actuators

Model	CLGA-1	CLGA-3	CLGA-9	CLGA-13	CLGA-28	CLGA-35	CLGA-70	CLGA-140
Geat Ratio	41:1	40:1	48:1	49:1	53:1	128:1	225:1	405:1
Max Travel	90°±5°	90°±5°	90°±5°	90°±5°	90°±5°	90°±5°	90°±5°	90°±5°
Rated Output (lbf·in)	1301	3098	9204	13204	28001	35002	70004	140007
Weight (lb)	11	18	26	51	115	121	243	518
Max. Stem Dia.(in.)	0.83	1.42	2.01	2.52	3.47	3.47	3.47	5.00

VALVE ACTUATOR

Inches

CLGA valve actuators



CLGA Dimension table of valve actuators (in)

model	MSS	FA	FB	FC	FD	FD1	n-M1	FD2	nxM2	FD3	n-FE	F	K	L	R	T
CLGA-1	FA05	3.94	2.52	0.59	3.54	2	4-1/4-20UNC	-	-	2	4-F0.32	1.77	4.53	4.49	3.50	0.71
CLGA-3	FA07/FA10	5.04	3.54	0.59	5.04	4	4-3/8-16UNC	2.75	4-5/16-18UNC	2.75	4-F0.39	2.24	4.80	5.98	4.37	0.98
CLGA-9	FA10/FA12	6.30	4.92	0.79	5.94	4.95	4-1/2-13UNC	4	4-3/8-16UNC	4	4-F0.43	3.23	5.43	7.48	5.04	1.10
CLGA-13	FA12	7.01	5.91	0.87	5.91	4.95	4-1/2-13UNC	-	-	4.95	4-F0.55	3.62	6.38	8.19	6.38	1.77
CLGA-28	FA14	10.83	6.89	0.98	10.83	5.5	4-5/8-11UNC	-	-	5.5	4-F0.71	5.35	7.13	11.81	8.58	1.89
CLGA-35	FA16	8.27	8.27	1.02	8.27	6.5	4-3/4-10UNC	-	-	6.5	4-F0.87	5.59	9.45	11.73	14.02	3.15
CLGA-70	FA16/FA25	11.81	12.01	1.02	11.81	10	8-5/8-11UNC	6.5	4-3/4-10UNC	10	8-F0.67	5.98	10	15.59	12.99	3.15
CLGA-140	FA25/FA30	13.78	13.78	1.02	13.78	11.75	8-3/4-10UNC	10	8-5/8-11UNC	11.75	8-F0.87	7.20	13.78	15.00	14.49	3.15

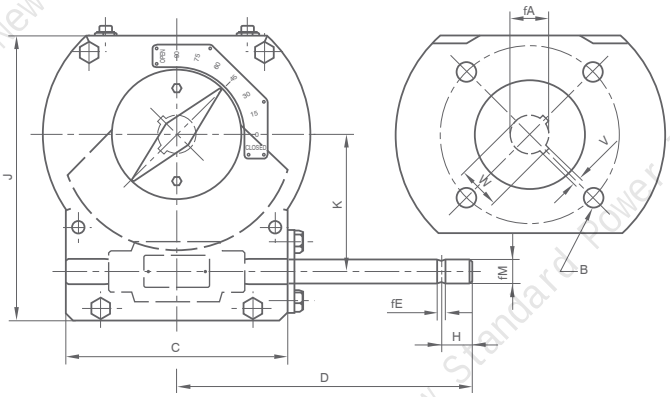
VALVE ACTUATOR

Inches



CWGA Series of Worm Gear Operators

- 90°-turning manual operating device suitable for connecting with butterfly valve, ball valve and cock valve, etc.
- Permitted output torque range: 4000～141600 LBF.IN.
- Handwheel can be equipped from both left and right sides.
- Dimension joining with valves is designed according to standard ISO5211/MSS SP-101.
- Loaded with grease inside device body, shell sealed for waterproof protection (grade IP65), which are suitable for devices used indoor and outdoor.
- The device body and cover are made of ductile iron for high efficiency. Two ends of the worm are equipped with bearings for good mechanical efficiency.



CWGA Technical Parameters of Valve Actuators (in)

Model	MSS	B	C	D	E	H	J	K	M	A	V	W	Gear Ratio	Max Output Torque (lbf·in)	Weight (lb)
CWGA4	FA10	4-3/8-16UNCx0.6 4.00 BCD	5.12	6.75	0.25	0.94	7.28	2.88	0.75	0.81	0.19	0.90	34:1	4000	27
CWGA10	FA12	4-1/2-13UNCx0.71 4.95 BCD	5.83	7.68	0.25	0.94	8.54	3.38	0.75	1.88	0.50	2.03	38:1	10001	31
CWGA18	FA14	4-5/8-11UNCx0.94 5.50 BCD	6.81	9.09	0.25	0.94	8.86	4.25	0.75	1.06	0.25	1.18	55:1	18001	44
CWGA32	FA16	4-3/4-10UNCx1.18 6.50 BCD	8.07	7.46	0.25	1.11	10.87	5.25	0.98	1.63	0.38	1.80	52:1	38374	75
CWGA65	FA25	8-5/8-11UNCx0.63 10.00 BCD	12.13	10.19	0.25	1.11	15.39	7.63	0.98	2.50	0.63	2.68	78:1	77942	175
CWGA120	FA30	8-3/4-10UNCx1.18 11.75 BCD	12.13	15.24	0.25	1.11	15.39	7.63	0.75	3.25	0.88	3.63	312:1	141600	199

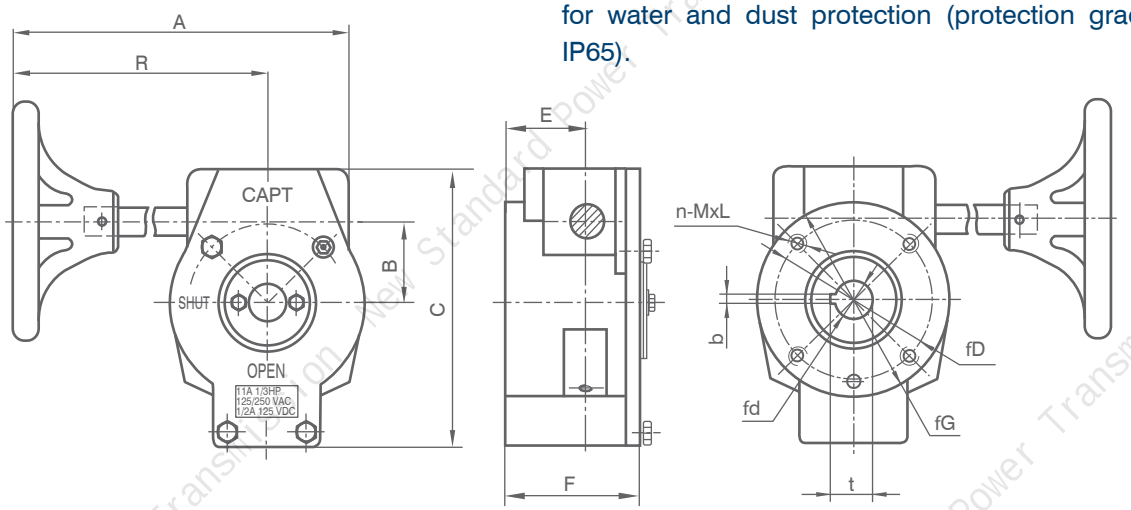
VALVE ACTUATOR

Inches



CFPA Series (with Electrical Signal) of Worm Gear Operators

- 90° turning manual operating device with micro-active switch installed inside, suitable for connecting with ball valve, butterfly valve, etc. that used in fire extinguishing field.
- Permitted output torque range: 2390~6018 LBF. IN
- Handwheel can be equipped from both left and right sides.
- Dimension connecting with valves is designed according to ISO5211/MSS SP-101 standard
- Loaded with grease inside device body, shell sealed for water and dust protection (protection grade is IP65).



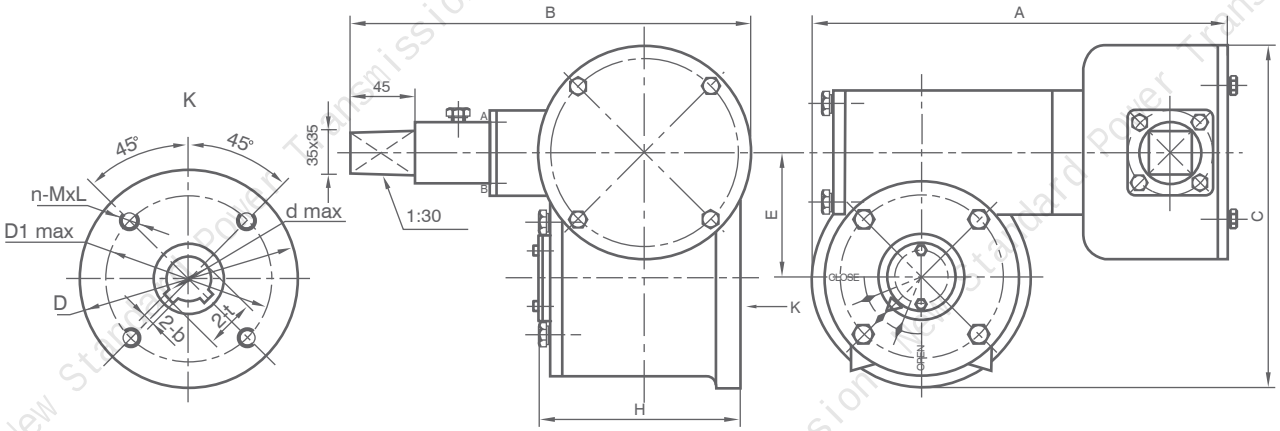
CFPA Technical Parameters of (with Electrical Signal) Valve Actuator

Model	Calibre Dia DN	dmax	d	b	t	G	FD	n-MxL	A	B	C	E	F	R	W Optional	Output Torque (lbf.in)	Effici-ency %	Weight (lb)
CFPA24	2"~3"	—	0.5	0.13	0.56	4.25	2	4-1/4-20UNCx0.40	9.80	1.77	6.46	1.50	2.52	7.68	6	2390	14	12
	4"	1.02	0.63	0.19	0.72		2.75	4-5/16-18UNCx0.51										
	5"~6"		0.75		0.84				9.37					7.24	10			16
CFPA30	8"	1.18	0.87		0.96	6.06	4	4-3/8-16UNCx0.60	12.52	2.48	7.87	1.75	2.95	9.49	12	6018	18.9	26
	10"	1.77	1.13	0.25	1.25													

VALVE ACTUATOR

Inches

CDGA Series of Worm Gear Operators for Underground Use



CDGA Technical Parameters of Valve Actuators

Model	CDG24	CDGA30	CDGA80	CDGA140	CDGA200	CDGA300	CDGA360
Gear Ratio	27:1	34:1	80:1	140:1	200:1	300:1	360:1
Rated Output Torque (lbf.in)	1505	5930	10620	17700	35400	61950	141600
Weight (lb)	17	32	37	80	113	178	232

CDGA Dimension Table of CDG Valve Actuator (Inch)

Model	Calibre Dia DN	d	d max.	b	t	D	D1	Dmax	n-MxL	A	B	C	E	H
CDGA24	2"~3"	0.5	1.02	0.12	0.56	3.03	2.24	2.76	4-1/4-20UNCx0.51	7.17	8.07	5.67	1.77	3.43
	4"	0.63		0.2	0.72	3.62	2.76		4-5/16-18UNCx0.51					
	5"~6"	0.75			0.84									
CDGA30	8"	0.87	1.18	0.2	0.96	4.53	3.5	3.54	4-1/2-13UNCx0.59	8.15	8.94	7.28	2.48	3.62
	10"	1.13		0.31	1.26									
CDGA80	12"~14"	1.25	1.77	0.31	1.38	5.51	4.25	4.25	4-1/2-13UNCx0.71	9.49	7.99	8.03	3.07	3.50
CDGA140	16"	1.31	2.13	0.39	1.44	7.76	6.25	6.69	4-5/8-11UNCx1.02	12.80	9.13	12.05	4.72	4.92
	18"	1.5			1.63									
CDGA200	20"	1.63	2.13	0.39	1.76	7.76	6.25	8.50	4-5/8-11UNCx1.1	14.84	11.65	13.35	4.72	6.01
	24"	2		0.63	2.71	10.87	8.5		4-3/4-10UNCx1.1					
CDGA300	28"~32"	2.17	2.60	4-0.63	2.33	11.81	10	10	4-5/8-11UNCx1	16.61	14.84	16.54	5.98	6.42
CDGA360	36"~42"	2.95	3.94	4-0.79	3.15	14.17	10	11.73	4-5/8-11UNCx1	17.87	15.55	21.54	7.48	7.01

VALVE ACTUATOR

Inches

BGA Series of Bevel Gear Operators



- Total turning manual operating device suitable for joining with gate valve, stop valve, etc.
- Permitted output torque range: 188～12000 LBF.IN.
- Joining with valve by guide screw and nut; flange joining is designed according to ISO 5211/MSS SP-01 standard.
- The device body and cover are made of ductile iron for high efficiency. Two ends of the worm are equipped with bearings with good mechanical efficiency.
- Horizontal (H type) and vertical (V type).

BG Technical Parameters of One-step Valve Actuators-H Type

Model	BG05	BG08	BG10	BG20	BG30	BG40	BG50
Geat Ratio	2.9:1	3:1	3:1	4:1	6:1	6:1	8:1
Maximum Output Torque (lbf·ft)	188	261	623	750	1250	3000	5000
Maximum Pushing Force (lbf)	16872	25420	40000	40000	80000	100000	150000
Maximum Stem Diameter (in.)	1.02	1.34	1.81	2.00	2.38	3.13	4.00
Weight (lb)	20	23	46	50	88	163	250
Efficiency	0.9	0.9	0.90	0.90	0.90	0.90	0.90

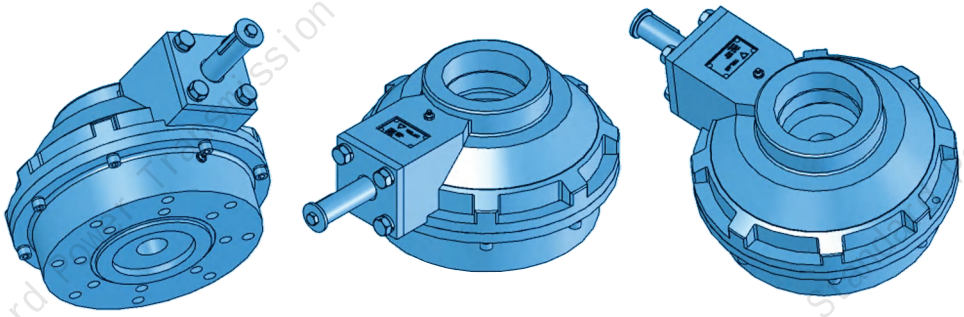
BG Technical Parameters of Multi-step Valve Actuators-H Type

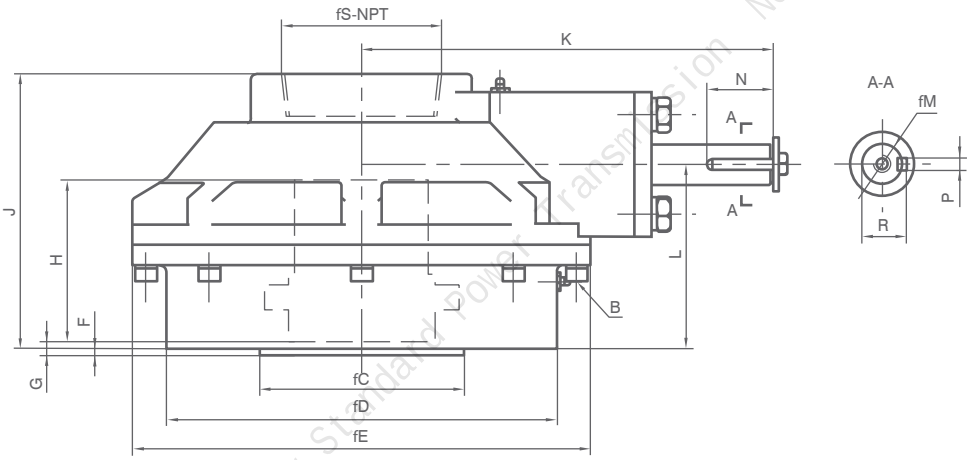
Model	BG30B	BG40B	BG50B	BG60	BG70	BG100
Geat Ratio	30.0:1	30.0:1	40.0:1	43.0:1/81.8:1	43.0:1/81.8:1	44.2:1/84.1:1
Maximum Output Torque (lbf·ft)	1250	3000	5000	8000	8000	12000
Maximum Pushing Force (lbf)	80000	100000	150000	200000	300000	30000
Maximum Stem Diameter (in.)	2.38	3.13	4.00	4.50	4.50	5.50
Weight (lb)	125	203	290	419	529	1000
Efficiency	0.80	0.80	0.80	0.70	0.70	0.70

VALVE ACTUATOR

Inches

BGA one-step valve actuators-H type





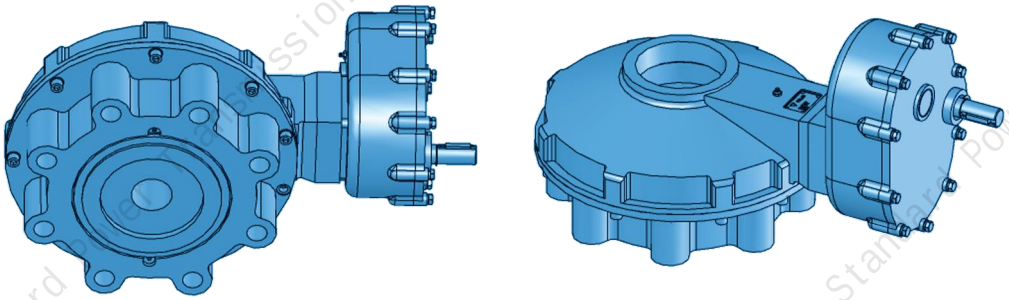
BGA Dimension table of BGA valve actuators-H type

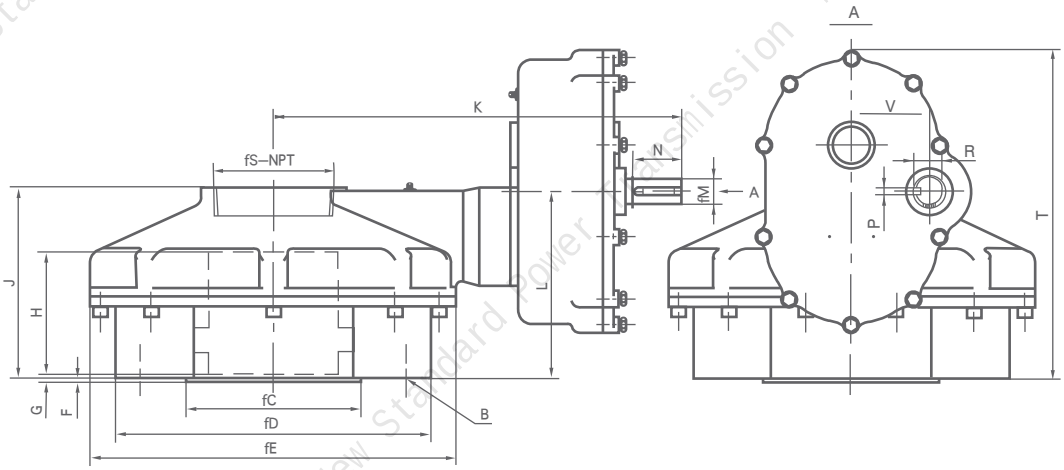
UNIT	MSS	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S
BGA05	FA10	4-3/8-16UNCx0.6 4.00 BCD	2.76	5.31	5.51	0.12	0.12	1.73	3.86	5.91	1.97	0.83	0.98	0.24	0.93	0.06
BGA08	FA12	4-1/2-13UNCx0.6 4.95 BCD	3.35	6.30	6.69	0.12	0.12	1.97	4.45	7.09	2.36	1.02	1.38	0.31	1.14	0.08
BGA10	FA14	4-5/8-11UNCX1.1 5.50 BCD	3.75	6.93	7.87	0.16	0.16	2.36	4.80	8.35	3.11	1.18	1.93	0.31	1.34	0.1
BGA20	FA14	4-5/8-11UNCX1.38 5.50 BCD	3.75	6.93	8.27	0.16	0.31	2.99	6.06	8.39	4.02	1.18	1.93	0.31	1.34	0.1
BGA30	FA16	4-3/4-10UNCX1.77 6.50 BCD	5	7.99	9.84	0.20	0.47	4.02	7.05	9.8	4.76	1.18	1.93	0.31	1.34	0.12
BGA40	FA25	4-5/8-11UNCX1.38 10.00 BCD	5.98	11.42	13.39	0.20	0.47	4.76	8.07	10.98	5.43	1.18	1.93	0.31	1.34	0.16
BCA50	FA30	4-3/4-10UNCX1.77 11.75 BCD	7.01	13.62	15.75	0.20	0.24	5.98	8.74	13.39	6.30	1.18	1.93	0.31	1.34	0.16

VALVE ACTUATOR

Inches

BGA multi-step valve actuators-H type





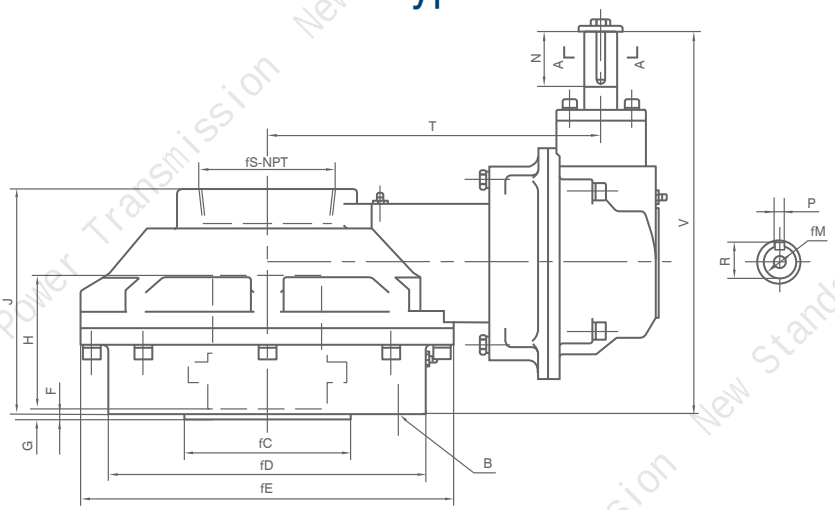
BGA Dimension table of BGA multi-step valve actuators-H type

UNIT	MSS	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	V
BGA30B	FA16	4-3/4-10UNCX1.75 6.50 BCD	5	7.99	9.84	0.20	0.47	4.02	7.05	13.43	9.53	1.18	1.93	0.31	1.34	0.12	11.14	N/A
BGA40B	FA25	8-5/8-11UNCX1.38 10.00 BCD	5.98	11.42	13.39	0.20	0.47	4.76	8.07	13.62	10.24	1.18	1.93	0.31	1.34	0.16	11.18	N/A
BGA50B	FA30	8-3/4-10UNCX1.75 11.75 BCD	7.01	13.62	15.75	0.20	0.24	5.98	8.74	15.98	9.53	1.18	1.93	0.31	1.34	0.16	11.14	N/A
BGA60	FB35	8-1 1/4-7UNCx2.75 14.00 BCD	8.50	16.38	17.76	0.20	0.39	5.94	9.25	19.80	9.09	1.18	2.36	0.31	1.34	0.20	15.94	3.74
BGA70	FB48	8-1 1/2-8UNCx3.00 14.00 BCD	8.50	17.01	17.76	0.20	—	9.37	12.80	19.80	12.60	1.18	2.36	0.31	1.34	0.20	19.45	3.74
BGA100	—	12-1 1/2-8UNCx2.63 19.00 BCD	14.57	22.01	—	0.38	0.30	7.99	18.54	19.17	17.76	1.18	2.36	0.31	1.34	0.24	24.65	3.74

VALVE ACTUATOR

Inches

BGSA valve actuators-V type



BGSA Technical parameters of valve actuators-V type

Model	BGSA08	BGSA10	BGSA20	BGSA30	BGSA40	BGSA50
Geat ratio	9:1	9:1	16:1	24:1	24:1	32:1
Max. output torque ft,lb	261	623	750	1250	3000	5000
Max. thrust lb	25420	40000	40000	80000	100000	150000
Max. stem dia. in	1.34	1.81	2.00	2.38	3.13	4.00
Weight lb	40	44	100	135	200	250
Efficiency	0.90	0.90	0.80	0.80	0.80	0.80

BGSA Dimension table of BGSA valve actuators-V type

Model	MSS	B	C	D	E	F	G	H	J	M	N	P	R	S	T	V
BGSA08	FA12	4-1/2-13UNCx0.6 4.95 BCD	3.35	6.30	6.69	0.12	0.12	1.97	4.45	1.02	1.38	0.31	1.14	0.08	7.68	8.66
BGSA10	FA14	4-5/8-11UNCx1.1 5.50 BCD	3.75	6.93	7.87	0.16	0.16	2.36	4.80	1.18	1.93	0.31	1.34	0.1	8.27	10.63
BGSA20	FA14	4-5/8-11UNCx1.38 5.50 BCD	3.94	6.93	8.27	0.16	0.31	2.99	6.06	1.18	1.93	0.31	1.34	0.1	9.02	12.36
BGSA30	FA16	4-3/4-10UNCx1.77 6.50 BCD	5	7.99	9.84	0.2	0.47	4.02	7.05	1.18	1.93	0.31	1.34	0.12	10.63	13.15
BGSA40	FA25	8-5/8-11UNCx1.38 10.00 BCD	5.98	11.42	13.39	0.2	0.47	4.76	8.07	1.18	1.93	0.31	1.34	0.16	11.93	13.82
BGSA50	FA30	8-3/4-10UNCx1.77 11.75 BCD	7.01	13.62	15.75	0.2	0.24	5.98	8.74	1.18	1.93	0.31	1.34	0.16	14.29	13.15

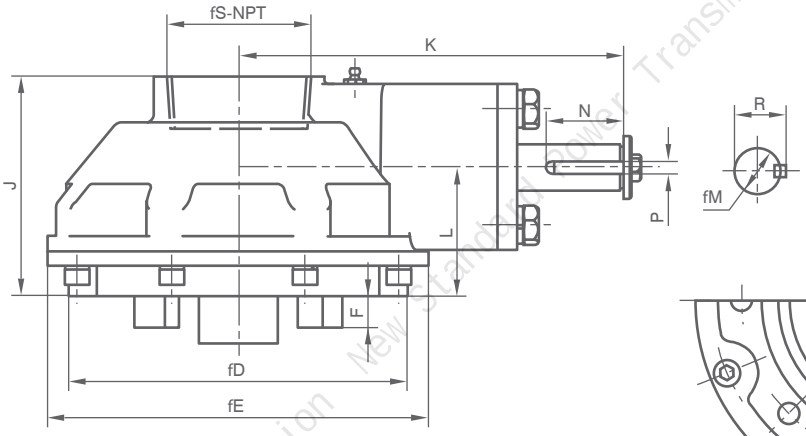
VALVE ACTUATOR

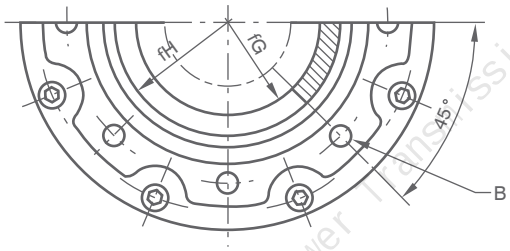
Inches

CBGA Series of Bevel Gear Operators



- Multi-turning manual type drive device suitable for gate valve, stop valve, and other types of valves.
- Allowable output torque range: 750~5000 LBF.FT.
- Using tooth scarf-joining type connection with valve; flange connection should be designed and produced according to ISO5211/MSS SP-101 standard.
- Material used for gear body and cover is cast iron. Parts are made of high capability ductile iron.





CBGA Technical Parameters of CBGA Valve Actuators

Model	MSS	B	D	E	F	G	H	J	K	L	M	N	P	R	S	Gear Ratio	Max.Output Torque (lbf·ft)	Efficiency	Max.Stem Dia (in.)	Weight (lb)
CBGA20	—	4-1/2-13UNCx0.75 7.63 BCD	—	8.66	0.49	2.76	3.50	4.92	8.39	2.87	1.18	1.93	0.31	1.34	0.98	4:1	750	0.90	2.06	45
CBGA30	—	8-1/2-13UNCx0.75 7.63 BCD	8.74	9.84	0.83	4.37	5.39	5.67	10.31	3.39	1.18	1.93	0.31	1.34	0.12	6:1	1250	0.90	3.00	65
CBGA40	—	8-1/2-13UNCx0.75 7.63 BCD	8.74	13.39	0.67	4.37	5.39	6.50	10.98	3.86	1.18	1.93	0.31	1.34	0.16	6:1	3000	0.90	4.00	100
CBGA50	FA30	8-3/4-10UNCx1.75 11.75 BCD	13.27	15.75	—	4.37	5.75	6.46	13.39	4.02	1.18	1.93	0.31	1.34	0.16	8:1	5000	0.90	4.25	200

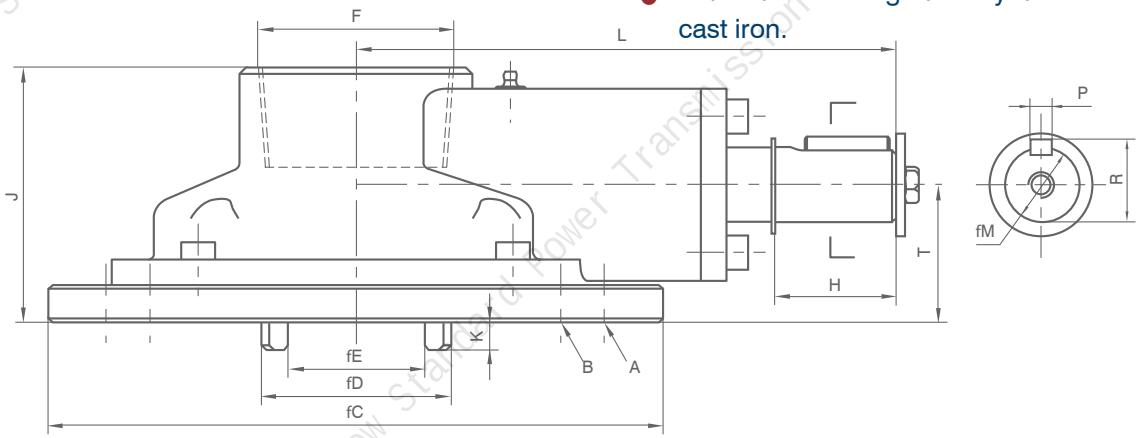
VALVE ACTUATOR

Inches



CBA Series of Bevel Operators

- Multi-turning type drive device suitable for gate valve, stop valve, and other types of valves.
- Allowable output torque range: 996~4000LBF.FT
- Using tooth scarf joining type connection valve; flange connection should be designed and produced according to ISO52100/MSS SP-101 standatd.
- Material used for gear body and cover is cast iron.



CBA Technical Parameters of CBA Valve Actuators

Model	Gear Ratio	Max. Output Torque (lbf·ft)	Max. Stem Dia. (in.)	Weight (lb)
CBA107	2.92:1	996	2.64	44
CBA207	4.07:1	1991	3.94	76
CBA307	6:1	4000	3.94	168

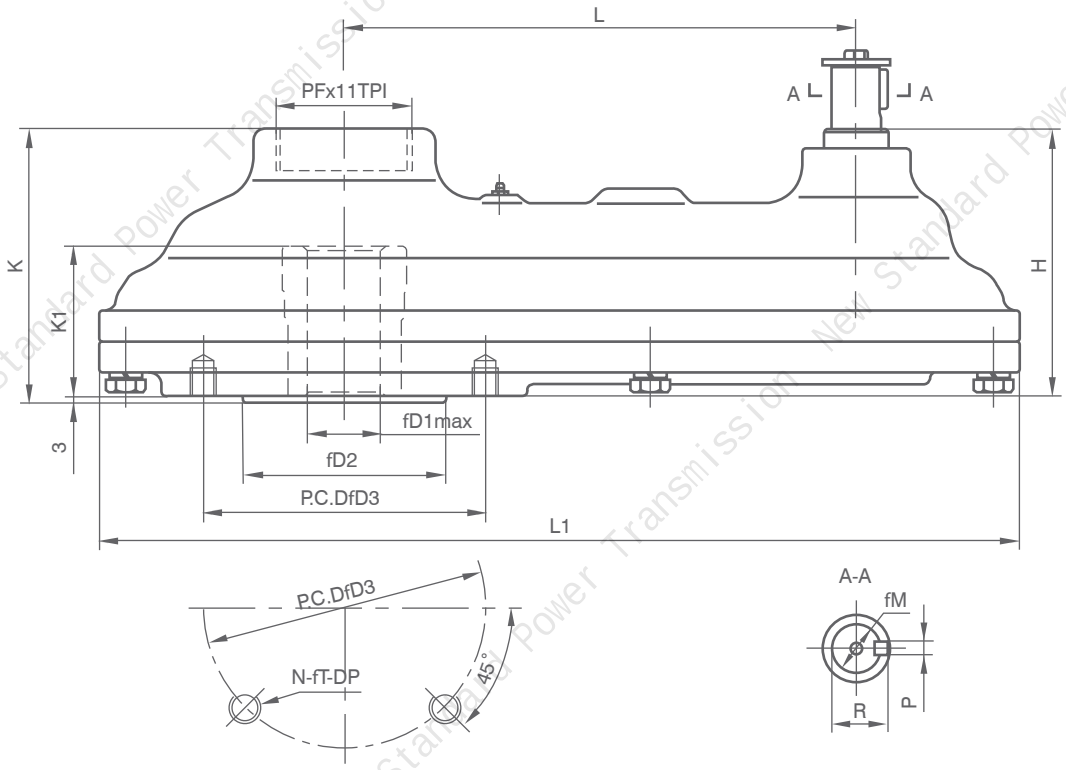
CBA Dimension Table of CBA Valve Actuators(in)

Model	A	B	C	D	E	F	H	J	K	L	T	M	P	R
CBA107	8-5/8-11UNC 10.00 BCD	4-1/2-13UNC 7.63 BCD	11.42	3.50	2.76	3NPT	2.24	4.72	0.51	10.77	2.56	1.38	0.5	1.56
CBA207	8-3/4-10UNC 11.75 BCD	8-1/2-13UNC 7.63 BCD	13.46	5.24	4.13	4NPT	2.24	5.43	0.79	11.36	2.76			
CBA307	8-1-8UNC 14.00 BCD	8-1/2-13UNC 7.63 BCD	16.22	5.39	4.33	4-8NPSM	2.24	6.61	0.79	16.87	3.54			

VALVE ACTUATOR

Inches

CSRA series of spur gear operators-Multi-turning type



CSRA Technical parameters of CSR valve actuators

Model	Gear ratio	Rated output torque in.lb	Max. thrust lb	Weight lb
CSRA10	2.5:1	6018	31494	132
CSRA20	4.0:1	15488	67487	243

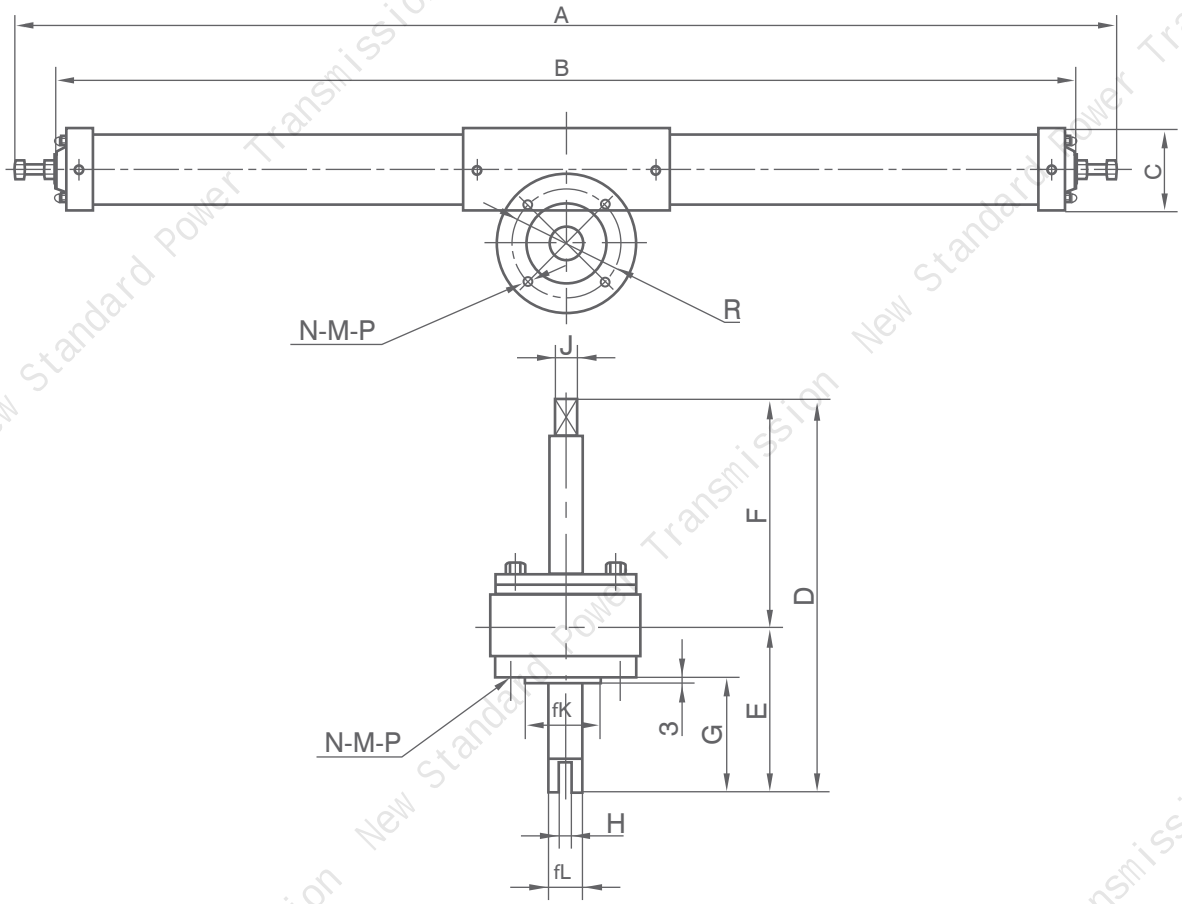
CSRA Dimension table of CSRA valve actuator (mm)

Model	MSS	D1	D2	D3	H	K	K1	L	L1	PF	N-FT-DP	M	P	R
CSRA10	FA14	1.97	3.94	5.5	4.96	5.47	1.73	9.92	17.80	2 1/2	4-5/8-11UNC-0.79	1.18	0.31	1.34
CSRA20	FA16	2.60	5.12	6.5	7.09	7.09	3.46	13.39	24.88	4	4-3/4-10UNC-0.89			

VALVE ACTUATOR

Inches

CARA series of rack operators-135° rotation pneumatic drive device



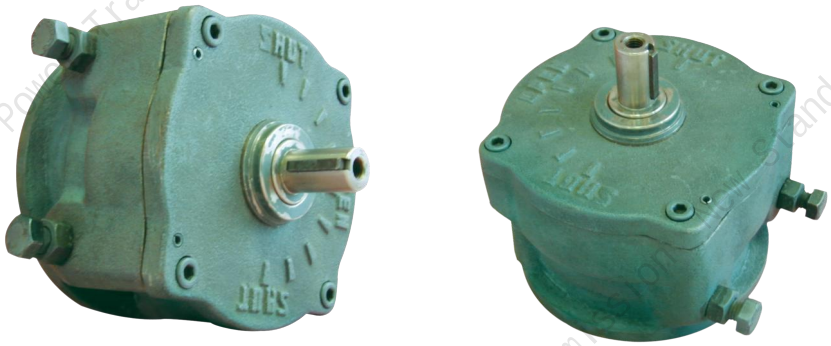
CARA Technical parameters of valve actuators

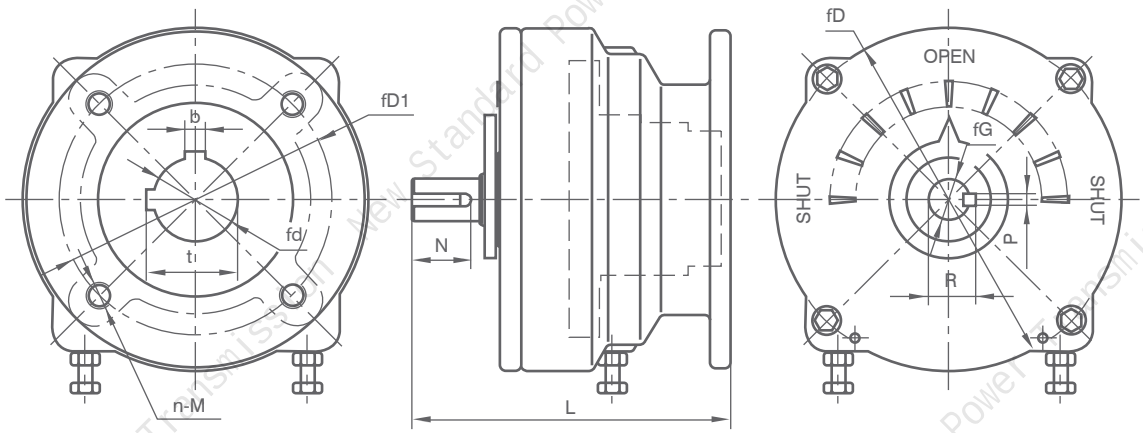
Model	MSS	A	B	C	D	E	F	G	H	L	J	K	N-M-P	R
CARA07	FA07	15.16	12.76	2.68	7.68	2.60	5.08	0.91	0.47	0.79	0.59	2.20	4-5/16-18UNCx0.47	2.75
CARA10	FA10	22.05	18.74	4.21	11.97	4.65	7.32	1.97	0.63	1.34	0.83	3.54	4-3/8-16UNCX0.6	4
CARA12	FA12	25.79	22.17	6.10	14.37	6.42	7.95	2.76	0.63	1.54	0.98	3.54	4-1/2-13UNCX0.71	4.95
CARA12-1	FA12	22.83	23.86	6.89	15.04	6.69	8.35	2.68	0.63	1.54	0.98	3.35	4-1/2-13UNCX0.71	4.95
CARA12-2	FA12	32.28	27.72	8.50	16.34	8.07	8.27	3.66	0.63	1.54	0.98	3.35	4-1/2-13UNCX0.71	4.95
CARA14	FA14	46.06	41.34	10.91	15.47	6.77	8.70	2.60	0.79	1.93	1.30	3.94	4-5/8-11UNCX0.94	5.5

VALVE ACTUATOR

Inches

CPRA series of pinion gear operators-90° Turning





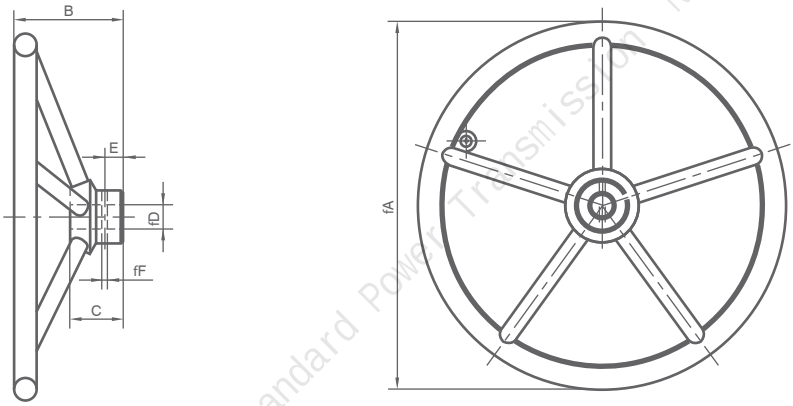
CPRA Dimension table of series of pinion gear operators(in)

Model	MSS	d	b	t	D	D1	n-M	L	N	K	E	G	P	R
CPRA10	FA16	1.97	2-0.47	2.11	7.99	6.50	4-3/4-10UNC	7.36	1.57	2.76	0.2	0.98	0.31	1.1
CPRA20	FA30	3.94	1.1	4.19	13.78	11.75	8-3/4-10UNC	19.02	1.97	7.48	0.2	1.18	0.39	1.30

VALVE ACTUATOR

Inches



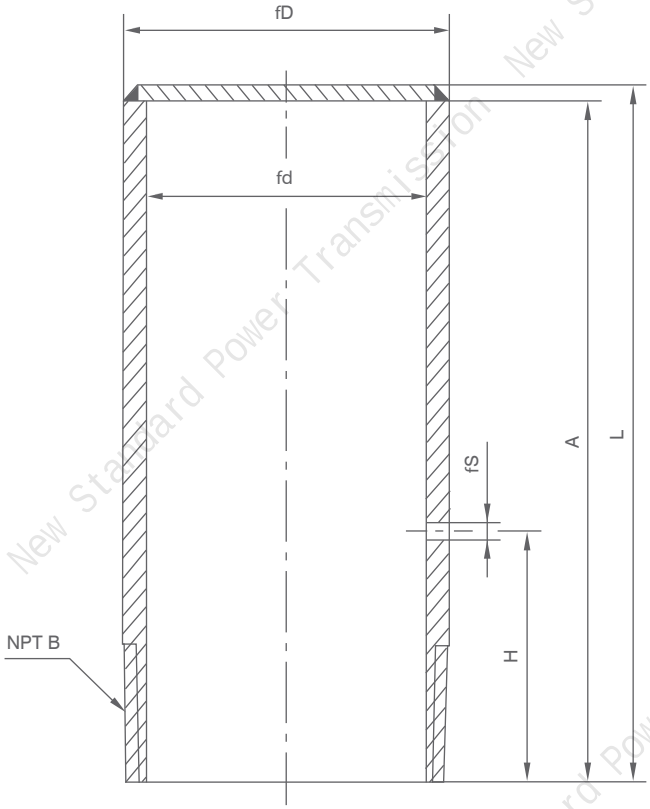


HWA Dimension table of HW hand wheel (in)

Model	Spec	A	B	C	D	E	F	Weight lb	Mat
HWA6	6"	6"	2.52	1.06	0.63	0.31	0.20	2.7	HT250
HWA8	8"	8"	1.97	1.26	0.79	0.39	0.20	3.6	HT200
HWA10-16	10"	10"	2.87	1.85	0.63	0.39	0.20	6.7	HT200
HWA10-20					0.79				
HWA12-16	12"	12"	2.87	1.85	0.63	0.39	0.20	7.1	HT200
HWA12-20					0.79				
HWA12-24					0.94		0.24		
HWA16	16"	16"	4.72	2.28	0.94	0.79	0.24	7.3	wdlding finish
HWA18-16	18"	18"	—	2.28	0.63	0.79	0.20	7.5	wdlding finish
HWA18-20			6.17		0.79				
HWA18-24			—		0.94		0.24		
HWA20	20"	20"	6.71	2.28	0.94	0.79	0.24	10.2	wdlding finish
HWA24	24"	24"	6.89	2.28	0.94	0.79	0.24	10.2	wdlding finish
			4.72						
HWA30	30"	30"	8.27	2.28	0.94	0.79	0.24	10.2	wdlding finish
HWA36	36"	36"	9.65	2.28	0.94	0.79	0.24	10.2	wdlding finish

VALVE ACTUATOR

Inches



SHA Series of shield

- Designed for CSR, CB, BG, CBG series of operators.
- Shaped by steel pipe welding and finished with surface anti-rust treatment.
- Optional materials and dimensions acceptable according to customer's special needs.

SHA Dimension table of SH series(in)

Model	steel pipe	B	A	fd	fD	H	fS	L
SHA2-4	2-1/2"	2-1/2"	4	2.48	2.87	2	0.13	4.13
SHA2-8			8					8.11
SHA2-12			12					12.13
SHA2-16			16					16.10
SHA2-20			20					20.12
SHA3-4	3"	3"	4	3.07	3.54			4.13
SHA3-8			8					8.11
SHA3-12			12					12.13
SHA3-16			16					16.10
SHA3-24			24					24.13
SHA4-8	4"	4"	8	4.02	4.49			8.11
SHA4-12			12					12.13
SHA4-20			20					20.12
SHA4-24			24					24.13
SHA4-28			28					28.11

New Standard Power Transmission