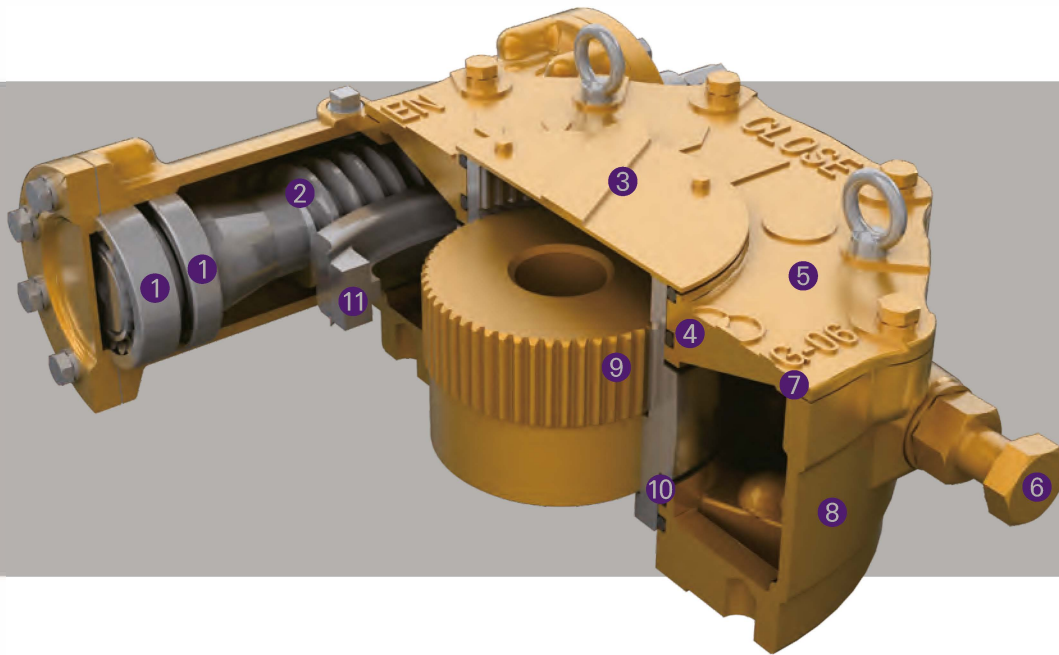


# Worm Gear Actuators



## ① Tapered Roller & Ball Bearings

The Worm is supported on tapered roller bearings which support both the axial and radial forces generated by the gearings. They have excellent load bearing capacity.

## ② Worm

1045 heat treated steel, with ground and polished worm threads. Precision cutting of the threads provides minimum backlash between the worm gear and worm.

## ③ Indicator Plate

Pointer provides positive position indication. The pointer can easily be re-positioned if required.

## ④ Sealing

The drive sleeve is supplied with a oil seal at the top and large cross-section o-ring at the bottom. This sealing method allows the units to be rated for submersible service to IP67 standards.

## ⑤ Cover

Legends, 'Close-Open-Close' are cast directly on the cover. This permits operation in either direction with position indication.

## ⑥ External Adjustable Stops

The stop bolts allow for position accuracy of  $\pm 5^\circ$ .

Each bolt also includes Buna-N sealing washers or prevent water intrusion

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.



## This series of Worm Gears range from 360N.m (260ft-lbf) to 970,000N.m (710,000 ft-lbf) >>>

Units are available with single, double and triple reduction spur gear.  
Other options available are : vertical input

### ⑦ Gaskets

Each end of the worm assembly is equipped with special design material(non-asbestos), which are completely water resistant.

### ⑧ Housing

All external castings are Ductile Iron, Class 65-45-12, Tensile Strength of 65,000 psi.

### ⑨ Splined Bushings

All units furnished with removable splined bushings to permit accurate position between the gear drive and the valve shaft.

### ⑩ Thrust Washer

The drive sleeve is furnished with hardened steel thrust washers above and below worm gear.

This minimizes frictional looseness between the gear and the ductile iron castings.

### ⑪ Worm Gear

Standard material is Ductile Iron, Grade 80-55-06, Suitable most industrial applications.

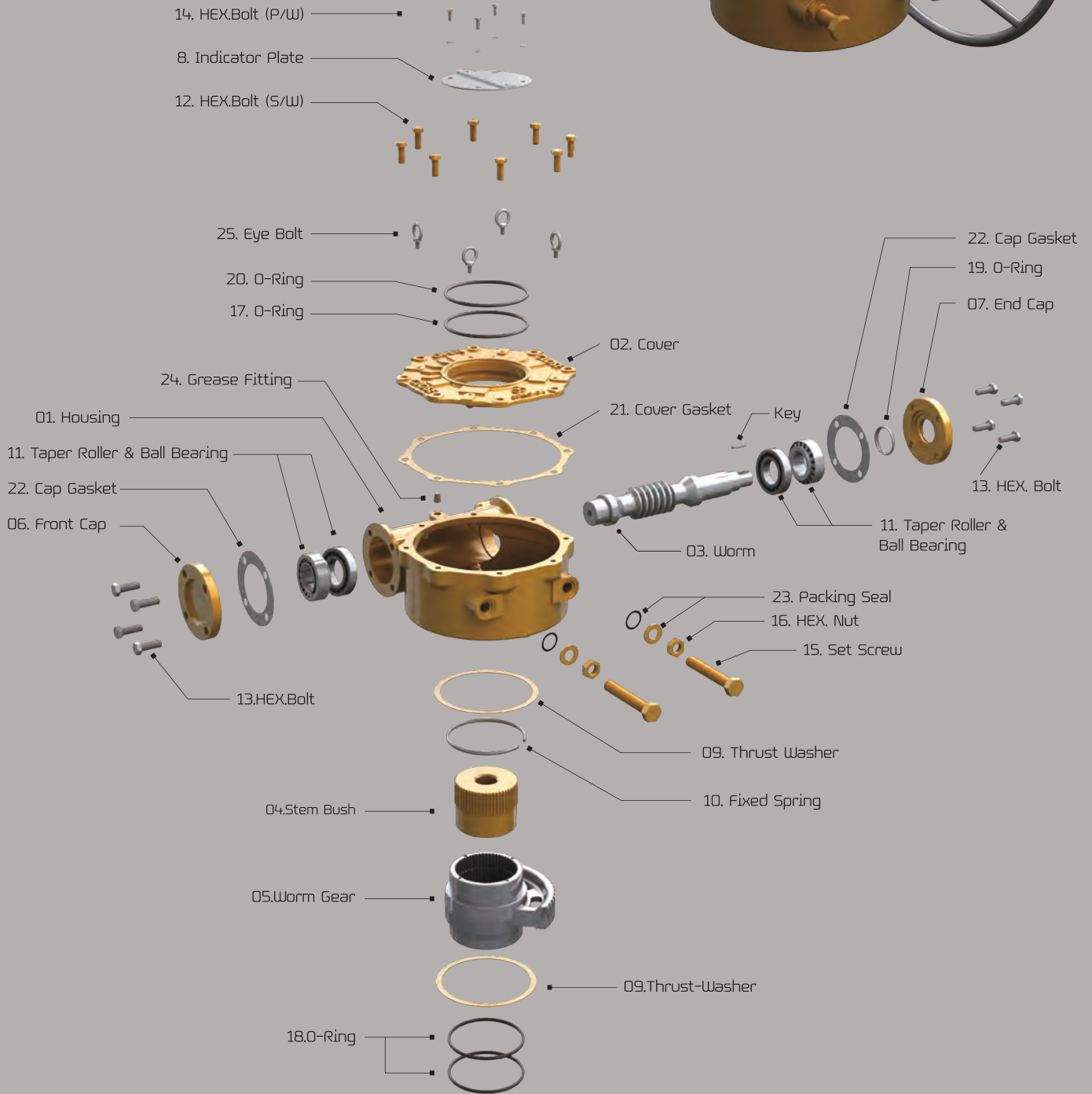
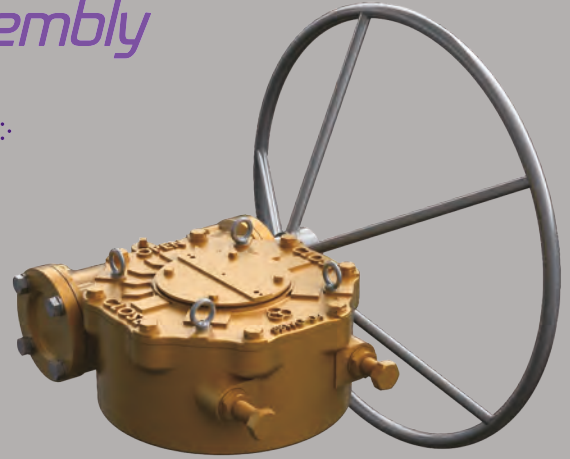
Option is aluminum bronze having a tensile strength of 85,000 psi.

Normally required for motorized applications involving modulating service and is also a requirement to meet the AWWA standards.

# Worm Gear Actuator Assembly

## STANDARD TYPE - A

Horizontal Input



Worm Gear

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
 \* Mark has been changed and updated.

Part List & Material >>>

	NO	DESCRIPTION	MATERIAL			REMARK
			NAME	JIS	ASTM	
STANDARD	1	Housing	Ductile Iron	FCD-450	A536-65-45-12	NOTE, 1
	2	Cover	Ductile Iron	FCD-450	A536-65-45-12	NOTE, 1
	3	Worm	Carbon Steel	S45C	A576-1045	NOTE, 2
	4	Stem Bush	Ductile Iron	FCD-450	A536-65-45-12	
	5	Worm Gear	Ductile Iron	FCD-600	A536-80-55-06	B148-C95800(ALBC3)
	6	Front Cap	Ductile Iron	FCD-450	A536-65-45-12	
	7	End Cap	Ductile Iron	FCD-450	A536-65-45-12	
	8	Indicator Plate	Steel + EP			
	9	Thrust Washer	Steel			
	10	Fixed Spring	Steel			
	11	Taper Roller & Ball Bearing	Special Steel	SUJ2	A295-52100	
	12	HEX, Bolt	Alloy Steel	SCM435	A322-4135	
	13	HEX, Bolt	Alloy Steel	SCM435	A322-4135	
	14	HEX, Bolt (P/W)	Stainless Steel			
	15	Set Screw	Carbon Steel	S45C	A576-1045	
	16	HEX, Nut	Carbon Steel	S45C	A576-1045	
	17	O-Ring	Silicon			NOTE, 4
	18	O-Ring	Silicon			
	19	O-Ring	Silicon			
	20	O-Ring	Silicon			
	21	Cover Gasket	Non - Asbestos			VALQUA 6601
	22	Cap Gasket	Non - Asbestos			
	23	Packing Seal	Silicon			
	24	Grease Fitting	Steel + Galvanizing			
	25	Eye Bolt	Steel + Galvanizing			
OPTION	OP-01.	Hand Wheel	Steel Pipe	SGP	A53	HANDLE PART NOTE, 5
	OP-02.	Key	Carbon Steel	S45C	A576-1045	
	OP-03.	Name Plate	Stainless Steel			
	OP-04.	Washer	Stainless Steel			
	OP-05.	HEX,Bolt (S/W)	Stainless Steel			

Material Detail : Option and Material Changes >>>

- All castings are Ductile Iron, FCD-450 (ASTM Class 65-45-12)
- In case of option for special request, it can be worked Nickel coating, high tensile stainless.
- Also, the material can be changed as ALBC3(Aluminium Bronze), steel(A576-1045), A439 Gr D2C (Austenitic ductile iron casting) and etc.
- O-Ring Seal & Lubricant : Standard is Silicon & Buna "N", temperature range -20° C to +120° C (-4° F to +248° F).  
Standard lubricant is Zenith EPSB 2, temperature Range -20° C to +200° C (-4° F to +392° F).  
Other option are : High Temperature Viton O-Ring Grade V75, Temperature Range -30° C to +200° C (-22° F to +392° F)  
Lubricant - Zenith SYN WS2 Temperature Range -30° C~400° C (-22° F~752° F)  
Low Temperature Silicon O-Ring, Temperature Range -60° C to + 150° C (-76° F to 302° F)  
Lubricant - Zenith SBLT600, Temperature Range -60° C~120° C (-76° F~248° F)
- SAMBO offers a wide variety of Handwheels, Chainwheels, Input Shaft, Locking Devices and etc.
- SAMBO offers a wide variety of stem cover, stainless steel, Polycarbonate.  
Paint : Unless specified, units are supplied with vp134 Red epoxy primer. SAMBO can provide finish coating upon request.

The World's Highest Quality!



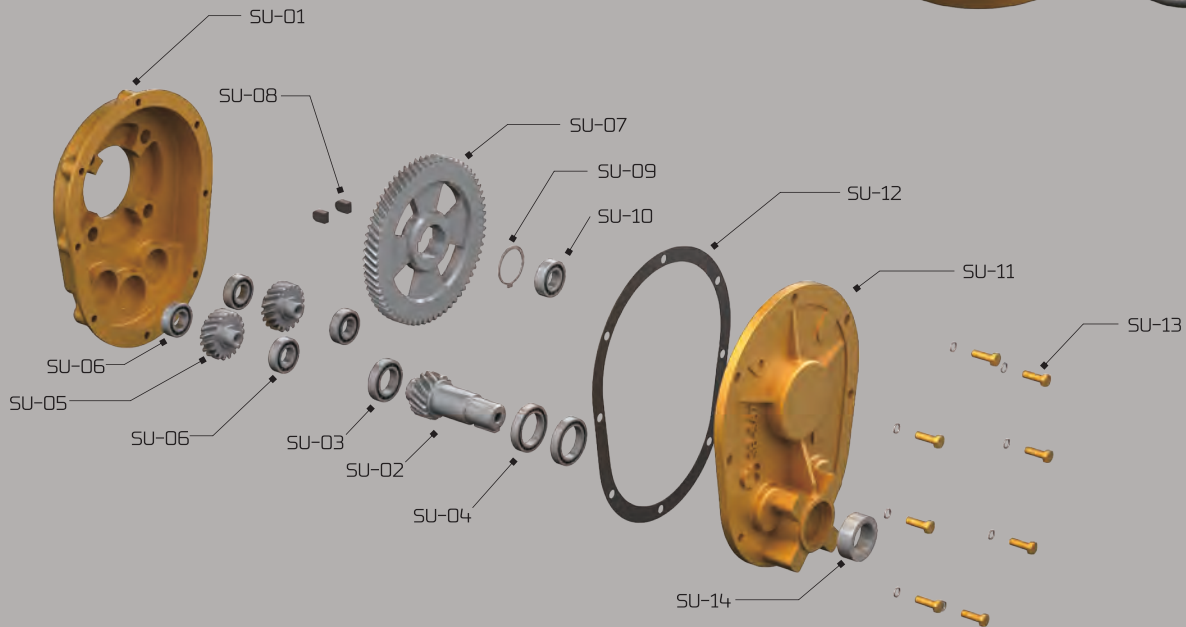
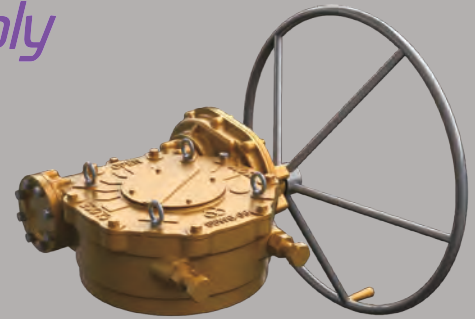
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.



# Worm Gear Actuator Assembly

## STANDARD TYPE - A

Horizontal Input  
with Single Reduction Gear Attachment



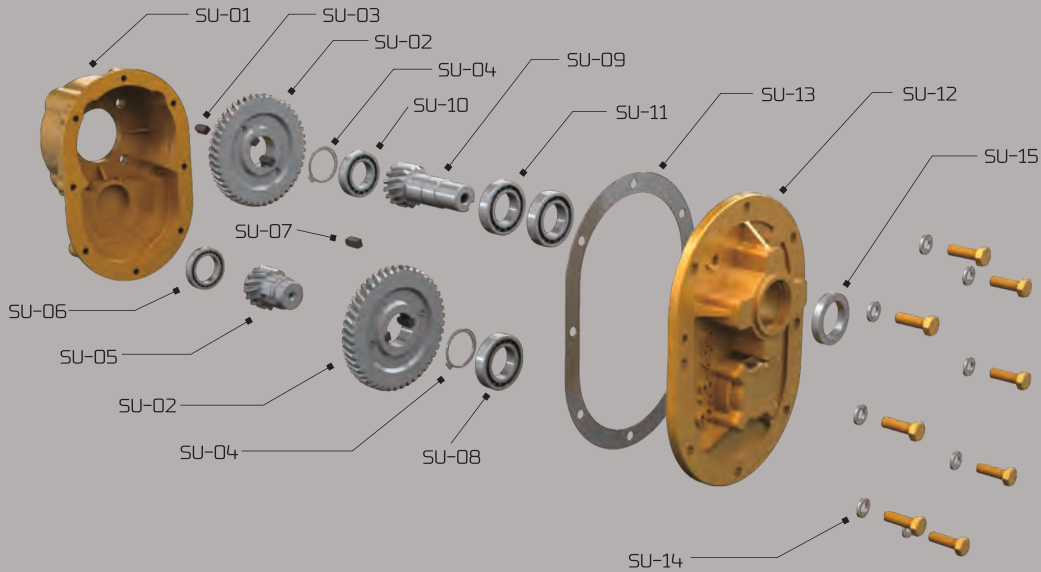
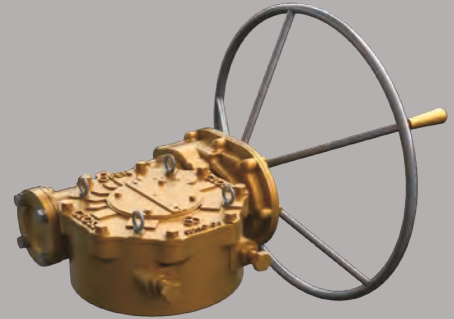
### Part List & Material >>>

NO	DESCRIPTION	MATERIAL			REMARK	NO	DESCRIPTION	MATERIAL			REMARK
		NAME	JIS	ASTM				NAME	JIS	ASTM	
1	Housing	Ductile Iron	FCD-450	A536-65-45-12	NOTE_1	23	Packing Seal	Silicon			
2	Cover	Ductile Iron	FCD-450	A536-65-45-12	NOTE_1	24	Grease Fitting	Steel + Galvanizing			
3	Worm	Carbon Steel	S45C	A576-1045	NOTE_2	25	Eye Bolt	Steel + Galvanizing			
4	Stem Bush	Ductile Iron	FCD-450	A536-65-45-12		SU-01	Support Housing	Ductile Iron	FCD-450	A536-65-45-12	
5	Worm Gear	Ductile Iron	FCD-600	A536-80-55-06	B148-C95800(ALBC3)	SU-02	Helical Pinion	Carbon Steel	S45C	A576-1045	
6	Front Cap	Ductile Iron	FCD-450	A536-65-45-12		SU-03	Radial Ball B/R	Special Steel	SUJ2	A295-52100	
7	End Cap	Ductile Iron	FCD-450	A536-65-45-12		SU-04	Radial Ball B/R	Special Steel	SUJ2	A295-52100	
8	Indicator Plate	Steel + EP				SU-05	Idle Gear	Carbon Steel	S45C	A576-1045	
9	Thrust Washer	Steel				SU-06	Radial Ball B/R	Special Steel	SUJ2	A295-52100	
10	Fixed Spring	Steel				SU-07	Helical Gear	Carbon Steel	S45C	A576-1045	
11	Taper Roller Bearing	Special Steel	SUJ2	A295-52100		SU-08	Key (1R)	Carbon Steel	S45C	A576-1045	
12	HEX_Bolt (S/W)	Alloy Steel	SCM435	A322-4135		SU-09	Snap Ring	Carbon Steel	S45C	A576-1045	
13	HEX_Bolt	Alloy Steel	SCM435	A322-4135		SU-10	Radial Ball B/R	Special Steel	SUJ2	A295-52100	
14	HEX_Bolt (P/W)	Stainless Steel				SU-11	Support Cover	Ductile Iron	FCD-450	A536-65-45-12	
15	Set Screw	Carbon Steel	S45C	A576-1045		SU-12	S-Cover Gasket	Nonasbestos			VALQUA6601
16	HEX_Nut	Carbon Steel	S45C	A576-1045		SU-13	HEX_Bolt (S/W)	Alloy Steel	SCM435	A322-4135	
17	O-Ring	Silicon				SU-14	Oil-Seal	Buna N	NBR		
18	O-Ring	Silicon			NOTE_3	OP-01	Hand Wheel	Steel Pipe	SGP	A53	OPTION HANDLE PART
19	O-Ring	Silicon			OP-02	Key(1R)	Carbon Steel	S45C	A576-1045		
20	O-Ring	Silicon			OP-03	Name Plate	Stainless Steel				
21	Cover Gasket	Non-Asbestos			OP-04	Washer	Stainless Steel				
22	Cap Gasket	Non-Asbestos			OP-05	HEX_Bolt (S/W)	Stainless Steel				

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

# STANDARD TYPE - A

Horizontal Input  
with Double Reduction Gear Attachment



## Part List & Material >>>

NO	DESCRIPTION	MATERIAL			REMARK
		NAME	JIS	ASTM	
1	Housing	Ductile Iron	FCD-450	A536-65-45-12	NOTE_1
2	Cover	Ductile Iron	FCD-450	A536-65-45-12	NOTE_1
3	Worm	Carbon Steel	S45C	A576-1045	NOTE_2
4	Stem Bush	Ductile Iron	FCD-450	A536-65-45-12	
5	Worm Gear	Ductile Iron	FCD-600	A536-80-55-06	B148-C95800(ALBC3)
6	Front Cap	Ductile Iron	FCD-450	A536-65-45-12	
7	End Cap	Ductile Iron	FCD-450	A536-65-45-12	
8	Indicator Plate	Steel + EP			
9	Thrust Washer	Steel			
10	Fixed Spring	Steel			
11	Taper Roller Bearing	Special Steel	SUJ2	A295-52100	
12	HEX Bolt (S/W)	Alloy Steel	SCM435	A322-4135	
13	HEX Bolt	Alloy Steel	SCM435	A322-4135	
14	HEX Bolt (P/W)	Stainless Steel			
15	Set Screw	Carbon Steel	S45C	A576-1045	
16	HEX Nut	Carbon Steel	S45C	A576-1045	
17	O-Ring	Silicon			NOTE_3
18	O-Ring	Silicon			
19	O-Ring	Silicon			
20	O-Ring	Silicon			
21	Cover Gasket	Non - Asbestos			VALQUA 6601
22	Cap Gasket	Non - Asbestos			

NO	DESCRIPTION	MATERIAL			REMARK
		NAME	JIS	ASTM	
23	Packing Seal	Silicon			
24	Grease Fitting	Steel + Galvanizing			
25	Eye Bolt	Steel + Galvanizing			
SU-01	Support Housing	Ductile Iron	FCD-450	A536-65-45-12	
SU-02	Helical Gear	Carbon Steel	S45C	A576-1045	
SU-03	Key (1R)	Carbon Steel	S45C	A576-1045	
SU-04	Snap Ring	Carbon Steel	S45C	A576-1045	
SU-05	Idle Gear	Carbon Steel	S45C	A576-1045	
SU-06	Radial Ball B/R	Special Steel	SUJ2	A295-52100	
SU-07	Key (1R)	Carbon Steel	S45C	A576-1045	
SU-08	Radial Ball B/R	Special Steel	SUJ2	A295-52100	
SU-09	Helical Pinion	Carbon Steel	S45C	A576-1045	
SU-10	Radial Ball B/R	Special Steel	SUJ2	A295-52100	
SU-11	Radial Ball B/R	Special Steel	SUJ2	A295-52100	
SU-12	Support Cover	Ductile Iron	FCD-450	A536-65-45-12	
SU-13	S-Cover Gasket	Nonasbestos			VALQUA6601
SU-14	HEX Bolt (S/W)	Stainless	SCM435	A322-4135	
SU-15	Oil-Seal	Buna N	NBR		
OP-01	Hand Wheel	Steel Pipe	SGP	A53	OPTION HANDLE PART
OP-02	Key (1R)	Carbon Steel	S45C	A576-1045	
OP-03	Name Plate	Stainless Steel			
OP-04	Washer	Stainless Steel			
OP-05	HEX Bolt (S/W)	Stainless Steel			

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

Worm Gear



Etc.  
**A**

Hand Wheel Type & Chain Wheel Type	098 · 099
Bush Insert & Setscrew / Twin Shaft Gear Actuator Type	100 · 101
Standard Type A	
Horizontal Input	102 · 103
Standard Type A	
Horizontal Input with Single Reduction Gear Attachment	104 · 105
Standard Type A - Twin Shaft	
Horizontal Input with Single Reduction Gear Attachment	106 · 107
Standard Type A	
Horizontal Input with Double Reduction Gear Attachment	108 · 109
Standard Type A -Twin Shaft	
Horizontal Input with Double Reduction Gear Attachment	110 · 111
Standard Type A	
Horizontal Input with Triple Reduction Gear Attachment	112 · 113

**B**

Standard Type B	
Vertical Input with Double Reduction Gear Attachment	114 · 115
Standard Type B	
Vertical Input with Triple Reduction Gear Attachment	116 · 117
Standard Type B	
Vertical Input with Single Reduction Gear Attachment	118 · 119

**C · E**

Standard Type C	
Horizontal Input with Double Reduction Gear Attachment	120 · 121
Standard Type E	
Vertical Input with Single Reduction Gear Attachment	122 · 123
Standard Type E	
Vertical Input with Double Reduction Gear Attachment	124 · 125

**Part Turn**

Part Turn 135°	
Horizontal Input	126 · 127
Part Turn 135°	
Horizontal Input with Single Reduction Gear Attachment	128 · 129
Part Turn 135°	
Horizontal Input with Double Reduction Gear Attachment	130 · 131
Part Turn 180°	
Horizontal Input	132 · 133
Part Turn 180°	
Horizontal Input with Single Reduction Gear Attachment	134 · 135
Part Turn 180°	
Horizontal Input with Double Reduction Gear Attachment	136 · 137
Part Turn - 45°, 90°, 135°, 180°, 225°, 270°, 360°	
Horizontal Input	138 · 139
Declutch Gear - 45°, 90°, 135°, 180°, 225°, 270°, 360°	
Horizontal Input with Single Reduction Gear Attachment	140 · 141
Declutch Gear - 45°, 90°, 135°, 180°, 225°, 270°, 360°	
Horizontal Input with Double Reduction Gear Attachment	142 · 143

**Multi Turn**

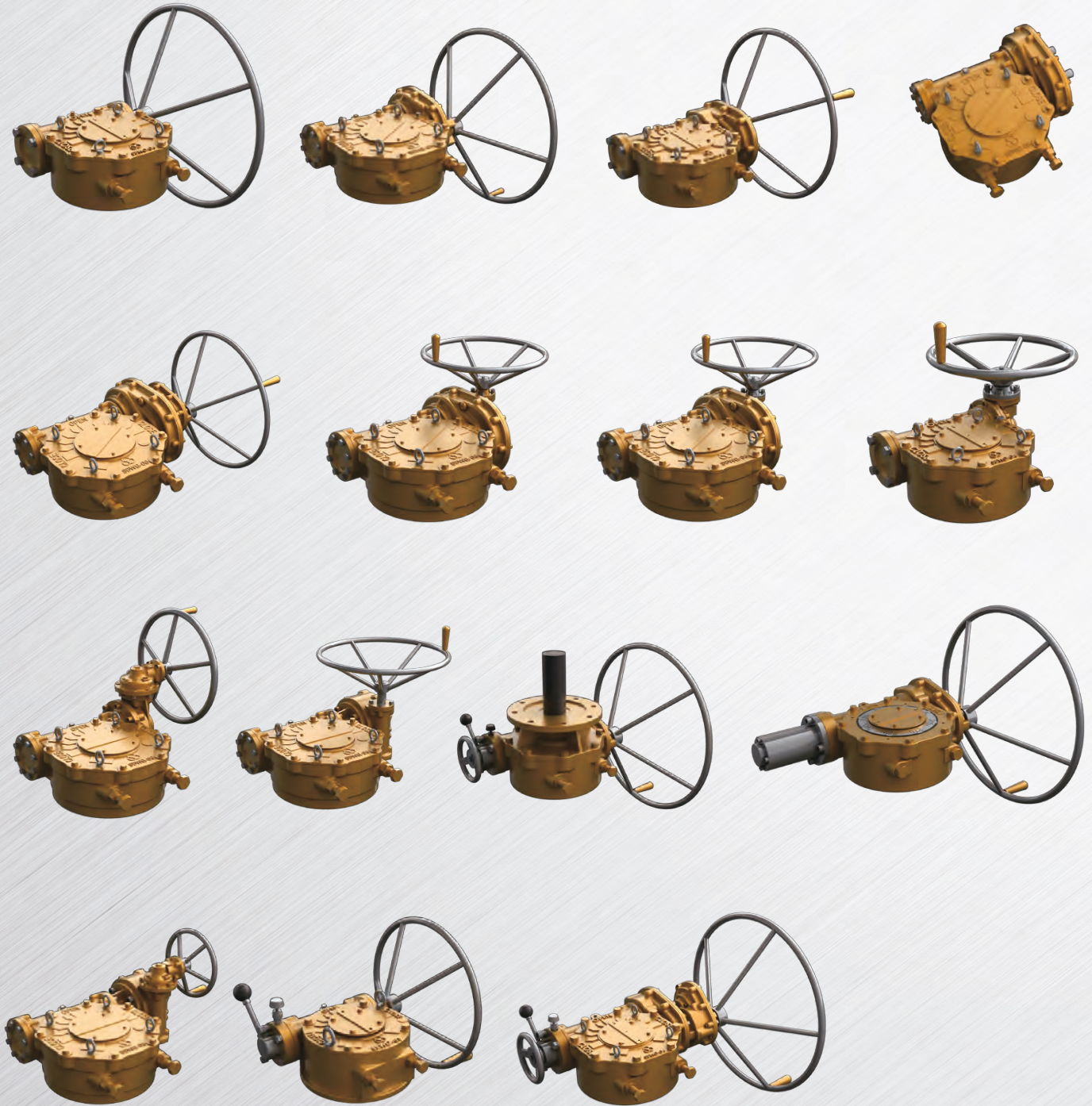
Multi Turn 360°	
Horizontal Input	144 · 145
Multi Turn 360°	
Horizontal Input with Single Reduction Gear Attachment	146 · 147
Multi Turn 360°	
Horizontal Input with Double Reduction Gear Attachment	148 · 149

**Declutch Gear**

Declutch Gear	
Horizontal Input	150 · 151
Declutch Gear	
Horizontal Input with Single Reduction Gear Attachment	152 · 153
Declutch Gear	
Horizontal Input with Triple Reduction Gear Attachment	154 · 155
Declutch Gear - Pneumatic Actuators	
Horizontal Input	156 · 157
Declutch Gear - Pneumatic Actuators	
Horizontal Input with Single Reduction Gear Attachment	158 · 159
Declutch Gear - Pneumatic Actuators	
Horizontal Input with Double Reduction Gear Attachment	160 · 161



PRODUCTS



Worm Gear

Global Leader  
**SAMBO**  
GEAR ACTUATORS for Industrial Valves

The World's  
Highest Quality!

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

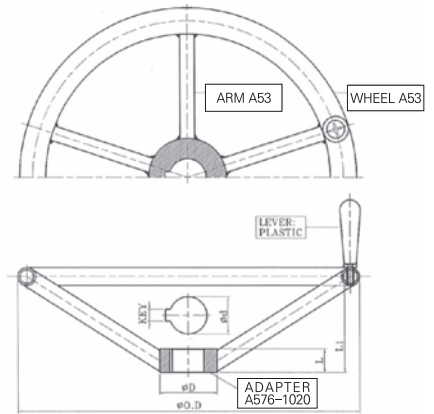


# SAMBO Hand Wheel Type

## Worm Standard Handwheel >>>

UNIT : mm

MODEL	SIZE	Ø0,D	ØD	Ød&KEY	L	L1	ARM Q'TY
WH-200	200	200	40	Ø16 (6X6)	25	70	3EA
WH-250	90						
WH-300	110						
WH-350	350	350	50	Ø21 (6X6)	30	120	4EA
WH-400	130						
WH-450	150						
WH-500	500	500	60	Ø26 (8X7)	35	160	5EA
WH-560	170						
WH-630	190						
WH-710	710	710	70	Ø32 (10X8)	35	210	6EA
WH-800	230						
WH-900	250						
WH-1000	1000	1000	90	Ø50 (16X10)	59	270	

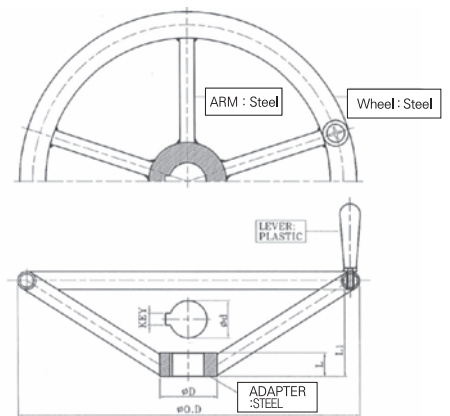


If there is no request from customers, we will make handwheel as per the above table. As option, the material can be changed and Handwheel size can be suitable for all model.

## Worm Solid Handwheel >>>

UNIT : mm

MODEL	SIZE	Ø0,D	ØD	Ød&KEY	L	L1	ARM Q'TY
WSH-200	200	200	40	Ø16 (6X6)	25	70	3EA
WSH-250	90						
WSH-300	110						
WSH-350	350	350	50	Ø21 (6X6)	30	120	4EA
WSH-400	130						
WSH-450	150						
WSH-500	500	500	60	Ø26 (8X7)	35	160	5EA
WSH-560	170						
WSH-630	190						
WSH-710	710	710	70	Ø32 (10X8)	35	210	6EA
WSH-800	230						
WSH-900	250						
WSH-1000	1000	1000	90	Ø50 (16X10)	59	270	

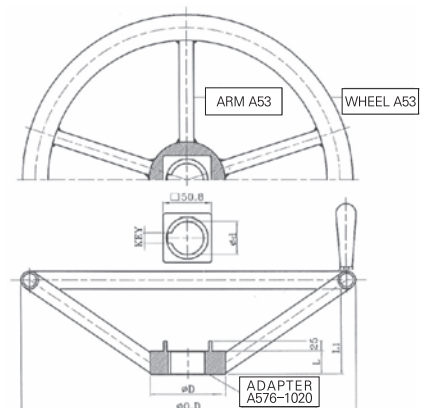


If there is no request from customers, we will make handwheel as per the above table. As option, the material can be changed and Handwheel size can be suitable for all model.

## 2" SQUARE NUT Handwheel >>>

UNIT : mm

MODEL	SIZE	Ø0,D	ØD	Ød&KEY	L	L1	ARM Q'TY
WDNH-200	200	200	90	Ø16 (6X6)	25	70	3EA
WDNH-250	90						
WDNH-300	110						
WDNH-350	350	350	90	Ø21 (6X6)	30	120	4EA
WDNH-400	130						
WDNH-450	150						
WDNH-500	500	500	90	Ø26 (8X7)	35	160	5EA
WDNH-560	170						
WDNH-630	190						
WDNH-710	710	710	90	Ø32 (10X8)	35	210	6EA
WDNH-800	230						
WDNH-900	250						
WDNH-1000	1000	1000	90	Ø50 (16X10)	70	270	



This Handwheel is the type using air impact wrench and if can be made properly according to customer's request.

Size and component specification in this catalogue are subject to change without prior notice for quality improvement. \* Mark has been changed and updated.

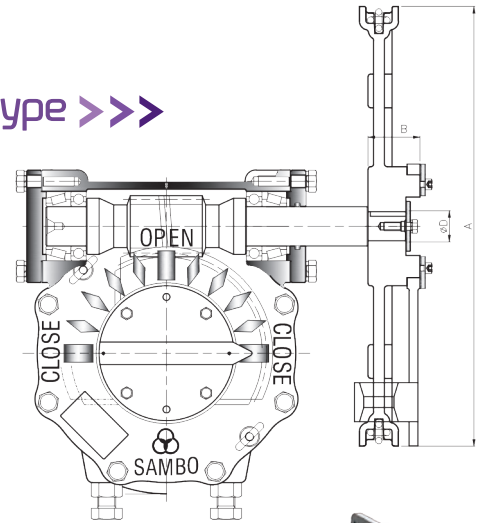
# Chain Wheel Type

## WORM Standard >>>

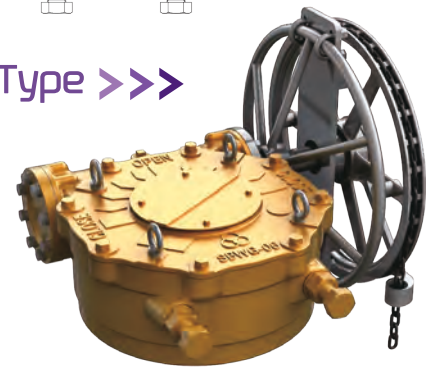
UNIT : mm

SIZE MODEL	A	B	ØD & KEY
CH-200	200	43	Ø16 (6X6) Ø21 (6X6)
CH-250	250		
CH-300	300	43,5	Ø26 (8X7) Ø32 (10X8)
CH-350	350		
CH-400	400	50	Ø38 (12X8)
CH-450	450		
CH-500	500		
CH-550	550		
CH-600	600		
CH-700	700	51,5	Ø38 (12X8) Ø50 (16X10)
CH-800	800	53	

## Gear Type >>>



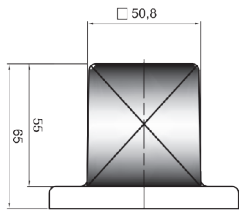
## Hammer Type >>>



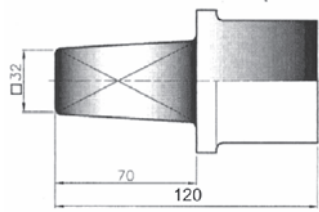
### Chainwheel has 2 types

- First, hammer type which is joined with handwheel.
- Second, gear type which is adhered to gear directly.
- material : sprocket rim (FCD-450), guide arm (FCD-450), chain (steel+zn)

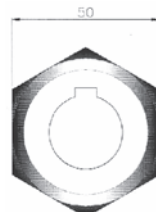
## Square Adapter >>>



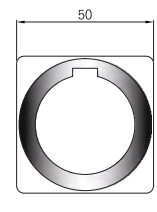
2" Square Nut Adapter



32 Square Nut Adapter

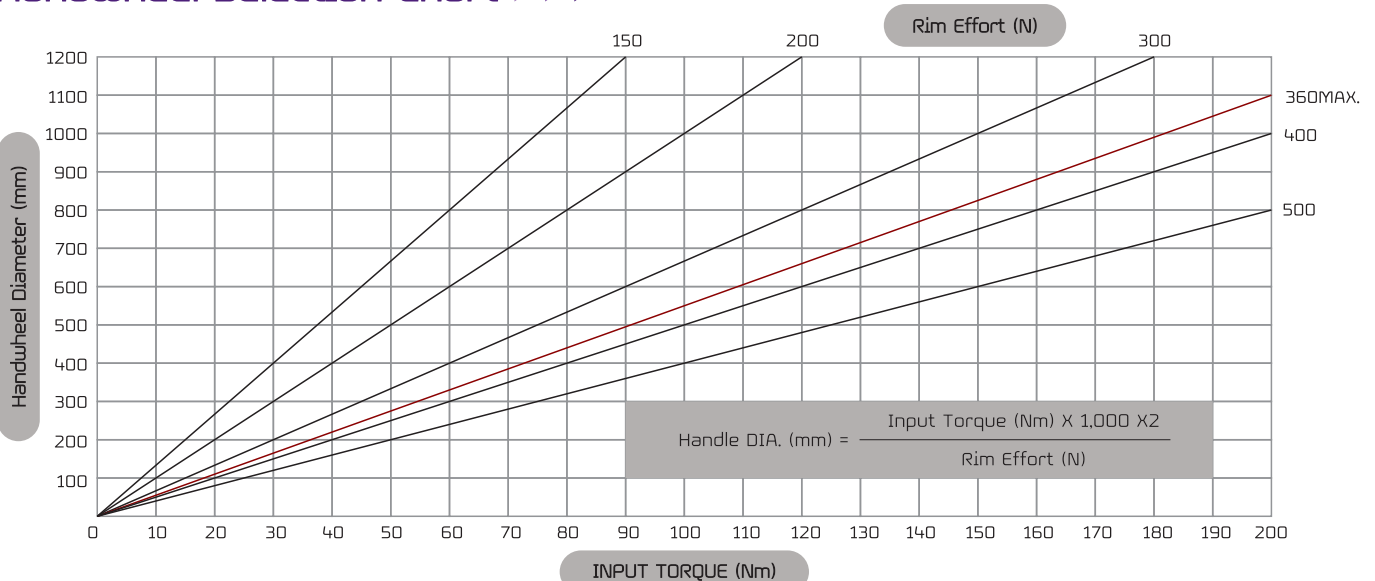


Hexagon Adapter



2" Square Nut

## Handwheel Selection Chart >>>

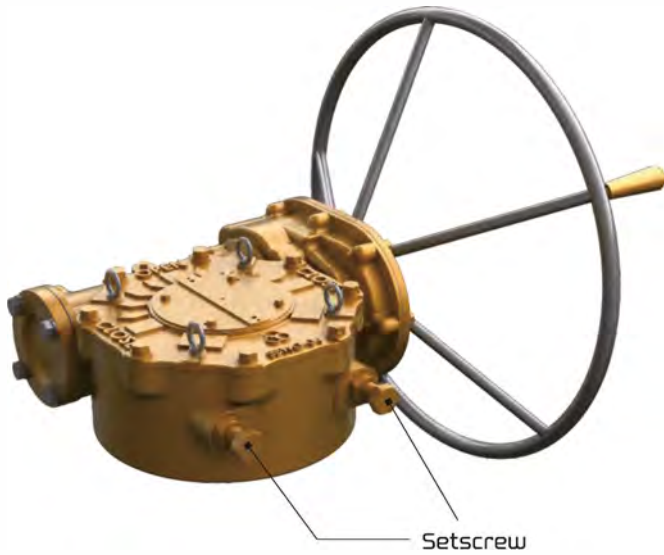


Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
 \* Mark has been changed and updated.

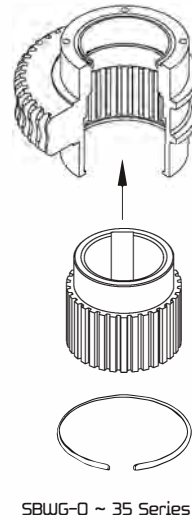


# The Following Instructions should be followed for mounting of the gear to the valve

## BUSH INSERT & SETSCREW >>>

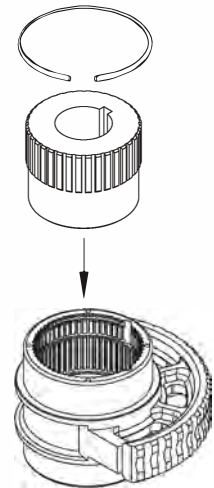


### Bottom Entry



SBWG-0 ~ 35 Series

### Upper Entry

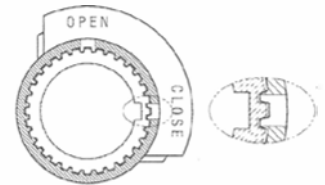


SBWG-04 ~ 13 Series

### Stem Bush



### Worm Gear



• If it does not match, the position may not be proper.

## ADJUSTMENT OF SETSCREW >>>

1. Secure setting for the valve and actuator correctly.
2. After finish setting, finally use to adjust the setscrews of worm gearbox.

### WARNING

- SAMBO worm gearboxes are not set at exactly 90 degree.
- After complete valve and actuator, accurately adjust and use setscrews.
- Incorrect setting of setscrews may cause damage and user is responsible for this.

## BUSH INSERT >>>

### Assembly

1. Turn gear box to see bottom side.
2. Insert bush correctly into the worm gear.  
Insert bush into grooves of worm gear.  
(Match groove and bushing key in a straight line.)  
There is 2 grooves at bottom of worm gear.  
One groove is for open and the other is for close.
3. Fix spring.

### CAUTION

- In case of bushing insert, match groove of worm gear and bushing key correctly.
- This groove is marked the position of Caution "Close" or "Open".
- If it does not match, the position may not be proper.

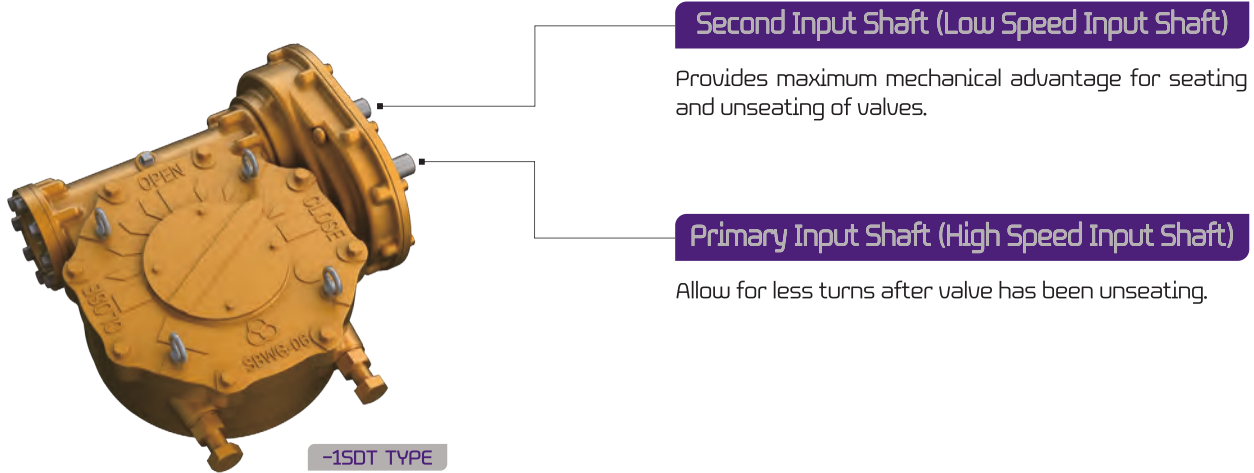


Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

# Chain Wheel Type

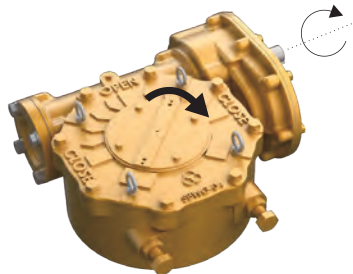
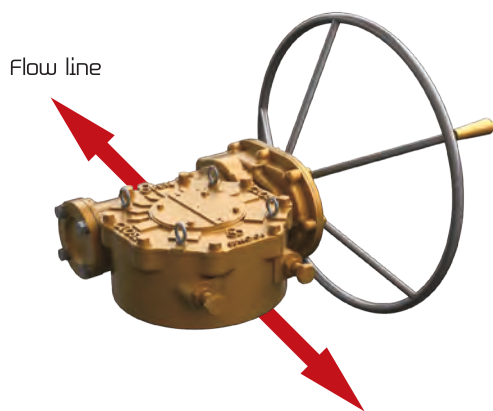
## Twin Shaft Gear Actuators Type >>>

There are two input shafts in the below support actuator type. One Shaft is for high speed and the other shaft is for low speed.

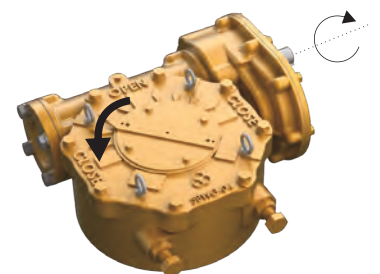


## Input / Output Shaft Rotation Options >>>

### Right Hand Input

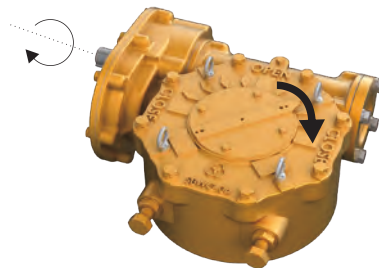
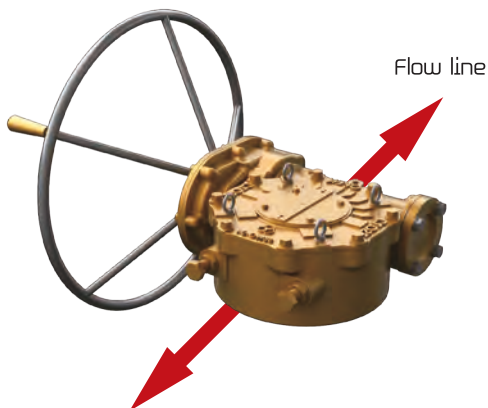


① Right Hand Input  
CW in- CW out is most standard  
Assembly position "A"

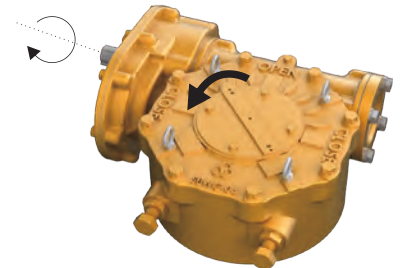


② Right Hand Input  
CW in- CCW out Assembly  
position "B"

### Left Hand Input



③ Left Hand Input  
CW in- CW out is most standard  
Assembly position "C"



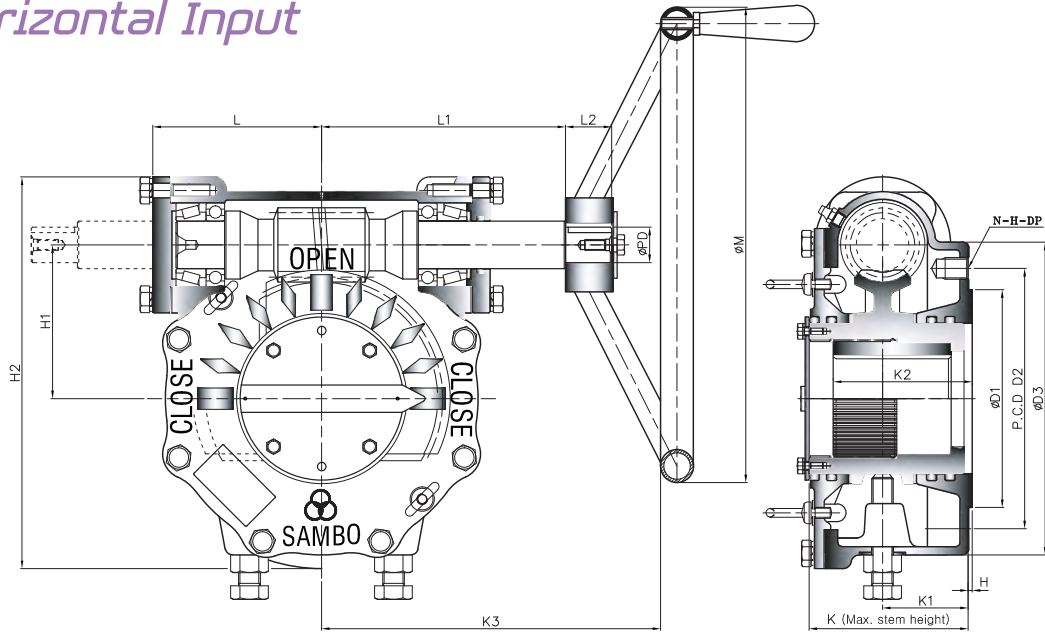
④ Left Hand Input  
CW in- CCW out Assembly  
position "D"

Worm Gear

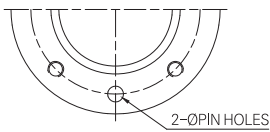
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

# STANDARD TYPE-A

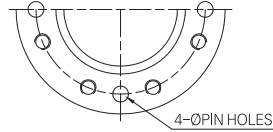
## Horizontal Input



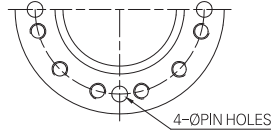
• Pin hole size is same as tap out diameter



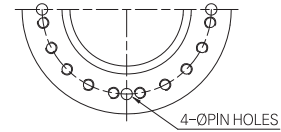
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

DIM MODEL	BASE PART						EXTERNAL PART									INPUT SHAFT PART			HAND WHEEL
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														
* SBWG-BF	A	F-07	55	70	4-M8-12	110	2	42	132	76	38	38,6	150	64	97	24	16	6X6	200
SBWG-0		F-10	70	102	4-M10-15	135		57	159,5	77	38	43,6	177	71,5	104,5				250
SBWG-00		F-12	85	125	4-M12-18	165		69,5	192	86,5	43	53,6	230	86	138				300
SBWG-01		F-14	100	140	4-M16-24	190		82,5	217,5	96	53	65	260	95	147				400
SBWG-02		F-16	130	165	4-M20-30	220		97	257	111,5	58	75,5	294	108	166				500
SBWG-03		F-16 (F-20)	160	205	8-M16-24	250		112	287	118	61	87	324	118	176				560
SBWG-35		F-25	200	254	8-M16-24	300		127	327	135	72	100	342	136	194				630
SBWG-04		F-25	200	254	8-M16-24	300		153	385,5	147	73	120	370	153	207				710
* SBWG-05	B	F-30	230	298	8-M20-30	350	3	180	437,5	155	78	141	400	163	217	34	32	10X8	800
SBWG-55		F-30	230	298	8-M20-30	350		202	484,5	162	80	144	420	183	237				900
SBWG-06		F-35	260	356	8-M30-45	415		230	558,5	200	109	173	489	217	286				1000
SBWG-07		F-40	300	406	8-M36-55	475		280,5	660,5	227	116	209	538	252	320				1000
SBWG-75	C	F-48	370	483	12-M36-55	560	5	326	776	246	120	220	617	279	381	58	50	16X10	1000
SBWG-08						560		379	884	254	125	245	652	314	416				
SBWG-09	D	F-60	470	603	20-M36-55	700	5	448,5	1023,5	284	138	270	692	354	456	58	50	16X10	1000
SBWG-10						800		513	1191	352	164	330	814	426	614				
SBWG-11						900		616,5	1399,5	394	181	370	857	468,5	657				
* SBWG-12						1000		711	1621	482	265	415	980	554	702				
* SBWG-13						1000		809	1814	546	301	515	988	609	752				

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
 \* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

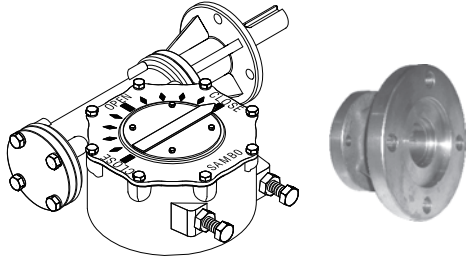
### Bushing Type

Splines permit accurate alignment of valve stem key.



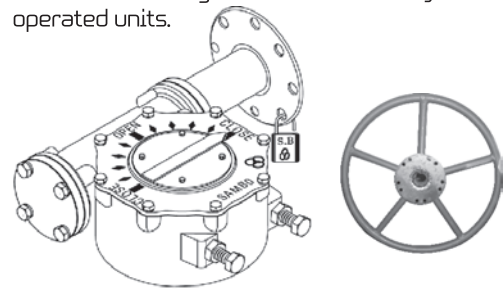
### M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



### LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

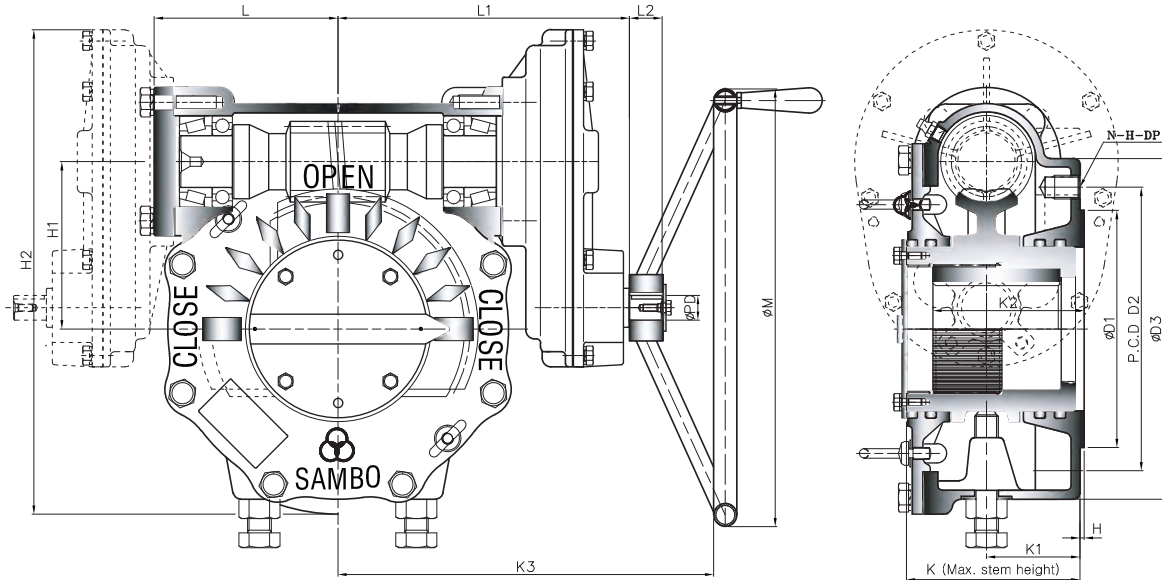
SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
* SBWG-BF	32:1	20 (6X6)	F-05, F-07	360	266	4
SBWG-0	36:1	28 (8X7)	F-07, F-10	780	575	6
SBWG-00	40:1	36 (10X8)	F-10, F-12	1200	885	10
SBWG-01	44:1	46 (14X9)	F-10, F-12, F-14	2000	1475	13
SBWG-02	48:1	60 (18X11)	F-12, F-14, F-16	2800	2065	21
SBWG-03	52:1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	29
SBWG-35	52:1	80 (22X14)	F-16, (F-20), F-25	6100	4499	43
SBWG-04	56:1	95 (25X14)	F-16, (F-20), F-25	10400	7671	56
* SBWG-05	60:1	115 (32X18)	(F-20), F-25, F-30	15900	11727	78
SBWG-55	62:1	125 (32X18)	F-25, F-30	23500	17333	97
SBWG-06	64:1	140 (36X20)	F-25, F-30, F-35	32800	24192	147
SBWG-07	68:1	180 (45X25)	F-30, F-35, F-40	51100	37689	243
SBWG-75	66:1	210 (50X28)	F-35, F-40, F-48	81500	60111	350
SBWG-08	66:1	250 (56X32)	F-40, F-48	121000	89245	473
SBWG-09	66:1	280 (63X32)	F-48, F-60	192500	141981	830
SBWG-10	64:1	320 (70X36)	F-60	275000	202830	1330
SBWG-11	68:1	360 (80X40)	F-60	442000	326002	2085
* SBWG-12	70:1	400 (90X45)	F-60, (F-80)	610000	449913	2900
* SBWG-13	72:1	420 (100X50)	F-60, (F-80)	970000	715435	3800

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

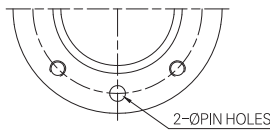


# STANDARD TYPE-A

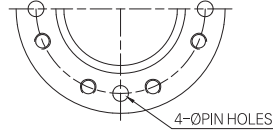
Horizontal Input  
with Single Reduction Gear Attachment



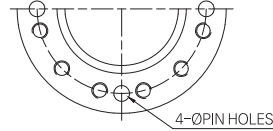
• Pin hole size is same as tap out diameter



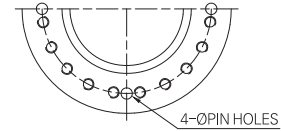
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

MODEL	DIM	BASE PART					EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL		
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1		L2	ØPD
SBWG-00-1S	A	F-12	85	125	4-M12-18	165	2	69,5	210	86,5	43	53,6	259	86	166	29	21	6X6	300
SBWG-01-1S		F-14	100	140	4-M16-24	190		82,5	235,5	96	53	65	288	95	175				400
SBWG-02-1S		F-16	130	165	4-M20-30	220		97	282	111,5	58	75,5	329	108	190,5				500
SBWG-03-1S	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	118	61	87	349	118	200,5	34	26	8X7	560
SBWG-35-1S		F-25	200	254	8-M16-24	300		127	352	135	72	100	367	125	218,5				630
SBWG-04-1S		F-25	200	254	8-M16-24	300		153	417,5	147	73	120	413	153	250				710
* SBWG-05-1S		F-30	230	298	8-M20-30	350		180	469,5	155	78	141	443	163	260				800
SBWG-55-1S						350		202	516,5	162	80	144	463	183	280				900
SBWG-06-1S		F-35	260	356	8-M30-45	415		230	621	200	109	173	552	217	349				1000
SBWG-07-1S		F-40	300	406	8-M36-55	475		280,5	723	227	116	209	607	252	384				
SBWG-75-1S	C	F-48	370	483	12-M36-55	560	5	326	860	246	120	220	721	279	485	58	50	16X10	1000
SBWG-08-1S						560		379	968	254	125	245	756	314	520				
SBWG-09-1S	D	F-60	470	603	20-M36-55	700	5	448,5	1107,5	284	138	270	796	354	560	58	50	16X10	1000
SBWG-10-1S						800		513	1291	352	164	330	927	426	691				
SBWG-11-1S						900		616,5	1499,5	394	181	370	969,5	468,5	733,5				
* SBWG-12-1S						1000		711	1751	482	265	415	1140	554	905				
* SBWG-13-1S						1000		809	1944	546	301	515	1190	609	955				

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.



## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

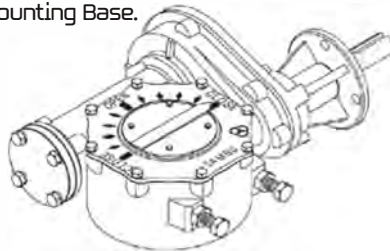
### Bushing Type

Splines permit accurate alignment of valve stem key.



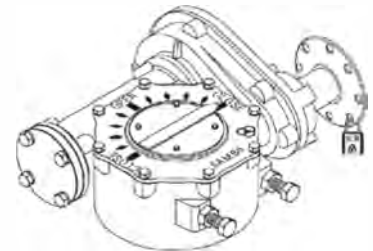
### M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



### LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00-1S	80:1	36 (10X8)	F-10, F-12	1200	885	12
SBWG-01-1S	88:1	46 (14X9)	F-10, F-12, F-14	2000	1475	15
SBWG-02-1S	121.6:1	60 (18X11)	F-12, F-14, F-16	2800	2065	25
SBWG-03-1S	131.7:1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	33
SBWG-35-1S	131.7:1	80 (22X14)	F-16, (F-20), F-25	6100	4499	50
SBWG-04-1S	168:1	95 (25X14)	F-16, (F-20), F-25	10400	7671	66
* SBWG-05-1S	180:1	115 (32X18)	(F-20), F-25, F-30	15900	11727	88
SBWG-55-1S	186:1	125 (32X18)	F-25, F-30	23500	17333	107
SBWG-06-1S	256:1	140 (36X20)	F-25, F-30, F-35	32800	24192	175
SBWG-07-1S	272:1	180 (45X25)	F-30, F-35, F-40	51100	37689	271
SBWG-75-1S	330:1	210 (50X28)	F-35, F-40, F-48	81500	60111	422
SBWG-08-1S	330:1	250 (56X32)	F-40, F-48	121000	89245	545
SBWG-09-1S	330:1	280 (63X32)	F-48, F-60	192500	141981	902
SBWG-10-1S	320:1	320 (70X36)	F-60	275000	202830	1426
SBWG-11-1S	340:1	360 (80X40)	F-60	442000	326002	2182
* SBWG-12-1S	350:1	400 (90X45)	F-60, (F-80)	610000	449913	3081
* SBWG-13-1S	360:1	420 (100X50)	F-60, (F-80)	970000	715435	3980

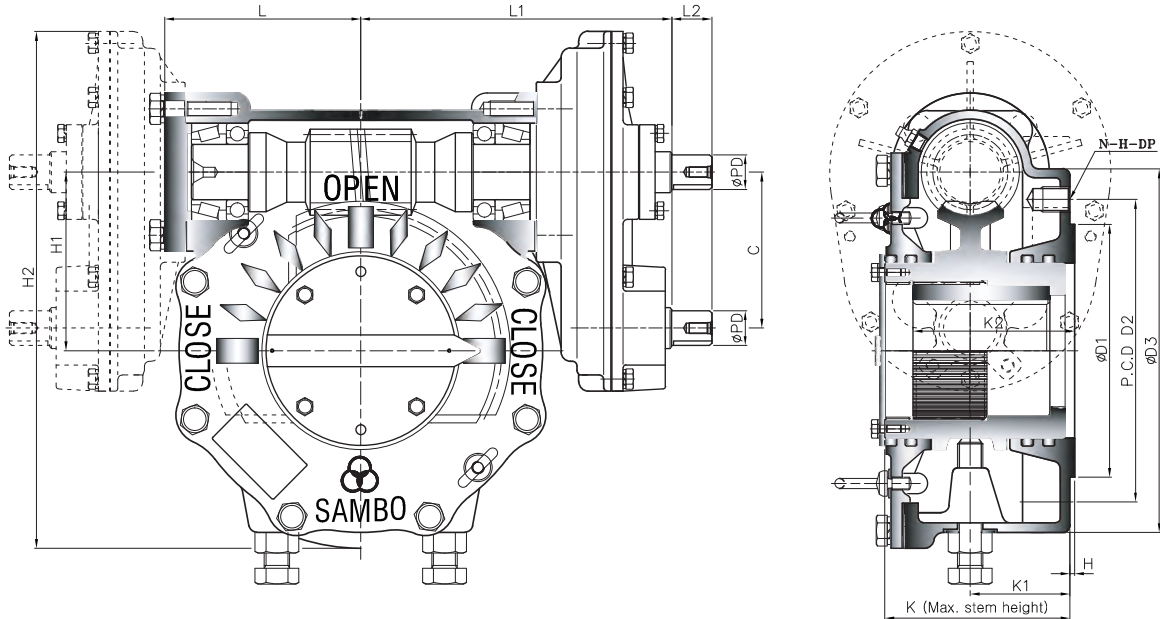
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

Worm Gear

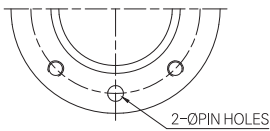




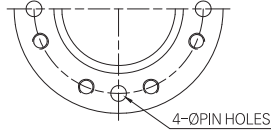
# STANDARD TYPE-A Twin Shaft Horizontal Input with Single Reduction Gear Attachment



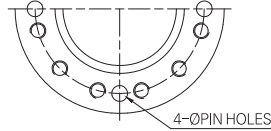
• Pin hole size is same as tap out diameter



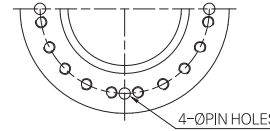
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

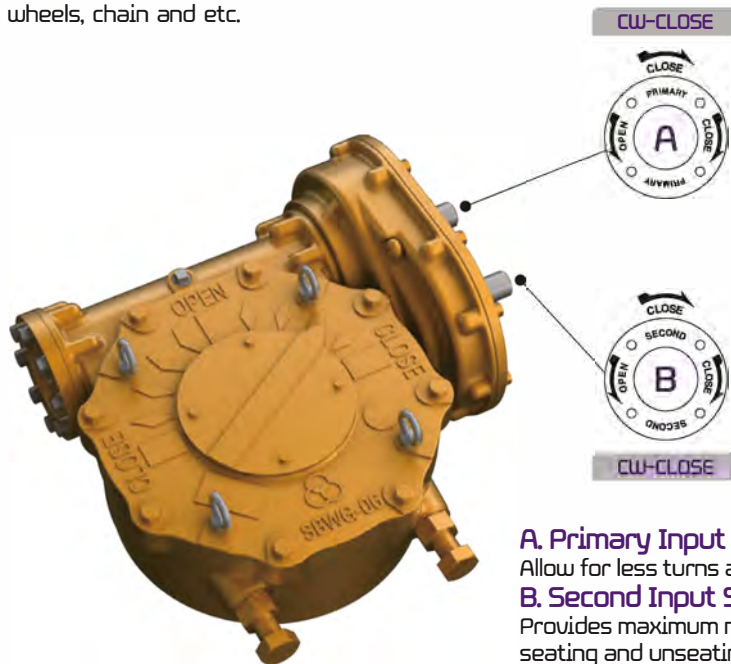
UNIT : mm

DIM MODEL	BASE PART							EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL		
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	C	L	L1	L2	ØPD		KEY	
				ØD2	N-H-DP															
SBWG-00-1ST	A	F-12	85	125	4-M12-18	165	2	69,5	210	86,5	43	53,6	55,9	86	183	29	21	6X6	300	
SBWG-01-1ST		F-14	100	140	4-M16-24	190		82,5	235,5	96	53	65		95	192				400	
SBWG-02-1ST		F-16	130	165	4-M20-30	220		97	282	111,5	58	75,5	68,6	108	214,5				34	26
SBWG-03-1ST	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	118	61	87	68,6	118	224,5	34	26	8X7	560	
SBWG-35-1ST		F-25	200	254	8-M16-24	300		127	352	135	72	100		125	218,5				630	
SBWG-04-1ST		F-25	200	254	8-M16-24	300		153	417,5	147	73	120	153	286	710					
* SBWG-05-1ST		F-30	230	298	8-M20-30	350		180	469,5	155	78	141	121,2	163	296	34	32	10X8	710	
SBWG-55-1ST						350		202	516,5	162	80	144	183	316						
SBWG-06-1ST		F-35	260	356	8-M30-45	415		230	621	200	109	173	169	217	376	44	38	12X8	800	
SBWG-07-1ST	F-40	300	406	8-M36-55	475	280,5	723	227	116	209	252	411	44	38	12X8	900				
SBWG-75-1ST	C	F-48	370	483	12-M36-55	560	5	326	860	246	120	220	230	279	531	58	50	16X10	1000	
SBWG-08-1ST						560		379	968	254	125	245		314	566					
SBWG-09-1ST	D	F-60	470	603	20-M36-55	700	5	448,5	1107,5	284	138	270	230	354	606	58	50	16X10	1000	
SBWG-10-1ST						800		513	1291	352	164	330		284,3	426				746	
SBWG-11-1ST						900		616,5	1499,5	394	181	370	468,5		788,5					
* SBWG-12-1ST						1000		711	1751	482	265	415	334	554	969					
* SBWG-13-1ST						1000		809	1944	546	301	515		609	1009					

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.



### Bushing Type

Splines permit accurate alignment of valve stem key.



- A. Primary Input Shaft (High Speed Input Shaft)**  
Allow for less turns after valve has been unseating.
- B. Second Input Shaft (Low Speed Input Shaft)**  
Provides maximum mechanical advantage for seating and unseating of valves.

## Selection Chart for Manual Operation >>>

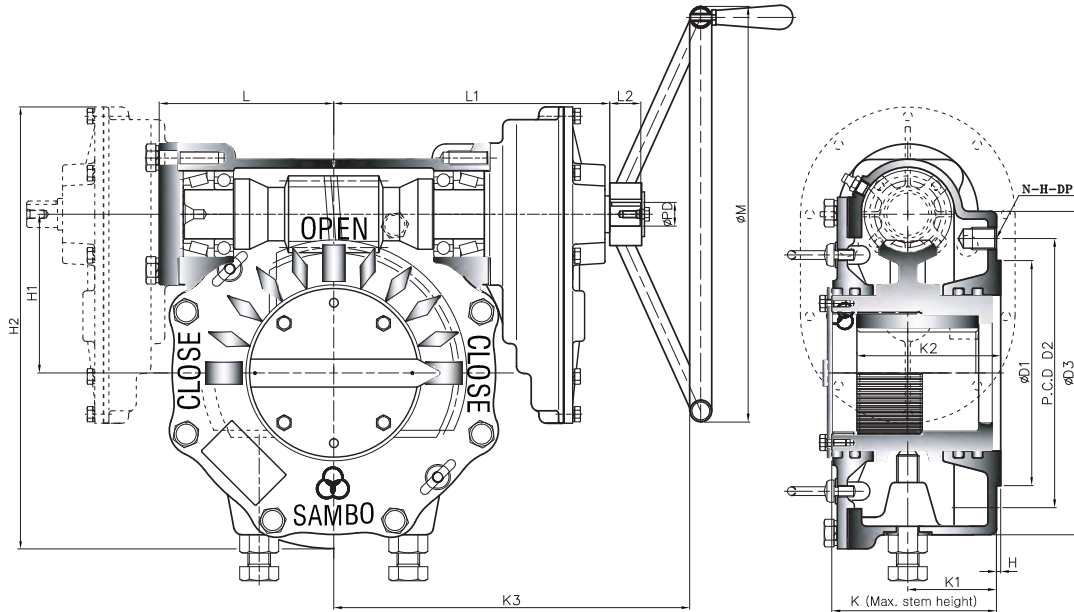
SIZE MODEL	GEAR RATIO		MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT Kg
	PRIMARY	SECOND			N-m	Ft. lbf	
SBWG-00-1ST	40:1	80:1	36 (10X8)	F-10, F-12	1200	885	12
SBWG-01-1ST	44:1	88:1	46 (14X9)	F-10, F-12, F-14	2000	1475	15
SBWG-02-1ST	48:1	121.6:1	60 (18X11)	F-12, F-14, F-16	2800	2065	25
SBWG-03-1ST	52:1	131.7:1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	33
SBWG-35-1ST	52:1	131.7:1	80 (22X14)	F-16, (F-20), F-25	6100	4499	50
SBWG-04-1ST	56:1	168:1	95 (25X14)	F-16, (F-20), F-25	10400	7671	66
* SBWG-05-1ST	60:1	180:1	115 (32X18)	(F-20), F-25, F-30	15900	11727	88
SBWG-55-1ST	62:1	186:1	125 (32X18)	F-25, F-30	23500	17333	107
SBWG-06-1ST	64:1	256:1	140 (36X20)	F-25, F-30, F-35	32800	24192	175
SBWG-07-1ST	68:1	272:1	180 (45X25)	F-30, F-35, F-40	51100	37689	271
SBWG-75-1ST	66:1	330:1	210 (50X28)	F-35, F-40, F-48	81500	60111	422
SBWG-08-1ST	66:1	330:1	250 (56X32)	F-40, F-48	121000	89245	545
SBWG-09-1ST	66:1	330:1	280 (63X32)	F-48, F-60	192500	141981	902
SBWG-10-1ST	64:1	320:1	320 (70X36)	F-60	275000	202830	1426
SBWG-11-1ST	68:1	340:1	360 (80X40)	F-60	442000	326002	2182
* SBWG-12-1ST	70:1	350:1	400 (90X45)	F-60, (F-80)	610000	449913	3081
* SBWG-13-1ST	72:1	360:1	420 (100X50)	F-60, (F-80)	970000	715435	3980

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

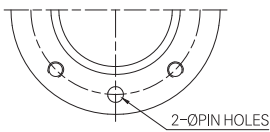


# STANDARD TYPE-A

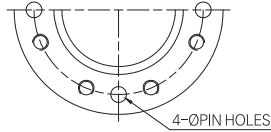
Horizontal Input  
with Double Reduction Gear Attachment



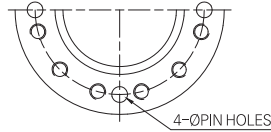
• Pin hole size is same as tap out diameter



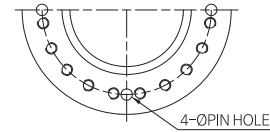
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

DIM MODEL	BASE PART							EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL	
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2	ØPD		KEY
				ØD2	N-H-DP														
SBWG-00-1SD	A	F-12	85	125	4-M12-18	165	2	69,5	210	86,5	43	53,6	276	86	183	29	21	6X6	300
SBWG-01-1SD		F-14	100	140	4-M16-24	190		82,5	235,5	96	53	65	305	95	192				400
SBWG-02-1SD		F-16	130	165	4-M20-30	220		97	282	111,5	58	75,5	343	108	214,5				500
SBWG-03-1SD	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	118	61	87	373	118	224,5	34	26	8X7	560
SBWG-35-1SD		F-25	200	254	8-M16-24	300		127	352	135	72	100	385	125	236,5				630
SBWG-04-1SD		F-25	200	254	8-M16-24	300		153	417,5	147	73	120	449	153	286				710
* SBWG-05-1SD		F-30	230	298	8-M20-30	350		180	469,5	155	78	141	479	163	296				800
SBWG-55-1SD						350		202	516,5	162	80	144	499	183	316				900
SBWG-06-1SD		F-35	260	356	8-M30-45	415		230	621	200	109	173	579	217	376				1000
SBWG-07-1SD		F-40	300	406	8-M36-55	475		280,5	723	227	116	209	634	252	411				
SBWG-75-1SD	C	F-48	370	483	12-M36-55	560	5	326	860	246	120	220	767	279	531	58	50	16X10	1000
SBWG-08-1SD						560		379	968	254	125	245	802	314	566				
SBWG-09-1SD	D	F-60	470	603	20-M36-55	700	5	448,5	1107,5	284	138	270	842	354	606	58	50	16X10	1000
SBWG-10-1SD						800		513	1291	352	164	330	982	426	746				
SBWG-11-1SD						900		616,5	1499,5	394	181	370	1039,5	468,5	788,5				
* SBWG-12-1SD						1000		711	1751	482	265	415	1205	554	969				
* SBWG-13-1SD						1000		809	1944	546	301	515	1245	609	1009				

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

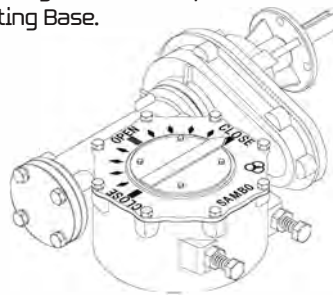
### Bushing Type

Splines permit accurate alignment of valve stem key.



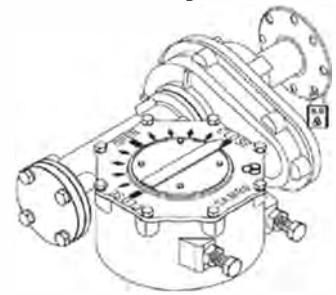
### M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



### LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

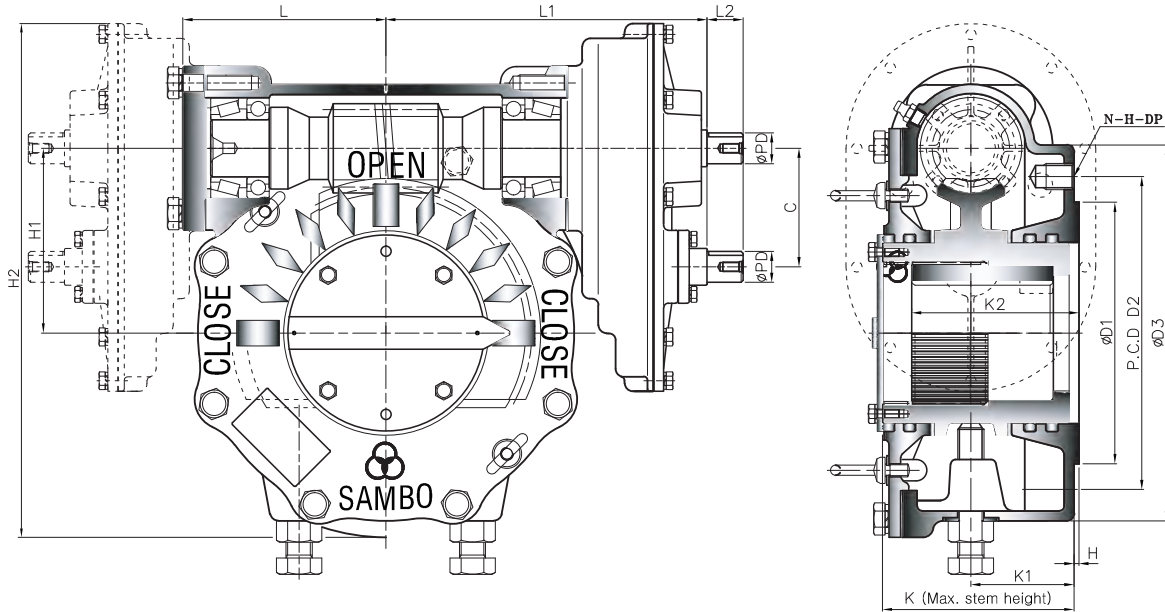
SIZE MODEL	MAX. GEAR RATIO (Changeable)	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00-1SD	160 : 1	36 (10X8)	F-10, F-12	1200	885	14
SBWG-01-1SD	176 : 1	46 (14X9)	F-10, F-12, F-14	2000	1475	17
SBWG-02-1SD	308 : 1	60 (18X11)	F-12, F-14, F-16	2800	2065	27
SBWG-03-1SD	333.7 : 1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	35
SBWG-35-1SD	333.7 : 1	80 (22X14)	F-16, (F-20), F-25	6100	4499	52
SBWG-04-1SD	504 : 1	95 (25X14)	F-16, (F-20), F-25	10400	7671	71
* SBWG-05-1SD	540 : 1	115 (32X18)	(F-20), F-25, F-30	15900	11727	93
SBWG-55-1SD	558 : 1	125 (32X18)	F-25, F-30	23500	17333	112
SBWG-06-1SD	1024 : 1	140 (36X20)	F-25, F-30, F-35	32800	24192	188
SBWG-07-1SD	1088 : 1	180 (45X25)	F-30, F-35, F-40	51100	37689	284
SBWG-75-1SD	1650 : 1	210 (50X28)	F-35, F-40, F-48	81500	60111	450
SBWG-08-1SD	1650 : 1	250 (56X32)	F-40, F-48	121000	89245	573
SBWG-09-1SD	1650 : 1	280 (63X32)	F-48, F-60	192500	141981	930
SBWG-10-1SD	1600 : 1	320 (70X36)	F-60	275000	202830	1464
SBWG-11-1SD	1700 : 1	360 (80X40)	F-60	442000	326002	2220
* SBWG-12-1SD	1750 : 1	400 (90X45)	F-60, (F-80)	610000	449913	3081
* SBWG-13-1SD	1800 : 1	420 (100X50)	F-60, (F-80)	970000	715435	3980

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

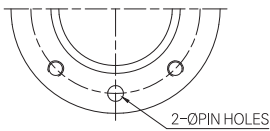


# STANDARD TYPE-A Twin Shaft

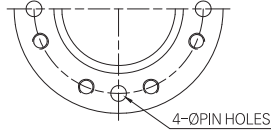
## Horizontal Input with Double Reduction Gear Attachment



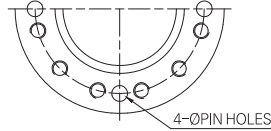
• Pin hole size is same as tap out diameter



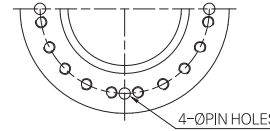
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

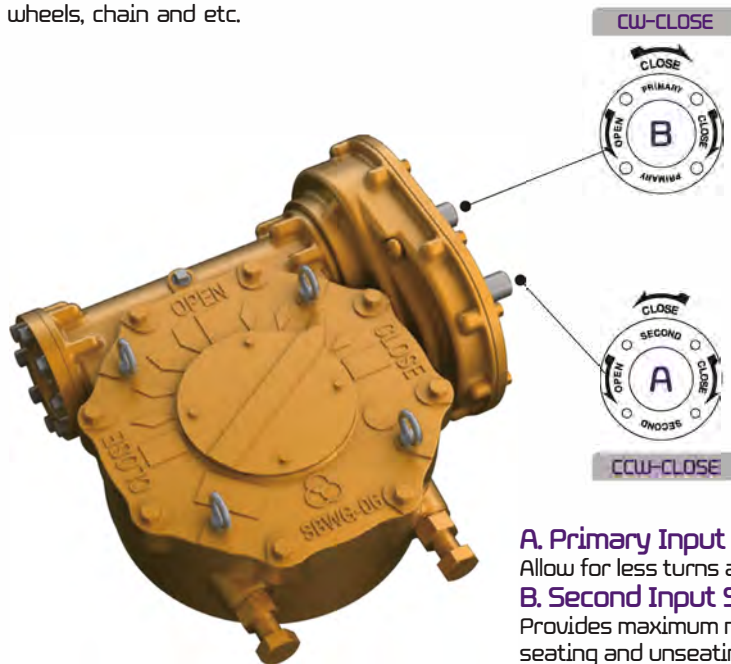
UNIT : mm

MODEL	DIM	BASE PART						EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL			
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	C	L	L1	L2		ØPD	KEY	
					ØD2	N-H-DP															
SBWG-00-1SDT	A	F-12	85	125	4-M12-18	165	2	69,5	210	86,5	43	53,6	55,9	86	183	29	21	6X6	300		
SBWG-01-1SDT		F-14	100	140	4-M16-24	190		82,5	235,5	96	53	65		95	192		400				
SBWG-02-1SDT		F-16	130	165	4-M20-30	220		97	282	111,5	58	75,5		68,6	108		214,5	34	26	8X7	500
SBWG-03-1SDT	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	118	61	87	68,6	118	224,5	34	26	8X7	560		
SBWG-35-1SDT		F-25	200	254	8-M16-24	300		127	352	135	72	100		125	236,5		630				
SBWG-04-1SDT		F-25	200	254	8-M16-24	300		153	417,5	147	73	120		153	286		710				
*SBWG-05-1SDT		F-30	230	298	8-M20-30	350		180	469,5	155	78	141		93,2	163		296	34	32	10X8	710
SBWG-55-1SDT						350		202	516,5	162	80	144		183	316		800				
SBWG-06-1SDT		F-35	260	356	8-M30-45	415		230	621	200	109	173		145	217		376	44	38	12X8	800
SBWG-07-1SDT		F-40	300	406	8-M36-55	475		280,5	723	227	116	209		252	411		44	38	12X8	900	
SBWG-75-1SDT	C	F-48	370	483	12-M36-55	560	5	326	860	246	120	220	186,4	279	531	58	50	16X10	1000		
SBWG-08-1SDT						560		379	968	254	125	245		314	566						
SBWG-09-1SDT	D	F-60	470	603	20-M36-55	700	5	448,5	1107,5	284	138	270	186,4	354	606	58	50	16X10	1000		
SBWG-10-1SDT						800		513	1291	352	164	330		426	746						
SBWG-11-1SDT						900		616,5	1499,5	394	181	370		237,6	468,5					788,5	
*SBWG-12-1SDT						1000		711	1751	482	265	415		298,5	554					969	
*SBWG-13-1SDT						1000		809	1944	546	301	515		609	1009						

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
 \* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.



### Bushing Type

Splines permit accurate alignment of valve stem key.



- A. Primary Input Shaft (High Speed Input Shaft)**  
Allow for less turns after valve has been unseating.
- B. Second Input Shaft (Low Speed Input Shaft)**  
Provides maximum mechanical advantage for seating and unseating of valves.

## Selection Chart for Manual Operation >>>

SIZE MODEL	GEAR RATIO		MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT Kg
	PRIMARY	SECOND			N-m	Ft. lbf	
SBWG-00-1SDT	80:1	160:1	36 (10X8)	F-10, F-12	1200	885	14
SBWG-01-1SDT	88:1	176:1	46 (14X9)	F-10, F-12, F-14	2000	1475	17
SBWG-02-1SDT	121,6:1	308:1	60 (18X11)	F-12, F-14, F-16	2800	2065	27
SBWG-03-1SDT	131,7:1	333,7:1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	35
SBWG-35-1SDT	131,7:1	333,7:1	80 (22X14)	F-16, (F-20), F-25	6100	4499	52
SBWG-04-1SDT	168:1	504:1	95 (25X14)	F-16, (F-20), F-25	10400	7671	71
*SBWG-05-1SDT	180:1	540:1	115 (32X18)	(F-20), F-25, F-30	15900	11727	93
SBWG-55-1SDT	186:1	558:1	125 (32X18)	F-25, F-30	23500	17333	112
SBWG-06-1SDT	256:1	1024:1	140 (36X20)	F-25, F-30, F-35	32800	24192	188
SBWG-07-1SDT	272:1	1088:1	180 (45X25)	F-30, F-35, F-40	51100	37689	284
SBWG-75-1SDT	330:1	1650:1	210 (50X28)	F-35, F-40, F-48	81500	60111	450
SBWG-08-1SDT	330:1	1650:1	250 (56X32)	F-40, F-48	121000	89245	573
SBWG-09-1SDT	330:1	1650:1	280 (63X32)	F-48, F-60	192500	141981	930
SBWG-10-1SDT	320:1	1600:1	320 (70X36)	F-60	275000	202830	1464
SBWG-11-1SDT	340:1	1700:1	360 (80X40)	F-60	442000	326002	2220
*SBWG-12-1SDT	350:1	1750:1	400 (90X45)	F-60, (F-80)	610000	449913	3081
*SBWG-13-1SDT	360:1	1800:1	420 (100X50)	F-60, (F-80)	970000	715435	3980

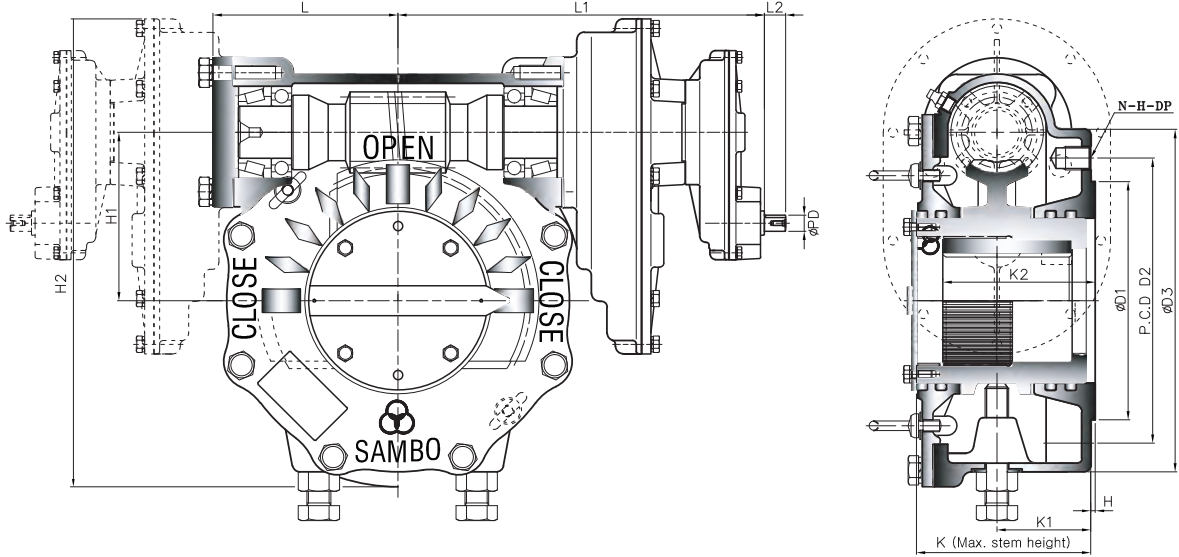
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.



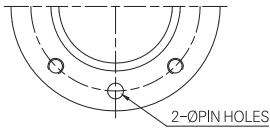


# STANDARD TYPE-A

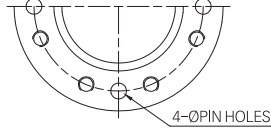
Horizontal Input  
with Triple Reduction Gear Attachment



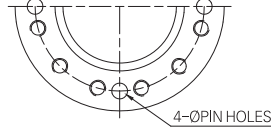
• Pin hole size is same as tap out diameter



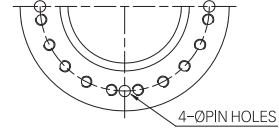
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

MODEL	DIM	BASE PART						EXTERNAL PART						INPUT SHAFT PART			HAND WHEEL					
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	L	L1	L2		ØPD	KEY			
					ØD2	N-H-DP																
SBWG-00-2SD	A	F-12	85	125	4-M12-18	165	2	69,5	210	86,5	43	53,6	86	261	29	21	6X6	300				
SBWG-01-2SD		F-14	100	140	4-M16-24	190		82,5	235,5	96	53	65	95	270								
SBWG-02-2SD		F-16	130	165	4-M20-30	220		97	282	111,5	58	75,5	108	295,5								
SBWG-03-2SD	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	118	61	87	118	305,5	29	21	6X6	400				
SBWG-35-2SD		F-25	200	254	8-M16-24	300		127	352	135	72	100	125	317,5								
SBWG-04-2SD		F-25	200	254	8-M16-24	300		153	417,5	147	73	120	153	364,5								
*SBWG-05-2SD		F-30	230	298	8-M20-30	350		180	469,5	155	78	141	163	374,5					34	26	8X7	560
SBWG-55-2SD						350		202	516,5	162	80	144	183	394,5								
SBWG-06-2SD		F-35	260	356	8-M30-45	415		230	621	200	109	173	217	471					34	32	10X8	630
SBWG-07-2SD	F-40	300	406	8-M36-55	475	280,5	723	227	116	209	252	506										
SBWG-75-2SD	C	F-48	370	483	12-M36-55	560	5	326	860	246	120	220	279	662	44	38	12X8	800				
SBWG-08-2SD						560		379	968	254	125	245	314	697				900				
SBWG-09-2SD	D	F-60	470	603	20-M36-55	700	5	448,5	1107,5	284	138	270	354	737	44	38	12X8	900				
SBWG-10-2SD						800		513	1291	352	164	330	426	959								
SBWG-11-2SD						900		616,5	1499,5	394	181	370	468,5	1001,5								
*SBWG-12-2SD						1000		711	1751	482	265	415	554	1255				58	50	16X10	1000	
*SBWG-13-2SD						1000		809	1944	546	301	515	609	1295								

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

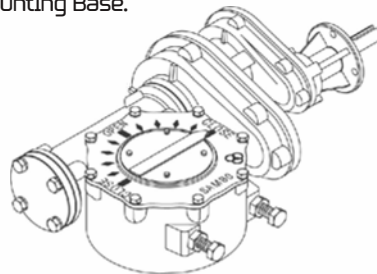
### Bushing Type

Splines permit accurate alignment of valve stem key.



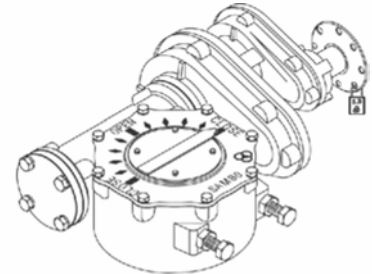
### M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



### LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



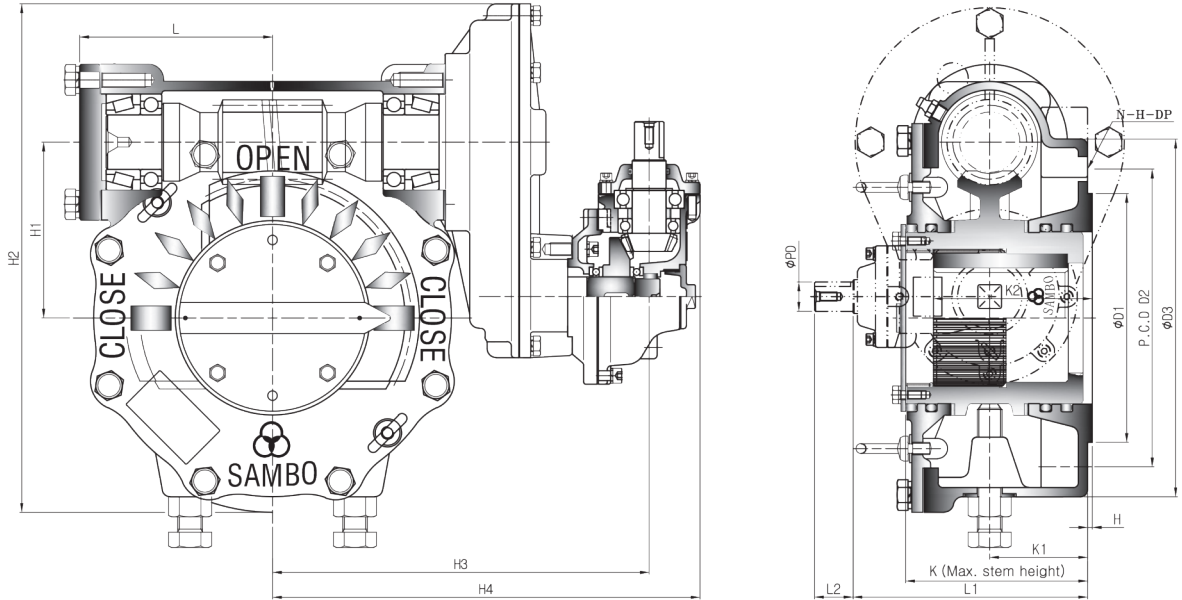
## Selection Chart for Manual Operation >>>

SIZE MODEL	GEAR RATIO (Changeable)	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00-2SD	320 : 1	36 (10X8)	F-10, F-12	1200	885	16
SBWG-01-2SD	352 : 1	46 (14X9)	F-10, F-12, F-14	2000	1475	19
SBWG-02-2SD	616 : 1	60 (18X11)	F-12, F-14, F-16	2800	2065	29
SBWG-03-2SD	667.4 : 1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	38
SBWG-35-2SD	667.4 : 1	80 (22X14)	F-16, (F-20), F-25	6100	4499	60
SBWG-04-2SD	1275 : 1	95 (25X14)	F-16, (F-20), F-25	10400	7671	75
*SBWG-05-2SD	1368 : 1	115 (32X18)	(F-20), F-25, F-30	15900	11727	97
SBWG-55-2SD	1413.6 : 1	125 (32X18)	F-25, F-30	23500	17333	116
SBWG-06-2SD	3072 : 1	140 (36X20)	F-25, F-30, F-35	32800	24192	198
SBWG-07-2SD	3264 : 1	180 (45X25)	F-30, F-35, F-40	51100	37689	294
SBWG-75-2SD	6600 : 1	210 (50X28)	F-35, F-40, F-48	81500	60111	478
SBWG-08-2SD	6600 : 1	250 (56X32)	F-40, F-48	121000	89245	601
SBWG-09-2SD	6600 : 1	280 (63X32)	F-48, F-60	192500	141981	957
SBWG-10-2SD	8000 : 1	320 (70X36)	F-60	275000	202830	1536
SBWG-11-2SD	8500 : 1	360 (80X40)	F-60	442000	326002	2292
*SBWG-12-2SD	8750 : 1	400 (90X45)	F-60, (F-80)	610000	449913	3178
*SBWG-13-2SD	9000 : 1	420 (100X50)	F-60, (F-80)	970000	715435	4077

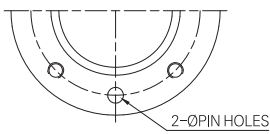
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

# STANDARD TYPE-B

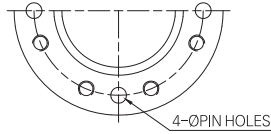
Vertical Input  
with Double Reduction Gear Attachment



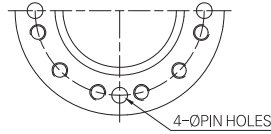
• Pin hole size is same as tap out diameter



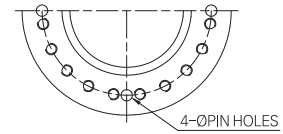
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

DIM MODEL	BASE PART						EXTERNAL PART										INPUT SHAFT PART		HAND WHEEL	
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	H4	K	K1	K2	L	L1	L2	ØPD		KEY
				ØD2	N-H-DP															
SBWG-00-1S2B	A	F-12	85	125	4-M12-18	165	2	69,5	210	204	244	86,5	43	53,6	86	132	34	26	8X7	250
SBWG-01-1S2B		F-14	100	140	4-M16-24	190		82,5	235,5	213	253	96	53	65	95	142				
SBWG-02-1S2B		F-16	130	165	4-M20-30	220		97	282	231,5	271,5	111,5	58	75,5	108	145				
SBWG-03-1S2B	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	241,5	281,5	118	61	87	118	148	34	26	8X7	250
SBWG-35-1S2B		F-25	200	254	8-M16-24	300		127	352	259,5	299,5	135	72	100	125	161				
SBWG-04-1S2B		F-25	200	254	8-M16-24	300		153	417,5	308	358	147	73	120	153	194				
*SBWG-05-1S2B		F-30	230	298	8-M20-30	350		180	469,5	318	368	155	78	141	163	199				
SBWG-55-1S2B						350		202	516,5	338	388	162	80	144	183	201				
SBWG-06-1S2B		F-35	260	356	8-M30-45	415		230	621	411,5	461,5	200	109	173	217	240				
SBWG-07-1S2B		F-40	300	406	8-M36-55	475		280,5	723	446,5	496,5	227	116	209	252	246				
SBWG-75-1S2B	C	F-48	370	483	12-M36-55	560	5	326	860	558,5	623	246	120	220	279	308	34	32	10X8	630
SBWG-08-1S2B								379	968	593	658	254	125	245	314	313				
SBWG-09-1S2B	D	F-60	470	603	20-M36-55	800	5	448,5	1107,5	633	698	284	138	270	354	326	34	32	10X8	630
SBWG-10-1S2B								513	1291	839	904	352	164	330	426	384,5				
SBWG-11-1S2B								616,5	1499,5	881,5	946,5	394	181	370	468,5	401,5				
*SBWG-12-1S2B								711	1751	1070	1153	482	265	415	554	536				
*SBWG-13-1S2B								809	1944	1132	1203	546	301	515	609	592				

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

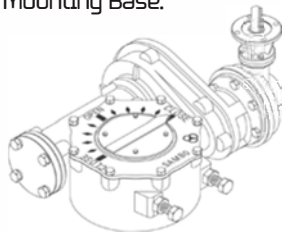
### Bushing Type

Splines permit accurate alignment of valve stem key.



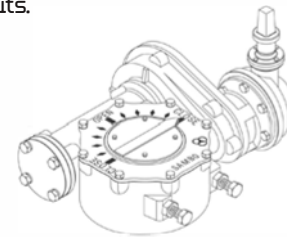
### M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



### SQUARE NUT OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00-1S2B	160 : 1	36 (10X8)	F-10, F-12	1200	885	17
SBWG-01-1S2B	176 : 1	46 (14X9)	F-10, F-12, F-14	2000	1475	20
SBWG-02-1S2B	243.2 : 1	60 (18X11)	F-12, F-14, F-16	2800	2065	30
SBWG-03-1S2B	263.5 : 1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	38
SBWG-35-1S2B	263.5 : 1	80 (22X14)	F-16, (F-20), F-25	6100	4499	55
SBWG-04-1S2B	420 : 1	95 (25X14)	F-16, (F-20), F-25	10400	7671	74
*SBWG-05-1S2B	450 : 1	115 (32X18)	(F-20), F-25, F-30	15900	11727	96
SBWG-55-1S2B	465 : 1	125 (32X18)	F-25, F-30	23500	17333	115
SBWG-06-1S2B	768 : 1	140 (36X20)	F-25, F-30, F-35	32800	24192	185
SBWG-07-1S2B	816 : 1	180 (45X25)	F-30, F-35, F-40	51100	37689	281
SBWG-75-1S2B	1320 : 1	210 (50X28)	F-35, F-40, F-48	81500	60111	450
SBWG-08-1S2B	1320 : 1	250 (56X32)	F-40, F-48	121000	89245	573
SBWG-09-1S2B	1320 : 1	280 (63X32)	F-48, F-60	192500	141981	930
SBWG-10-1S2B	1600 : 1	320 (70X36)	F-60	275000	202830	1470
SBWG-11-1S2B	1700 : 1	360 (80X40)	F-60	442000	326002	2260
*SBWG-12-1S2B	1925 : 1	400 (90X45)	F-60, (F-80)	610000	449913	3158
*SBWG-13-1S2B	2160 : 1	420 (100X50)	F-60, (F-80)	970000	715435	4079

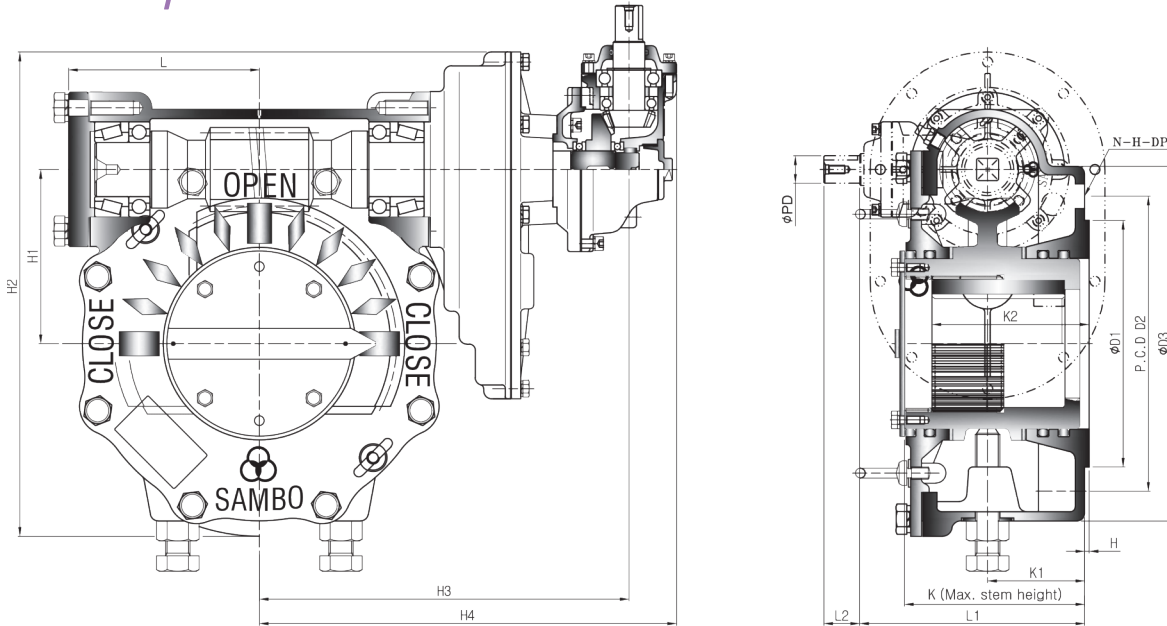
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.



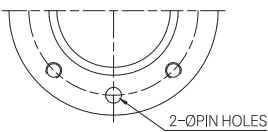


# STANDARD TYPE-B

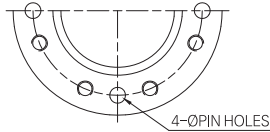
Vertical Input  
with Triple Reduction Gear Attachment



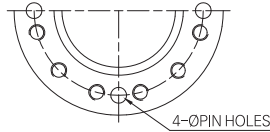
• Pin hole size is same as tap out diameter



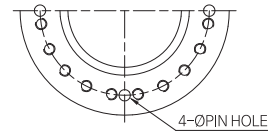
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

MODEL	DIM	BASE PART						EXTERNAL PART									INPUT SHAFT PART			HAND WHEEL	
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	H4	K	K1	K2	L	L1	L2	ØPD		KEY
					ØD2	N-H-DP															
SBWG-00-1SD2B	A	F-12	85	125	4-M12-18	165	2	69,5	210	221	261	86,5	43	53,6	86	132	34	26	8X7	250	
SBWG-01-1SD2B		F-14	100	140	4-M16-24	190		82,5	235,5	230	270	96	53	65	95	142					
SBWG-02-1SD2B		F-16	130	165	4-M20-30	220		97	282	255,5	295,5	111,5	58	75,5	108	145					
SBWG-03-1SD2B	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	265,5	305,5	118	61	87	118	148	34	26	8X7	250	
SBWG-35-1SD2B		F-25	200	254	8-M16-24	300		127	352	277,5	317,5	135	72	100	125	161					
SBWG-04-1SD2B		F-25	200	254	8-M16-24	300		153	417,5	344	394	147	73	120	153	194					
* SBWG-05-1SD2B		F-30	230	298	8-M20-30	350		180	469,5	354	404	155	78	141	163	199					
SBWG-55-1SD2B						350		202	516,5	374	424	162	80	144	183	201					
SBWG-06-1SD2B		F-35	260	356	8-M30-45	415		230	621	438,5	488,5	200	109	173	217	240					
SBWG-07-1SD2B		F-40	300	406	8-M36-55	475		280,5	723	473,5	523,5	227	116	209	252	246					
SBWG-75-1SD2B	C	F-48	370	483	12-M36-55	560	5	326	860	618,5	683,5	246	120	220	279	308	34	32	10X8	630	
SBWG-08-1SD2B						560		379	968	653,5	718,5	254	125	245	314	313					
SBWG-09-1SD2B	D					700	5	448,5	1107,5	693,5	758,5	284	138	270	354	326	34	32	10X8	630	
SBWG-10-1SD2B		F-60	470	603	20-M36-55	800		513	1291	893	958	352	164	330	426	384,5					
SBWG-11-1SD2B						900		616,5	1499,5	935,5	1000,5	394	181	370	468,5	401,5					
* SBWG-12-1SD2B						1000		711	1751	1135	1217,5	482	265	415	554	536					
* SBWG-13-1SD2B		F-80	670	813	20-M42-63	1000		809	1944	1187	1269,5	546	301	515	609	592					44

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

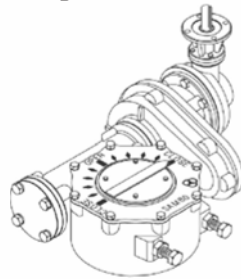
### Bushing Type

Splines permit accurate alignment of valve stem key.



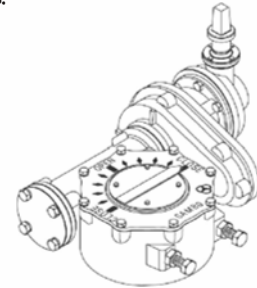
### M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



### SQUARE NUT OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

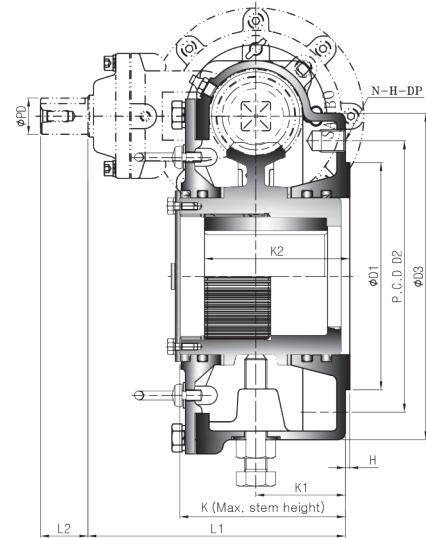
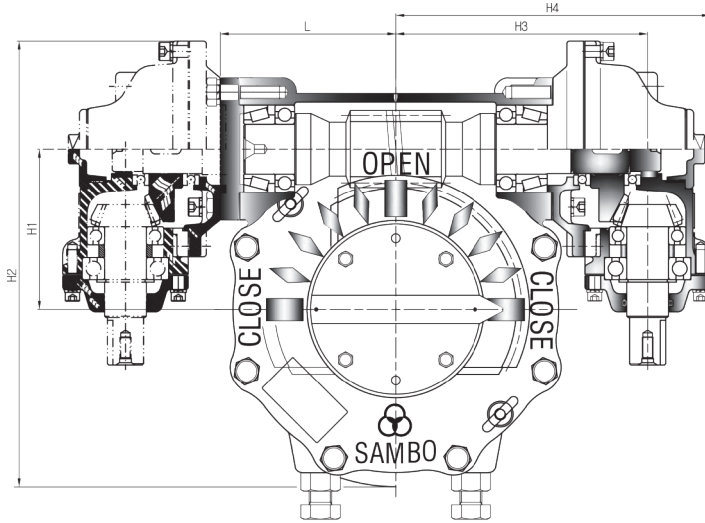
MODEL	SIZE	MAX. GEAR RATIO (Change Able)	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
					N-m	Ft. lbf	
SBWG-00-1SD2B		320 : 1	36 (10X8)	F-10, F-12	1200	885	19
SBWG-01-1SD2B		352 : 1	46 (14X9)	F-10, F-12, F-14	2000	1475	22
SBWG-02-1SD2B		616 : 1	60 (18X11)	F-12, F-14, F-16	2800	2065	32
SBWG-03-1SD2B		667 : 1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	40
SBWG-35-1SD2B		667 : 1	80 (22X14)	F-16, (F-20), F-25	6100	4499	57
SBWG-04-1SD2B		1260 : 1	95 (25X14)	F-16, (F-20), F-25	10400	7671	79
* SBWG-05-1SD2B		1350 : 1	115 (32X18)	(F-20), F-25, F-30	15900	11727	101
SBWG-55-1SD2B		1395 : 1	125 (32X18)	F-25, F-30	23500	17333	120
SBWG-06-1SD2B		3072 : 1	140 (36X20)	F-25, F-30, F-35	32800	24192	198
SBWG-07-1SD2B		3264 : 1	180 (45X25)	F-30, F-35, F-40	51100	37689	294
SBWG-75-1SD2B		6600 : 1	210 (50X28)	F-35, F-40, F-48	81500	60111	478
SBWG-08-1SD2B		6600 : 1	250 (56X32)	F-40, F-48	121000	89245	602
SBWG-09-1SD2B		6600 : 1	280 (63X32)	F-48, F-60	192500	141981	958
SBWG-10-1SD2B		8000 : 1	320 (70X36)	F-60	275000	202830	1508
SBWG-11-1SD2B		8500 : 1	360 (80X40)	F-60	442000	326002	2264
* SBWG-12-1SD2B		9625 : 1	400 (90X45)	F-60, (F-80)	610000	449913	3158
* SBWG-13-1SD2B		10800 : 1	420 (100X50)	F-60, (F-80)	970000	715435	4079

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

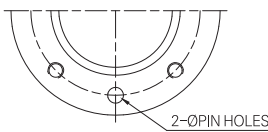


# STANDARD TYPE-B

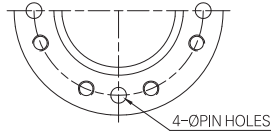
Vertical Input  
with Single Reduction Gear Attachment



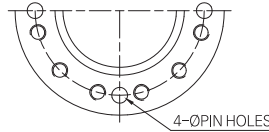
• Pin hole size is same as tap out diameter



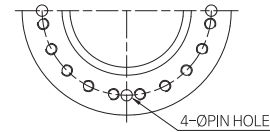
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

MODEL	DIM	BASE PART						EXTERNAL PART									INPUT SHAFT PART			HAND WHEEL	
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	H4	K	K1	K2	L	L1	L2	ØPD		KEY
					ØD2	N-H-DP															
SBWG-00-2B	A	F-12	85	125	4-M12-18	165	2	69,5	214,5	126	166	86,5	43	53,6	86	132	34	26	8X7	250	
SBWG-01-2B		F-14	100	140	4-M16-24	190		82,5	240	135	175	96	53	65	95	142					
SBWG-02-2B		F-16	130	165	4-M20-30	220		97	284,5	164	214	111,5	58	75,5	108	177					
SBWG-03-2B	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	314,5	174	224	118	61	87	118	180	34	26	8X7	300	
SBWG-35-2B		F-25	200	254	8-M16-24	300		127	354,5	192	242	135	72	100	125	193					
SBWG-04-2B		F-25	200	254	8-M16-24	300		153	406,5	212,5	262,5	147	73	120	153	204					
* SBWG-05-2B		F-30	230	298	8-M20-30	350		180	458,5	222,5	272,5	155	78	141	163	209					
SBWG-55-2B						350		202	505,5	242,5	292,5	162	80	144	183	211					
SBWG-06-2B		F-35	260	356	8-M30-45	415		230	598,5	312	377	200	109	173	217	297					
SBWG-07-2B		F-40	300	406	8-M36-55	475		280,5	700,5	347	412	227	116	209	252	303					
SBWG-75-2B	C	F-48	370	483	12-M36-55	560	5	326	818,5	414	479	246	120	220	279	328	34	32	10X8	710	
SBWG-08-2B						560		379	954	498	580,5	254	125	245	314	391					44
SBWG-09-2B	D					700	5	448,5	1118,5	550	632,5	284	138	270	354	429	44	38	12X8	900	
SBWG-10-2B		F-60	470	603	20-M36-55	800		513	1281	742	824,5	352	164	330	426	477					
SBWG-11-2B						900		616,5	1489,5	784,5	867	394	181	370	468,5	494					
* SBWG-12-2B						1000		711	1711	886	986	482	265	415	554	651					
* SBWG-13-2B		F-80	670	813	20-M42-63	1000		809	1941,5	947	1047	546	301	515	609	710					58

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

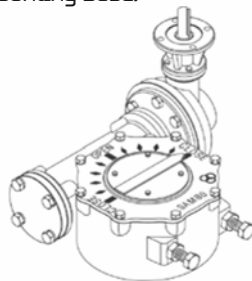
### Bushing Type

Splines permit accurate alignment of valve stem key.



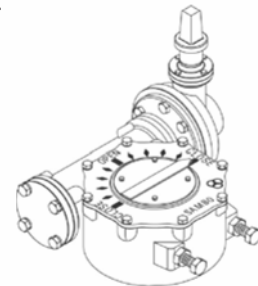
### M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



### SQUARE NUT OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

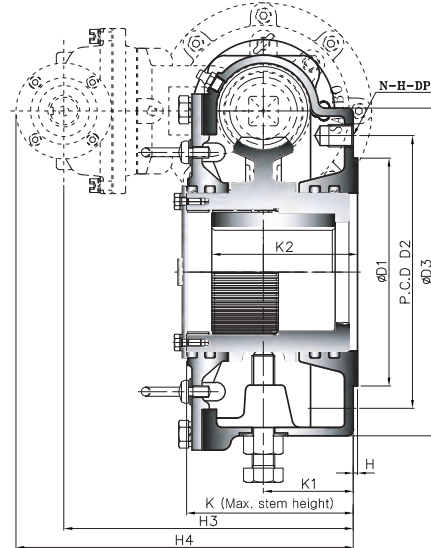
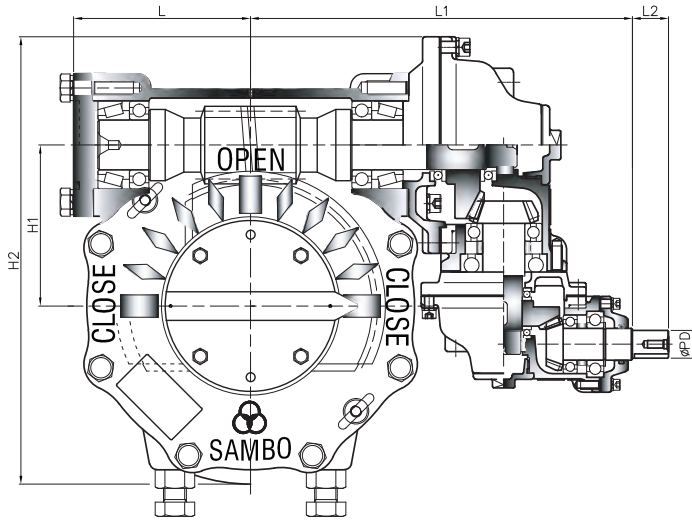
SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00-2B	80:1	36 (10X8)	F-10, F-12	1200	885	15
SBWG-01-2B	88:1	46 (14X9)	F-10, F-12, F-14	2000	1475	18
SBWG-02-2B	120:1	60 (18X11)	F-12, F-14, F-16	2800	2065	29
SBWG-03-2B	130:1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	37
SBWG-35-2B	130:1	80 (22X14)	F-16, (F-20), F-25	6100	4499	48
SBWG-04-2B	168:1	95 (25X14)	F-16, (F-20), F-25	10400	7671	66
* SBWG-05-2B	180:1	115 (32X18)	(F-20), F-25, F-30	15900	11727	88
SBWG-55-2B	186:1	125 (32X18)	F-25, F-30	23500	17333	107
SBWG-06-2B	256:1	140 (36X20)	F-25, F-30, F-35	32800	24192	175
SBWG-07-2B	272:1	180 (45X25)	F-30, F-35, F-40	51100	37689	271
SBWG-75-2B	330:1	210 (50X28)	F-35, F-40, F-48	81500	60111	390
SBWG-08-2B	363:1	250 (56X32)	F-40, F-48	121000	89245	544
SBWG-09-2B	396:1	280 (63X32)	F-48, F-60	192500	141981	920
SBWG-10-2B	416:1	320 (70X36)	F-60	275000	202830	1483
SBWG-11-2B	442:1	360 (80X40)	F-60	442000	326002	2239
* SBWG-12-2B	490:1	400 (90X45)	F-60, (F-80)	610000	449913	3116
* SBWG-13-2B	544:1	420 (100X50)	F-60, (F-80)	970000	715435	4118

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

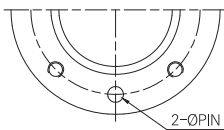


# STANDARD TYPE-C

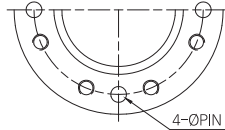
Vertical Input  
with Double Reduction Gear Attachment



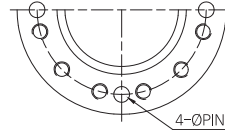
• Pin hole size is same as tap out diameter



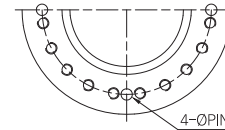
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

MODEL	DIM	BASE PART						EXTERNAL PART								INPUT SHAFT PART			HAND WHEEL		
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	H4	K	K1	K2	L	L1	L2		ØPD	KEY
					ØD2	N-H-DP															
SBWG-00-2BD	A	F-12	85	125	4-M12-18	165	2	69,5	214,5	162	202	86,5	43	53,6	86	215	34	26	8X7	250	
SBWG-01-2BD		F-14	100	140	4-M16-24	190		82,5	240	172	212	96	53	65	95	224					
SBWG-02-2BD		F-16	130	165	4-M20-30	220		97	284,5	202	242	111,5	58	75,5	108	253					
SBWG-03-2BD	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	314,5	205	245	118	61	87	118	263	34	26	8X7	250	
SBWG-35-2BD		F-25	200	254	8-M16-24	300		127	354,5	222	262	135	72	100	125	281					
SBWG-04-2BD		F-25	200	254	8-M16-24	300		153	406,5	242	292	147	73	120	153	333,5					
* SBWG-05-2BD		F-30	230	298	8-M20-30	350		180	458,5	247	297	155	78	141	163	343,5					
SBWG-55-2BD						350		202	505,5	249	299	162	80	144	183	363,5					
SBWG-06-2BD		F-35	260	356	8-M30-45	415		230	598,5	332,5	382,5	200	109	173	217	442,5					
SBWG-07-2BD	F-40	300	406	8-M36-55	475	280,5	700,5	338,5	388,5	227	116	209	252	503,5							
SBWG-75-2BD	C	F-48	370	483	12-M36-55	560	326	818,5	446,5	496,5	246	120	220	279	566	34	26	8X7	630		
SBWG-08-2BD						560	379	954	475	530	254	125	245	314	678						
SBWG-09-2BD	D	F-60	470	603	20-M36-55	700	448,5	1118,5	496,5	561,5	284	138	270	354	738	34	32	10X8	710		
SBWG-10-2BD						800	513	1281	563	628	352	164	330	426	922						
SBWG-11-2BD						900	616,5	1489,5	580	645	394	181	370	468,5	965,5						
* SBWG-12-2BD						1000	711	1711	771	853,5	482	265	415	554	1152						
* SBWG-13-2BD						1000	809	1941,5	842	924,5	546	301	515	609	1238					44	38

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

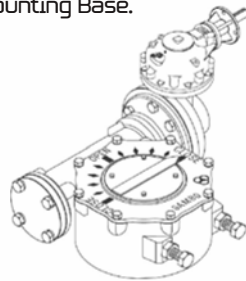
### Bushing Type

Splines permit accurate alignment of valve stem key.



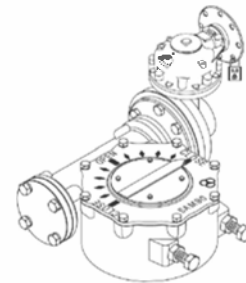
### M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



### LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

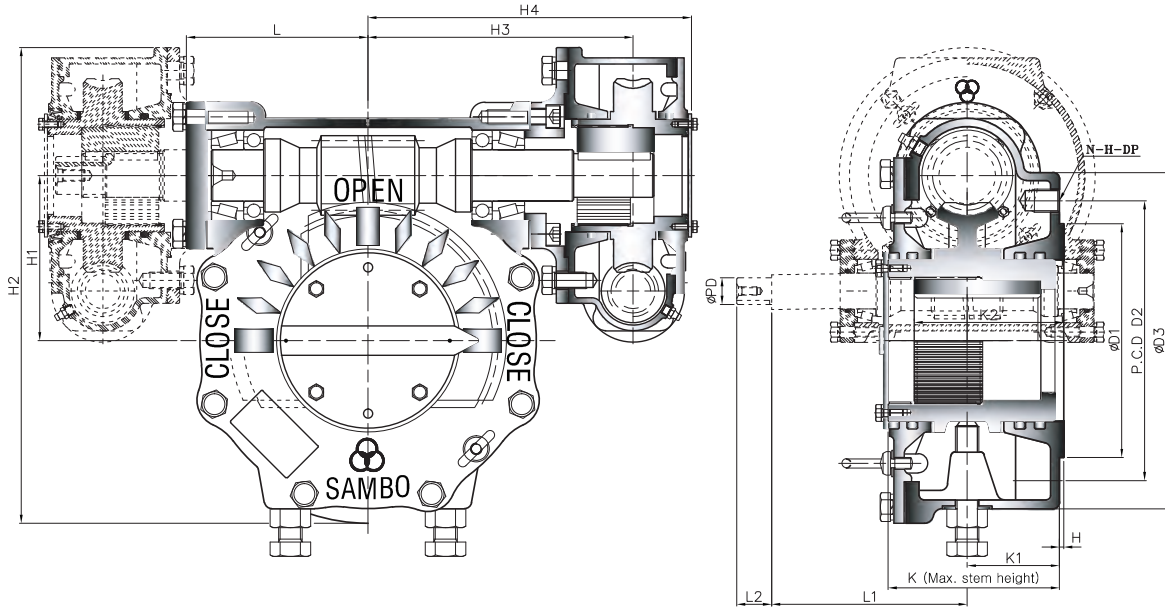
SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00-2BD	160 : 1	36 (10X8)	F-10, F-12	1200	885	20
SBWG-01-2BD	176 : 1	46 (14X9)	F-10, F-12, F-14	2000	1475	23
SBWG-02-2BD	240 : 1	60 (18X11)	F-12, F-14, F-16	2800	2065	34
SBWG-03-2BD	260 : 1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	42
SBWG-35-2BD	260 : 1	80 (22X14)	F-16, (F-20), F-25	6100	4499	53
SBWG-04-2BD	420 : 1	95 (25X14)	F-16, (F-20), F-25	10400	7671	74
*SBWG-05-2BD	450 : 1	115 (32X18)	(F-20), F-25, F-30	15900	11727	96
SBWG-55-2BD	465 : 1	125 (32X18)	F-25, F-30	23500	17333	115
SBWG-06-2BD	768 : 1	140 (36X20)	F-25, F-30, F-35	32800	24192	185
SBWG-07-2BD	816 : 1	180 (45X25)	F-30, F-35, F-40	51100	37689	281
SBWG-75-2BD	990 : 1	210 (50X28)	F-35, F-40, F-48	81500	60111	404
SBWG-08-2BD	1270.5 : 1	250 (56X32)	F-40, F-48	121000	89245	564
SBWG-09-2BD	1584 : 1	280 (63X32)	F-48, F-60	192500	141981	950
SBWG-10-2BD	2080 : 1	320 (70X36)	F-60	275000	202830	1523
SBWG-11-2BD	2210 : 1	360 (80X40)	F-60	442000	326002	2279
*SBWG-12-2BD	2695 : 1	400 (90X45)	F-60, (F-80)	610000	449913	3187
*SBWG-13-2BD	3264 : 1	420 (100X50)	F-60, (F-80)	970000	715435	4217

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

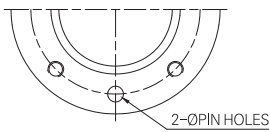


# STANDARD TYPE-E

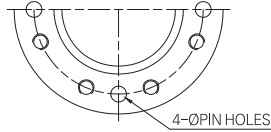
Vertical Input  
with Single Reduction Gear Attachment



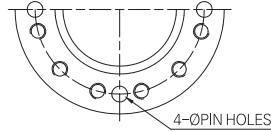
• Pin hole size is same as tap out diameter



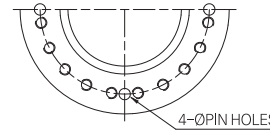
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

DIM MODEL	BASE PART							EXTERNAL PART								INPUT SHAFT PART			HAND WHEEL					
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	H4	K	K1	K2	L	L1	L2	ØPD		KEY				
				ØD2	N-H-DP																			
SBWG-00-3W	A	F-12	85	125	4-M12-18	165	2	69,5	219,5	133	174	86,5	43	53,6	86	104,5	24	16	6X6	250				
SBWG-01-3W		F-14	100	140	4-M16-24	190		82,5	245	142	183	96	53	65	95	104,5								
SBWG-02-3W		F-16	130	165	4-M20-30	220		97	289,5	173	219	111,5	58	75,5	108	138								
SBWG-03-3W	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	319,5	183	229	118	61	87	118	138	29	21	6X6	300				
SBWG-35-3W		F-25	200	254	8-M16-24	300		127	359,5	203	248	126	63	91	125	147								
SBWG-04-3W		F-25	200	254	8-M16-24	300		153	425,5	235	291	147	73	120	153	166								
*SBWG-05-3W		F-30	230	298	8-M20-30	350		180	477,5	245	301	155	78	141	163	166								
SBWG-55-3W						350		202	539,5	273	332	162	80	144	183	176					34	26	8X7	560
SBWG-06-3W		F-35	260	356	8-M30-45	415		230	606	375	442	200	109	173	217	181								560
SBWG-07-3W		F-40	300	406	8-M36-55	475		280,5	708	410	477	227	116	209	252	181								
SBWG-75-3W	C	F-48	370	483	12-M36-55	560	5	326	828,5	393	470	246	120	220	279	207	34	32	10X8	630				
SBWG-08-3W						560		379	961,5	438	518	254	125	245	314	217				710				
SBWG-09-3W	D	F-60	470	603	20-M36-55	700	5	448,5	1126	480	568	284	138	270	354	237	34	32	10X8	710				
SBWG-10-3W						800		513	1279,5	674	769,5	352	164	330	426	286	44	38	12X8	800				
SBWG-11-3W						900		616,5	1539,5	722,5	843,5	400	181	370	468,5	341	58	50	16X10	900				
*SBWG-12-3W						1000		711	1781	805	935,5	484	265	455	554	381								
*SBWG-13-3W						1000		809	2034	850	985,5	546	301	515	609	416								

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.



## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

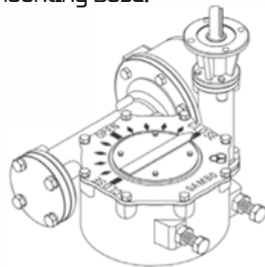
### Bushing Type

Splines permit accurate alignment of valve stem key.



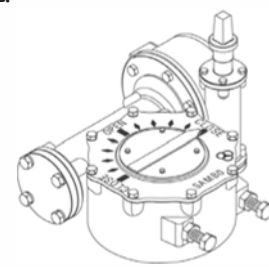
### M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



### LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

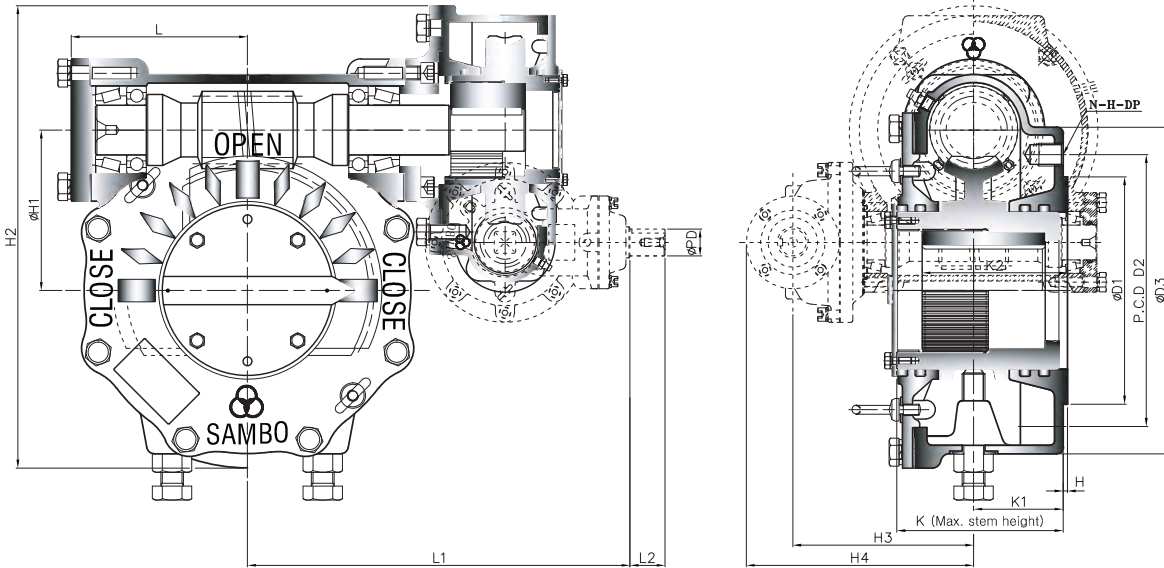
SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00-3W	1440 : 1	36 (10X8)	F-10, F-12	1200	885	15
SBWG-01-3W	1584 : 1	46 (14X9)	F-10, F-12, F-14	2000	1475	18
SBWG-02-3W	1920 : 1	60 (18X11)	F-12, F-14, F-16	2800	2065	30
SBWG-03-3W	2080 : 1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	38
SBWG-35-3W	2288 : 1	80 (22X14)	F-16, (F-20), F-25	6100	4499	56
SBWG-04-3W	2688 : 1	95 (25X14)	F-16, (F-20), F-25	10400	7671	77
*SBWG-05-3W	2880 : 1	115 (32X18)	(F-20), F-25, F-30	15900	11727	99
SBWG-55-3W	3224 : 1	125 (32X18)	F-25, F-30	23500	17333	126
SBWG-06-3W	3328 : 1	140 (36X20)	F-25, F-30, F-35	32800	24192	179
SBWG-07-3W	3536 : 1	180 (45X25)	F-30, F-35, F-40	51100	37689	275
SBWG-75-3W	3696 : 1	210 (50X28)	F-35, F-40, F-48	81500	60111	406
SBWG-08-3W	3960 : 1	250 (56X32)	F-40, F-48	121000	89245	551
SBWG-09-3W	4092 : 1	280 (63X32)	F-48, F-60	192500	141981	926
SBWG-10-3W	4096 : 1	320 (70X36)	F-60	275000	202830	1476
SBWG-11-3W	4624 : 1	360 (80X40)	F-60	442000	326002	2328
*SBWG-12-3W	4620 : 1	400 (90X45)	F-60, (F-80)	610000	449913	3251
*SBWG-13-3W	4752 : 1	420 (100X50)	F-60, (F-80)	970000	715435	4273

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

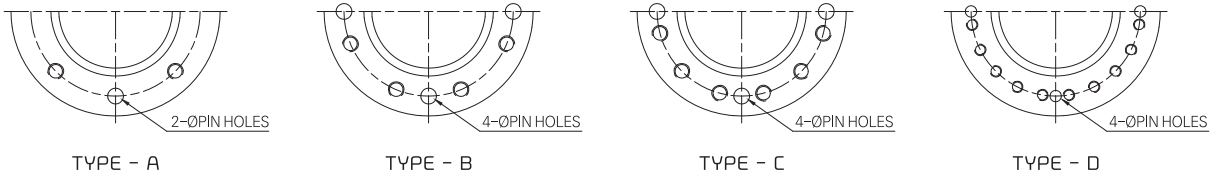


# STANDARD TYPE-E

Vertical Input  
with Double Reduction Gear Attachment



• Pin hole size is same as tap out diameter



## Dimension >>>

UNIT : mm

DIM MODEL	BASE PART						EXTERNAL PART									INPUT SHAFT PART			HAND WHEEL	
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	H3	H4	K	K1	K2	L	L1	L2	ØPD		KEY
				ØD2	N-H-DP															
SBWG-00-3W2B	A	F-12	85	125	4-M12-18	165	2	69,5	219,5	113,5	153,5	86,5	43	53,6	86	222	34	26	8X7	250
SBWG-01-3W2B		F-14	100	140	4-M16-24	190		82,5	245	113,5	153,5	96	53	65	95	231				250
SBWG-02-3W2B		F-16	130	165	4-M20-30	220		97	289,5	126	166	111,5	58	75,5	108	262				250
SBWG-03-3W2B		F-16 (F-20)	160	205	8-M16-24	250		112	319,5	126	166	118	61	87	118	272				250
SBWG-03-3W2B		F-25	200	254	8-M16-24	300		127	359,5	135	175	126	63	91	125	292				250
SBWG-04-3W2B		F-25	200	254	8-M16-24	300		153	425,5	164	214	147	73	120	153	356				300
* SBWG-05-3W2B		F-30	230	298	8-M20-30	350		180	477,5	164	214	155	78	141	163	366				300
SBWG-55-3W2B	B					350	202	539,5	174	224	162	80	144	183	394	300				
SBWG-06-3W2B		F-35	260	356	8-M30-45	415	230	606	192	232	200	109	173	217	496	400				
SBWG-07-3W2B		F-40	300	406	8-M36-55	475	280,5	708	192	232	227	116	209	252	531	500				
SBWG-75-3W2B		C	F-48	370	483	12-M36-55	560	326	828,5	212,5	262,5	246	120	220	279	524	630			
SBWG-08-3W2B							560	379	961,5	222,5	272,5	254	125	245	314	569	630			
SBWG-09-3W2B		D					700	448,5	1126	242,5	292,5	284	138	270	354	611	34	26	8X7	630
SBWG-10-3W2B			F-60	470	603	20-M36-55	800	513	1279,5	312	377	352	164	330	426	862	34	32	10X8	710
SBWG-11-3W2B							900	616,5	1539,5	347	412	400	181	370	468,5	910,5				
* SBWG-12-3W2B							1000	711	1781	380	445	484	265	455	554	1013	34	32	10X8	800
* SBWG-13-3W2B	F-80		670	813	20-M42-63	1000	809	2033	466	548,5	546	301	515	609	1116	44	38	12X8	800	
							1000													

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

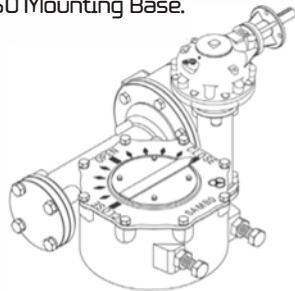
### Bushing Type

Splines permit accurate alignment of valve stem key.



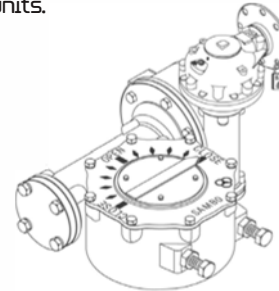
### M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



### LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



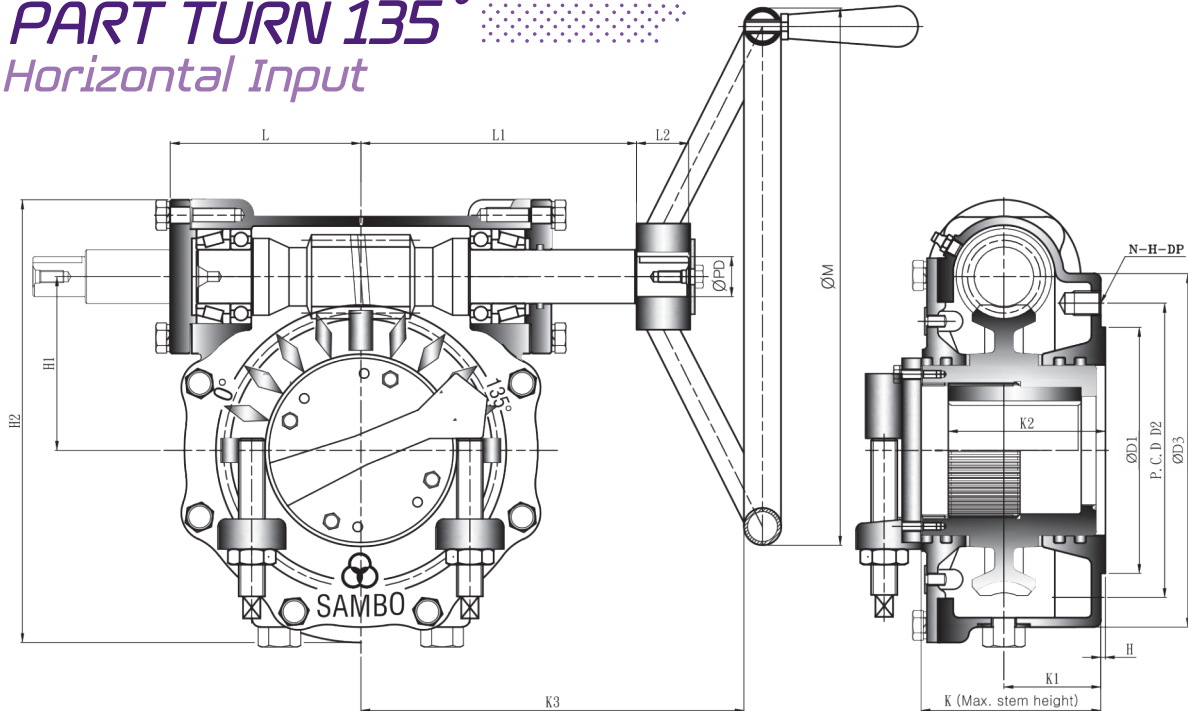
## Selection Chart for Manual Operation >>>

MODEL	SIZE	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
					N-m	Ft. lbf	
SBWG-00-3W2B		1440 : 1	36 (10X8)	F-10, F-12	1200	885	20
SBWG-01-3W2B		1584 : 1	46 (14X9)	F-10, F-12, F-14	2000	1475	23
SBWG-02-3W2B		1920 : 1	60 (18X11)	F-12, F-14, F-16	2800	2065	35
SBWG-03-3W2B		2080 : 1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	43
SBWG-35-3W2B		2288 : 1	80 (22X14)	F-16, (F-20), F-25	6100	4499	60
SBWG-04-3W2B		3360 : 1	95 (25X14)	F-16, (F-20), F-25	10400	7671	85
*SBWG-05-3W2B		3600 : 1	115 (32X18)	(F-20), F-25, F-30	15900	11727	107
SBWG-55-3W2B		4030 : 1	125 (32X18)	F-25, F-30	23500	17333	134
SBWG-06-3W2B		4160 : 1	140 (36X20)	F-25, F-30, F-35	32800	24192	187
SBWG-07-3W2B		4420 : 1	180 (45X25)	F-30, F-35, F-40	51100	37689	283
SBWG-75-3W2B		5544 : 1	210 (50X28)	F-35, F-40, F-48	81500	60111	416
SBWG-08-3W2B		5940 : 1	250 (56X32)	F-40, F-48	121000	89245	561
SBWG-09-3W2B		6138 : 1	280 (63X32)	F-48, F-60	192500	141981	936
SBWG-10-3W2B		8192 : 1	320 (70X36)	F-60	275000	202830	1506
SBWG-11-3W2B		9248 : 1	360 (80X40)	F-60	442000	326002	2358
*SBWG-12-3W2B		11550 : 1	400 (90X45)	F-60, (F-80)	610000	449913	3291
*SBWG-13-3W2B		13068 : 1	420 (100X50)	F-60, (F-80)	970000	715435	4313

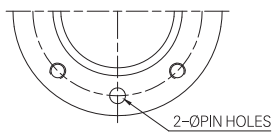
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

# PART TURN 135°

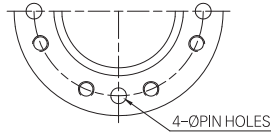
## Horizontal Input



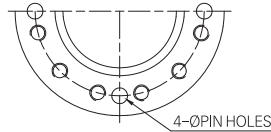
• Pin hole size is same as tap out diameter



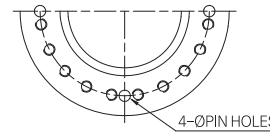
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

DIM MODEL	BASE PART						EXTERNAL PART									INPUT SHAFT PART			HAND WHEEL
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														
* SBWG-BF 135	A	F-07	55	70	4-M8-12	110	2	42	132	76	38	38,6	150	64	97	24	16	6X6	200
SBWG-0 135		F-10	70	102	4-M10-15	135		57	159,5	77	38	43,6	177	71,5	104,5				250
SBWG-00 135		F-12	85	125	4-M12-18	165		69,5	192	86,5	43	53,6	230	86	138				300
SBWG-01 135		F-14	100	140	4-M16-24	190		82,5	217,5	96	53	65	260	95	147				400
SBWG-02 135		F-16	130	165	4-M20-30	220		97	257	111,5	58	75,5	294	108	166				500
SBWG-03 135		F-16 (F-20)	160	205	8-M16-24	250		112	287	118	61	87	324	118	176				560
SBWG-35 135	B	F-25	200	254	8-M16-24	300	3	127	327	135	72	100	342	136	194	34	26	8X7	560
SBWG-04 135		F-25	200	254	8-M16-24	300		153	385,5	147	73	120	370	153	207				630
* SBWG-05 135		F-30	230	298	8-M20-30	350		180	437,5	155	78	141	400	163	217				710
SBWG-55 135						350		202	484,5	162	80	144	420	183	237				
SBWG-06 135		F-35	260	356	8-M30-45	415		230	558,5	200	109	173	489	217	286				800
SBWG-07 135		F-40	300	406	8-M36-55	475		280,5	660,5	227	116	209	538	252	320				900
SBWG-75 135	C	F-48	370	483	12-M36-55	560	5	326	776	246	120	220	617	279	381	58	50	16X10	1000
SBWG-08 135						560		379	884	254	125	245	652	314	416				
SBWG-09 135	D	F-60	470	603	20-M36-55	700	5	448,5	1023,5	284	138	270	692	354	456	58	50	16X10	1000
SBWG-10 135						800		513	1191	352	164	330	814	426	614				
SBWG-11 135						900		616,5	1399,5	394	181	370	857	468,5	657				
* SBWG-12 135						1000		711	1621	482	265	415	980	554	702				
* SBWG-13 135						1000		809	1814	546	301	515	988	609	752				

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.



## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

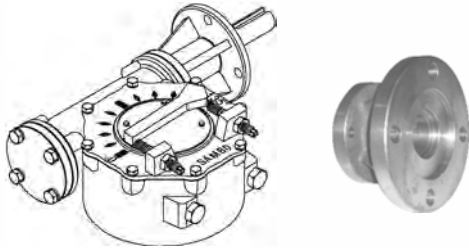
## Bushing Type

Splines permit accurate alignment of valve stem key.



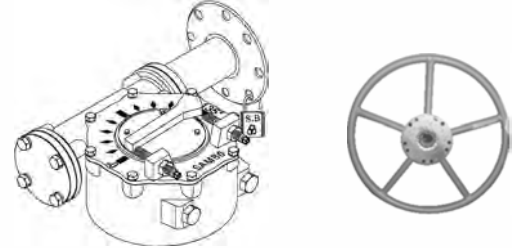
## M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



## LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
*SBWG-BF 135	32:1	20 (6X6)	F-05, F-07	360	266	5
SBWG-0 135	36:1	28 (8X7)	F-07, F-10	780	575	8
SBWG-00 135	40:1	36 (10X8)	F-10, F-12	1200	885	13
SBWG-01 135	44:1	46 (14X9)	F-10, F-12, F-14	2000	1475	16
SBWG-02 135	48:1	60 (18X11)	F-12, F-14, F-16	2800	2065	24
SBWG-03 135	52:1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	43
SBWG-35 135	52:1	80 (22X14)	F-16, (F-20), F-25	6100	4499	37
SBWG-04 135	56:1	95 (25X14)	F-16, (F-20), F-25	10400	7671	62
*SBWG-05 135	60:1	115 (32X18)	(F-20), F-25, F-30	15900	11727	84
SBWG-55 135	62:1	125 (32X18)	F-25, F-30	23500	17333	105
SBWG-06 135	64:1	140 (36X20)	F-25, F-30, F-35	32800	24192	157
SBWG-07 135	68:1	180 (45X25)	F-30, F-35, F-40	51100	37689	255
SBWG-75 135	66:1	210 (50X28)	F-35, F-40, F-48	81500	60111	364
SBWG-08 135	66:1	250 (56X32)	F-40, F-48	121000	89245	489
SBWG-09 135	66:1	280 (63X32)	F-48, F-60	192500	141981	847
SBWG-10 135	64:1	320 (70X36)	F-60	275000	202830	1347
SBWG-11 135	68:1	360 (80X40)	F-60	442000	326002	2105
*SBWG-12 135	70:1	400 (90X45)	F-60, (F-80)	610000	449913	2923
*SBWG-13 135	72:1	420 (100X50)	F-60, (F-80)	970000	715435	3825

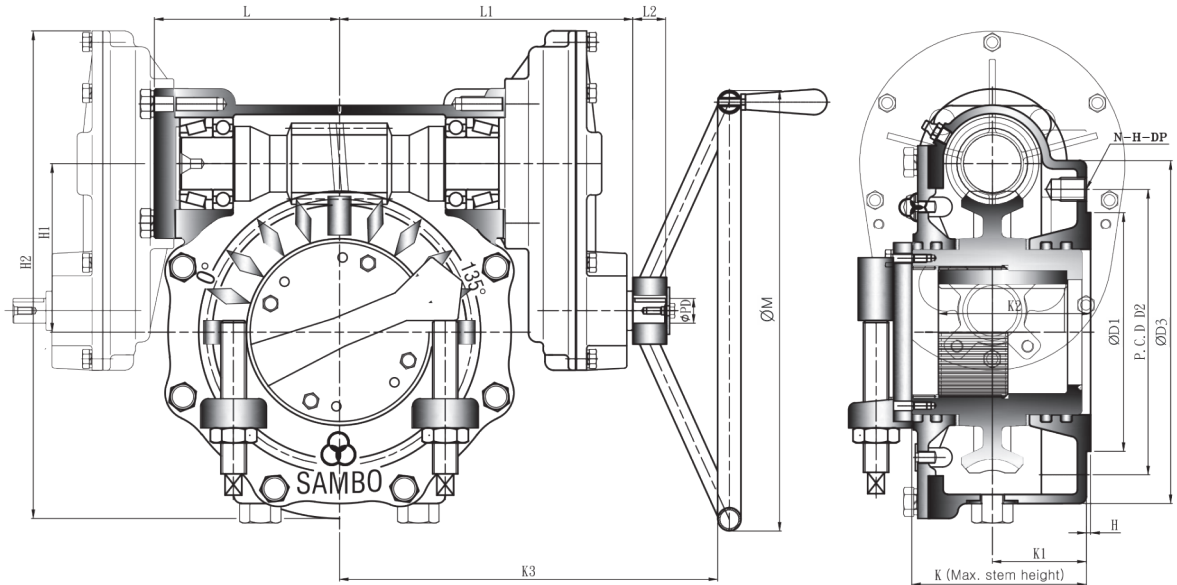
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.



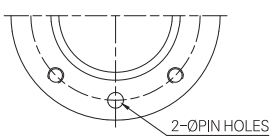


# PART TURN 135°

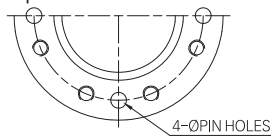
Horizontal Input  
with Single Reduction Gear Attachment



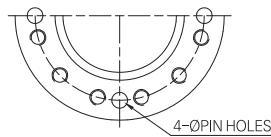
• Pin hole size is same as tap out diameter



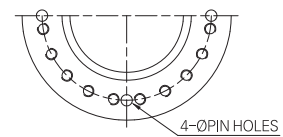
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

MODEL	DIM	BASE PART						EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL		
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2		ØPD	KEY
					ØD2	N-H-DP														
SBWG-00-1S 135	A	F-12	85	125	4-M12-18	165	2	69,5	210	86,5	43	53,6	259	86	166	29	21	6X6	300	
SBWG-01-1S 135		F-14	100	140	4-M16-24	190		82,5	235,5	96	53	65	288	95	175				400	
SBWG-02-1S 135		F-16	130	165	4-M20-30	220		97	282	111,5	58	75,5	329	108	190,5				500	
SBWG-03-1S 135	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	118	61	87	349	118	200,5	34	26	8X7	560	
SBWG-35-1S 135		F-25	200	254	8-M16-24	300		127	352	135	72	100	367	125	218,5				630	
SBWG-04-1S 135		F-25	200	254	8-M16-24	300		153	417,5	147	73	120	413	153	250				710	
* SBWG-05-1S 135		F-30	230	298	8-M20-30	350		180	469,5	155	78	141	443	163	260				800	
SBWG-55-1S 135						350		202	516,5	162	80	144	463	183	280				900	
SBWG-06-1S 135		F-35	260	356	8-M30-45	415		230	621	200	109	173	552	217	349				1000	
SBWG-07-1S 135		F-40	300	406	8-M36-55	475		280,5	723	227	116	209	607	252	384					
SBWG-75-1S 135	C	F-48	370	483	12-M36-55	560	5	326	860	246	120	220	721	279	485	58	50	16X10	1000	
SBWG-08-1S 135						560		379	968	254	125	245	756	314	520					
SBWG-09-1S 135	D					700	5	448,5	1107,5	284	138	270	796	354	560	58	50	16X10	1000	
SBWG-10-1S 135		F-60	470	603	20-M36-55	800		513	1291	352	164	330	927	426	691					
SBWG-11-1S 135						900		616,5	1499,5	394	181	370	969,5	468,5	733,5					
* SBWG-12-1S 135						1000		711	1751	482	265	415	1140	554	905					
* SBWG-13-1S 135		F-80	670	813	20-M42-63	1000		809	1944	546	301	515	1190	609	955					

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

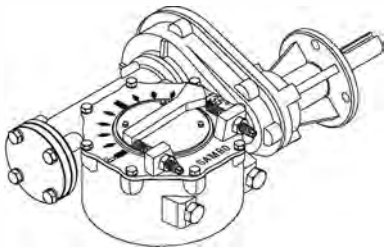
## Bushing Type

Splines permit accurate alignment of valve stem key.



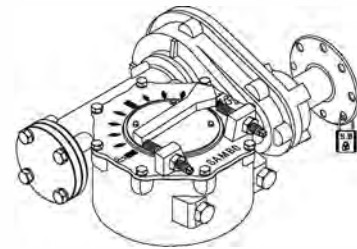
## M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



## LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



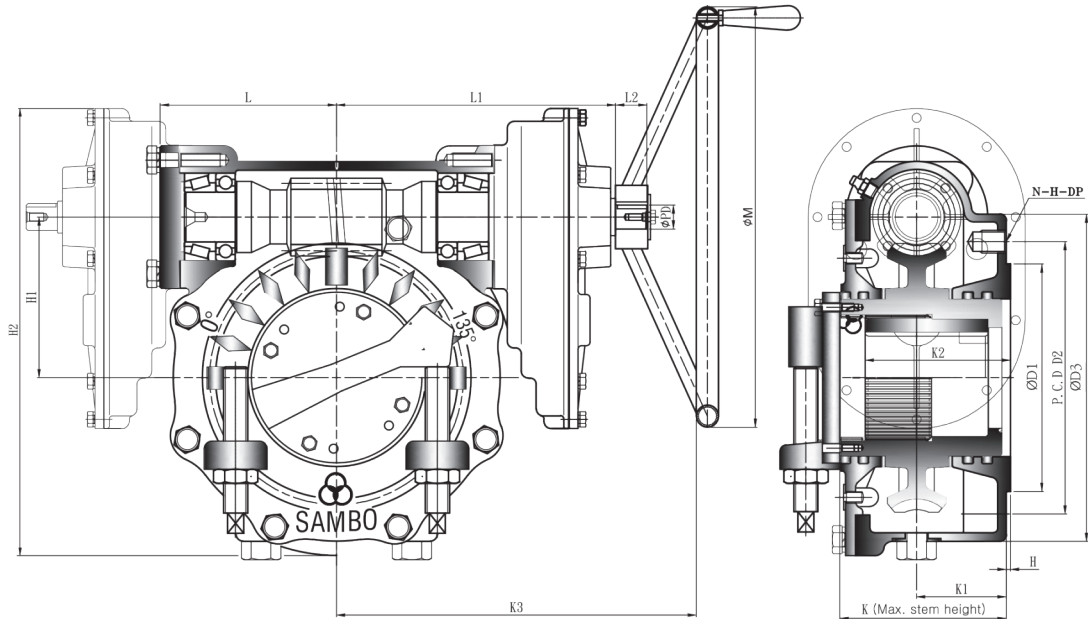
## Selection Chart for Manual Operation >>>

SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00-1S 135	80:1	36 (10X8)	F-10, F-12	1200	885	15
SBWG-01-1S 135	88:1	46 (14X9)	F-10, F-12, F-14	2000	1475	18
SBWG-02-1S 135	121.6:1	60 (18X11)	F-12, F-14, F-16	2800	2065	27
SBWG-03-1S 135	131.7:1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	37
SBWG-35-1S 135	131.7:1	80 (22X14)	F-16, (F-20), F-25	6100	4499	51
SBWG-04-1S 135	168:1	95 (25X14)	F-16, (F-20), F-25	10400	7671	71
* SBWG-05-1S 135	180:1	115 (32X18)	(F-20), F-25, F-30	15900	11727	94
SBWG-55-1S 135	186:1	125 (32X18)	F-25, F-30	23500	17333	115
SBWG-06-1S 135	256:1	140 (36X20)	F-25, F-30, F-35	32800	24192	185
SBWG-07-1S 135	272:1	180 (45X25)	F-30, F-35, F-40	51100	37689	282
SBWG-75-1S 135	330:1	210 (50X28)	F-35, F-40, F-48	81500	60111	436
SBWG-08-1S 135	330:1	250 (56X32)	F-40, F-48	121000	89245	561
SBWG-09-1S 135	330:1	280 (63X32)	F-48, F-60	192500	141981	920
SBWG-10-1S 135	320:1	320 (70X36)	F-60	275000	202830	1444
SBWG-11-1S 135	340:1	360 (80X40)	F-60	442000	326002	2202
* SBWG-12-1S 135	350:1	400 (90X45)	F-60, (F-80)	610000	449913	3103
* SBWG-13-1S 135	360:1	420 (100X50)	F-60, (F-80)	970000	715435	4005

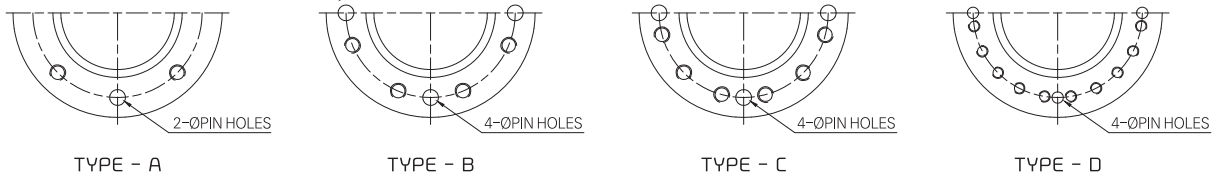
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

# PART TURN 135°

Horizontal Input  
with Double Reduction Gear Attachment



• Pin hole size is same as tap out diameter



## Dimension >>>

UNIT : mm

DIM MODEL	BASE PART							EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL	
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2	ØPD		KEY
				ØD2	N-H-DP														
SBWG-00-1SD 135	A	F-12	85	125	4-M12-18	165	2	69,5	210	86,5	43	53,6	276	86	183	29	21	6X6	300
SBWG-01-1SD 135		F-14	100	140	4-M16-24	190		82,5	235,5	96	53	65	305	95	192				400
SBWG-02-1SD 135		F-16	130	165	4-M20-30	220		97	282	111,5	58	75,5	343	108	214,5				500
SBWG-03-1SD 135	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	118	61	87	373	118	224,5	34	26	8X7	560
SBWG-35-1SD 135		F-25	200	254	8-M16-24	300		127	352	135	72	100	385	125	236,5				630
SBWG-04-1SD 135		F-25	200	254	8-M16-24	300		153	417,5	147	73	120	449	153	286				710
* SBWG-05-1SD 135		F-30	230	298	8-M20-30	350		180	469,5	155	78	141	479	163	296				800
SBWG-55-1SD 135						350		202	516,5	162	80	144	499	183	316				900
SBWG-06-1SD 135		F-35	260	356	8-M30-45	415		230	621	200	109	173	579	217	376				
SBWG-07-1SD 135		F-40	300	406	8-M36-55	475		280,5	723	227	116	209	634	252	411				
SBWG-75-1SD 135	C	F-48	370	483	12-M36-55	560	5	326	860	246	120	220	767	279	531	58	50	16X10	1000
SBWG-08-1SD 135						560		379	968	254	125	245	802	314	566				
SBWG-09-1SD 135	D	F-60	470	603	20-M36-55	700	5	448,5	1107,5	284	138	270	842	354	606	58	50	16X10	1000
SBWG-10-1SD 135						800		513	1291	352	164	330	982	426	746				
SBWG-11-1SD 135						900		616,5	1499,5	394	181	370	1039,5	468,5	788,5				
* SBWG-12-1SD 135						1000		711	1751	482	265	415	1205	554	969				
* SBWG-13-1SD 135						1000		809	1944	546	301	515	1245	609	1009				

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

## Bushing Type

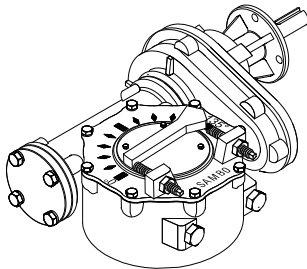
Splines permit accurate alignment of valve stem key.



The World's Highest Quality!

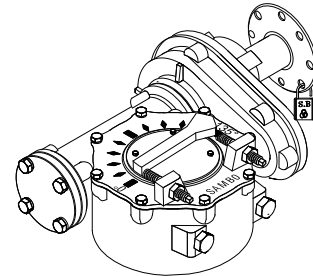
## M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



## LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

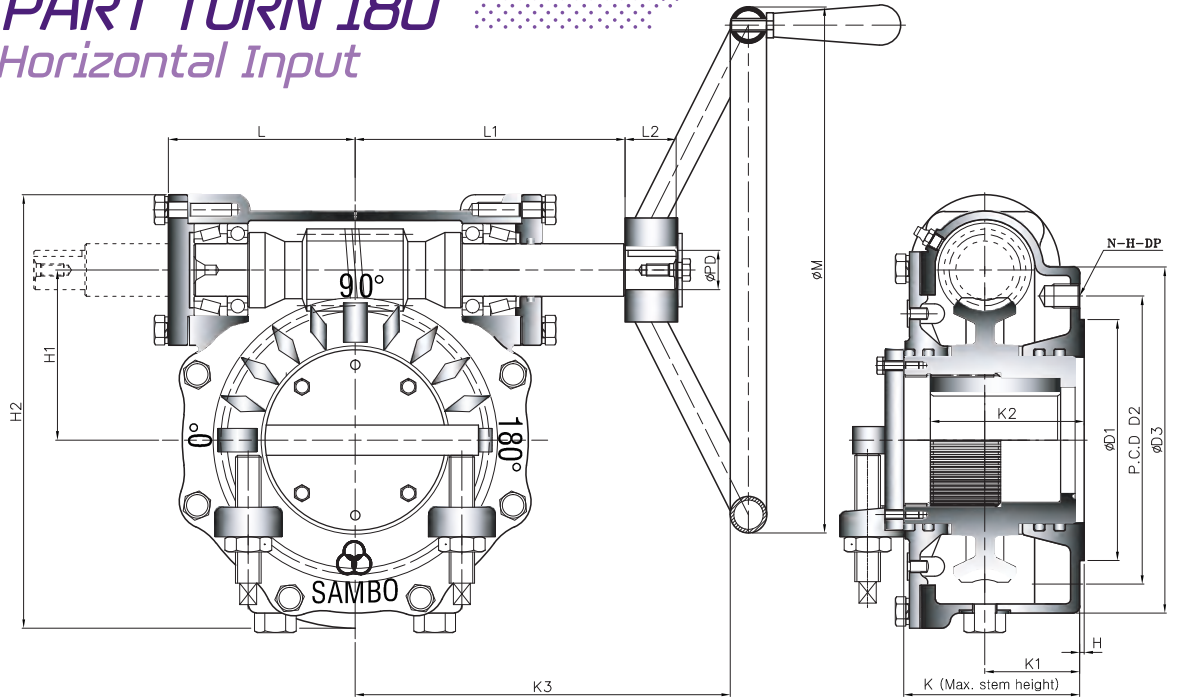
SIZE MODEL	MAX. GEAR RATIO (Changeable)	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00-1SD 135	160 : 1	36 (10X8)	F-10 , F-12	1200	885	17
SBWG-01-1SD 135	176 : 1	46 (14X9)	F-10 , F-12 , F-14	2000	1475	20
SBWG-02-1SD 135	308 : 1	60 (18X11)	F-12 , F-14 , F-16	2800	2065	30
SBWG-03-1SD 135	333.7 : 1	75 (20X12)	F-14 , F-16 , (F-20)	4300	3172	39
SBWG-35-1SD 135	333.7 : 1	80 (22X14)	F-16 , (F-20) , F-25	6100	4499	53
SBWG-04-1SD 135	504 : 1	95 (25X14)	F-16 , (F-20) , F-25	10400	7671	76
* SBWG-05-1SD 135	540 : 1	115 (32X18)	(F-20) , F-25 , F-30	15900	11727	99
SBWG-55-1SD 135	558 : 1	125 (32X18)	F-25 , F-30	23500	17333	120
SBWG-06-1SD 135	1024 : 1	140 (36X20)	F-25 , F-30 , F-35	32800	24192	198
SBWG-07-1SD 135	1088 : 1	180 (45X25)	F-30 , F-35 , F-40	51100	37689	296
SBWG-75-1SD 135	1650 : 1	210 (50X28)	F-35 , F-40 , F-48	81500	60111	464
SBWG-08-1SD 135	1650 : 1	250 (56X32)	F-40 , F-48	121000	89245	589
SBWG-09-1SD 135	1650 : 1	280 (63X32)	F-48 , F-60	192500	141981	947
SBWG-10-1SD 135	1600 : 1	320 (70X36)	F-60	275000	202830	1482
SBWG-11-1SD 135	1700 : 1	360 (80X40)	F-60	442000	326002	2240
* SBWG-12-1SD 135	1750 : 1	400 (90X45)	F-60 , (F-80)	610000	449913	3103
* SBWG-13-1SD 135	1800 : 1	420 (100X50)	F-60 , (F-80)	970000	715435	4005

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

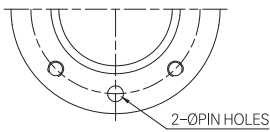
# SAMBO

## PART TURN 180°

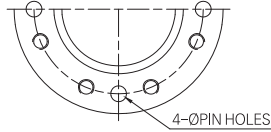
### Horizontal Input



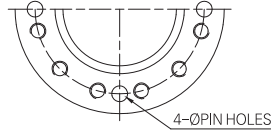
• Pin hole size is same as tap out diameter



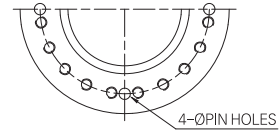
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

DIM MODEL	BASE PART						EXTERNAL PART									INPUT SHAFT PART			HAND WHEEL
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														
* SBWG-BF 180	A	F-07	55	70	4-M8-12	110	2	42	132	76	38	38,6	150	64	97	24	16	6X6	200
SBWG-0 180		F-10	70	102	4-M10-15	135		57	159,5	77	38	43,6	177	71,5	104,5				250
SBWG-00 180		F-12	85	125	4-M12-18	165		69,5	192	86,5	43	53,6	230	86	138				300
SBWG-01 180		F-14	100	140	4-M16-24	190		82,5	217,5	96	53	65	260	95	147				400
SBWG-02 180		F-16	130	165	4-M20-30	220		97	257	111,5	58	75,5	294	108	166				500
SBWG-03 180	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	287	118	61	87	324	118	176	34	26	8X7	560
SBWG-35 180		F-25	200	254	8-M16-24	300		127	327	135	72	100	342	136	194				630
SBWG-04 180		F-25	200	254	8-M16-24	300		153	385,5	147	73	120	370	153	207				710
* SBWG-05 180		F-30	230	298	8-M20-30	350		180	437,5	155	78	141	400	163	217				800
SBWG-55 180		F-30	230	298	8-M20-30	350		202	484,5	162	80	144	420	183	237				900
SBWG-06 180	C	F-35	260	356	8-M30-45	415	5	230	558,5	200	109	173	489	217	286	44	38	12X8	800
SBWG-07 180		F-40	300	406	8-M36-55	475		280,5	660,5	227	116	209	538	252	320				900
SBWG-75 180		F-48	370	483	12-M36-55	560		326	776	246	120	220	617	279	381				1000
SBWG-08 180		F-48	370	483	12-M36-55	560		379	884	254	125	245	652	314	416				1000
SBWG-09 180		D	F-60	470	603	20-M36-55		700	5	448,5	1023,5	284	138	270	692				354
SBWG-10 180	800						513	1191		352	164	330	814	426	614				
SBWG-11 180	900						616,5	1399,5		394	181	370	857	468,5	657				
* SBWG-12 180	1000						711	1621		482	265	415	980	554	702				
* SBWG-13 180	1000						809	1814		546	301	515	988	609	752				

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

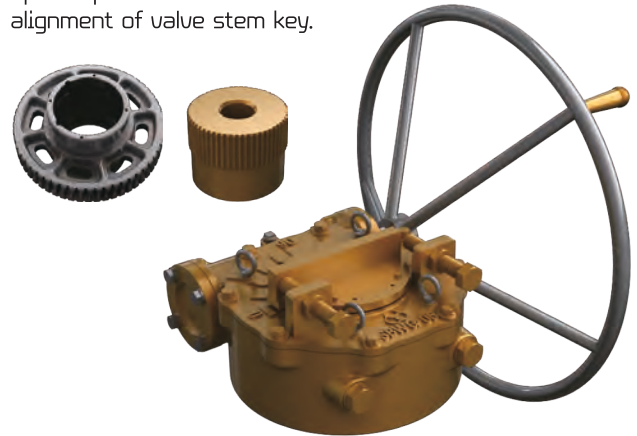


## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

## Bushing Type

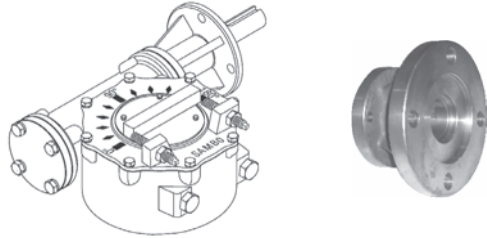
Splines permit accurate alignment of valve stem key.



The World's Highest Quality!

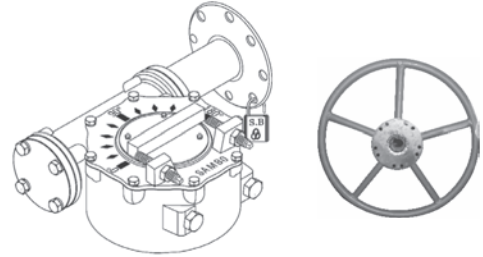
## M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



## LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

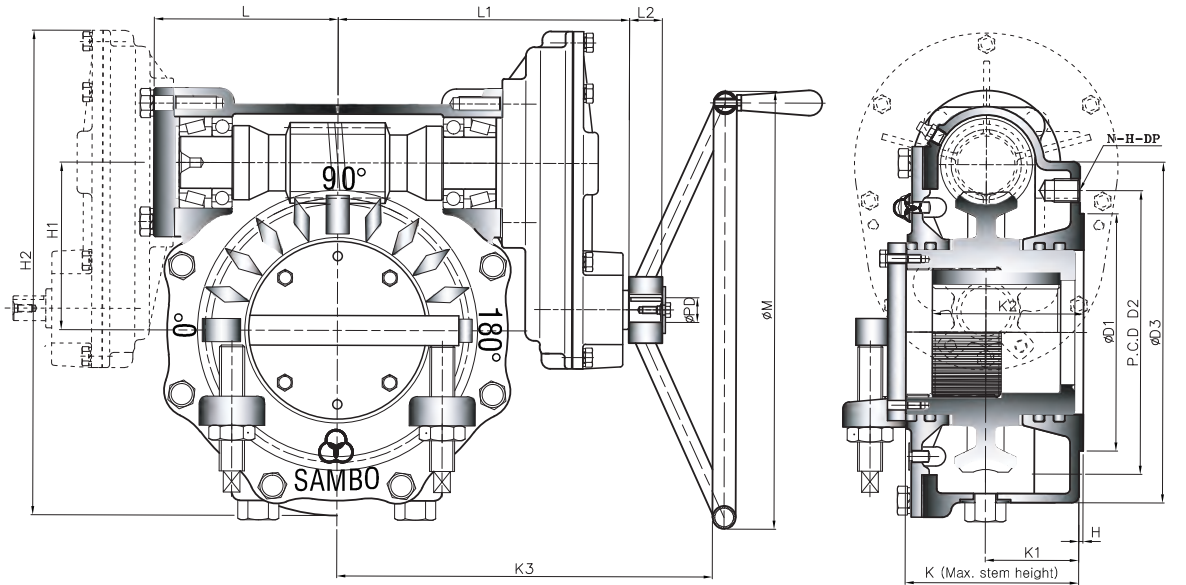
SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
* SBWG-BF 180	32:1	20 (6X6)	F-05, F-07	360	266	5
SBWG-0 180	36:1	28 (8X7)	F-07, F-10	780	575	8
SBWG-00 180	40:1	36 (10X8)	F-10, F-12	1200	885	13
SBWG-01 180	44:1	46 (14X9)	F-10, F-12, F-14	2000	1475	16
SBWG-02 180	48:1	60 (18X11)	F-12, F-14, F-16	2800	2065	24
SBWG-03 180	52:1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	43
SBWG-35 180	52:1	80 (22X14)	F-16, (F-20), F-25	6100	4499	37
SBWG-04 180	56:1	95 (25X14)	F-16, (F-20), F-25	10400	7671	62
* SBWG-05 180	60:1	115 (32X18)	(F-20), F-25, F-30	15900	11727	84
SBWG-55 180	62:1	125 (32X18)	F-25, F-30	23500	17333	105
SBWG-06 180	64:1	140 (36X20)	F-25, F-30, F-35	32800	24192	157
SBWG-07 180	68:1	180 (45X25)	F-30, F-35, F-40	51100	37689	255
SBWG-75 180	66:1	210 (50X28)	F-35, F-40, F-48	81500	60111	364
SBWG-08 180	66:1	250 (56X32)	F-40, F-48	121000	89245	489
SBWG-09 180	66:1	280 (63X32)	F-48, F-60	192500	141981	847
SBWG-10 180	64:1	320 (70X36)	F-60	275000	202830	1347
SBWG-11 180	68:1	360 (80X40)	F-60	442000	326002	2105
* SBWG-12 180	70:1	400 (90X45)	F-60, (F-80)	610000	449913	2923
* SBWG-13 180	72:1	420 (100X50)	F-60, (F-80)	970000	715435	3825

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

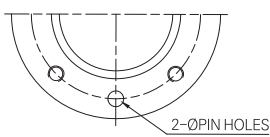
Worm Gear

# PART TURN 180°

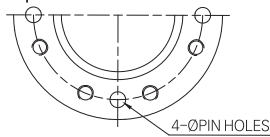
Horizontal Input  
with Single Reduction Gear Attachment



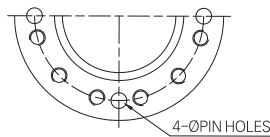
• Pin hole size is same as tap out diameter



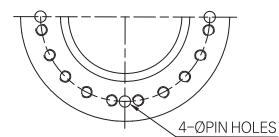
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

DIM MODEL	BASE PART						EXTERNAL PART									INPUT SHAFT PART		HAND WHEEL	
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2	ØPD		KEY
				ØD2	N-H-DP														
SBWG-00-1S 180	A	F-12	85	125	4-M12-18	165	2	69,5	210	86,5	43	53,6	259	86	166	29	21	6X6	300
SBWG-01-1S 180		F-14	100	140	4-M16-24	190		82,5	235,5	96	53	65	288	95	175				400
SBWG-02-1S 180		F-16	130	165	4-M20-30	220		97	282	111,5	58	75,5	329	108	190,5				500
SBWG-03-1S 180	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	118	61	87	349	118	200,5	34	26	8X7	560
SBWG-35-1S 180		F-25	200	254	8-M16-24	300		127	352	135	72	100	367	125	218,5				630
SBWG-04-1S 180		F-25	200	254	8-M16-24	300		153	417,5	147	73	120	413	153	250				710
*SBWG-05-1S 180		F-30	230	298	8-M20-30	350		180	469,5	155	78	141	443	163	260				800
SBWG-55-1S 180						350		202	516,5	162	80	144	463	183	280				900
SBWG-06-1S 180		F-35	260	356	8-M30-45	415		230	621	200	109	173	552	217	349				1000
SBWG-07-1S 180		F-40	300	406	8-M36-55	475		280,5	723	227	116	209	607	252	384				
SBWG-75-1S 180	C	F-48	370	483	12-M36-55	560	5	326	860	246	120	220	721	279	485	58	50	16X10	1000
SBWG-08-1S 180						560		379	968	254	125	245	756	314	520				
SBWG-09-1S 180	D					700	5	448,5	1107,5	284	138	270	796	354	560	58	50	16X10	
SBWG-10-1S 180		F-60	470	603	20-M36-55	800		513	1291	352	164	330	927	426	691				
SBWG-11-1S 180						900		616,5	1499,5	394	181	370	969,5	468,5	733,5				1000
*SBWG-12-1S 180						1000		711	1751	482	265	415	1140	554	905				
*SBWG-13-1S 180		F-80	670	813	20-M42-63	1000		809	1944	546	301	515	1190	609	955				

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

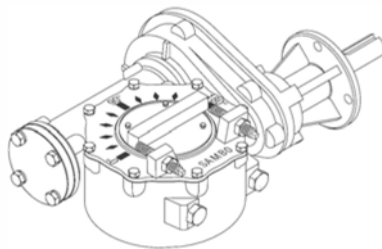
## Bushing Type

Splines permit accurate alignment of valve stem key.



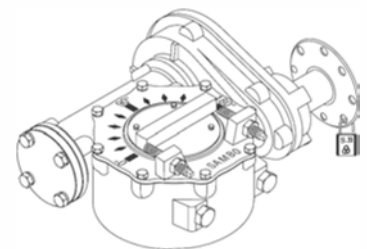
## M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



## LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



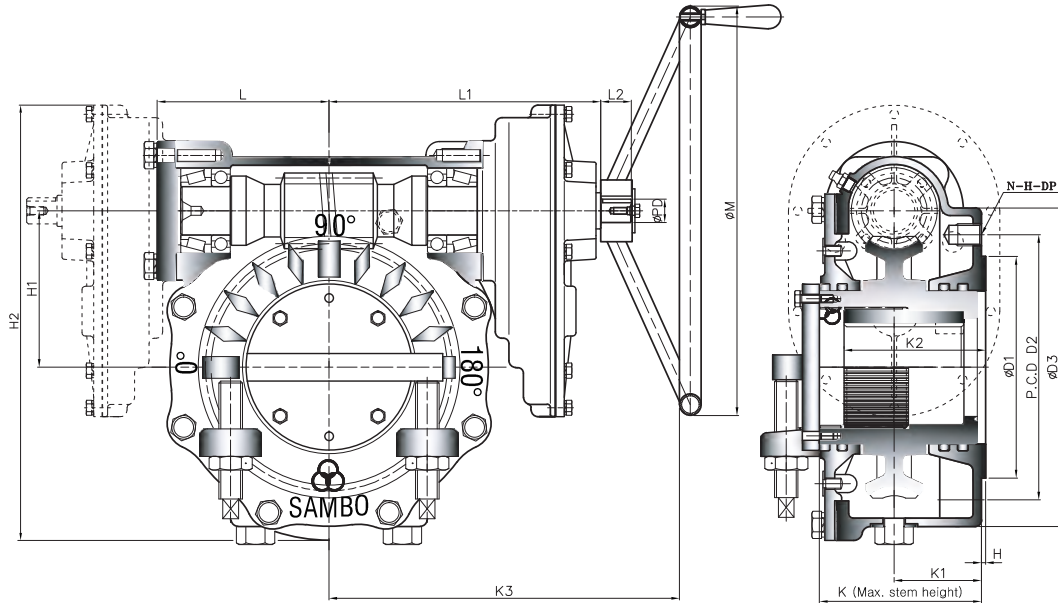
## Selection Chart for Manual Operation >>>

SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00-1S 180	80:1	36 (10X8)	F-10, F-12	1200	885	15
SBWG-01-1S 180	88:1	46 (14X9)	F-10, F-12, F-14	2000	1475	18
SBWG-02-1S 180	121.6:1	60 (18X11)	F-12, F-14, F-16	2800	2065	27
SBWG-03-1S 180	131.7:1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	37
SBWG-35-1S 180	131.7:1	80 (22X14)	F-16, (F-20), F-25	6100	4499	51
SBWG-04-1S 180	168:1	95 (25X14)	F-16, (F-20), F-25	10400	7671	71
* SBWG-05-1S 180	180:1	115 (32X18)	(F-20), F-25, F-30	15900	11727	94
SBWG-55-1S 180	186:1	125 (32X18)	F-25, F-30	23500	17333	115
SBWG-06-1S 180	256:1	140 (36X20)	F-25, F-30, F-35	32800	24192	185
SBWG-07-1S 180	272:1	180 (45X25)	F-30, F-35, F-40	51100	37689	282
SBWG-75-1S 180	330:1	210 (50X28)	F-35, F-40, F-48	81500	60111	436
SBWG-08-1S 180	330:1	250 (56X32)	F-40, F-48	121000	89245	561
SBWG-09-1S 180	330:1	280 (63X32)	F-48, F-60	192500	141981	920
SBWG-10-1S 180	320:1	320 (70X36)	F-60	275000	202830	1444
SBWG-11-1S 180	340:1	360 (80X40)	F-60	442000	326002	2202
* SBWG-12-1S 180	350:1	400 (90X45)	F-60, (F-80)	610000	449913	3103
* SBWG-13-1S 180	360:1	420 (100X50)	F-60, (F-80)	970000	715435	4005

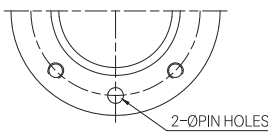
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

# PART TURN 180°

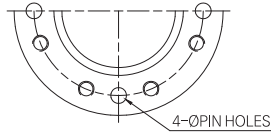
Horizontal Input  
with Double Reduction Gear Attachment



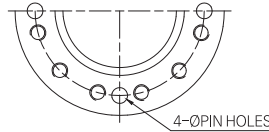
• Pin hole size is same as tap out diameter



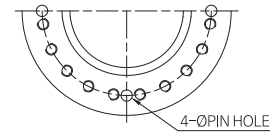
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

DIM MODEL	TYPE	BASE PART						EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL			
		FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2	ØPD		KEY		
				ØD2	N-H-DP																
SBWG-00-1SD 180	A	F-12	85	125	4-M12-18	165	2	69,5	210	86,5	43	53,6	276	86	183	29	21	6X6	300		
SBWG-01-1SD 180		F-14	100	140	4-M16-24	190		82,5	235,5	96	53	65	305	95	192				400		
SBWG-02-1SD 180		F-16	130	165	4-M20-30	220		97	282	111,5	58	75,5	343	108	214,5				500		
SBWG-03-1SD 180	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	118	61	87	373	118	224,5	34	26	8X7	560		
SBWG-35-1SD 180		F-25	200	254	8-M16-24	300		127	352	135	72	100	385	125	236,5				630		
SBWG-04-1SD 180		F-25	200	254	8-M16-24	300		153	417,5	147	73	120	449	153	286				710		
* SBWG-05-1SD 180		F-30	230	298	8-M20-30	350		180	469,5	155	78	141	479	163	296				800		
SBWG-55-1SD 180						350		202	516,5	162	80	144	499	183	316				900		
SBWG-06-1SD 180		F-35	260	356	8-M30-45	415		230	621	200	109	173	579	217	376				1000		
SBWG-07-1SD 180		F-40	300	406	8-M36-55	475		280,5	723	227	116	209	634	252	411						
SBWG-75-1SD 180	C	F-48	370	483	12-M36-55	560	5	326	860	246	120	220	767	279	531	58	50	16X10	1000		
SBWG-08-1SD 180						560	379	968	254	125	245	802	314	566							
SBWG-09-1SD 180	D	F-60	470	603	20-M36-55	700	5	448,5	1107,5	284	138	270	842	354	606	58	50	16X10	1000		
SBWG-10-1SD 180						800		513	1291	352	164	330	982	426	746						
SBWG-11-1SD 180						900		616,5	1499,5	394	181	370	1039,5	468,5	788,5						
* SBWG-12-1SD 180						1000		711	1751	482	265	415	1205	554	969						
* SBWG-13-1SD 180						1000		809	1944	546	301	515	1245	609	1009						

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.



## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

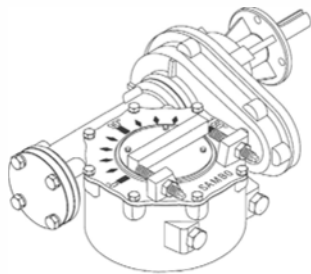
## Bushing Type

Splines permit accurate alignment of valve stem key.



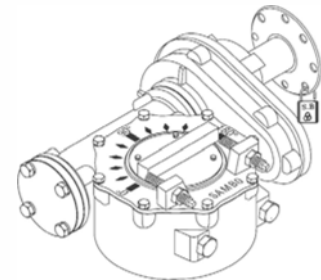
## M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



## LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

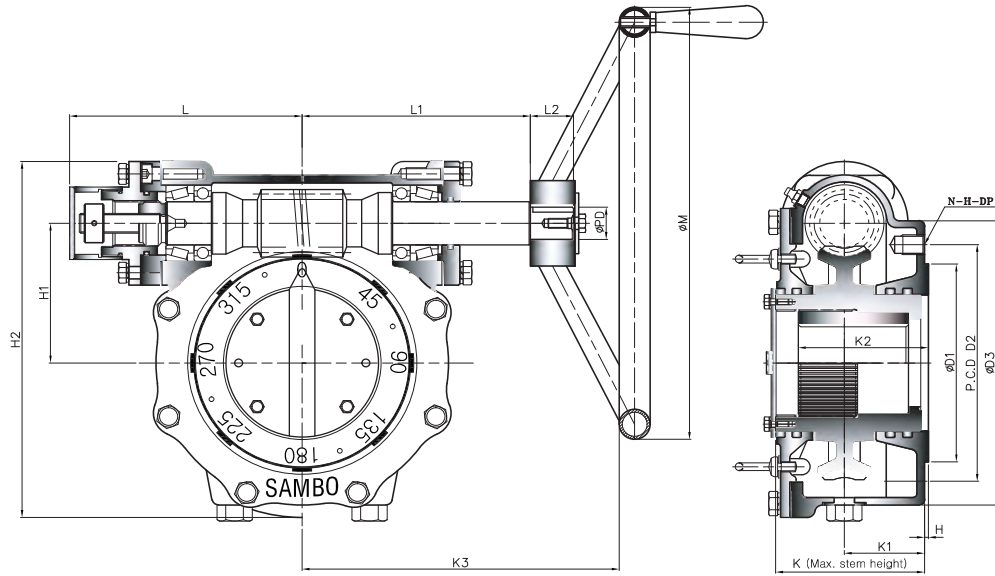
SIZE MODEL	MAX. GEAR RATIO (Changeable)	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00-1SD 180	160 : 1	36 (10X8)	F-10, F-12	1200	885	17
SBWG-01-1SD 180	176 : 1	46 (14X9)	F-10, F-12, F-14	2000	1475	20
SBWG-02-1SD 180	308 : 1	60 (18X11)	F-12, F-14, F-16	2800	2065	30
SBWG-03-1SD 180	333.7 : 1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	39
SBWG-35-1SD 180	333.7 : 1	80 (22X14)	F-16, (F-20), F-25	6100	4499	53
SBWG-04-1SD 180	504 : 1	95 (25X14)	F-16, (F-20), F-25	10400	7671	76
*SBWG-05-1SD 180	540 : 1	115 (32X18)	(F-20), F-25, F-30	15900	11727	99
SBWG-55-1SD 180	558 : 1	125 (32X18)	F-25, F-30	23500	17333	120
SBWG-06-1SD 180	1024 : 1	140 (36X20)	F-25, F-30, F-35	32800	24192	198
SBWG-07-1SD 180	1088 : 1	180 (45X25)	F-30, F-35, F-40	51100	37689	296
SBWG-75-1SD 180	1650 : 1	210 (50X28)	F-35, F-40, F-48	81500	60111	464
SBWG-08-1SD 180	1650 : 1	250 (56X32)	F-40, F-48	121000	89245	589
SBWG-09-1SD 180	1650 : 1	280 (63X32)	F-48, F-60	192500	141981	947
SBWG-10-1SD 180	1600 : 1	320 (70X36)	F-60	275000	202830	1482
SBWG-11-1SD 180	1700 : 1	360 (80X40)	F-60	442000	326002	2240
*SBWG-12-1SD 180	1750 : 1	400 (90X45)	F-60, (F-80)	610000	449913	3103
*SBWG-13-1SD 180	1800 : 1	420 (100X50)	F-60, (F-80)	970000	715435	4005

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

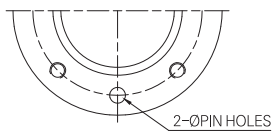


# PART TURN 45° 90° 135° 180° 225° 270° 315° 360°

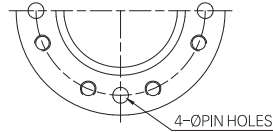
## Traveling Nut Stop : Horizontal Input



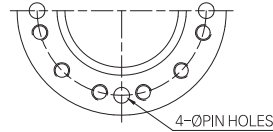
• Pin hole size is same as tap out diameter



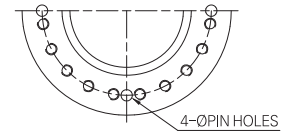
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

MODEL	DIM	BASE PART						EXTERNAL PART								INPUT SHAFT PART			HAND WHEEL	
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2	ØPD		KEY
					ØD2	N-H-DP														
* SBWG-BFTN	A	F-07	55	70	4-M8-12	110	2	42	132	76	38	38,6	150	145	97	24	16	6X6	200	
SBWG-0TN		F-10	70	102	4-M10-15	135		57	159,5	77	38	43,6	177	152,5	104,5				250	
SBWG-00TN		F-12	85	125	4-M12-18	165		69,5	192	86,5	43	53,6	230	181	138				300	
SBWG-01TN		F-14	100	140	4-M16-24	190		82,5	217,5	96	53	65	260	190	147				400	
SBWG-02TN		F-16	130	165	4-M20-30	220		97	257	111,5	58	75,5	294	228	166				500	
SBWG-03TN		F-16 (F-20)	160	205	8-M16-24	250		112	287	118	61	87	324	238	176				560	
SBWG-35TN	B	F-25	200	254	8-M16-24	300	3	127	319,5	126	63	91	329	243	194	34	26	8X7	560	
SBWG-04TN		F-25	200	254	8-M16-24	300		153	385,5	147	73	120	370	352	207				630	
* SBWG-05TN		F-30	230	298	8-M20-30	350		180	437,5	155	78	141	400	362	217				710	
SBWG-55TN		F-30	230	298	8-M20-30	350		202	484,5	162	80	144	420	382	237				800	
SBWG-06TN		F-35	260	356	8-M30-45	415		230	558,5	200	109	175	489	497	286				900	
SBWG-07TN		F-40	300	406	8-M36-55	475		280,5	660,5	227	116	209	538	532	320				1000	
SBWG-75TN	C	F-48	370	483	12-M36-55	560	5	326	776	246	120	220	617	621	381	58	50	16X10	1000	
SBWG-08TN		F-48	370	483	12-M36-55	560		379	884	254	125	245	652	656	416					
SBWG-09TN	D	F-60	470	603	20-M36-55	700	5	448,5	1023,5	284	138	270	692	696	456	58	50	16X10	1000	
SBWG-10TN						800		513	1191	352	164	330	814	845	614					
SBWG-11TN						900		616,5	1399,5	400	181	370	857	886,5	657					
* SBWG-12TN						1000		711	1621	484	265	455	980	1056	702					
* SBWG-13TN						1000		809	1814	546	301	515	988	1096	752					

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
 \* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

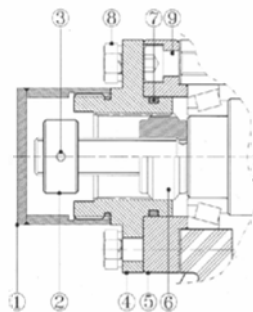
## Bushing Type

Splines permit accurate alignment of valve stem key.



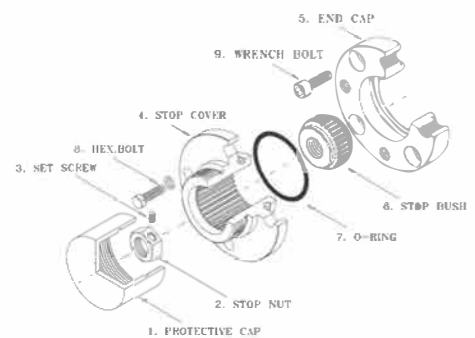
## Traveling Nut Stop >>>

- If worm gear actuators are supplied on a valve, the end stops are already set.
- In case end stops need to be adjusted set end position OPEN first, if the exact end position of the valve can not be seen through a position marking at the valve shaft, the setting may have to be done with the valve removed.



### [SETTING]

- Remove all boltsⓐ at stop coverⓐ
- Turn valve manually to end position OPEN.
- In case stop coverⓐ do not correspond to the threads of the housing. Take off the stop coversⓐ and place it in the required position.
- Fit boltsⓐ with washers and fasten them evenly.
- Finally, protective capⓐ remove, turn stop nutⓐ to adjust end position CLOSE.



## Selection Chart for Manual Operation >>>

MODEL \ SIZE	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	
*SBWG-BFTN	32:1	20 (6X6)	F-05, F-07	360	266	6
SBWG-0TN	36:1	28 (8X7)	F-07, F-10	780	575	9
SBWG-00TN	40:1	36 (10X8)	F-10, F-12	1200	885	13
SBWG-01TN	44:1	46 (14X9)	F-10, F-12, F-14	2000	1475	16
SBWG-02TN	48:1	60 (18X11)	F-12, F-14, F-16	2800	2065	25
SBWG-03TN	52:1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	34
SBWG-35TN	52:1	80 (22X14)	F-16, (F-20), F-25	6100	4499	39
SBWG-04TN	56:1	95 (25X14)	F-16, (F-20), F-25	10400	7671	63
*SBWG-05TN	60:1	115 (32X18)	(F-20), F-25, F-30	15900	11727	85
SBWG-55TN	62:1	125 (32X18)	F-25, F-30	23500	17333	105
SBWG-06TN	64:1	140 (36X20)	F-25, F-30, F-35	32800	24192	155
SBWG-07TN	68:1	180 (45X25)	F-30, F-35, F-40	51100	37689	254
SBWG-75TN	66:1	210 (50X28)	F-35, F-40, F-48	81500	60111	364
SBWG-08TN	66:1	250 (56X32)	F-40, F-48	121000	89245	489
SBWG-09TN	66:1	280 (63X32)	F-48, F-60	192500	141981	848
SBWG-10TN	64:1	320 (70X36)	F-60	275000	202830	1352
SBWG-11TN	68:1	360 (80X40)	F-60	442000	326002	2113
*SBWG-12TN	70:1	400 (90X45)	F-60, (F-80)	610000	449913	2931
*SBWG-13TN	72:1	420 (100X50)	F-60, (F-80)	970000	715435	3835

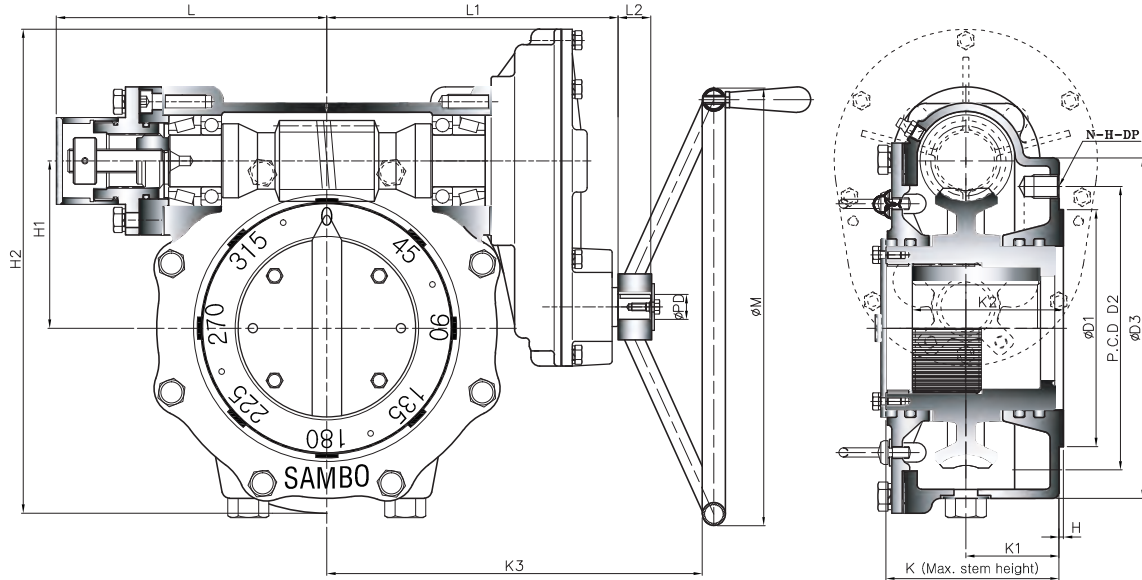
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

Worm Gear

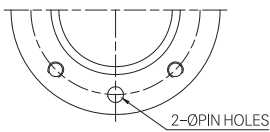


# PART TURN 45° 90° 135° 180° 225° 270° 315° 360°

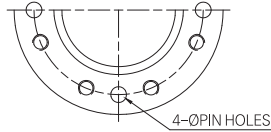
## Traveling Nut Stop : Horizontal Input with Single Reduction Gear Attachment



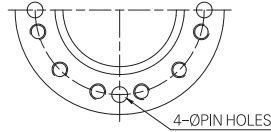
• Pin hole size is same as tap out diameter



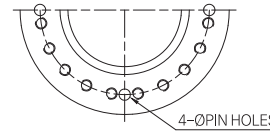
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

MODEL	DIM	BASE PART						EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL		
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2		ØPD	KEY
					ØD2	N-H-DP														
SBWG-00TN-1S	A	F-12	85	125	4-M12-18	165	2	69,5	210	86,5	43	53,6	259	181	166	29	21	6X6	300	
SBWG-01TN-1S		F-14	100	140	4-M16-24	190		82,5	235,5	96	53	65	288	190	175				400	
SBWG-02TN-1S		F-16	130	165	4-M20-30	220		97	282	111,5	58	75,5	329	228	190,5				500	
SBWG-03TN-1S		F-16 (F-20)	160	205	8-M16-24	250		112	312	118	61	87	349	238	200,5				560	
SBWG-35TN-1S	B	F-25	200	254	8-M16-24	300	3	127	339,5	126	63	91	367	243	212,5	34	26	8X7	710	
SBWG-04TN-1S		F-25	200	254	8-M16-24	300		153	417,5	147	73	120	413	352	250					630
*SBWG-05TN-1S		F-30	230	298	8-M20-30	350		180	469,5	155	78	141	443	362	260					710
SBWG-55TN-1S		F-30	230	298	8-M20-30	350		202	516,5	162	80	144	463	382	280					710
SBWG-06TN-1S	C	F-35	260	356	8-M30-45	415	5	230	621	200	109	175	552	497	349	44	38	12X8	800	
SBWG-07TN-1S		F-40	300	406	8-M36-55	475		280,5	723	227	116	209	607	532	384				900	
SBWG-75TN-1S		F-48	370	483	12-M36-55	560		326	860	246	120	220	721	621	485				1000	
SBWG-08TN-1S		F-48	370	483	12-M36-55	560		379	968	254	125	245	756	656	520				1000	
SBWG-09TN-1S	D	F-60	470	603	20-M36-55	800	5	448,5	1107,5	284	138	270	796	696	560	58	50	16X10	1000	
SBWG-10TN-1S								513	1291	352	164	330	927	845	691					
SBWG-11TN-1S								616,5	1499,5	400	181	370	969,5	886,5	733,5					
*SBWG-12TN-1S								711	1751	484	265	455	1140	1056	905					
*SBWG-13TN-1S								809	1944	546	301	515	1190	1096	955					

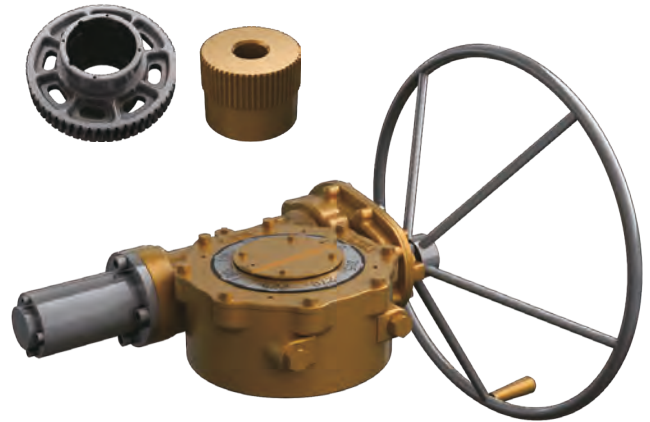
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
 \* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

## Bushing Type

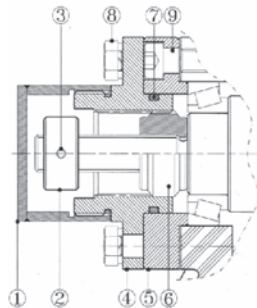
Splines permit accurate alignment of valve stem key.



The World's Highest Quality!

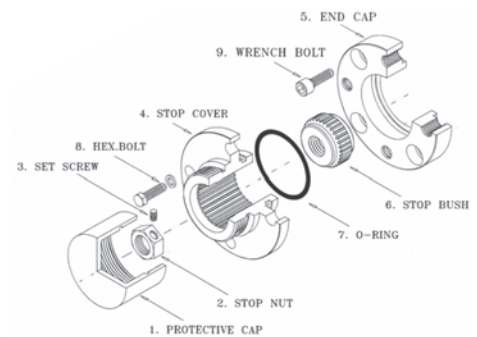
## Traveling Nut Stop >>>

- If worm gear actuators are supplied on a valve, the end stops are already set.
- In case end stops need to be adjusted set end position OPEN first, if the exact end position of the valve can not be seen through a position marking at the valve shaft, the setting may have to be done with the valve removed.



### [SETTING]

- Remove all boltsⓐ at stop coverⓐ
- Turn valve manually to end position OPEN.
- In case stop coverⓐ do not correspond to the threads of the housing. Take off the stop coversⓐ and place it in the required position.
- Fit boltsⓐ with washers and fasten them evenly.
- Finally, protective capⓑ remove, turn stop nutⓐ to adjust end position CLOSE.



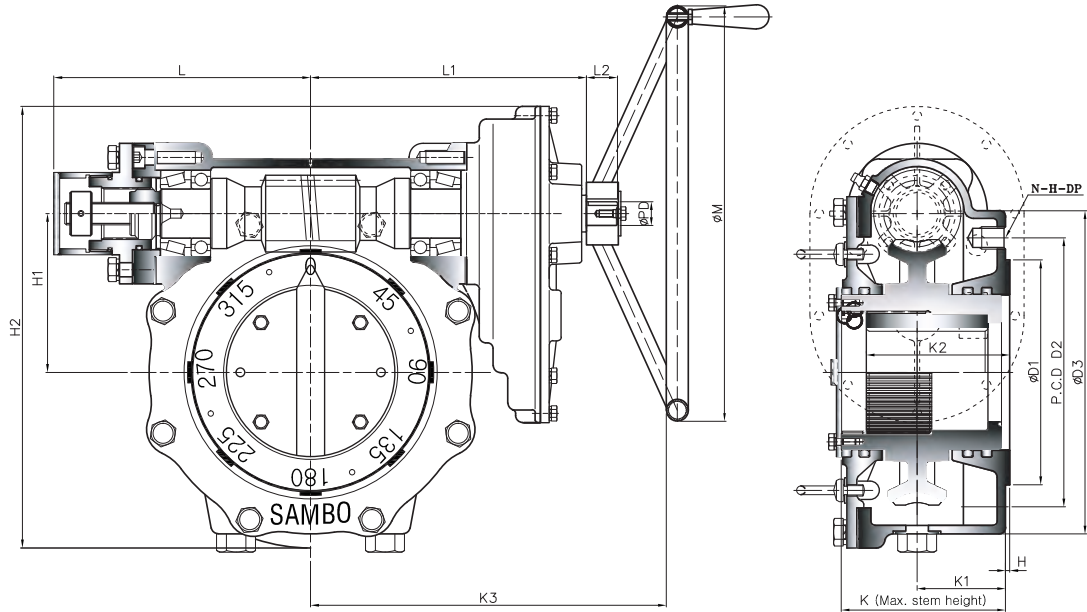
## Selection Chart for Manual Operation >>>

MODEL	SIZE	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
					N-m	Ft. lbf	Kg
SBWG-00TN-1S		80 : 1	36 (10X8)	F-10, F-12	1200	885	15
SBWG-01TN-1S		88 : 1	46 (14X9)	F-10, F-12, F-14	2000	1475	18
SBWG-02TN-1S		121.6 : 1	60 (18X11)	F-12, F-14, F-16	2800	2065	29
SBWG-03TN-1S		131.7 : 1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	38
SBWG-35TN-1S		131.7 : 1	80 (22X14)	F-16, (F-20), F-25	6100	4499	43
SBWG-04TN-1S		168 : 1	95 (25X14)	F-16, (F-20), F-25	10400	7671	73
*SBWG-05TN-1S		180 : 1	115 (32X18)	(F-20), F-25, F-30	15900	11727	95
SBWG-55TN-1S		186 : 1	125 (32X18)	F-25, F-30	23500	17333	115
SBWG-06TN-1S		256 : 1	140 (36X20)	F-25, F-30, F-35	32800	24192	183
SBWG-07TN-1S		272 : 1	180 (45X25)	F-30, F-35, F-40	51100	37689	283
SBWG-75TN-1S		330 : 1	210 (50X28)	F-35, F-40, F-48	81500	60111	436
SBWG-08TN-1S		330 : 1	250 (56X32)	F-40, F-48	121000	89245	561
SBWG-09TN-1S		330 : 1	280 (63X32)	F-48, F-60	192500	141981	920
SBWG-10TN-1S		320 : 1	320 (70X36)	F-60	275000	202830	1449
SBWG-11TN-1S		340 : 1	360 (80X40)	F-60	442000	326002	2210
*SBWG-12TN-1S		350 : 1	400 (90X45)	F-60, (F-80)	610000	449913	3110
*SBWG-13TN-1S		360 : 1	420 (100X50)	F-60, (F-80)	970000	715435	4015

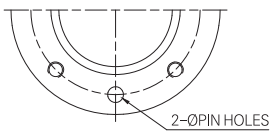
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

# PART TURN 45° 90° 135° 180° 225° 270° 315° 360°

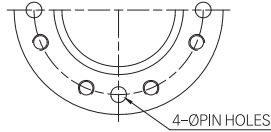
## Traveling Nut Stop : Horizontal Input with Double Reduction Gear Attachment



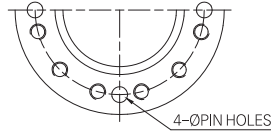
• Pin hole size is same as tap out diameter



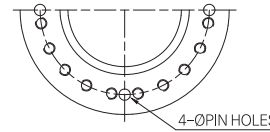
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

MODEL	DIM	BASE PART						EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL			
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2		ØPD	KEY	
					ØD2	N-H-DP															
SBWG-00TN-1SD	A	F-12	85	125	4-M12-18	165	2	69,5	210	86,5	43	53,6	276	181	183	29	21	6X6	300		
SBWG-01TN-1SD		F-14	100	140	4-M16-24	190		82,5	235,5	96	53	65	305	190	192				400		
SBWG-02TN-1SD		F-16	130	165	4-M20-30	220		97	282	111,5	58	75,5	343	228	214,5				500		
SBWG-03TN-1SD	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	118	61	87	373	238	224,5	34	26	8X7	560		
SBWG-35TN-1SD		F-25	200	254	8-M16-24	300		127	339,5	126	63	91	391	243	236,5				630		
SBWG-04TN-1SD		F-25	200	254	8-M16-24	300		153	417,5	147	73	120	449	352	286				710		
*SBWG-05TN-1SD		F-30	230	298	8-M20-30	350		180	469,5	155	78	141	479	362	296				800		
SBWG-55TN-1SD						350		202	516,5	162	80	144	499	382	316				900		
SBWG-06TN-1SD		F-35	260	356	8-M30-45	415		230	621	200	109	175	579	497	376				1000		
SBWG-07TN-1SD		F-40	300	406	8-M36-55	475		280,5	723	227	116	209	634	532	411						
SBWG-75TN-1SD	C	F-48	370	483	12-M36-55	560	5	326	860	246	120	220	767	621	531	58	50	16X10	1000		
SBWG-08TN-1SD						560		379	968	254	125	245	802	656	566						
SBWG-09TN-1SD	D	F-60	470	603	20-M36-55	700	5	448,5	1107,5	284	138	270	842	696	606	58	50	16X10	1000		
SBWG-10TN-1SD						800		513	1291	352	164	330	982	845	746						
SBWG-11TN-1SD						900		616,5	1499,5	400	181	370	1039,5	886,5	788,5						
*SBWG-12TN-1SD						1000		711	1751	484	265	455	1205	1056	969						
*SBWG-13TN-1SD						1000		809	1944	546	301	515	1245	1096	1009						

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
 \* Mark has been changed and updated.



## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

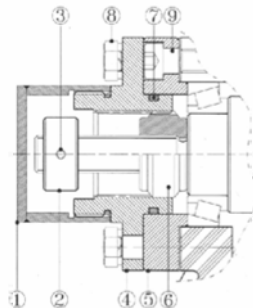
## Bushing Type

Splines permit accurate alignment of valve stem key.



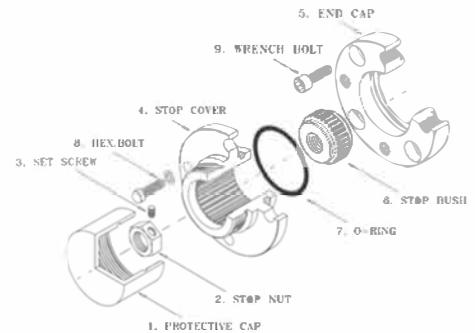
## Traveling Nut Stop >>>

- If worm gear actuators are supplied on a valve, the end stops are already set.
- In case end stops need to be adjusted set end position OPEN first, if the exact end position of the valve can not be seen through a position marking at the valve shaft, the setting may have to be done with the valve removed.



### [SETTING]

- Remove all boltsⓐ at stop coverⓐ
- Turn valve manually to end position OPEN.
- In case stop coverⓐ do not correspond to the threads of the housing. Take off the stop coversⓐ and place it in the required position.
- Fit boltsⓐ with washers and fasten them evenly.
- Finally, protective capⓑ remove, turn stop nutⓐ to adjust end position CLOSE.



## Selection Chart for Manual Operation >>>

SIZE MODEL	MAX. GEAR RATIO (Changeable)	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00TN-1SD	160 : 1	36 (10X8)	F-10, F-12	1200	885	17
SBWG-01TN-1SD	176 : 1	46 (14X9)	F-10, F-12, F-14	2000	1475	20
SBWG-02TN-1SD	308 : 1	60 (18X11)	F-12, F-14, F-16	2800	2065	31
SBWG-03TN-1SD	333.7 : 1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	40
SBWG-35TN-1SD	333.7 : 1	80 (22X14)	F-16, (F-20), F-25	6100	4499	45
SBWG-04TN-1SD	504 : 1	95 (25X14)	F-16, (F-20), F-25	10400	7671	78
*SBWG-05TN-1SD	540 : 1	115 (32X18)	(F-20), F-25, F-30	15900	11727	100
SBWG-55TN-1SD	558 : 1	125 (32X18)	F-25, F-30	23500	17333	120
SBWG-06TN-1SD	1024 : 1	140 (36X20)	F-25, F-30, F-35	32800	24192	196
SBWG-07TN-1SD	1088 : 1	180 (45X25)	F-30, F-35, F-40	51100	37689	296
SBWG-75TN-1SD	1650 : 1	210 (50X28)	F-35, F-40, F-48	81500	60111	464
SBWG-08TN-1SD	1650 : 1	250 (56X32)	F-40, F-48	121000	89245	589
SBWG-09TN-1SD	1650 : 1	280 (63X32)	F-48, F-60	192500	141981	948
SBWG-10TN-1SD	1600 : 1	320 (70X36)	F-60	275000	202830	1487
SBWG-11TN-1SD	1700 : 1	360 (80X40)	F-60	442000	326002	2248
*SBWG-12TN-1SD	1750 : 1	400 (90X45)	F-60, (F-80)	610000	449913	3111
*SBWG-13TN-1SD	1800 : 1	420 (100X50)	F-60, (F-80)	970000	715435	4015

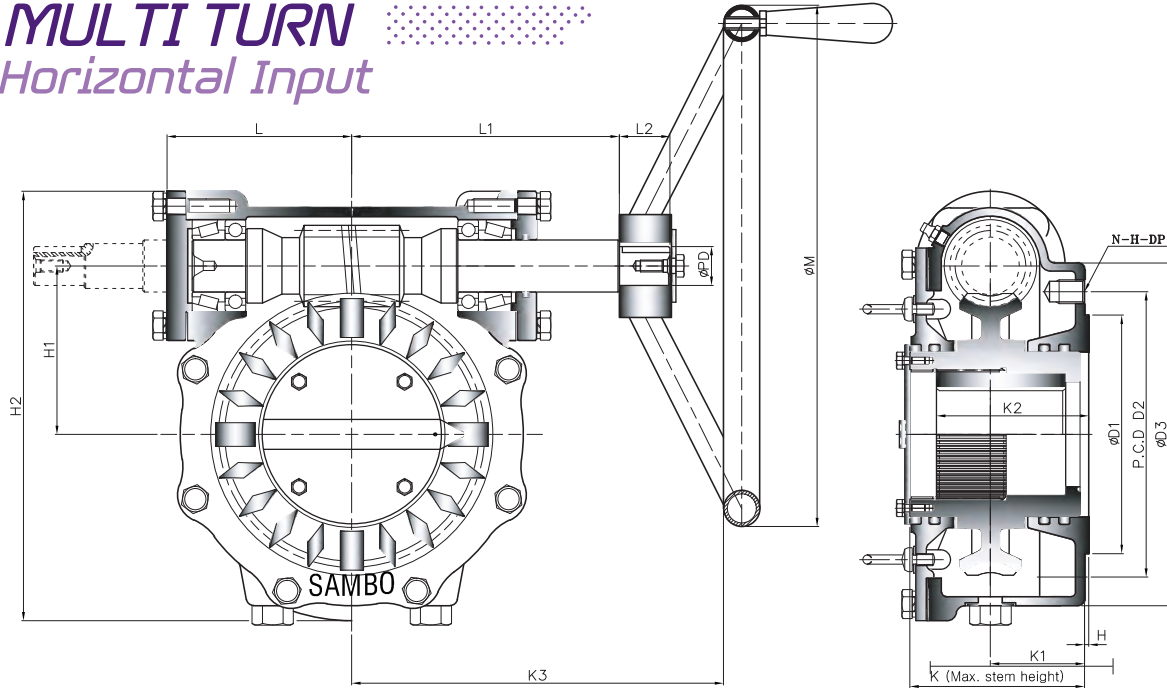
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.



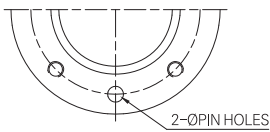
# SAMBO

## MULTI TURN

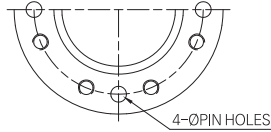
### Horizontal Input



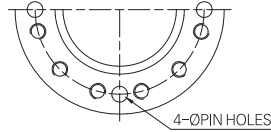
• Pin hole size is same as tap out diameter



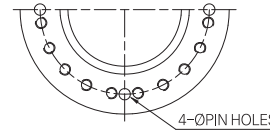
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

MODEL	DIM	BASE PART						EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL		
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2		ØPD	KEY
					ØD2	N-H-DP														
* SBWG-BFMT	A	F-07	55	70	4-M8-12	110	2	42	132	76	38	38,6	150	64	97	24	16	6X6	200	
SBWG-0MT		F-10	70	102	4-M10-15	135		57	159,5	77	38	43,6	177	71,5	104,5				250	
SBWG-00MT		F-12	85	125	4-M12-18	165		69,5	192	86,5	43	53,6	230	86	138				300	
SBWG-01MT		F-14	100	140	4-M16-24	190		82,5	217,5	96	53	65	260	95	147				400	
SBWG-02MT		F-16	130	165	4-M20-30	220		97	257	111,5	58	75,5	294	108	166				500	
SBWG-03MT		F-16 (F-20)	160	205	8-M16-24	250		112	287	118	61	87	324	118	176				560	
SBWG-35MT	B	F-25	200	254	8-M16-24	300	3	127	327	135	72	100	329	125	181	34	26	8X7	560	
SBWG-04MT		F-25	200	254	8-M16-24	300		153	385,5	147	73	120	370	153	207				630	
* SBWG-05MT		F-30	230	298	8-M20-30	350		180	437,5	155	78	141	400	163	217				710	
SBWG-55MT						350		202	484,5	162	80	144	420	183	237					
SBWG-06MT		F-35	260	356	8-M30-45	415		230	558,5	200	109	173	489	217	286				800	
SBWG-07MT		F-40	300	406	8-M36-55	475		280,5	660,5	227	116	209	538	252	315				900	
SBWG-75MT	C	F-48	370	483	12-M36-55	560	5	326	776	246	120	220	617	279	381	58	50	16X10	1000	
SBWG-08MT						560		379	884	254	125	245	652	314	416					
SBWG-09MT	D	F-60	470	603	20-M36-55	700	5	448,5	1023,5	284	138	270	692	354	456	58	50	16X10		
SBWG-10MT						800		513	1191	352	164	330	814	426	614					
SBWG-11MT						900		616,5	1399,5	394	181	370	857	468,5	657				1000	
* SBWG-12MT						1000		711	1621	482	265	415	980	554	702					
* SBWG-13MT						1000		809	1814	546	301	515	988	609	752					

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

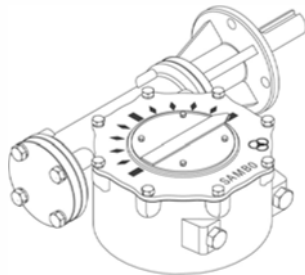
## Bushing Type

Splines permit accurate alignment of valve stem key.



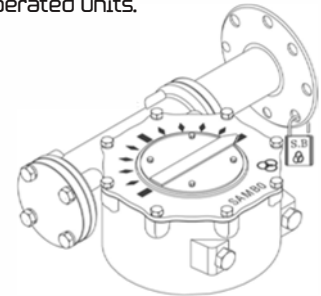
## M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



## LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

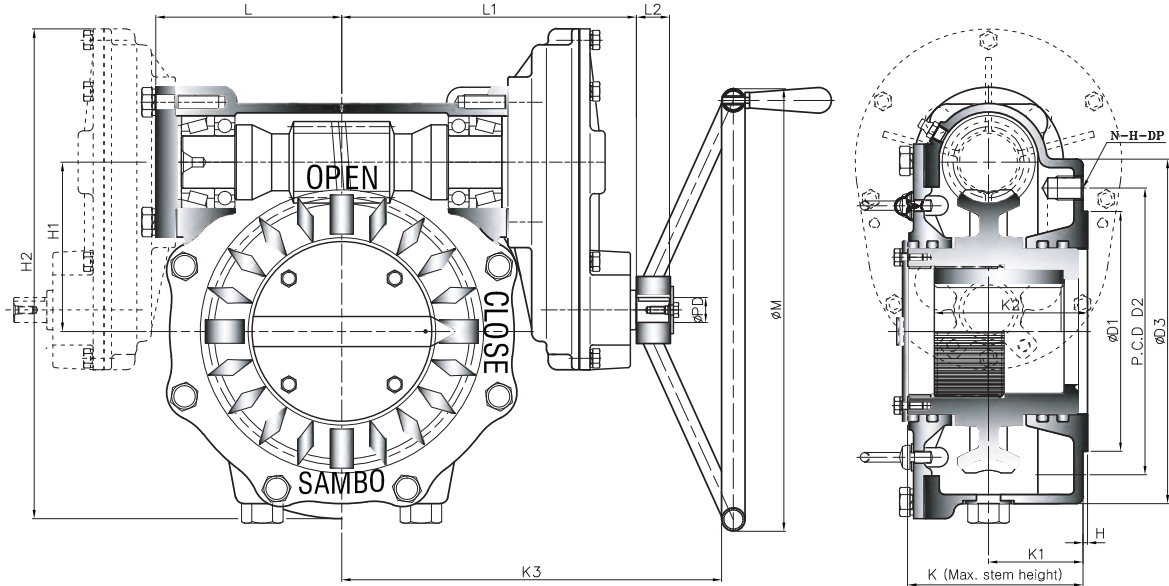
MODEL \ SIZE	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
* SBWG-BFMT	32:1	20 (6X6)	F-05, F-07	360	266	6
SBWG-0MT	36:1	28 (8X7)	F-07, F-10	780	575	9
SBWG-00MT	40:1	36 (10X8)	F-10, F-12	1200	885	13
SBWG-01MT	44:1	46 (14X9)	F-10, F-12, F-14	2000	1475	16
SBWG-02MT	48:1	60 (18X11)	F-12, F-14, F-16	2800	2065	25
SBWG-03MT	52:1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	34
SBWG-35MT	52:1	80 (22X14)	F-16, (F-20), F-25	6100	4499	49
SBWG-04MT	56:1	95 (25X14)	F-16, (F-20), F-25	10400	7671	63
* SBWG-05MT	60:1	115 (32X18)	(F-20), F-25, F-30	15900	11727	85
SBWG-55MT	62:1	125 (32X18)	F-25, F-30	23500	17333	105
SBWG-06MT	64:1	140 (36X20)	F-25, F-30, F-35	32800	24192	155
SBWG-07MT	68:1	180 (45X25)	F-30, F-35, F-40	51100	37689	254
SBWG-75MT	66:1	210 (50X28)	F-35, F-40, F-48	81500	60111	364
SBWG-08MT	66:1	250 (56X32)	F-40, F-48	121000	89245	489
SBWG-09MT	66:1	280 (63X32)	F-48, F-60	192500	141981	848
SBWG-10MT	64:1	320 (70X36)	F-60	275000	202830	1352
SBWG-11MT	68:1	360 (80X40)	F-60	442000	326002	2113
* SBWG-12MT	70:1	400 (90X45)	F-60, (F-80)	610000	449913	2931
* SBWG-13MT	72:1	420 (100X50)	F-60, (F-80)	970000	715435	3835

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

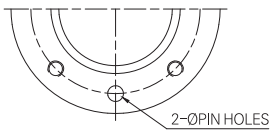


# MULTI TURN 360°

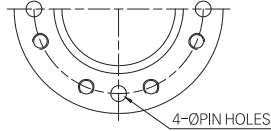
Horizontal Input  
with Single Reduction Gear Attachment



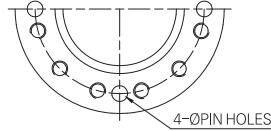
• Pin hole size is same as tap out diameter



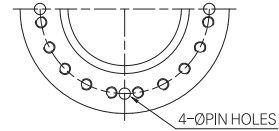
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

MODEL	DIM	BASE PART						EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL		
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2		ØPD	KEY
					ØD2	N-H-DP														
SBWG-00MT-1S	A	F-12	85	125	4-M12-18	165	2	69,5	210	86,5	43	53,6	259	86	166	29	21	6X6	300	
SBWG-01MT-1S		F-14	100	140	4-M16-24	190		82,5	235,5	96	53	65	288	95	175				400	
SBWG-02MT-1S		F-16	130	165	4-M20-30	220		97	282	111,5	58	75,5	329	108	190,5				500	
SBWG-03MT-1S	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	118	61	87	349	118	200,5	34	26	8X7	560	
SBWG-35MT-1S		F-25	200	254	8-M16-24	300		127	352	135	72	100	367	136	218,5				630	
SBWG-04MT-1S		F-25	200	254	8-M16-24	300		153	417,5	147	73	120	413	153	250				710	
*SBWG-05MT-1S		F-30	230	298	8-M20-30	350		180	469,5	155	78	141	443	163	260				800	
SBWG-55MT-1S		F-30	230	298	8-M20-30	350		202	516,5	162	80	144	463	183	280				900	
SBWG-06MT-1S		F-35	260	356	8-M30-45	415		230	621	200	109	173	552	217	349				1000	
SBWG-07MT-1S		F-40	300	406	8-M36-55	475		280,5	723	227	116	209	607	252	384				1000	
SBWG-75MT-1S	C	F-48	370	483	12-M36-55	560	5	326	860	246	120	220	721	279	485	58	50	16X10	1000	
SBWG-08MT-1S		F-48	370	483	12-M36-55	560		379	968	254	125	245	756	314	520					
SBWG-09MT-1S	D					700	5	448,5	1107,5	284	138	270	796	354	560	58	50	16X10	1000	
SBWG-10MT-1S		F-60	470	603	20-M36-55	800		513	1291	352	164	330	927	426	691					
SBWG-11MT-1S						900		616,5	1499,5	394	181	370	969,5	468,5	733,5					
*SBWG-12MT-1S						1000		711	1751	482	265	415	1140	554	905					
*SBWG-13MT-1S		F-80	670	813	20-M42-63	1000		809	1944	546	301	515	1190	609	955					

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.



## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

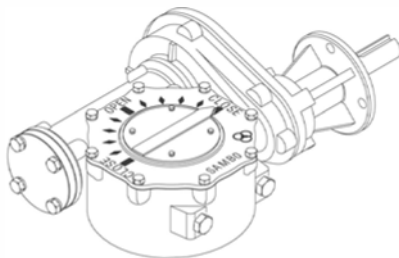
## Bushing Type

Splines permit accurate alignment of valve stem key.



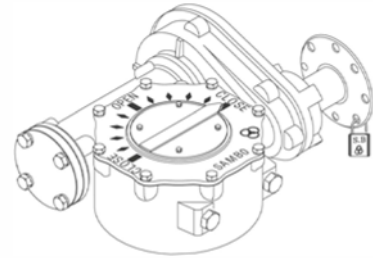
## M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



## LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

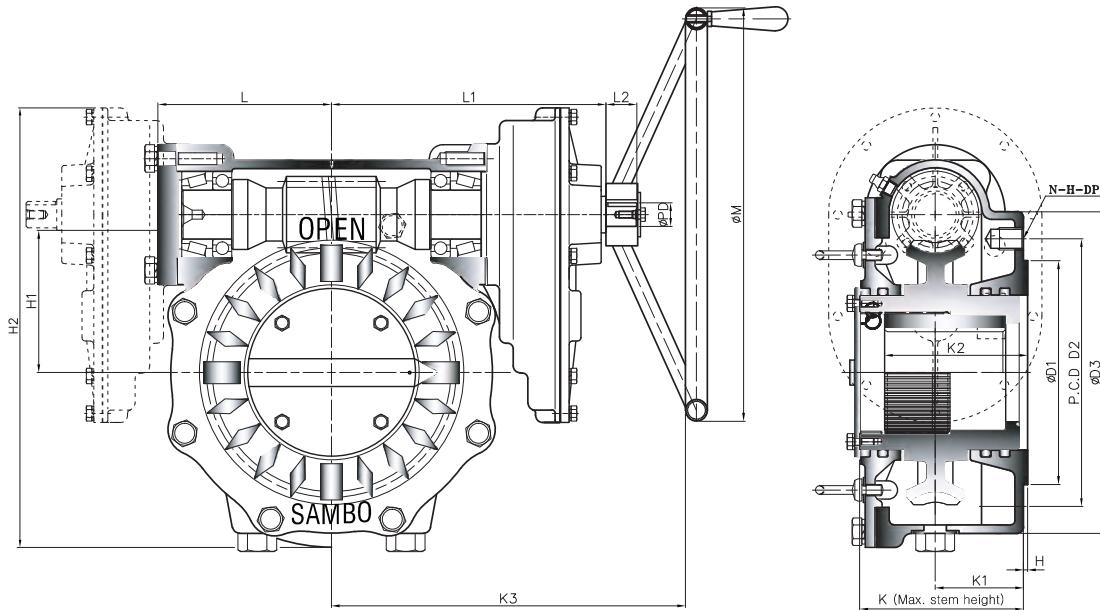
MODEL \ SIZE	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00MT-1S	80 : 1	36 (10X8)	F-10, F-12	1200	885	15
SBWG-01MT-1S	88 : 1	46 (14X9)	F-10, F-12, F-14	2000	1475	18
SBWG-02MT-1S	121.6 : 1	60 (18X11)	F-12, F-14, F-16	2800	2065	29
SBWG-03MT-1S	131.7 : 1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	38
SBWG-35MT-1S	131.7 : 1	80 (22X14)	F-16, (F-20), F-25	6100	4499	53
SBWG-04MT-1S	168 : 1	95 (25X14)	F-16, (F-20), F-25	10400	7671	73
*SBWG-05MT-1S	180 : 1	115 (32X18)	(F-20), F-25, F-30	15900	11727	95
SBWG-55MT-1S	186 : 1	125 (32X18)	F-25, F-30	23500	17333	115
SBWG-06MT-1S	256 : 1	140 (36X20)	F-25, F-30, F-35	32800	24192	183
SBWG-07MT-1S	272 : 1	180 (45X25)	F-30, F-35, F-40	51100	37689	283
SBWG-75MT-1S	330 : 1	210 (50X28)	F-35, F-40, F-48	81500	60111	436
SBWG-08MT-1S	330 : 1	250 (56X32)	F-40, F-48	121000	89245	561
SBWG-09MT-1S	330 : 1	280 (63X32)	F-48, F-60	192500	141981	920
SBWG-10MT-1S	320 : 1	320 (70X36)	F-60	275000	202830	1449
SBWG-11MT-1S	340 : 1	360 (80X40)	F-60	442000	326002	2210
*SBWG-12MT-1S	350 : 1	400 (90X45)	F-60, (F-80)	610000	449913	3110
*SBWG-13MT-1S	360 : 1	420 (100X50)	F-60, (F-80)	970000	715435	4015

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

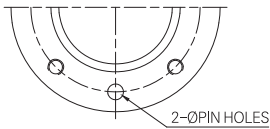


# MULTI TURN 360°

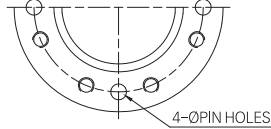
Horizontal Input  
with Double Reduction Gear Attachment



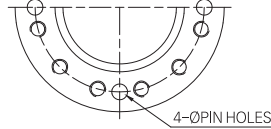
• Pin hole size is same as tap out diameter



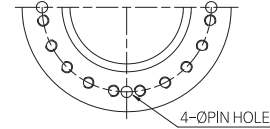
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

DIM MODEL	BASE PART							EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL		
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2	ØPD		KEY	
				ØD2	N-H-DP															
SBWG-00MT-1SD	A	F-12	85	125	4-M12-18	165	2	69,5	210	86,5	43	53,6	276	86	183	29	21	6X6	300	
SBWG-01MT-1SD		F-14	100	140	4-M16-24	190		82,5	235,5	96	53	65	305	95	192				400	
SBWG-02MT-1SD		F-16	130	165	4-M20-30	220		97	282	111,5	58	75,5	343	108	214,5				500	
SBWG-03MT-1SD	B	F-16 (F-20)	160	205	8-M16-24	250	3	112	312	118	61	87	373	118	224,5	34	26	8X7	560	
SBWG-35MT-1SD		F-25	200	254	8-M16-24	300		127	352	135	72	100	385	125	236,5				630	
SBWG-04MT-1SD		F-25	200	254	8-M16-24	300		153	417,5	147	73	120	449	153	286				710	
*SBWG-05MT-1SD		F-30	230	298	8-M20-30	350		180	469,5	155	78	141	479	163	296				800	
SBWG-55MT-1SD						350		202	516,5	162	80	144	499	183	316				900	
SBWG-06MT-1SD		F-35	260	356	8-M30-45	415		230	621	200	109	173	579	217	376					
SBWG-07MT-1SD		F-40	300	406	8-M36-55	475		280,5	723	227	116	209	634	252	411					
SBWG-75MT-1SD	C	F-48	370	483	12-M36-55	560	5	326	860	246	120	220	767	279	531	58	50	16X10	1000	
SBWG-08MT-1SD						560		379	968	254	125	245	802	314	566					
SBWG-09MT-1SD	D	F-60	470	603	20-M36-55	700	5	448,5	1107,5	284	138	270	842	354	606	58	50	16X10	1000	
SBWG-10MT-1SD						800		513	1291	352	164	330	982	426	746					
SBWG-11MT-1SD						900		616,5	1499,5	394	181	370	1039,5	468,5	788,5					
*SBWG-12MT-1SD						1000		711	1751	482	265	415	1205	554	969					
*SBWG-13MT-1SD						1000		809	1944	546	301	515	1245	609	1009					

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

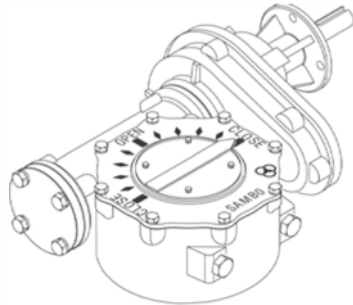
## Bushing Type

Splines permit accurate alignment of valve stem key.



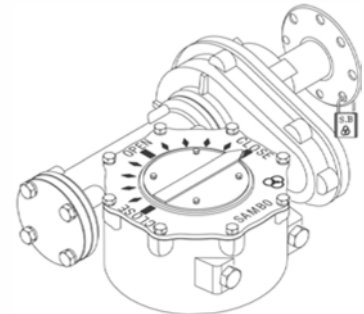
## M·O·V OPTION

Worm Gear can be provided with Motor actuator input flanges to accept standard ISO Mounting Base.



## LOCKING DEVICE OPTION

Input can be equipped with a Handwheel locking device for Manually operated units.



## Selection Chart for Manual Operation >>>

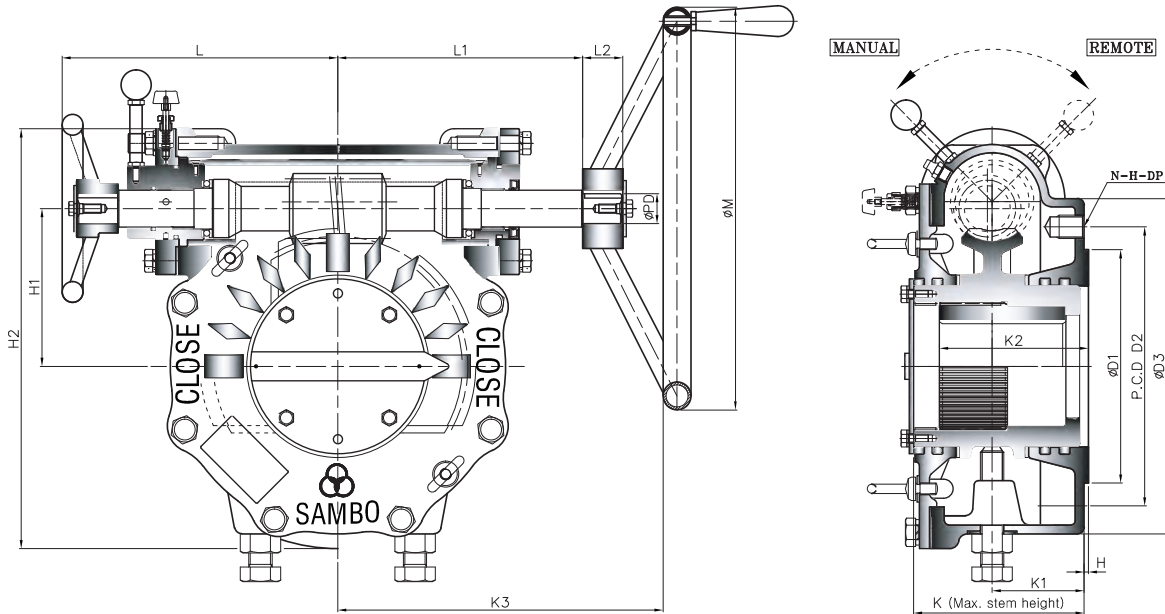
MODEL	SIZE	MAX. GEAR RATIO (Changeable)	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
					N-m	Ft. lbf	Kg
SBWG-00MT-1SD		160 : 1	36 (10X8)	F-10, F-12	1200	885	17
SBWG-01MT-1SD		176 : 1	46 (14X9)	F-10, F-12, F-14	2000	1475	20
SBWG-02MT-1SD		308 : 1	60 (18X11)	F-12, F-14, F-16	2800	2065	31
SBWG-03MT-1SD		333,7 : 1	75 (20X12)	F-14, F-16, (F-20)	4300	3172	40
SBWG-35MT-1SD		333,7 : 1	80 (22X14)	F-16, (F-20), F-25	6100	4499	55
SBWG-04MT-1SD		504 : 1	95 (25X14)	F-16, (F-20), F-25	10400	7671	78
*SBWG-05MT-1SD		540 : 1	115 (32X18)	(F-20), F-25, F-30	15900	11727	100
SBWG-55MT-1SD		558 : 1	125 (32X18)	F-25, F-30	23500	17333	120
SBWG-06MT-1SD		1024 : 1	140 (36X20)	F-25, F-30, F-35	32800	24192	196
SBWG-07MT-1SD		1088 : 1	180 (45X25)	F-30, F-35, F-40	51100	37689	296
SBWG-75MT-1SD		1650 : 1	210 (50X28)	F-35, F-40, F-48	81500	60111	464
SBWG-08MT-1SD		1650 : 1	250 (56X32)	F-40, F-48	121000	89245	589
SBWG-09MT-1SD		1650 : 1	280 (63X32)	F-48, F-60	192500	141981	948
SBWG-10MT-1SD		1600 : 1	320 (70X36)	F-60	275000	202830	1487
SBWG-11MT-1SD		1700 : 1	360 (80X40)	F-60	442000	326002	2248
*SBWG-12MT-1SD		1750 : 1	400 (90X45)	F-60, (F-80)	610000	449913	3111
*SBWG-13MT-1SD		1800 : 1	420 (100X50)	F-60, (F-80)	970000	715435	4015

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

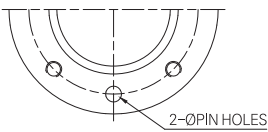
# SAMBO

## DECLUTCH GEAR

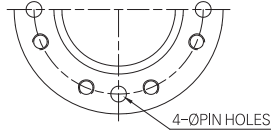
### Horizontal Input



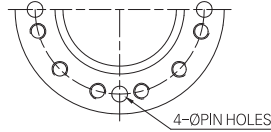
• Pin hole size is same as tap out diameter



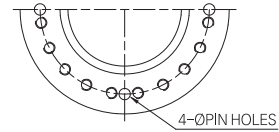
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

DIM MODEL	BASE PART						EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL		
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2		ØPD	KEY
*SBWG-BFDC	A	F-07	55	70	4-M8-12	110	2	38,5	132	76	38	38,6	150	104	97	24	16	6X6	200
SBWG-0DC		F-10	70	102	4-M10-15	135		53,5	159,5	77	38	43,6	177	111,5	106,5				250
SBWG-00DC		F-12	85	125	4-M12-18	165		69,5	198,5	90,5	43	53,6	230	122	138				300
SBWG-01DC		F-14	100	140	4-M16-24	190		83	224,5	100	53	65	260	131	147				400
SBWG-02DC		F-16	130	165	4-M20-30	220		95,5	262,5	112,5	56	75,5	274	148	139				500
SBWG-03DC	B	F-16 (F-20)	160	205	8-M16-24	250	3	109	291	118	59	87	297	158	149	34	26	8X7	560
SBWG-35DC		F-25	200	254	8-M16-24	300		127,5	340	136	72	100	342	178	194				630
SBWG-04DC		F-25	200	254	8-M16-24	300		147	385,5	147	73	120	370	247	205,5				710
*SBWG-05DC		F-30	230	298	8-M20-30	350		174	437,5	155	78	141	400	257	215,5				800
SBWG-55DC		F-30	230	298	8-M20-30	350		196	484,5	162	80	144	420	277	235,5				900
SBWG-06DC	C	F-35	260	356	8-M30-45	415	5	222	558,5	200	109	175	489	316	286	44	38	12X8	800
SBWG-07DC		F-40	300	406	8-M36-55	475		272,5	660,5	227	116	209	538	350,5	315				900
SBWG-75DC		F-48	370	483	12-M36-55	560		313	776	246	120	220	617	389,5	381				1000
SBWG-08DC		F-48	370	483	12-M36-55	560		366	884	254	125	245	652	424,5	416				1000
SBWG-09DC		D	F-60	470	603	20-M36-55		700	5	435,5	1023,5	284	138	270	692				465
SBWG-10DC	800						498	1191		352	164	330	814	550	614				

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

## Bushing Type

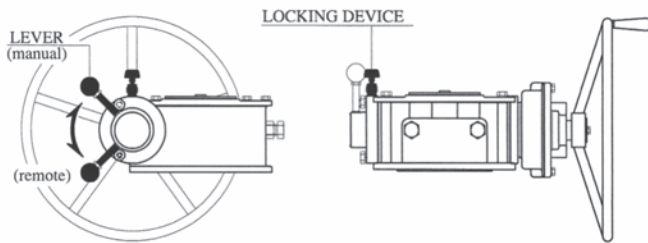
Splines permit accurate alignment of valve stem key.



Global Leader  
**SAMBO**  
SPIRAL BEVEL GEAR ACTUATORS

The World's  
Highest Quality!

## Manual Override Operation >>>



1. Pull up on locking device knob.
2. Rotate lever to "Manual" position.
3. Handwheel can now be operated.  
Note : pneumatic actuator is now fully disengaged.
4. The lever must be placed back in "Remote" position for pneumatic operation.

- Somewhere it should be noted that these units have been specifically developed for use with pneumatic and Hydraulic Actuators providing a positive mechanical means of manual operation.

## CAUTION

- Operate to check the position of manual and remote.
- When convert "manual" position, control the position of worm shaft and then operate to accord with worm gear.

## Selection Chart for Manual Operation >>>

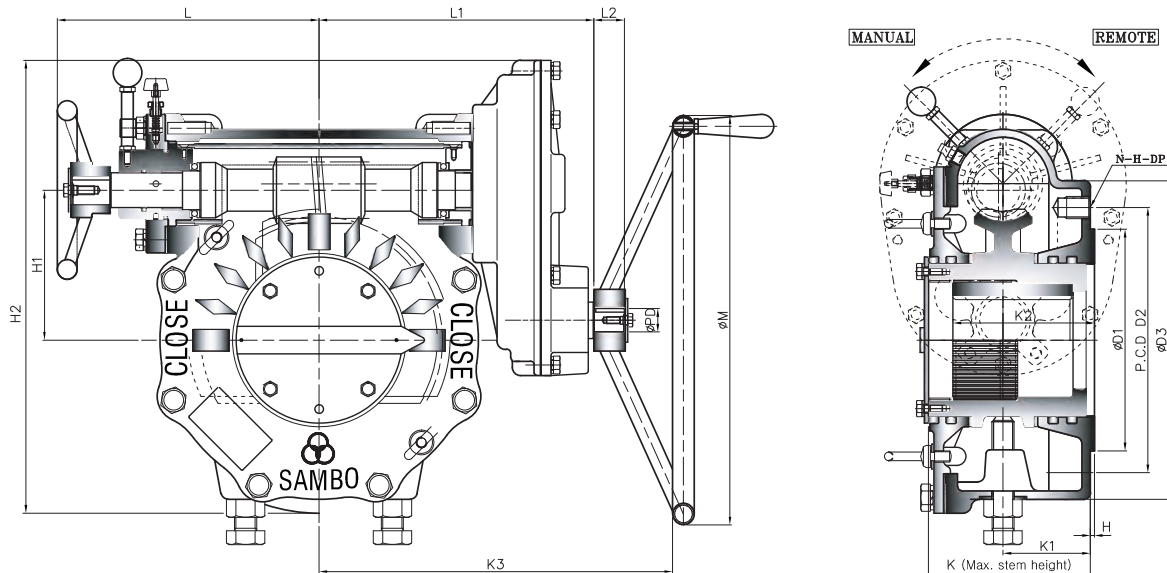
SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
*SBWG-BFDC	32:1	20 (6X6)	F-05, F-07	320	236	4
SBWG-0DC	36:1	28 (8X7)	F-07, F-10	680	502	6
SBWG-00DC	38:1	36 (10X8)	F-10, F-12	980	723	10
SBWG-01DC	43:1	46 (14X9)	F-10, F-12, F-14	1600	1180	13
SBWG-02DC	46:1	60 (18X11)	F-12, F-14, F-16	2500	1844	21
SBWG-03DC	50:1	75 (20X12)	F-14, F-16, (F-20)	3800	2803	29
SBWG-35DC	52:1	80 (22X14)	F-16, (F-20), F-25	5600	4130	43
SBWG-04DC	56:1	95 (25X14)	F-16, (F-20), F-25	9600	7081	56
*SBWG-05DC	60:1	115 (32X18)	(F-20), F-25, F-30	14400	10621	78
SBWG-55DC	62:1	125 (32X18)	F-25, F-30	21150	15599	97
SBWG-06DC	64:1	140 (36X20)	F-25, F-30, F-35	29520	21773	147
SBWG-07DC	68:1	180 (45X25)	F-30, F-35, F-40	45000	33190	243
SBWG-75DC	65:1	210 (50X28)	F-35, F-40, F-48	73350	54100	350
SBWG-08DC	65:1	250 (56X32)	F-40, F-48	108900	80321	473
SBWG-09DC	64:1	280 (63X32)	F-48, F-60	178000	131286	829
SBWG-10DC	62:1	320 (70X36)	F-60	253000	186600	1330

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

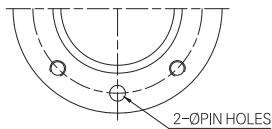


# DECLUTCH GEAR

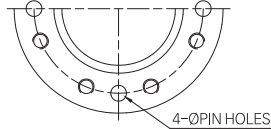
Horizontal Input  
with Single Reduction Gear Attachment



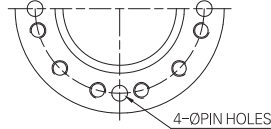
• Pin hole size is same as tap out diameter



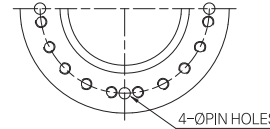
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

DIM MODEL	TYPE	FLANGE	BASE PART					EXTERNAL PART								INPUT SHAFT PART			HAND WHEEL
			ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	K3	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP														
SBWG-00DC-1S	A	F-12	85	125	4-M12-18	165	2	69,5	214	86,5	43	53,6	259	154	166	29	21	6X6	300
SBWG-01DC-1S		F-14	100	140	4-M16-24	190		83	240	96	53	65	288	163	175				400
SBWG-02DC-1S		F-16	130	165	4-M20-30	220		95,5	285	111,5	58	75,5	329	184	190,5				34
SBWG-03DC-1S	B	F-16 (F-20)	160	205	8-M16-24	250	3	109	313,5	118	61	87	349	194	200,5	34	26	8X7	560
SBWG-35DC-1S		F-25	200	254	8-M16-24	300		127,5	357,5	135	72	100	367	210	218,5				630
SBWG-04DC-1S		F-25	200	254	8-M16-24	300		147	417,5	147	73	120	413	247	250				710
*SBWG-05DC-1S		F-30	230	298	8-M20-30	350		174	469,5	155	78	141	443	257	260				800
SBWG-55DC-1S		F-35	260	356	8-M30-45	415		196	516,5	162	80	144	463	277	280				900
SBWG-06DC-1S		F-40	300	406	8-M36-55	475		222	621	200	109	173	552	316	349				1000
SBWG-07DC-1S	C	F-48	370	483	12-M36-55	560	5	313	860	246	120	220	721	389,5	485	58	50	16X10	1000
SBWG-75DC-1S						560		366	968	254	125	245	756	424,5	520				
SBWG-08DC-1S	D	F-60	470	603	20-M36-55	700	5	435,5	1107,5	284	138	270	796	465	560	58	50	16X10	1000
SBWG-09DC-1S						800		498	1191	352	164	330	927	550	691				
SBWG-10DC-1S																			

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

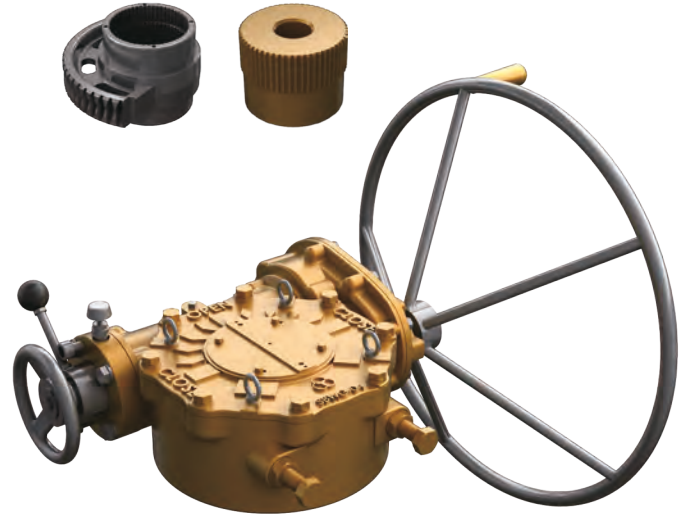


## Feature >>>

- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

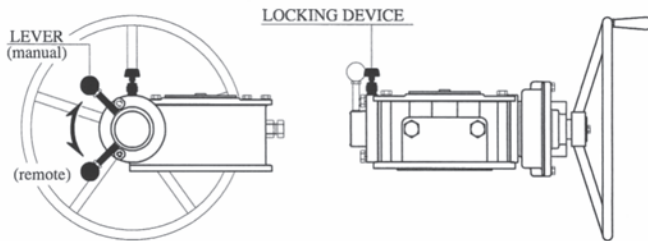
### Bushing Type

Splines permit accurate alignment of valve stem key.



The World's Highest Quality!

## Manual Override Operation >>>



1. Pull up on locking device knob.
2. Rotate lever to "Manual" position.
3. Handwheel can now be operated.  
Note : pneumatic actuator is now fully disengaged.
4. The lever must be placed back in "Remote" position for pneumatic operation.

### CAUTION

- Somewhere it should be noted that these units have been specifically developed for use with pneumatic and Hydraulic Actuators providing a positive mechanical means of manual operation.

- Operate to check the position of manual and remote.
- When convert "manual" position, control the position of worm shaft and then operate to accord with worm gear.

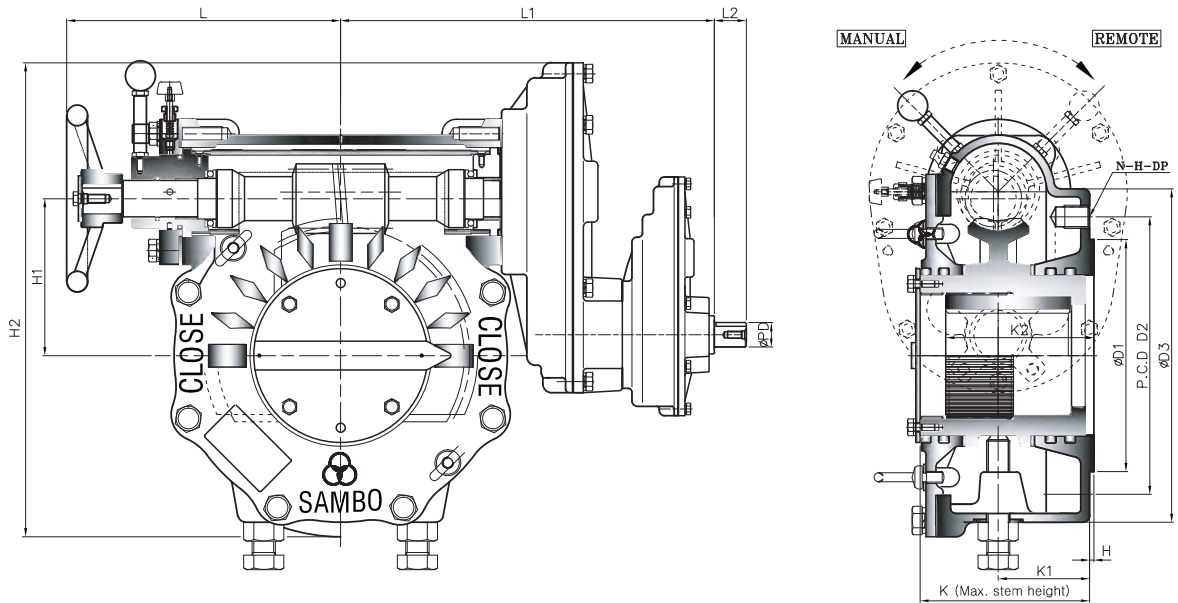
## Selection Chart for Manual Operation >>>

SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
				N-m	Ft. lbf	Kg
SBWG-00DC-1S	67:1	36 (10X8)	F-10, F-12	980	723	12
SBWG-01DC-1S	75:1	46 (14X9)	F-10, F-12, F-14	1600	1180	15
SBWG-02DC-1S	107:1	60 (18X11)	F-12, F-14, F-16	2500	1844	25
SBWG-03DC-1S	117:1	75 (20X12)	F-14, F-16, (F-20)	3800	2803	33
SBWG-35DC-1S	118:1	80 (22X14)	F-16, (F-20), F-25	5600	4130	50
SBWG-04DC-1S	149.3:1	95 (25X14)	F-16, (F-20), F-25	9600	7081	66
*SBWG-05DC-1S	160:1	115 (32X18)	(F-20), F-25, F-30	14400	10621	88
SBWG-55DC-1S	165:1	125(32X18)	F-25, F-30	21150	15599	107
SBWG-06DC-1S	232:1	140 (36X20)	F-25, F-30, F-35	29520	21773	175
SBWG-07DC-1S	247:1	180 (45X25)	F-30, F-35, F-40	45000	33190	271
SBWG-75DC-1S	290:1	210 (50X28)	F-35, F-40, F-48	73350	54100	422
SBWG-08DC-1S	290:1	250 (56X32)	F-40, F-48	108900	80321	545
SBWG-09DC-1S	286:1	280 (63X32)	F-48, F-60	178000	131286	902
SBWG-10DC-1S	277:1	320 (70X36)	F-60	253000	186600	1426

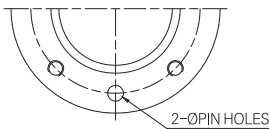
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

# DECLUTCH GEAR

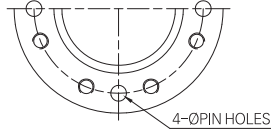
Horizontal Input  
with Triple Reduction Gear Attachment



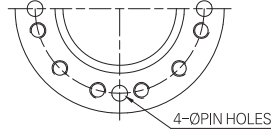
• Pin hole size is same as tap out diameter



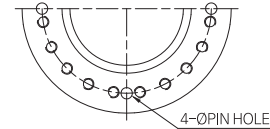
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

MODEL	DIM	TYPE	FLANGE	BASE PART				EXTERNAL PART						INPUT SHAFT PART			HAND WHEEL		
				ØD1	P.C.D		ØD3	H	H1	H2	K	K1	K2	L	L1	L2		ØPD	KEY
					ØD2	N-H-DP													
SBWG-00DC-2SD	A	F-12	85	125	4-M12-18	165	2	69,5	214	86,5	43	53,6	154	261	29	21	6X6	300	
SBWG-01DC-2SD		F-14	100	140	4-M16-24	190		83	240	96	53	65	163	270					
SBWG-02DC-2SD		F-16	130	165	4-M20-30	220		95,5	285	111,5	58	75,5	184	288,5					
SBWG-03DC-2SD	B	F-16 (F-20)	160	205	8-M16-24	250	3	109	313,5	118	61	87	194	298,5	29	21	6X6	400	
SBWG-35DC-2SD		F-25	200	254	8-M16-24	300		127,5	357,5	135	72	100	210	316,5					
SBWG-04DC-2SD		F-25	200	254	8-M16-24	300		147	417,5	147	73	120	247	352,5					
*SBWG-05DC-2SD		F-30	230	298	8-M20-30	350		174	469,5	155	78	141	257	362,5					
SBWG-55DC-2SD		F-30	230	298	8-M20-30	350		196	516,5	162	80	144	277	382,5					
SBWG-06DC-2SD		F-35	260	356	8-M30-45	415		222	621	200	109	173	316	509					
SBWG-07DC-2SD		F-40	300	406	8-M36-55	475		272,5	723	227	116	209	350,5	524					
SBWG-75DC-2SD	C	F-48	370	483	12-M36-55	560	5	313	860	246	120	220	389,5	640	44	38	12X8	800	
SBWG-08DC-2SD						560		366	968	254	125	245	424,5	676				900	
SBWG-09DC-2SD	D	F-60	470	603	20-M36-55	700	5	435,5	1107,5	284	138	270	465	716	44	38	12X8	900	
SBWG-10DC-2SD						800		498	1191	352	164	330	550	860				58	50

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

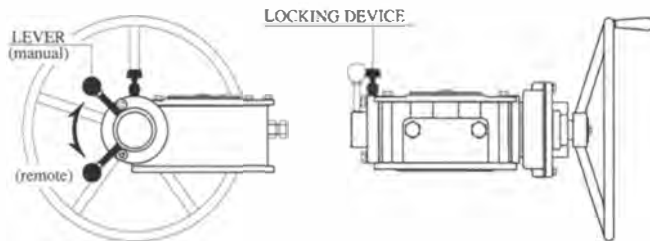
- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

### Bushing Type

Splines permit accurate alignment of valve stem key.



## Manual Override Operation >>>



1. Pull up on locking device knob.
2. Rotate lever to "Manual" position.
3. Handwheel can now be operated.  
Note : pneumatic actuator is now fully disengaged.
4. The lever must be placed back in "Remote" position for pneumatic operation.

- Somewhere it should be noted that these units have been specifically developed for use with pneumatic and Hydraulic Actuators providing a positive mechanical means of manual operation.

### CAUTION

- Operate to check the position of manual and remote.
- When convert "manual" position, control the position of worm shaft and then operate to accord with worm gear.

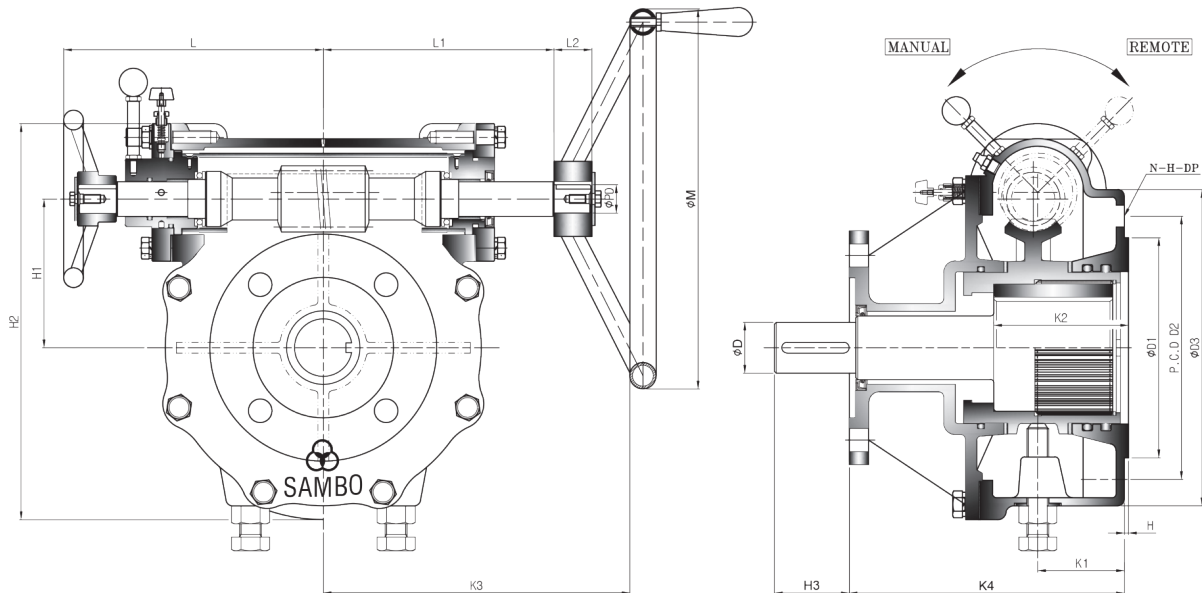
## Selection Chart for Manual Operation >>>

MODEL	SIZE	MAX. GEAR RATIO (Changeable)	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	MAX. TORQUE CAPACITY		WEIGHT
					N-m	Ft. lbf	
SBWG-00DC-2SD		266 : 1	36 (10X8)	F-10, F-12	980	723	14
SBWG-01DC-2SD		298 : 1	46 (14X9)	F-10, F-12, F-14	1600	1180	17
SBWG-02DC-2SD		429 : 1	60 (18X11)	F-12, F-14, F-16	2500	1844	27
SBWG-03DC-2SD		467 : 1	75 (20X12)	F-14, F-16, (F-20)	3800	2803	35
SBWG-35DC-2SD		471 : 1	80 (22X14)	F-16, (F-20), F-25	5600	4130	56
SBWG-04DC-2SD		958 : 1	95 (25X14)	F-16, (F-20), F-25	9600	7081	71
*SBWG-05DC-2SD		1026 : 1	115 (32X18)	(F-20), F-25, F-30	14400	10621	93
SBWG-55DC-2SD		1061 : 1	125 (32X18)	F-25, F-30	21150	15599	112
SBWG-06DC-2SD		2088 : 1	140 (36X20)	F-25, F-30, F-35	29520	21773	188
SBWG-07DC-2SD		2218 : 1	180 (45X25)	F-30, F-35, F-40	45000	33190	284
SBWG-75DC-2SD		4645 : 1	210 (50X28)	F-35, F-40, F-48	73350	54100	450
SBWG-08DC-2SD		4645 : 1	250 (56X32)	F-40, F-48	108900	80321	573
SBWG-09DC-2SD		4574 : 1	280 (63X32)	F-48, F-60	178000	131286	929
SBWG-10DC-2SD		6929,4 : 1	320 (70X36)	F-60	253000	186600	1464

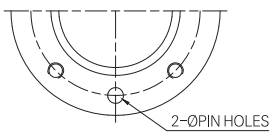
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

# DECLUTCH GEAR Pneumatic Actuator

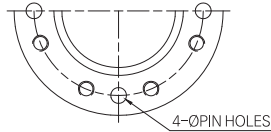
## Horizontal Input



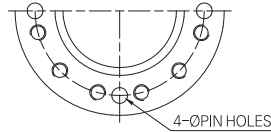
• Pin hole size is same as tap out diameter



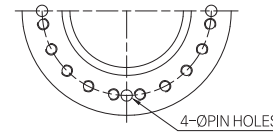
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

MODEL	DIM	BASE PART						EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL	
		TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K1	K2 MAX	K3	K4	L	L1	L2		ØPD
* SBWG-BFDCM	A	F-07	55	70	4-M8-12	110	2	38,5	132	38	50	150	131	104	97	24	16	6X6	200
* SBWG-0DCM		F-10	70	102	4-M10-15	135		53,5	159,5	38	60	177	133	111,5	106,5				250
* SBWG-00DCM		F-12	85	125	4-M12-18	165		69,5	198,5	43	70	230	149,5	122	138				300
* SBWG-01DCM		F-14	100	140	4-M16-24	190		83	224,5	53	80	260	174	131	147				400
* SBWG-02DCM		F-16	130	165	4-M20-30	220		95,5	262,5	58	90	274	191,5	148	139				500
* SBWG-03DCM	B	F-16 (F-20)	160	205	8-M16-24	250	3	109	291	61	100	297	206	158	149	34	26	8X7	560
* SBWG-35DCM		F-25	200	254	8-M16-24	300		127,5	340	72	110	342	225	178	194				630
* SBWG-04DCM		F-25	200	254	8-M16-24	300		147	385,5	73	120	370	242	247	205,5				710
* SBWG-05DCM		F-30	230	298	8-M20-30	350		174	437,5	78	130	400	247,5	257	215,5				800
* SBWG-55DCM		F-30	230	298	8-M20-30	350		196	484,5	80	170	420	256	277	235,5				900
* SBWG-06DCM		F-35	260	356	8-M30-45	415		222	558,5	109	190	489	302	316	286				800
* SBWG-07DCM		F-40	300	406	8-M36-55	475		272,5	660,5	116	200	538	349	350,5	315				900
* SBWG-75DCM	C	F-48	370	483	12-M36-55	560	5	313	776	120	210	617	430	389,5	381	58	50	16X10	1000
* SBWG-08DCM		F-48	370	483	12-M36-55	560		366	884	125	220	652	439	424,5	416				1000
* SBWG-09DCM	D	F-60	470	603	20-M36-55	700	5	435,5	1023,5	138	230	692	467	465	456	58	50	16X10	1000
* SBWG-10DCM		F-60	470	603	20-M36-55	800		498	1191	352	240	814	562	550	614				1000

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
 \* Mark has been changed and updated.



## Feature >>>

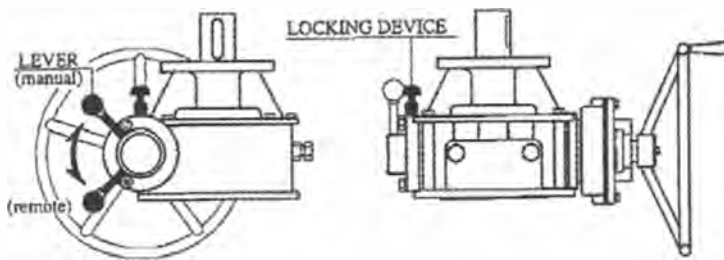
- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

## Bushing Type

Splines permit accurate alignment of valve stem key.



## Manual Override Operation >>>



1. Pull up on locking device knob.
2. Rotate lever to "Manual" position.
3. Handwheel can now be operated.  
Note : pneumatic actuator is now fully disengaged.
4. The lever must be placed back in "Remote" position for pneumatic operation.

- Somewhere it should be noted that these units have been specifically developed for use with pneumatic and Hydraulic Actuators providing a positive mechanical means of manual operation.

## CAUTION

- Operate to check the position of manual and remote.
- When convert "manual" position, control the position of worm shaft and then operate to accord with worm gear.

## Selection Chart for Manual Operation >>>

SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	PNEUMATIC PART			MAX. TORQUE CAPACITY		WEIGHT
				ØD	H3	MOUNTING OPTION	N-m	Ft. lbf	Kg
*SBWG-0FDCM	32:1	20 (6X6)	F-05, F-07	Ø22	50	F-05, F-07	320	236	5
*SBWG-0DCM	36:1	28 (8X7)	F-07, F-10	Ø35	50	F-10, F-07	680	502	7
*SBWG-00DCM	38:1	36 (10X8)	F-10, F-12	Ø45	60	F-12, F-10	980	723	11
*SBWG-01DCM	43:1	46 (14X9)	F-10, F-12, F-14	Ø55	75	F-14, F-12, F-10	1600	1180	18
*SBWG-02DCM	46:1	60 (18X11)	F-12, F-14, F-16	Ø65	90	F-16, F-14, F-12	2500	1844	29
*SBWG-03DCM	50:1	75 (20X12)	F-14, F-16, (F-20)	Ø70	90	F-16, F-14, F-12	3800	2803	45
*SBWG-35DCM	52:1	80 (22X14)	F-16, (F-20), F-25	Ø80	90	F-25, (F-20), F-16, F-14	5600	4130	63
*SBWG-04DCM	56:1	95 (25X14)	F-16, (F-20), F-25	Ø90	90	F-25, (F-20), F-16	9600	7081	86
*SBWG-05DCM	60:1	115 (32X18)	(F-20), F-25, F-30	Ø110	145	F-30, F-25, (F-20)	14400	10621	120
*SBWG-55DCM	62:1	125 (32X18)	F-25, F-30	Ø140	145	F-30, F-25, (F-20)	21150	15599	169
*SBWG-06DCM	64:1	140 (36X20)	F-25, F-30, F-35	Ø160	150	F-35, F-30, F-25	29520	21773	250
*SBWG-07DCM	68:1	180 (45X25)	F-30, F-35, F-40	Ø180	180	F-40, F-35, F-30, F-25	45000	33190	365
*SBWG-75DCM	65:1	210 (50X28)	F-35, F-40, F-48	Ø240	250	F-48, F-40, F-35	73350	54100	558
*SBWG-08DCM	65:1	250 (56X32)	F-40, F-48	Ø250	280	F-48, F-40, F-35	108900	80321	681
*SBWG-09DCM	64:1	280 (63X32)	F-48, F-60	Ø260	300	F-60, F-48	178000	131286	1038
*SBWG-10DCM	62:1	320 (70X36)	F-60	Ø320	340	F-60	253000	186600	1665

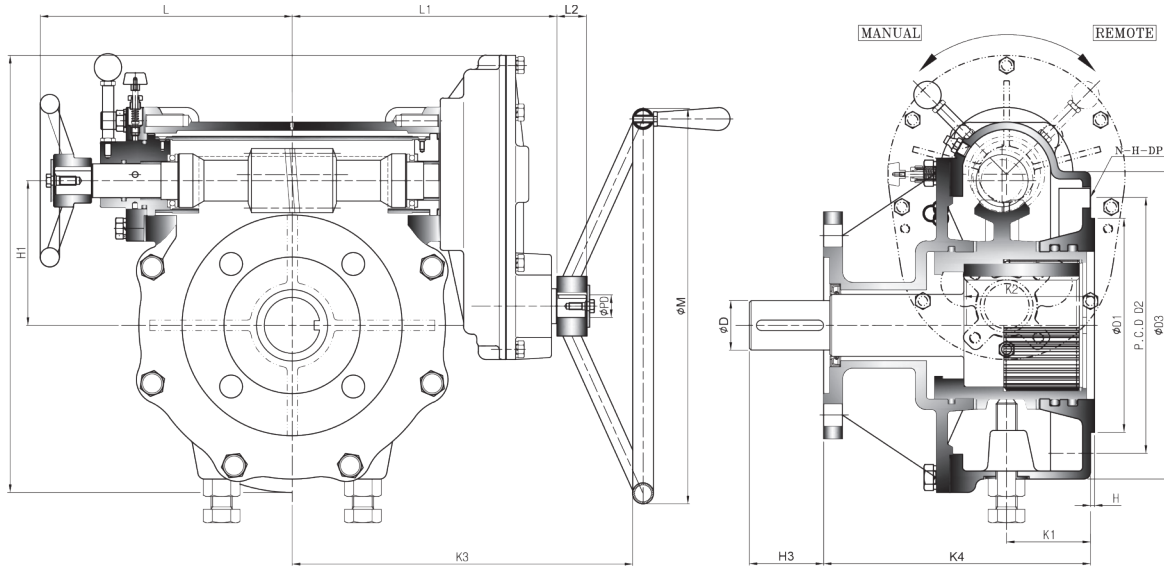
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

Worm Gear

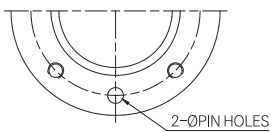


# DECLUTCH GEAR Pneumatic Actuator

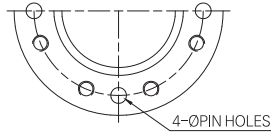
## Horizontal Input with Single Reduction Gear Attachment



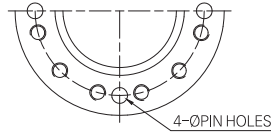
• Pin hole size is same as tap out diameter



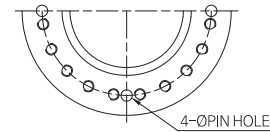
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

DIM MODEL	BASE PART							EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL				
	TYPE	FLANGE	ØD1	P.C.D		ØD3	H	H1	H2	K1	K2 MAX	K3	K4	L	L1	L2	ØPD		KEY			
				ØD2	N-H-DP																	
* SBWG-00DCM-1S	A	F-12	85	125	4-M12-18	165	2	69,5	210	43	70	259	149,5	154	166	29	21	6X6	300			
* SBWG-01DCM-1S		F-14	100	140	4-M16-24	190		87	235,5	53	80	288	174	163	175				400			
* SBWG-02DCM-1S		F-16	130	165	4-M20-30	220		95,5	282	58	90	329	191,5	184	190,5	34	26	8X7	500			
* SBWG-03DCM-1S	B	F-16 (F-20)	160	205	8-M16-24	250	3	109	312	61	100	349	206	194	200,5	34	26	8X7	560			
* SBWG-35DCM-1S		F-25	200	254	8-M16-24	300		127,5	339,5	72	110	367	225	210	218,5							630
* SBWG-04DCM-1S		F-25	200	254	8-M16-24	300		147	417,5	73	120	413	242	247	250							710
* SBWG-05DCM-1S		F-30	230	298	8-M20-30	350		174	469,5	78	130	443	247,5	257	260				34	32	10X8	800
* SBWG-55DCM-1S		F-35	260	356	8-M30-45	415		196	516,5	80	170	463	256	277	280							900
* SBWG-06DCM-1S		F-35	260	356	8-M30-45	415		222	621	109	190	552	302	316	349				44	38	12X8	800
* SBWG-07DCM-1S		F-40	300	406	8-M36-55	475		272,5	723	116	200	607	349	349	384							900
* SBWG-75DCM-1S	C	F-48	370	483	12-M36-55	560	5	313	860	120	210	721	430	389,5	485	58	50	16X10	1000			
* SBWG-08DCM-1S						560		366	968	125	220	756	439	424,5	520							
* SBWG-09DCM-1S	D	F-60	470	603	20-M36-55	700	5	435,5	1107,5	138	230	796	467	465	560	58	50	16X10	1000			
* SBWG-10DCM-1S						800		498	1191	352	240	927	562	550	691							

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

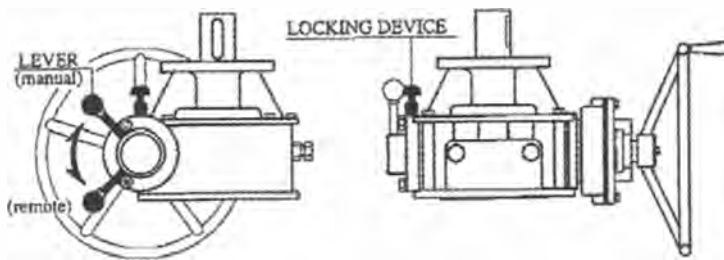
- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

## Bushing Type

Splines permit accurate alignment of valve stem key.



## Manual Override Operation >>>



1. Pull up on locking device knob.
2. Rotate lever to "Manual" position.
3. Handwheel can now be operated.  
Note : pneumatic actuator is now fully disengaged.
4. The lever must be placed back in "Remote" position for pneumatic operation.

- Somewhere it should be noted that these units have been specifically developed for use with pneumatic and Hydraulic Actuators providing a positive mechanical means of manual operation.

## CAUTION

- Operate to check the position of manual and remote.
- When convert "manual" position, control the position of worm shaft and then operate to accord with worm gear.

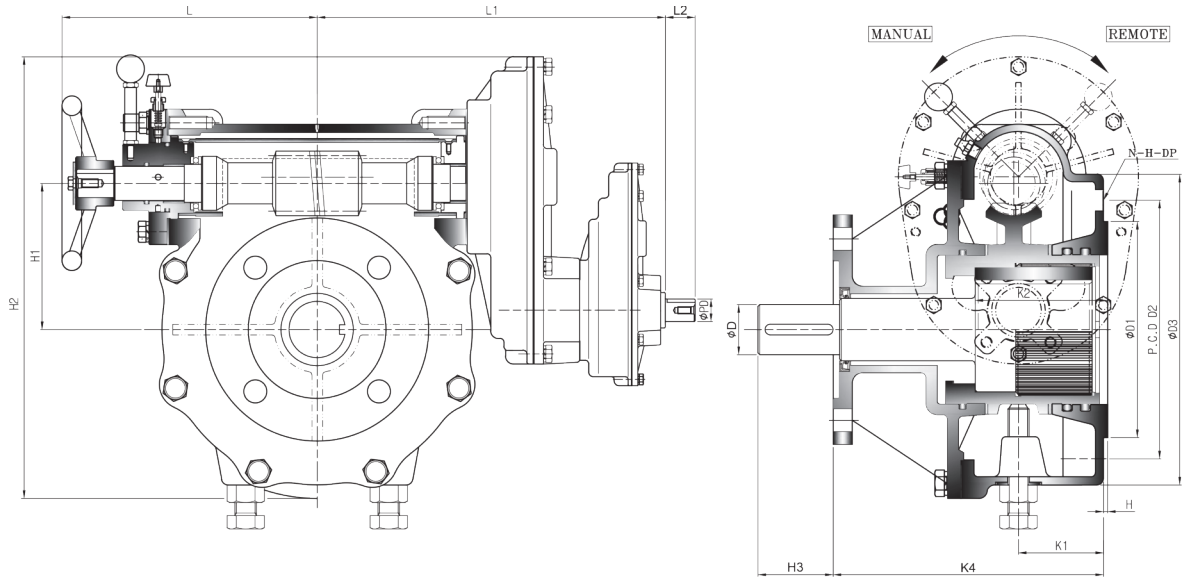
## Selection Chart for Manual Operation >>>

SIZE MODEL	GEAR RATIO	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	PNEUMATIC PART			MAX. TORQUE CAPACITY		WEIGHT
				ØD	H3	MOUNTING OPTION	N-m	Ft. lbf	Kg
* SBWG-00DCM-1S	67:1	36 (10X8)	F-10, F-12	Ø45	60	F-12, F-10	980	723	13
* SBWG-01DCM-1S	75:1	46 (14X9)	F-10, F-12, F-14	Ø55	75	F-14, F-12, F-10	1600	1180	21
* SBWG-02DCM-1S	107:1	60 (18X11)	F-12, F-14, F-16	Ø65	90	F-16, F-14, F-12	2500	1844	32
* SBWG-03DCM-1S	117:1	75 (20X12)	F-14, F-16, (F-20)	Ø70	90	F-16, F-14, F-12	3800	2803	47
* SBWG-35DCM-1S	118:1	80 (22X14)	F-16, (F-20), F-25	Ø80	90	F-25, (F-20), F-16, F-14	5600	4130	66
* SBWG-04DCM-1S	149,3:1	95 (25X14)	F-16, (F-20), F-25	Ø90	90	F-25, (F-20), F-16	9600	7081	95
* SBWG-05DCM-1S	160:1	115 (32X18)	(F-20), F-25, F-30	Ø110	145	F-30, F-25, (F-20)	14400	10621	124
* SBWG-55DCM-1S	165:1	125 (32X18)	F-25, F-30	Ø140	145	F-30, F-25, (F-20)	21150	15599	173
* SBWG-06DCM-1S	232:1	140 (36X20)	F-25, F-30, F-35	Ø160	150	F-35, F-30, F-25	29520	21773	260
* SBWG-07DCM-1S	247:1	180 (45X25)	F-30, F-35, F-40	Ø180	180	F-40, F-35, F-30, F-25	45000	33190	375
* SBWG-75DCM-1S	290:1	210 (50X28)	F-35, F-40, F-48	Ø240	250	F-48, F-40, F-35	73350	54100	586
* SBWG-08DCM-1S	290:1	250 (56X32)	F-40, F-48	Ø250	280	F-48, F-40, F-35	108900	80321	709
* SBWG-09DCM-1S	286:1	280 (63X32)	F-48, F-60	Ø260	300	F-60, F-48	178000	131286	1110
* SBWG-10DCM-1S	277:1	320 (70X36)	F-60	Ø320	340	F-60	253000	186600	1782

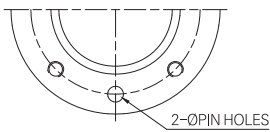
Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

# DECLUTCH GEAR Pneumatic Actuator

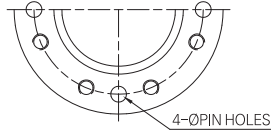
## Horizontal Input with Double Reduction Gear Attachment



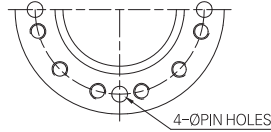
• Pin hole size is same as tap out diameter



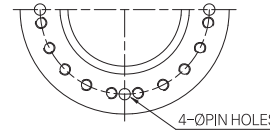
TYPE - A



TYPE - B



TYPE - C



TYPE - D

## Dimension >>>

UNIT : mm

DIM MODEL	TYPE	BASE PART FLANGE	BASE PART				EXTERNAL PART							INPUT SHAFT PART			HAND WHEEL	
			ØD1	P.C.D		ØD3	H	H1	H2	K1	K2	K4	L	L1	L2	ØPD		KEY
				ØD2	N-H-DP													
*SBWG-00DCM-2SD	A	F-12	85	125	4-M12-18	165	2	69,5	210	43	70	149,5	154	261	29	21	6X6	300
*SBWG-01DCM-2SD		F-14	100	140	4-M16-24	190		87	235,5	53	80	174	163	270				
*SBWG-02DCM-2SD		F-16	130	165	4-M20-30	220		95,5	282	58	90	191,5	184	288,5				
*SBWG-03DCM-2SD	B	F-16 (F-20)	160	205	8-M16-24	250	3	109	312	61	100	206	194	298,5	29	21	6X6	400
*SBWG-35DCM-2SD		F-25	200	254	8-M16-24	300		127,5	339,5	72	110	225	210	316,5				
*SBWG-04DCM-2SD		F-25	200	254	8-M16-24	300		147	417,5	73	120	242	247	352,5				
*SBWG-05DCM-2SD		F-30	230	298	8-M20-30	350		174	469,5	78	130	247,5	257	362,5				
*SBWG-55DCM-2SD		F-30	230	298	8-M20-30	350		196	516,5	80	170	256	277	382,5				
*SBWG-06DCM-2SD		F-35	260	356	8-M30-45	415		222	621	109	190	302	316	509				
*SBWG-07DCM-2SD		F-40	300	406	8-M36-55	475		272,5	723	116	200	349	350,5	524				
*SBWG-75DCM-2SD	C	F-48	370	483	12-M36-55	560	5	313	860	120	210	430	389,5	640	44	38	12X8	800
*SBWG-08DCM-2SD						560		366	968	125	220	439	424,5	676				900
*SBWG-09DCM-2SD	D	F-60	470	603	20-M36-55	700	5	435,5	1107,5	138	230	467	465	716	44	38	12X8	900
*SBWG-10DCM-2SD						800		498	1191	352	240	562	550	860				58

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.

## Feature >>>

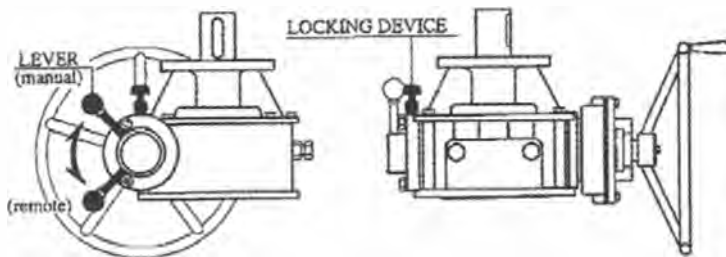
- All mounting bases conform to ISO 5210/1 standards.
- All castings are ductile iron, Class 65-45-12 excellent strength and impact resistance.
- Worm gear material is available in two option.
  - Ductile iron, Class 80-55-06
  - Aluminum bronze, B148-C95800
- Worm is 1045 heat treated Carbon steel.
- Removable splined bushing to permit accurate positioning between gear drive and valve stem.
- Options include hand wheels, chain and etc.

## Bushing Type

Splines permit accurate alignment of valve stem key.



## Manual Override Operation >>>



1. Pull up on locking device knob.
  2. Rotate lever to "Manual" position.
  3. Handwheel can now be operated.
- Note : pneumatic actuator is now fully disengaged.
4. The lever must be placed back in "Remote" position for pneumatic operation.

- Somewhere it should be noted that these units have been specifically developed for use with pneumatic and Hydraulic Actuators providing a positive mechanical means of manual operation.

## CAUTION

- Operate to check the position of manual and remote.
- When convert "manual" position, control the position of worm shaft and then operate to accord with worm gear.

## Selection Chart for Manual Operation >>>

MODEL	SIZE	MAX. GEAR RATIO (Changeable)	MAX. STEM ACCEPTANCE	BASE MOUNTING OPTION & STANDARD	PNEUMATIC PART			MAX. TORQUE CAPACITY		WEIGHT
					ØD	H3	MOUNTING OPTION	N-m	Ft. lbf	Kg
*SBWG-010CM-2SD		266:1	36 (10X8)	F-10, F-12	Ø45	60	F-12, F-10	980	723	16
*SBWG-010CM-2SD		298:1	46 (14X9)	F-10, F-12, F-14	Ø55	75	F-14, F-12, F-10	1600	1180	24
*SBWG-020CM-2SD		429:1	60 (18X11)	F-12, F-14, F-16	Ø65	90	F-16, F-14, F-12	2500	1844	36
*SBWG-030CM-2SD		467:1	75 (20X12)	F-14, F-16, (F-20)	Ø70	90	F-16, F-14, F-12	3800	2803	51
*SBWG-030CM-2SD		471:1	80 (22X14)	F-16, (F-20), F-25	Ø80	90	F-25, (F-20), F-16, F-14	5600	4130	70
*SBWG-040CM-2SD		958:1	95 (25X14)	F-16, (F-20), F-25	Ø90	90	F-25, (F-20), F-16	9600	7081	101
*SBWG-060CM-2SD		1026:1	115 (32X18)	(F-20), F-25, F-30	Ø110	145	F-30, F-25, (F-20)	14400	10621	130
*SBWG-060CM-2SD		1061:1	125 (32X18)	F-25, F-30	Ø140	145	F-30, F-25, (F-20)	21150	15599	179
*SBWG-060CM-2SD		2088:1	140 (36X20)	F-25, F-30, F-35	Ø160	150	F-35, F-30, F-25	29520	21773	275
*SBWG-070CM-2SD		2218:1	180 (45X25)	F-30, F-35, F-40	Ø180	180	F-40, F-35, F-30, F-25	45000	33190	390
*SBWG-070CM-2SD		4645:1	210 (50X28)	F-35, F-40, F-48	Ø240	250	F-48, F-40, F-35	73350	54100	627
*SBWG-080CM-2SD		4645:1	250 (56X32)	F-40, F-48	Ø250	280	F-48, F-40, F-35	108900	80321	750
*SBWG-080CM-2SD		4574:1	280 (63X32)	F-48, F-60	Ø260	300	F-60, F-48	178000	131286	1152
*SBWG-100CM-2SD		6929.4:1	320 (70X36)	F-60	Ø320	340	F-60	253000	186600	2164

Size and component specification in this catalogue are subject to change without prior notice for quality improvement.  
\* Mark has been changed and updated.