

# bj·gear



## Stainless helical bevel gearboxes

High efficiency in hygienic design

Customisation is our standard

## Stainless steel helical bevel gearbox

BJ-Gear A/S manufactures stainless steel gearboxes of superior quality. The gearboxes are specifically developed for the food industry and other industries, that continuously make heavier demands to the resistance of material and to a design that is easy-to-clean.

The gearboxes are designed with a smooth, stainless steel gear housing and hollow shaft. The gearboxes are lubricated for life and can be supplied with a lubricant approved for the food industry. The oil sealings are made of nitrile rubber.

In order to reduce the risk of bacteria growth, the design is characterised by smooth surfaces without unnecessary flanges, recesses and mounting holes.

When a completely sanitary gear motor is required, the stainless steel worm gearbox can be fitted with a stainless AC motor or a servo motor.

## Type designation

We believe, that an unambiguous type designation of our stainless steel helical bevel gearboxes eases the communication. Throughout this brochure the position of each item in the type designation will therefore be shown.

The first number (5) indicates that it is a helical bevel gearbox.

**Stainless steel housing (EN 1.4301/AISI 304)**

**Motor flange D-side**

**Deep groove ball bearings**

**Oil sealing**

**Hollow shaft**

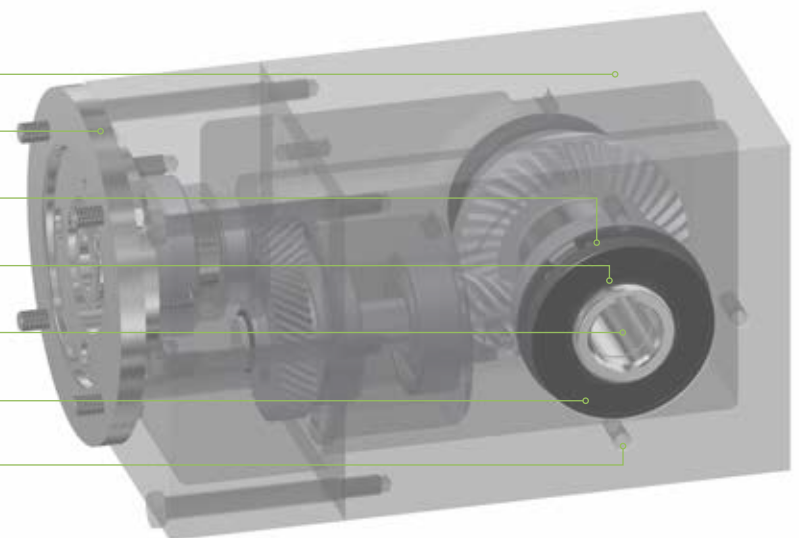
**Dust lip oil sealing**

**Mounting holes**

## Features and advantages of helical bevel gearboxes:

- Reliable performance
- Compact hygienic design
- Quiet, reliable and efficient operation
- High quality
- Can be equipped with AC, DC or servo motors, encoders and brakes
- Custom design




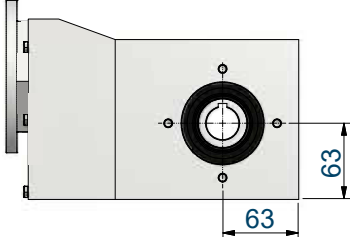
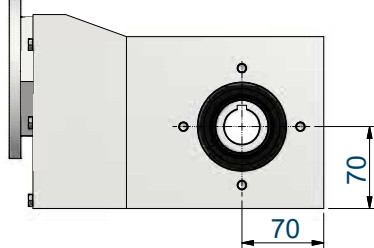
5 22 03 11 51 12 02 01 4 B3



## Gearbox sizes

5 22 03 11 51 12 02 01 4 B3

The stainless steel helical bevel gearboxes are made in three sizes. 22 indicates the size

SX22 50 Nm Ratio: 4,83-70,24	SX32 90 Nm Ratio: 7,33-77,55	SX42 150 Nm Ratio: 7,29-77,36
		
22	32	42
SX33 100 Nm Ratio: 36,17-324,18	SX43 160 Nm Ratio: 50,35-323,37	
		
33	43	

## Service factor

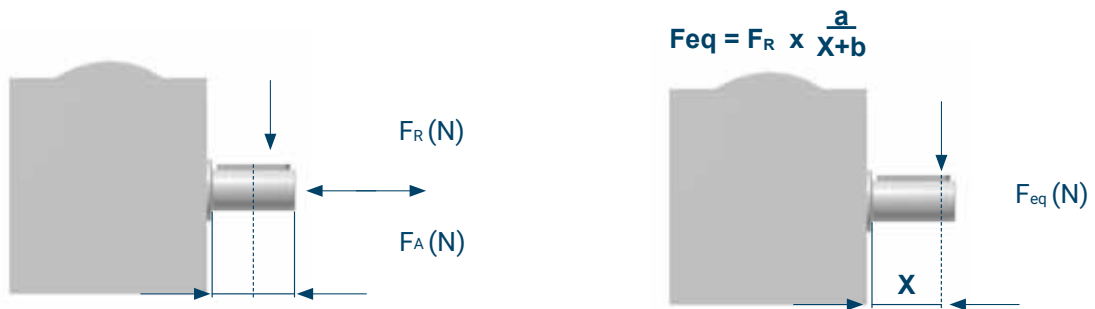
Type of load and starts per hour			Operation hours per day		
			3 hours	10 hours	24 hours
Continuous or intermittent application with start/hour	≤ 10	Uniform	0,8	1,00	1,25
		Moderate	1,00	1,25	1,50
		Heavy	1,25	1,50	1,75
Intermittent application with start/hour	> 10	Uniform	1,00	1,25	1,50
		Moderate	1,25	1,50	1,75
		Heavy	1,50	1,75	2,15

The operating conditions are of importance to the durability of the gearbox. The gearbox should therefore be dimensioned according to the service factors.

Please note that the values apply for operation with an AC standard motor.

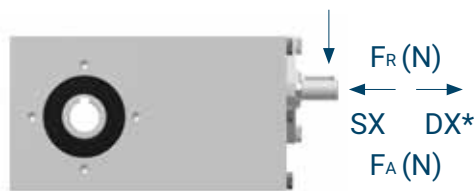
## Radial and axial loads for output shaft

Type	$n^2$ [min <sup>-1</sup> ]	$F_A$	$F_R$	Type	$n^2$ [min <sup>-1</sup> ]	$F_A$	$F_R$ Ø20	$F_R$ Ø25	Type	$n^2$ [min <sup>-1</sup> ]	$F_A$	$F_R$
SX22 a=40,5 b=20,5	400	360	1800	SX32 / SX33 Ø20 a=46 b=26  Ø25 a=56 b=26	250	400	2000	1650	SX42 / SX43 a=55.5 b=25.5	250	500	2450
	250	380	1900		150	450	2250	1850		150	600	2900
	150	420	2100		100	500	2500	2050		100	700	3400
	100	440	2200		75	560	2800	2300		75	800	3900
	75	440	2200		50	560	2800	2300		50	960	4700
	50	440	2200		25	560	2800	2300		25	960	4700
	25	440	2200		15	560	2800	2300		15	960	4700
	15	440	2200									



## Radial and axial loads for input shaft

$n^1$ [min <sup>-1</sup> ]		$F_A$	$F_R$		$F_A$	$F_R$		$F_A$	$F_R$
1400	SX22	140	700	SX32 / SX33	240	1200	SX42 / SX43	240	1200
900		160	800		280	1400		280	1400
500		190	950		340	1700		340	1700



\* Strong axial loads in the DX direction are not allowed.

# Tables of effect

## Service factor

- By normal use: Include the service factor on page 3 and choose a service factor >1.
- In case of special requirements to safety or other special conditions, please contact BJ-Gear A/S for further information.

Motor		SX22 helical bevel gearboxes						
	Power	Gear ratio	Output torque	Output speed	Service factor	Nominal power	Nominal torque	Ratio code
[rpm]	P <sub>1M</sub> [kW]	i	M <sub>2M</sub> [Nm]	n <sub>2</sub> [min <sup>-1</sup> ]		P <sub>1R</sub> [kW]	M <sub>2R</sub> [Nm]	
1400	0,37	4,83	12	290	2,6	0,95	30	01
	0,37	7,40	18	189	1,7	0,62	30	02
	0,37	9,58	23	146	1,7	0,64	40	03
	0,37	10,98	27	128	1,7	0,63	45	04
	0,37	13,07	32	107	1,4	0,53	45	05
	0,37	14,66	35	95	1,3	0,47	45	06
	0,37	15,79	38	89	1,2	0,44	45	07
	0,37	16,81	41	83	1,1	0,41	45	08
	0,37	20,00	48	70	1,0	0,37	48	09
	0,37	21,93	53	64	0,9	0,35	50	10
	0,25	24,18	39	58	1,3	0,32	50	11
	0,25	29,04	47	48,2	1,1	0,26	50	12
	0,18	33,57	42	41,7	1,2	0,23	50	13
	0,18	38,67	48	36,2	1,0	0,20	50	14
	0,18	44,44	55	31,5	0,9	0,17	50	15
	0,12	59,18	48	23,7	1,0	0,13	50	16
	0,09	70,24	45	19,9	1,1	0,11	50	17

\*The dynamic efficiency is 0,96 for all ratios. The values are for gearboxes that are run in and heated for operation.

Motor		SX32 helical bevel gearboxes						
	Power	Gear ratio	Output torque	Output speed	Service factor	Nominal power	Nominal torque	Ratio code
[rpm]	P <sub>1M</sub> [kW]	i	M <sub>2M</sub> [Nm]	n <sub>2</sub> [min <sup>-1</sup> ]		P <sub>1R</sub> [kW]	M <sub>2R</sub> [Nm]	
1400	1,5	7,33	72	191	1,0	1,5	70	01
	1,1	11,22	80	125	1,1	1,2	85	02
	1,1	13,26	95	106	0,9	0,98	85	03
	1,1	15,37	110	91	0,8	0,89	90	04
	0,75	18,04	89	78	1,0	0,76	90	05
	0,75	20,30	100	69	0,9	0,68	90	06
	0,75	21,54	106	65	0,9	0,64	90	07
	0,55	23,53	85	59	1,1	0,58	90	08
	0,55	27,62	100	51	0,9	0,50	90	09
	0,55	29,40	106	47,6	0,8	0,47	90	10
	0,37	32,97	80	42,5	1,1	0,42	90	11
	0,37	38,37	93	36,5	1,0	0,36	90	12
	0,25	45,00	73	31,1	1,2	0,31	90	13
	0,25	50,67	83	27,6	1,1	0,27	90	14
	0,18 *)	58,73	73	23,8	1,2	0,23	90	15
	0,18 *)	77,55	97	18,1	0,9	0,18	90	16

\*The dynamic efficiency is 0,96 for all ratios. The values are for gearboxes that are run in and heated for operation.

\*Only as B5 or with coupling housing.

# Tables of effect




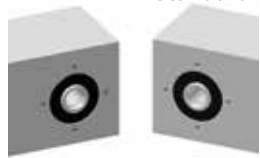



Motor		SX42 helical bevel gearboxes						
	Power	Gear ratio	Output torque	Output speed	Service factor	Nominal power	Nominal torque	Ratio code
[rpm]	$P_{1M}$ [kW]	$i$	$M_{2M}$ [Nm]	$n_2$ [min <sup>-1</sup> ]		$P_{1R}$ [kW]	$M_{2R}$ [Nm]	
1400	2,2 *)	7,29 *)	104	192	0,9	2,0	95	01
	2,2 *)	11,20 *)	159	125	0,9	2,0	150	02
	1,5	13,18	129	106	1,2	1,7	150	03
	1,1	15,27	109	92	1,4	1,5	150	04
	1,1	17,93	128	78	1,2	1,3	150	05
	1,1	20,25	145	69	1,0	1,1	150	06
	1,1	2140	153	65	1,0	1,1	150	07
	0,75	23,47	115	60	1,3	0,98	150	08
	0,75	27,55	135	51	1,1	0,83	150	09
	0,75	29,21	143	47,9	1,0	0,78	150	10
	0,75	32,88	161	42,6	0,9	0,70	150	11
	0,55	38,12	138	36,7	1,1	0,60	150	12
	0,55	44,89	163	31,2	0,9	0,51	150	13
	0,37	50,34	122	27,8	1,1	0,40	131	14
	0,37	58,58	142	23,9	1,1	0,39	150	15
0,25	77,36	126	18,1	1,2	0,30	150	16	

\*IEC 100-112 only possible on these two ratios.

\*The dynamic efficiency is 0,96 for all ratios. The values are for gearboxes that are run in and heated for operation.

## Threads in the housing

- 5
- 22
- 03
- 11
- 51
- 12
- 02
- 01
- 4
- B3

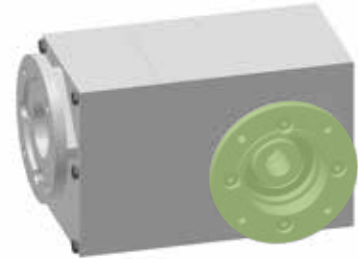
	Housing with no threads	Housing with threads on the right side	Housing with threads on the left side	Housing with threads on both sides
Series 22, 32 and 42				 Standard
	00	01	02	03
	Housing with threads in the bottom	Housing with threads on the top	Housing with threads on the back	
				
	04	05	06	

## Output flange

5 22 03 11 51 12 02 01 4 B3

BJ-Gear A/S supplies output flanges in different sizes depending on the size of the helical bevel gearbox.

	No output flange	SX22				SX32 / SX33				SX42 / SX43					
Sizes (BCD)		87		100		100		130		130		165		215	
	0	R	L	R	L	R	L	R	L	R	L	R	L	R	L
		11	21	12	22	12	22	14	24	14	24	16	26	17	27



## Output shaft

5 22 03 11 51 12 02 01 4 B3

Free shaft Ø20 x 40 SX2x and SX3x		Free shaft Ø25 x 60 SX3x and SX4x		Double free shaft Ø20 x 40 SX2x and SX3x	
Right: 10	Left: 20	Right: 15	Left: 25	30	
Hollow shaft Ø18 SX2x		Hollow shaft Ø20 SX2x and SX3x		Hollow shaft Ø25 SX3x and SX4x	
57		51		53	
Hollow shaft shrink disc Ø20 SX2x and SX3x		Hollow shaft shrink disc Ø25 SX3x		Hollow shaft Ø30 SX4x	
Right: 72	Left: 71	Right: 76	Left: 75	54	

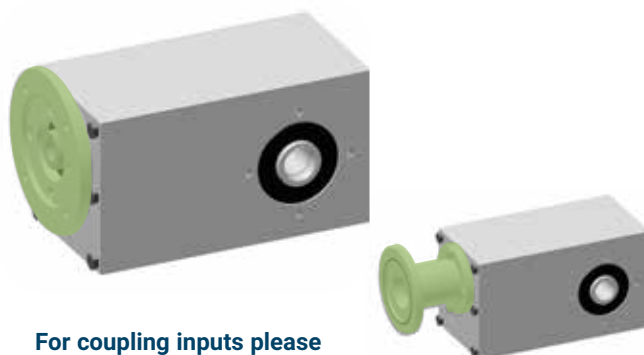
BJ-Gear A/S supplies different sizes of output shafts.

If the required dimension is not mentioned, please feel free to contact us for further information.

## D-side

5 22 03 11 51 12 02 01 4 B3

IEC norm (B14)	Motor flange [BCD]	SX22	SX32 / SX33	SX42 / SX43
No flange		00	00	00
56	65	10	-	-
63	75	11	-	-
71	85	12	12	12
80	100	-	13	13
90	115	-	14	14
100	130	-	-	15



For coupling inputs please ask our Sales Department.

## Choice of Input shaft

5 22 03 11 51 12 02 01 4 B3

	SX22	SX32 / SX33	SX42 / SX43
Ø9	00	-	-
Ø11	01	-	-
Ø14	02	02	02
Ø19	-	03	03
Ø24	-	04	04
Ø28	-	-	05
Free input Ø14	40	-	-
Free input Ø19	-	40	40



## Gearing

5 22 03 11 51 12 02 01 4 B3

	SX22	SX32 / SX33	SX42 / SX43
Ratio code	Gear ratio $i$	Gear ratio $i$	Gear ratio $i$
01	4,83	7,33	7,29
02	7,40	11,22	11,20
03	9,58	13,26	13,18
04	10,98	15,37	15,27
05	13,07	18,04	17,93
06	14,66	20,30	20,25
07	15,79	21,54	21,40
08	16,81	23,53	23,47
09	20,00	27,62	27,55
10	21,93	29,40	29,21
11	24,18	32,97	32,88
12	29,04	38,37	38,12
13	33,57	45,00	44,89
14	38,67	50,67	50,34
15	44,44	58,73	58,58
16	59,18	77,55	77,36
17	70,24		



## Oil and lubricants

5 22 03 11 51 12 02 01 4 B3

	Description	Application	Viscosity	Lubricant
0	Fully synthetic gear oil, standard	Normal load and ambient temp. -25°C to +40°C	220	Klübersynth GH 6 - 220
1	Fully synthetic gear oil	Heavy load and ambient temp. -20°C to >+40°C	460	Klübersynth GH 6 - 460
2	Fully synthetic gear oil	Heavy load and ambient temp. -20°C to >+40°C	680	Klübersynth GH 6 - 680
3	Liquid grease	Normal load and ambient temp. -40°C to >+40°C	1200	Klübersynth GE 46 - 1200
4	Special lubricating oil for food and pharmaceutical industries	Normal load and ambient temp. -20°C to +40°C	460	Klübersynth UH1 6 - 460

Ambient temperatures are guide values which depend on the lubricant's composition, the intended use and the application method.








All data is based on synthetic oil. Do not mix synthetic oil with mineral oil.

## Oil and lubricants quantities

Series 22	Series 32	Series 42	Series 33	Series 43
0,39 litres	1,16 litres	1,22 litres	1,36 litres	1,42 litres

## Mounting position

5 22 03 11 51 12 02 01 4 B3

Mounting position				
	B3	B6	B7	B8
Mounting position				
	V5	V6	V8	



## Accessories

We can supply our helical bevel gearboxes with a wide range of accessories if needed. Below you will find our stainless steel brake, encoder and motor. If you have any questions please do not hesitate to contact our Sales Department for further assistance.

### Brake, module system

The brake meets the strict requirements for products to be used directly in a process line. The brake is designed to be mounted between a flanged motor and a gearbox, and is available in three sizes with torques from 5-20 Nm.



### Stainless steel motors

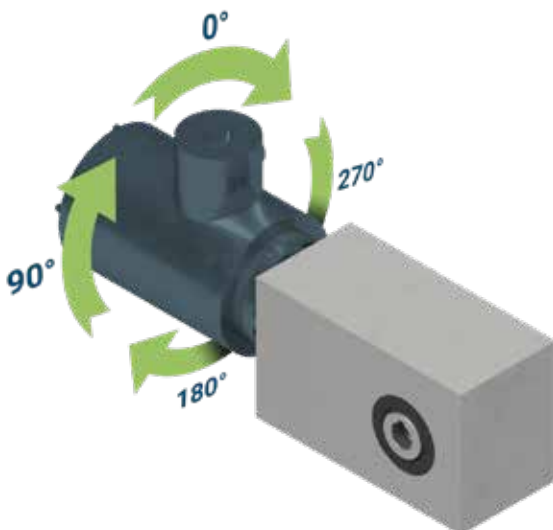
The stainless steel AC motors are of acid-resistant steel and in protection classes from IP66 to IP69K. They are available as TENV (Totally Enclosed Non-Ventilated) up to effects of 1.10 kW or as TEFV (Totally Enclosed Fan Cooled). The motors are equipped with thermistors as standard. The completely smooth surface makes them ideal for use within the food industry or where an easy-to-clean design is important.

### Encoder

The incremental encoders make it easy to perform highly accurate positioning tasks and they are compatible with almost all controls. They have an exceptional resolution with an A90°B/Ä90°B output signal with up to 2048 impulses per rotation.



### Terminal box position

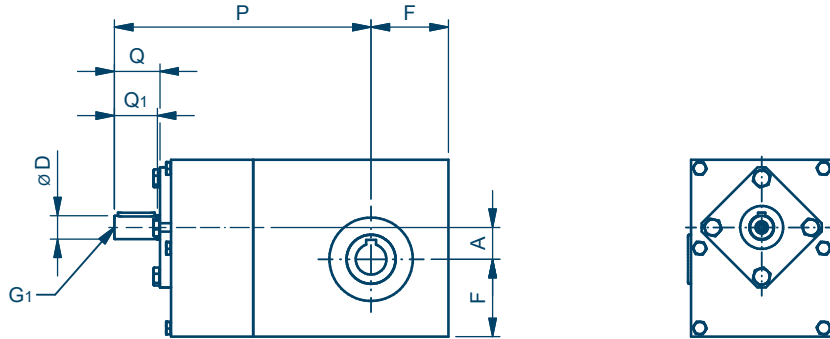


No terminal box	0°	90°	180°	270°
x	0	3	6	9



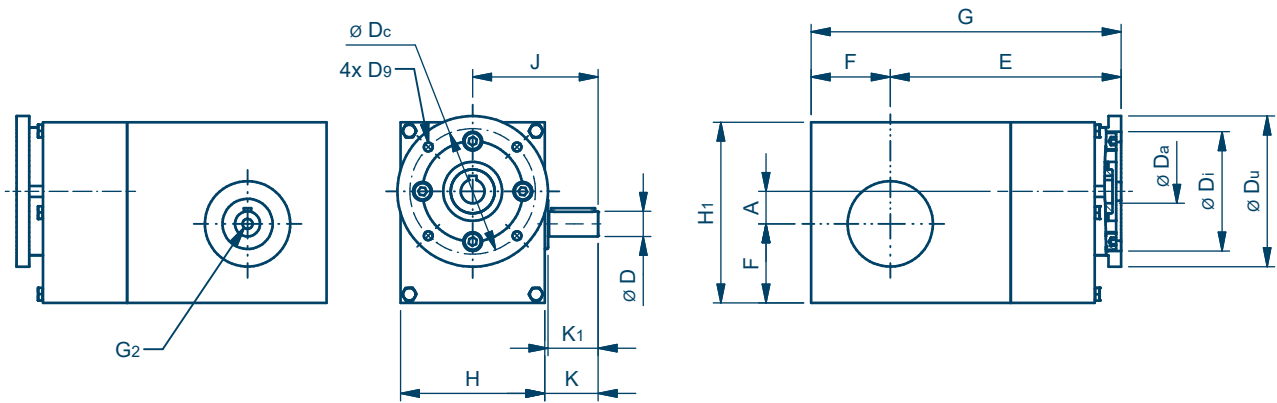
# Dimensional drawings

# SX22 / SX32 / SX42



## Free input shaft

Gear size	A	ØD (k6)	F	G <sub>1</sub>	P	Q	Q <sub>1</sub>
SX22	18	14	50	M5x13	170,6	28,6	25
SX32	25,9	19	63	M6x20	209,1	37,1	35
SX42	21,8	19	70	M6x20	224,6	37,1	35



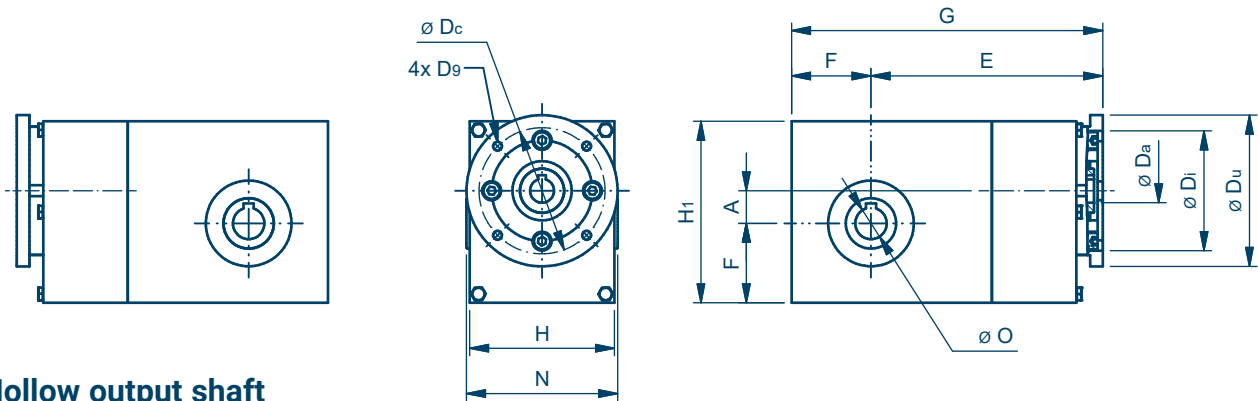
## Free output shaft

Gear size	A	"Motor size"	"Flange B14 size ØDc"	ØDu	"ØDi (F6)"	ØDa	D9	E	F	G	G2	H	H1	"ØD (k6)"	J	K	K1			
SX22	18	56	65	80	50	9	6 (1)	152	50	202	M8x20	95	104	20	90	42,5	40			
		63	75	90	60	11	6 (1)	154,5		204,5										
		71	85	105	70	14	6,3 (2)	152		202										
SX32	25,9	71	85	105	70	14	7 (3)	182	63	245	M8x20	115	144	20	100	42,5	40			
		80	100	120	80	19	7 (3)	184		247				25				120	62,5	60
		90	115	140	95	24	9 (4)	184		247										
SX42	21,8	71	85	105	70	14	7 (3)	197,5	70	267,5	M8x20	115	147	25	120	62,5	60			
		80	100	120	80	19	7 (3)	199,5		269,5										
		90	115	140	95	24	9 (4)	199,5		269,5										
		100/112	130	160	110	28	9 (5)	214,3		284,3										



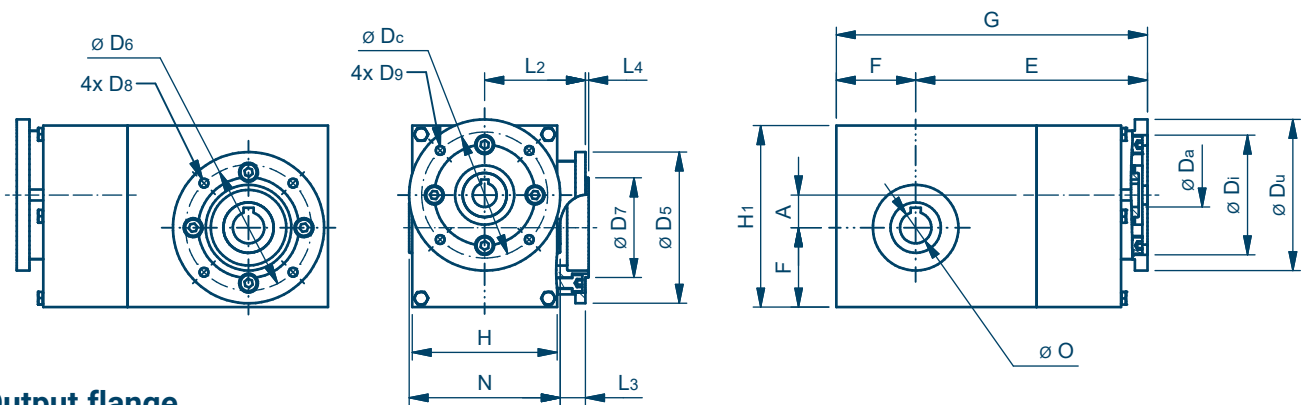
# Dimensional drawings

# SX22 / SX32 / SX42



## Hollow output shaft

Gear size	A	Motor size	Flange B14 size ØDc	ØD <sub>u</sub>	ØD <sub>i</sub> (F6)	ØD <sub>a</sub>	D <sub>9</sub>	E	F	G	H	H <sub>1</sub>	N	ØO H8
SX22	18	56	65	80	50	9	6 <sup>(1)</sup>	152	50	202	95	104	100	18 20
		63	75	90	60	11	6 <sup>(1)</sup>	154,5		204,5				
		71	85	105	70	14	6,3 <sup>(2)</sup>	152		202				
SX32	25,9	71	85	105	70	14	7 <sup>(3)</sup>	182	63	245	115	144	120	20 25
		80	100	120	80	19	7 <sup>(3)</sup>	184		247				
		90	115	140	95	24	9 <sup>(4)</sup>	184		247				
SX42	21,8	71	85	105	70	14	7 <sup>(3)</sup>	197,5	70	267,5	115	147	120	25 30
		80	100	120	80	19	7 <sup>(3)</sup>	199,5		269,5				
		90	115	140	95	24	9 <sup>(4)</sup>	199,5		269,5				
		100/112	130	160	110	28	9 <sup>(5)</sup>	214,3		284,3				

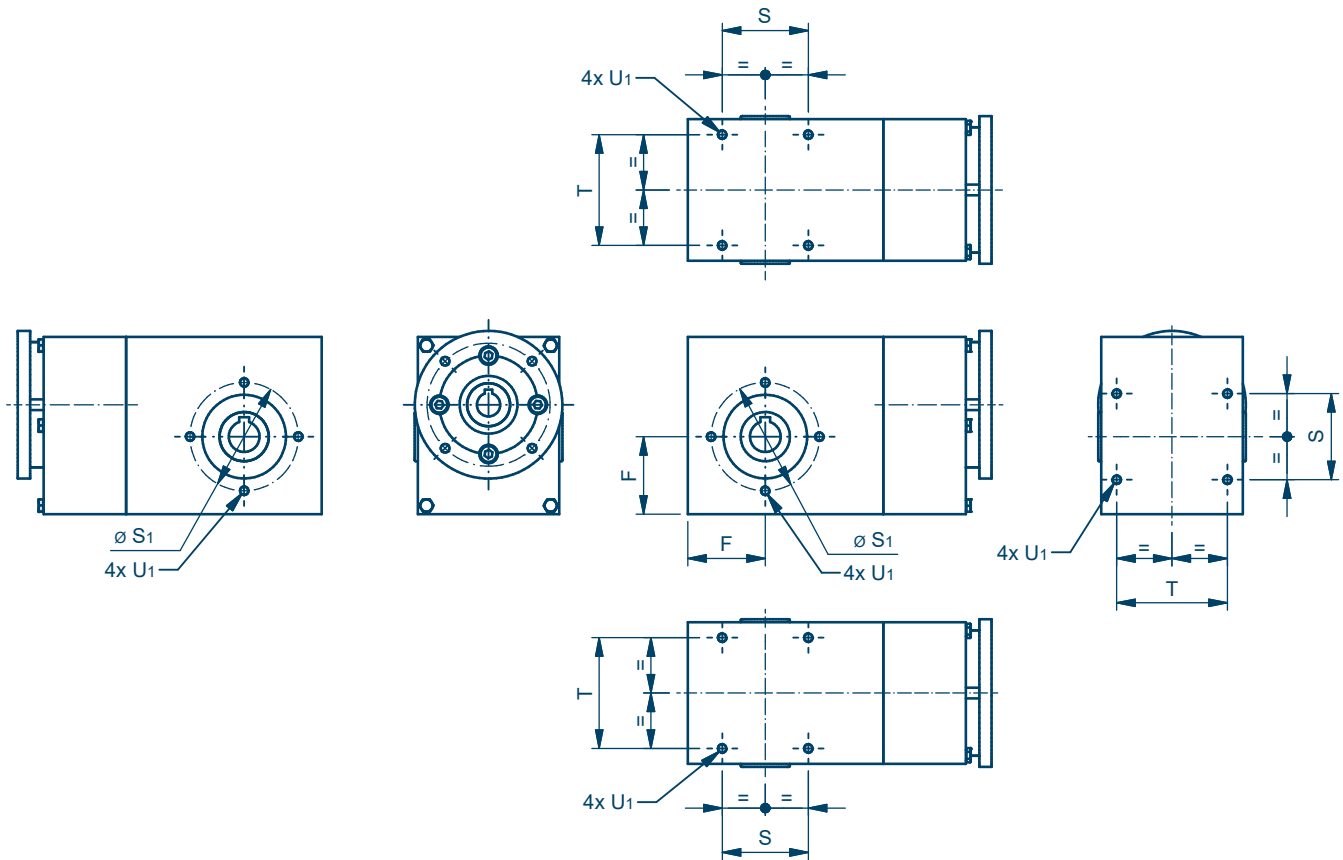


## Output flange

Gear size	A	Motor size	Flange B14 size ØDc	ØD <sub>u</sub>	ØD <sub>i</sub> (F6)	ØD <sub>a</sub>	D <sub>9</sub>	E	F	G	H	H <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	ØD <sub>5</sub>	ØD <sub>6</sub>	ØD <sub>7</sub> (h6)	D <sub>8</sub>	N	ØO (H8)
SX22	18	56	65	80	50	9	6 <sup>(1)</sup>	152	50	202	95	104	80	30	4	110	87	60 H7	9	100	18 20
		63	75	90	60	11	6 <sup>(1)</sup>	154,5		204,5			80	30	2,5	120	100	80	7		
		71	85	105	70	14	6,3 <sup>(2)</sup>	152		202			80	30	2,5	120	100	80	7		
SX32	25,9	71	85	105	70	14	7 <sup>(3)</sup>	182	63	245	115	144	80	20	2,5	120	100	80	7	120	20 25
		80	100	120	80	19	7 <sup>(3)</sup>	184		247			80	20	2,5	160	130	110	9		
		90	115	140	95	24	9 <sup>(4)</sup>	184		247			80	20	2,5	160	130	110	9		
SX42	21,8	71	85	105	70	14	7 <sup>(3)</sup>	197,5	70	267,5	115	147	86,5	26,5	3	160	130	110	9	120	25 30
		80	100	120	80	19	7 <sup>(3)</sup>	199,5		269,5			86,5	26,5	3,5	200	165	130	11		
		90	115	140	95	24	9 <sup>(4)</sup>	199,5		269,5			86,5	26,5	4	250	215	180	11		
		100/112	130	160	110	28	9 <sup>(5)</sup>	214,3		284,3			86,5	26,5	4	250	215	180	11		

# Dimensional drawings

# SX22 / SX32 / SX42



## Mounting holes

Gear size	F	S	ØS <sub>1</sub>	T	U <sub>1</sub>
SX22	50	60	70	75	M6x13
SX32	63	70	88	90	M8x15
SX42	70	100	100	75	M8x15





# Tables of effect

## Service factor

- By normal use: Include the service factor on page 3 and choose a service factor >1.
- In case of special requirements to safety or other special conditions, please contact BJ-Gear A/S for further information.

Motor		SX33 helical bevel gearboxes						
	Power	Gear ratio	Output torque	Output speed	Service factor	Nominal power	Nominal torque	Ratio code
[rpm]	$P_{1M}$ [kW]	i	$M_{2M}$ [Nm]	$n_2$ [min <sup>-1</sup> ]		$P_{1R}$ [kW]	$M_{2R}$ [Nm]	
1400	0,37	36,17	86	38,7	1,2	0,43	100	20
	0,37	44,21	105	31,7	1,0	0,35	100	21
	0,25	50,68	81	27,6	1,2	0,31	100	22
	0,25	55,36	89	25,3	1,1	0,28	100	23
	0,25	60,31	96	23,2	1,0	0,26	100	24
	0,25	65,88	105	21,2	0,9	0,24	100	25
	0,18	72,25	88	19,4	1,1	0,22	100	26
	0,18	79,64	97	17,6	1,0	0,20	100	27
	0,18	92,31	113	15,2	0,9	0,17	100	28
	0,18	95,65	117	14,6	0,9	0,16	100	29
	0,12	101,23	80	13,8	1,2	0,15	100	30
	0,12	127,37	101	11,0	1,0	0,12	100	31
	0,09	151,16	95	9,3	1,0	0,10	100	32
	0,09	178,46	113	7,8	0,9	0,09	100	33
	0,06	211,79	88	6,6	1,1	0,07	100	34
	0,06	231,37	96	6,1	1,0	0,07	100	35
0,06	273,16	113	5,1	0,9	0,06	100	36	
0,06	324,18	134	4,3	0,7	0,05	100	37	

\*The dynamic efficiency is 0,94 for all ratios. The values are for gearboxes that are run in and heated for operation.

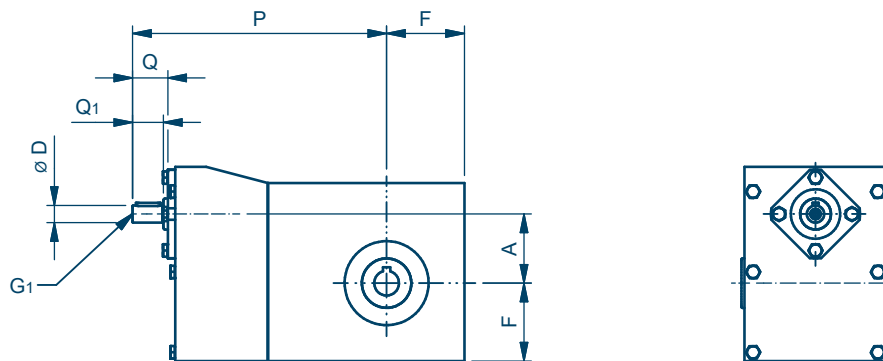
Motor		SX43 helical bevel gearboxes						
	Power	Gear ratio	Output torque	Output speed	Service factor	Nominal power	Nominal torque	Ratio code
[rpm]	$P_{1M}$ [kW]	i	$M_{2M}$ [Nm]	$n_2$ [min <sup>-1</sup> ]		$P_{1R}$ [kW]	$M_{2R}$ [Nm]	
1400	0,37	50,35	119	27,8	1,0	0,46	150	20
	0,37	55,22	131	25,4	1,1	0,42	150	21
	0,37	59,92	142	23,4	0,9	0,39	150	22
	0,37	65,72	156	21,3	0,8	0,36	150	23
	0,25	71,78	115	19,5	1,0	0,33	150	24
	0,25	79,44	127	17,6	0,9	0,29	150	25
	0,25	92,08	147	15,2	0,9	0,25	150	26
	0,25	95,03	152	14,7	1,1	0,25	150	27
	0,18	126,55	155	11,1	0,9	0,20	160	28
	0,18	133,15	163	10,5	0,8	0,19	160	29
	0,12	150,18	119	9,3	1,1	0,17	160	30
	0,12	177,30	140	7,9	1,0	0,14	160	31
	0,09	210,42	133	6,7	1,2	0,12	160	32
	0,09	230,79	146	6,1	1,1	0,11	160	33
	0,06	272,47	113	5,1	1,2	0,09	160	34
	0,06	323,37	134	4,3	0,9	0,08	160	35

\*The dynamic efficiency is 0,94 for all ratios. The values are for gearboxes that are run in and heated for operation.



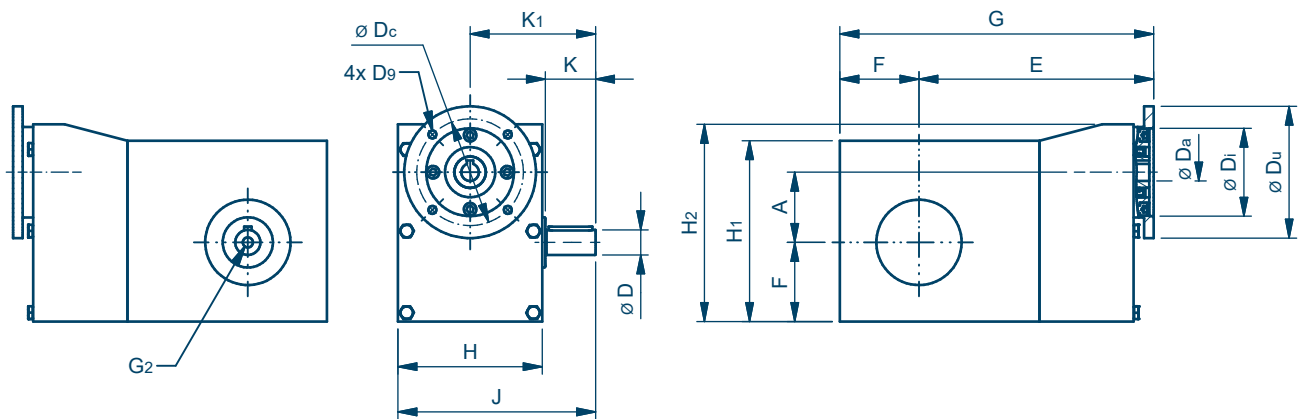
# Dimensional drawings

# SX33 / SX43



## Free input shaft

Gear size	A	ØD (k6)	F	G <sub>1</sub>	P	Q	Q <sub>1</sub>
SX33	55,9	14	63	M5x13	205,6	28,6	25
SX43	51,8	14	70	M5x13	221,1	28,6	25

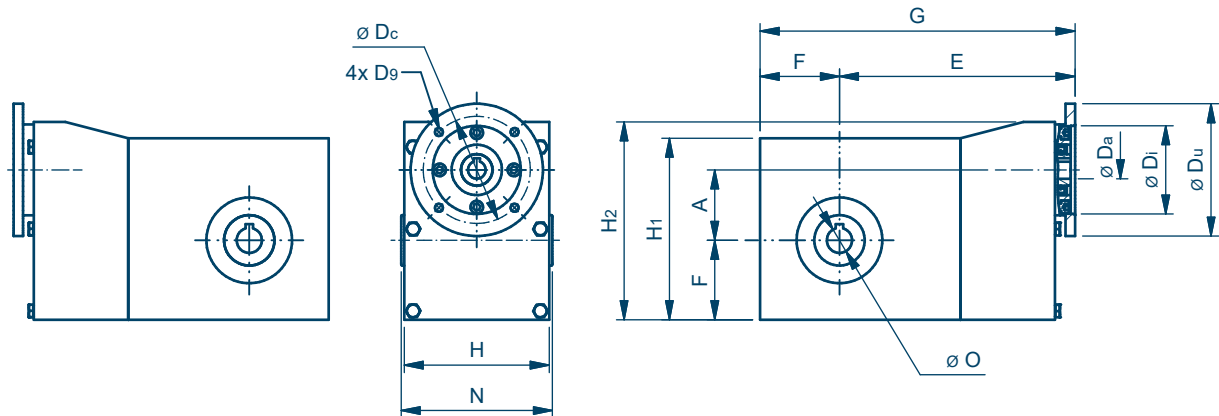


## Free output shaft

Gear size	A	Motor size	Flange B14 size ØD <sub>c</sub>	ØD <sub>u</sub>	ØD <sub>i</sub> (F6)	ØD <sub>a</sub>	D <sub>9</sub>	E	F	G	H	H <sub>1</sub>	H <sub>2</sub>	N	ØO (H8)
SX33	55,9	56	65	80	50	9	6 <sup>(1)</sup>	187	63	250	115	144	157	120	20 25
		63	75	90	60	11	6 <sup>(1)</sup>	189,5		252,5					
		71	85	105	70	14	6,3 <sup>(2)</sup>	187		250					
SX43	51,8	56	65	80	50	9	6 <sup>(1)</sup>	202,5	70	272,5	115	147	160	120	25 30
		63	75	90	60	11	6 <sup>(1)</sup>	205		275					
		71	85	105	70	14	6,3 <sup>(2)</sup>	202,5		272,5					

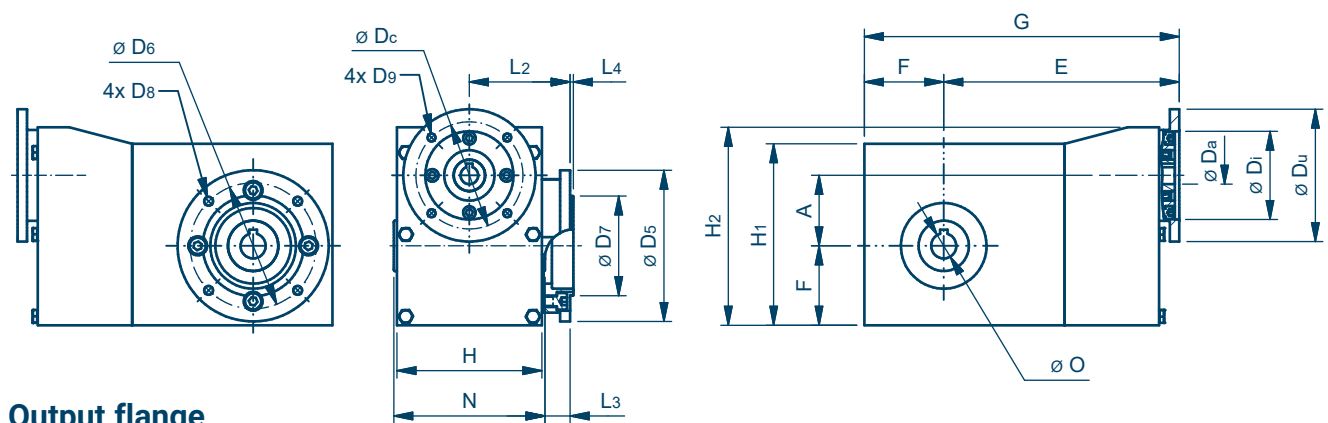
# Dimensional drawings

# SX33 / SX43



## Hollow output shaft

Gear size	A	Motor size	Flange B14 size ØD <sub>c</sub>	ØD <sub>u</sub>	ØD <sub>1</sub> (F6)	ØD <sub>a</sub>	D <sub>9</sub>	E	F	G	G <sub>2</sub>	H	H <sub>1</sub>	H <sub>2</sub>	ØD (k6)	J	K	K <sub>1</sub>
SX33	55,9	56	65	80	50	9	6 <sup>(1)</sup>	187	63	250	M8x20	115	144	157	20	100	72,5	40
		63	75	90	60	11	6 <sup>(1)</sup>	189,5		252,5								
		71	85	105	70	14	6,3 <sup>(2)</sup>	187		250								
SX43	51,8	56	65	80	50	9	6 <sup>(1)</sup>	202,5	70	272,5	M8x20	115	147	160	25	120	62,5	40
		63	75	90	60	11	6 <sup>(1)</sup>	205		275								
		71	85	105	70	14	6,3 <sup>(2)</sup>	202,5		272,5								

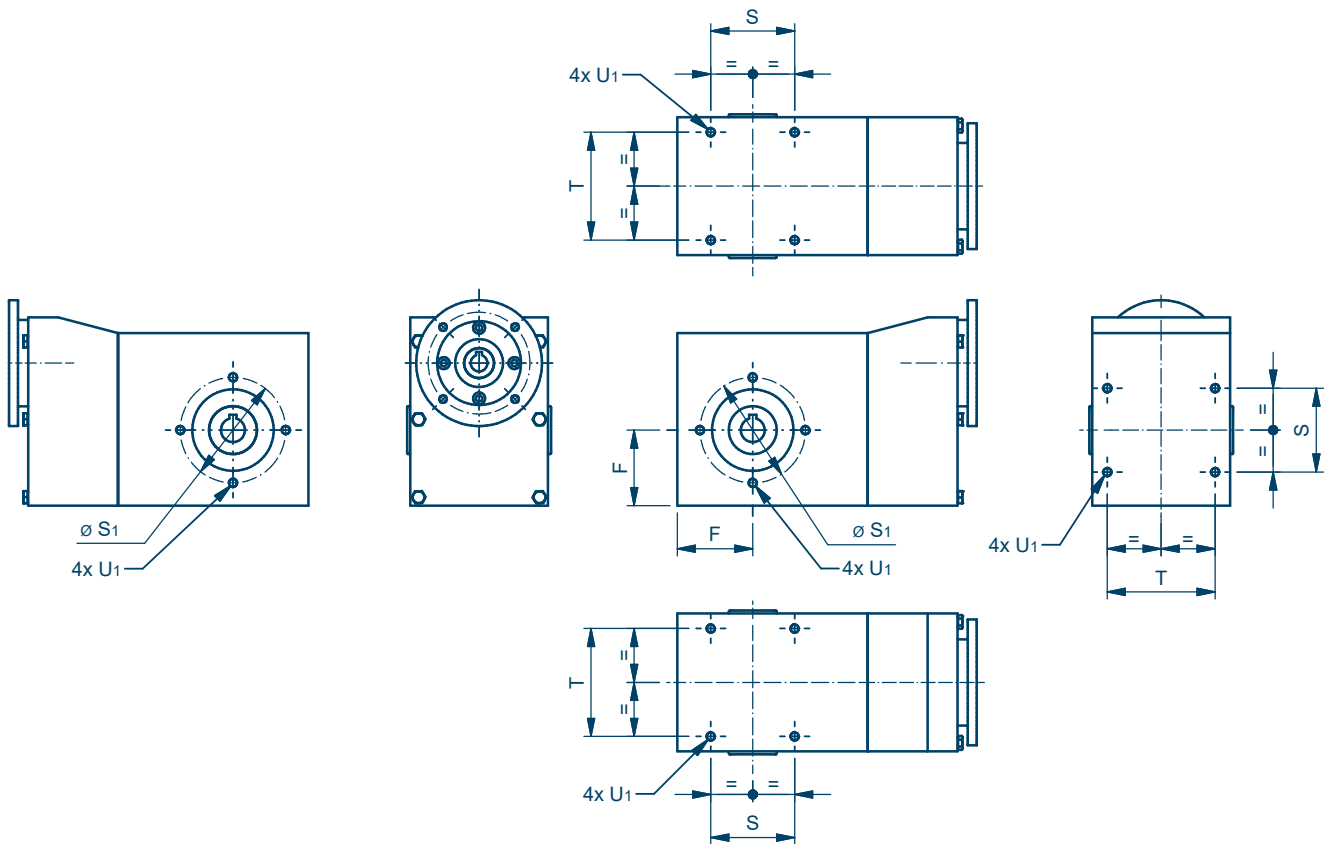


## Output flange

Gear size	A	Motor size	Flange B14 size ØD <sub>c</sub>	ØD <sub>u</sub>	ØD <sub>1</sub> (F6)	ØD <sub>a</sub>	D <sub>9</sub>	E	F	G	H	H <sub>1</sub>	H <sub>2</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	ØD <sub>5</sub>	ØD <sub>6</sub>	ØD <sub>7</sub> (h6)	D <sub>8</sub>	N	ØO (H8)
SX33	55,9	56	65	80	50	9	6 <sup>(1)</sup>	187	63	250	115	144	157	80	20	2,5	120	100	80	7	120	20
		63	75	90	60	11	6 <sup>(1)</sup>	189,5		252,5				80	20	2,5	160	130	110	9		25
		71	85	105	70	14	6,3 <sup>(2)</sup>	187		250				80	20	2,5	160	130	110	9		25
SX43	51,8	56	65	80	50	9	6 <sup>(1)</sup>	202,5	70	272,5	115	147	160	86,5	26,5	3	160	130	110	9	120	25
		63	75	90	60	11	6 <sup>(1)</sup>	205		275				86,5	26,5	3,5	200	165	130	11		30
		71	85	105	70	14	6,3 <sup>(2)</sup>	202,5		272,5				86,5	26,5	4	250	215	180	11		30

# Dimensional drawings

# SX33 / SX43



## Mounting holes

Gear size	F	S	ØS <sub>1</sub>	T	U <sub>1</sub>
SX33	63	70	88	90	M8x15
SX43	70	100	100	75	M8x15

# Stainless steel products

BJ-Gear A/S manufactures a wide range of stainless steel gearboxes, actuators and worm gear screw jacks. The stainless steel products are developed specifically for the food industry and industries where the requirements for material resistance and an easy-to-clean design are continuously stringent. The gearboxes are life lubricated and can be supplied with lubricants approved for the food industry. The products of stainless steel can be customised according to your needs.

## Worm gearboxes

### Features and advantages

- Hygienic design
- Sturdy and reliable
- Compact design
- High quality
- Can be equipped with stainless AC motors, servo motors, encoders & brakes
- High efficiency or self locking
- Custom design



Premium stainless steel worm gearbox



Standard stainless steel worm gearbox



Stainless worm gearbox with a special motor flange for DC motor and a stainless motor shield



Integrated stainless steel worm gearbox with enhanced bearings and special output shaft



Standard stainless steel worm gearbox

## Helical and helical bevel gearboxes

The helical bevel gearboxes are characterised by high power density and an efficiency of up to 96%. The compact and modular design makes the gearbox easy to incorporate in numerous applications.

### Features and advantages

- Reliable performance
- Compact design. Available in hygienic design
- Quiet, reliable and efficient operation
- High quality
- Can be equipped with AC, DC or servo motors, encoders and brakes
- Custom design



3 steps

2 steps

## Actuators & worm gear screw jacks

Actuator in stainless steel  
with trapezoidal spindle or ball screw



Stainless steel actuator with  
motor and the stainless steel  
BJ-Gear brake



Actuator based on too-  
thed belt drive made  
of stainless steel with  
motor of stainless steel



## Flange bearings

NG bearing units are of high material resistance and a design, that is easy-to-clean. To reduce the risk of bacteria growth the design is characterised by a smooth surface and rounded corners. The bearings are maintenance free and resistant to all cleaning products and to most chemicals.

We also offer bearing units of stainless steel.

### Features and advantages

- Solid housings
- Easy assembly
- IP66 & IP67 (IP68 and IP69K on request).
- Maintenance free bearings
- USDA accepted
- Food grade acc. to reg. (EC) No. 1935/2004
- FDA food grade acc. to CFR 175,300
- NSF H1 registered grease





# bj·gear

Customisation is our standard



## BJ-Gear A/S

Niels Bohrs Vej 47  
DK-8660 Skanderborg, Denmark  
VAT No. DK 10166470

Phone +45 87 40 80 80  
Email [bj@bj-gear.com](mailto:bj@bj-gear.com)  
Website [www.bj-gear.com](http://www.bj-gear.com)

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