25Do

25Do Dimensions

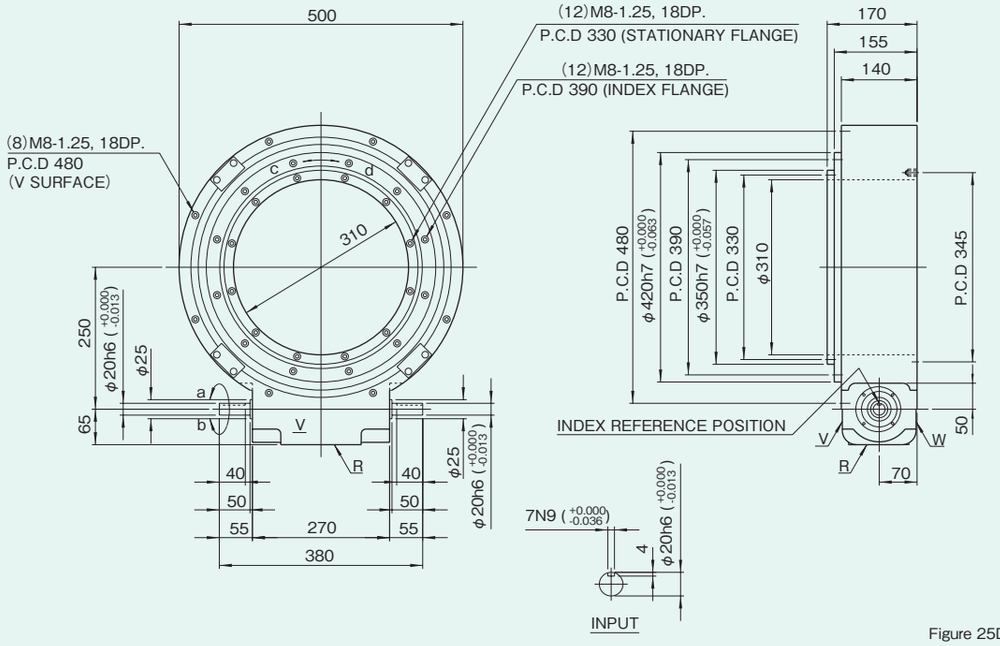


Figure 25Do-1

Locations of oil plug, ets., and oil capacity

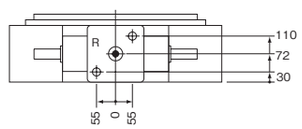
Mounting position	1
Location	
Oil capacity (ℓ)	1.7

Figure 25Do-3

Mounting hole locations

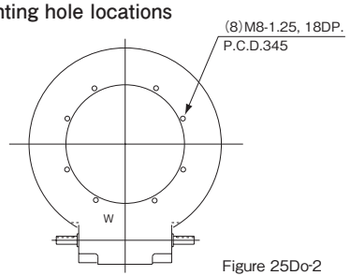


Figure 25Do-2

Dimension of W surface

Precautions

- Each point indicated in the mounting positions shown in Figure 25Do-3 represents (starting at top) the oil plug (PT1/2), oil level (VA-01), and drain (PT1/2).
- The mounting positions correspond to code i for the indexing, oscillating, and roller drives.
- The oil levels indicated in Figure 25Do-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 25Do-1

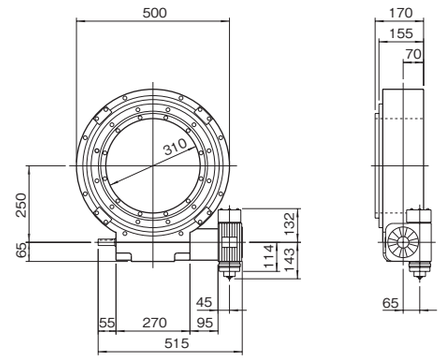
Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P_1	N	15680	Input allowable axial load	P_4	N	2646	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P_2	N	7840	Input maximum repetitious bending force	P_5	N	1176	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T_S	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P_6	N·m	117.6	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K_1	N·m /rad	2.35×10^6	Input torsional rigidity	K_2	N·m /rad	8.33×10^3	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J_o	kg·m²	1.15	Input inertia	J_1	kg·m²	1.4×10^{-3}	Repetitive accuracy		sec	30
Output allowable bending moment	P_3	N·m	343					Product weight		kg	120
								Housing color	Gray		

Note : Input inertia : J is calculated in dwell.

(1N≒0.102kgf)

Mounted accessories

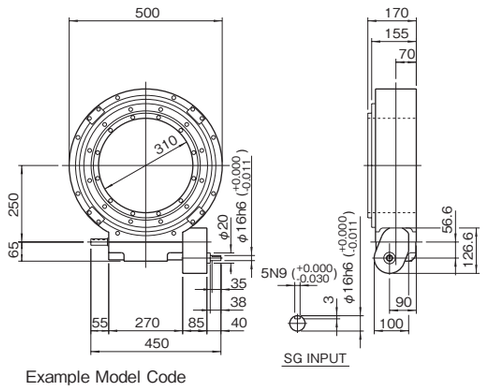
25Do (a)



Example Model Code

Indexing Drive	25DO	–	16242R	–	SR3VW	1
Reducer	R65	–	50	RCB	3 /	1

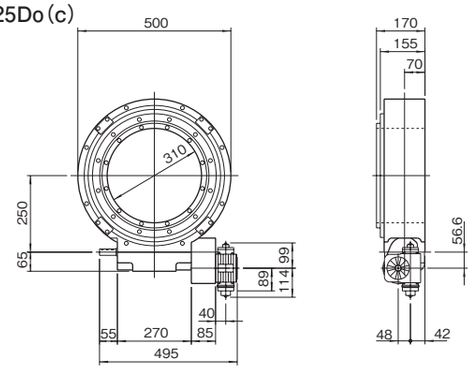
25Do (b)



Example Model Code

Indexing Drive	25DO	–	16242R	–	SG3VW	1
Spur Gear Reducer	SG25					

25Do (c)



Example Model Code

Indexing Drive	25DO	–	16242R	–	SRG3VW	1
Spur Gear Reducer	SG25					
Reducer	R48	–	50	RCB	3 /	1

Precaution

- Models 25Do can be equipped with reducers R48 and R65.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.
- The thickness of the spacer for the reducer can be determined from the drawing above and the dimension diagrams.
- Standard models ordered with spur gear reducer are considered a special specification.

Spur gear specifications

Table 25Do-2

ITEM	Symbol	Unit	Model
			SG25
Allowable (Pinion shaft speed is less than 30 rpm.)	T_G	N·m	169.5
Gear ratio	i		1/2
Large gear Inertia	C_2	kg·m²	7.5×10^{-4}
Pinion gear Inertia	C_3	kg·m²	1.75×10^{-4}
Pinion shaft allowable axial load	P_7	N	1000
Pinion shaft maximum repetitious bending force	P_8	N	980
Spur gear finishing accuracy			2 Grade
Oil level		ℓ	0.1
Weight		kg	8.5

30Do Dimensions

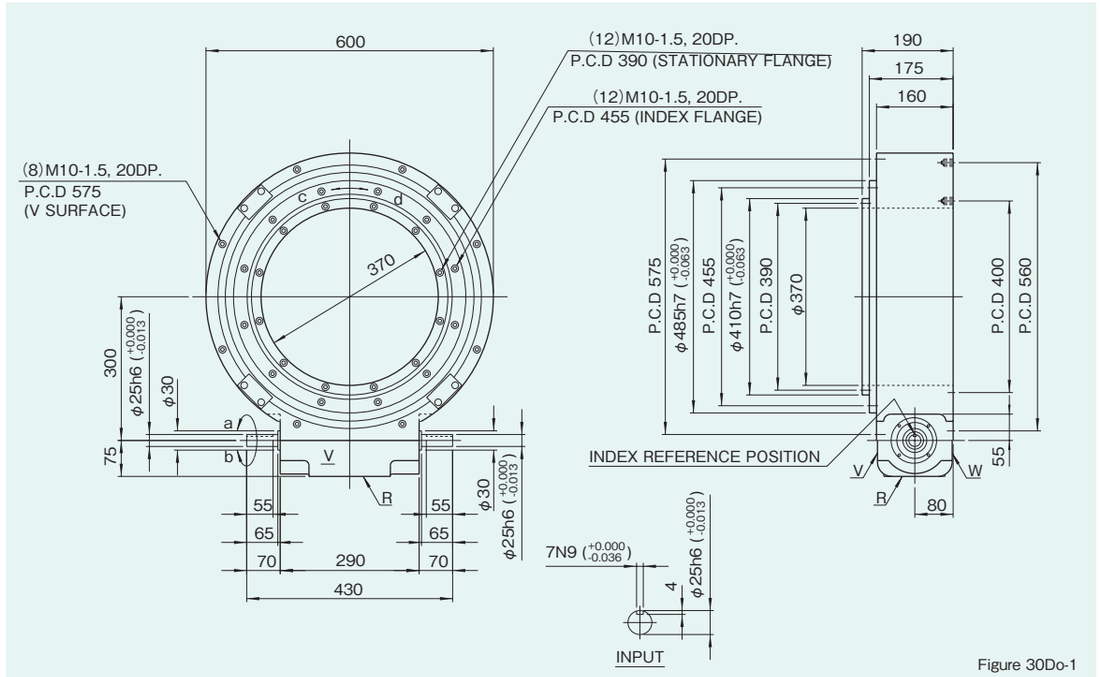


Figure 30Do-1

Mounting hole locations

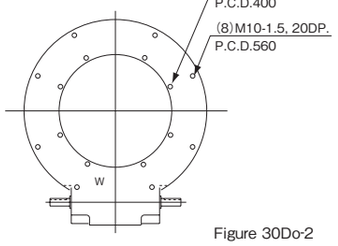


Figure 30Do-2

Dimension of W surface

Locations of oil plug, ets., and oil capacity

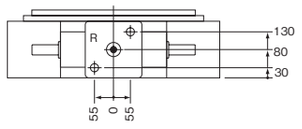
Mounting position	1
Location	
Oil capacity(ℓ)	4

Figure 30Do-3

Precautions

- Each point indicated in the mounting positions shown in Figure 30Do-3 represents (starting at top) the oil plug (PT1/2), oil level (VA), and drain (PT1/2).
- The mounting positions correspond to code i for the indexing, oscillating, and roller drives.
- The oil levels indicated in Figure 30Do-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 30Do-1

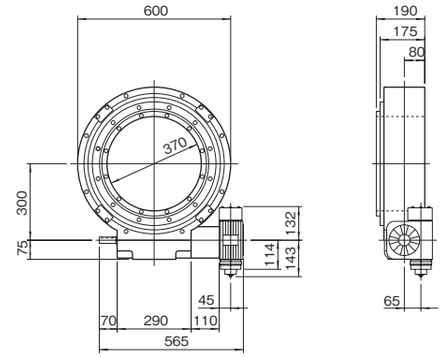
Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P_1	N	19600	Input allowable axial load	P_4	N	3822	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P_2	N	10780	Input maximum repetitious bending force	P_5	N	1470	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T_S	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P_6	N·m	186.2	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K_1	N·m /rad	3.82×10^6	Input torsional rigidity	K_2	N·m /rad	1.47×10^4	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J_o	kg·m²	2.6	Input inertia	J_1	kg·m²	3.0×10^{-3}	Repetitive accuracy		sec	30
Output allowable bending moment	P_3	N·m	441					Product weight		kg	200
								Housing color	Gray		

Note : Input inertia : J is calculated in dwell.

(1N≒0.102kgf)

Mounted accessories

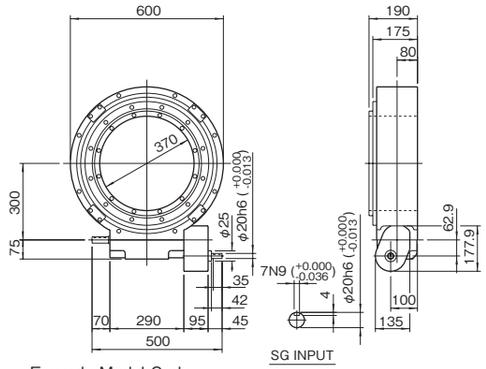
30Do(a)



Example Model Code

Indexing Drive	30DO	–	16242R	–	SR3VW	1
Reducer	R65	–	50	RCB	3 /	1

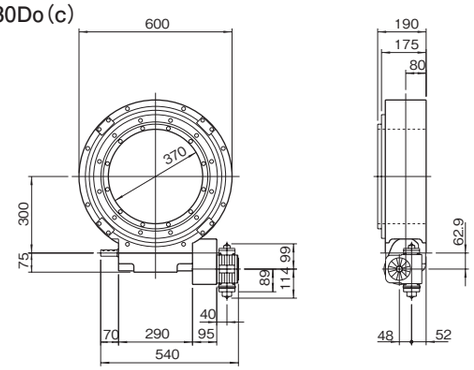
30Do(b)



Example Model Code

Indexing Drive	30DO	–	16242R	–	SG3VW	1
Spur Gear Reducer	SG30					

30Do(c)



Example Model Code

Indexing Drive	30DO	–	16242R	–	SRG3VW	1
Spur Gear Reducer	SG30					
Reducer	R48	–	50	RCB	3 /	1

Precaution

- Models 30Do can be equipped with reducers R48 and R65.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.
- The thickness of the spacer for the reducer can be determined from the drawing above and the dimension diagrams.
- Standard models ordered with spur gear reducer are considered a special specification.

Spur gear specifications

Table 30Do-2

ITEM	Symbol	Unit	Model
			SG30
Allowable (Pinion shaft speed is less than 30 rpm.)	T_G	N·m	201.8
Gear ratio	i		1/2
Large gear Inertia	C_2	kg·m²	1×10^{-3}
Pinion gear Inertia	C_3	kg·m²	2.5×10^{-4}
Pinion shaft allowable axial load	P_7	N	1352
Pinion shaft maximum repetitious bending force	P_8	N	1235
Spur gear finishing accuracy			2 Grade
Oil level		ℓ	0.15
Weight		kg	12

35Do Dimensions

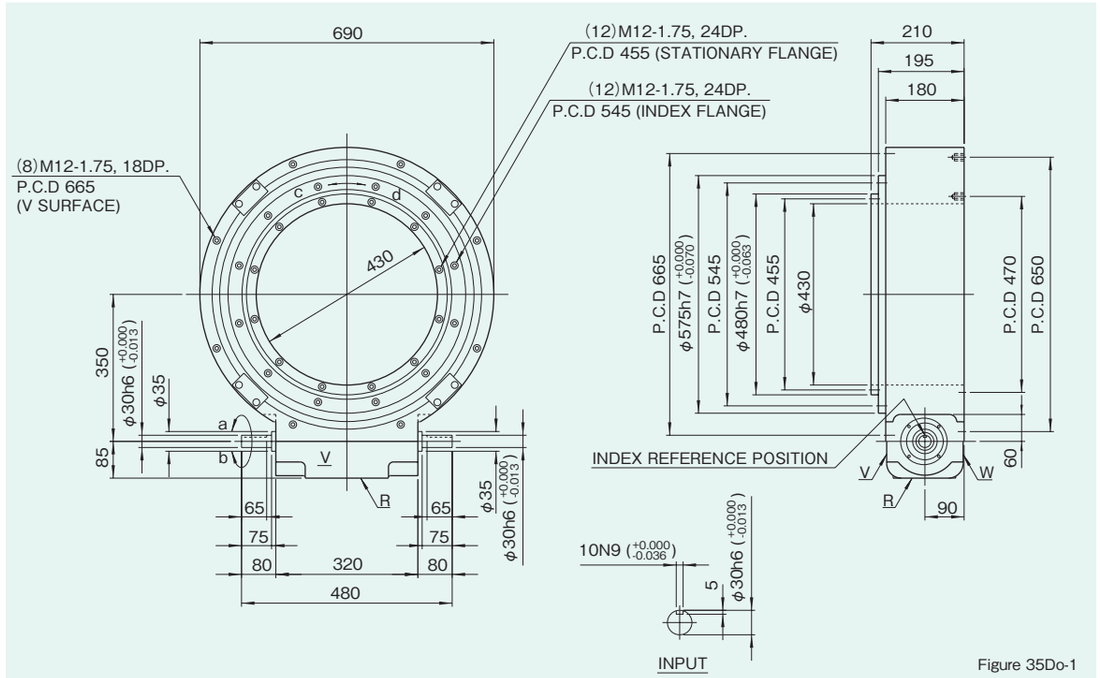


Figure 35Do-1

Mounting hole locations

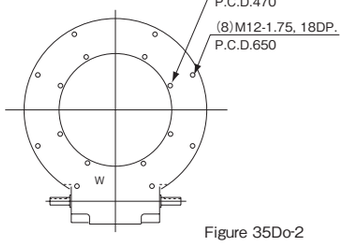


Figure 35Do-2

Dimension of W surface

Locations of oil plug, ets., and oil capacity

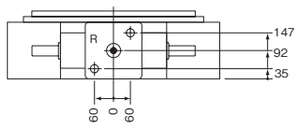
Mounting position	1
Location	
Oil capacity (ℓ)	6

Figure 35Do-3

Precautions

- Each point indicated in the mounting positions shown in Figure 35Do-3 represents (starting at top) the oil plug (PT1/2), oil level (VA), and drain (PT1/2).
- The mounting positions correspond to code i for the indexing, oscillating, and roller drives.
- The oil levels indicated in Figure 35Do-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 35Do-1

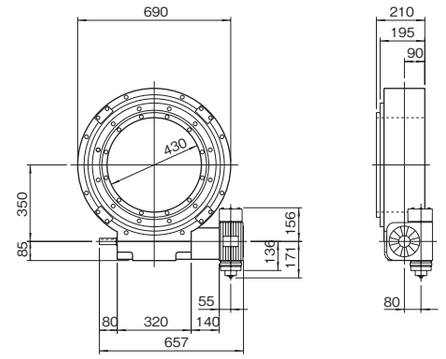
Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P_1	N	24500	Input allowable axial load	P_4	N	4802	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P_2	N	12740	Input maximum repetitious bending force	P_5	N	2548	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T_S	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P_6	N·m	372.4	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K_1	N·m /rad	5.78×10^6	Input torsional rigidity	K_2	N·m /rad	2.45×10^4	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J_o	kg·m²	5.55	Input inertia	J_1	kg·m²	7.75×10^{-3}	Repetitive accuracy		sec	30
Output allowable bending moment	P_3	N·m	686					Product weight		kg	370
								Housing color	Gray		

Note : Input inertia : J is calculated in dwell.

(1N≒0.102kgf)

Mounted accessories

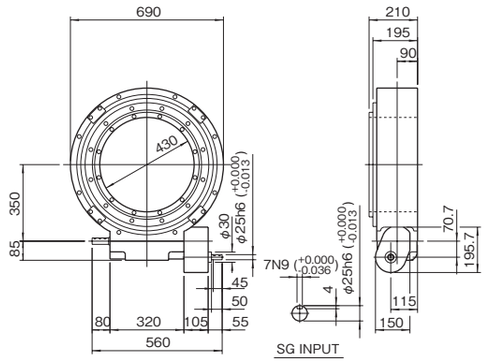
35Do (a)



Example Model Code

Indexing Drive	35DO	–	16242R	–	SR3VW	1
Reducer	R80	–	50	RCB	3	/ 1

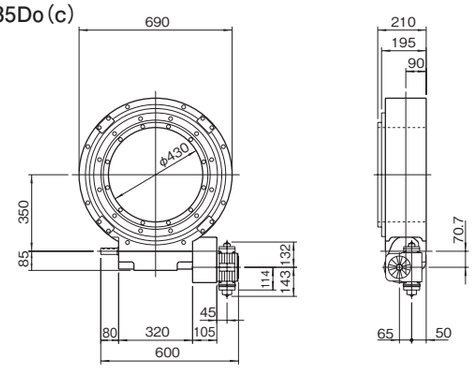
35Do (b)



Example Model Code

Indexing Drive	35DO	–	16242R	–	SG3VW	1
Spur Gear Reducer	SG35					

35Do (c)



Example Model Code

Indexing Drive	35DO	–	16242R	–	SRG3VW	1
Spur Gear Reducer	SG35					
Reducer	R65	–	50	RCB	3	/ 1

Precaution

- Models 35Do can be equipped with reducers R65 and R80.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.
- The thickness of the spacer for the reducer can be determined from the drawing above and the dimension diagrams.
- Standard models ordered with spur gear reducer are considered a special specification.

Spur gear specifications

Table 35Do-2

ITEM	Symbol	Unit	Model
			SG35
Allowable (Pinion shaft speed is less than 30 rpm.)	T_G	N·m	397.9
Gear ratio	i		1/2
Large gear Inertia	C_2	kg·m²	2.5×10^{-3}
Pinion gear Inertia	C_3	kg·m²	0.5×10^{-3}
Pinion shaft allowable axial load	P_7	N	1813
Pinion shaft maximum repetitious bending force	P_8	N	1813
Spur gear finishing accuracy			2 Grade
Oil level		ℓ	0.2
Weight		kg	16.5

45Do Dimensions

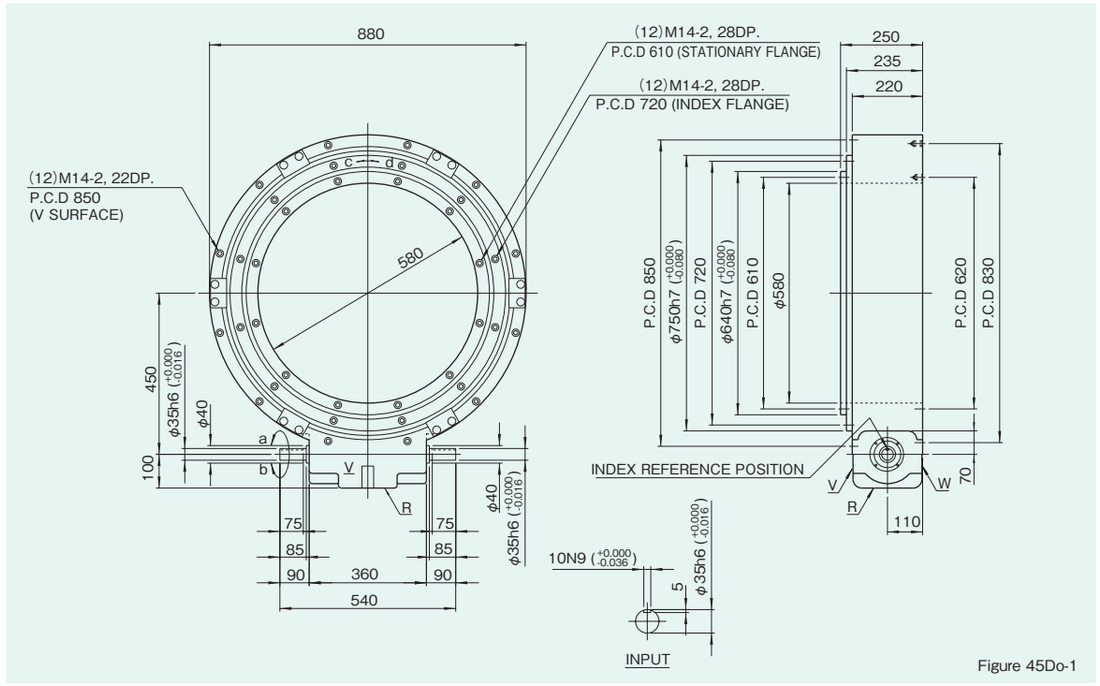
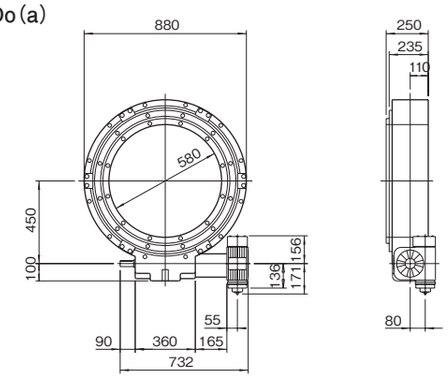


Figure 45Do-1

Mounted accessories

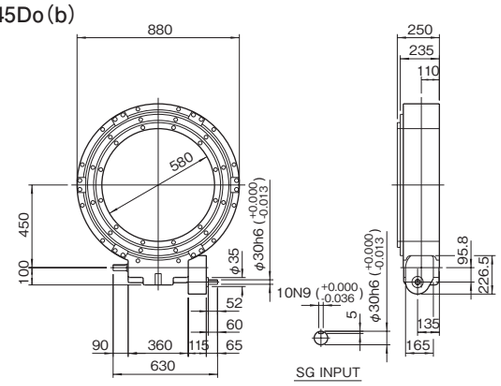
45Do (a)



Example Model Code

Indexing Drive	45DO – 12272R – SR3VW 1
Reducer	R80 – 50 RCB 3 / 1

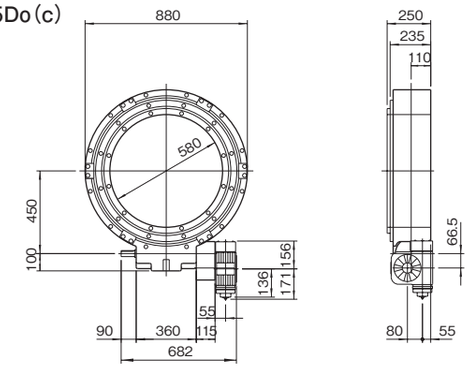
45Do (b)



Example Model Code

Indexing Drive	45DO – 16242R – SG3VW 1
Spur Gear Reducer	SG45

45Do (c)



Example Model Code

Indexing Drive	45DO – 16242R – SRG3VW 1
Spur Gear Reducer	SG45
Reducer	R80 – 50 RCB 3 / 1

Precaution

- Models 45Do can be equipped with reducers R80.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.
- The thickness of the spacer for the reducer can be determined from the drawing above and the dimension diagrams.
- Standard models ordered with spur gear reducer are considered a special specification.

Spur gear specifications

Table 45Do-2

ITEM	Symbol	Unit	Model
			SG45
Allowable (Pinion shaft speed is less than 30 rpm.)	T_G	N·m	661.5
Gear ratio	i		1/2
Large gear Inertia	C_2	kg·m²	5×10^{-3}
Pinion gear Inertia	C_3	kg·m²	1×10^{-3}
Pinion shaft allowable axial load	P_7	N	2264
Pinion shaft maximum repetitious bending force	P_8	N	2185
Spur gear finishing accuracy			2 Grade
Oil level		ℓ	0.35
Weight		kg	24

Mounting hole locations

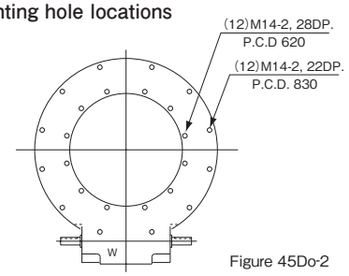
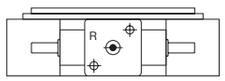


Figure 45Do-2

Dimension of W surface

Locations of oil plug, ets., and oil capacity

Figure 45Do-3

Mounting position	1
Location	
Oil capacity (ℓ)	9

Precautions

- Each point indicated in the mounting positions shown in Figure 45Do-3 represents (starting at top) the oil plug (PT3/4), oil level (VA), and drain (PT3/4).
- The mounting positions correspond to code i for the indexing, oscillating, and roller drives.
- The oil levels indicated in Figure 45Do-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 45Do-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P_1	N	34300	Input allowable axial load	P_4	N	5586	Indexing accuracy (1 DWELL)		sec	±20
Output allowable radial load	P_2	N	16660	Input maximum repetitious bending force	P_5	N	3528	Indexing accuracy (2 DWELL)		sec	±40
Output static torque	T_s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P_6	N·m	588	Indexing accuracy (3 DWELL)		sec	±60
Output torsional rigidity	K_1	N·m /rad	1.18×10^{7}	Input torsional rigidity	K_2	N·m /rad	3.82×10^{4}	Indexing accuracy (4 DWELL)		sec	±80
Output inertia	J_o	kg·m²	17.15	Input inertia	J_1	kg·m²	2.58×10^{-2}	Repetitive accuracy		sec	20
Output allowable bending moment	P_3	N·m	1078					Product weight		kg	500
								Housing color	Gray		

Note : Input inertia : J is calculated in dwell.

(1N≒0.102kgf)

55Do Dimensions

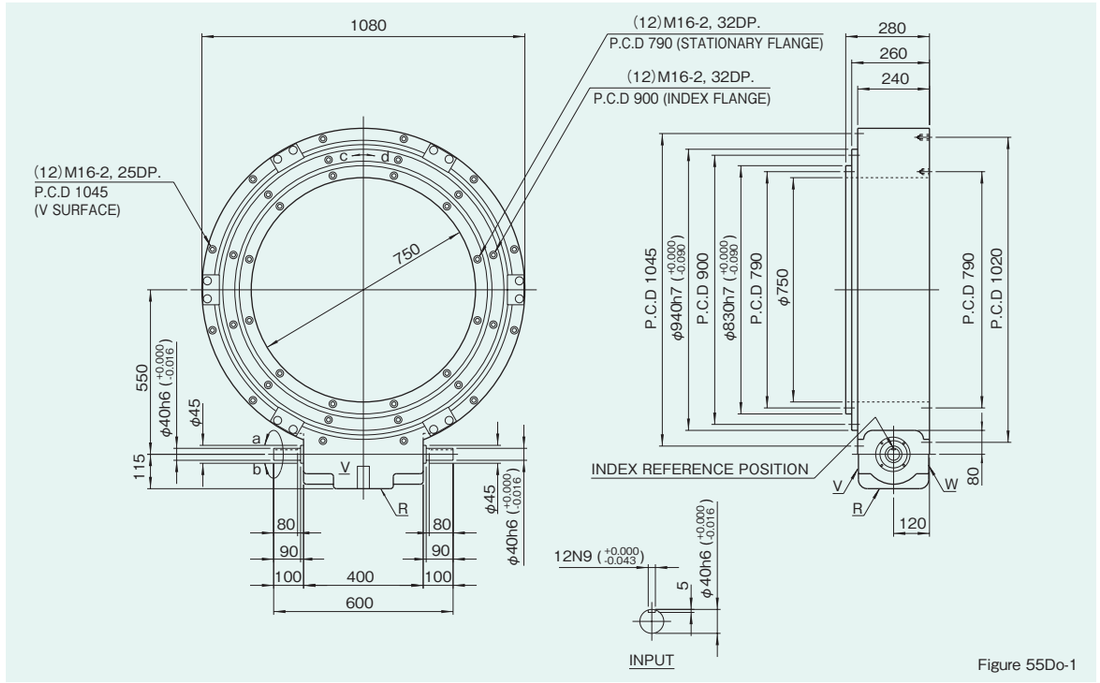


Figure 55Do-1

Mounting hole locations

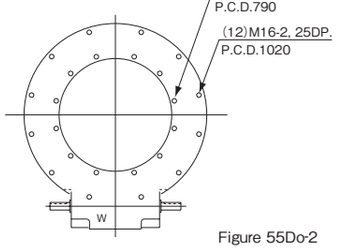


Figure 55Do-2

Dimension of W surface

Locations of oil plug, ets., and oil capacity

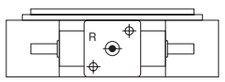
Mounting position	1
Location	
Oil capacity (ℓ)	12

Figure 55Do-3

Precautions

- Each point indicated in the mounting positions shown in Figure 55Do-3 represents (starting at top) the oil plug (PT3/4), oil level (VA), and drain (PT3/4).
- The mounting positions correspond to code i for the indexing, oscillating, and roller drives.
- The oil levels indicated in Figure 55Do-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 55Do-1

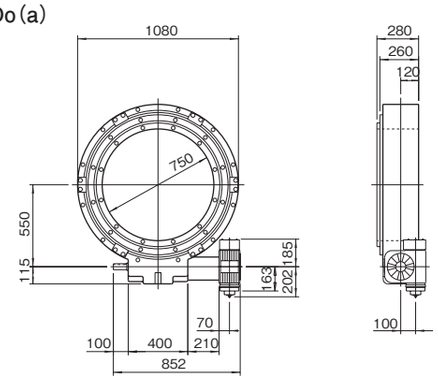
Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P_1	N	44100	Input allowable axial load	P_4	N	7252	Indexing accuracy (1 DWELL)		sec	±20
Output allowable radial load	P_2	N	21560	Input maximum repetitious bending force	P_5	N	4802	Indexing accuracy (2 DWELL)		sec	±40
Output static torque	T_S	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P_6	N·m	833	Indexing accuracy (3 DWELL)		sec	±60
Output torsional rigidity	K_1	N·m /rad	1.96×10^7	Input torsional rigidity	K_2	N·m /rad	5.49×10^4	Indexing accuracy (4 DWELL)		sec	±80
Output inertia	J_o	kg·m²	34.5	Input inertia	J_1	kg·m²	5.2×10^{-2}	Repetitive accuracy		sec	20
Output allowable bending moment	P_3	N·m	1470					Product weight		kg	780
								Housing color	Gray		

Note : Input inertia : J is calculated in dwell.

(1N≒0.102kgf)

Mounted accessories

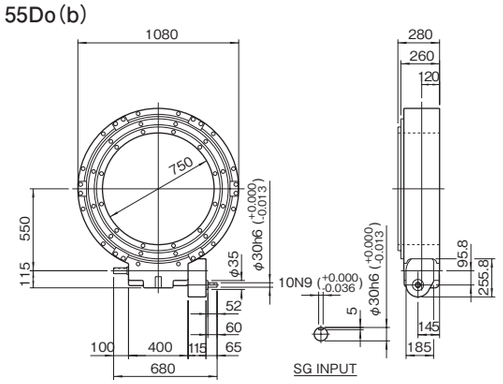
55Do (a)



Example Model Code

Indexing Drive	55DO – 16242R – SR3VW 1
Reducer	R100 – 50 RCB 3 / 1

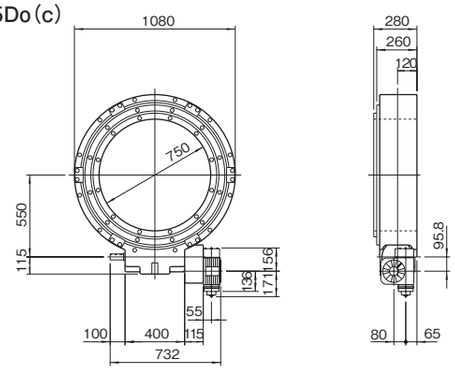
55Do (b)



Example Model Code

Indexing Drive	55DO – 16242R – SG3VW 1
Spur Gear Reducer	SG55

55Do (c)



Example Model Code

Indexing Drive	55DO – 16242R – SRG3VW 1
Spur Gear Reducer	SG55
Reducer	R80 – 50 RCB 3 / 1

Precaution

- Models 55Do can be equipped with reducers R80 and R100.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.
- The thickness of the spacer for the reducer can be determined from the drawing above and the dimension diagrams.
- Standard models ordered with spur gear reducer are considered a special specification.

Spur gear specifications

Table 55Do-2

ITEM	Symbol	Unit	Model
			SG55
Allowable (Pinion shaft speed is less than 30 rpm.)	T_G	N·m	721.3
Gear ratio	i		1/2
Large gear Inertia	C_2	kg·m²	7.5×10^{-3}
Pinion gear Inertia	C_3	kg·m²	1.5×10^{-3}
Pinion shaft allowable axial load	P_7	N	2264
Pinion shaft maximum repetitious bending force	P_8	N	2185
Spur gear finishing accuracy			2 Grade
Oil level		ℓ	0.45
Weight		kg	30

65Do Dimensions

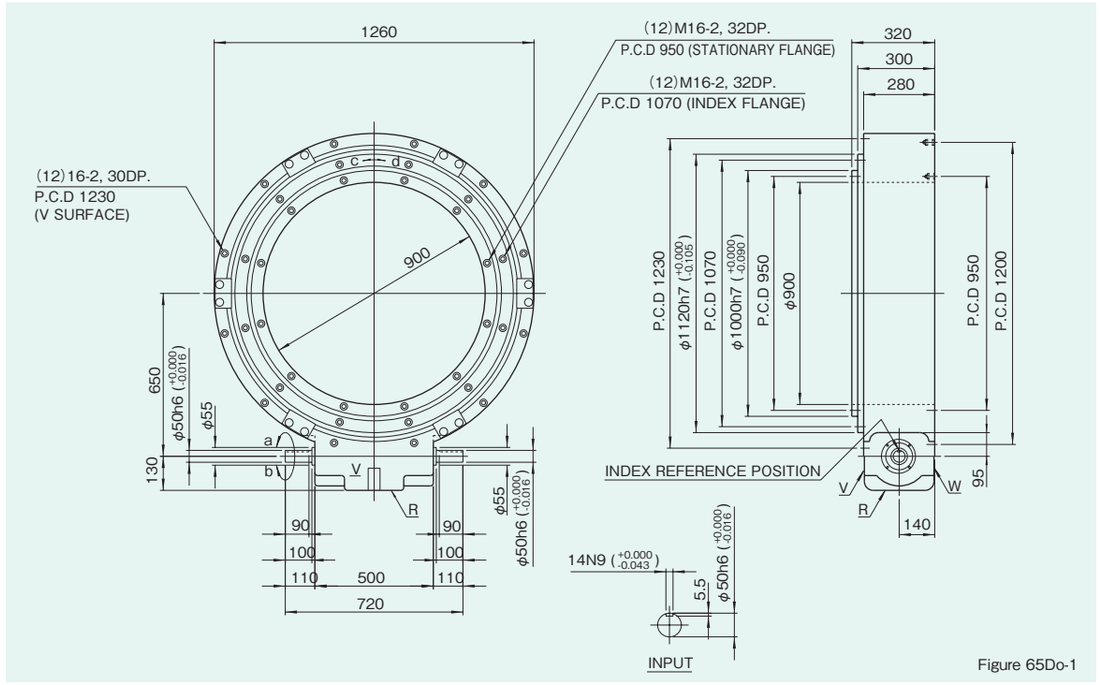


Figure 65Do-1

Mounting hole locations

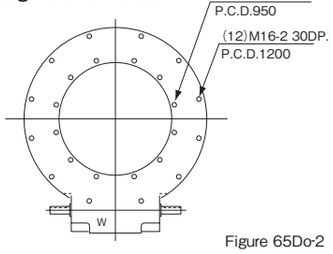
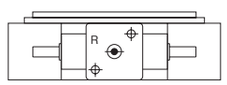


Figure 65Do-2

Dimension of W surface

Locations of oil plug, ets., and oil capacity

Figure 65Do-3

Mounting position	1
Location	
Oil capacity (ℓ)	20

Precautions

- Each point indicated in the mounting positions shown in Figure 65Do-3 represents (starting at top) the oil plug (PT1), oil level (VB), and drain (PT1).
- The mounting positions correspond to code i for the indexing, oscillating, and roller drives.
- The oil levels indicated in Figure 65Do-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 65Do-1

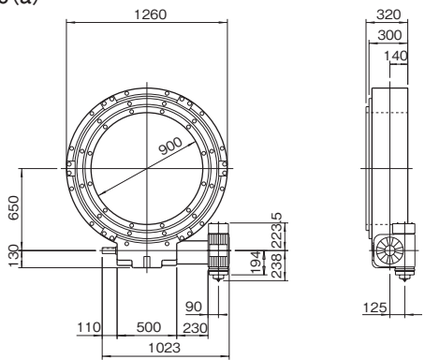
Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P_1	N	53900	Input allowable axial load	P_4	N	9800	Indexing accuracy (1 DWELL)		sec	±20
Output allowable radial load	P_2	N	26460	Input maximum repetitious bending force	P_5	N	8330	Indexing accuracy (2 DWELL)		sec	±40
Output static torque	T_s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P_6	N·m	1666	Indexing accuracy (3 DWELL)		sec	±60
Output torsional rigidity	K_1	N·m /rad	3.33×10^7	Input torsional rigidity	K_2	N·m /rad	1.08×10^5	Indexing accuracy (4 DWELL)		sec	±80
Output inertia	J_o	kg·m²	81.5	Input inertia	J_1	kg·m²	0.111	Repetitive accuracy		sec	20
Output allowable bending moment	P_3	N·m	1960					Product weight		kg	1100
								Housing color	Gray		

Note : Input inertia : J is calculated in dwell.

(1N≒0.102kgf)

Mounted accessories

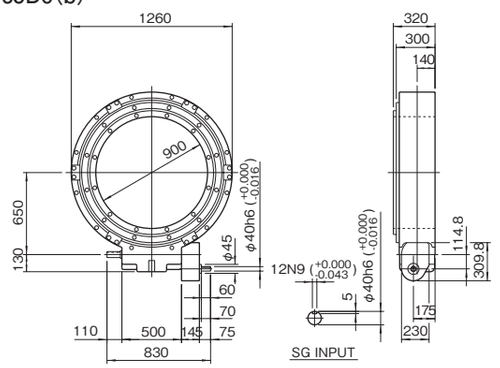
65Do (a)



Example Model Code

Indexing Drive	65DO	–	16242R	–	SR3VW	1
Reducer	R125	–	50	RCB	3 /	1

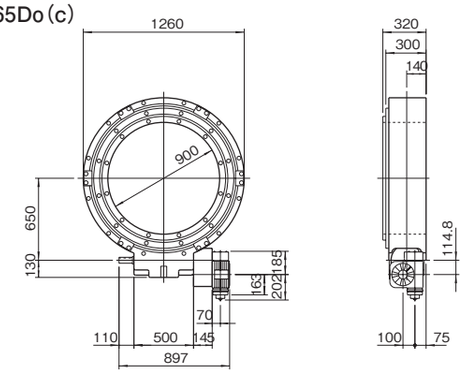
65Do (b)



Example Model Code

Indexing Drive	65DO	–	16242R	–	SG3VW	1
Spur Gear Reducer	SG65					

65Do (c)



Example Model Code

Indexing Drive	65DO	–	16242R	–	SRG3VW	1
Spur Gear Reducer	SG65					
Reducer	R100	–	50	RCB	3 /	1

Precaution

- Models 65Do can be equipped with reducers R100 and R125.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.
- The thickness of the spacer for the reducer can be determined from the drawing above and the dimension diagrams.
- Standard models ordered with spur gear reducer are considered a special specification.

Spur gear specifications

Table 65Do-2

ITEM	Symbol	Unit	Model
			SG65
Allowable (Pinion shaft speed is less than 30 rpm.)	T_G	N·m	1452.4
Gear ratio	i		1/2
Large gear Inertia	C_2	kg·m²	2.5×10^{-2}
Pinion gear Inertia	C_3	kg·m²	4.25×10^{-3}
Pinion shaft allowable axial load	P_7	N	2842
Pinion shaft maximum repetitious bending force	P_8	N	2744
Spur gear finishing accuracy			2 Grade
Oil level		ℓ	0.85
Weight		kg	55

80Do Dimensions

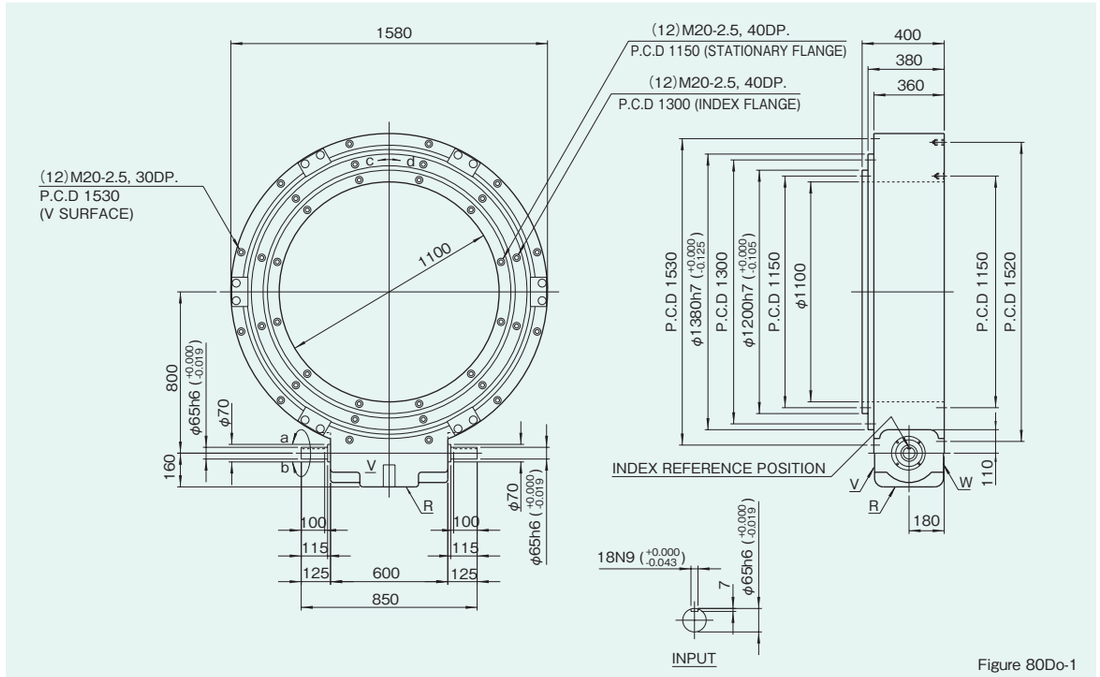


Figure 80Do-1

Mounting hole locations

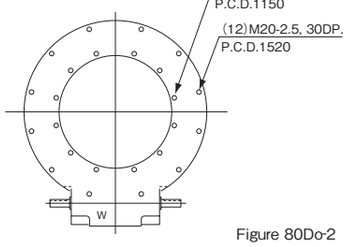


Figure 80Do-2

Dimension of W surface

Locations of oil plug, ets., and oil capacity

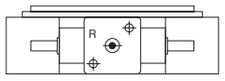
Mounting position	1
Location	
Oil capacity(ℓ)	45

Figure 80Do-3

Precautions

- Each point indicated in the mounting positions shown in Figure 80Do-3 represents (starting at top) the oil plug (PT1), oil level (VB), and drain (PT1).
- The mounting positions correspond to code i for the indexing, oscillating, and roller drives.
- The oil levels indicated in Figure 80Do-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 80Do-1

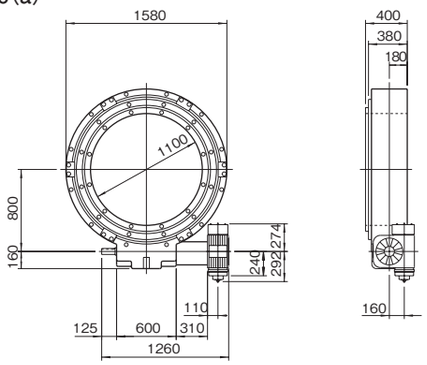
Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P_1	N	73500	Input allowable axial load	P_4	N	11760	Indexing accuracy (1 DWELL)		sec	±20
Output allowable radial load	P_2	N	34300	Input maximum repetitious bending force	P_5	N	11760	Indexing accuracy (2 DWELL)		sec	±40
Output static torque	T_s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P_6	N·m	2842	Indexing accuracy (3 DWELL)		sec	±60
Output torsional rigidity	K_1	N·m /rad	6.27×10^7	Input torsional rigidity	K_2	N·m /rad	2.25×10^5	Indexing accuracy (4 DWELL)		sec	±80
Output inertia	J_o	kg·m²	266.3	Input inertia	J_1	kg·m²	0.36	Repetitive accuracy		sec	20
Output allowable bending moment	P_3	N·m	2940					Product weight		kg	2300
								Housing color	Gray		

Note : Input inertia : J is calculated in dwell.

(1N≒0.102kgf)

Mounted accessories

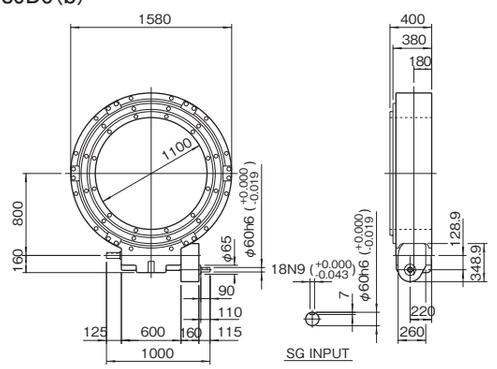
80Do(a)



Example Model Code

Indexing Drive	80DO	–	16242R	–	SR3VW		1
Reducer	R160	–	50	RCB	3	/	1

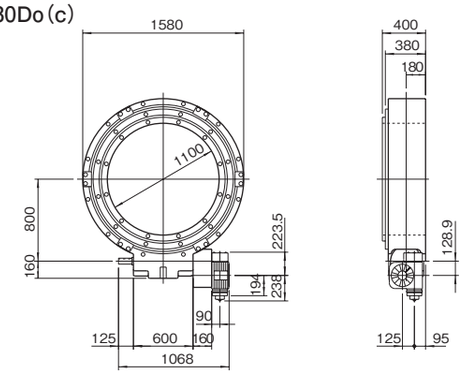
80Do(b)



Example Model Code

Indexing Drive	80DO	–	16242R	–	SG3VW		1
Spur Gear Reducer	SG80						

80Do(c)



Example Model Code

Indexing Drive	80DO	–	16242R	–	SRG3VW		1
Spur Gear Reducer	SG80						
Reducer	R125	–	50	RCB	3	/	1

Precaution

- Models 80Do can be equipped with reducers R125 and R160.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.
- The thickness of the spacer for the reducer can be determined from the drawing above and the dimension diagrams.
- Standard models ordered with spur gear reducer are considered a special specification.

Spur gear specifications

Table 80Do-2

ITEM	Symbol	Unit	Model
			SG80
Allowable (Pinion shaft speed is less than 30 rpm.)	T_G	N·m	1906.1
Gear ratio	i		1/2
Large gear Inertia	C_2	kg·m²	4×10^{-2}
Pinion gear Inertia	C_3	kg·m²	7.5×10^{-2}
Pinion shaft allowable axial load	P_7	N	4312
Pinion shaft maximum repetitious bending force	P_8	N	3430
Spur gear finishing accuracy			2 Grade
Oil level		ℓ	1.5
Weight		kg	78