

4.5DF/4.5EF/4.5RF Dimensions

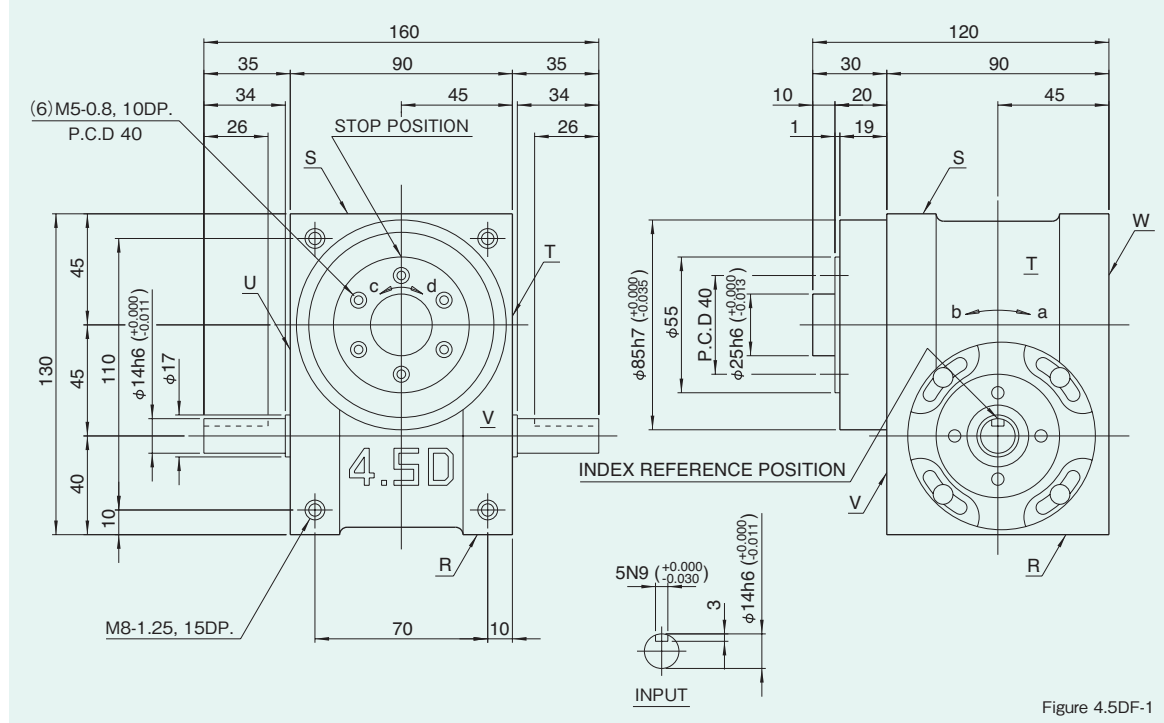
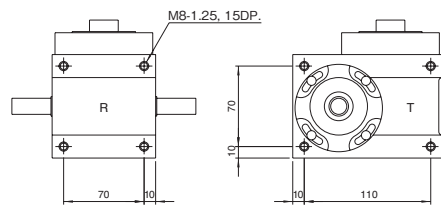


Figure 4.5DF-1

Mounting hole locations Figure 4.5DF-2



Dimension R,S,T, and U surface

Specifications

Table 4.5DF-1

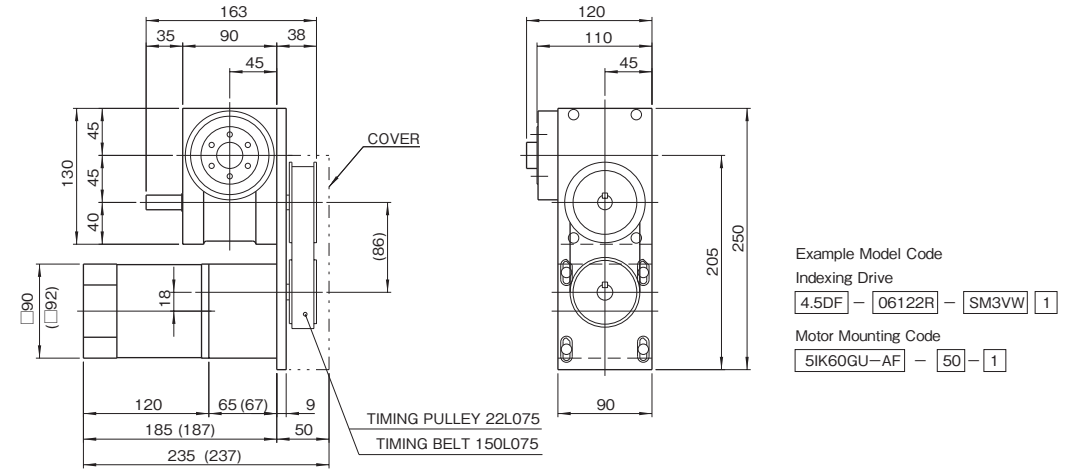
Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	1274	Input allowable axial load	P ₄	N	833	Indexing accuracy (1 DWELL)		sec	±60
Output allowable radial load	P ₂	N	1372	Input maximum repetitive bending force	P ₅	N	1078	Indexing accuracy (2 DWELL)		sec	±120
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitive allowable torque	P ₆	N·m	39.2	Indexing accuracy (3 DWELL)		sec	±180
Output torsional rigidity	K ₁	N·m/rad	3.72×10 ¹	Input torsional rigidity	K ₂	N·m/rad	2.74×10 ³	Indexing accuracy (4 DWELL)		sec	±240
Output inertia	J ₀	kg·m ²	3.5×10 ⁻⁴	Input inertia	J ₁	kg·m ²	8.0×10 ⁻⁵	Repetitive accuracy		sec	30
Output allowable bending moment	P ₃	N·m	44.1					Product weight		kg	6.5
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

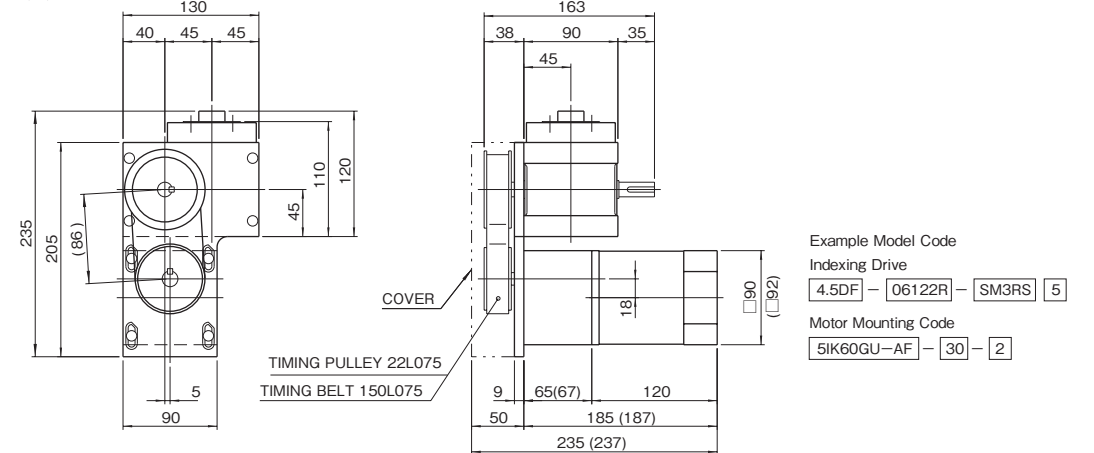
Mounted accessories

4.5DF (a)



Example Model Code
 Indexing Drive
4.5DF - 06122R - SM3VW 1
 Motor Mounting Code
5IK60GU-AF - 50 - 1

4.5DF (b)



Example Model Code
 Indexing Drive
4.5DF - 06122R - SM3RS 5
 Motor Mounting Code
5IK60GU-AF - 30 - 2

Induction motor specifications

Table 4.5DF-3

Motor model	Output power (W)	Frequency (Hz)	Voltage (V)	Current (A)	Starting torque (N·m)	Rated torque (N·m)	Rotating speed (rpm)	Capacitor (μF)	Gear head model	
									Ball bearing type	
Oriental Motor	5IK60GU-AF	60	50 60	100	1.4	0.32 0.30	1300 1550	15.0	5GU□KB	
Panasonic	M9IC60G4L	60	50 60	100	1.3 1.2	0.441 0.363	1275 1575	15.0	M9GD□B	

Allowable torque with gear head (N·m)

Table 4.5DF-4

Rotating speed (rpm)	Allowable torque (N·m)									
	200	120	100	60	50	30	20	15	10	
50Hz Gear ratio	7.5	12.5	15	25	30	50	75	100	150	
60Hz Gear ratio	9	15	18	30	36	60	90	120	180	
Allowable torque (N·m)	5IK60GU-AF	2.7	4.1	4.9	7.4	8.9	14.90	19.90	20	20
	M9IC60G4L	2.35	3.92	4.70	7.55	9.11	15.19	19.60	19.60	19.60

(1N·m=0.102kgf·m)

Precautions

- The mounting base of the motor mounts on the sides T or U of the indexing drive as shown in Figure 4.5DF-(a),(b).
- Figure 4.5DF-(a),(b) shows the opposite of when mounted on side U.
- Dimensions in parenthesis Panasonic motor.
- When ordering, always specify the gear reduction ratio along with the indexing drive code number.
- Note:For details on the induction motor, refer to the brochure for Oriental Motors(or Panasonic).

6DF/6EF/6RF Dimensions

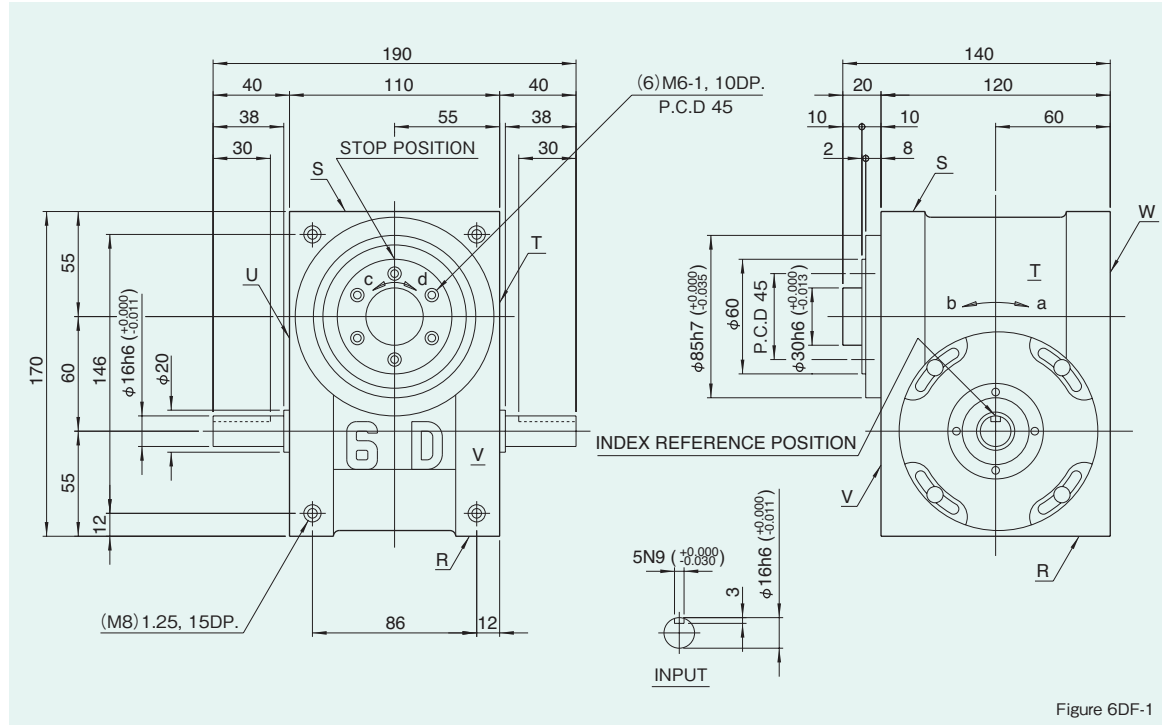
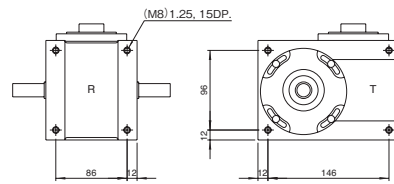


Figure 6DF-1

Mounting hole locations

Figure 6DF-2



Dimension R,S,T, and U surface

Locations of oil plug, etc., and oil capacity

Figure 6DF-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	0.5	0.37	0.35	0.35	0.3	0.3

Precautions

- Each point indicated in the mounting positions shown in Figure 6DF-3 represents (starting at top) the oil plug (PT3/8), oil level (VA-01), and drain (PT1/4).
- The mounting positions correspond to code i for the indexing, oscillating, and rotary drives.
- The oil levels indicated in Figure 6DF-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

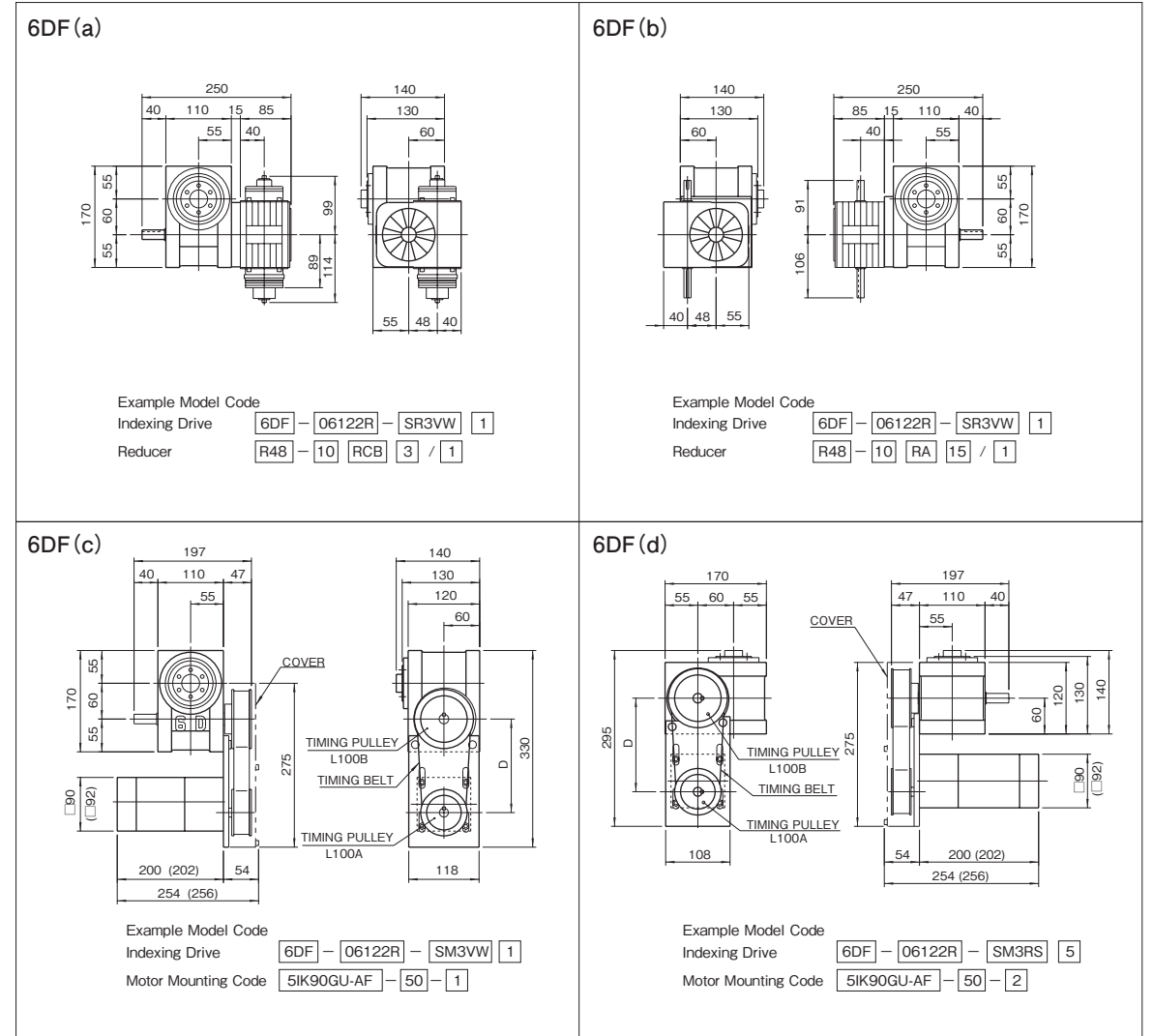
Table 6DF-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	1372	Input allowable axial load	P ₄	N	980	Indexing accuracy (1 DWELL)		sec	±45
Output allowable radial load	P ₂	N	1392	Input maximum repetitive bending force	P ₅	N	1470	Indexing accuracy (2 DWELL)		sec	±90
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitive allowable torque	P ₆	N·m	58.8	Indexing accuracy (3 DWELL)		sec	±135
Output torsional rigidity	K ₁	N·m/rad	4.9×10 ⁴	Input torsional rigidity	K ₂	N·m/rad	4.12×10 ³	Indexing accuracy (4 DWELL)		sec	±180
Output inertia	J _o	kg·m ²	6.0×10 ⁻⁴	Input inertia	J ₁	kg·m ²	4.75×10 ⁻⁴	Repetitive accuracy		sec	20
Output allowable bending moment	P ₃	N·m	44.1					Product weight		kg	10
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

Mounted accessories



Induction motor specifications

Table 6DF-2

Motor model	Output power (W)	Frequency (Hz)	Voltage (V)	Current (A)	Starting torque (N·m)	Rated torque (N·m)	Rotating speed (rpm)	Capacitor (μF)	Gear head model	
									Ball bearing type	
Oriental Motor	5IK90GU-AF	90	50 60	100	2.0	0.45 0.57	1300 1550	25.0	5GU	KB
Panasonic	M9IC90G4L	90	50 60	100	1.6 1.7	0.637 0.519	1325 1625	25.0	M9GD	B

Allowable torque with gear head (N·m)

Table 6DF-3

Rotating speed (rpm)	Allowable torque (N·m)									
	200	120	100	60	50	30	20	15	10	
50Hz Gear ratio	7.5	12.5	15	25	30	50	75	100	150	
60Hz Gear ratio	9	15	18	30	36	60	90	120	180	
Allowable torque (N·m)	5IK90GU-AF	4.1	6.2	7.4	11.2	13.5	20	20	20	20
	M9IC90G4L	3.43	5.68	6.76	10.88	13.03	19.60	19.60	19.60	19.60

(1N·m=0.102kgf·m)

Timing transmission specifications

Table 6DF-4

Timing pulley reduction ratio	Pulley A Number of teeth	Pulley B Number of teeth	D (mm)	Belt model
1.5	20	30	146.8	210L teeth

※Pulley gear ratio is 1.5. Make note of this when selecting gear ratios for the gear head.

Precautions

- The mounting base of the motor mounts on the sides T or U of the indexing drive as shown in Figure 6DF-(a),(b).
- Figure 6DF-(a),(b) shows the opposite of when mounted on side U.
- Dimensions in parenthesis indicate Panasonic motor.
- When ordering , always specify the gear reduction ratio along with the indexing drive code number.

7DF/7EF/7RF Dimensions

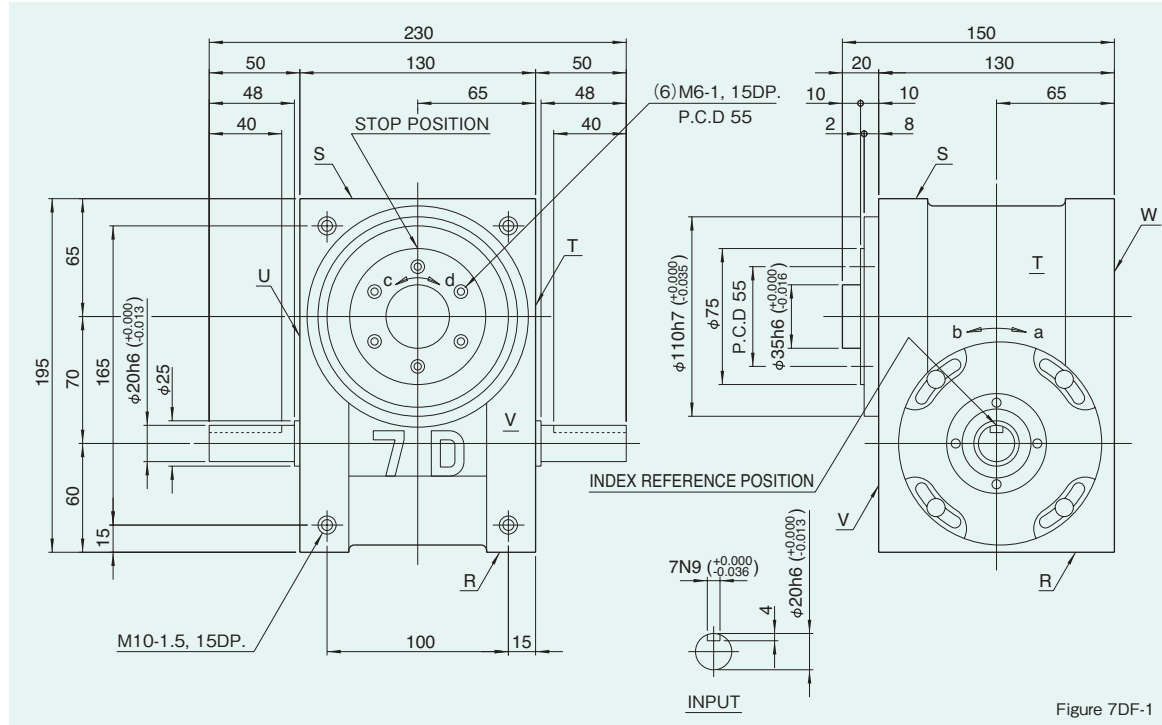
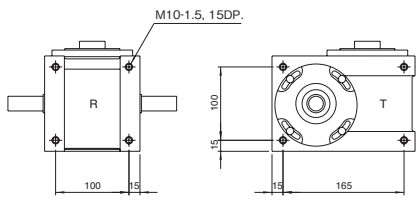


Figure 7DF-1

Mounting hole locations

Figure 7DF-2



Dimension R,S,T, and U surface

Locations of oil plug, etc., and oil capacity

Figure 7DF-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	0.6	0.6	0.55	0.55	0.4	0.4

Precautions

- Each point indicated in the mounting positions shown in Figure 7DF-3 represents (starting at top) the oil plug (PT3/8), oil level (VA-01), and drain (PT1/4).
- The mounting positions correspond to code i for the indexing, oscillating, and rotary drives.
- The oil levels indicated in Figure 7DF-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

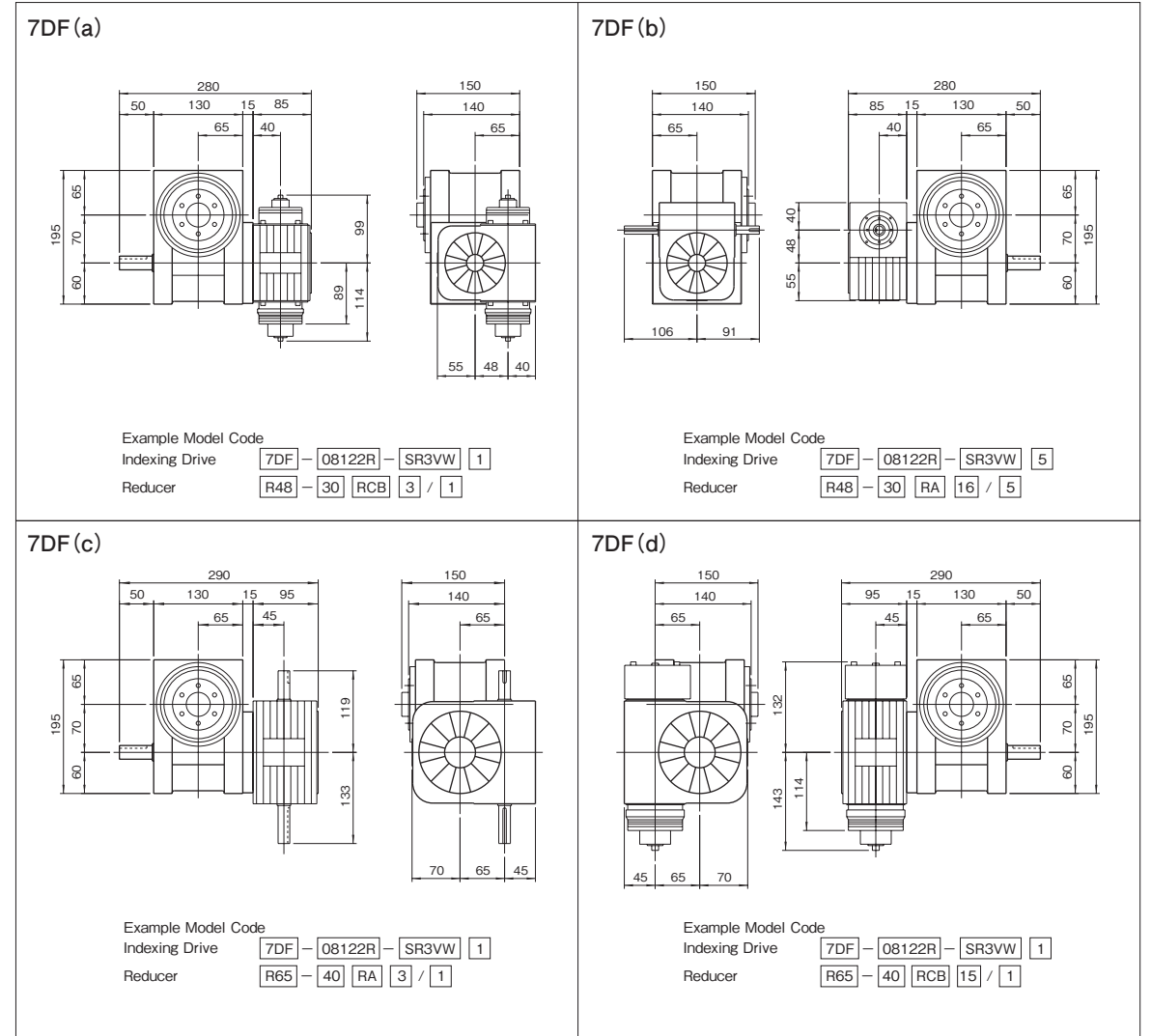
Table 7DF-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	2156	Input allowable axial load	P ₄	N	1470	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	2940	Input maximum repetitious bending force	P ₅	N	1078	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	93.1	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K ₁	N·m/rad	6.66×10 ¹	Input torsional rigidity	K ₂	N·m/rad	8.43×10 ³	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J ₀	kg·m ²	1.7×10 ⁻³	Input inertia	J ₁	kg·m ²	1.5×10 ⁻³	Repetitive accuracy		sec	15
Output allowable bending moment	P ₃	N·m	78.4					Product weight		kg	18
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

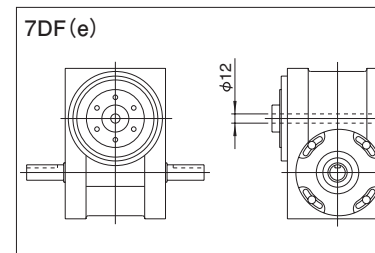
Mounted accessories



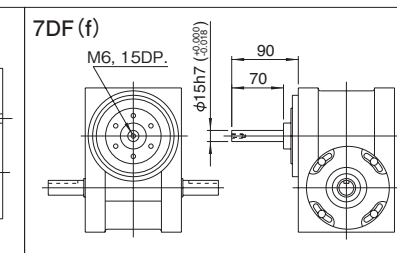
Precautions

- Models 7DF, 7EF, and 7RF can be equipped with reducers R48 and R65.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.

Hollow-shaft model



Fixed-shaft model



Precautions

- ※ Hollow-shaft and Fixed-shaft models are treated as custom designs. For shapes, dimensions, and various specifications, contact Sankyo.

8DF/8EF/8RF Dimensions

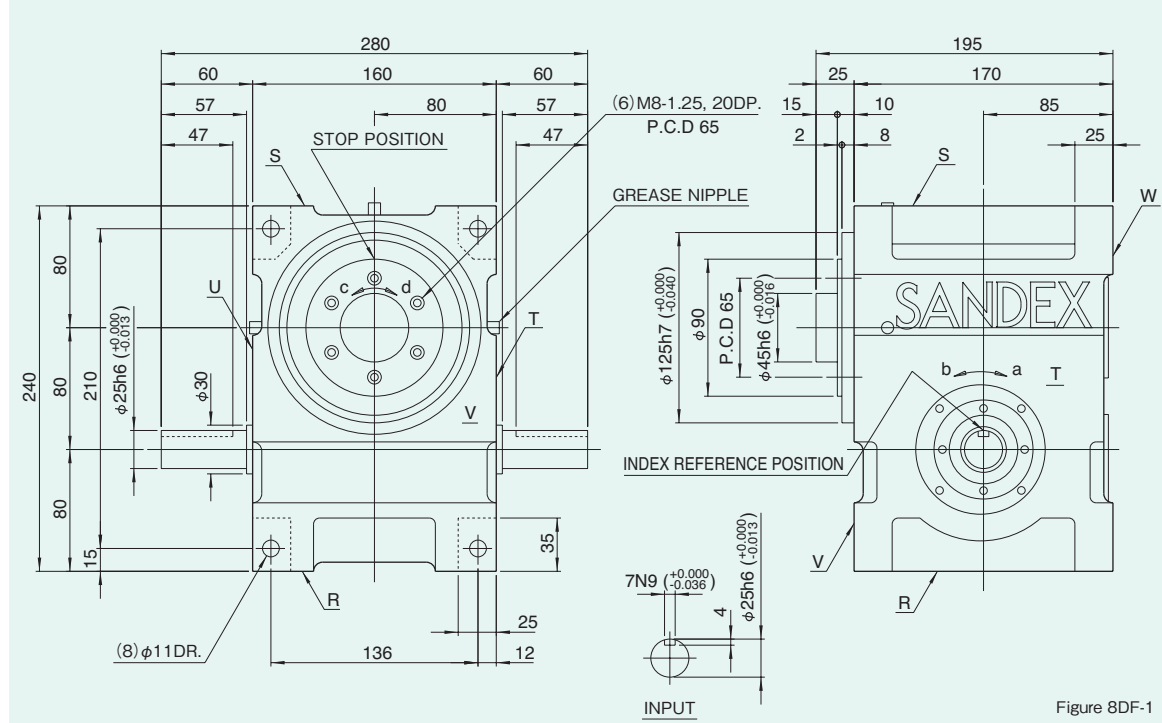
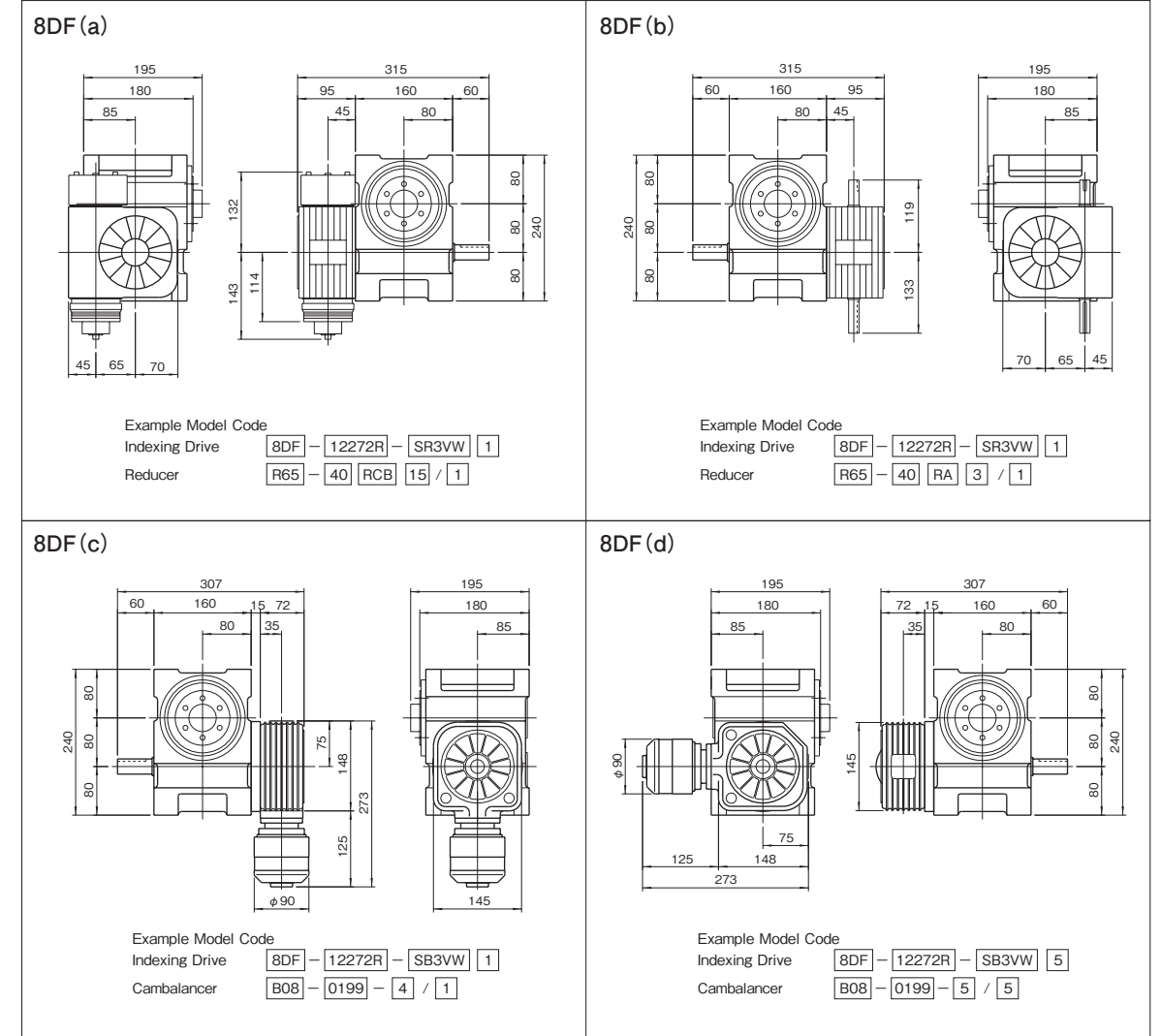


Figure 8DF-1

Mounted accessories

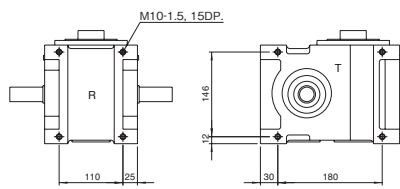


8DF

8DF

Mounting hole locations

Figure 8DF-2



Dimension R,S,T, and U surface

Locations of oil plug, etc., and oil capacity

Figure 8DF-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	1.2	1.3	1.3	1.3	0.95	1.2

Precautions

- Each point indicated in the mounting positions shown in Figure 8DF-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 rotary drives.
- The oil levels indicated in Figure 8DF-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 8DF-1

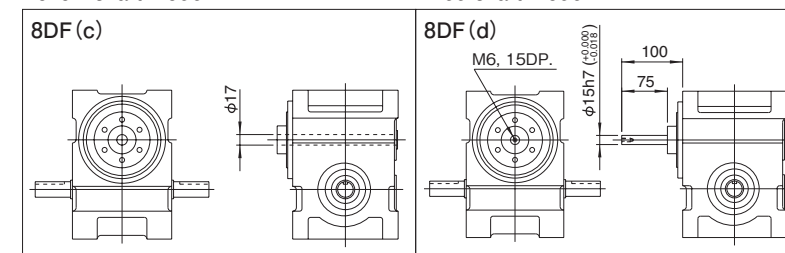
Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	3234	Input allowable axial load	P ₄	N	3430	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	4116	Input maximum repetitious bending force	P ₅	N	2548	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P ₆	N·m	245	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K ₁	N·m/rad	1.37×10 ⁵	Input torsional rigidity	K ₂	N·m/rad	1.67×10 ⁴	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J ₀	kg·m ²	4.0×10 ⁻³	Input inertia	J ₁	kg·m ²	2.25×10 ⁻³	Repetitive accuracy		sec	15
Output allowable bending moment	P ₃	N·m	107.8					Product weight		kg	35
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

Hollow-shaft model

Fixed-shaft model



Precautions

- ※Hollow-shaft and Fixed-shaft models are treated as custom designs. For shapes, dimensions, and various specifications, contact Sankyo.

11DF/11EF/11RF Dimensions

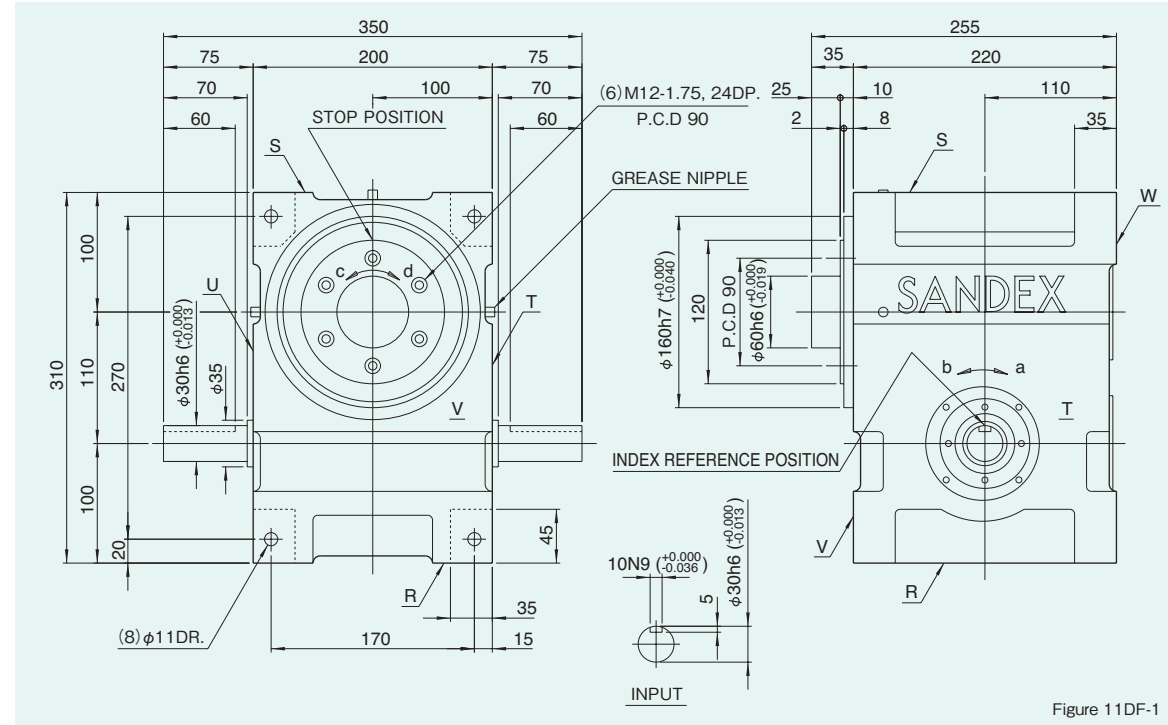
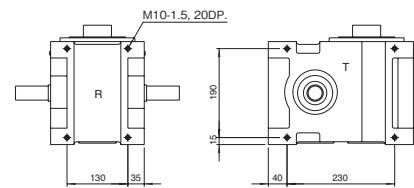


Figure 11DF-1

Mounting hole locations



Dimension R,S,T, and U surface

Locations of oil plug, etc., and oil capacity

Figure 11DF-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	3.0	2.6	3.5	3.5	1.8	3.8

Precautions

- Each point indicated in the mounting positions shown in Figure 11DF-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 rotary drives.
- The oil levels indicated in Figure 11DF-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

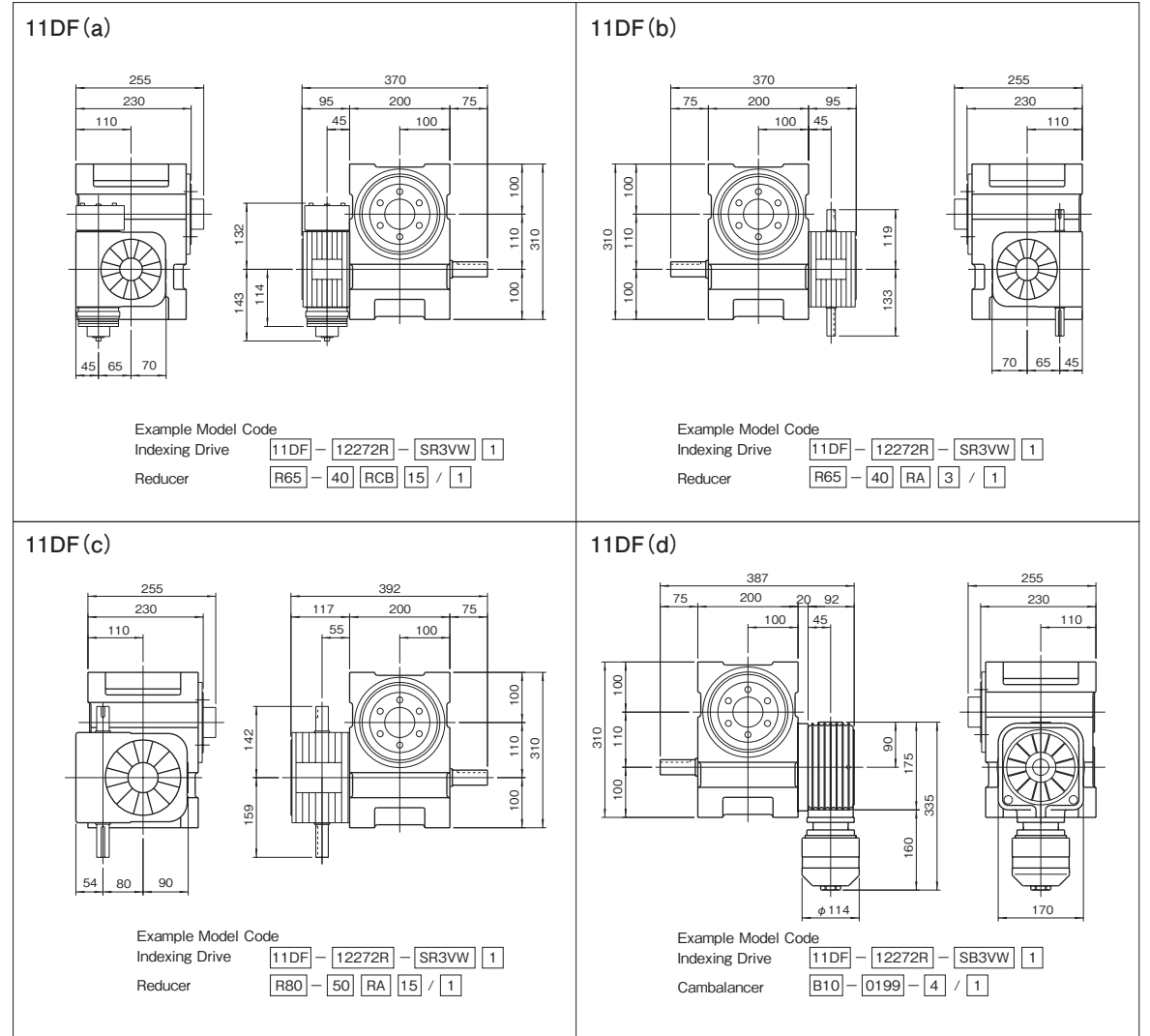
Table 11DF-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	5488	Input allowable axial load	P ₄	N	4704	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	6860	Input maximum repetitive bending force	P ₅	N	4067	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitive allowable torque	P ₆	N·m	392	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K ₁	N·m/rad	3.53×10 ⁵	Input torsional rigidity	K ₂	N·m/rad	2.74×10 ⁴	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J ₀	kg·m ²	2.18×10 ⁻²	Input inertia	J ₁	kg·m ²	7.0×10 ⁻³	Repetitive accuracy		sec	15
Output allowable bending moment	P ₃	N·m	294					Product weight		kg	60
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

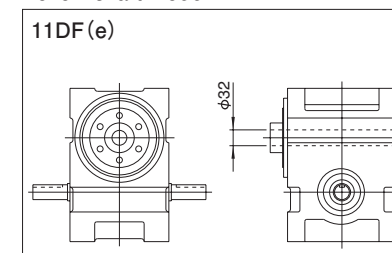
Mounted accessories



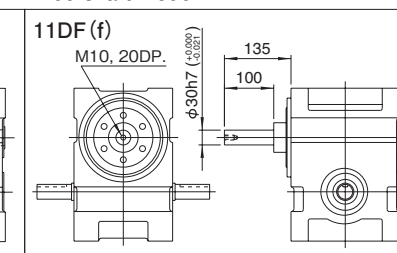
Precautions

- Models 11DF, 11EF, and 11RF can be equipped with reducers R65 and R80.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.

Hollow-shaft model



Fixed-shaft model



Precautions

- Hollow-shaft and Fixed-shaft models are treated as custom designs. For shapes, dimensions, and various specifications, contact Sankyo.

14DF/14EF/14RF Dimensions

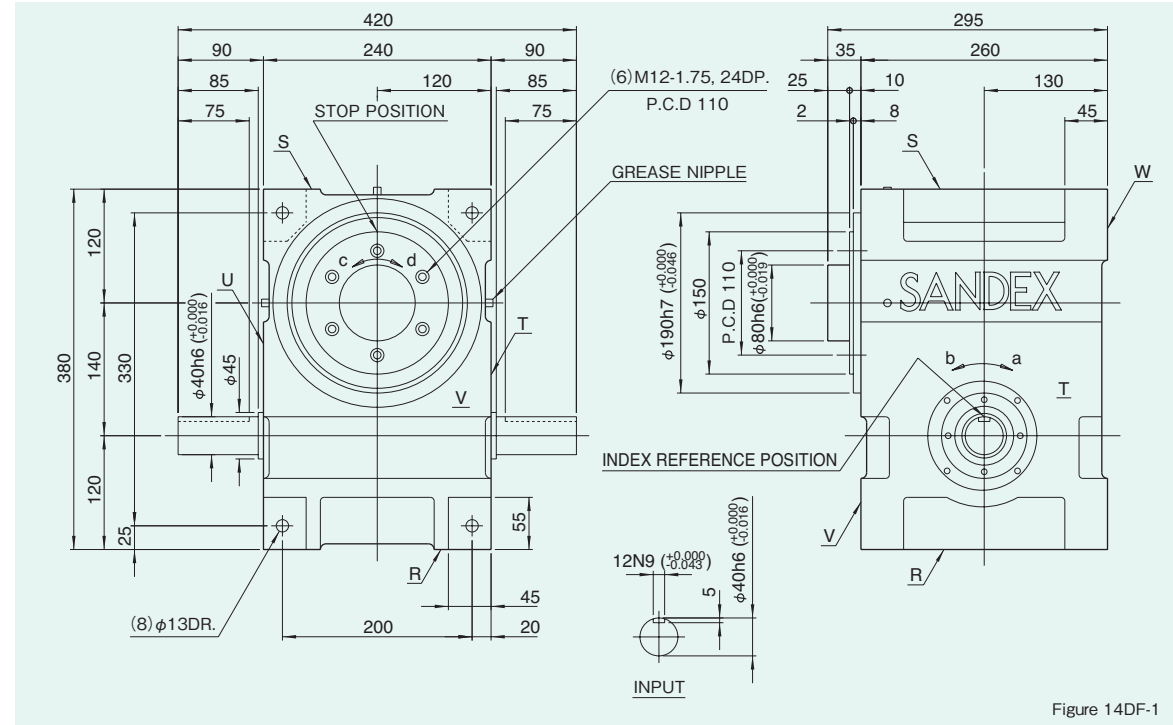
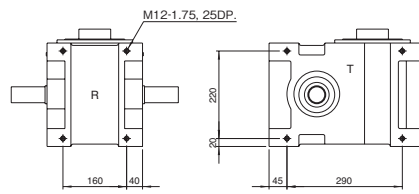


Figure 14DF-1

Mounting hole locations Figure 14DF-2



Dimension R,S,T, and U surface

Locations of oil plug, etc., and oil capacity Figure 14DF-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	5	4.5	4.5	4.5	3	4.6

Precautions

- Each point indicated in the mounting positions shown in Figure 14DF-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 rotary drives.
- The oil levels indicated in Figure 14DF-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

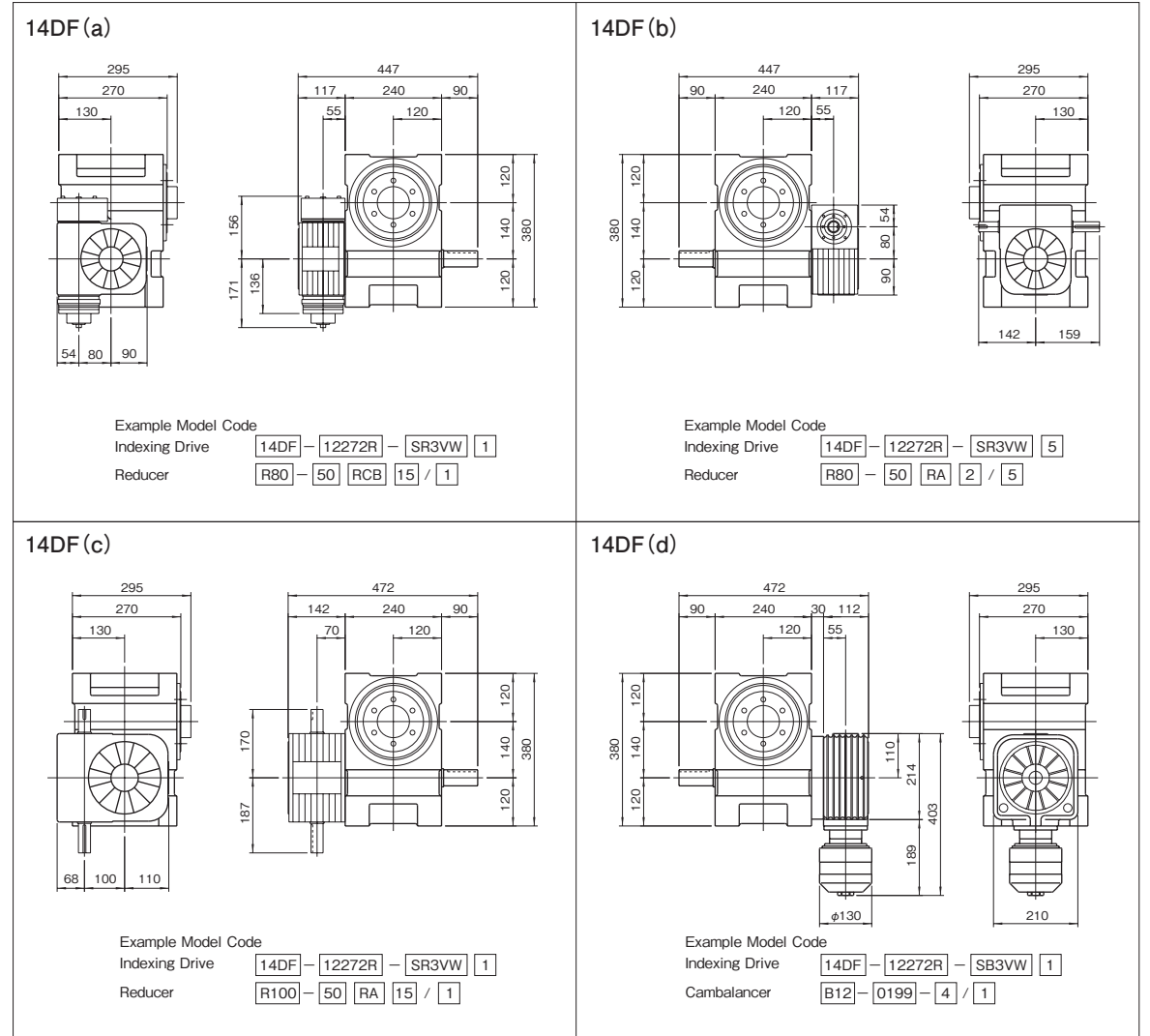
Specifications

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	7448	Input allowable axial load	P ₄	N	5390	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	9800	Input maximum repetitious bending force	P ₅	N	6958	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	980	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K ₁	N·m/rad	7.06×10 ⁵	Input torsional rigidity	K ₂	N·m/rad	7.35×10 ⁴	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J ₀	kg·m ²	4.25×10 ⁻²	Input inertia	J ₁	kg·m ²	2.75×10 ⁻²	Repetitive accuracy		sec	15
Output allowable bending moment	P ₃	N·m	490					Product weight		kg	90
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

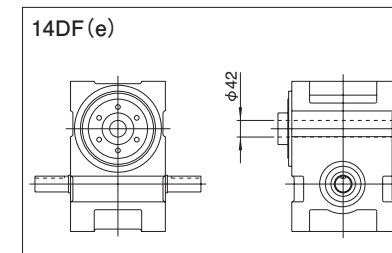
Mounted accessories



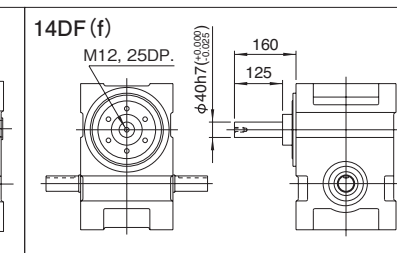
Precautions

- Models 14DF, 14EF, and 14RF can be equipped with reducers R80 and R100.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.

Hollow-shaft model



Fixed-shaft model



Precautions

- ※Hollow-shaft and Fixed-shaft models are treated as custom designs. For shapes, dimensions, and various specifications, contact Sankyo.

18DF/18EF/18RF Dimensions

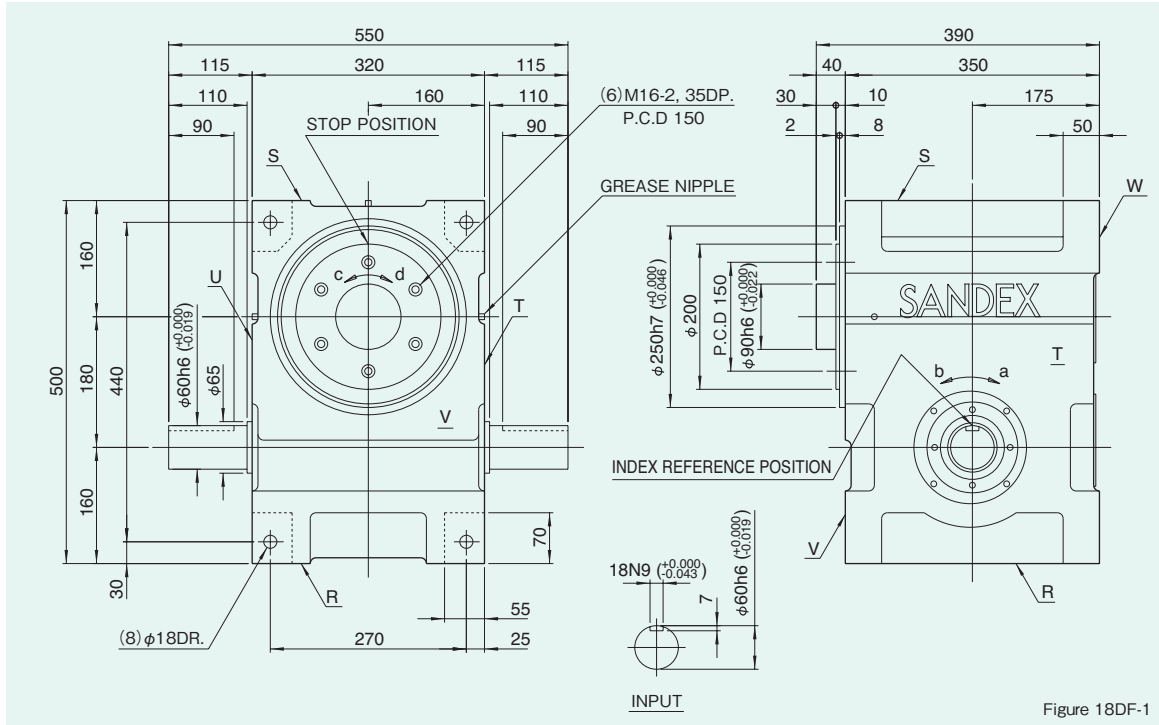
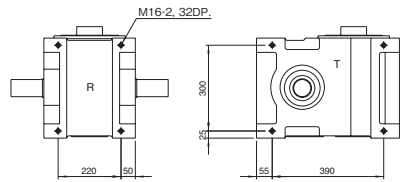


Figure 18DF-1

Mounting hole locations

Figure 18DF-2



Dimension R,S,T, and U surface

Locations of oil plug, etc., and oil capacity

Figure 18DF-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	11	12	12	12	8	14

Precautions

- Each point indicated in the mounting positions shown in Figure 18DF-3 represents (starting at top) the oil plug (PT3/4), oil level (VB), and drain (PT3/4).
- The mounting positions correspond to code i for the indexing, oscillating, and rotary drives.
- The oil levels indicated in Figure 18DF-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

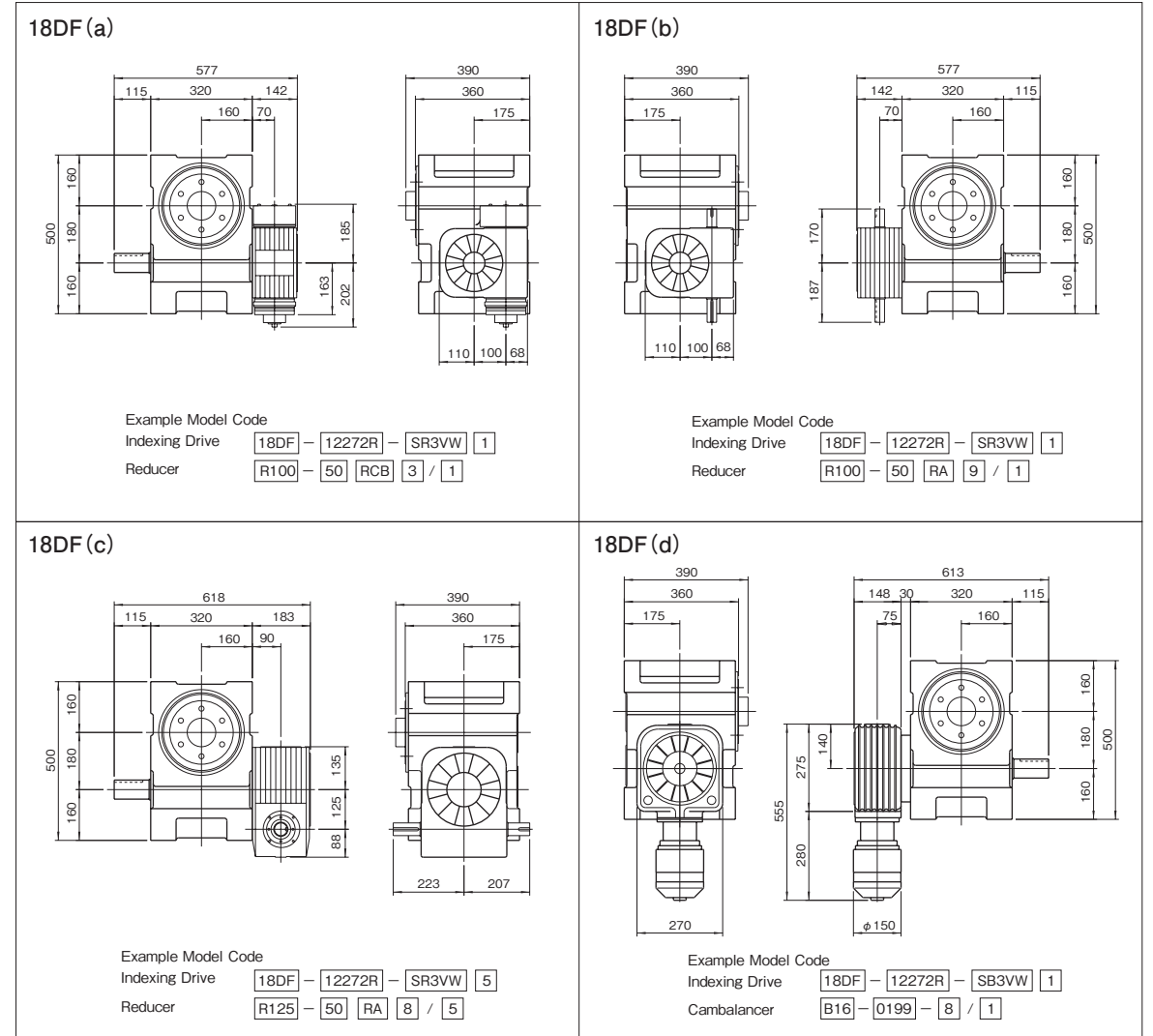
Table 18DF-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	11760	Input allowable axial load	P ₄	N	10780	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	14700	Input maximum repetitive bending force	P ₅	N	19208	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitive allowable torque	P ₆	N·m	3332	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K ₁	N·m/rad	1.47×10 ⁵	Input torsional rigidity	K ₂	N·m/rad	2.84×10 ⁵	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J ₀	kg·m ²	0.183	Input inertia	J ₁	kg·m ²	9.75×10 ⁻²	Repetitive accuracy		sec	15
Output allowable bending moment	P ₃	N·m	980					Product weight		kg	220
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

Mounted accessories

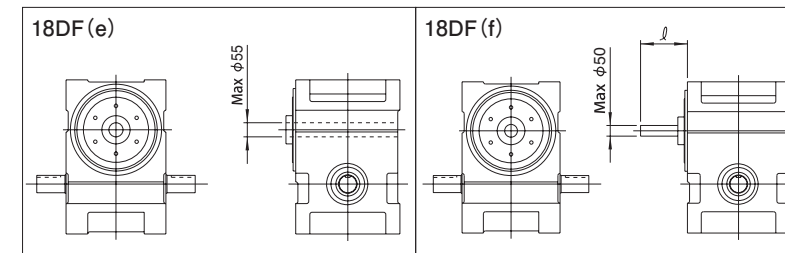


Precautions

- Models 18DF, 18EF, and 18RF can be equipped with reducers R100 and R125.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.

Hollow-shaft model

Fixed-shaft model



Precautions

- ※Hollow-shaft and Fixed-shaft models are treated as custom designs. For shapes, dimensions, and various specifications, contact Sankyo.

25DF/25EF/25RF Dimensions

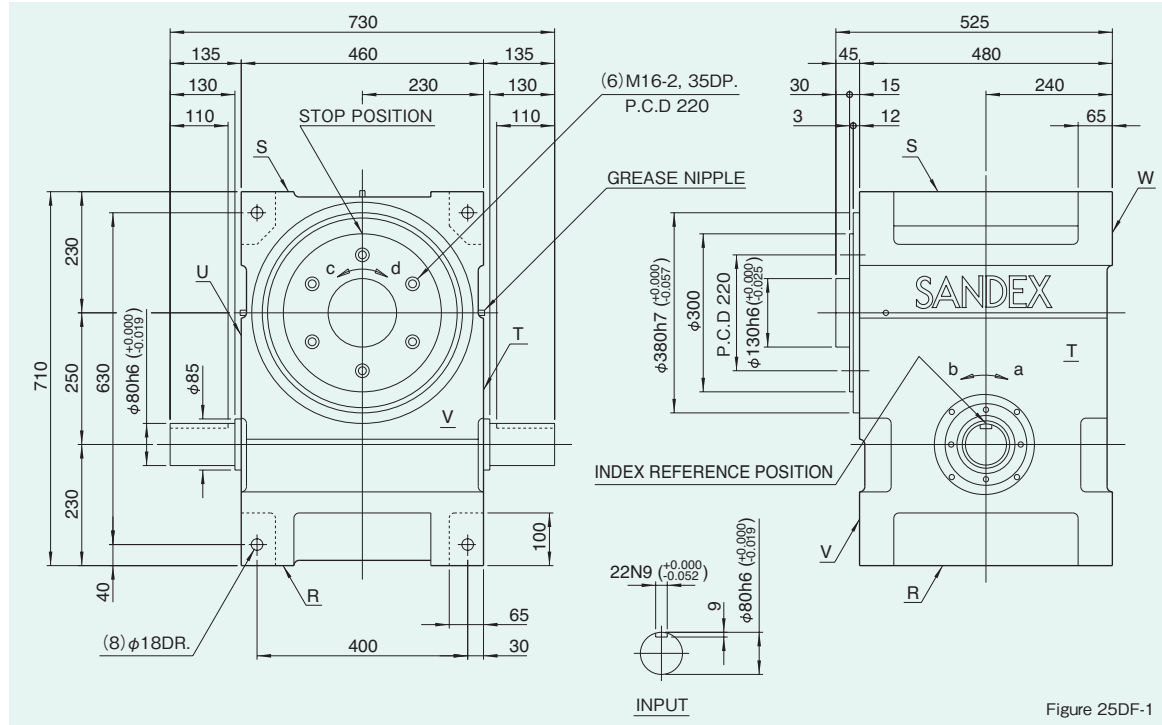
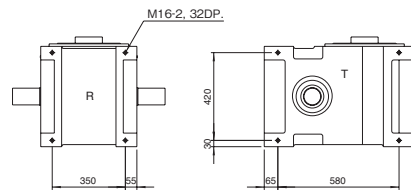


Figure 25DF-1

Mounting hole locations Figure 25DF-2



Dimension R,S,T, and U surface

Locations of oil plug, etc., and oil capacity Figure 25DF-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	33	35	33.5	33.5	16	30

Precautions

- Each point indicated in the mounting positions shown in Figure 25DF-3 represents (starting at top) the oil plug (PT3/4), oil level (VB), and drain (PT3/4).
- The mounting positions correspond to code i for the indexing, oscillating, and rotary drives.
- The oil levels indicated in Figure 25DF-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

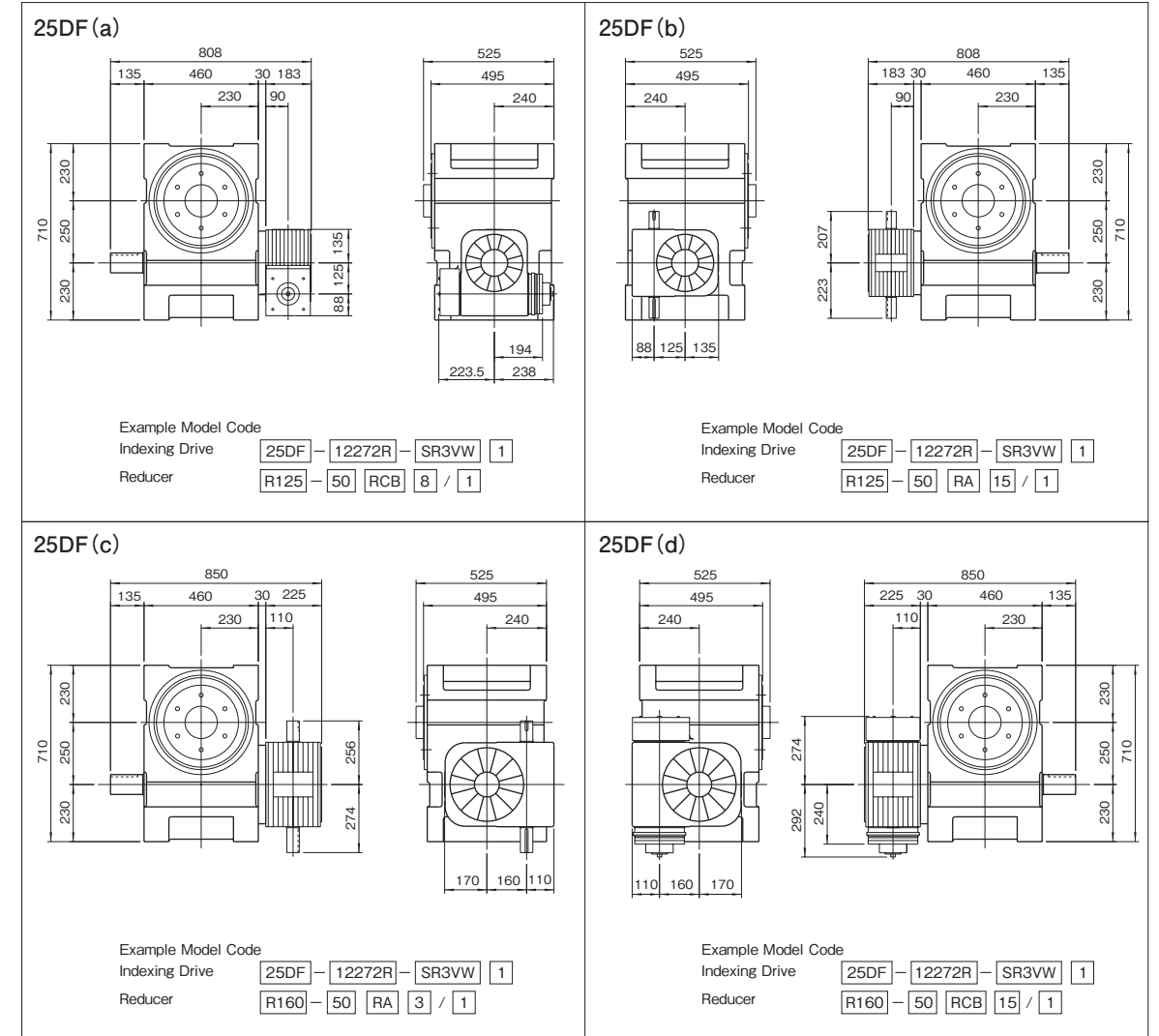
Table 25DF-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	31360	Input allowable axial load	P ₄	N	15190	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	40670	Input maximum repetitious bending force	P ₅	N	37240	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	7644	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K ₁	N·m/rad	4.02×10 ⁵	Input torsional rigidity	K ₂	N·m/rad	6.76×10 ⁵	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J ₀	kg·m ²	1.26	Input inertia	J ₁	kg·m ²	0.495	Repetitive accuracy		sec	15
Output allowable bending moment	P ₃	N·m	2450					Product weight		kg	520
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

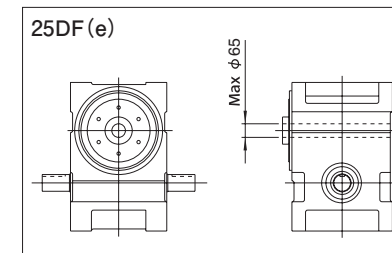
Mounted accessories



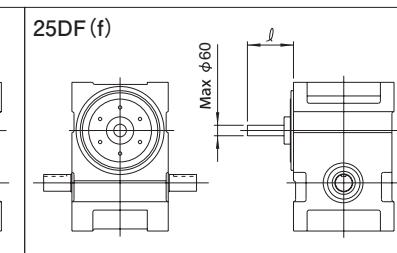
Precautions

- Models 25DF, 25EF, and 25RF can be equipped with reducers R125 and R160.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.

Hollow-shaft model



Fixed-shaft model



Precautions

- ※Hollow-shaft and Fixed-shaft models are treated as custom designs. For shapes, dimensions, and various specifications, contact Sankyo.



30DF/30EF/30RF Dimensions

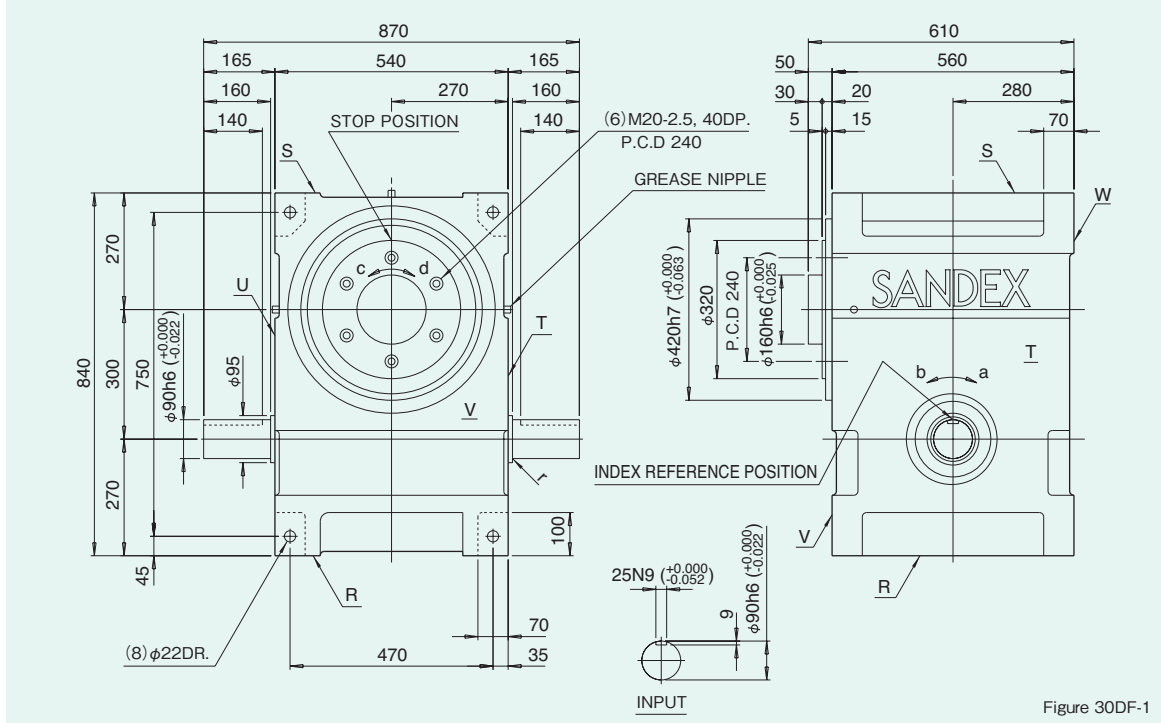
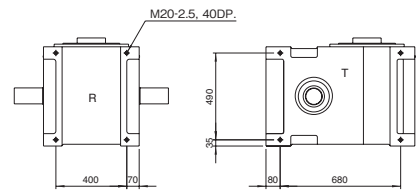


Figure 30DF-1

Mounting hole locations

Figure 30DF-2



Dimension R,S,T, and U surface

Locations of oil plug, etc., and oil capacity

Figure 30DF-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	51	47	44.5	44.5	33	46

Precautions

- Each point indicated in the mounting positions shown in Figure 30DF-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 rotary drives.
- The oil levels indicated in Figure 30DF-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 30DF-1

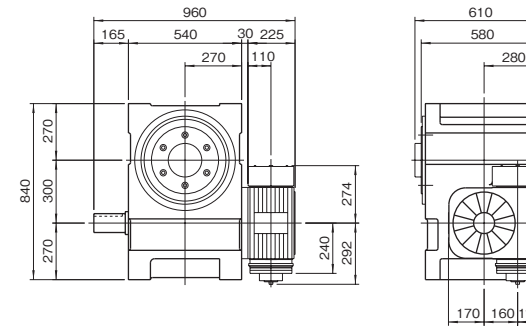
Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	37240	Input allowable axial load	P ₄	N	17640	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	46550	Input maximum repetitive bending force	P ₅	N	39200	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitive allowable torque	P ₆	N·m	10780	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K ₁	N·m/rad	6.66×10 ⁵	Input torsional rigidity	K ₂	N·m/rad	7.74×10 ⁵	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J ₀	kg·m ²	2.79	Input inertia	J ₁	kg·m ²	2.09	Repetitive accuracy		sec	30
Output allowable bending moment	P ₃	N·m	3136					Product weight		kg	900
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

Mounted accessories

30DF (a)

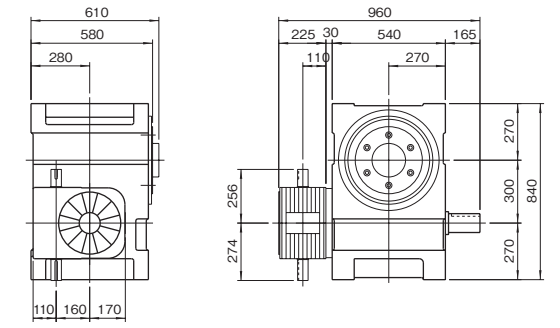


Example Model Code

Indexing Drive 30DF - 12272R - SR3VW 1

Reducer R160 - 50 RCB 3 / 1

30DF (b)

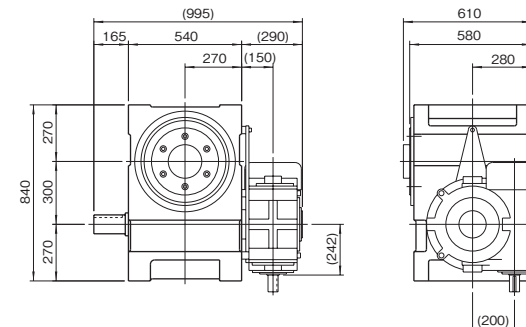


Example Model Code

Indexing Drive 30DF - 12272R - SR3VW 1

Reducer R160 - 50 RA 15 / 1

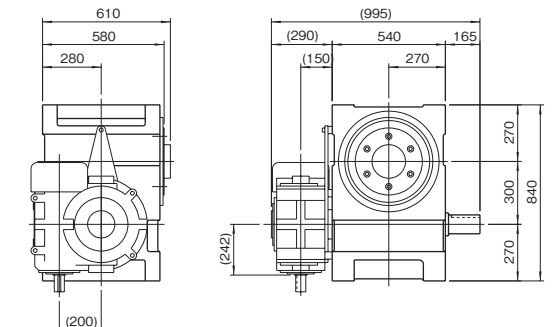
30DF (c)



Example Model Code

Indexing Drive 30DF - 12272R - SR3VW 1 / X

30DF (d)



Example Model Code

Indexing Drive 30DF - 12272R - SR3VW 1 / X

Precautions

- Models 30DF, 30EF, and 30RF can be equipped with reducer R160.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.

35DF/35EF/35RF Dimensions

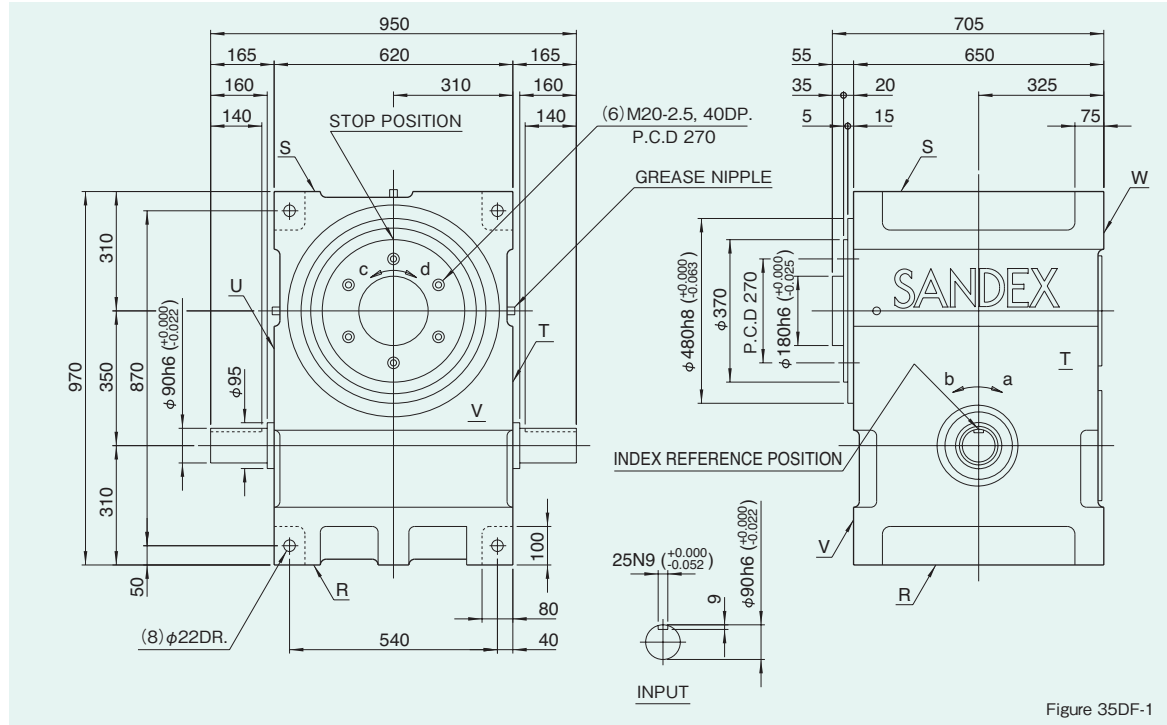
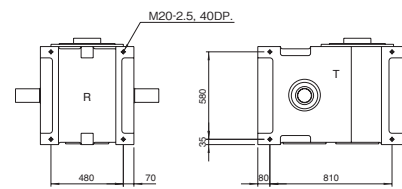


Figure 35DF-1

Mounting hole locations

Figure 35DF-2



Dimension R,S,T, and U surface

Locations of oil plug, etc., and oil capacity

Figure 35DF-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	74.5	67.5	66	66	60	67

Precautions

- Each point indicated in the mounting positions shown in Figure 35DF-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 rotary drives.
- The oil levels indicated in Figure 35DF-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

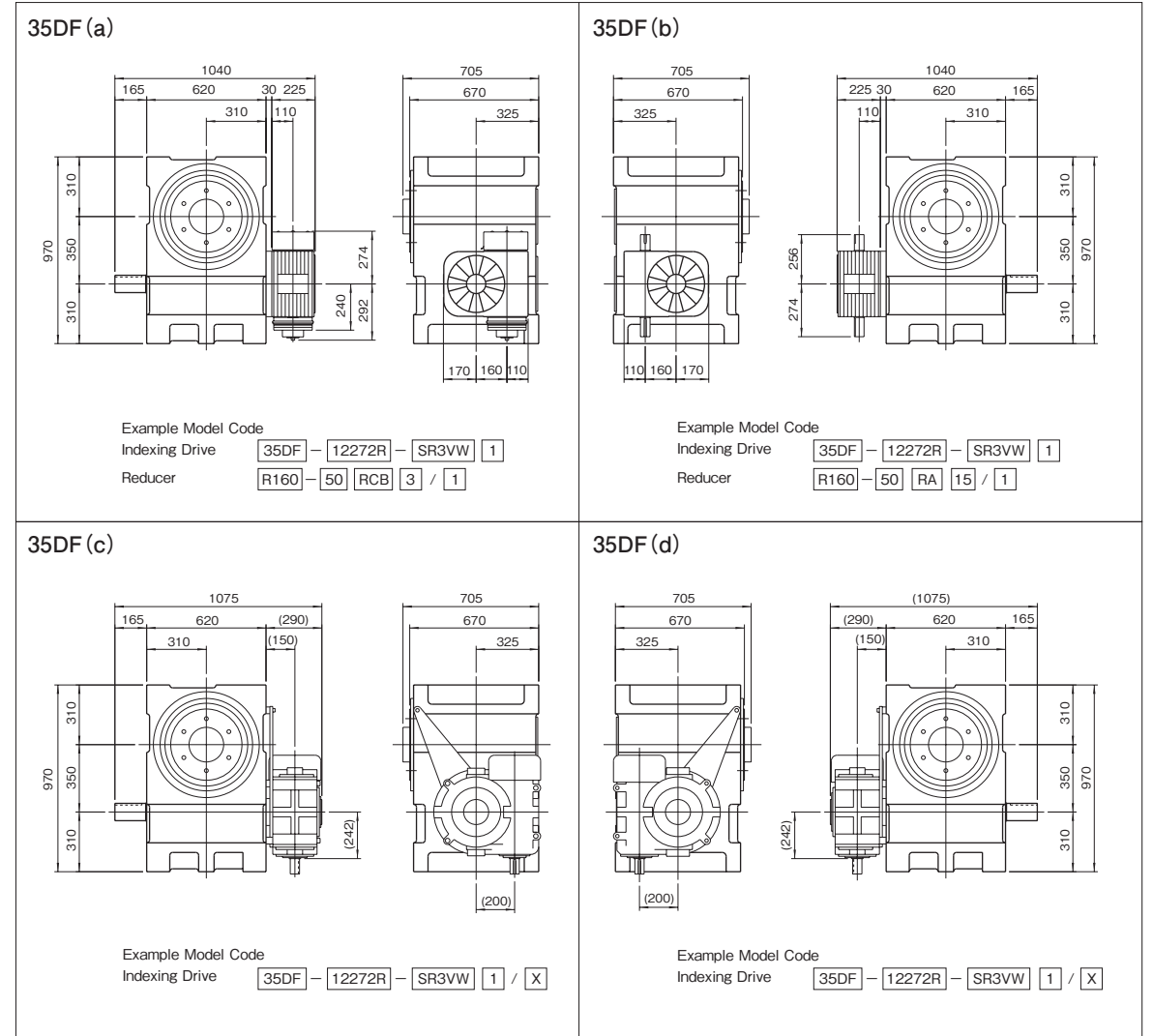
Table 35DF-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	43120	Input allowable axial load	P ₄	N	19796	Indexing accuracy (1 DWELL)		sec	±20
Output allowable radial load	P ₂	N	53900	Input maximum repetitious bending force	P ₅	N	43120	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	13230	Indexing accuracy (3 DWELL)		sec	±60
Output torsional rigidity	K ₁	N·m/rad	9.11×10 ⁵	Input torsional rigidity	K ₂	N·m/rad	8.33×10 ⁵	Indexing accuracy (4 DWELL)		sec	±80
Output inertia	J _o	kg·m ²	4.79	Input inertia	J ₁	kg·m ²	2.31	Repetitive accuracy		sec	10
Output allowable bending moment	P ₃	N·m	4018					Product weight		kg	1400
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

Mounted accessories

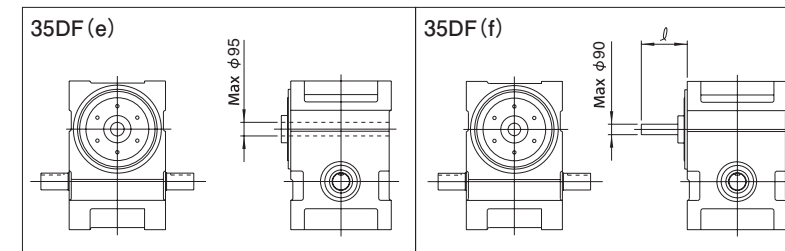


Precautions

- Models 35DF, 35EF, and 35RF can be equipped with reducer R160.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.

Hollow-shaft model

Fixed-shaft model



Precautions

- Hollow-shaft and Fixed-shaft models are treated as custom designs. For shapes, dimensions, and various specifications, contact Sankyo.

40DF Dimensions

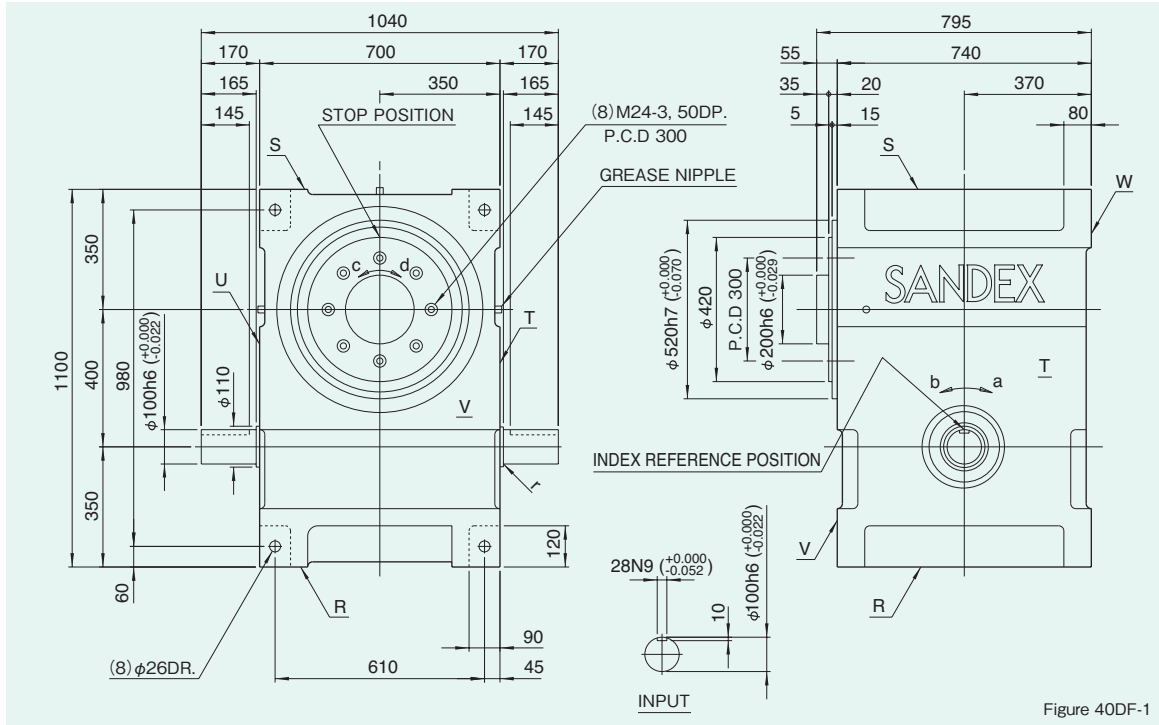
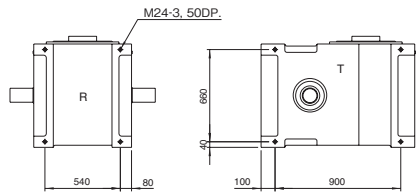


Figure 40DF-1

Mounting hole locations

Figure 40DF-2



Dimension R,S,T, and U surface

Locations of oil plug, etc., and oil capacity

Figure 40DF-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	115	105	100	100	75	103

Precautions

- Each point indicated in the mounting positions shown in Figure 40DF-3 represents (starting at top) the oil plug (PT1), oil level (VD), and drain (PT1).
- The mounting positions correspond to code i for the indexing, oscillating, and rotary drives.
- The oil levels indicated in Figure 40DF-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 40DF-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	47040	Input allowable axial load	P ₄	N	21560	Indexing accuracy (1 DWELL)		sec	±20
Output allowable radial load	P ₂	N	58800	Input maximum repetitious bending force	P ₅	N	48020	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	14700	Indexing accuracy (3 DWELL)		sec	±60
Output torsional rigidity	K ₁	N·m/rad	1.57×10 ⁷	Input torsional rigidity	K ₂	N·m/rad	1.08×10 ⁶	Indexing accuracy (4 DWELL)		sec	±80
Output inertia	J _o	kg·m ²	9.68	Input inertia	J ₁	kg·m ²	8.75	Repetitive accuracy		sec	20
Output allowable bending moment	P ₃	N·m	4998					Product weight		kg	2200
								Housing color		Gray	

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

45DF Dimensions

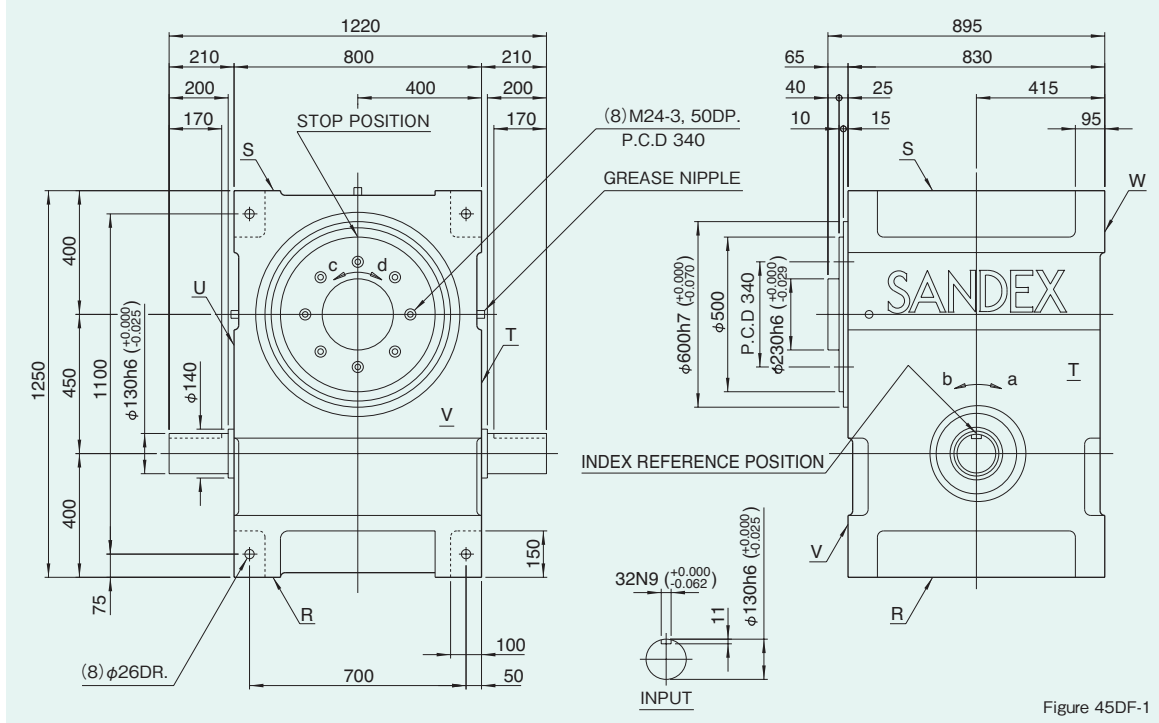


Figure 45DF-1

Locations of oil plug, etc., and oil capacity

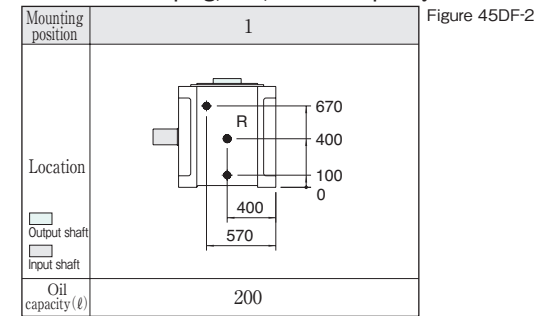


Figure 45DF-2

Precautions

- Each point indicated in the mounting positions shown in Figure 45DF-3 represents (starting at top) the oil plug (PT2), oil level (VD), and drain (PT2).
- The mounting positions correspond to code i for the indexing, oscillating, and rotary drives.
- The oil levels indicated in Figure 45DF-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

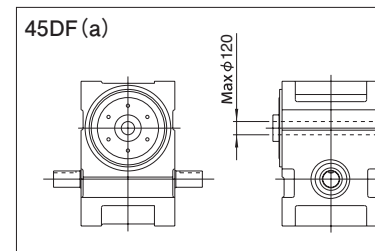
Table 45DF-1

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	24500	Indexing accuracy (1 DWELL)		sec	±20
Output allowable radial load	P ₂	N	73500	Input maximum repetitious bending force	P ₅	N	53900	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	24500	Indexing accuracy (3 DWELL)		sec	±60
Output torsional rigidity	K ₁	N·m/rad	3.23×10 ⁷	Input torsional rigidity	K ₂	N·m/rad	3.43×10 ⁶	Indexing accuracy (4 DWELL)		sec	±80
Output inertia	J _o	kg·m ²	9.75	Input inertia	J ₁	kg·m ²	12.0	Repetitive accuracy		sec	10
Output allowable bending moment	P ₃	N·m	7056					Product weight		kg	3500
								Housing color			Gray

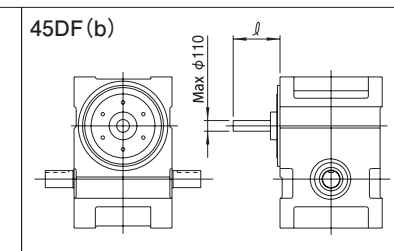
Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

Hollow-shaft model



Fixed-shaft model



Precautions

※Hollow-shaft and Fixed-shaft models are treated as custom designs. For shapes, dimensions, and various specifications, contact Sankyo.