

Bevel gearboxes

Overview | Robust design

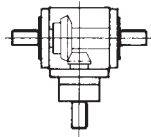
Designs

A

Form

- double-sided, slow-running shaft

Ratio 1:1 - 5:1



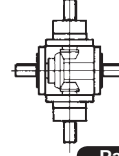
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B

Form

- double-sided, slow-running shaft
- 2nd shaft fast-running

Ratio 1:1 - 5:1



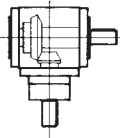
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AS

Form

- single-sided, slow-running shaft

Ratio 1:1 - 5:1



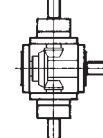
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BS

Form

- single-sided, slow-running shaft
- two fast-running shafts

Ratio 1:1 - 5:1



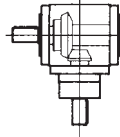
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AD

Form

- single-sided, slow-running shaft

Ratio 1:1 - 5:1



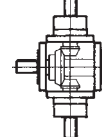
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BD

Form

- single-sided, slow-running shaft
- two fast-running shafts

Ratio 1:1 - 5:1



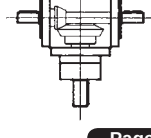
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AX

Form

- double-sided, fast-running shaft

Ratio 1:1.5 - 1:2



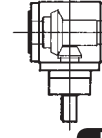
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AH

Form

- slow-running hollow shaft

Ratio 1:1 - 5:1



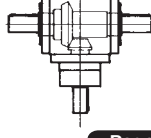
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AP

Form

- double-sided, reinforced slow-running shaft

Ratio 1:1 - 5:1



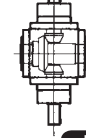
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BH

Form

- slow-running hollow shaft
- two fast-running shafts

Ratio 1:1 - 5:1



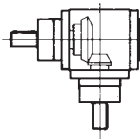
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C

Form

- single-sided, reinforced, slow-running shaft

Ratio 1:1 - 5:1



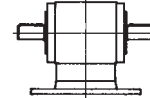
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M..

Form

- Gearboxes with IEC motor flange adapter

Ratio 1:1 - 5:1



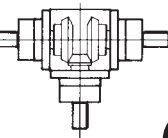
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DR

Form

- double-sided, counter-rotating, slow-running shaft

Ratio 1:1 - 5:1



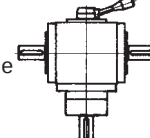
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IO/DO

Form

- 90° reversing gearboxes,
- shift gearboxes, disengageable

Ratio 1:1 - 2:1



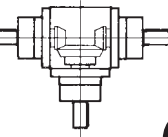
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DX

Form

- double-sided, counter-rotating, fast-running shaft

Ratio 1:1 - 1:5



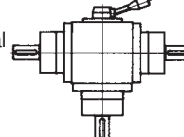
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IC

Form

- reversing gearboxes, coaxial

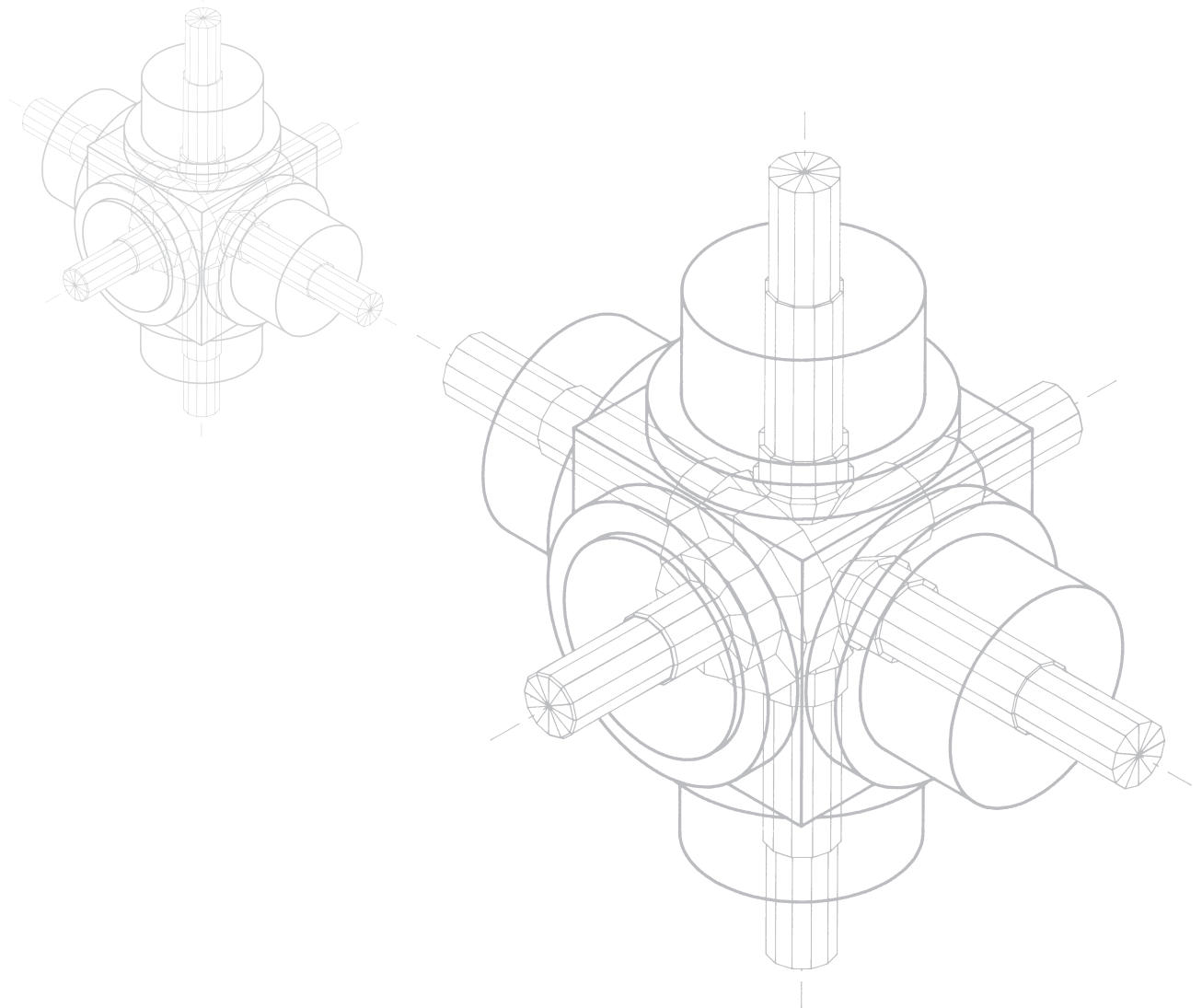
Ratio 1:1



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General

These spiral-toothed bevel gearboxes are the most advanced products modern technology has to offer in this sector. They are characterised by a favourable power-to-space ratio and by quiet, smooth running even at high speeds.



Main design features

- ▶ Cubic housings of grey cast iron are machined on all sides and provided with threaded holes, so that mounting is possible in any position. [The depth of the threaded hole equals twice the bore diameter.]
- ▶ Covers and hubs are provided with double centring [tolerance h7] and threaded holes [exception: size 75] for coaxial fixing.
- ▶ Spiral-toothed bevel gears are made of high-grade steel, with GLEASON toothing, case-hardened, tempered and lapped.
- ▶ Shafts of case-hardened, tempered steel, ground.
- ▶ Shaft end tolerance j6
- ▶ Hollow shaft bore tolerance H7
- ▶ Shaft ends with threaded hole to UNI 3221
- ▶ Parallel keys to UNI 6604, DIN 6885

The precise manufacture of the bevel gears enables, on request and depending on the operating speed, minimum backlash between the teeth.

The quality of the components and the careful assembly enable an overall efficiency of 94 - 97 %.

The modular design allows the bevel gearboxes to be equipped with up to 6 shafts [exception: ratio 1:1]

Lubrication

The bevel gearboxes are supplied as standard with grease lubrication for input speeds up to 1000 rpm. In all other cases [state when ordering], oil lubrication must be provided. In this case, the bevel gearbox is supplied with a filler/breather plug, oil level indicator and drain plug. The following symbols are used:

- - Filler and breather plug
- ◐ - Oil level indicator
- - Drain plug

Motor-driven bevel gearboxes, reversing gearboxes and bevel gearboxes with disengagement should normally be provided with oil lubrication.

For special applications, e.g. where the thermal limit is exceeded, other cooling systems can be used; please consult our technical department beforehand.

The values given in the table apply under the following conditions:

- **Operating time** 20,000 hours
- **Operating mode** 8 hours/day
- **Drive** Electric motor
- **Starting frequency** 1 start/hour
- **Duty cycle** 100 %
- **Ambient conditions:** temperature 20°C - altitude < 1000 m above sea level
- **Direction of rotation** left, right

Size	Input Speed	Ratio 1:1 Input power Output torque	Ratio 1:1.5 Input power Output torque	Ratio 1:2 Input power Output torque	Ratio 1:3 Input power Output torque	Ratio 1:4 Input power Output torque	Ratio 1:5 Input power Output torque
	min ⁻¹	kW Nm	kW Nm	kW Nm	kW Nm	kW Nm	kW Nm
BG12	2800	4.000 13.1	— —	2.09 13.7	0.77 7.5	— —	— —
	2000	2.990 13.8	— —	1.55 14.1	0.60 8.1	— —	— —
	1500	2.440 14.9	— —	1.22 14.9	0.49 8.9	— —	— —
	1000	1.760 16.2	— —	0.88 16.2	0.35 9.7	— —	— —
	800	1.520 17.4	— —	0.77 17.4	0.30 10.5	— —	— —
	600	1.220 18.7	— —	0.61 18.7	0.25 11.1	— —	— —
	400	0.870 20.0	— —	0.44 20.0	0.17 11.5	— —	— —
	100	0.230 21.8	— —	0.12 21.7	0.04 11.2	— —	— —
	50	0.130 23.6	— —	0.07 23.6	0.03 12.7	— —	— —
BG19	10	0.026 24.9	— —	0.01 24.9	0.01 13.1	— —	— —
	2800	21.150 69.2	9.57 46.9	8.46 55.3	3.12 30.6	2.69 35.2	1.72 28.0
	2000	15.520 71.1	6.99 48.1	6.15 56.4	2.28 31.2	1.50 27.5	1.25 28.4
	1500	11.920 72.9	5.36 49.0	4.68 57.2	1.74 31.8	1.13 27.6	0.94 28.7
	1000	8.130 74.6	3.65 50.1	3.20 58.6	1.18 32.3	0.77 28.3	0.64 29.2
	800	6.590 75.5	2.95 50.7	2.59 59.4	0.95 32.6	0.62 28.5	0.51 29.3
	600	5.010 76.4	2.25 51.4	1.96 59.9	0.72 33.0	0.47 28.8	0.39 29.6
	400	3.410 78.0	1.51 52.0	1.33 60.7	0.48 33.5	0.32 29.0	0.26 29.7
	100	0.900 81.7	0.39 53.9	0.35 63.4	0.13 34.3	0.08 29.7	0.07 30.4
BG24	50	0.460 82.8	0.20 54.6	0.17 64.0	0.07 34.5	0.04 29.9	0.04 30.6
	10	0.090 83.9	0.04 55.2	0.04 64.6	0.01 34.8	0.01 30.2	0.01 30.9
	2800	23.240 76.1	15.82 77.7	10.60 69.4	4.58 44.9	5.07 66.4	3.47 56.8
	2000	17.390 79.6	11.54 79.4	7.79 71.3	3.35 46.0	3.69 67.6	2.61 59.9
	1500	13.480 82.4	8.83 80.8	5.92 72.4	2.55 46.8	2.81 68.6	1.99 60.8
	1000	9.350 85.8	6.05 83.0	4.02 73.5	1.73 47.5	1.91 69.9	1.35 61.7
	800	7.620 87.3	4.88 83.8	3.25 74.3	1.40 48.3	1.53 70.3	1.09 62.4
	600	5.860 89.5	3.72 85.4	2.46 75.1	1.07 48.6	1.17 71.1	0.85 64.2
	400	4.000 91.7	2.52 86.7	1.66 76.1	0.72 49.4	0.78 71.8	0.57 64.8
BG32	100	1.070 97.8	0.65 89.8	0.42 76.5	0.18 50.5	0.20 72.9	0.14 66.8
	50	0.550 100.1	0.33 91.0	0.21 76.8	0.09 50.7	0.10 74.1	0.08 67.3
	10	0.120 103.3	0.07 92.4	0.04 77.3	0.01 50.9	0.03 74.8	0.01 68.6
	2800	53.040 173.4	30.55 149.7	20.15 132.3	9.53 93.6	7.05 92.3	4.58 74.8
	2000	39.520 180.9	22.88 157.3	14.95 137.2	7.49 102.9	5.38 98.5	3.43 78.6
	1500	30.680 187.2	17.81 162.8	11.44 139.7	5.72 104.7	4.08 99.8	2.61 79.8
	1000	21.190 194.7	12.22 168.4	7.80 142.2	3.87 106.7	2.76 101.1	1.77 81.1
	800	17.290 198.3	10.14 174.0	6.37 144.8	3.16 108.5	2.24 102.3	1.44 82.4
	600	13.260 203.4	7.80 177.8	4.81 147.2	2.41 110.5	1.69 103.6	1.11 84.2
BG38	400	9.100 208.3	5.33 183.4	3.25 149.7	1.64 112.3	1.14 104.7	0.74 85.5
	100	2.470 222.1	1.30 187.2	0.78 154.7	0.42 116.0	0.30 109.8	0.20 87.3
	50	1.170 227.1	0.65 190.9	0.39 159.7	0.21 117.9	0.16 112.3	0.09 88.6
	10	0.260 234.6	0.13 194.7	0.13 162.2	0.04 119.8	0.03 114.7	0.03 89.8
	2800	113.360 371.2	75.01 355.5	38.87 254.8	19.60 192.4	15.99 209.3	12.87 210.6
	2000	83.330 382.2	53.30 366.6	28.60 261.3	14.30 197.6	11.70 213.2	9.36 215.1
	1500	64.220 392.6	40.82 374.4	21.97 267.8	10.90 200.2	8.84 217.1	7.15 219.0
	1000	43.940 403.0	27.82 381.9	15.08 275.6	7.49 205.4	5.98 221.0	4.81 222.3
	800	35.880 411.4	22.62 390.0	12.22 279.2	6.06 208.0	4.81 222.3	3.90 224.9
BG38	600	27.430 419.9	17.29 396.5	9.23 283.4	4.62 211.2	3.64 225.5	2.99 227.5
	400	18.850 430.3	11.70 404.3	6.24 288.6	3.12 214.5	2.47 229.4	1.95 229.4
	100	4.940 453.7	3.12 423.1	1.69 300.3	0.81 221.6	0.65 236.6	0.52 236.6
	50	2.470 462.1	1.56 432.1	0.78 304.2	0.40 223.6	0.33 238.5	0.26 239.2
	10	0.520 477.1	0.26 442.0	0.17 310.7	0.08 227.5	0.07 241.8	0.05 241.8

Size	Input Speed	Ratio 1:1		Ratio 1:1.5		Ratio 1:2		Ratio 1:3		Ratio 1:4		Ratio 1:5	
	min ⁻¹	Input power kW	Output torque Nm	Input power kW	Output torque Nm	Input power kW	Output torque Nm	Input power kW	Output torque Nm	Input power kW	Output torque Nm	Input power kW	Output torque Nm
BG42	2800	133.30	437	81.2	399	45.70	299	23.10	228	17.80	234	12.80	211
	2000	98.00	450	59.8	412	33.50	308	16.90	231	13.00	238	9.30	216
	1500	75.50	461	45.8	421	25.70	316	12.80	235	9.80	243	7.10	219
	1000	51.70	474	31.5	434	17.60	324	8.80	242	6.70	248	4.80	222
	800	42.20	484	25.6	441	14.30	329	7.10	244	5.40	251	3.90	225
	600	32.30	494	19.5	447	10.90	334	5.40	248	4.10	254	2.90	228
	400	22.10	507	13.3	459	7.40	339	3.60	252	2.80	257	1.90	230
	100	5.85	534	3.5	481	1.90	354	0.90	261	0.70	265	0.50	237
	50	2.99	546	1.8	489	0.90	361	0.48	264	0.33	268	0.26	239
	10	0.65	562	0.4	498	0.20	365	0.09	268	0.07	272	0.05	242
BG55	1500	162.50	992	115.3	1057	57.70	706	26.00	481	25.30	621	19.50	595
	1000	111.80	1023	78.9	1086	39.70	729	18.00	497	17.20	636	13.20	607
	800	91.00	1040	64.2	1105	32.20	738	14.60	502	14.00	644	10.60	614
	600	68.90	1053	49.0	1123	24.40	749	11.00	508	10.60	651	8.10	621
	400	47.50	1092	34.0	1161	16.70	768	7.50	517	7.20	662	5.40	629
	100	12.60	1161	8.9	1235	4.40	803	1.95	541	1.80	688	1.40	654
	50	6.50	1186	4.5	1264	2.20	822	1.04	547	0.90	694	0.78	660
	10	1.30	1223	0.9	1300	0.46	836	0.21	556	0.20	706	0.13	670
BG75	1500	344.00	2109	191.0	1754	142.00	1723	96.00	1772	60.00	1466	42.00	1278
	1000	240.00	2202	133.0	1817	98.00	1778	66.00	1823	42.00	1505	29.00	1309
	800	196.00	2264	108.0	1847	79.00	1808	53.00	1850	34.00	1525	23.00	1323
	600	151.00	2301	82.0	1888	60.00	1841	42.00	1881	25.00	1547	18.00	1342
	400	104.00	2371	56.0	1937	42.00	1884	27.00	1918	17.00	1576	12.00	1664
	100	27.00	2552	14.0	2061	10.00	1992	7.80	2015	3.90	1645	2.60	1418
	50	14.00	2612	8.0	2102	5.00	2028	3.90	2046	2.60	1667	1.30	1435
	10	3.00	2700	1.5	2161	1.10	2076	0.70	2088	0.50	1698	0.26	1457

For rotation in both directions, the table values are reduced by 30%

Selection and sizing criteria

If the operating conditions differ from the calculation values for power and torque used in the table above, it is advisable to apply the following correction factors to select the most suitable bevel gearbox size:

H: operating mode factor

Hours per day	24	18	12	8	4	2	1
H	1.25	1.18	1.1	1.0	0.9	0.8	0.7

L: operating time factor in hours

Theoretical duration	60000	40000	20000	15000	10000	5000	3000
L	1.3	1.15	1.0	0.95	0.90	0.85	0.8

C: starting frequency

Type of load	Start cycles per hour irregular	1	5	20	60	120
Uniform load	1.0	1.0	1.4	1.8	2.2	2.7
Light shock load	1.0	1.4	1.8	2.2	2.7	3.2
Heavy shock load	1.4	1.8	2.2	2.7	3.2	3.8

The required torque M is multiplied by the above factors to obtain the torque value MU for selecting the bevel gearbox: $MU = M \times [H \times L \times C]$

Thermal power

Thermal power [PT] is the power that can be applied at the input of the bevel gearbox in continuous operation at an ambient temperature of 20°C without exceeding the lubricant temperature of 100°C.

PT: thermal power

Size	BG12	BG19	BG24	BG32	BG38	BG42	BG55	BG75
Input power PT [kW]	1.5	3	6	10	16	20	35	60
min ⁻¹	2800	2800	2800	2800	2000	2000	1500	1000

For other conditions, use the following factors:

T: ambient temperature correction factor

Temperature [°C]	-10	0	10	20	30	40	50
T	1.3	1.25	1.15	1.0	0.9	0.8	0.7

ED: duty cycle correction factor

%	100	80	60	40	20
ED	1.0	1.2	1.4	1.6	1.8

The resulting permissible input power can be calculated as follows: $P_{TR} = P_T \cdot T \cdot ED$

If the power actually absorbed is higher than PTR, the gearbox must be provided with external cooling. [Please consult us]

Weights

Size	BG12	BG19	BG24	BG32	BG38	BG42	BG55	BG75
Weight [kg]	2.5	6.0	12.0	22.0	37.0	57.0	87.0	255.0

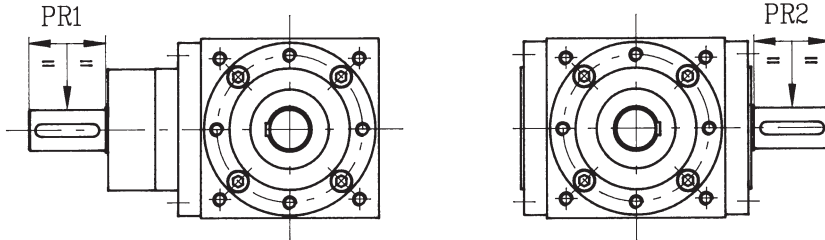
The weights refer to the basic model FORM A, ratio 1:1.

Lubricants

Size	BG12	BG19	BG24	BG32	BG38	BG42	BG55	BG75
Grease [litres]	0.15	0.22	0.35	0.9	1.7	3.5	5.5	14.0
Oil [litres]	0.1	0.15	0.22	0.6	1.1	2.2	3.6	9.0

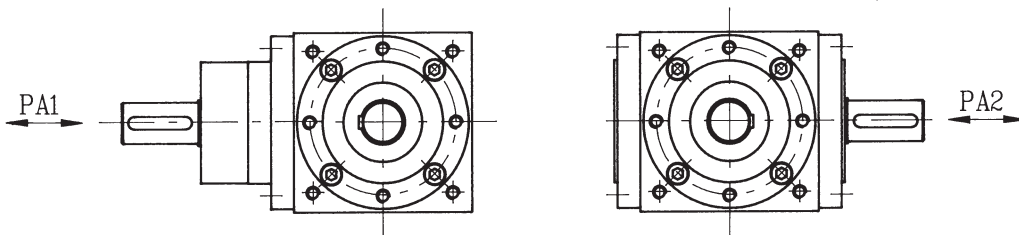
The quantities refer to the basic model FORM A, ratio 1:1.

Shaft loads



Radial forces - permissible

Force [daN]	Ratio	Size BG12	BG19	BG24	BG32	BG38	BG42	BG55	BG75
PR1	1:1, 1:2, 1:3	55	85	140	200	400	600	1000	2500
PR1	1:4, 1:5	—	60	85	140	200	400	600	1000
PR2	all	90	150	220	350	700	1000	1500	3500



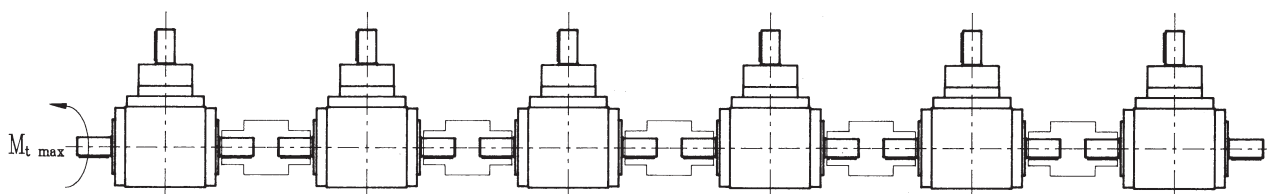
Axial forces - permissible [with ball bearings]

Force [daN]	Ratio	Size BG12	BG19	BG24	BG32	BG38	BG42	BG55	BG75
PA1	1:1, 1:2, 1:3	30	45	70	110	170	270	500	1000
PA1	1:4, 1:5	—	40	45	70	110	170	270	500
PA2	all	50	70	130	170	340	480	680	1500

Axial forces - permissible [with taper roller bearings]

Force [daN]	Ratio	Size BG12	BG19	BG24	BG32	BG38	BG42	BG55	BG75
PA1	1:1, 1:2, 1:3	—	65	100	150	240	400	780	1600
PA1	1:4, 1:5	—	45	65	100	150	240	400	780
PA2	all	—	100	180	250	500	700	1000	2200

Series connection of bevel gearboxes



If several FORM A or AH bevel gearboxes are mounted in series, the maximum torque must be taken from the table:

For Form A and AH

Size [A / AH]	BG19	BG24	BG32	BG38	BG42	BG55	BG75
Mt max [Nm]	60	120	300	500	700	1600	4000

If, however, the operating conditions exceed the above values, the AP bevel gearbox with reinforced shaft is required. In this case, the maximum torques are as follows:

For Form AP

Size [AP]	BG19	BG24	BG32	BG38	BG42	BG55	BG75
Mt max [Nm]	120	300	500	700	1000	3000	6500

Order example

Bevel gearboxes

Model [BG]
 Size [12 – 19 ... 55 – 75]
 Version [A – AS ... AH 180 – AH270]
 Ratio [1:1 – 2:1 ... 1:1,5 – 1:2]
 Mounting position [10 - 11 · 40 - 41]
 Lubrication [O = oil, G = grease]

BG					

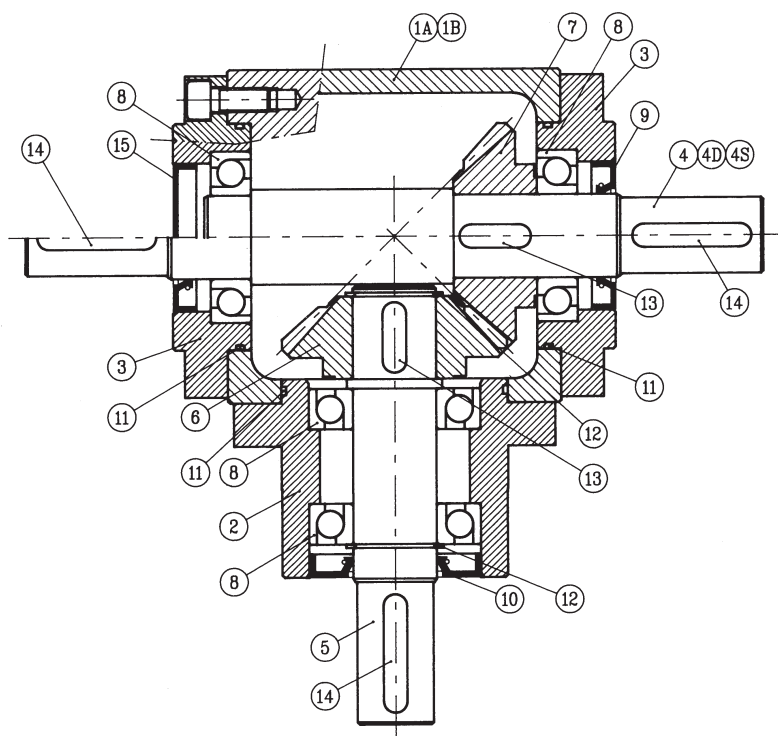
Bevel gearboxes with IEC motor flange

Model [BG]
 Size [12 – 19 ... 55 – 75]
 Version [A – AS ... AH 180 – AH270]
 Ratio [1:1 – 2:1 ... 1:1,5 – 1:2]
 Mounting position [10 - 11 · 40 - 41]
 Lubrication [O = oil, G = grease]
 Motor size [63 ... 160]

BG		M_ _				

Spare parts list

Bevel gearboxes [A, AD, AS] with through shaft

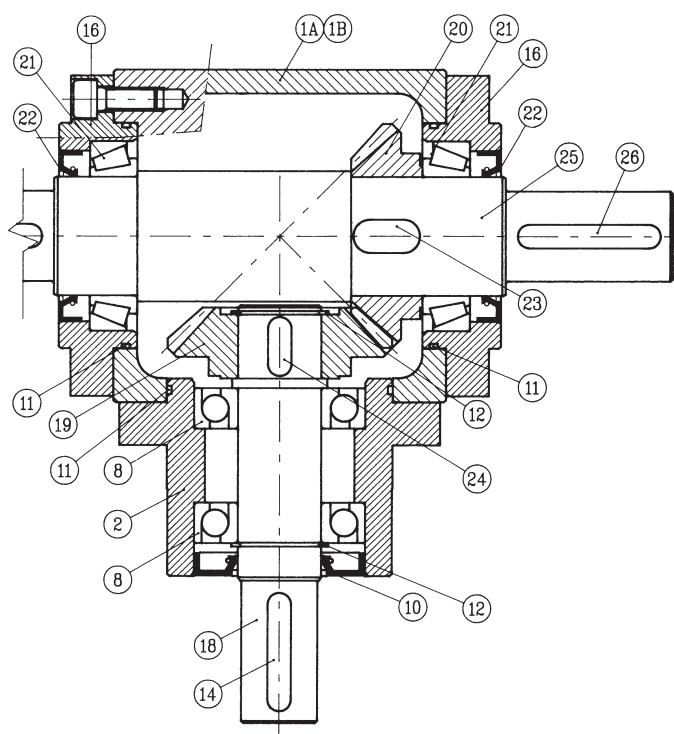
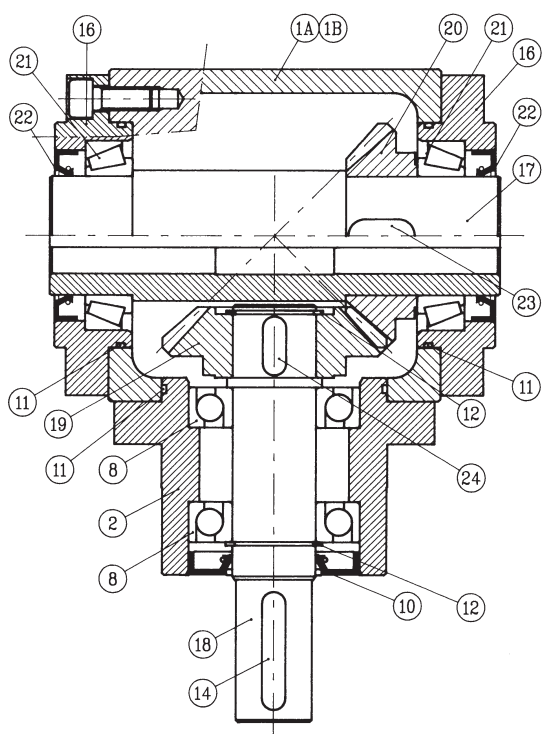


Position	Designation	BG12	BG19	BG24	BG32	BG38	BG42	BG55	BG75
1A	Housing form A	2001BGxxA	2001BGxxA	2001BGxxA	2001BGxxA	2001BGxxA	2001BGxxA	2001BGxxA	2001BGxxA
1B	Housing form B	2001BGxxB	2001BGxxB	2001BGxxB	2001BGxxB	2001BGxxB	2001BGxxB	2001BGxxB	2001BGxxB
2	Hub	4002BGxx	4002BGxx	4002BGxx	4002BGxx	4002BGxx	4002BGxx	4002BGxx	4002BGxx
3	Cover	4001BGxx	4001BGxx	4001BGxx	4001BGxx	4001BGxx	4001BGxx	4001BGxx	4001BGxx
4	Through shaft A	3001BGxx	3001BGxx	3001BGxx	3001BGxx	3001BGxx	3001BGxx	3001BGxx	3001BGxx
4D	Through shaft AD	3001BGxxAD	3001BGxxAD	3001BGxxAD	3001BGxxAD	3001BGxxAD	3001BGxxAD	3001BGxxAD	3001BGxxAD
4S	Through shaft AS	3001BGxxAS	3001BGxxAS	3001BGxxAS	3001BGxxAS	3001BGxxAS	3001BGxxAS	3001BGxxAS	3001BGxxAS
5	Hub shaft	3002BGxx	3002BGxx	3002BGxx	3002BGxx	3002BGxx	3002BGxx	3002BGxx	3002BGxx
6	Bevel pinion 1:1	5111BGxx	5111BGxx	5111BGxx	5111BGxx	5111BGxx	5111BGxx	5111BGxx	5111BGxx
7	Bevel gear	52yyBGxx	52yyBGxx	52yyBGxx	52yyBGxx	52yyBGxx	52yyBGxx	52yyBGxx	52yyBGxx
8	Bearing	6003-2Z	7204	7205	7207	7209	7209	7212	7317
9	Seal ring	17x28x6	20x40x7	25x45x10	35x62x7	45x72x10	45x72x10	60x90x10	85x110x12
10	Seal ring	17x35x6	20x47x8	25x52x10	35x72x10	45x85x10	45x85x10	60x110x12	80x110x12
11	O-Ring	3150	2224	3275	3350	3475	4525	4675	3925
12	Circlip	17 E	20 E	25 E	35 E	45 E	45 E	60 E	85 E
13	Parallel key	5x12	6x20	8x25	10x30	12x35	14x40	18x50	25x70
14	Parallel key	4x20	6x35	8x40	10x50	10x60	12x70	16x100	22x140
15	Seal	28	40	45	62	72	72	90	—

xx = bevel gearbox size [12 - 19? 55 - 75] yy = ratio
code [11 = 1:1 - 12 = 2:1?]

For ratios greater than 1:1, the bevel pinion [6] and the shaft [5] are made from one piece.

Bevel gearboxes with hollow shaft [AH] and reinforced through shaft [AP]



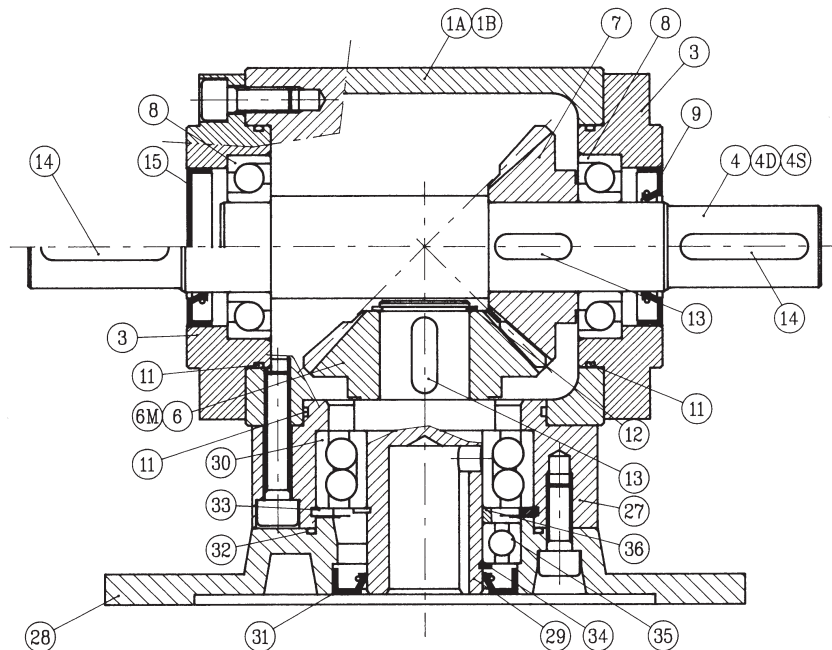
Position	Designation	BG12	BG19	BG24	BG32	BG38	BG42	BG55	BG75
16	Cover	4013BGxx	4013BGxx	4013BGxx	4013BGxx	4013BGxx	4013BGxx	4013BGxx	4013BGxx
17	Hollow shaft	3004BGxx	3004BGxx	3004BGxx	3004BGxx	3004BGxx	3004BGxx	3004BGxx	3004BGxx
18	Hub shaft	—	3002BG19	3005BG24	3005BG32	3002BG38	3002BG42	3002BG55	3002BG75
19	Bevel pinion	—	5111BG19	5111BG24H	5111BG32H	5111BG38	5111BG42	5111BG55	5111BG75
20	Bevel gear	52yyBGxxH	52yyBGxxH	52yyBGxxH	52yyBGxxH	52yyBGxxH	52yyBGxxH	52yyBGxxH	52yyBGxxH
21	Bearing	—	32006X	32007X	32010X	32012X	32012X	32015X	32224X
22	Seal ring	—	30x47x8	35x55x10	50x72x10	60x90x10	60x90x10	75x100x10	120x150x12
23	Parallel key	—	8x18	10x25	14x28	14x32	14x40	16x55	22x70
24	Parallel key	—	—	8x20	10x25	—	—	—	—
25	Reinforced shaft	3001BGxxP	3001BGxxP	3001BGxxP	3001BGxxP	3001BGxxP	3001BGxxP	3001BGxxP	3001BGxxP
26	Parallel key	—	8x40	10x50	10x60	12x70	14x80	20x100	25x140

xx = bevel gearbox size [12 - 19· 55 - 75]

yy = ratio code [11 = 1:1 - 12 = 2:1·]

For ratios greater than 1:1 and for versions with through shaft, the bevel gear [19] and the shaft [18] are made from one piece.

Bevel gearboxes with IEC motor flange



Left half of drawing up to size 38

Right half of drawing from size 42

Position	Designation	BG12	BG19	BG24	BG32	BG38	BG42	BG55	BG75
27	Hub	—	4014BGxx	4014BGxx	4014BGxx	4014BGxx	4014BGxx	4014BGxx	4014BGxx
6	Bevel pinion 1:1	5111BGxx	5111BGxx	5111BGxx	5111BGxx	5111BGxx	5111BGxx	5111BGxx	5111BGxx
6M	Bevel pinion	51yyBGxxDzzz	51yyBGxxDzzz	51yyBGxxDzzz	51yyBGxxDzzz	51yyBGxxDzzz	51yyBGxxDzzz	51yyBGxxDzzz	51yyBGxxDzzz
7	Bevel gear	52yyBGxx	52yyBGxx	52yyBGxx	52yyBGxx	52yyBGxx	52yyBGxx	52yyBGxx	52yyBGxx
28	Motor flange	83BGxxDzzz	83BGxxDzzz	83BGxxDzzz	83BGxxDzzz	83BGxxDzzz	83BGxxDzzz	83BGxxDzzz	83BGxxDzzz
29	Hub shaft	3006BGxxDzzz	3006BGxxDzzz	3006BGxxDzzz	3006BGxxDzzz	3006BGxxDzzz	3006BGxxDzzz	3006BGxxDzzz	3006BGxxDzzz
30	Bearing	6003-2Z	3205A	3207A	3209A	3211	3212	3214	—
31	Seal ring	25x47x7	25x40x7	35x62x10	45x62x10	55x90x10	60x110x10	70x110x10	—
32	O-Ring	—	2212	2287	2350	3400	4437	4500	—
33	Circlip	—	52 I	72 I	85 I	100 I	110 I	125 I	—
34	Circlip	25 E	25 E	35 E	45 E	55 E	60 E	70 E	—
35	Bearing	6005-2Z	—	—	—	—	6012	6014	—
36	Spacer	—	—	—	—	—	84BG42	84BG55	—

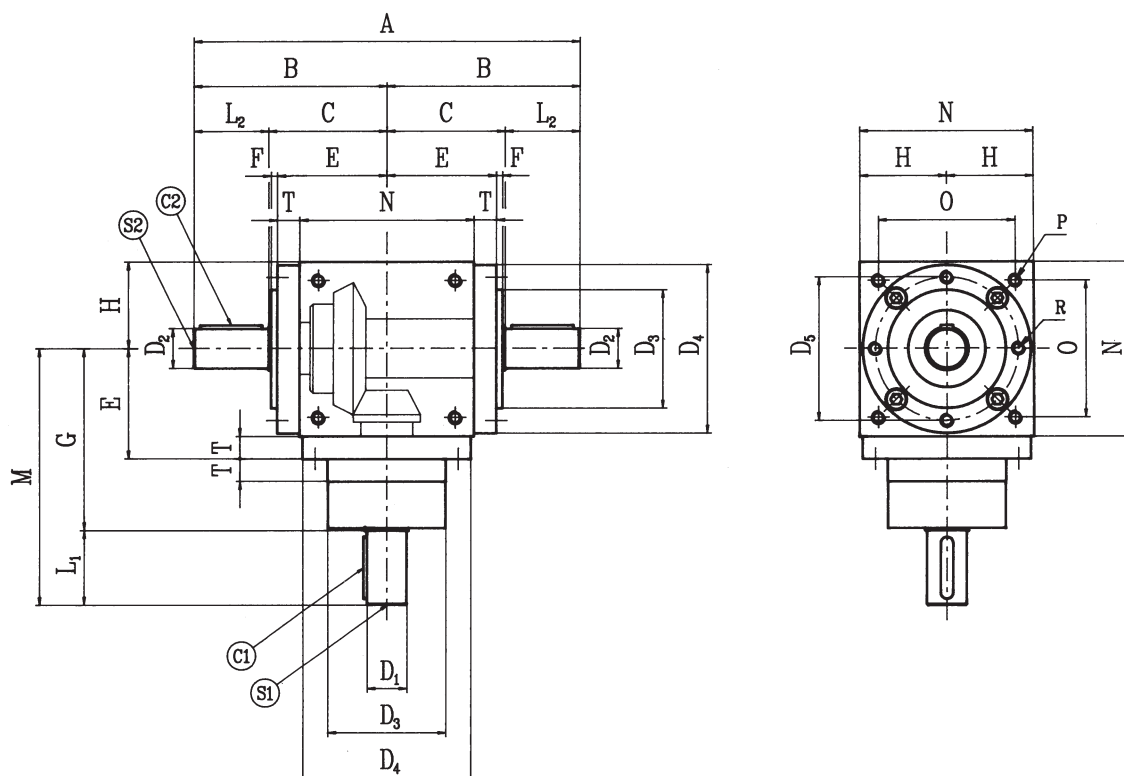
xx = bevel gearbox size [12 - 19 ? 55 - 75] yy = ratio
code [11 = 1:1 - 12 = 2:1?] zzz = motor size [063 ? 160]

For the 1:1 ratio, the bevel pinion is the standard version. For other ratios, the bevel gear and the hollow shaft are made from one piece [6M].

For the hollow shaft versions, ratio 1:1 only, a shaft no. 3006BGxxDzzzH and a bevel gear no. 5111BGxxH are used.

For size 12 there is no hub [position 27], as it is made in one piece with the motor flange [position 28].

Dimensions

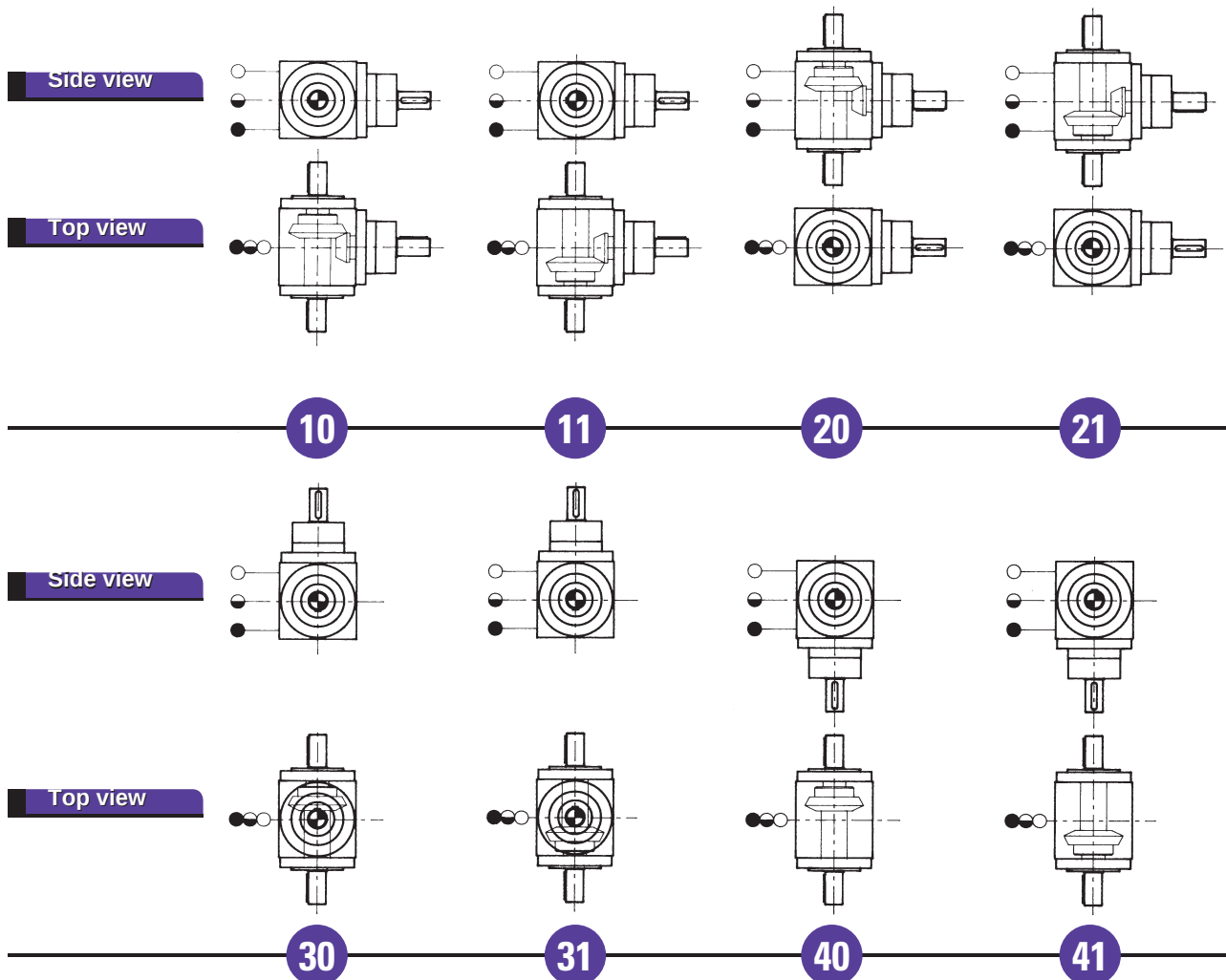


Size	Ratio	A	B	C	D ₁	D ₂	D ₃	D ₄	D ₅	E	F	G	H	L ₁	L ₂
BG12	1, 2, 3	144	72	46	12	12	44	—	54	42	2	74	32.5	26	26
BG19	1, 2, 3	210	105	65	19	19	60	86	72	59	4	100	45	40	40
	4, 5	210	105	65	14	19	60	86	72	59	4	100	45	30	40
BG24	1, 2, 3	260	130	80	24	24	70	105	88	73	5	115	55	50	50
	4, 5	260	130	80	19	24	70	105	88	73	5	115	55	40	50
BG32	1, 2, 3	310	155	95	32	32	95	135	115	88	5	145	70	60	60
	4, 5	310	155	95	24	32	95	135	115	88	5	145	70	50	60
BG38	1, 2, 3	360	180	110	38	38	120	165	145	103	5	170	85	70	70
	4, 5	360	180	110	28	38	120	165	145	103	5	170	85	60	70
BG42	1, 2, 3	410	205	125	42	42	135	190	165	118	5	195	100	80	80
	4, 5	410	205	125	32	42	135	190	165	118	5	195	100	60	80
BG55	1, 2, 3	520	260	150	55	55	170	230	205	143	5	245	120	110	110
	4, 5	520	260	150	42	55	170	230	205	143	5	245	120	80	110
BG75	1, 2, 3	750	375	225	75	75	—	300	—	195	—	350	165	150	150
	4, 5	750	375	225	55	75	—	300	—	195	—	350	165	110	150

Bevel gearboxes | Form A

Mounting positions

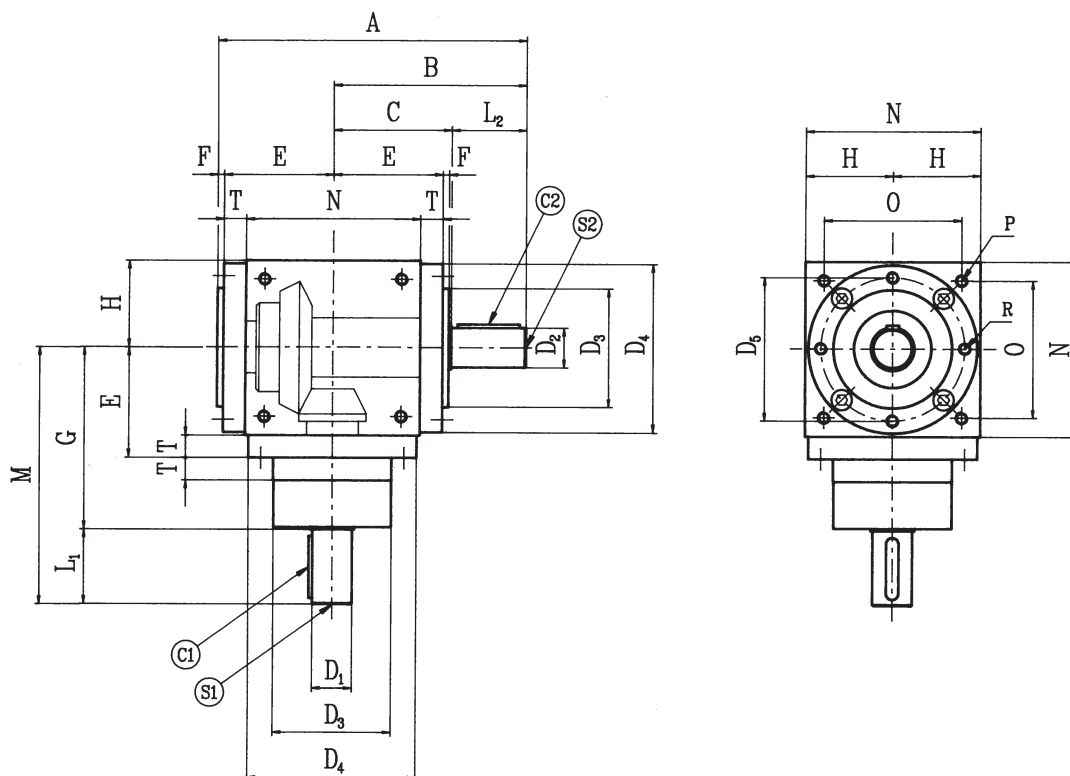
- Filler/breather plug
- ◐ Oil level indicator
- Drain plug



On size BG12, the holes P with hole spacing 0 are present only on the sides without shafts. The hole pattern 0 is identical on all sides.

Size	Ratio	M	N	O	P	R	S ₁	S ₂	C ₁	C ₂	T
BG12	1, 2, 3	100	65	45	M6	M6	M4x8	M4x8	20x4x4	20x4x4	—
BG19	1, 2, 3	140	90	70	M6	M6	M6x12	M6x12	35x6x6	35x6x6	14
	4, 5	130	90	70	M6	M6	M5x10	M6x12	25x5x5	35x6x6	14
BG24	1, 2, 3	165	110	88	M8	M8	M8x16	M8x16	40x8x7	40x8x7	18
	4, 5	155	110	88	M8	M8	M6x12	M8x16	35x6x6	40x8x7	18
BG32	1, 2, 3	205	140	110	M10	M10	M10x20	M10x20	50x10x8	50x10x8	18
	4, 5	195	140	110	M10	M10	M8x16	M10x20	40x8x7	50x10x8	18
BG38	1, 2, 3	240	170	136	M12	M12	M12x24	M12x24	60x10x8	60x10x8	18
	4, 5	230	170	136	M12	M12	M10x20	M12x24	50x8x7	60x10x8	18
BG42	1, 2, 3	275	200	155	M12	M12	M12x24	M12x24	70x12x8	70x12x8	18
	4, 5	255	200	155	M12	M12	M10x20	M12x24	50x10x8	70x12x8	18
BG55	1, 2, 3	355	240	190	M14	M14	M14x28	M14x28	100x16x10	100x16x10	23
	4, 5	325	240	190	M14	M14	M12x24	M14x28	70x12x8	100x16x10	23
BG75	1, 2, 3	500	330	248	M16	M16	M16x32	M16x32	140x22x14	140x22x14	30
	4, 5	460	330	248	M16	M16	M14x28	M16x32	100x16x10	140x22x14	30

Dimensions

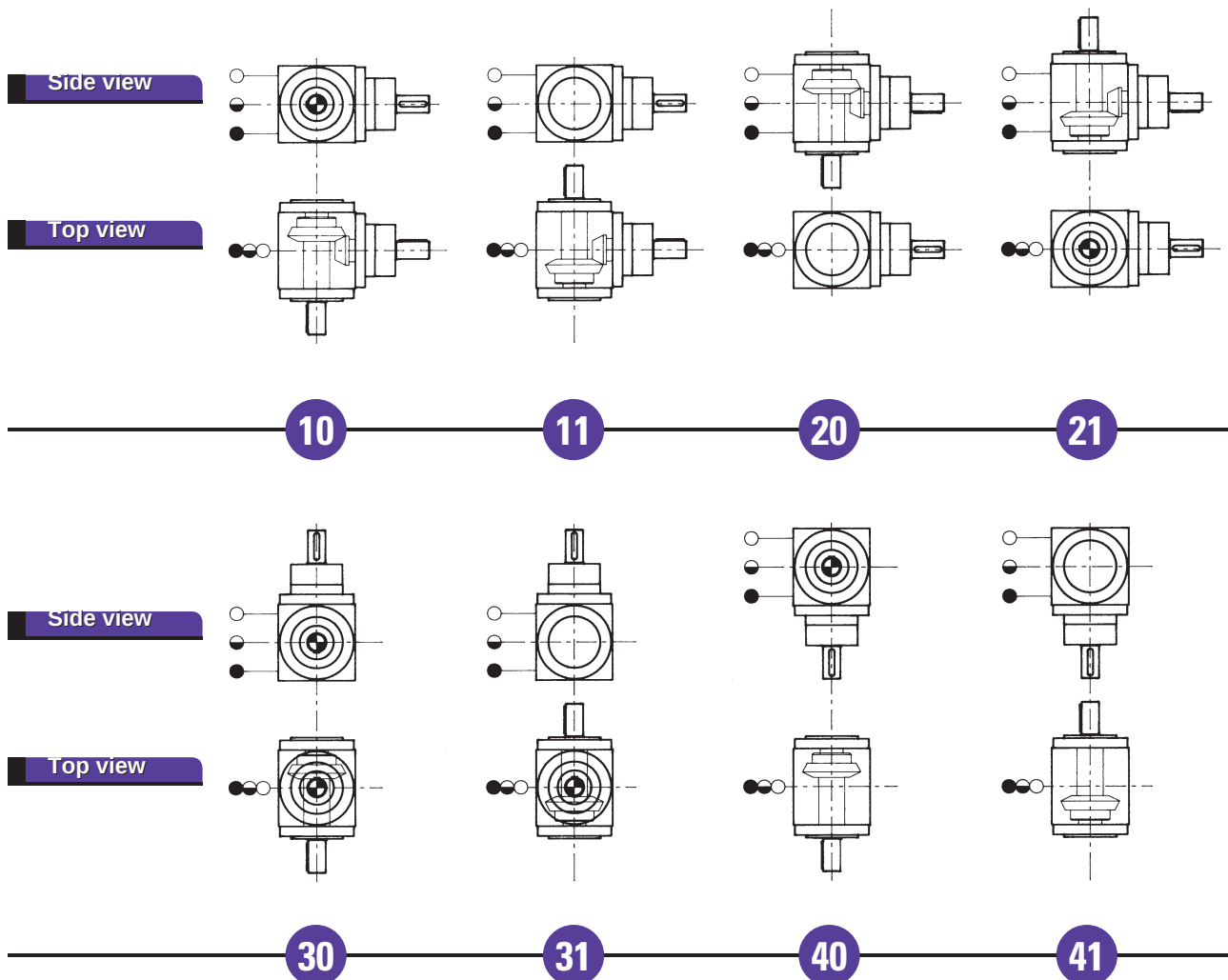


Size	Ratio	A	B	C	D ₁	D ₂	D ₃	D ₄	D ₅	E	F	G	H	L ₁	L ₂
BG12	1, 2, 3	116	72	46	12	12	44	—	54	42	2	74	32.5	26	26
BG19	1, 2, 3	168	105	65	19	19	60	86	72	59	4	100	45	40	40
	4, 5	168	105	65	14	19	60	86	72	59	4	100	45	30	40
BG24	1, 2, 3	208	130	80	24	24	70	105	88	73	5	115	55	50	50
	4, 5	208	130	80	19	24	70	105	88	73	5	115	55	40	50
BG32	1, 2, 3	248	155	95	32	32	95	135	115	88	5	145	70	60	60
	4, 5	248	155	95	24	32	95	135	115	88	5	145	70	50	60
BG38	1, 2, 3	288	180	110	38	38	120	165	145	103	5	170	85	70	70
	4, 5	288	180	110	28	38	120	165	145	103	5	170	85	60	70
BG42	1, 2, 3	328	205	125	42	42	135	190	165	118	5	195	100	80	80
	4, 5	328	205	125	32	42	135	190	165	118	5	195	100	60	80
BG55	1, 2, 3	408	260	150	55	55	170	230	205	143	5	245	120	110	110
	4, 5	408	260	150	42	55	170	230	205	143	5	245	120	80	110
BG75	1, 2, 3	598	375	225	75	75	—	300	—	195	—	350	165	150	150
	4, 5	598	375	225	55	75	—	300	—	195	—	350	165	110	150

Bevel gearboxes | Form AS

Mounting positions

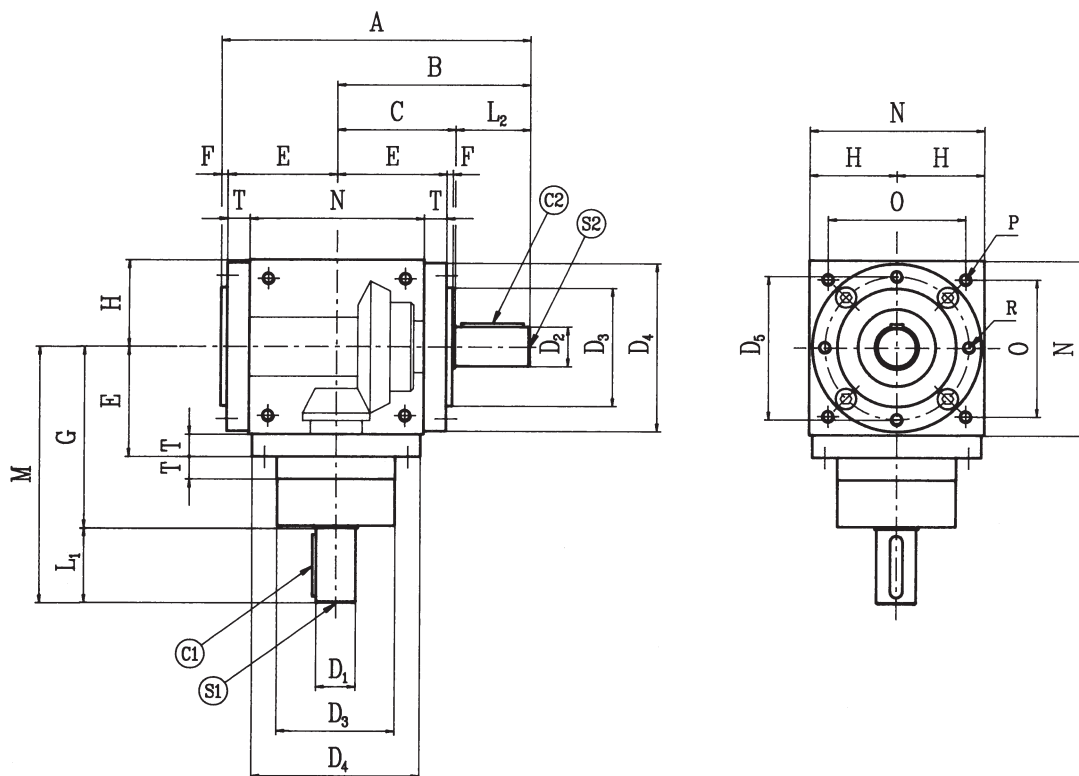
- Filler/breather plug
- ◐ Oil level indicator
- Drain plug



On size BG12, the holes P with hole spacing O are present only on the sides without shafts. The hole pattern O is identical on all sides.

Size	Ratio	M	N	O	P	R	S ₁	S ₂	C ₁	C ₂	T
BG12	1, 2, 3	100	65	45	M6	M6	M4x8	M4x8	20x4x4	20x4x4	—
BG19	1, 2, 3	140	90	70	M6	M6	M6x12	M6x12	35x6x6	35x6x6	14
	4, 5	130	90	70	M6	M6	M5x10	M6x12	25x5x5	35x6x6	14
BG24	1, 2, 3	165	110	88	M8	M8	M8x16	M8x16	40x8x7	40x8x7	18
	4, 5	155	110	88	M8	M8	M6x12	M8x16	35x6x6	40x8x7	18
BG32	1, 2, 3	205	140	110	M10	M10	M10x20	M10x20	50x10x8	50x10x8	18
	4, 5	195	140	110	M10	M10	M8x16	M10x20	40x8x7	50x10x8	18
BG38	1, 2, 3	240	170	136	M12	M12	M12x24	M12x24	60x10x8	60x10x8	18
	4, 5	230	170	136	M12	M12	M10x20	M12x24	50x8x7	60x10x8	18
BG42	1, 2, 3	275	200	155	M12	M12	M12x24	M12x24	70x12x8	70x12x8	18
	4, 5	255	200	155	M12	M12	M10x20	M12x24	50x10x8	70x12x8	18
BG55	1, 2, 3	355	240	190	M14	M14	M14x28	M14x28	100x16x10	100x16x10	23
	4, 5	325	240	190	M14	M14	M12x24	M14x28	70x12x8	100x16x10	23
BG75	1, 2, 3	500	330	248	M16	M16	M16x32	M16x32	140x22x14	140x22x14	30
	4, 5	460	330	248	M16	M16	M14x28	M16x32	100x16x10	140x22x14	30

Dimensions

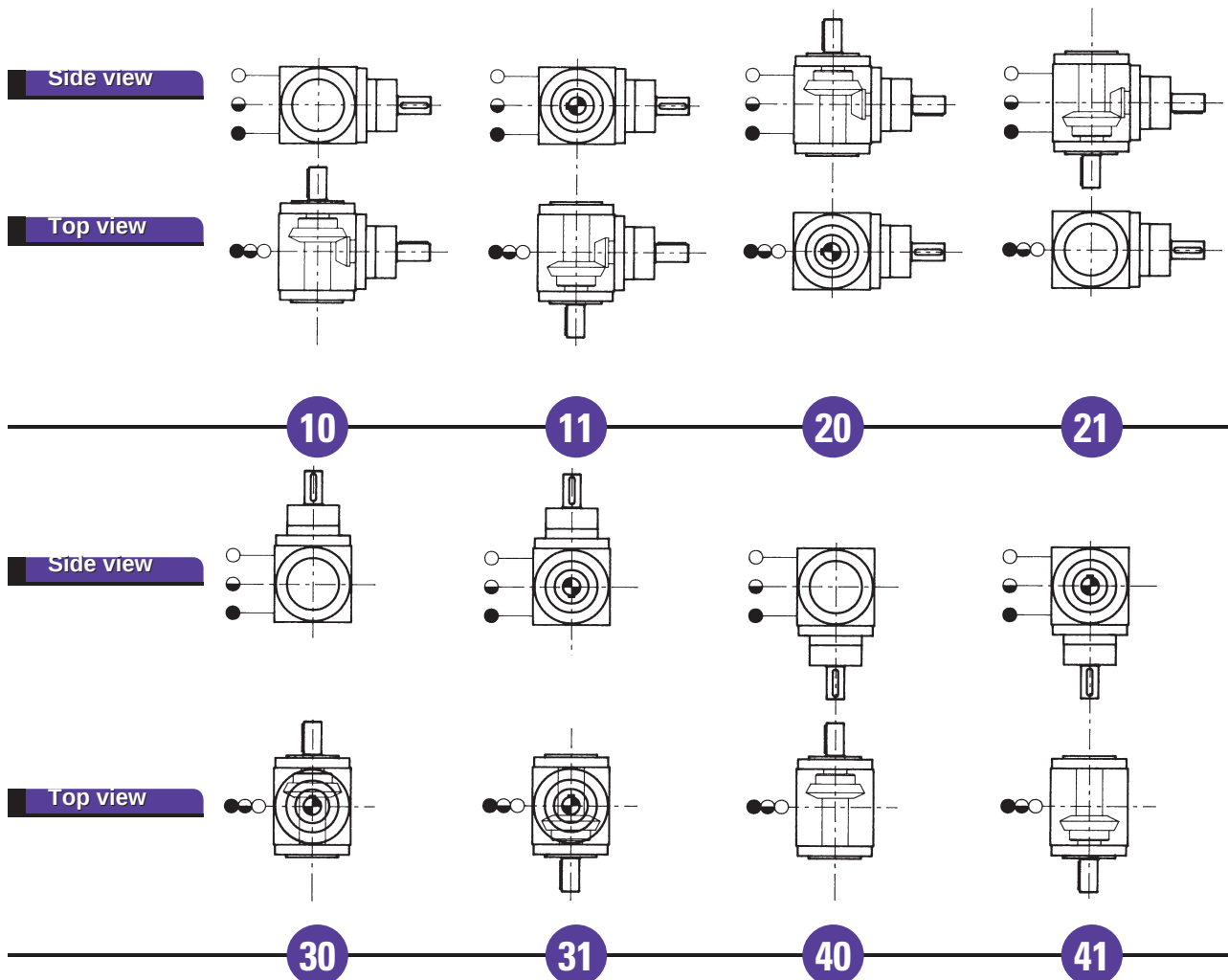


Size	Ratio	A	B	C	D ₁	D ₂	D ₃	D ₄	D ₅	E	F	G	H	L ₁	L ₂
BG12	1, 2, 3	116	72	46	12	12	44	—	54	42	2	74	32.5	26	26
BG19	1, 2, 3	168	105	65	19	19	60	86	72	59	4	100	45	40	40
	4, 5	168	105	65	14	19	60	86	72	59	4	100	45	30	40
BG24	1, 2, 3	208	130	80	24	24	70	105	88	73	5	115	55	50	50
	4, 5	208	130	80	19	24	70	105	88	73	5	115	55	40	50
BG32	1, 2, 3	248	155	95	32	32	95	135	115	88	5	145	70	60	60
	4, 5	248	155	95	24	32	95	135	115	88	5	145	70	50	60
BG38	1, 2, 3	288	180	110	38	38	120	165	145	103	5	170	85	70	70
	4, 5	288	180	110	28	38	120	165	145	103	5	170	85	60	70
BG42	1, 2, 3	328	205	125	42	42	135	190	165	118	5	195	100	80	80
	4, 5	328	205	125	32	42	135	190	165	118	5	195	100	60	80
BG55	1, 2, 3	408	260	150	55	55	170	230	205	143	5	245	120	110	110
	4, 5	408	260	150	42	55	170	230	205	143	5	245	120	80	110
BG75	1, 2, 3	598	375	225	75	75	—	300	—	195	—	350	165	150	150
	4, 5	598	375	225	55	75	—	300	—	195	—	350	165	110	150

Bevel gearboxes | Form AD

Mounting positions

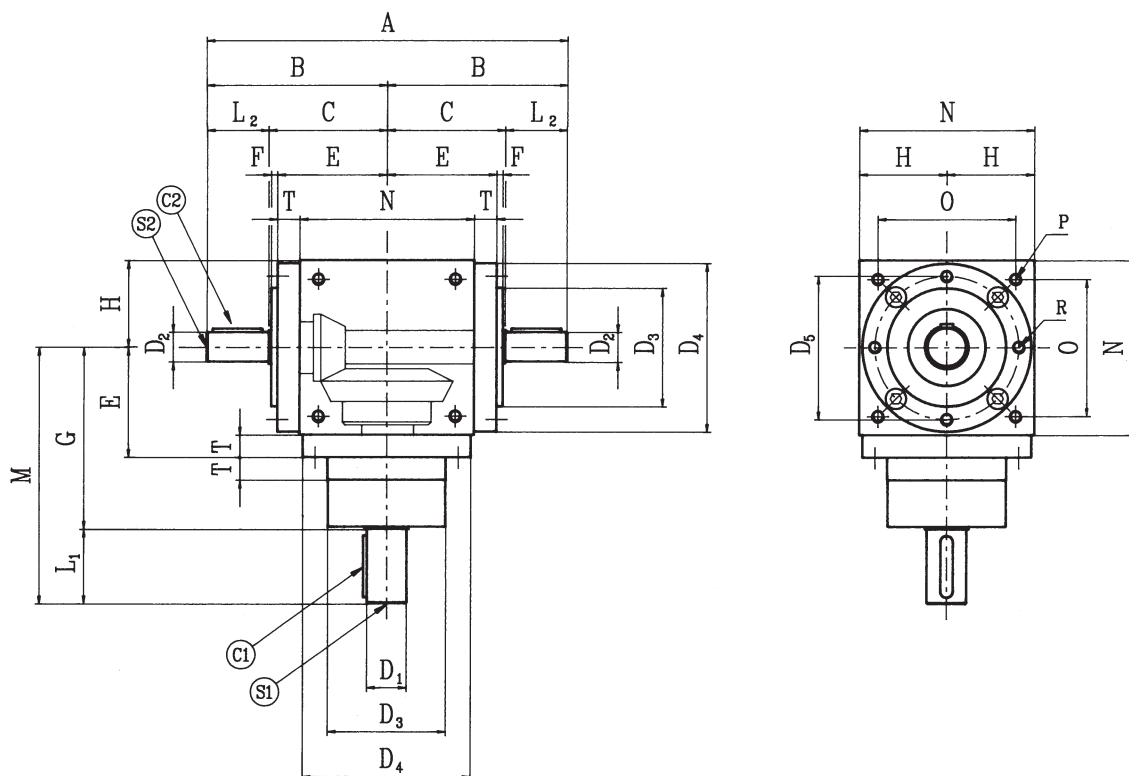
- Filler/breather plug
- ◐ Oil level indicator
- Drain plug



On size BG12, the holes P with hole spacing O are present only on the sides without shafts. The hole pattern O is identical on all sides.

Size	Ratio	M	N	O	P	R	S ₁	S ₂	C ₁	C ₂	T
BG12	1, 2, 3	100	65	45	M6	M6	M4x8	M4x8	20x4x4	20x4x4	—
BG19	1, 2, 3	140	90	70	M6	M6	M6x12	M6x12	35x6x6	35x6x6	14
	4, 5	130	90	70	M6	M6	M5x10	M6x12	25x5x5	35x6x6	14
BG24	1, 2, 3	165	110	88	M8	M8	M8x16	M8x16	40x8x7	40x8x7	18
	4, 5	155	110	88	M8	M8	M6x12	M8x16	35x6x6	40x8x7	18
BG32	1, 2, 3	205	140	110	M10	M10	M10x20	M10x20	50x10x8	50x10x8	18
	4, 5	195	140	110	M10	M10	M8x16	M10x20	40x8x7	50x10x8	18
BG38	1, 2, 3	240	170	136	M12	M12	M12x24	M12x24	60x10x8	60x10x8	18
	4, 5	230	170	136	M12	M12	M10x20	M12x24	50x8x7	60x10x8	18
BG42	1, 2, 3	275	200	155	M12	M12	M12x24	M12x24	70x12x8	70x12x8	18
	4, 5	255	200	155	M12	M12	M10x20	M12x24	50x10x8	70x12x8	18
BG55	1, 2, 3	355	240	190	M14	M14	M14x28	M14x28	100x16x10	100x16x10	23
	4, 5	325	240	190	M14	M14	M12x24	M14x28	70x12x8	100x16x10	23
BG75	1, 2, 3	500	330	248	M16	M16	M16x32	M16x32	140x22x14	140x22x14	30
	4, 5	460	330	248	M16	M16	M14x28	M16x32	100x16x10	140x22x14	30

Dimensions

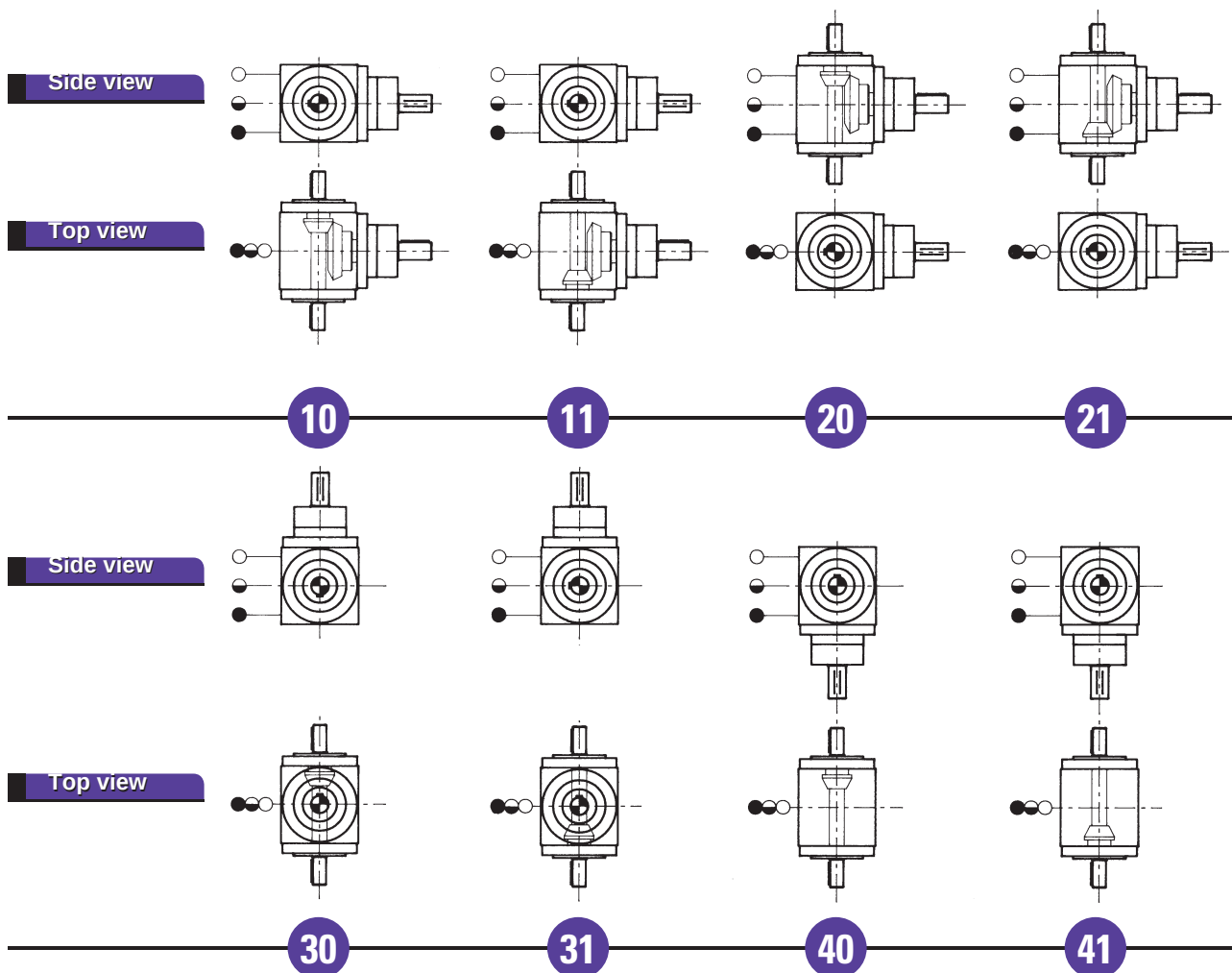


Size	Ratio	A	B	C	D ₁	D ₂	D ₃	D ₄	D ₅	E	F	G	H	L ₁	L ₂
BG19	1,5; 2	190	95	65	19	14	60	86	72	59	4	100	45	40	30
BG24	1,5; 2	240	120	80	24	19	70	105	88	73	5	115	55	50	40
BG32	1.5	290	145	95	32	24	95	135	115	88	5	145	70	60	50
	2	270	135	95	32	19	95	135	115	88	5	145	70	60	40
BG38	1,5; 2	340	170	110	38	28	120	165	145	103	5	170	85	70	60
BG42	1.5	390	195	125	42	38	135	190	165	118	5	195	100	80	70
	2	370	185	125	42	32	135	190	165	118	5	195	100	80	60
BG55	1.5	460	230	150	55	42	170	230	205	143	5	245	120	110	80
	2	440	220	150	55	38	170	230	205	143	5	245	120	110	70
BG75	1,5; 2	670	335	225	75	55	—	300	—	195	—	350	165	150	110

Bevel gearboxes | Form AX

Mounting positions

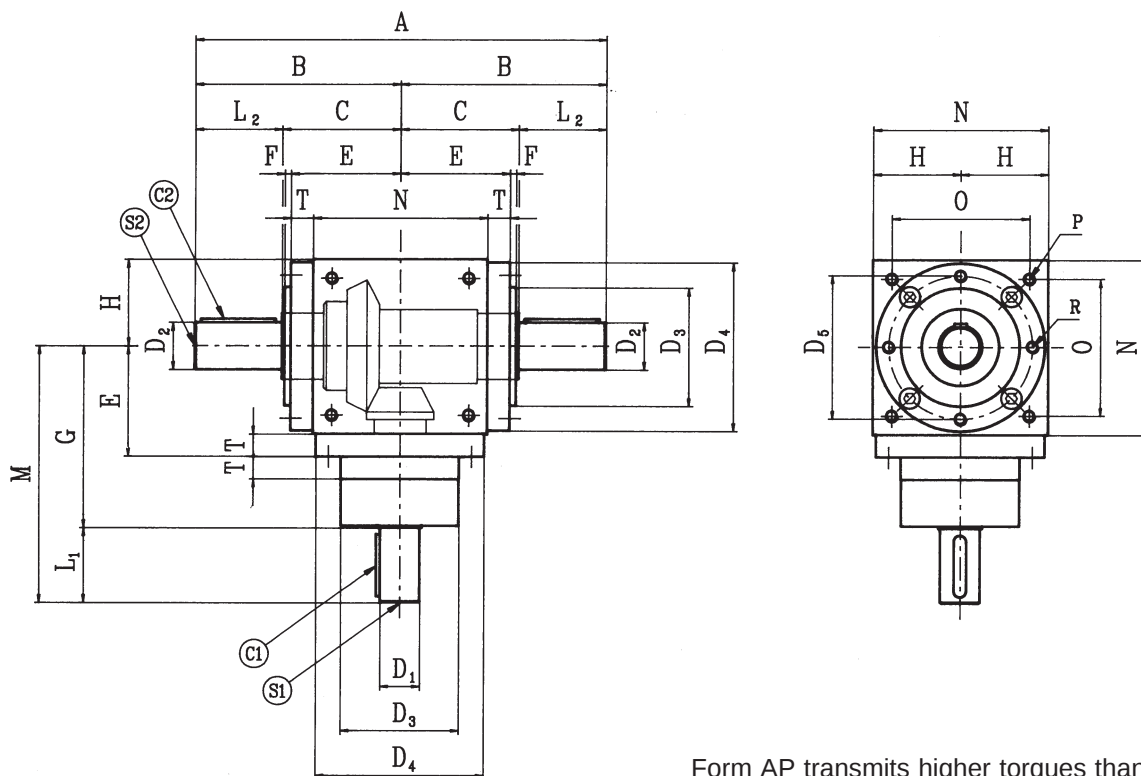
- Filler/breather plug
- ◐ Oil level indicator
- Drain plug



The hole pattern O is identical on all sides.

Size	Ratio	M	N	O	P	R	S ₁	S ₂	C ₁	C ₂	T
BG19	1,5; 2	140	90	70	M6	M6	M6x12	M5x10	35x6x6	25x5x5	14
BG24	1,5; 2	165	110	88	M8	M8	M8x16	M6x12	40x8x7	35x6x6	18
BG32	1.5	205	140	110	M10	M10	M10x20	M8x16	50x10x8	40x8x7	18
	2	205	140	110	M10	M10	M10x20	M6x12	50x10x8	35x6x6	18
BG38	1,5; 2	240	170	136	M12	M12	M12x24	M10x20	60x10x8	50x8x7	18
BG42	1.5	275	200	155	M12	M12	M12x24	M12x24	70x12x8	60x10x8	18
	2	275	200	155	M12	M12	M12x24	M10x20	70x12x8	50x10x8	18
BG55	1.5	355	240	190	M14	M14	M14x28	M12x24	100x16x10	70x12x8	23
	2	355	240	190	M14	M14	M14x28	M12x24	100x16x10	60x10x8	23
BG75	1,5; 2	500	330	248	M16	M16	M16x32	M14x28	140x22x14	100x16x10	30

Dimensions



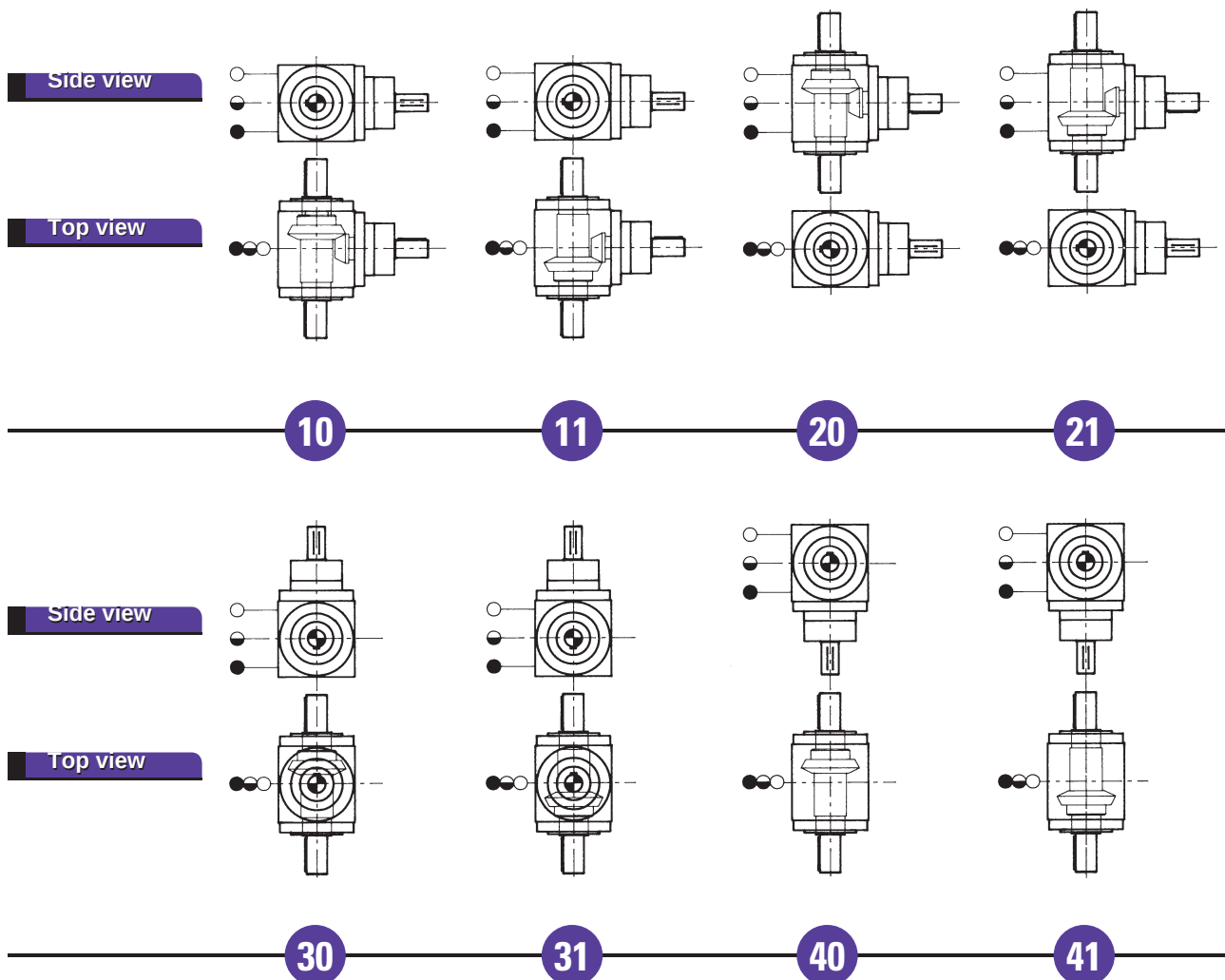
Form AP transmits higher torques than FORM A [see performance data table, pages 102/103]. The torques of the bevel gears remain unchanged.

Size	Ratio	A	B	C	D ₁	D ₂	D ₃	D ₄	D ₅	E	F	G	H	L ₁	L ₂
BG19	1, 2, 3	230	115	65	19	24	60	86	72	59	4	100	45	40	50
	4, 5	230	115	65	14	24	60	86	72	59	4	100	45	30	50
BG24	1, 2, 3	280	140	80	24	32	70	105	88	73	5	115	55	50	60
	4, 5	280	140	80	19	32	70	105	88	73	5	115	55	40	60
BG32	1, 2, 3	330	165	95	32	38	95	135	115	88	5	145	70	60	70
	4, 5	330	165	95	24	38	95	135	115	88	5	145	70	50	70
BG38	1, 2, 3	380	190	110	38	42	120	165	145	103	5	170	85	70	80
	4, 5	380	190	110	28	42	120	165	145	103	5	170	85	60	80
BG42	1, 2, 3	430	215	125	42	48	135	190	165	118	5	195	100	80	90
	4, 5	430	215	125	32	48	135	190	165	118	5	195	100	60	90
BG55	1, 2, 3	520	260	150	55	70	170	230	205	143	5	245	120	110	110
	4, 5	520	260	150	42	70	170	230	205	143	5	245	120	80	110
BG75	1, 2, 3	750	375	225	75	90	—	300	—	195	—	350	165	150	150
	4, 5	750	375	225	55	90	—	300	—	195	—	350	165	110	150

Bevel gearboxes | Form AP

Mounting positions

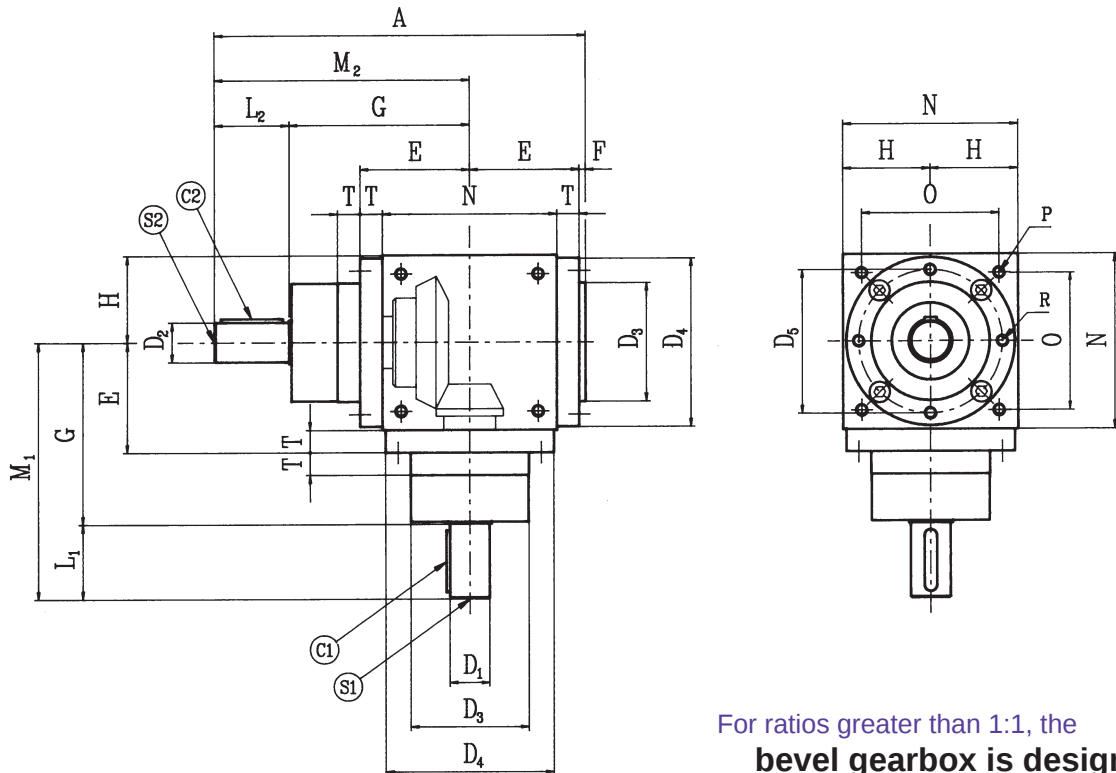
- Filler/breather plug
- ◐ Oil level indicator
- Drain plug



The hole pattern O is identical on all sides.

Size	Ratio	M	N	O	P	R	S ₁	S ₂	C ₁	C ₂	T
BG19	1, 2, 3	140	90	70	M6	M6	M6x12	M8x16	35x6x6	40x8x7	14
	4, 5	130	90	70	M6	M6	M5x10	M8x16	25x5x5	40x8x7	14
BG24	1, 2, 3	165	110	88	M8	M8	M8x16	M10x20	40x8x7	50x10x8	18
	4, 5	155	110	88	M8	M8	M6x12	M10x20	35x6x6	50x10x8	18
BG32	1, 2, 3	205	140	110	M10	M10	M10x20	M12x24	50x10x8	60x10x8	18
	4, 5	195	140	110	M10	M10	M8x16	M12x24	40x8x7	60x10x8	18
BG38	1, 2, 3	240	170	136	M12	M12	M12x24	M12x24	60x10x8	70x12x8	18
	4, 5	230	170	136	M12	M12	M10x20	M12x24	50x8x7	70x12x8	18
BG42	1, 2, 3	275	200	155	M12	M12	M12x24	M14x28	70x12x8	80x14x9	18
	4, 5	255	200	155	M12	M12	M10x20	M14x28	50x10x8	80x14x9	18
BG55	1, 2, 3	355	240	190	M14	M14	M14x28	M14x28	100x16x10	100x20x14	23
	4, 5	325	240	190	M14	M14	M12x24	M14x28	70x12x8	100x20x14	23
BG75	1, 2, 3	500	330	248	M16	M16	M16x32	M16x32	140x22x14	140x25x14	30
	4, 5	460	330	248	M16	M16	M14x28	M16x32	100x16x10	140x25x14	30

Dimensions



For ratios greater than 1:1, the
bevel gearbox is designated **CR**.

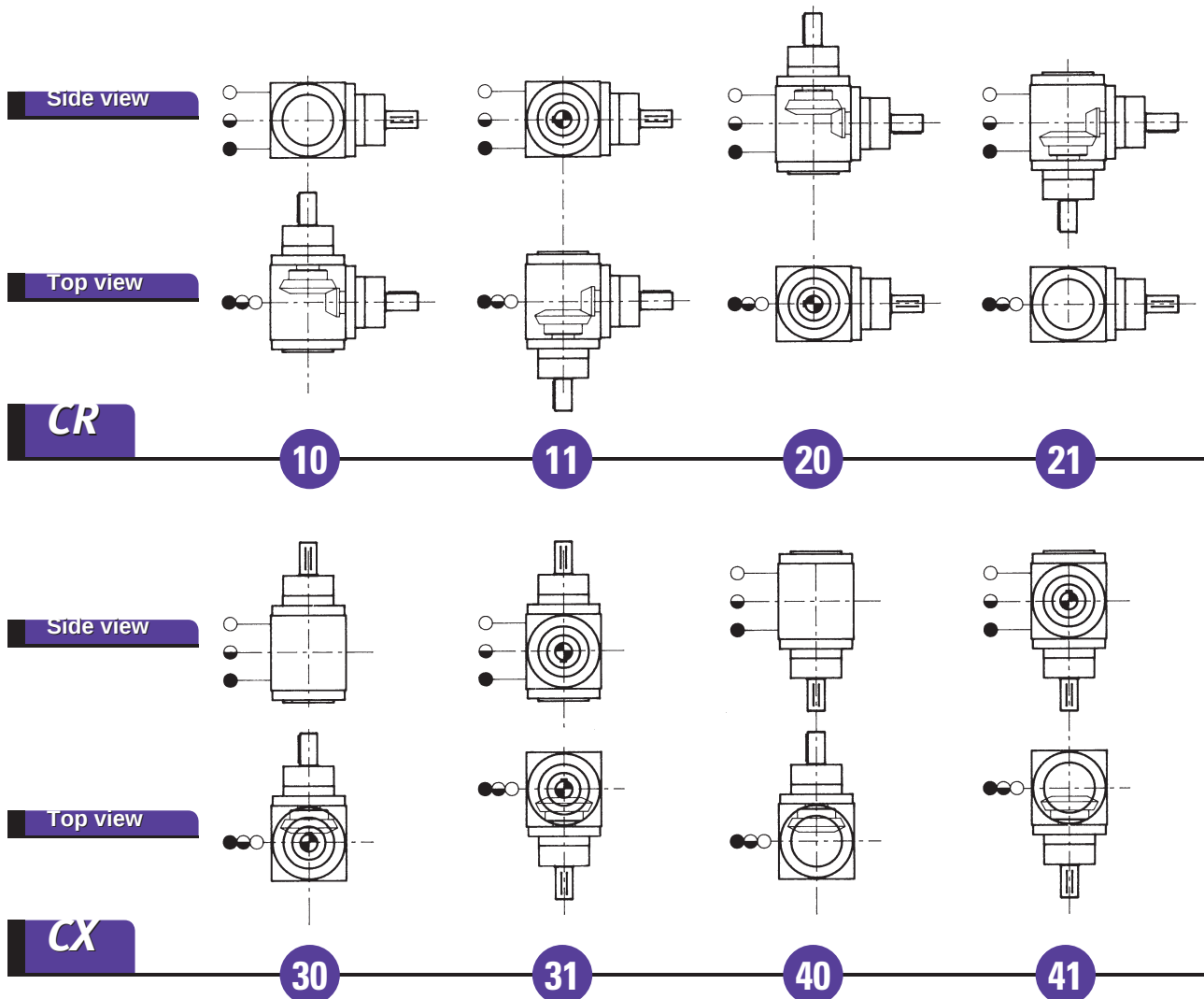
If the cover is mounted on the
opposite side of the fast-running shaft,
the designation is **CX**.

Size	Ratio	A	D ₁	D ₂	D ₃	D ₄	D ₅	E	F	G	H	L ₁	L ₂	M ₁	M ₂
BG12	1, 2, 3	144	12	12	44	—	54	42	2	74	32.5	26	26	100	100
BG19	1, 2, 3	203	19	19	60	86	72	59	4	100	45	40	40	140	140
	4, 5	203	14	19	60	86	72	59	4	100	45	30	40	130	140
BG24	1, 2, 3	243	24	24	70	105	88	73	5	115	55	50	50	165	165
	4, 5	243	19	24	70	105	88	73	5	115	55	40	50	155	165
BG32	1, 2, 3	298	32	32	95	135	115	88	5	145	70	60	60	205	205
	4, 5	298	24	32	95	135	115	88	5	145	70	50	60	195	205
BG38	1, 2, 3	348	38	38	120	165	145	103	5	170	85	70	70	240	240
	4, 5	348	28	38	120	165	145	103	5	170	85	60	70	230	240
BG42	1, 2, 3	398	42	42	135	190	165	118	5	195	100	80	80	275	275
	4, 5	398	32	42	135	190	165	118	5	195	100	60	80	255	275
BG55	1, 2, 3	503	55	55	170	230	205	143	5	245	120	110	110	355	355
	4, 5	503	42	55	170	230	205	143	5	245	120	80	110	325	355
BG75	1, 2, 3	723	75	75	—	300	—	195	—	350	165	150	150	500	500
	4, 5	723	55	75	—	300	—	195	—	350	165	110	150	460	500

Bevel gearboxes | Form C

Mounting positions

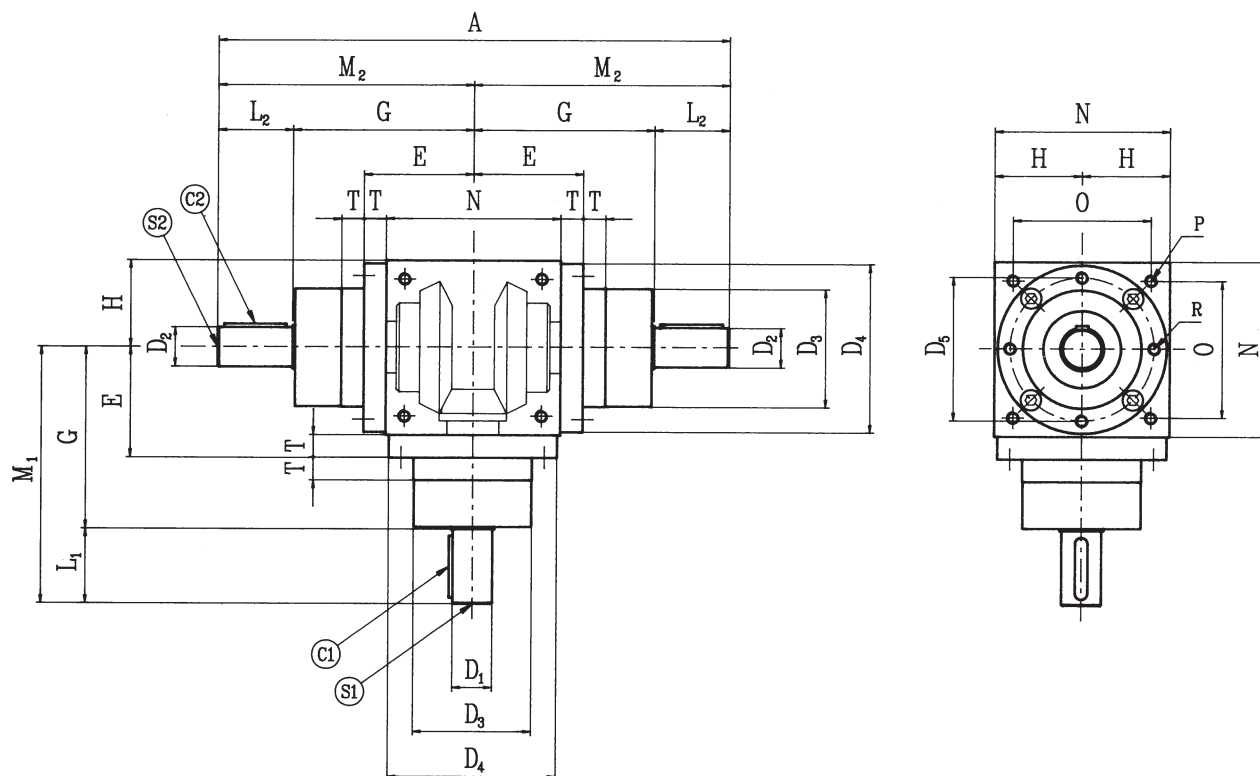
- Filler/breather plug
- ◐ Oil level indicator
- Drain plug



On size BG12, the holes P with hole spacing O are present only on the sides without shafts. The hole pattern O is identical on all sides.

Size	Ratio	N	O	P	R	S1	S2	C1	C2	T
BG12	1, 2, 3	65	45	M6	M6	M4 x 8	M4 x 8	20 x 4 x 4	20 x 4 x 4	—
BG19	1, 2, 3	90	70	M6	M6	M6 x 12	M6 x 12	35 x 6 x 6	35 x 6 x 6	14
	4, 5	90	70	M6	M6	M5 x 10	M6 x 12	25 x 5 x 5	35 x 6 x 6	14
BG24	1, 2, 3	110	88	M8	M8	M8 x 16	M8 x 16	40 x 8 x 7	40 x 8 x 7	18
	4, 5	110	88	M8	M8	M6 x 12	M8 x 16	35 x 6 x 6	40 x 8 x 7	18
BG32	1, 2, 3	140	110	M10	M10	M10 x 20	M10 x 20	50 x 10 x 8	50 x 10 x 8	18
	4, 5	140	110	M10	M10	M8 x 16	M10 x 20	40 x 8 x 7	50 x 10 x 8	18
BG38	1, 2, 3	170	136	M12	M12	M12 x 24	M12 x 24	60 x 10 x 8	60 x 10 x 8	18
	4, 5	170	136	M12	M12	M10 x 20	M12 x 24	50 x 8 x 7	60 x 10 x 8	18
BG42	1, 2, 3	200	155	M12	M12	M12 x 24	M12 x 24	70 x 12 x 8	70 x 12 x 8	18
	4, 5	200	155	M12	M12	M10 x 20	M12 x 24	50 x 10 x 8	70 x 12 x 8	18
BG55	1, 2, 3	240	190	M14	M14	M14 x 28	M14 x 28	100 x 16 x 10	100 x 16 x 10	23
	4, 5	240	190	M14	M14	M12 x 24	M14 x 28	70 x 12 x 8	100 x 16 x 10	23
BG75	1, 2, 3	330	248	M16	M16	M16 x 32	M16 x 32	140 x 22 x 14	140 x 22 x 14	30
	4, 5	330	248	M16	M16	M14 x 28	M16 x 32	100 x 16 x 10	140 x 22 x 14	30

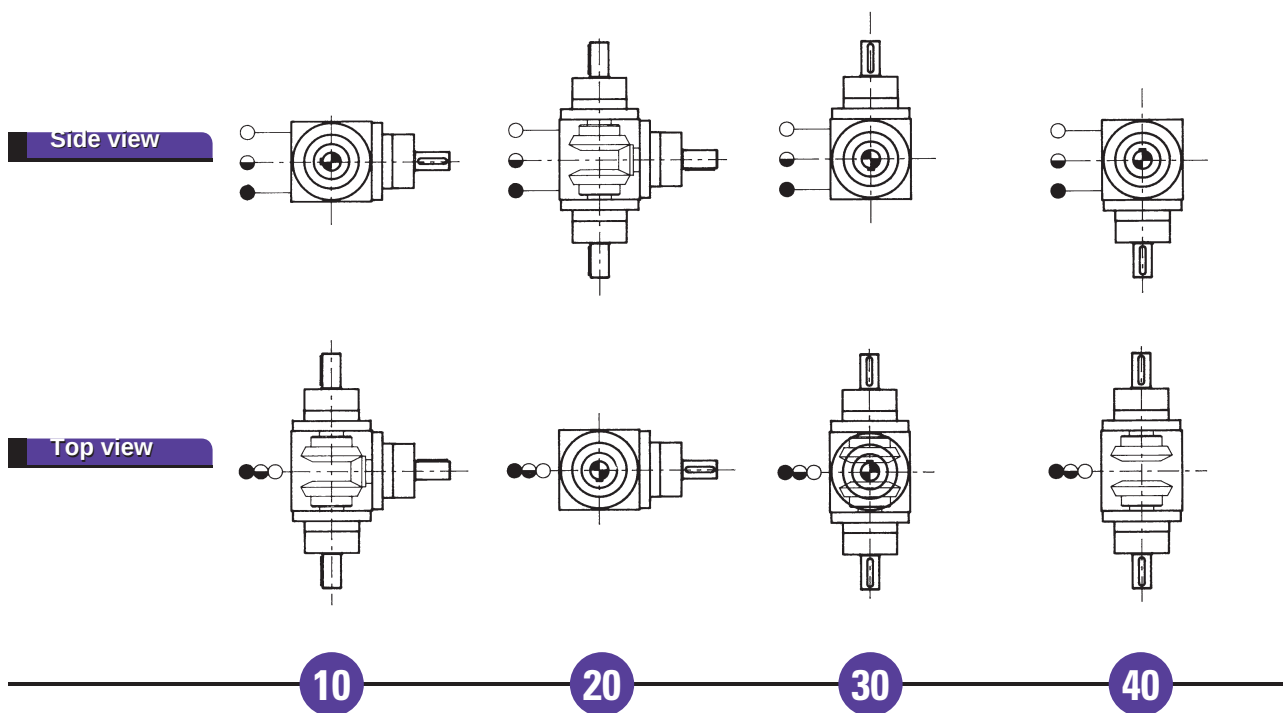
Dimensions



Size	Ratio	A	D ₁	D ₂	D ₃	D ₄	D ₅	E	G	H	L ₁	L ₂	M ₁	M ₂
BG12	1, 2, 3	200	12	12	44	—	54	42	74	32.5	26	26	100	100
BG19	1, 2, 3	280	19	19	60	86	72	59	100	45	40	40	140	140
	4, 5	280	14	19	60	86	72	59	100	45	30	40	130	140
BG24	1, 2, 3	330	24	24	70	105	88	73	115	55	50	50	165	165
	4, 5	330	19	24	70	105	88	73	115	55	40	50	155	165
BG32	1, 2, 3	410	32	32	95	135	115	88	145	70	60	60	205	205
	4, 5	410	24	32	95	135	115	88	145	70	50	60	195	205
BG38	1, 2, 3	480	38	38	120	165	145	103	170	85	70	70	240	240
	4, 5	480	28	38	120	165	145	103	170	85	60	70	230	240
BG42	1, 2, 3	550	42	42	135	190	165	118	195	100	80	80	275	275
	4, 5	550	32	42	135	190	165	118	195	100	60	80	255	275
BG55	1, 2, 3	710	55	55	170	230	205	143	245	120	110	110	355	355
	4, 5	710	42	55	170	230	205	143	245	120	80	110	325	355
BG75	1, 2, 3	1000	75	75	—	300	—	195	350	165	150	150	500	500
	4, 5	1000	55	75	—	300	—	195	350	165	110	150	460	500

Mounting positions

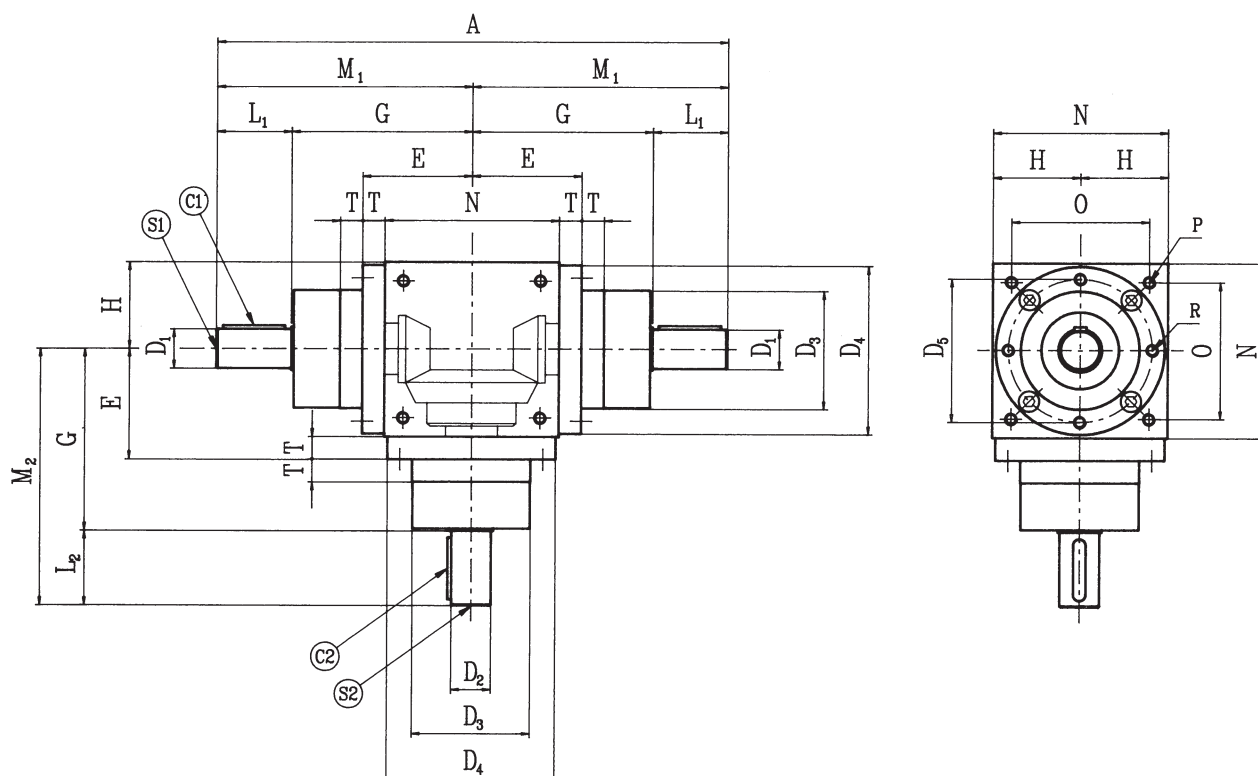
- Filler/breather plug
- ◐ Oil level indicator
- Drain plug



On size BG12, the holes P with hole spacing O are present only on the sides without shafts. The hole pattern O is identical on all sides.

Size	Ratio	N	O	P	R	S ₁	S ₂	C ₁	C ₂	T
BG12	1, 2, 3	65	45	M6	M6	M4x8	M4x8	20x4x4	20x4x4	—
BG19	1, 2, 3	90	70	M6	M6	M6x12	M6x12	35x6x6	35x6x6	14
	4, 5	90	70	M6	M6	M5x10	M6x12	25x5x5	35x6x6	14
BG24	1, 2, 3	110	88	M8	M8	M8x16	M8x16	40x8x7	40x8x7	18
	4, 5	110	88	M8	M8	M6x12	M8x16	35x6x6	40x8x7	18
BG32	1, 2, 3	140	110	M10	M10	M10x20	M10x20	50x10x8	50x10x8	18
	4, 5	140	110	M10	M10	M8x16	M10x20	40x8x7	50x10x8	18
BG38	1, 2, 3	170	136	M12	M12	M12x24	M12x24	60x10x8	60x10x8	18
	4, 5	170	136	M12	M12	M10x20	M12x24	50x8x7	60x10x8	18
BG42	1, 2, 3	200	155	M12	M12	M12x24	M12x24	70x12x8	70x12x8	18
	4, 5	200	155	M12	M12	M10x20	M12x24	50x10x8	70x12x8	18
BG55	1, 2, 3	240	190	M14	M14	M14x28	M14x28	100x16x10	100x16x10	23
	4, 5	240	190	M14	M14	M12x24	M14x28	70x12x8	100x16x10	23
BG75	1, 2, 3	330	248	M16	M16	M16x32	M16x32	140x22x14	140x22x14	30
	4, 5	330	248	M16	M16	M14x28	M16x32	100x16x10	140x22x14	30

Dimensions

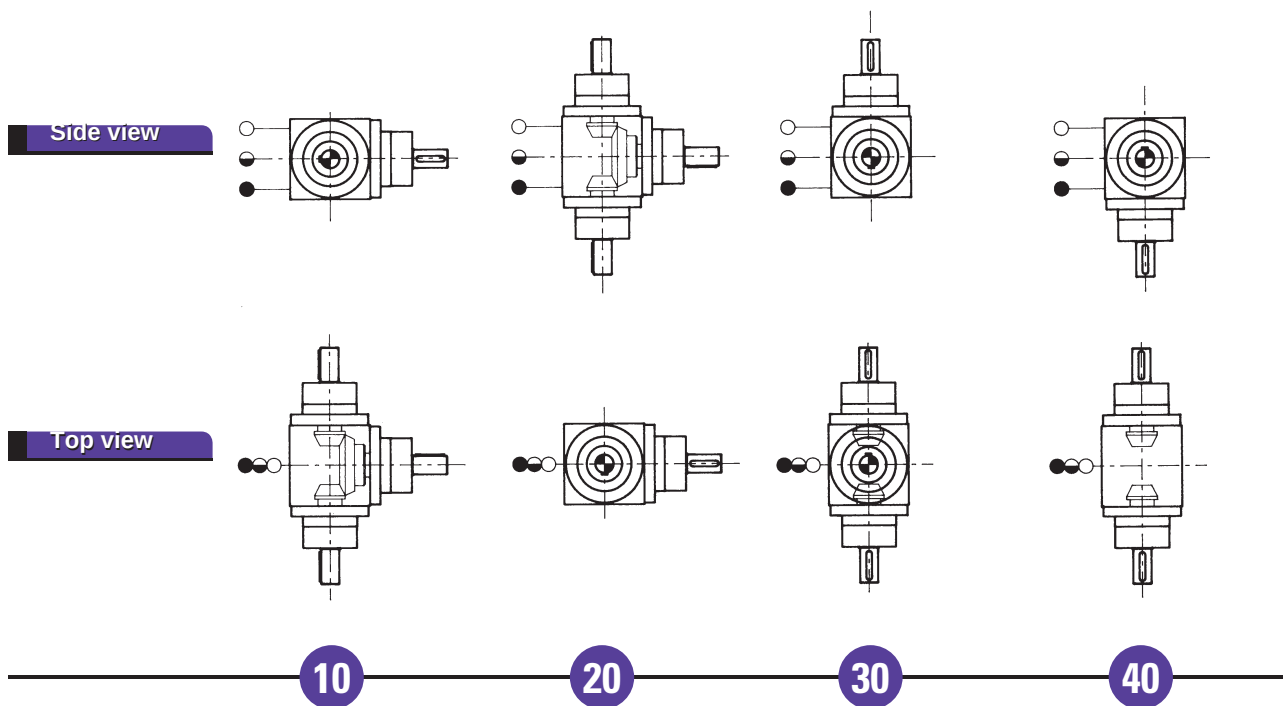


Size	Ratio	A	D ₁	D ₂	D ₃	D ₄	D ₅	E	G	H	L ₁	L ₂	M ₁	M ₂
BG12	1, 2, 3	200	12	12	44	—	54	42	74	32.5	26	26	100	100
BG19	1, 2, 3	280	19	19	60	86	72	59	100	45	40	40	140	140
	4, 5	260	14	19	60	86	72	59	100	45	30	40	130	140
BG24	1, 2, 3	330	24	24	70	105	88	73	115	55	50	50	165	165
	4, 5	310	19	24	70	105	88	73	115	55	40	50	155	165
BG32	1, 2, 3	410	32	32	95	135	115	88	145	70	60	60	205	205
	4, 5	390	24	32	95	135	115	88	145	70	50	60	195	205
BG38	1, 2, 3	480	38	38	120	165	145	103	170	85	70	70	240	240
	4, 5	460	28	38	120	165	145	103	170	85	60	70	230	240
BG42	1, 2, 3	550	42	42	135	190	165	118	195	100	80	80	275	275
	4, 5	510	32	42	135	190	165	118	195	100	60	80	255	275
BG55	1, 2, 3	710	55	55	170	230	205	143	245	120	110	110	355	355
	4, 5	650	42	55	170	230	205	143	245	120	80	110	325	355
BG75	1, 2, 3	1000	75	75	—	300	—	195	350	165	150	150	500	500
	4, 5	920	55	75	—	300	—	195	350	165	110	150	460	500

Bevel gearboxes | Form DX

Mounting positions

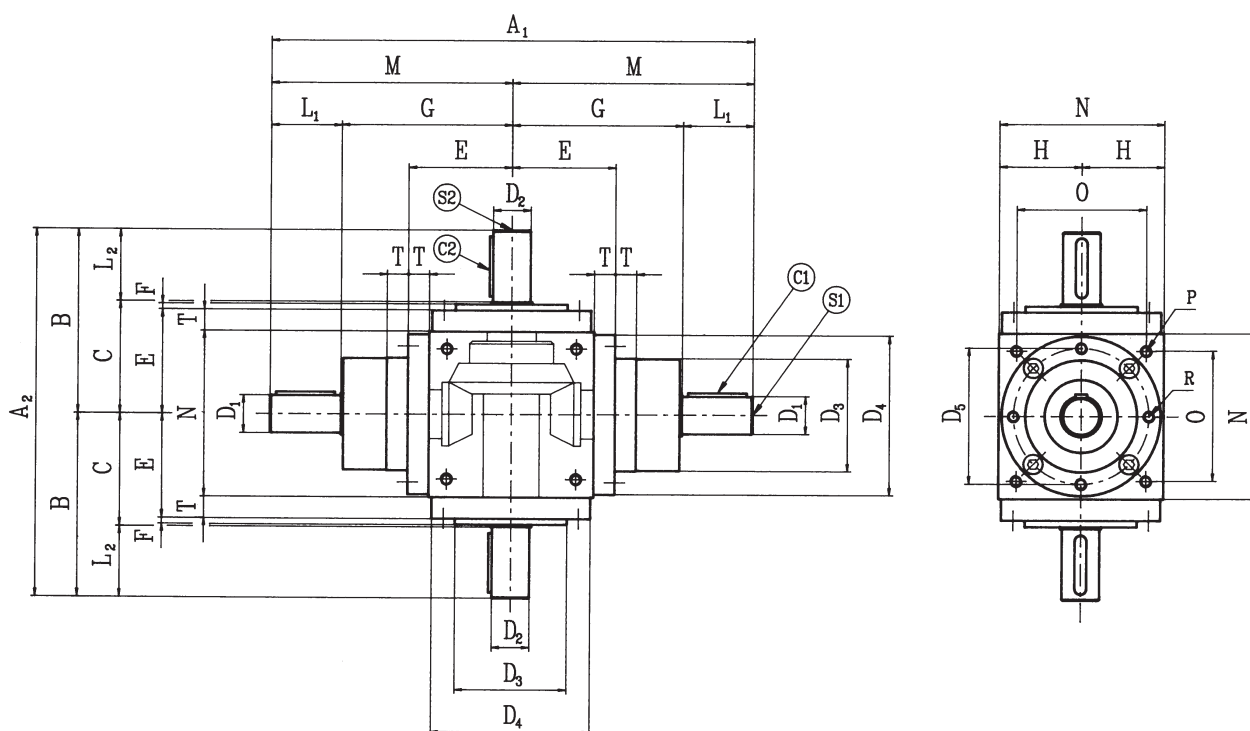
- Filler/breather plug
- ◐ Oil level indicator
- Drain plug



On size BG12, the holes P with hole spacing O are present only on the sides without shafts. The hole pattern O is identical on all sides.

Size	Ratio	N	O	P	R	S ₁	S ₂	C ₁	C ₂	T
BG12	1, 2, 3	65	45	M6	M6	M4x8	M4x8	20x4x4	20x4x4	—
BG19	1, 2, 3	90	70	M6	M6	M6x12	M6x12	35x6x6	35x6x6	14
	4, 5	90	70	M6	M6	M5x10	M6x12	25x5x5	35x6x6	14
BG24	1, 2, 3	110	88	M8	M8	M8x16	M8x16	40x8x7	40x8x7	18
	4, 5	110	88	M8	M8	M6x12	M8x16	35x6x6	40x8x7	18
BG32	1, 2, 3	140	110	M10	M10	M10x20	M10x20	50x10x8	50x10x8	18
	4, 5	140	110	M10	M10	M8x16	M10x20	40x8x7	50x10x8	18
BG38	1, 2, 3	170	136	M12	M12	M12x24	M12x24	60x10x8	60x10x8	18
	4, 5	170	136	M12	M12	M10x20	M12x24	50x8x7	60x10x8	18
BG42	1, 2, 3	200	155	M12	M12	M12x24	M12x24	70x12x8	70x12x8	18
	4, 5	200	155	M12	M12	M10x20	M12x24	50x10x8	70x12x8	18
BG55	1, 2, 3	240	190	M14	M14	M14x28	M14x28	100x16x10	100x16x10	23
	4, 5	240	190	M14	M14	M12x24	M14x28	70x12x8	100x16x10	23
BG75	1, 2, 3	330	248	M16	M16	M16x32	M16x32	140x22x14	140x22x14	30
	4, 5	330	248	M16	M16	M14x28	M16x32	100x16x10	140x22x14	30

Dimensions

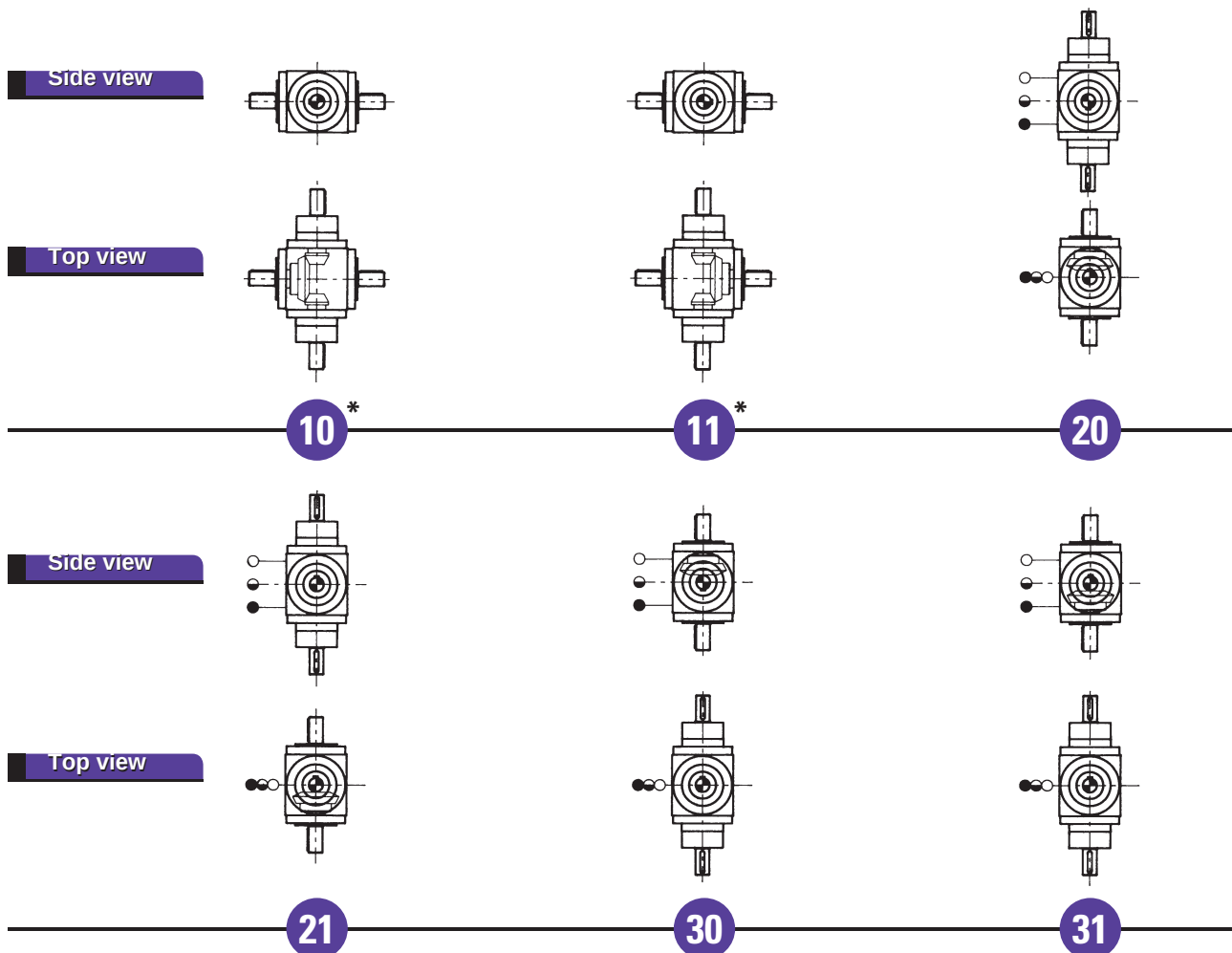


Size	Ratio	A ₁	A ₂	B	C	D ₁	D ₂	D ₃	D ₄	D ₅	E	F	G	H	L ₁	L ₂
BG12	1, 2, 3	200	144	72	46	12	12	44	—	54	42	2	74	32.5	26	26
BG19	1, 2, 3	280	210	105	65	19	19	60	86	72	59	4	100	45	40	40
	4, 5	260	210	105	65	14	19	60	86	72	59	4	100	45	30	40
BG24	1, 2, 3	330	260	130	80	24	24	70	105	88	73	5	115	55	50	50
	4, 5	310	260	130	80	19	24	70	105	88	73	5	115	55	40	50
BG32	1, 2, 3	410	310	155	95	32	32	95	135	115	88	5	145	70	60	60
	4, 5	390	310	155	95	24	32	95	135	115	88	5	145	70	50	60
BG38	1, 2, 3	480	360	180	110	38	38	120	165	145	103	5	170	85	70	70
	4, 5	460	360	180	110	28	38	120	165	145	103	5	170	85	60	70
BG42	1, 2, 3	550	410	205	125	42	42	135	190	165	118	5	195	100	80	80
	4, 5	510	410	205	125	32	42	135	190	165	118	5	195	100	60	80
BG55	1, 2, 3	710	520	260	150	55	55	170	230	205	143	5	245	120	110	110
	4, 5	650	520	260	150	42	55	170	230	205	143	5	245	120	80	110
BG75	1, 2, 3	1000	750	375	225	75	75	—	300	—	195	—	350	165	150	150
	4, 5	920	750	375	225	55	75	—	300	—	195	—	350	165	110	150

Bevel gearboxes | Form B

Mounting positions

- Filler/breather plug
- ◐ Oil level indicator
- Drain plug

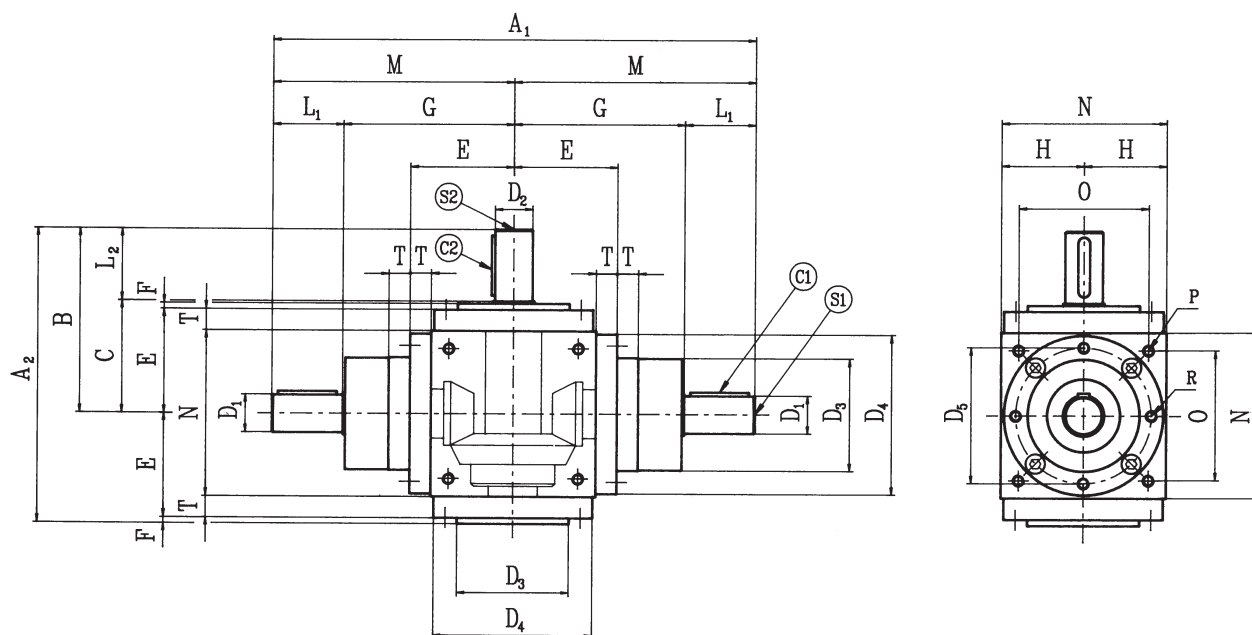


* Grease lubrication as standard. For special applications, please contact our technical department.

On size BG12, the holes P with hole spacing O are present only on the sides without shafts. The hole pattern O is identical on all sides.

Size	Ratio	M	N	O	P	R	S ₁	S ₂	C ₁	C ₂	T
BG12	1, 2, 3	100	65	45	M6	M6	M4x8	M4x8	20x4x4	20x4x4	—
BG19	1, 2, 3	140	90	70	M6	M6	M6x12	M6x12	35x6x6	35x6x6	14
	4, 5	130	90	70	M6	M6	M5x10	M6x12	25x5x5	35x6x6	14
BG24	1, 2, 3	165	110	88	M8	M8	M8x16	M8x16	40x8x7	40x8x7	18
	4, 5	155	110	88	M8	M8	M6x12	M8x16	35x6x6	40x8x7	18
BG32	1, 2, 3	205	140	110	M10	M10	M10x20	M10x20	50x10x8	50x10x8	18
	4, 5	195	140	110	M10	M10	M8x16	M10x20	40x8x7	50x10x8	18
BG38	1, 2, 3	240	170	136	M12	M12	M12x24	M12x24	60x10x8	60x10x8	18
	4, 5	230	170	136	M12	M12	M10x20	M12x24	50x8x7	60x10x8	18
BG42	1, 2, 3	275	200	155	M12	M12	M12x24	M12x24	70x12x8	70x12x8	18
	4, 5	255	200	155	M12	M12	M10x20	M12x24	50x10x8	70x12x8	18
BG55	1, 2, 3	355	240	190	M14	M14	M14x28	M14x28	100x16x10	100x16x10	23
	4, 5	325	240	190	M14	M14	M12x24	M14x28	70x12x8	100x16x10	23
BG75	1, 2, 3	500	330	248	M16	M16	M16x32	M16x32	140x22x14	140x22x14	30
	4, 5	460	330	248	M16	M16	M14x28	M16x32	100x16x10	140x22x14	30

Dimensions

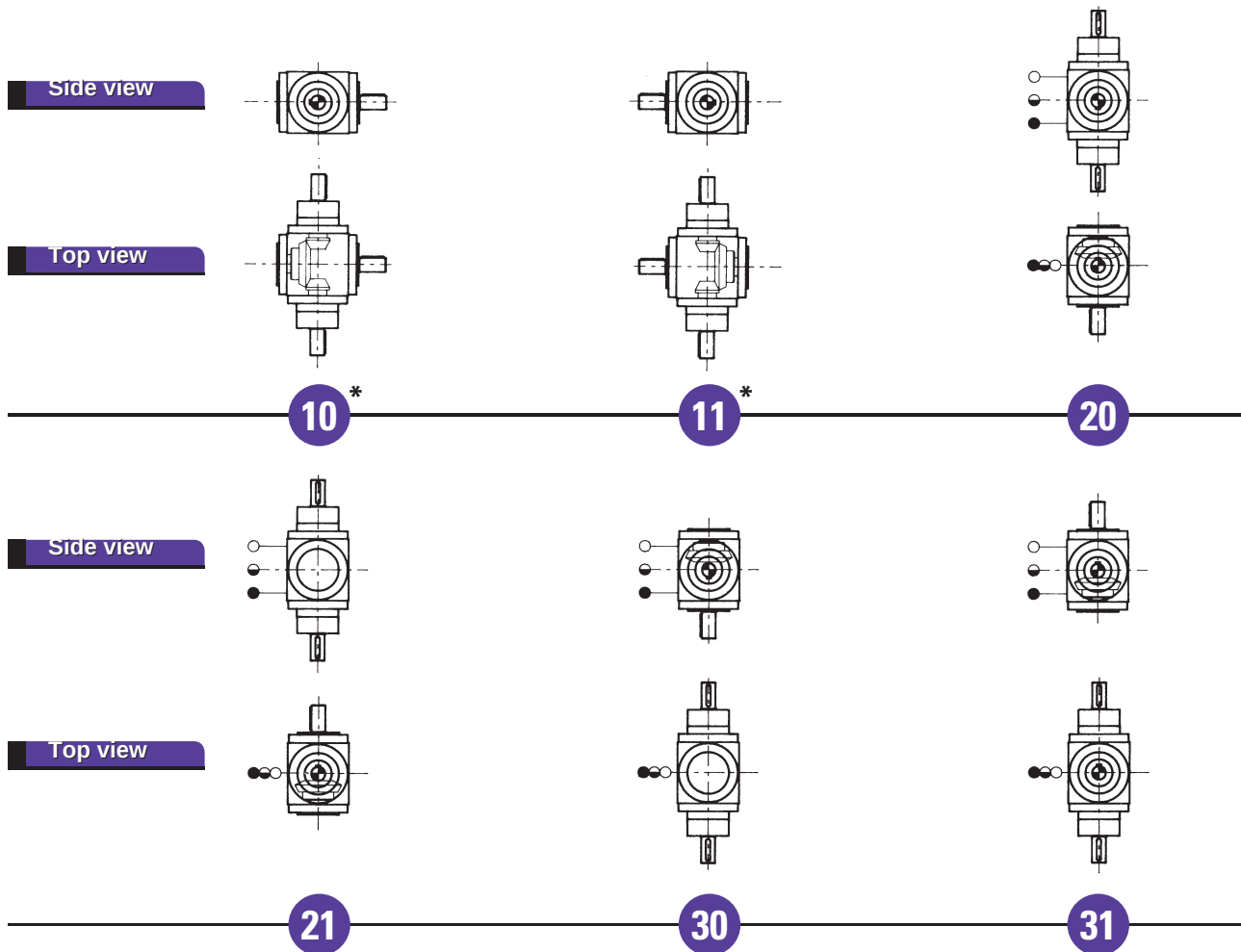


Size	Ratio	A ₁	A ₂	B	C	D ₁	D ₂	D ₃	D ₄	D ₅	E	F	G	H	L ₁	L ₂
BG12	1, 2, 3	200	116	72	46	12	12	44	—	54	42	2	74	32.5	26	26
BG19	1, 2, 3	280	168	105	65	19	19	60	86	72	59	4	100	45	40	40
	4, 5	260	168	105	65	14	19	60	86	72	59	4	100	45	30	40
BG24	1, 2, 3	330	208	130	80	24	24	70	105	88	73	5	115	55	50	50
	4, 5	310	208	130	80	19	24	70	105	88	73	5	115	55	40	50
BG32	1, 2, 3	410	248	155	95	32	32	95	135	115	88	5	145	70	60	60
	4, 5	390	248	155	95	24	32	95	135	115	88	5	145	70	50	60
BG38	1, 2, 3	480	288	180	110	38	38	120	165	145	103	5	170	85	70	70
	4, 5	460	288	180	110	28	38	120	165	145	103	5	170	85	60	70
BG42	1, 2, 3	550	328	205	125	42	42	135	190	165	118	5	195	100	80	80
	4, 5	510	328	205	125	32	42	135	190	165	118	5	195	100	60	80
BG55	1, 2, 3	710	408	260	150	55	55	170	230	205	143	5	245	120	110	110
	4, 5	650	408	260	150	42	55	170	230	205	143	5	245	120	80	110
BG75	1, 2, 3	1000	598	375	225	75	75	—	300	—	195	—	350	165	150	150
	4, 5	920	598	375	225	55	75	—	300	—	195	—	350	165	110	150

Bevel gearboxes | Form BS

Mounting positions

- Filler/breather plug
- ◐ Oil level indicator
- Drain plug

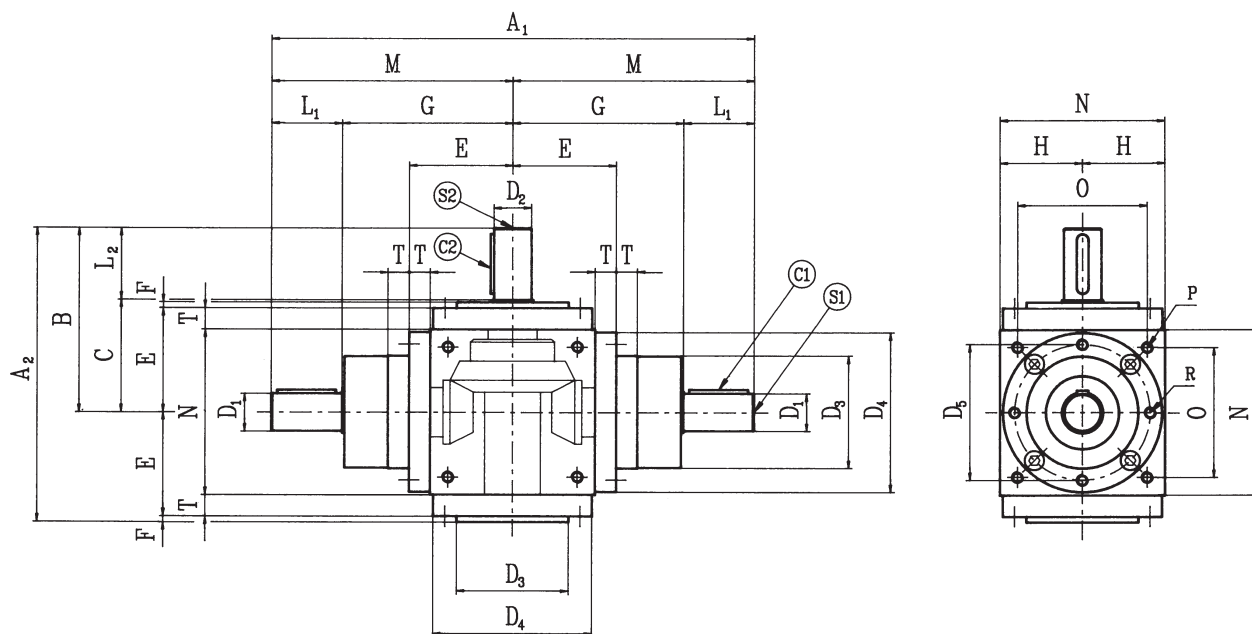


* Grease lubrication as standard. For special applications, please contact our technical department.

On size BG12, the holes P with hole spacing O are present only on the sides without shafts. The hole pattern O is identical on all sides.

Size	Ratio	M	N	O	P	R	S ₁	S ₂	C ₁	C ₂	T
BG12	1, 2, 3	100	65	45	M6	M6	M4x8	M4x8	20x4x4	20x4x4	—
BG19	1, 2, 3	140	90	70	M6	M6	M6x12	M6x12	35x6x6	35x6x6	14
	4, 5	130	90	70	M6	M6	M5x10	M6x12	25x5x5	35x6x6	14
BG24	1, 2, 3	165	110	88	M8	M8	M8x16	M8x16	40x8x7	40x8x7	18
	4, 5	155	110	88	M8	M8	M6x12	M8x16	35x6x6	40x8x7	18
BG32	1, 2, 3	205	140	110	M10	M10	M10x20	M10x20	50x10x8	50x10x8	18
	4, 5	195	140	110	M10	M10	M8x16	M10x20	40x8x7	50x10x8	18
BG38	1, 2, 3	240	170	136	M12	M12	M12x24	M12x24	60x10x8	60x10x8	18
	4, 5	230	170	136	M12	M12	M10x20	M12x24	50x8x7	60x10x8	18
BG42	1, 2, 3	275	200	155	M12	M12	M12x24	M12x24	70x12x8	70x12x8	18
	4, 5	255	200	155	M12	M12	M10x20	M12x24	50x10x8	70x12x8	18
BG55	1, 2, 3	355	240	190	M14	M14	M14x28	M14x28	100x16x10	100x16x10	23
	4, 5	325	240	190	M14	M14	M12x24	M14x28	70x12x8	100x16x10	23
BG75	1, 2, 3	500	330	248	M16	M16	M16x32	M16x32	140x22x14	140x22x14	30
	4, 5	460	330	248	M16	M16	M14x28	M16x32	100x16x10	140x22x14	30

Dimensions

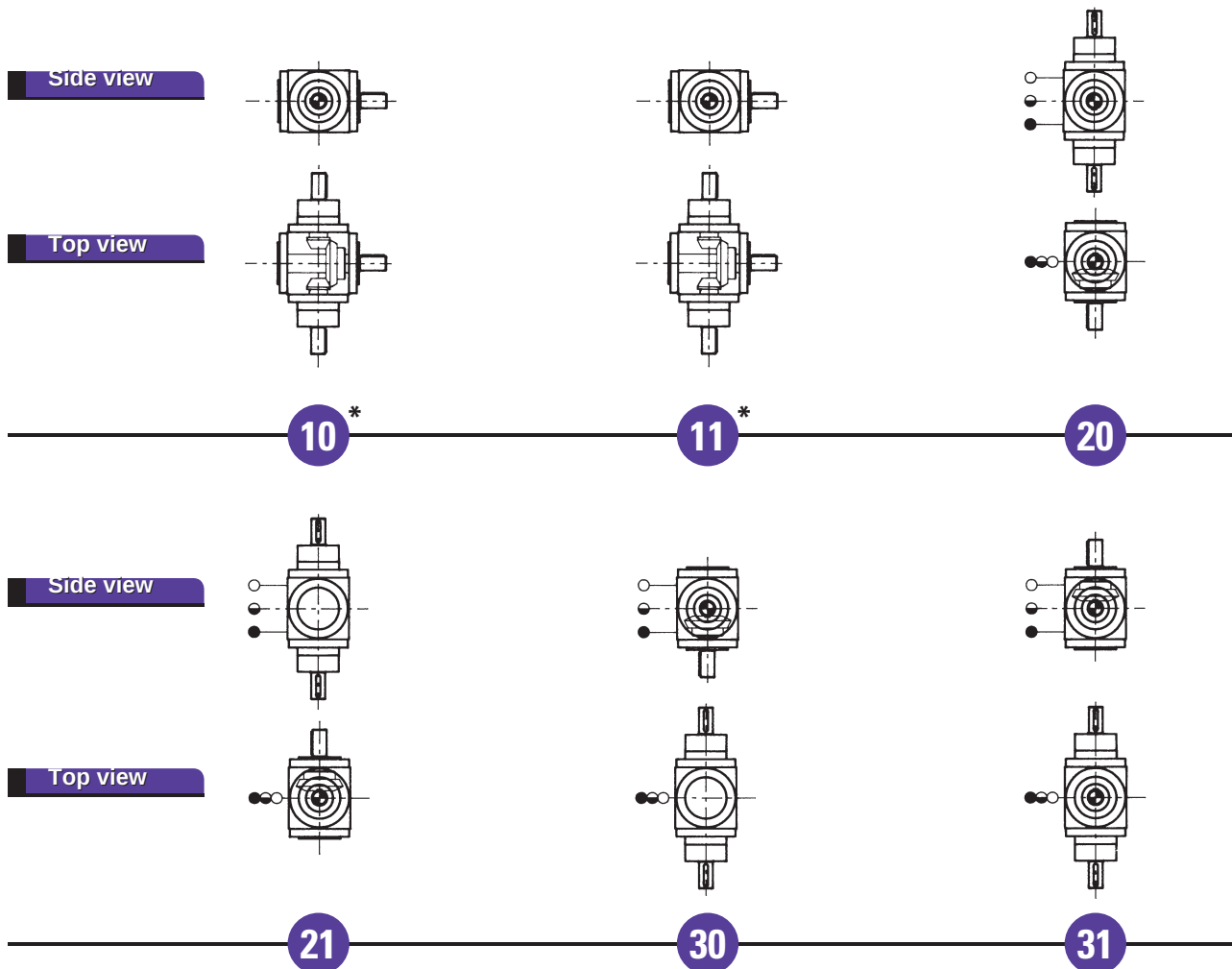


Size	Ratio	A ₁	A ₂	B	C	D ₁	D ₂	D ₃	D ₄	D ₅	E	F	G	H	L ₁	L ₂
BG12	1, 2, 3	200	116	72	46	12	12	44	—	54	42	2	74	32.5	26	26
BG19	1, 2, 3	280	168	105	65	19	19	60	86	72	59	4	100	45	40	40
	4, 5	260	168	105	65	14	19	60	86	72	59	4	100	45	30	40
BG24	1, 2, 3	330	208	130	80	24	24	70	105	88	73	5	115	55	50	50
	4, 5	310	208	130	80	19	24	70	105	88	73	5	115	55	40	50
BG32	1, 2, 3	410	248	155	95	32	32	95	135	115	88	5	145	70	60	60
	4, 5	390	248	155	95	24	32	95	135	115	88	5	145	70	50	60
BG38	1, 2, 3	480	288	180	110	38	38	120	165	145	103	5	170	85	70	70
	4, 5	460	288	180	110	28	38	120	165	145	103	5	170	85	60	70
BG42	1, 2, 3	550	328	205	125	42	42	135	190	165	118	5	195	100	80	80
	4, 5	510	328	205	125	32	42	135	190	165	118	5	195	100	60	80
BG55	1, 2, 3	710	408	260	150	55	55	170	230	205	143	5	245	120	110	110
	4, 5	650	408	260	150	42	55	170	230	205	143	5	245	120	80	110
BG75	1, 2, 3	1000	598	375	225	75	75	—	300	—	195	—	350	165	150	150
	4, 5	920	598	375	225	55	75	—	300	—	195	—	350	165	110	150

Bevel gearboxes | Form BD

Mounting positions

- Filler/breather plug
- ◐ Oil level indicator
- Drain plug

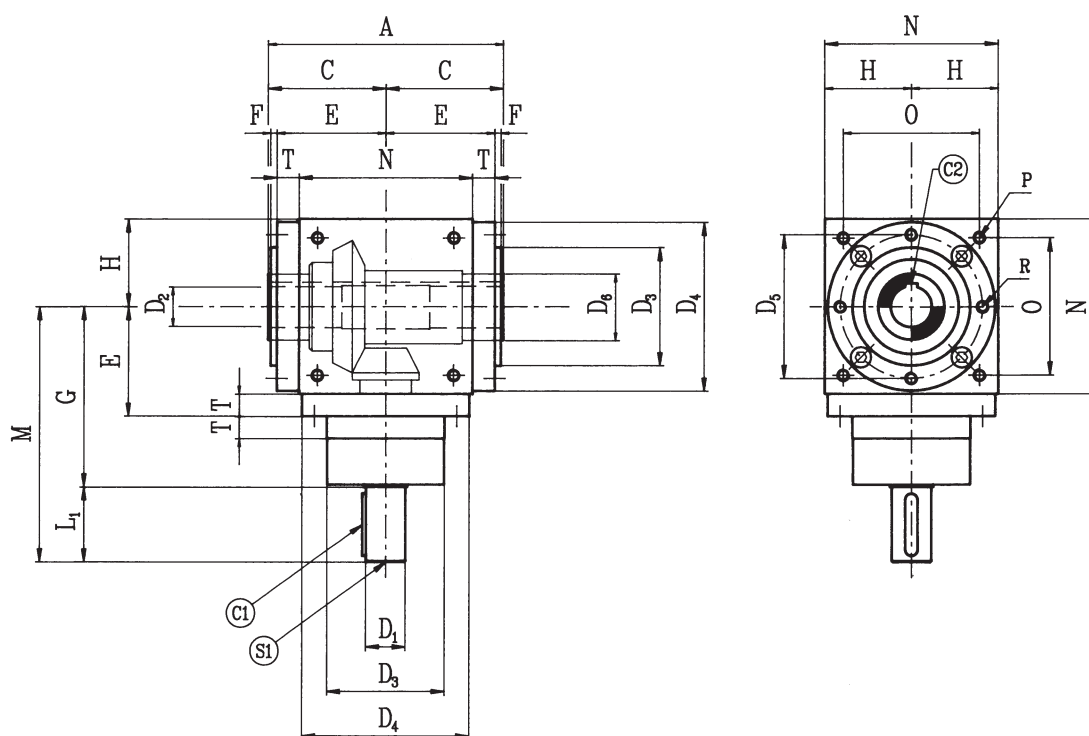


* Grease lubrication as standard. For special applications, please contact our technical department.

On size BG12, the holes P with hole spacing O are present only on the sides without shafts. The hole pattern O is identical on all sides.

Size	Ratio	M	N	O	P	R	S ₁	S ₂	C ₁	C ₂	T
BG12	1, 2, 3	100	65	45	M6	M6	M4x8	M4x8	20x4x4	20x4x4	—
BG19	1, 2, 3	140	90	70	M6	M6	M6x12	M6x12	35x6x6	35x6x6	14
	4, 5	130	90	70	M6	M6	M5x10	M6x12	25x5x5	35x6x6	14
BG24	1, 2, 3	165	110	88	M8	M8	M8x16	M8x16	40x8x7	40x8x7	18
	4, 5	155	110	88	M8	M8	M6x12	M8x16	35x6x6	40x8x7	18
BG32	1, 2, 3	205	140	110	M10	M10	M10x20	M10x20	50x10x8	50x10x8	18
	4, 5	195	140	110	M10	M10	M8x16	M10x20	40x8x7	50x10x8	18
BG38	1, 2, 3	240	170	136	M12	M12	M12x24	M12x24	60x10x8	60x10x8	18
	4, 5	230	170	136	M12	M12	M10x20	M12x24	50x8x7	60x10x8	18
BG42	1, 2, 3	275	200	155	M12	M12	M12x24	M12x24	70x12x8	70x12x8	18
	4, 5	255	200	155	M12	M12	M10x20	M12x24	50x10x8	70x12x8	18
BG55	1, 2, 3	355	240	190	M14	M14	M14x28	M14x28	100x16x10	100x16x10	23
	4, 5	325	240	190	M14	M14	M12x24	M14x28	70x12x8	100x16x10	23
BG75	1, 2, 3	500	330	248	M16	M16	M16x32	M16x32	140x22x14	140x22x14	30
	4, 5	460	330	248	M16	M16	M14x28	M16x32	100x16x10	140x22x14	30

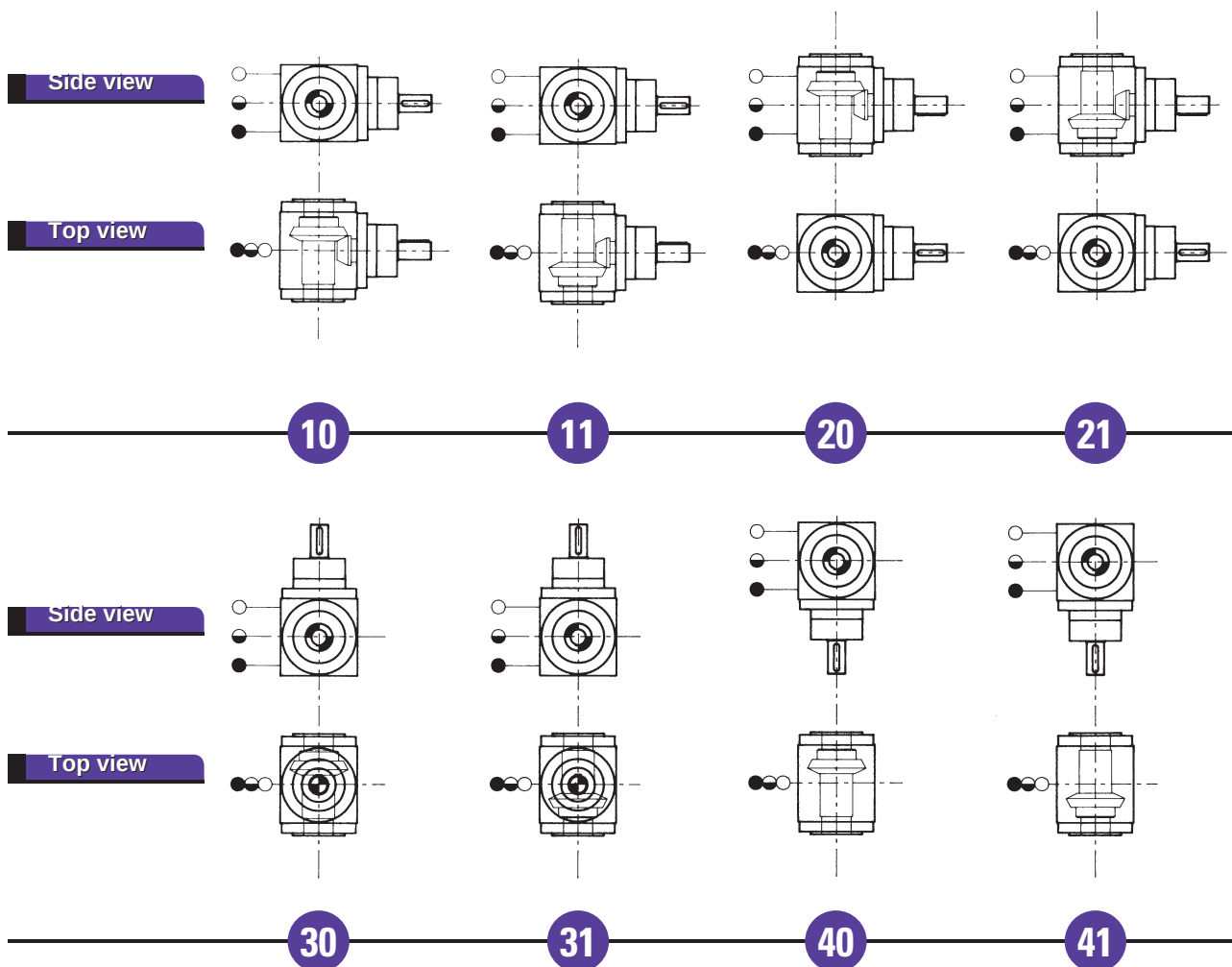
Dimensions



Size	Ratio	A	C	D ₁	D ₂	D ₃	D ₄	D ₅	D ₆	E	F	G	H	L ₁
BG19	1, 2, 3	130	65	19	19	60	86	72	30	59	4	100	45	40
	4, 5	130	65	14	19	60	86	72	30	59	4	100	45	30
BG24	1, 2, 3	160	80	24	24	70	105	88	35	73	5	115	55	50
	4, 5	160	80	19	24	70	105	88	35	73	5	115	55	40
BG32	1, 2, 3	190	95	32	32	95	135	115	50	88	5	145	70	60
	4, 5	190	95	24	32	95	135	115	50	88	5	145	70	50
BG38	1, 2, 3	220	110	38	38	120	165	145	60	103	5	170	85	70
	4, 5	220	110	28	38	120	165	145	60	103	5	170	85	60
BG42	1, 2, 3	250	125	42	42	135	190	165	60	118	5	195	100	80
	4, 5	250	125	32	42	135	190	165	60	118	5	195	100	60
BG55	1, 2, 3	300	150	55	55	170	230	205	75	143	5	245	120	110
	4, 5	300	150	42	55	170	230	205	75	143	5	245	120	80
BG75	1, 2, 3	450	225	75	75	—	300	—	120	195	—	350	165	150
	4, 5	450	225	55	75	—	300	—	120	195	—	350	165	110

Mounting positions

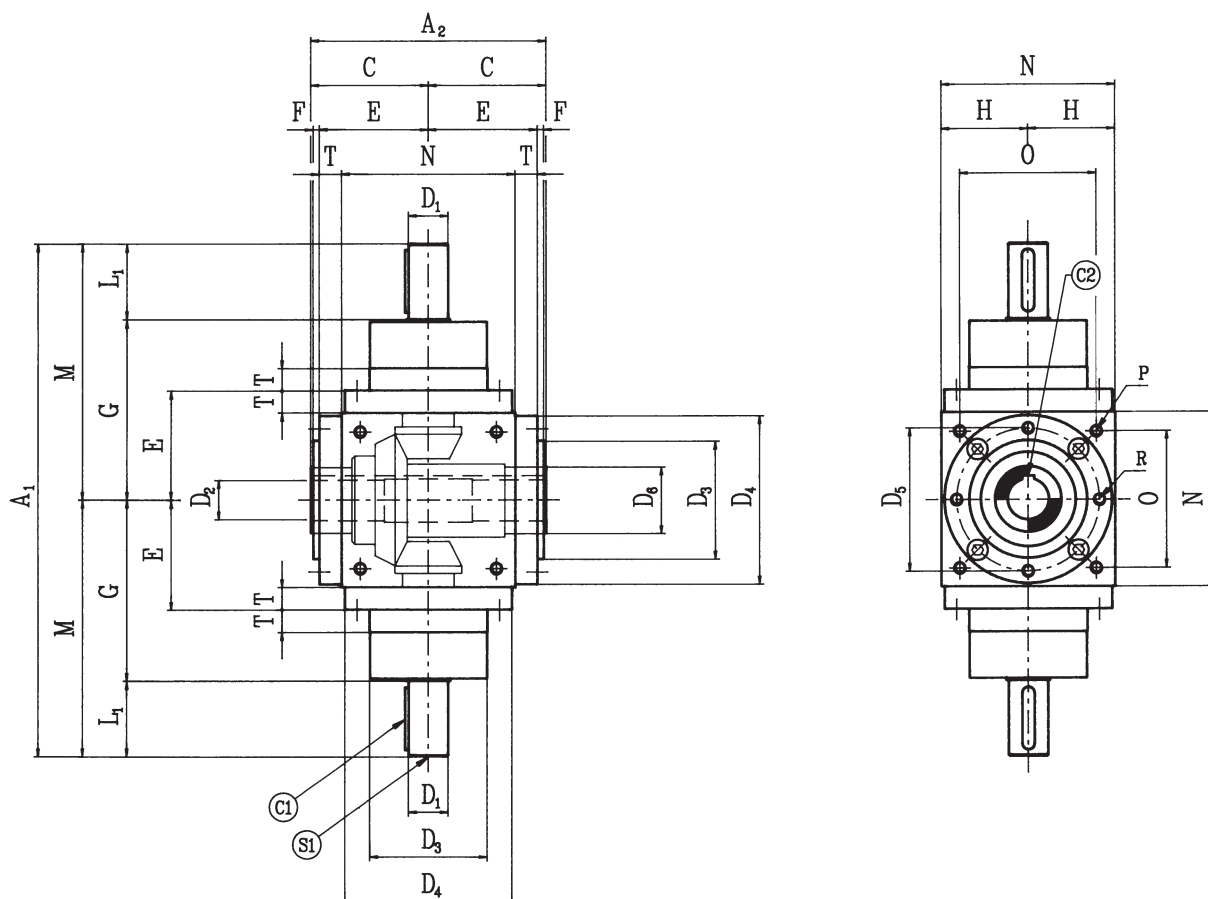
- Filler/breather plug
- ◐ Oil level indicator
- Drain plug



The hole pattern O is identical on all sides.

Size	Ratio	M	N	O	P	R	S ₁	C ₁	C ₂	T
BG19	1, 2, 3	140	90	70	M6	M6	M6x12	35x6x6	6x6	14
	4, 5	130	90	70	M6	M6	M5x10	25x5x5	6x6	14
BG24	1, 2, 3	165	110	88	M8	M8	M8x16	40x8x7	8x7	18
	4, 5	155	110	88	M8	M8	M6x12	35x6x6	8x7	18
BG32	1, 2, 3	205	140	110	M10	M10	M10x20	50x10x8	10x8	18
	4, 5	195	140	110	M10	M10	M8x16	40x8x7	10x8	18
BG38	1, 2, 3	240	170	136	M12	M12	M12x24	60x10x8	10x8	18
	4, 5	230	170	136	M12	M12	M10x20	50x8x7	10x8	18
BG42	1, 2, 3	275	200	155	M12	M12	M12x24	70x12x8	12x8	18
	4, 5	255	200	155	M12	M12	M10x20	50x10x8	12x8	18
BG55	1, 2, 3	355	240	190	M14	M14	M14x28	100x16x10	16x10	23
	4, 5	325	240	190	M14	M14	M12x24	70x12x8	16x10	23
BG75	1, 2, 3	500	330	248	M16	M16	M16x32	140x22x14	22x14	30
	4, 5	460	330	248	M16	M16	M14x28	100x16x10	22x14	30

Dimensions

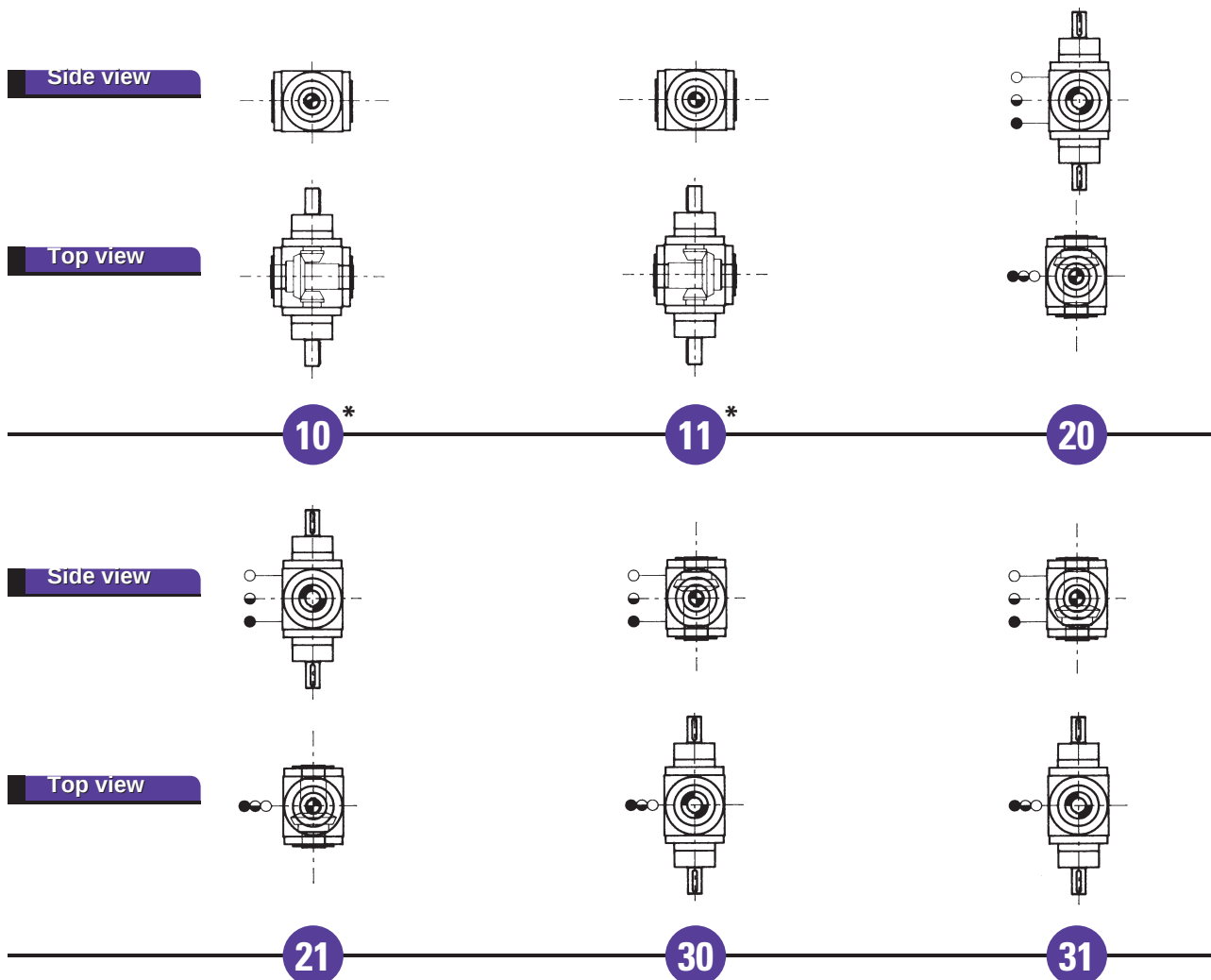


Size	Ratio	A ₁	A ₂	C	D ₁	D ₂	D ₃	D ₄	D ₅	D ₆	E	F	G	H
BG19	1, 2, 3	280	130	65	19	19	60	86	72	30	59	4	100	45
	4, 5	260	130	65	14	19	60	86	72	30	59	4	100	45
BG24	1, 2, 3	330	160	80	24	24	70	105	88	35	73	5	115	55
	4, 5	310	160	80	19	24	70	105	88	35	73	5	115	55
BG32	1, 2, 3	410	190	95	32	32	95	135	115	50	88	5	145	70
	4, 5	390	190	95	24	32	95	135	115	50	88	5	145	70
BG38	1, 2, 3	480	220	110	38	38	120	165	145	60	103	5	170	85
	4, 5	460	220	110	28	38	120	165	145	60	103	5	170	85
BG42	1, 2, 3	550	250	125	42	42	135	190	165	60	118	5	195	100
	4, 5	510	250	125	32	42	135	190	165	60	118	5	195	100
BG55	1, 2, 3	710	300	150	55	55	170	230	205	75	143	5	245	120
	4, 5	650	300	150	42	55	170	230	205	75	143	5	245	120
BG75	1, 2, 3	1000	450	225	75	75	—	300	—	120	195	—	350	165
	4, 5	920	450	225	55	75	—	300	—	120	195	—	350	165

Bevel gearboxes | Form BH

Mounting positions

- Filler/breather plug
- ◐ Oil level indicator
- Drain plug



* Grease lubrication as standard. For special applications, please contact our technical department. The hole pattern O is identical on all sides.

Size	Ratio	L ₁	M	N	O	P	R	S ₁	C ₁	C ₂	T
BG19	1, 2, 3	40	140	90	70	M6	M6	M6x12	35x6x6	6x6	14
	4, 5	30	130	90	70	M6	M6	M5x10	25x5x5	6x6	14
BG24	1, 2, 3	50	165	110	88	M8	M8	M8x16	40x8x7	8x7	18
	4, 5	40	155	110	88	M8	M8	M6x12	35x6x6	8x7	18
BG32	1, 2, 3	60	205	140	110	M10	M10	M10x20	50x10x8	10x8	18
	4, 5	50	195	140	110	M10	M10	M8x16	40x8x7	10x8	18
BG38	1, 2, 3	70	240	170	136	M12	M12	M12x24	60x10x8	10x8	18
	4, 5	60	230	170	136	M12	M12	M10x20	50x8x7	10x8	18
BG42	1, 2, 3	80	275	200	155	M12	M12	M12x24	70x12x8	12x8	18
	4, 5	60	255	200	155	M12	M12	M10x20	50x10x8	12x8	18
BG55	1, 2, 3	110	355	240	190	M14	M14	M14x28	100x16x10	16x10	23
	4, 5	80	325	240	190	M14	M14	M12x24	70x12x8	16x10	23
BG75	1, 2, 3	150	500	330	248	M16	M16	M16x32	140x22x14	22x14	30
	4, 5	110	460	330	248	M16	M16	M14x28	100x16x10	22x14	30

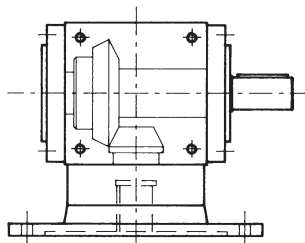
Bevel gearboxes with motor flange

adapter

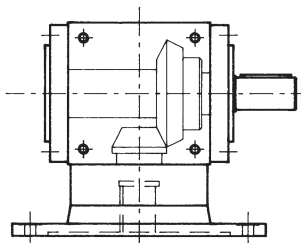
Size	Ratio	Motor size	D ₁	D ₇	D ₈	D ₉	D ₁₀	L ₁	L ₇	L ₉	M
BG12	1, 2, 3	63 B5	11	95	115	140	M8	26	4	10	90
	1, 2, 3	63 B14	11	60	75	90	ø6	38	4	10	90
	1, 2, 3	71 B14	14	70	85	105	ø7	35	4	10	90
BG19	1, 2, 3, 4, 5	63 B14	11	60	75	90	ø5,5	28	4	12	90
	1, 2, 3, 4, 5	71 B5	14	110	130	160	M8	30	4	12	90
	1, 2, 3, 4, 5	71 B14	14	70	85	105	ø6,5	32	4	15	90
	1, 2, 3, 4, 5	80 B5	19	130	165	200	M10	40	5	12	120
	1, 2, 3, 4, 5	80 B14	19	80	100	120	ø6,5	43	4	12	94
BG24	1, 2, 3, 4, 5	63 B5	11	95	115	140	M8	28	4	12	120
	1, 2, 3, 4, 5	71 B5	14	110	130	160	M8	30	4	12	120
	1, 2, 3, 4, 5	71 B14	14	70	85	105	ø6,5	42	4	23	120
	1, 2, 3, 4, 5	80 B5	19	130	165	200	M10	40	5	12	120
	1, 2, 3, 4, 5	80 B14	19	80	100	120	ø6,5	44	4	23	120
	1, 2, 3, 4, 5	90 B5	24	130	165	200	M10	50	5	12	120
	1, 2, 3, 4, 5	90 B14	24	95	115	140	ø8,5	52	4	12	120
	1, 2, 3, 4, 5	90 B5	24	130	165	200	M10	50	5	15	140
BG32	1, 2, 3, 4, 5	71 B5	14	110	130	160	m8	50	5	20	140
	1, 2, 3, 4, 5	80 B5	19	130	165	200	M10	40	5	15	140
	1, 2, 3, 4, 5	90 B5	24	130	165	200	M10	50	5	15	140
	1, 2, 3, 4, 5	90 B14	24	95	115	140	ø8,5	54	4	30	140
	1, 2, 3, 4, 5	112 B5	28	180	215	250	M12	60	5	15	140
	1, 2, 3, 4, 5	112 B14	28	110	130	160	ø8,5	63	5	20	140
BG38	1, 2, 3	90 B5	24	130	165	200	M10	50	5	15	155
	1, 2, 3	112 B5	28	180	215	250	M12	60	5	15	155
	1, 2, 3	132 B5	38	230	265	300	M12	80	5	15	175
	1, 2, 3	132 B14	38	130	165	200	ø11	80	5	20	175
	4, 5	90 B5	24	130	165	200	M10	50	5	15	155
	4, 5	112 B5	28	180	215	250	M12	60	5	15	155
BG42	1, 2	112 B5	28	180	215	250	M12	60	5	20	200
	1, 2	132 B5	38	230	265	300	M12	80	5	20	200
	1, 2	160 B5	42	250	300	350	M16	110	6	20	200
	3	112 B5	28	180	215	250	M12	60	5	20	200
	3	132 B5	38	230	265	300	M12	80	5	20	200
	4, 5	112 B5	28	180	215	250	M12	60	5	20	200
	4, 5	132 B5	38	230	265	300	M12	82	6	20	200
	4, 5	160 B5	42	250	300	350	M16	112	6	20	230
BG55	1, 2, 3	112 B5	28	180	215	250	M12	60	5	20	220
	1, 2, 3	132 B5	38	230	265	300	M12	80	5	20	220
	1, 2, 3	160 B5	42	250	300	350	M16	110	6	20	235
	1, 2, 3	180 B5	48	250	300	350	M16	112	6	30	235
	4, 5	112 B5	28	180	215	250	M12	60	5	20	220
	4, 5	132 B5	38	230	265	300	M12	80	5	20	220
BG75	1, 2, 3, 4, 5	160 B5	42	250	300	350	M16	121	6	25	375
	1, 2, 3, 4, 5	180 B5	48	250	300	350	M16	121	6	25	375
	1, 2, 3, 4, 5	200 B5	48	300	350	400	M16	125	6	30	375

Bevel gearboxes with motor flange adapters

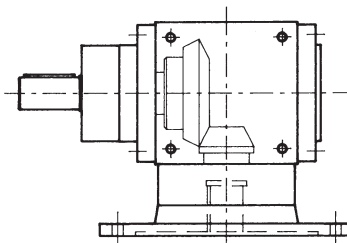
MAS



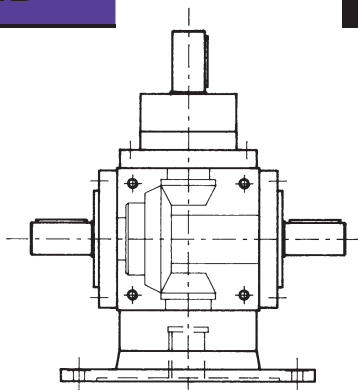
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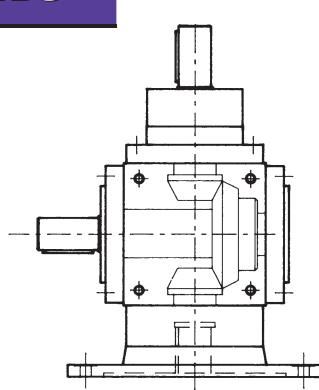
MC



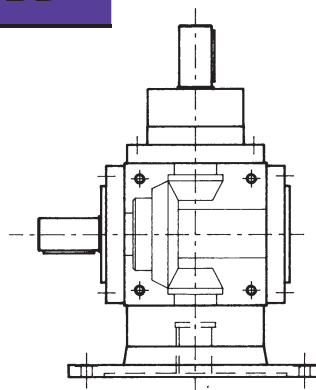
MB



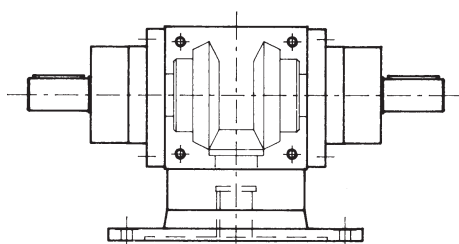
MBS



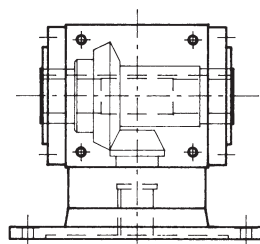
MBD



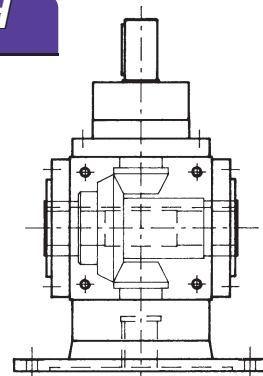
MDR



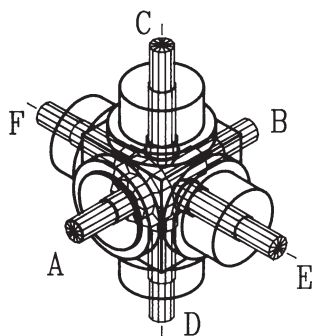
MAH



MBH



Bevel gearboxes with multiple shafts



The modular design also allows additional shafts to be fitted for all ratios, with the exception of the 1:1 ratio.

When ordering, the details A, B, C, D, E, F are essential in order to define the mounting faces and the position of the plugs for oil lubrication.

Designation

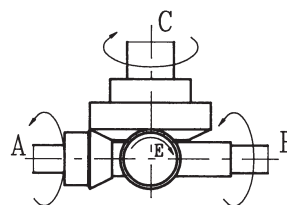
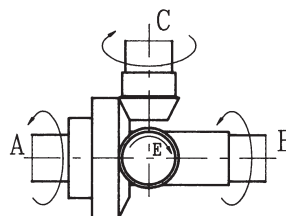
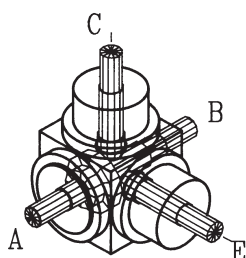
Possible combinations

Arrangements and directions of rotation

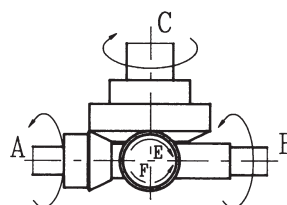
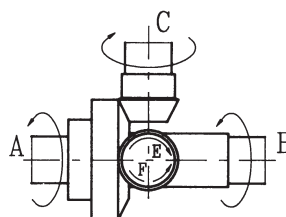
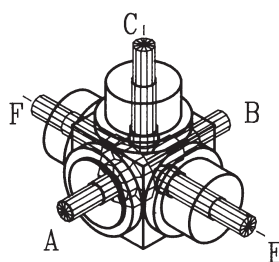
Reduction gearboxes

Speed-increasing gearboxes

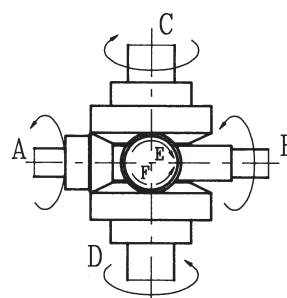
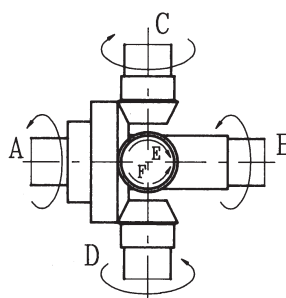
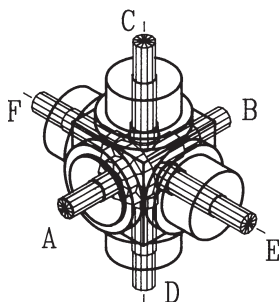
A 90



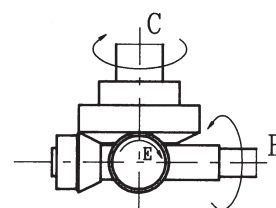
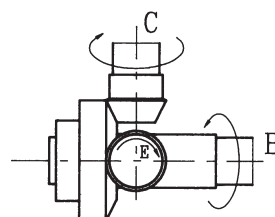
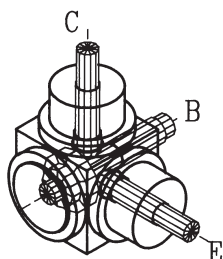
A 180



A 270



AS 90



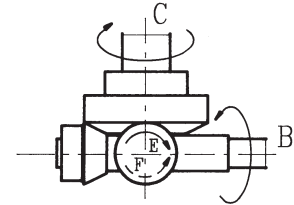
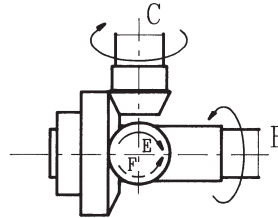
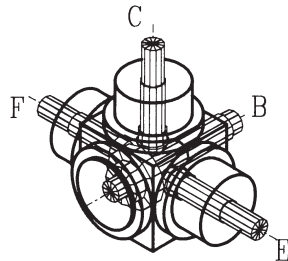
Bevel gearboxes with multiple shafts

Designation

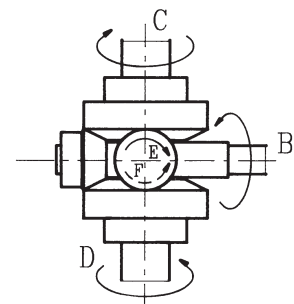
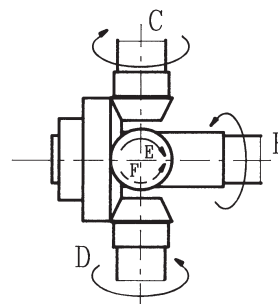
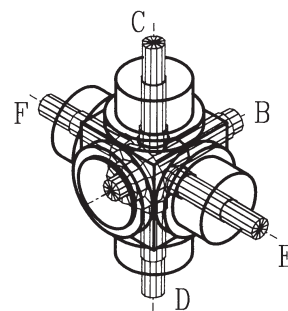
Possible combinations

Arrangements and directions of rotation
Reduction gearboxes

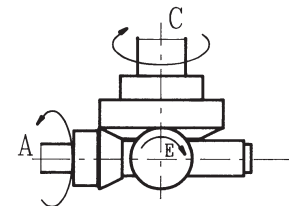
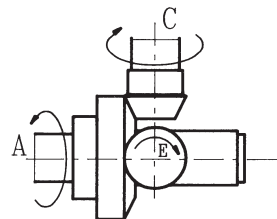
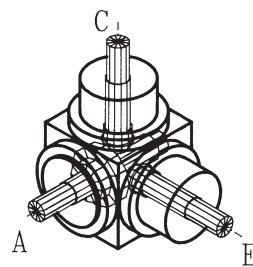
Speed-increasing gearboxes



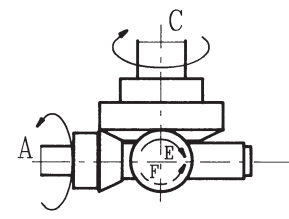
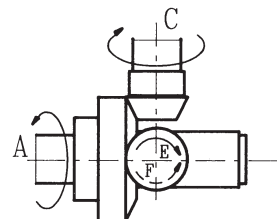
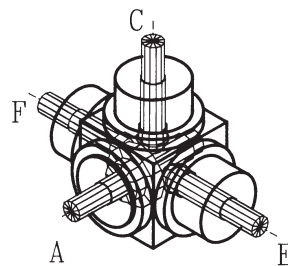
AS 180



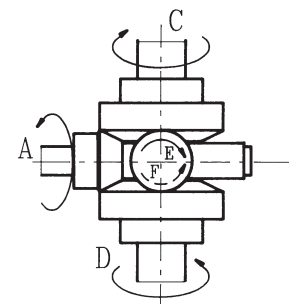
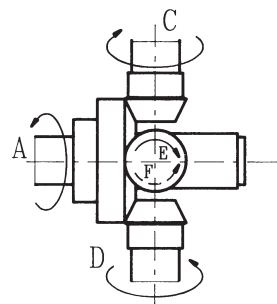
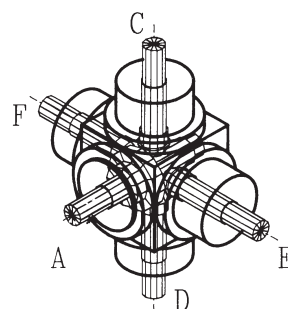
AS 270



AD 90



AD 180



AD 270

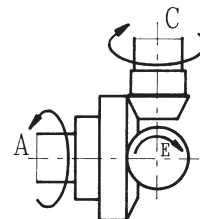
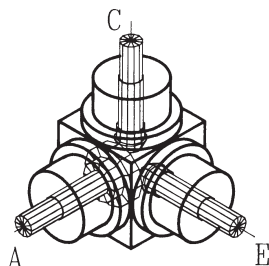
Bevel gearboxes with multiple shafts

Designation

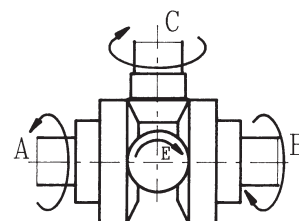
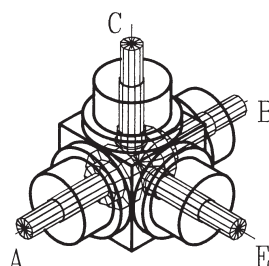
Possible combinations

Arrangements and directions of rotation

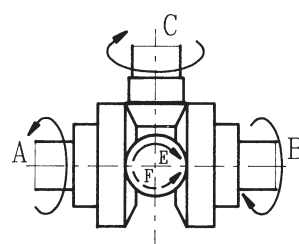
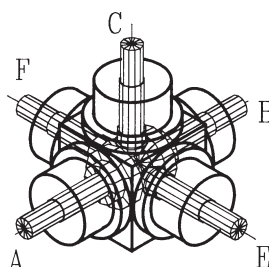
C 90



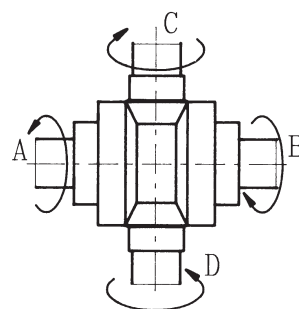
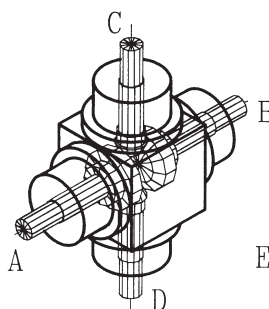
D 90



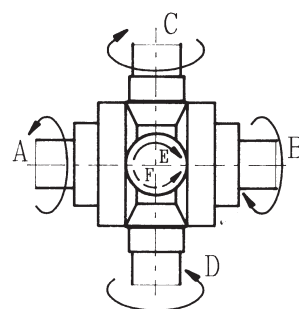
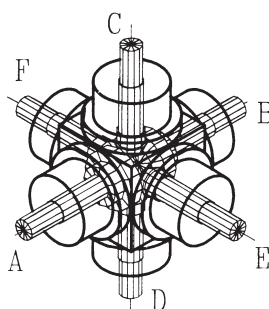
DB 90



DB



DB 180



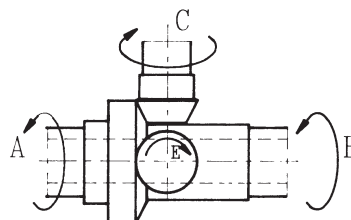
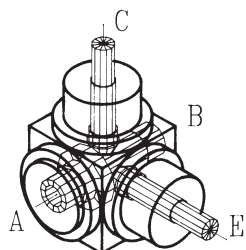
Bevel gearboxes with multiple shafts

Designation

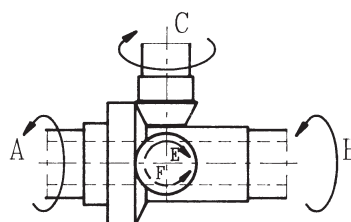
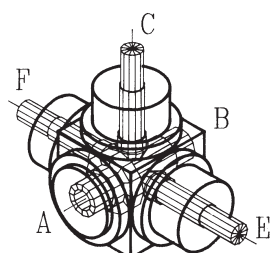
Possible combinations

Arrangements and directions of rotation

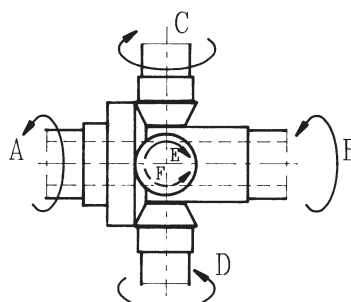
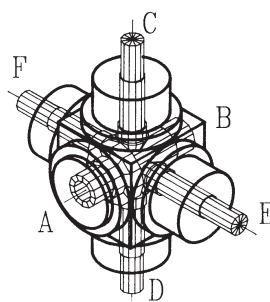
AH 90



AH 180



AH 270



Mechanical reversing gearboxes

Right-angle reversing gearboxes | Type IO

These consist of three bevel gears with ratios of 1:1 and 2:1 [reduction only]. They reverse the direction of rotation of the through shaft. In the intermediate position, a "neutral" function is available.

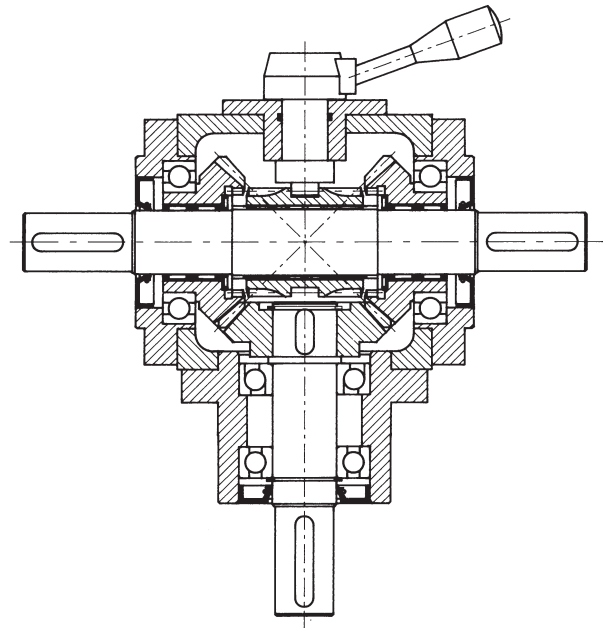
Switching is performed manually by operating the control lever while the machine is at standstill. The engagement position is normally indifferent, in which case the reversing gearbox is designated FP.

On request, they can also be made with a forced engagement position. In this case they are designated SP.

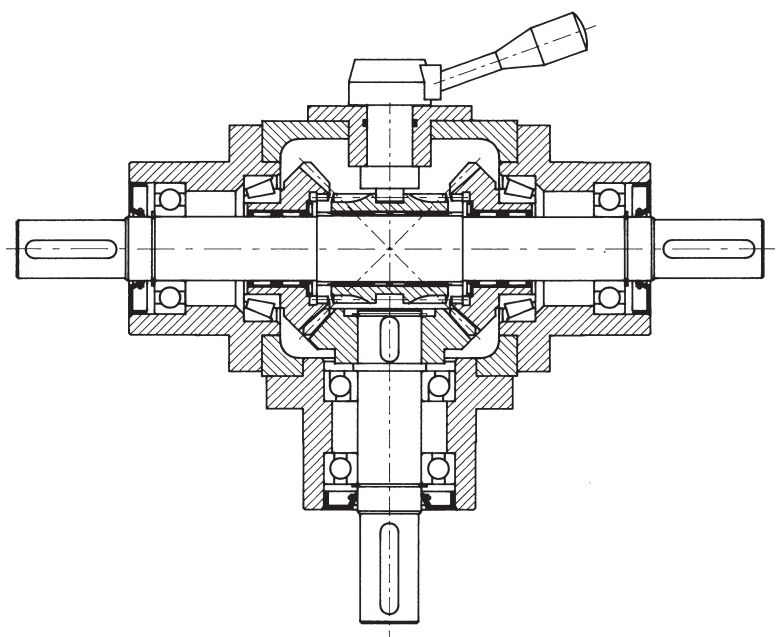
They are made in sizes 32 - 42 - 55

The performance ratings correspond to the for ratio and power shown on pages 102 - 103, minus 30%.

The base dimensions and the mounting positions correspond exactly to those of FORM A [pages 110 - 111] and DR [pages 122 - 123].



FORM A



FORM D

Bevel gearboxes with disengagement | Type DO

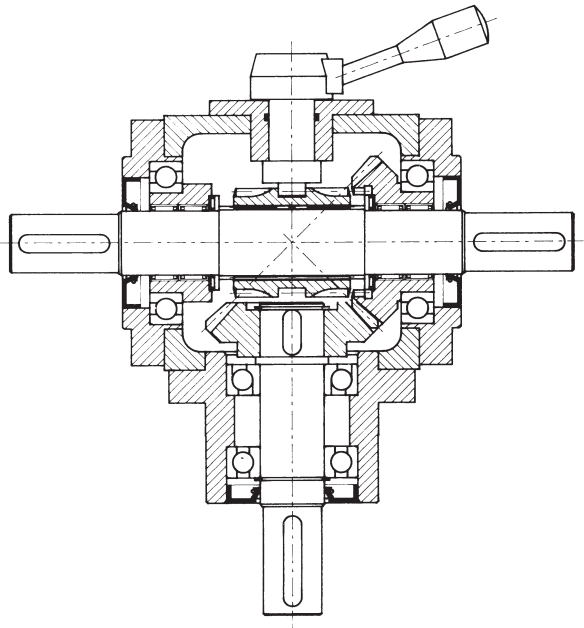
These consist of a bevel gear pair with ratios of 1:1, 2:1 and 3:1. With the through shaft rotating continuously, they allow the output shaft to be disengaged, or vice versa.

Switching is performed manually by operating the control lever while the machine is at standstill.

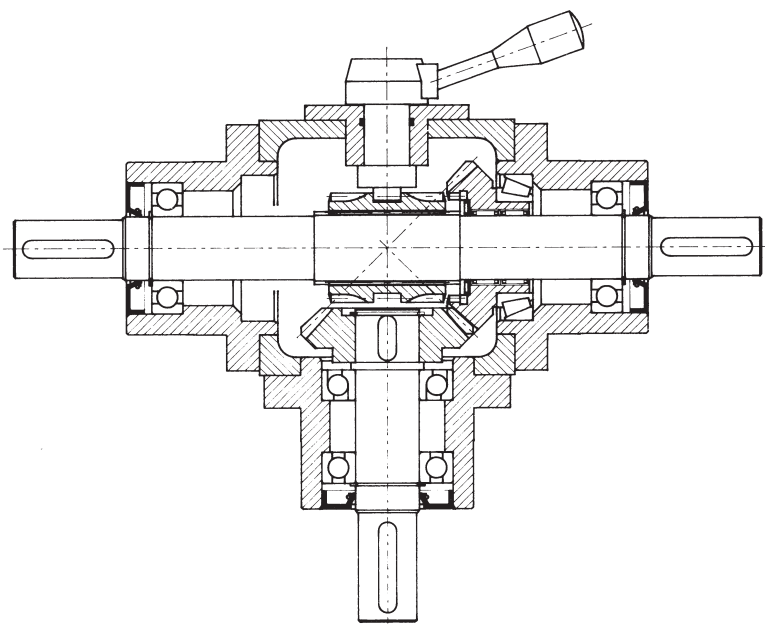
They are made in sizes 32 - 42 - 55

The performance ratings correspond to the values for ratio and power shown on pages 102 - 103, minus 15%.

The base dimensions and the mounting positions correspond exactly to those of FORM A [pages 110 - 111] and DR [pages 122 - 123].



FORM A



FORM D

Coaxial reversing gearboxes | Type IC

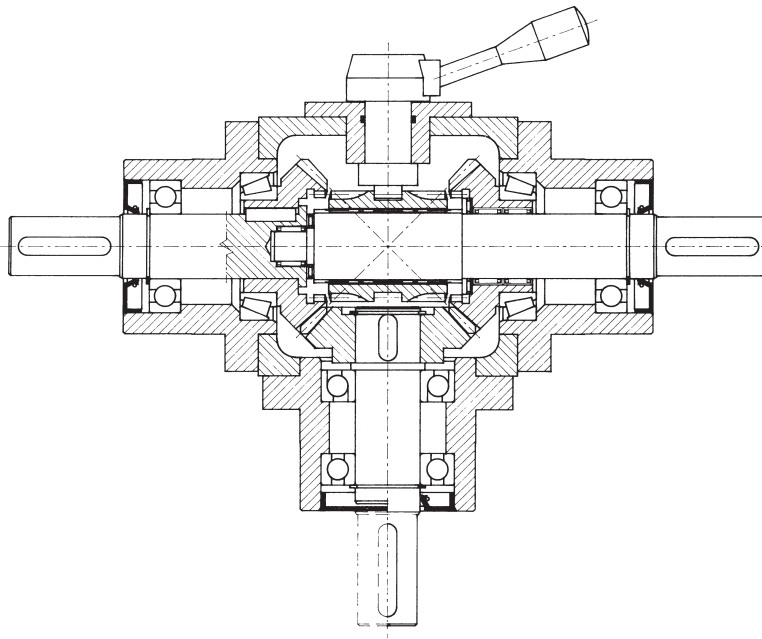
These consist of three bevel gears with a ratio of 1:1. They reverse the direction of rotation of the through shaft without changing the direction of rotation of the input shaft, or vice versa. In the intermediate position they have a "neutral" function. Switching is performed manually by operating the control lever while the machine is at standstill.

On request, the reversing gearbox can also be equipped with a third output at 90°

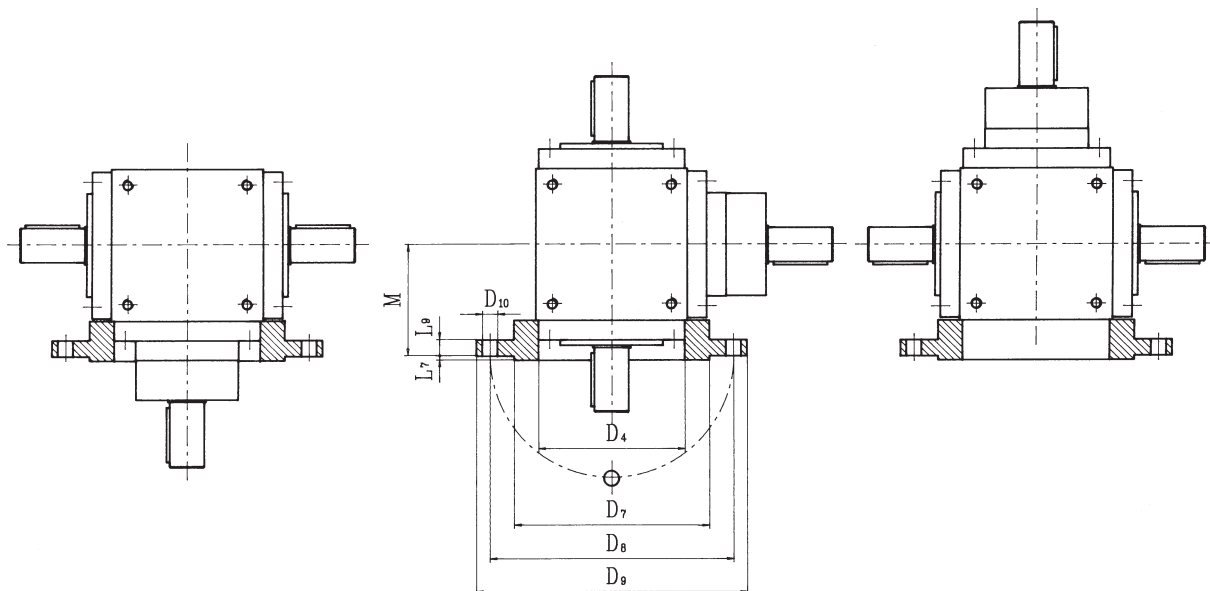
They are made in sizes 32 - 42 - 55.

The performance ratings correspond to the values for ratio and power shown on pages 102 - 103 minus 30%.

The base dimensions and mounting positions correspond exactly to those of FORM DR [pages 122 - 123].



Motor flange adapters | Type FC



The MOTOR FLANGE ADAPTERS shown above are designated FC.

Size	D ₄	D ₇	D ₈	D ₉	D ₁₀	L ₇	L ₉	M
BG19	86	110	130	160	9	3.5	12	70
BG24	105	130	165	200	11	3.5	13	85
BG32	135	180	215	250	14	4.0	15	105
BG38	165	230	265	300	14	4.0	15	125
BG42	190	230	265	300	14	4.0	15	145
BG55	230	250	300	350	18	5.0	18	175
BG75	300	350	400	450	18	5.0	25	230

Type FP

In the FP version, a centring bore D7 is supplied instead of the raised centring shoulder D7. The dimension M remains unchanged!