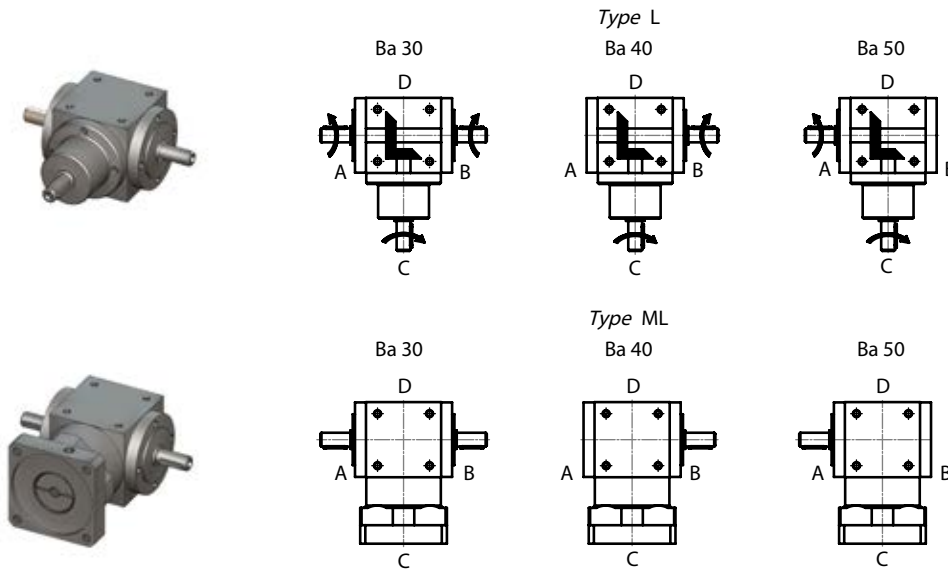




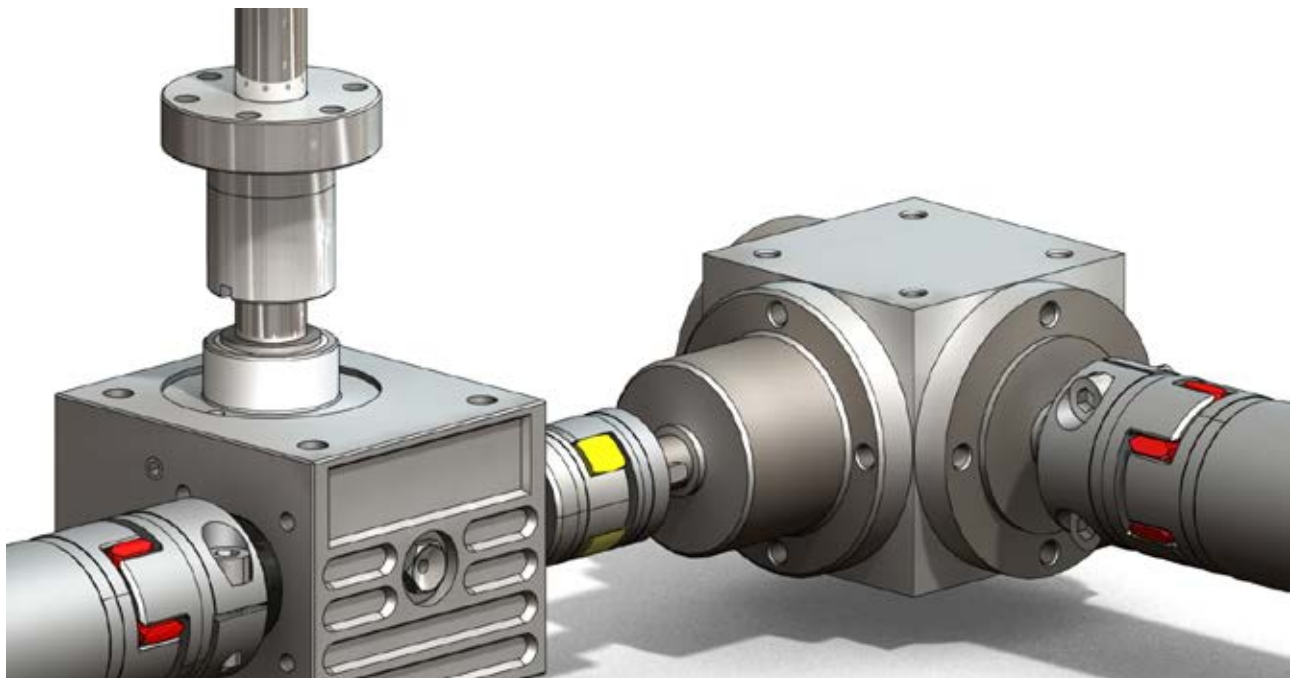
## Drive Technology

### Bevel gear boxes KRG

The spiral bevel gear boxes offer numerous advantages to the designer and have been specially selected to complement the Thomson range of worm gear screw jacks and accessories. The gear boxes are fully machined with tapped holes for universal mounting, thus offering six possible mounting positions.



Technical Data			
Mechanical efficiency $\eta$	Gear size		
	50	100 – 230	250 – 400
At nominal moment	$0.85 \leq \eta \leq 0.9$	$0.9 \leq \eta \leq 0.94$	$0.95 \leq \eta \leq 0.96$



## Drive Technology

### Bevel gear boxes KRG - general specifications

#### Version

Cube

- sizes 50, 100, 200 without lubrication fittings
- please advise mounting position (base side) starting from size 230
- please advise mounting position (base side) and position of lubrication fittings starting from size 250

#### Material

Lamellar graphite cast iron EN-GJL-250 (0.6025) or spherical graphite cast iron ENGJS-400-15 (0.7040) or G-Al Si 10 Mg (0.1645).

#### Shaft

Shaft centring according to DIN 332 Sheet 2, feather key according to DIN 6885, Sheet 1. Tolerance j6 or k6. Material: C 45 (1.0503) or 42 Cr Mo 4 (1.7225)  
Hollow shafts with keyway or smooth, with shrink-fit washer. Tolerance Hole H7. Material: C 45 (1.0503)

#### Bevel gears

Klingelnberg Palloid or Klingelnberg Zyκλο-Palloid spiral teeth, optimised tooth flanks and profile geometry, tooth flanks milled, hardened and lapped. Material: Stainless steel 16 Mn Cr 5 (1.7131) or 17 Cr Ni Mo 6 (1.6587)

#### Shaft-hub connection

Non-positive or positive locking, parts are fitted warm.

#### Shaft seal

With or without dust scraper according to DIN 3760.  
Material: NBR, FPM/FKM

#### Bearings

Conical roller bearings or roller bearings, depending on version.

#### Lubricants

According to DIN 51502 mineral grease or oil, depending on revs.

#### Installation position

Please specify when ordering.

#### Volume

Depends on installation position, see Operating Instructions.

#### Surface treatment

Nitro-cellulose base coat. Colour: RAL 7035 light grey.

#### Noise

Approx. 75 dB(A) at 1m distance.

#### Lifetime of bearings

Approx. 20,000 hours of operation.

#### Max. permitted gear temperature

80 °C

Technical Data														
Ratio <sup>2)</sup>	Input speed n <sub>1</sub> [RPM]	Output speed n <sub>2</sub> [RPM]	Size 50		Size 100		Size 200		Size 230		Size 250		Size 300	
			P [kW]	Output torque M <sub>2</sub> [Nm]	P [kW]	Output torque M <sub>2</sub> [Nm]	P [kW]	Output torque M <sub>2</sub> [Nm]	P [kW]	Output torque M <sub>2</sub> [Nm]	P [kW]	Output torque M <sub>2</sub> [Nm]	P [kW]	Output torque M <sub>2</sub> [Nm]
i = 1,0	500	500	0,89	17	2,41	46	5,76	110	8,9	170	14,14	270	26,18	500
	1000	1000	1,68	16	4,4	42	9,42	90	15,71	150	23,04	220	42,93	410
	1500	1500	2,2	14	5,81	37	12,88	82	20,42	130	28,27	180	54,97	350
	3000	3000	3,14	10	8,8	28	18,85	60	28,27	90	10,84	130	69,11	220
i = 2,0	500	250	0,47	18	1,26	48	3,14	120	4,71	180	7,85	300	15,18	580
	1000	500	0,89	17	2,36	45	5,76	110	8,9	170	14,14	270	26,18	500
	1500	750	1,26	16	3,38	43	7,85	100	12,57	160	19,63	250	35,34	450
i = 3,0	500	166,67	0,26	15	0,66	38	1,47	84	2,79	160	4,19	240	7,33	420
	1000	333,33	0,49	14	1,29	37	2,62	75	5,24	150	6,98	200	12,57	360
	1500	500	0,68	13	1,83	35	3,51	67	6,81	130	9,42	180	16,23	310
	3000	1000	1,15	11	2,93	28	5,45	52	10,47	100	15,71	150	25,13	240

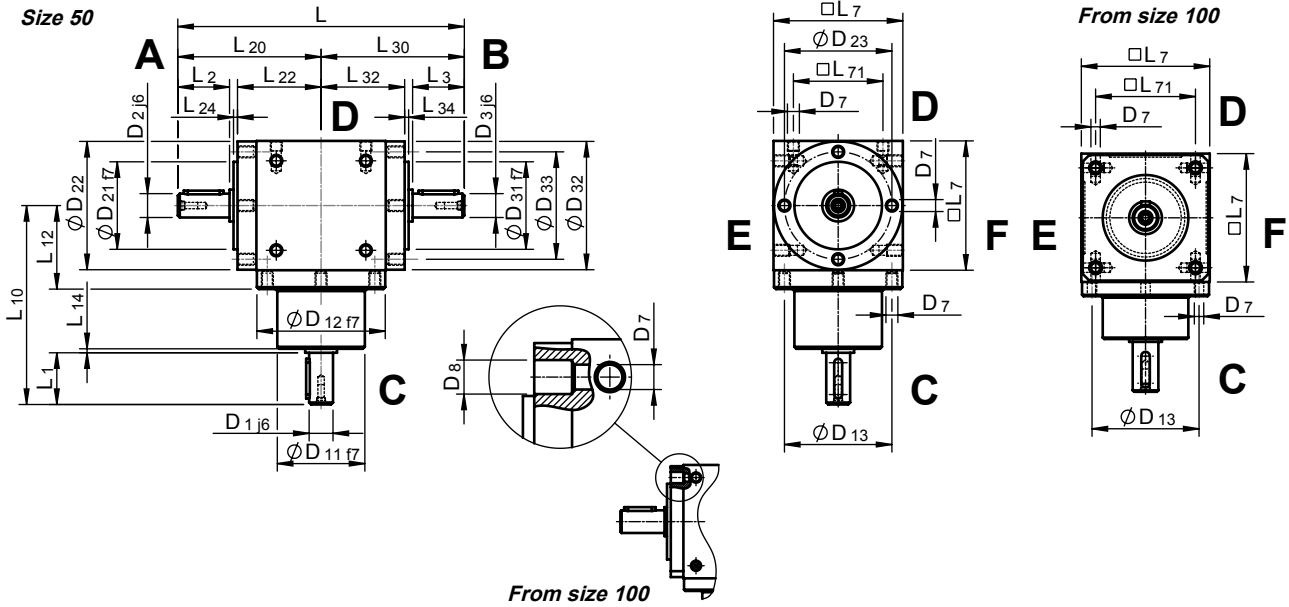
<sup>1)</sup> The nominal torque may be exceeded by a factor of 1.8 for short period.

<sup>2)</sup> Additional sizes, types and gear ratios upon request.



# Drive Technology

## Bevel gear boxes KRG - dimensions for type L



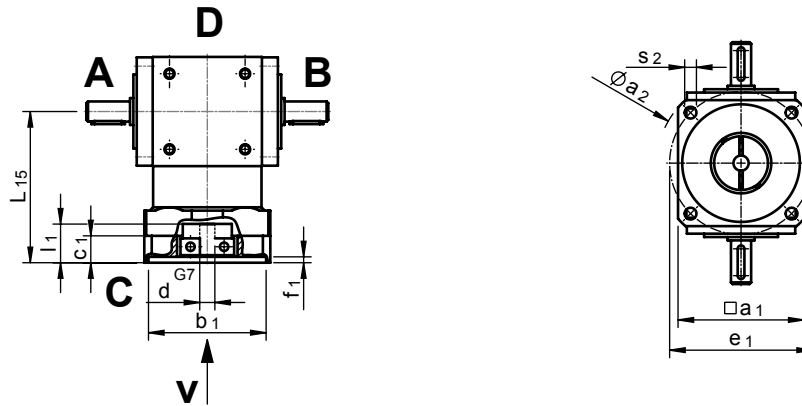
Dimensions		Dimensions [mm]									
Size	Ratio	D <sub>1</sub>	D <sub>2/3</sub>	D <sub>7</sub>	D <sub>8</sub>	D <sub>11</sub>	D <sub>12</sub>	D <sub>13</sub>	D <sub>21/31</sub>	D <sub>22/32</sub>	D <sub>23/33</sub>
50	1 - 2	12	12	M6	-	44	64,5	54	44	64,5	54
	3 + 4										
100	1 - 2	18	18	M8	9	60	89	75	60	-	-
	3 + 4	15									
200	1 - 2	25	25	M10	11	80	119	100	80	-	-
	3 + 4	20									
230	1 - 2	32	32	M10	11	95	135	115	100	-	-
	3 + 4	28									
250	1 - 2	35	35	M12	13,5	110	156	135	110	-	-
	3 + 4	28									
300	1 - 2	42	42	M12	13,5	120	198	175	120	-	-
	3 + 4	35									

Dimensions		Dimensions [mm]											Key D <sub>1</sub>		Key D <sub>2</sub> +D <sub>3</sub>	
Size	L	L <sub>1</sub>	L <sub>2/3</sub>	L <sub>7</sub>	L <sub>10</sub>	L <sub>12</sub>	L <sub>14</sub>	L <sub>20/30</sub>	L <sub>22/32</sub>	L <sub>24/34</sub>	L <sub>71</sub>	Key D <sub>1</sub>		Key D <sub>2</sub> +D <sub>3</sub>		
50	144	26	26	65	100	42	2	72	42	2	45	4x4x20		4x4x20		
					115											
100	190	35	35	90	122	55	2	95	55	2	70	6x6x25		6x6x25		
		30			127							5x5x20				
200	244	45	45	120	162	75	2	122	72	3	100	8x7x36		8x7x36		
		40			157							6x6x30				
230	274	60	50	140	180	83	2	137	82	3	110	10x8x45		10x8x45		
		55			195							8x7x40				
250	320	60	60	160	212	95	2	160	95	3	120	10x8x45		10x8x45		
		55			227							8x7x45				
300	406	80	80	200	273	120	3	203	117	3	160	12x8x60		12x8x60		
		68			261							10x8x45				

<sup>1)</sup> Additional sizes, types and gear ratios upon request.

# Drive Technology

## Bevel gear boxes KRG - dimensions for type ML



Dimensions											
Size	Ratio	Dimensions [mm]									
		d	b <sub>1</sub>	e <sub>1</sub>	a <sub>1</sub>	a <sub>2</sub>	s <sub>2</sub>	l <sub>1</sub>	f <sub>1</sub>	c <sub>1</sub>	L <sub>15</sub>
50	1 - 4	9	70	85	75	100	4xØ7	20	4,5	16	90
		11	80	100	90	120		23			
		14	95	115	115	140	4xØ9	30			
100	1 - 6	9	70	85	95	105	4xØ7	20	4,5	16	125
		11	80	100		120		23			
		14	95	115	115	140	4xØ9	30			
		19	110	130	130	160		40			
200	1 - 6	11	80	100	125	140	4xØ7	23	5	25	145
		14	95	115		140		4xØ9			
		19	130	165	140	190	4xØ11	40			
		24						50			
		28						60			
230	1 - 6	19	95	115	-	145	4xØ9	40	5	12	215
		24	110	130	145	160		50			
		28	130	165	145	190	4xØ11	60		15	
		32	180	215	200	250	4xM12	60			
		38	230	265	242	300		80			
250	1 - 6	19	130	165	145	190	4xØ11	40	5	15	230
		24	130	165	-	200		50			
		28	180	215	200	250	4xM12	60		18	
		32	180	215	-	250		60			
		38	230	265	242	300		80			
300	1 - 6	28	180	215	200	250	4xM12	60	5	18	280
		32	180	215	-	250		60			
		38	230	265	242	300		80			
		42	250	300	260	350	4xM16	110			
		48	250	300	-	350		110			

<sup>1)</sup> Additional sizes, types and gear ratios upon request.